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1977 Intertropical Convergence Zone Experiment

Edited by I. G. Poppoff, W. A. Page, and A. P. Margozzi

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National Aeronautics and
Space Administration

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PREFACE

On February 9, 1977, a group of atmospheric theoreticians and experimenters met at NASA's Ames Research Center to discuss stratospheric-tropospheric exchange and how to study it. This working group, chaired by Professor James R. Holton of the University of Washington, recommended and developed guidelines for a field experiment at the Panama Canal Zone to study scales and mechanisms of exchange in the Intertropical Convergence Zone (ITCZ). This volume is a report of the data collected during that experiment.

Because of the work by Edwin F. Danielsen and his coworkers much is known about the downward flow of ozone into the troposphere associated with jet folding events in midlatitudes. However, very little experimental work had been done on the important upward motions in the tropics. It is believed that these upward motions cause most of the transport into the stratosphere of tropospheric constituents — such as water vapor, methane, nitrous oxide, sulfur, and halocarbons — that affect the natural balance of ozone. The need for additional knowledge of the mass exchange between the troposphere and stratosphere has been noted often in conferences, such as the 1976 Middle Atmosphere Program meetings in Urbana, Illinois and the 1977 CFM Workshop in Warrenton, Virginia.

The ITCZ experiment working group met again in May 1977 to review the status of preparations for the field experiment. The experiment was conducted successfully in the Panama Canal Zone in July and a quick-look meeting in October revealed that the experiment had met the objectives. A data review meeting at Ames Research Center in March 1978 confirmed that a very rich data source had indeed been collected. Summaries of the data and some interpretations were presented to the scientific community in a special session at the San Francisco meeting of the American Geophysical Union in December 1978.

This volume of data has been compiled and published in order to make all the information collected during this unique field experiment available to the scientific community.

This volume contains 15 chapters describing the objectives, operations, and individual experiments and results. Detailed compilations of data are provided in appendixes on the following topics: balloonborne ECC ozonesonde data (appendix A), rocketsonde data (appendix B), Learjet and U-2 whole air samples (appendixes C and D), radar tracking of aircraft (appendix E), temperature measurements during Learjet flights (appendix F), satellite photographs (appendix G), pilot debriefings (appendix H), and flight summary reports (appendix I).

It is not possible, of course, to compile a complete set of data. Work continues in the experimenters' laboratories on further reduction and refinement of the data. Many of the data, especially the balloon soundings, are available on computer compatible tapes, and many satellite photographs are on file. Tapes and photographs can be requested from my office and the experimenters can be contacted for further information about their specific sets of measurements.

A field program of this complexity could not have been so successful without the enthusiasm, dedication, and professional commitment of many individuals and organizations. I am pleased to have this opportunity to thank everyone involved; this includes, but is certainly limited to, the following:

Professor James Holton, and the experiment working group listed below, who guided and encouraged all the participants in the program.

Jim Cherbonneaux, and his High Altitude Missions Branch at Ames Research Center, who arranged the complex logistics and support for the U-2.

The U-2 pilots, Jim Barnes and Ron Williams, and the Lockheed support group who performed in their usual highly competent and professional manner.

Bob Mason and Chuck Duller of the Medium Altitude Missions Branch at Ames Research Center who arranged for the availability and transport of the Learjet.

The Learjet pilots, Dan Dugan and Ted Wright, and their support crew.

Tom Perry and his associates at the Wallops Flight Center who made their annual ozonesonde supply available for this experiment.

Dempsey Bruton and his associates from Wallops Flight Center who worked around the clock to launch ozonesondes at Ft. Sherman.

Bruce Kennedy, his associates from the laboratory at White Sands, and the U.S. Army personnel at Fort Sherman who launched the rocketsondes and manned the radar.

Don Gaby at NESS Satellite Field Services Station in Coral Gables, Florida, who provided special satellite photographic coverage.

Col. Thorgesen and his staff at Howard Air Force Base who provided hangars, shops, laboratory space, and accommodations for the aircraft and personnel at the site.

The U.S. Air Force Military Airlift Command which transported personnel and equipment to the field site and the USAF Aerospace Rescue and Recovery Service which provided over-water escort for the U-2 aircraft.

Lawrence Greenwood and Shelby Tilford who, as Managers of the Upper Atmosphere Research Office at NASA Headquarters, encouraged us to conduct the experiment, supported our efforts, and resolved a scheduling conflict for the Learjet.

Barbara Garner of the International Affairs Office at NASA Headquarters who arranged all the necessary diplomatic clearances.

And last, but certainly not least, Professor Edwin Danielsen, who arranged the special satellite coverage and collected ancillary meteorological data from surrounding weather stations and who acted as a special adviser and mentor.

I. G. Poppoff
Chief, Climate and Stratosphere Research Office
Ames Research Center, NASA

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ITCZ EXPERIMENT WORKING GROUP

Name	Institution
James R. Holton	University of Washington
John M. Wallace	University of Washington
James P. Friend	Drexel University
Edwin F. Danielsen	Oregon State University
Fred N. Alyea	Massachusetts Institute of Technology
Christopher A. Riegel	San Jose State University
David G. Murcray	University of Denver
Elmer Robinson	Washington State University
Reinhold A. Rasmussen	Oregon Graduate Center
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Max Loewenstein	Ames Research Center
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I. THE INTERTROPICAL CONVERGENCE ZONE EXPERIMENT:

BACKGROUND AND SUMMARY

James R. Holton*

University of Washington

The Intertropical Convergence Zone Experiment (ITCZ) was the first in an anticipated series of observational programs designed to explore the nature and magnitude of troposphere-stratosphere exchange processes. In this first section, we summarize the overall meteorological background and motivations for a measurement program in the ITCZ and briefly describe the nature of the field experiments. The remaining sections of the report consist of data summaries by the various investigators associated with the experiment.

THE METEOROLOGICAL BACKGROUND

The structure of the stratospheric ozone layer depends on the combined effects of many dynamical, radiative, and photochemical processes. Atmospheric motions of all scales transport trace species into and out of the photochemically active regions. Theoretical models (whether one, two, or three dimensional) must to a greater or lesser extent "parameterize" the transport by motions. Although in the future it may be possible to design three-dimensional stratosphere simulation models in which most of the important transport is calculated explicitly, parameterizations of the "subgrid scale" motions will still be required. In particular, the present generation of photochemical models, both one and two dimensional, depends heavily on empirically determined eddy diffusion coefficients to represent atmospheric transport processes. A recent National Academy of Sciences Report (ref. 1) indicates that uncertainty in transport is responsible for an uncertainty factor of about 2 in the estimated ozone depletion due to release of CFM's (chlorofluoromethanes) into the environment. A key barrier to reducing the uncertainty in photochemical models due to transport is our lack of understanding of the mechanisms for exchange of trace species between the troposphere and the stratosphere and of transport within the stratosphere.

In considering the problem of troposphere-stratosphere exchange it is convenient to divide the trace substances into two classes: (1) substances whose sources are in the troposphere and which are transported into the stratosphere where they are destroyed by photochemical processes (e.g., N_2O, H_2O, CH_4, CFM's); and (2) substances whose sources are in the stratosphere and which are transported into the troposphere where they are destroyed by a variety of processes (e.g., O_3, stratospheric aerosols). Transport (both horizontally and vertically) is important throughout the atmosphere. The vertical flux of trace constituents across the tropopause and through the lowest few

*Department of Atmospheric Sciences.

kilometers of the stratosphere is, however, especially important because it is this region that primarily determines the rate of transport between the source and sink regions. Indeed, the apparent slowness of transport in this region is responsible for such features as the deduced long residence times for substances in the middle stratosphere, and the long time required for establishment of a steady-state ozone perturbation for a constant tropospheric release rate of CFM's.

The cross tropopause exchange in middle latitudes is thought to be dominated by frontal scale processes associated with the upper troposphere jet stream. Studies of radioactive tracers and dynamical tracers (potential temperature and potential vorticity) indicate that considerable stratospheric air is mixed into the troposphere by intrusions of stratospheric air that occur in conjunction with upper level frontogenesis. These intrusions, which occur in thin layers of ~100-km-horizontal and ~1-km-vertical scale are quickly destroyed by irreversible vertical mixing in the troposphere. A large fraction of the stratospheric air mass is injected into the troposphere by this process each year; however, most of this air probably originates in the lowest few kilometers of the stratosphere. Although there is no doubt that some tropospheric air is mixed into the stratosphere by slow meridional circulations associated with the jet stream, the extreme dryness of stratospheric air suggests that the primary transport of mass from the troposphere into the stratosphere takes place in the equatorial region in conjunction with the upper branch of the tropical Hadley cell which is centered in the ITCZ. Prior to the ITCZ experiment, however, little was known concerning the precise mechanism and scales of this transport.

It was relatively common in the past to view cumulonimbus convection in the ITCZ as a mechanism for providing the upward flux of trace species. However, observations indicate that relatively few tropical cumulonimbus actually penetrate the tropopause. Very few clouds actually overshoot their levels of neutral buoyancy sufficiently to penetrate the high tropical tropopause. In addition it is by no means clear that those few clouds that do penetrate the tropopause actually mix tropospheric air into the stratosphere. Rather, it is likely that the overshooting cells as they collapse due to negative buoyancy actually entrain stratospheric air which is then mixed into the troposphere.

Cumulus clouds do apparently play an indirect role in transport across the tropical troposphere in a couple of ways. Firstly, cumulonimbus towers clearly do transport substances from the lower troposphere to the upper troposphere (100-250 mbar region). In fact, there is reason to believe that throughout the troposphere the entire upward mass flux of the so-called Hadley cell occurs not as a gentle area-averaged rising motion, but rather is concentrated in the cumulonimbus towers. Substances brought to the upper troposphere by convection may then be transported upward across the tropopause and through the lower stratosphere by the slow mean vertical motion which represents the stratospheric portion of the Hadley circulation. Secondly, cumulus clouds, both individually and in organized clusters, generate a wide variety of inertia-gravity wave type motions.

THE ROLE OF THE ITCZ EXPERIMENT

Prior to the ITCZ experiment it was not known whether the fine-scale structure associated with gravity waves might play a significant role in trace species transport near the tropopause. Although it is still not possible to provide quantitative estimates of the fraction of transport due to small-scale variations, the ITCZ experiment has for the first time provided definitive evidence that gravity wave scale motions must be considered as an essential mechanism of vertical transport in the tropical stratosphere. The very large amplitude ozone and temperature fluctuations occurring on the gravity-wave scale, together with the layered structure in the vertical apparent in the balloon soundings, has provided unambiguous evidence for the importance of small-scale mixing processes, although much more work is required to relate such motions to the large-scale meteorological fields.

THE ITCZ MEASUREMENT PROGRAM

The ITCZ observational field program was carried out in Panama during the period July 16-31, 1977. Eleven experiments were conducted during the field program. The U-2 carried five: (1) SAS II, an in situ gas sampler to measure concentrations of O_3 and NO with fine time resolution; (2) CRYO, a cryosampling and grab bottle system to collect air samples for measurement of N_2O, CCl_4, and Freons; (3) FLO, an IR scanning spectrometer to measure the overburdens of HNO_3, N_2O, and other species; (4) an IR radiometer to determine H_2O overburden; and (5) an aerosol particle collector. The Learjet carried four experiments: (1) whole-air sampling bottles for determining concentrations of N_2O, CCl_4, Freons, and other species; (2) an ozone measuring instrument; (3) an H_2O radiometer; and (4) an aerosol particle collector. Both aircraft also carried pressure and temperature sensors. The tenth experiment consisted of launches, four times per day, of meteorological sounding balloons equipped to measure ozone, temperature, humidity, and winds. Radar tracking was provided to increase the accuracy of the balloon data. The final experiment consisted of daily rocketsonde launches to measure winds and temperatures above 25 km. Data summaries for the various experiments are given in the following sections.

REFERENCE

1. Halocarbons: Effect on Stratospheric Ozone. Panel of Atmospheric Chemistry, National Academy of Sciences-National Research Council, Washington, D.C., September, 1976.

II. OPERATIONAL ACTIVITIES

William A. Page

Ames Research Center

Included here is a short description of the observational field program as carried out in the Canal Zone during July 1977. The people responsible for organizing the activity are listed in table 1; those deployed to the Canal Zone and responsible for various aspects of the field activity (including the experiments) are listed in table 2. Operations people, scientists, and technicians, along with most of their equipment, were transported to Howard Air Force Base, Canal Zone, by a NASA Wallops C-54 and an Air Force C-141. The C-141 arrived on July 12, a few days after the C-54. The research aircraft arrived next, the U-2 on July 13, and the Learjet on July 15. While the aircraft experimenters set up ground laboratories in hangar space provided by the Air Force and prepared experiments for flight, the Wallops contingent was transported to Fort Sherman at the Atlantic end of the Canal and set up its equipment in preparation for launching ozonesonde balloons. An important task was connecting a portable digital data recording system to the Army GMD (radiosonde-ozonesonde receiver) and tracking radars. Figure 1 shows the location of Howard Air Force Base and Fort Sherman and depicts the ozonesonde balloon and rocketsonde launches and the aircraft flight track. The flight pattern was balanced in a north-south direction about Fort Sherman for ease of radar tracking.

Before the beginning of the ITCZ experiment on July 16, the U-2 aircraft flew one southward survey flight to about lat. 3.5° S.

The daily activity schedule during the 16-day ITCZ study is shown on figure 2. Ozonesondes were launched every 6 hr as depicted; the actual target launch times were 5:30 a.m. and 5:30 p.m., and 11:30 a.m. and 11:30 p.m., local time. The balloons moved in a westerly direction and typically were 25 to 45 n. mi. from the launch site when at an altitude of 30 km. The rocketsonde was launched shortly after the noon ozonesonde, when a tracking radar became available, and moved out along a northwest heading as shown in figure 1. Both research aircraft flew in the morning because of the almost daily afternoon rainstorms. The U-2 took off at 8 a.m. local time and flew about 4.5 hr. The Learjet took off at 9 a.m. and flew about 2.5 hr. A schematic of the flight profiles is shown in figure 3. Typically, the U-2 started its sampling flight at 45,000 ft pressure altitude and worked upward in 5,000-ft steps to 70,000 ft. The Learjet flew a similar stepped vertical pattern at lower altitudes (from 10,000 ft to 45,000 ft) as depicted. The north-south extent of the U-2 pattern was 200 n. mi., that of the Learjet about 100 n. mi. Due to weather constraints small variations in the flight patterns occurred on some days.

Table 3 contrasts the scheduled vs actual day-by-day activity during the field study from July 14 (when the southern survey mission was flown by the U-2), to the end of the deployment on July 31. Circles on the table for a given experiment mean the experiment was scheduled to fly on that day and crosses are an accounting of what actually occurred during the deployment. Hence, a circle plus a cross means that an experiment that was scheduled to fly was actually flown, a circle alone means that the scheduled experiment was not flown that day, and a cross alone means that an experiment was flown that had originally been scheduled for another day. Generally the experiments were flown the scheduled number of times, except for some minor failures. The staggered schedule of the SAS II and the CRYO experiments on the U-2 aircraft is a result of their refurbishment requirements and the fact that they both cannot be carried on the aircraft at the same time (each of them fills the bottom half of the instrument bay). Figure 4 shows the instrument configuration of the U-2 during the ITCZ experiment. On July 20 the U-2 did not fly because of the severe weather.

TABLE 1.- OPERATIONAL ORGANIZATION, ITCZ STUDY

Program coordination	Poppoff, Ames Research Center
Chairman, Working Group	Holton, University of Washington
Field experiment science coordination	Page, Ames Research Center
Aircraft operations	
U-2	Cherbonneaux, Ames Research Center
Learjet	Mason, Ames Research Center
Meteorology and ozonesonde operations	Perry, Wallops Flight Center
Rocketsondes, radar tracking	Kennedy, White Sands and U.S. Army Canal Zone
Auxiliary data	Danielsen, Oregon State University

TABLE 2.- DEPLOYMENT GROUPS

U-2 operations	Cherbonneaux, Pochari Pilots: Barnes, Williams Seven Lockheed technicians
Learjet operations	Pilots: Dugan, Wright Three Northrop technicians
Science: coordination	Page
U-2 SAS II	Starr, Craig, Clements, Vongrey
CRYO	Vedder, Boitnott, Langedyk, Robello, O'Hara
FLO	Barker, Dow
H_2O RAD	Cauthen
Learjet air sampling, ozone	Cronn, four technicians
H_2O RAD	Cauthen
Balloon ozonesondes	Bruton, six technicians

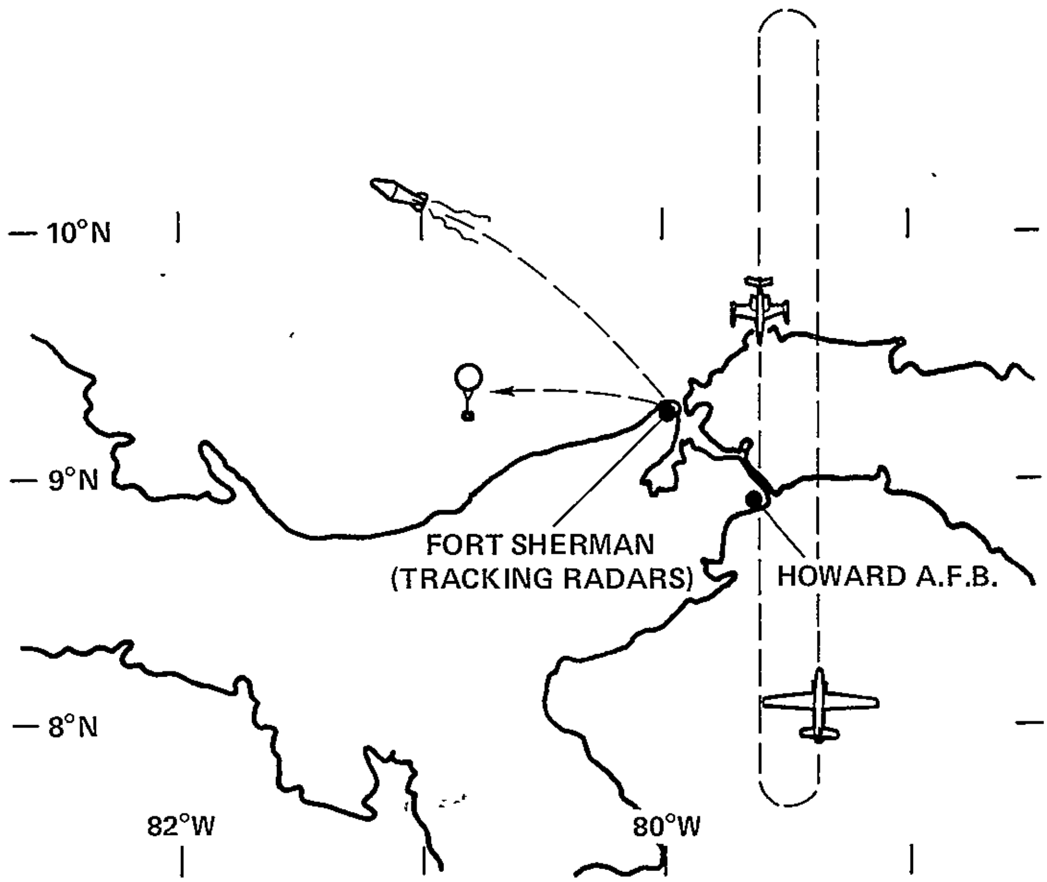

Figure 1.- Flight tracks.

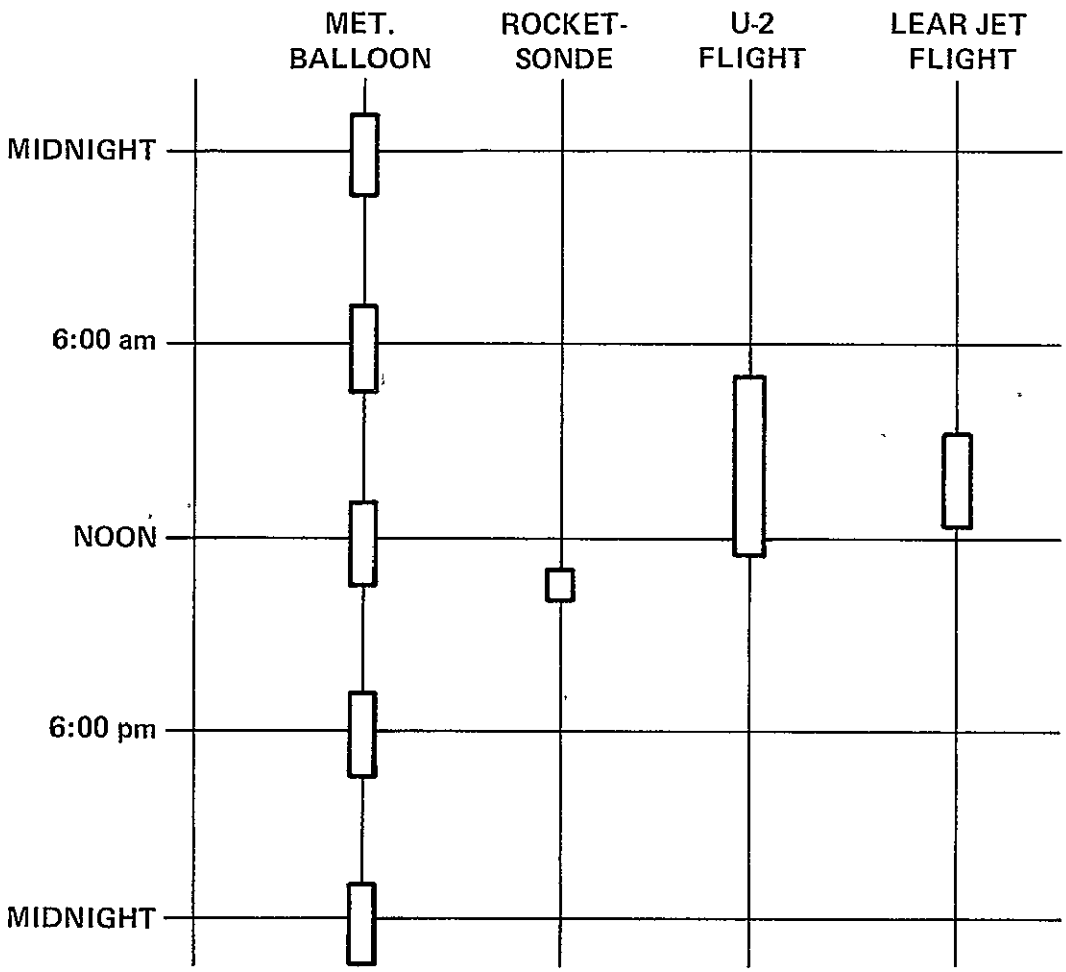

Figure 2.- Daily activity schedule.

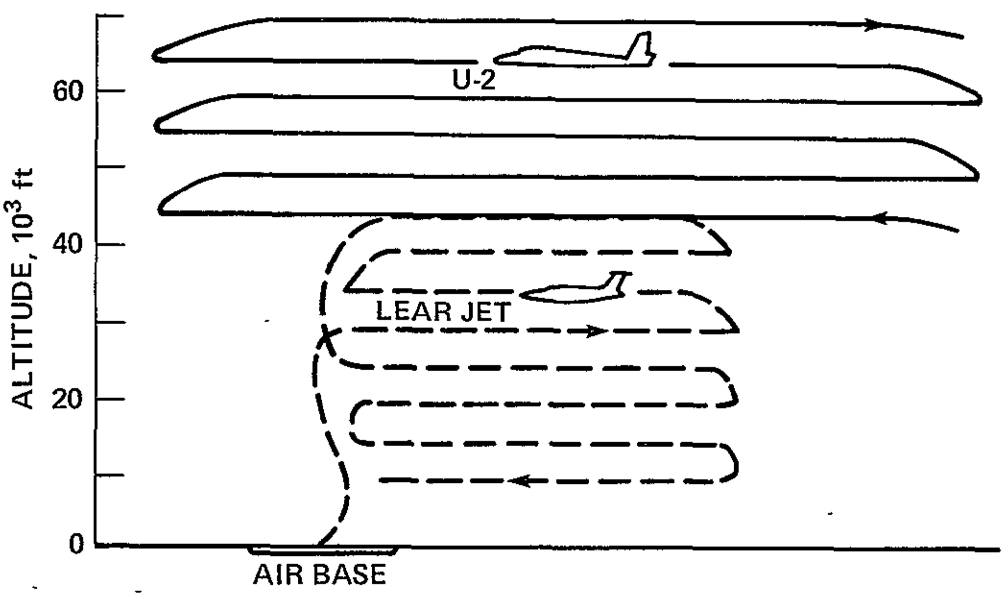

Figure 3.- Flight profiles.

TABLE 3.- FIELD REPORT, EXPERIMENTAL ACTIVITY

Date, July	U-2 experiments[a]				Learjet experiments[a]			Meteorological experiments[a]				Radar track, min		Remarks
	SASII	CRYO	IR radiometer	P&T, H_2O rad., aerosols	Grab samples	P&T, ozone	H_2O radiometer	Midnight	6 a.m.	Noon	6 p m	U-2	Learjet	
14		⊕	⊕	⊕										Survey flight
15														
16 Sat	○		⊕	⊕				⊕	⊕	⊕	○	0		Begin ITCZ study
17 Sun			⊕	⊕	+	+		⊕	⊕	⊕	⊕	10		
18 Mon	○	+	⊕	⊕	+	+		⊕	⊕	⊕	⊕	37	7	
19 Tues		⊕	⊕	⊕	⊕	⊕	⊕	○	⊕	⊕	⊕	64	12	
20 Wed		○	○	○	⊕	⊕	⊕	⊕	⊕	⊕	⊕		2	
21 Thurs	○		⊕	⊕	⊕	⊕	⊕	⊕	○	○	○	69	20	
22 Fri			⊕	⊕	⊕	⊕	⊕	○	⊕	⊕	⊕	61	8	
23 Sat	○	+	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	75	0	
24 Sun	+	○	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	30	3	
25 Mon		⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	9	1	
26 Tues	⊕		○	⊕	⊕	⊕	⊕	○	⊕	⊕	⊕	54	26	
27 Wed	+		○	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	27	18	
28 Thurs	○	+	○	⊕	⊕	⊕	⊕	⊕	○	○	⊕	62	26	
29 Fri		⊕	○	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	39	15	
30 Sat	+	○	○	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	47	0	
31 Sun	⊕		○	⊕				⊕	⊕	○	○			End ITCZ study

[a]Symbols: ○ = scheduled; ⊕ = scheduled and flown; + = unscheduled but flown

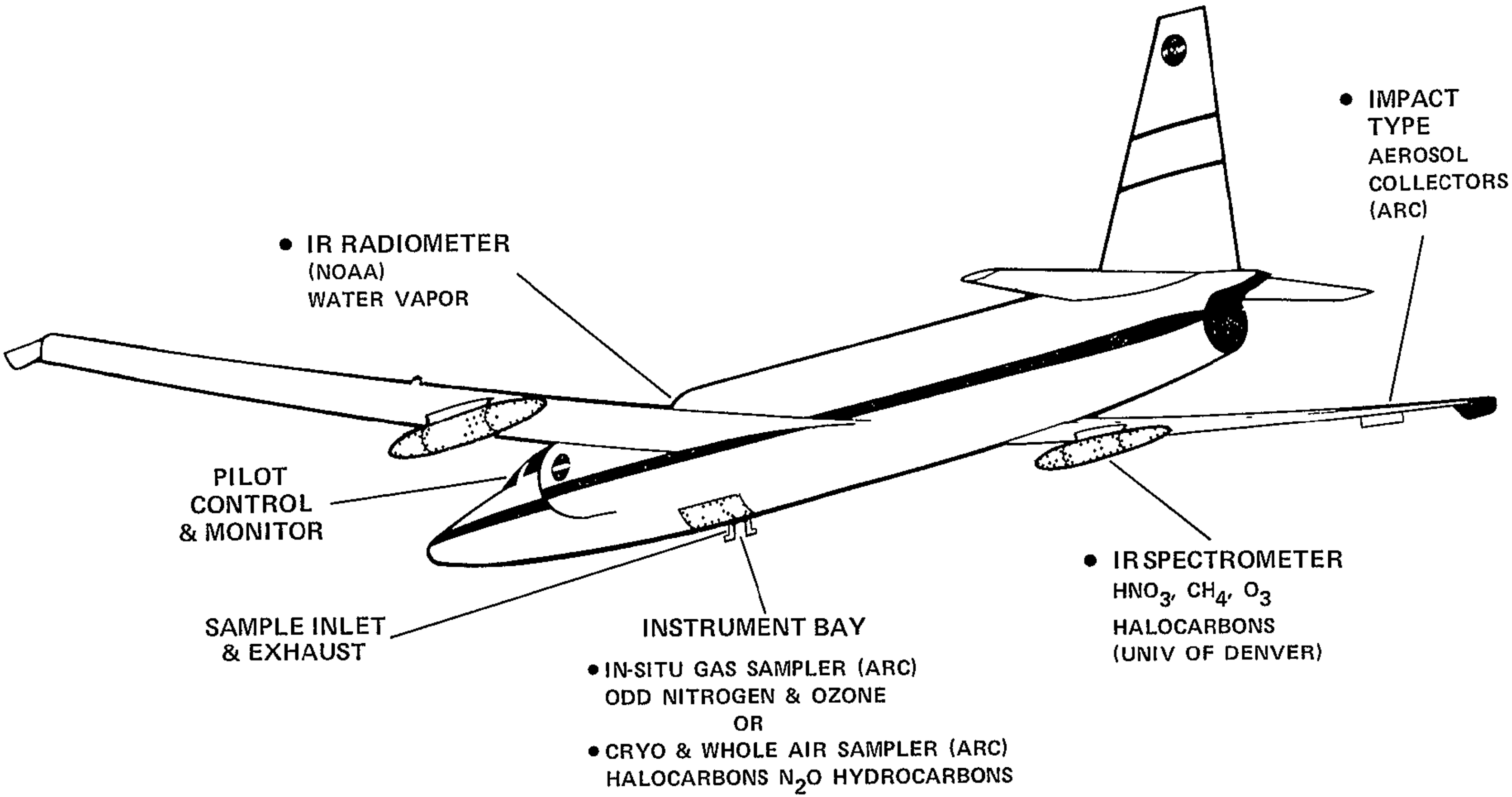

Figure 4.- Stratospheric sensor platform — 1977 ITCZ experiment.

III. NOTES ON THE METEOROLOGY OF THE INTERTROPICAL CONVERGENCE ZONE DURING THE JULY 1977 EXPERIMENT

Edwin F. Danielson

Oregon State University

The stratosphere and troposphere are large-scale open systems which exchange mass and trace constituents. If averaged over all longitudes, mass exchange can be expressed as products of the means and the mean of the product of the deviations from the mean. At high latitudes, the mass exchange is dominated by the deviations from the mean. At low latitudes, in the tropics, it is generally assumed that the mass exchange is caused by the mean motions.

Figure 1 — Figure 1 shows mean motions for the Northern Hemisphere summer season dominated by one very large cell with ascending motion from the equator to lat. 30° N. This is not representative of the mean circulation in the Western Hemisphere which, instead, is dominated by the monsoon circulation in India-Eastern Hemisphere.

In the Western Hemisphere, the mean circulations more closely resemble the lower figure which is the autumn mean for Earth. This shows strong convergence centered about 5° to 7° north of the equator with the ascending motions extending into the stratosphere. The ascending motions carry moisture upward to form cirrus clouds in the upper troposphere. The low saturation vapor pressure over ice at these low temperatures, -70° C to -80° C, is generally assumed to be responsible for the extremely dry stratosphere. If this is correct, the colder the cloud, the lower the saturation vapor pressure and consequently the smaller the mixing ratio; the colder the cloud, the higher the top of the cloud, therefore, the mixing ratio in the stratosphere above the cloud would be negatively correlated with the height of the cloud.

Figure 2 — Figure 2 shows a narrow convergence zone between persistent northeast trades and southeast trades which resembles the Western Hemisphere mean circulation, assuming there were no continents. The continents introduce barriers to the flow and these barriers, plus differential heating, produce semipermanent anticyclones. The accelerated flows cause quasi-stationary north-south undulations which are related to the continents (as shown in the lower figure).

Figure 3 — Figure 3 is an infrared satellite photograph, 24 July 1300 u.t., illustrating the cumulonimbus clouds associated with this undulating convergence zone. Note also some areas that are cloud free. This illustrates how the hydrometeors, which grow in the updraft, produce strong downdrafts when they fall through the air, first dragging down the air, then cooling it by evaporation. Surface divergence in the downdrafts counteracts the trade wind convergence, making the convergence cellular. Occasionally, the cells are organized into larger-scale cloud clusters with adjacent cloud-free regions of descending air. These westward-moving cloud/clear patterns are often associated with an easterly wave.

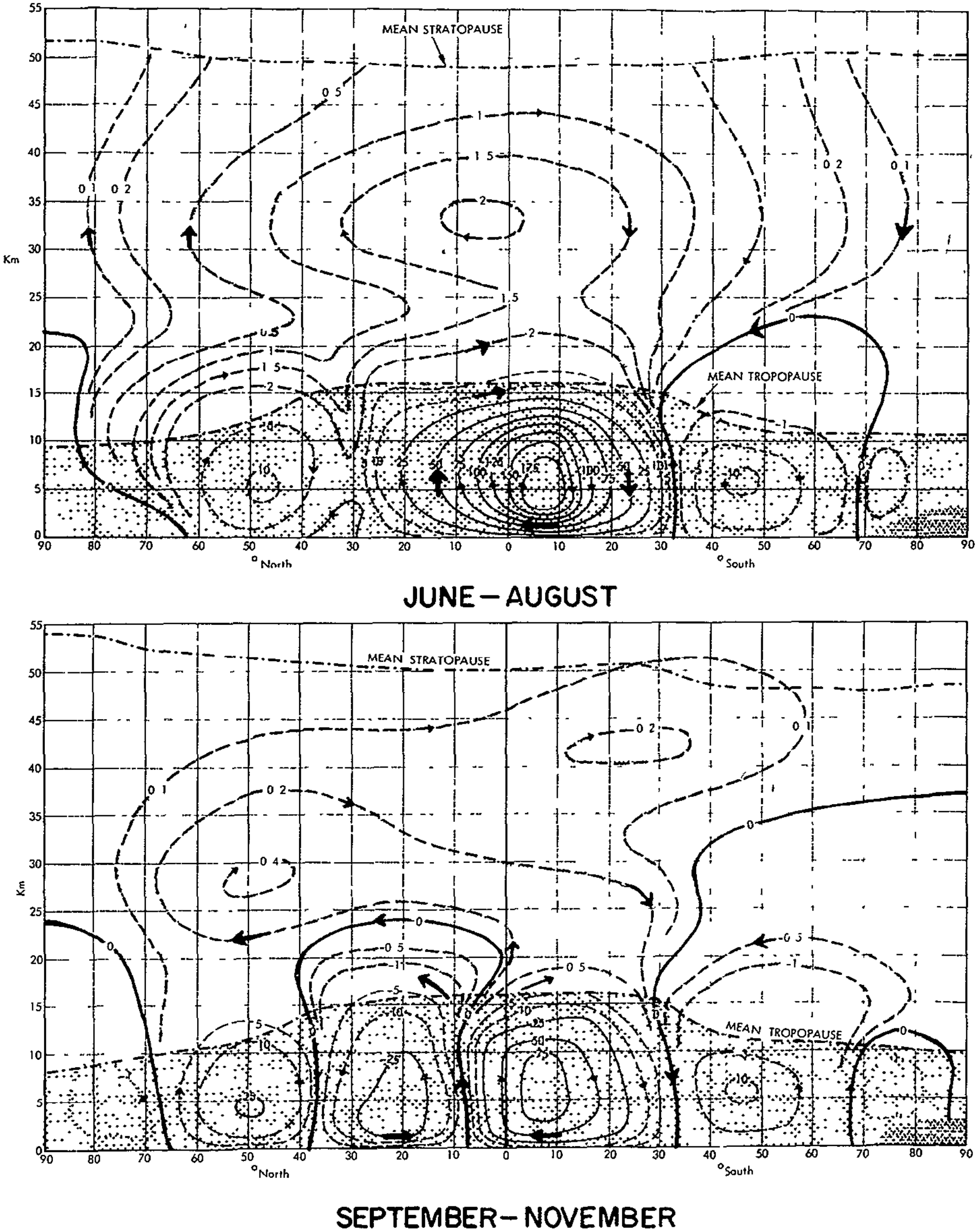

Figure 1.- Northern Hemisphere mean motions for summer and autumn.

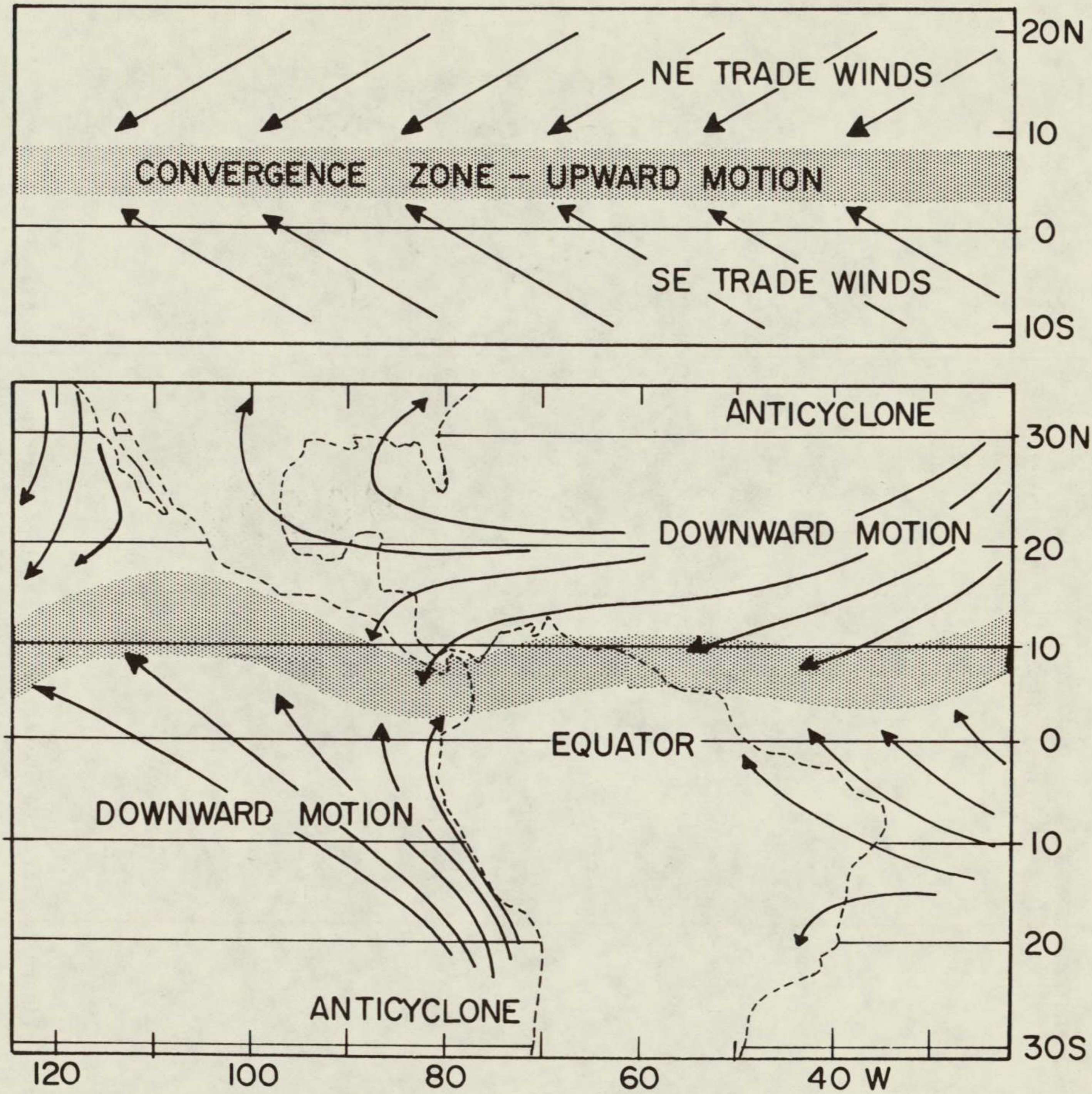

Figure 2.- Convergence Zone motions.

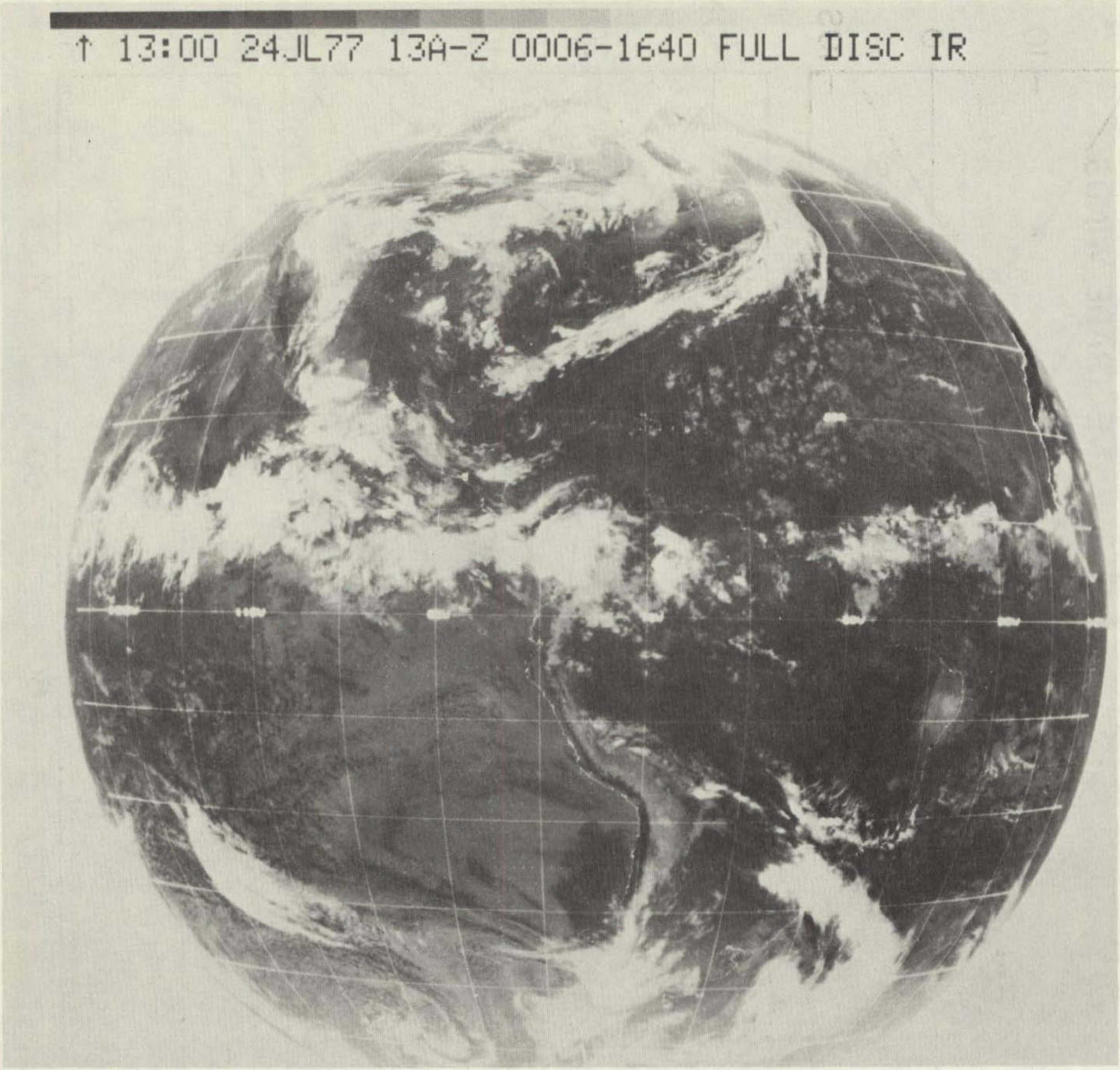

Figure 3.- Infrared photograph of cumulonimbus clouds associated with the Convergence Zone, 24 July, 1300 u.t.

Figure 4 — Figure 4 illustrates an 8-day composite of the coldest cumulonimbus anvils. Note that they form the same undulations relative to the continents, as those shown in figure 2. Also, although the prevailing winds are easterly and, therefore, most clouds move from east to west, there is evidence of standing patterns.

Figure 5 — Figure 5 is a schematic of the convergence and divergence associated with an easterly wave. The convergence produced by the wave, combined with the generally east-west convergence, results in a crescent shape. Thus, the ITCZ broadens north-south and appears broken. The upper diagram, based on wind data from radiosondes and satellite cloud photographs for 20 July 0000 u.t., 500 mbars, illustrates the difference and confluence associated with the easterly wave.

Figure 6 — Figure 6 shows evidence of easterly waves along the ITCZ. The black corresponds to the very low temperatures, the grey to those slightly higher. Diagonal lines illustrate the westward propagation for three cloud patterns. Velocity is 10° per day, or approximately 12.5 m/sec. The first wave passes Panama on the 20th, the second on the 24th, the third on the 27th.

Figure 7 — Figure 7 is a time history of the clouds associated with the second wave, shown in figure 6. Each photograph is separated by 6 hr. Note the radial expansion of the cloud system relative to a westward propagating center of divergence. This illustrates the radially propagating convergence zone relative to a strong downdraft.

Figure 8 — Although the easterly waves dominate the local weather, they have relatively small influence on the surface pressure. Figure 8 shows the 12-hr pressure profile (thin line) and a smooth profile (heavy line). Note that the waves pass with a period of 3-4 days, but the pressure is dominated by a 6-day cycle, indicating response to still larger-scale systems.

Figure 9 — The effect of the easterly waves on the clouds in the vicinity of Panama are shown in figure 9 by special high-resolution, visible photographs taken specially for this project at 1600 u.t., the time when the aircraft were airborne. The upper left photograph shows the cluster of cumulonimbus extending almost north-south over the Panama Canal on 20 July. Superimposed is the north-south, racetrack flight pattern flown by the aircraft and the dots locating Howard AFB on the south side of the isthmus, where the aircraft were based, and Fort Sherman on the north side of the isthmus, where the ozonesondes and rocketsondes were released, and where the NIKE radars (which tracked the aircraft, the ozonesondes and the rockets) were located. The upper right photograph shows the clearing on 22 July associated with the low-level divergence of the wave which passed on the 20th. Note that the cumulonimbus are located south of Panama, south of lat. 7° N. The two lower figures indicate the extended clouds which accompanied the waves on the 27th and 31st.

Figure 10 — Figure 10 shows detailed temperature profile, relative humidity, and ozone mixing ratio profiles, for 27 July, 1600 u.t. — the same time as the lower left photograph of figure 9. The gray area shows the complex RH structure with relative humidity at temperatures lower than -10° C converted to relative humidity over ice. Note that in the vicinity of 200 mbars, where

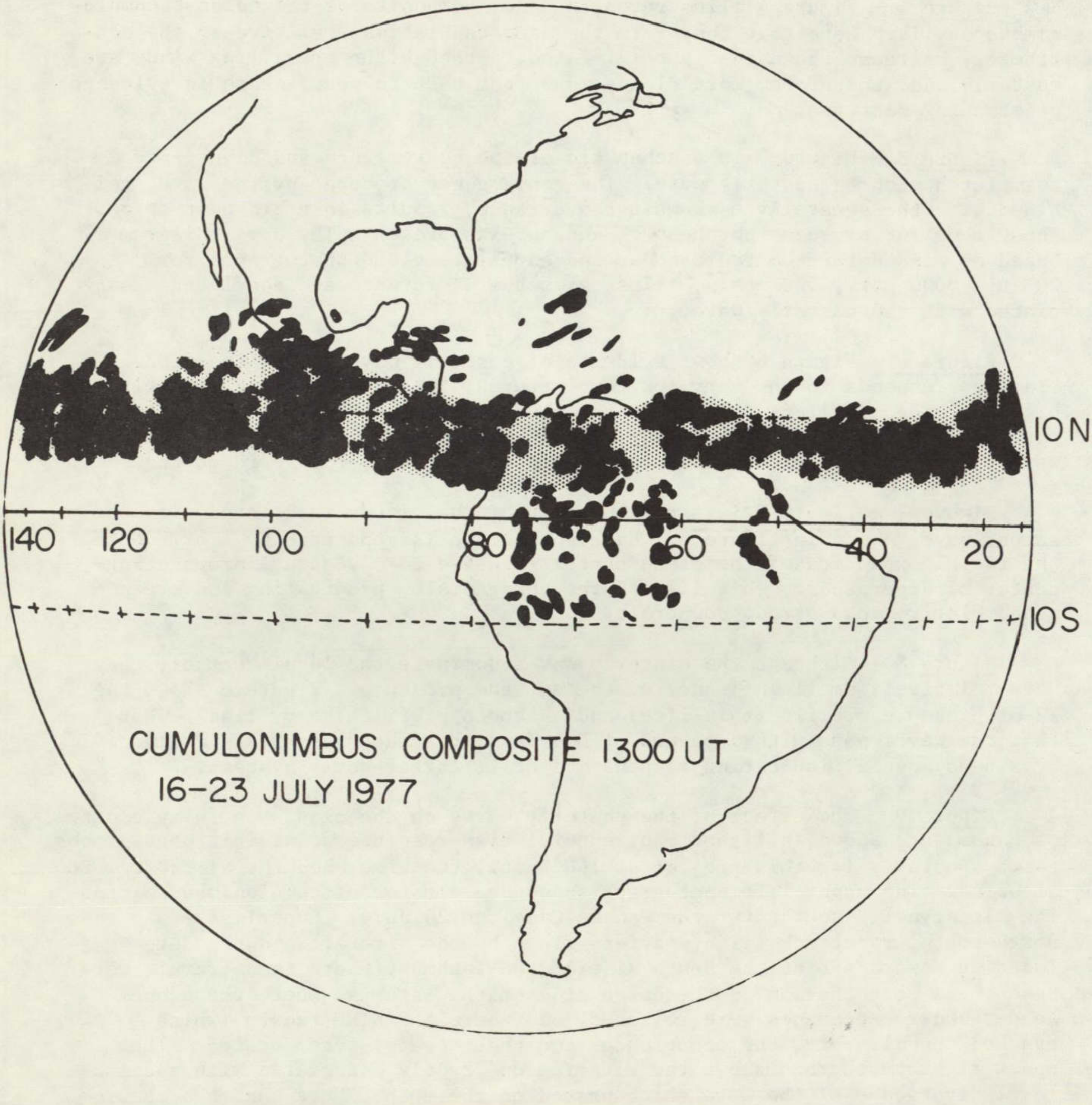

Figure 4.- Eight-day composite of coldest cumulonimbus anvils.

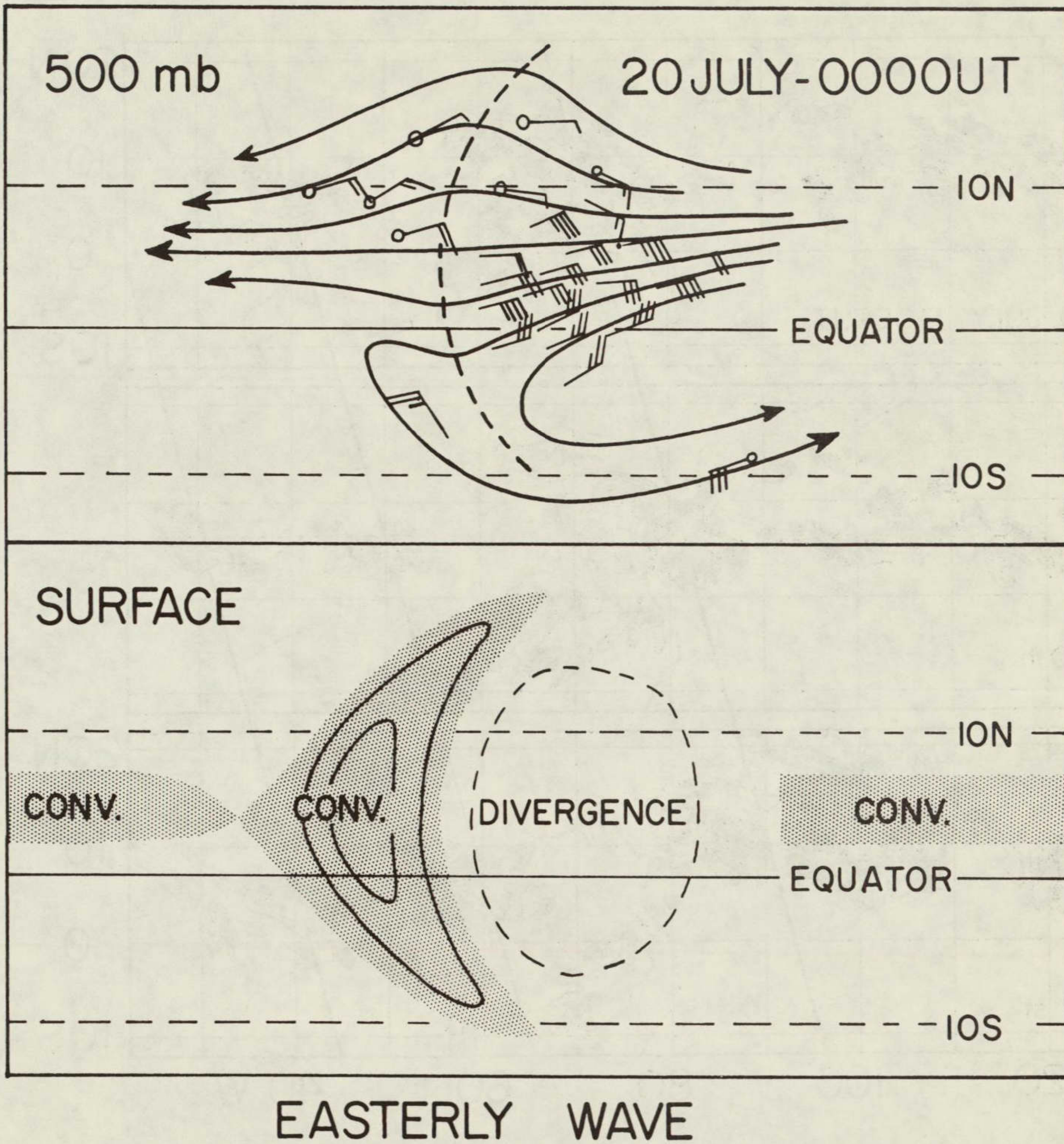

Figure 5.- Schematic of convergence and divergence associated with an easterly wave.

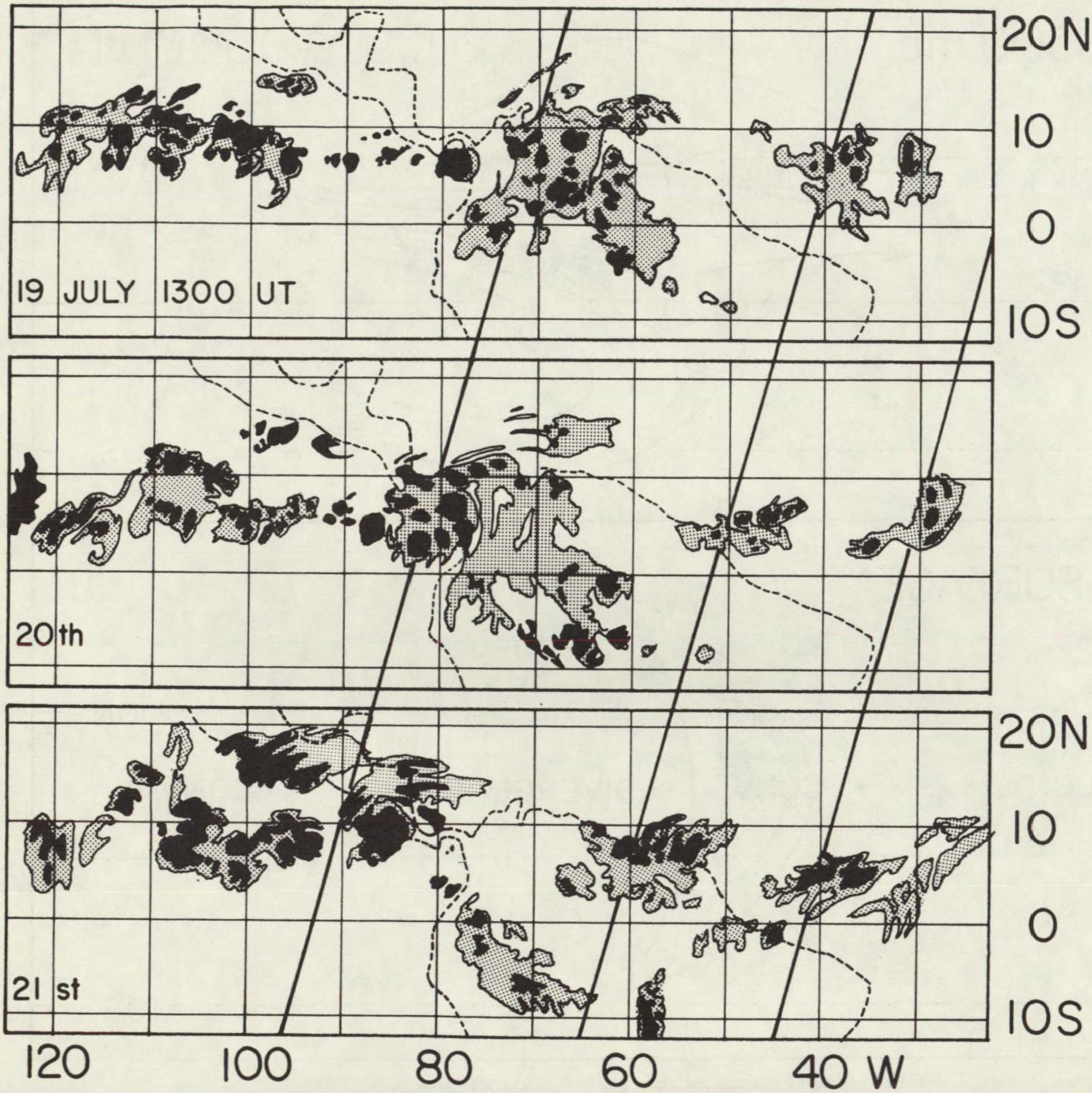

Figure 6.- Infrared cloud patterns showing evidence of easterly waves along ITCZ.

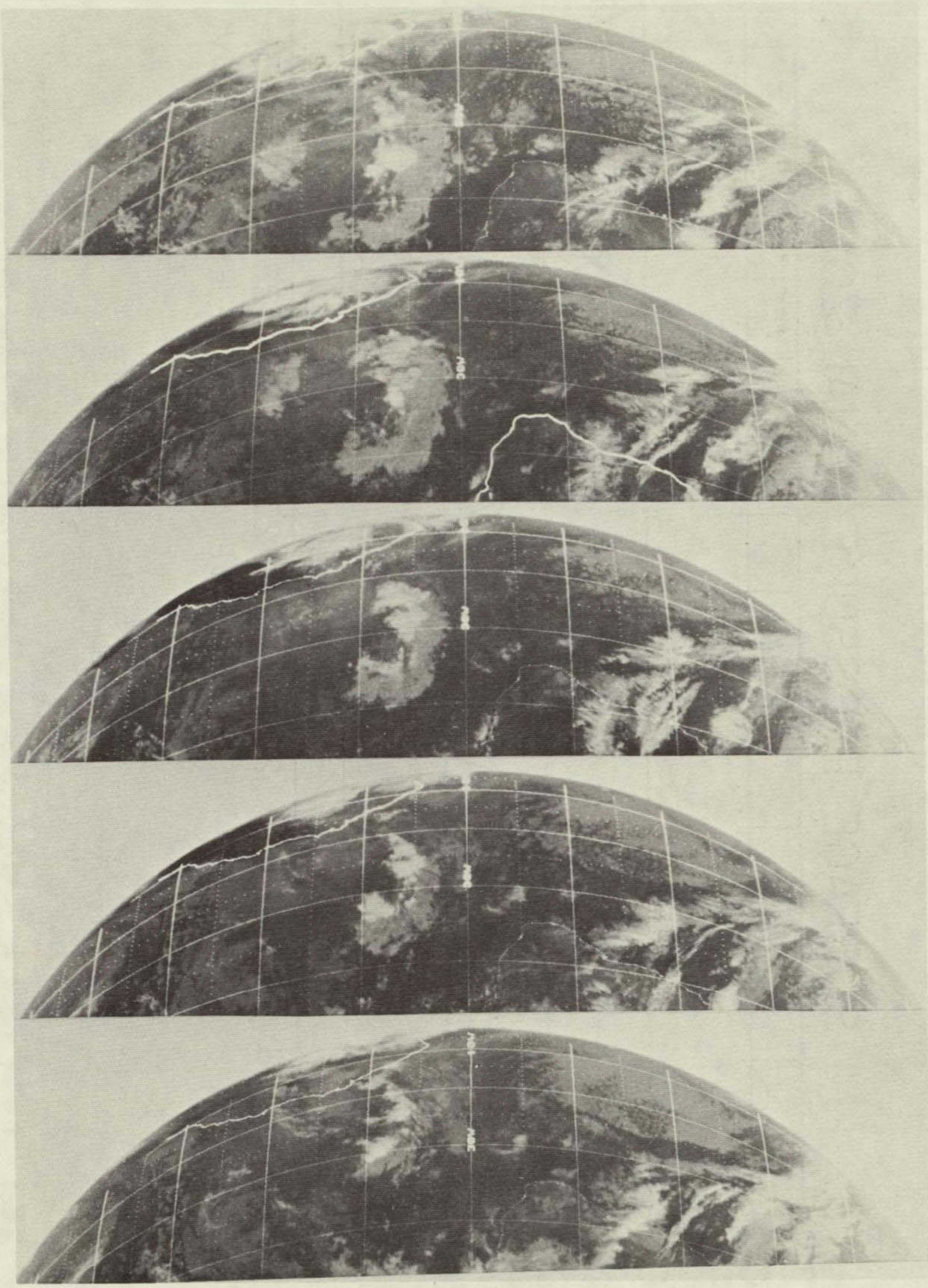

Figure 7.- Time history of clouds associated with the second wave in figure 6.

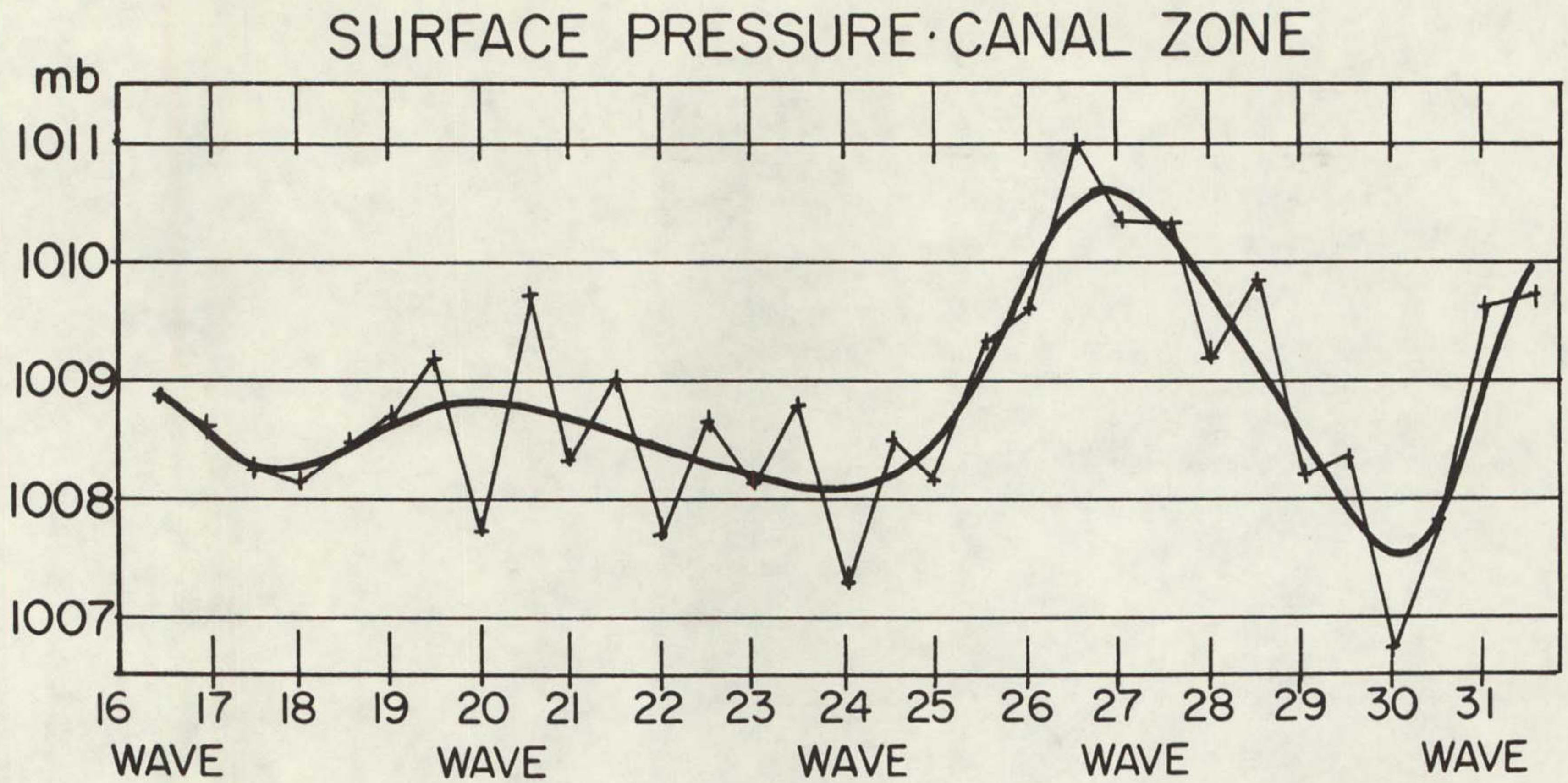

Figure 8.- Surface pressure variations in the Canal Zone during the ITCZ experiment.

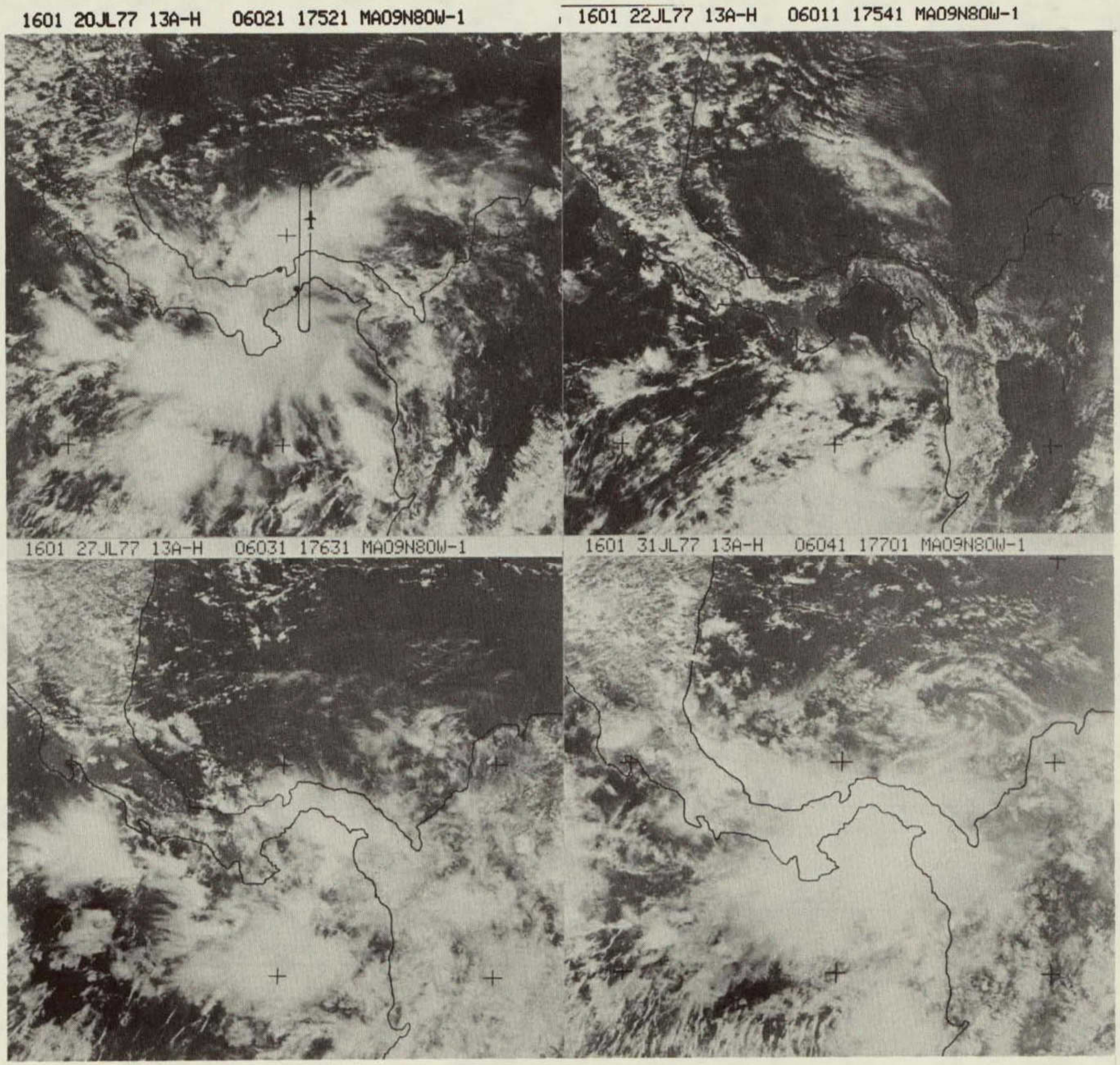

Figure 9.- High-resolution photographs of clouds over the Canal Zone during ITCZ experiment.

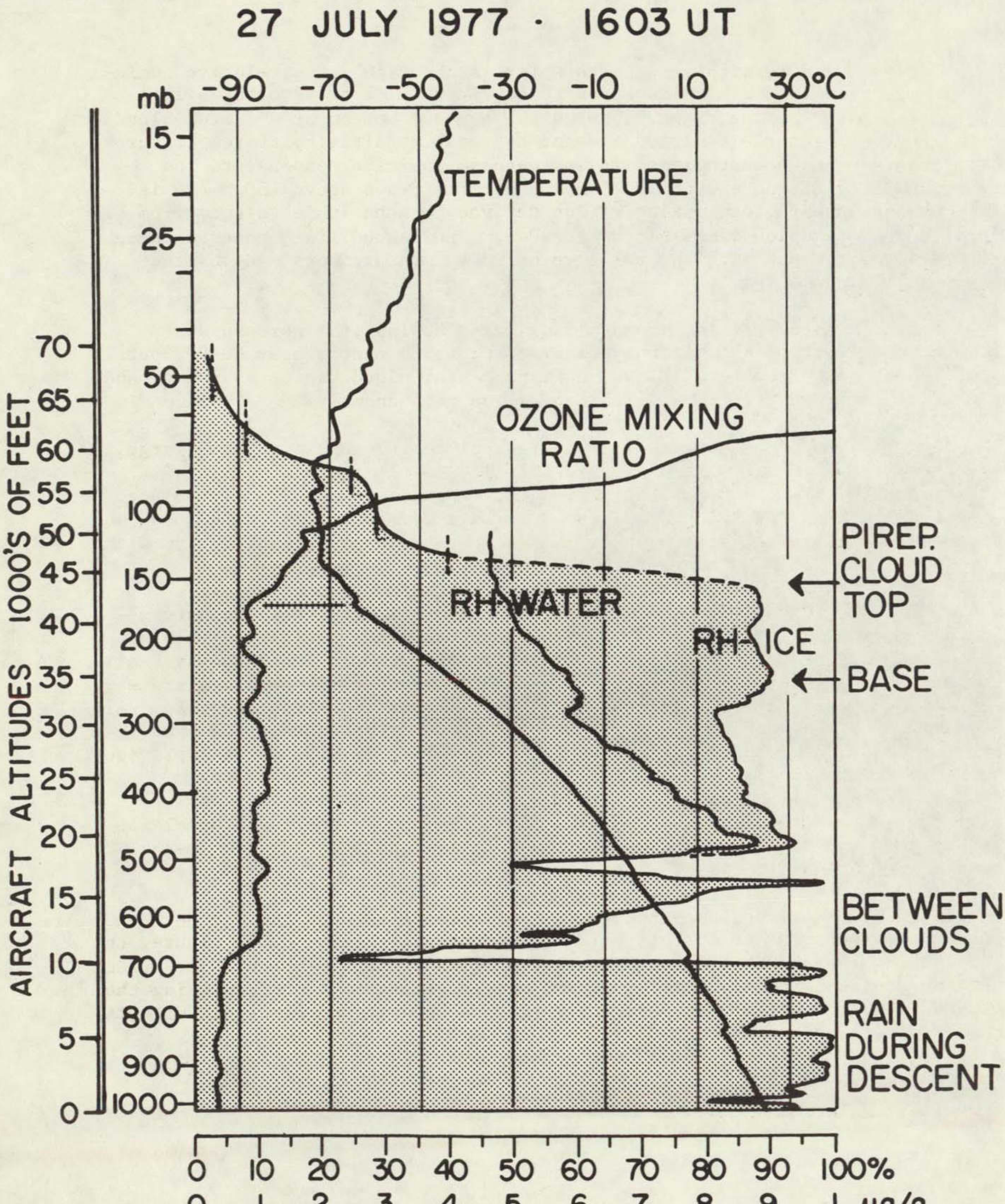

Figure 10.- Profiles of temperature, relative humidity, and ozone mixing ratios for 1600 u.t., July 27, 1977.

the relative humidity with respect to water is about 50%, the relative humidity with respect to ice has increased to nearly 90%. Note also the pilot reports indicated on the right, showing the top and bottom of a cirrus cloud. Although the radiosonde humidity element has weak sensitivity at temperatures lower than -40° C, nevertheless, it indicates a positive response to the higher humidity of the cloud. The smooth profile drawn above 150 mbars is based on the layered mean mixing ratios derived by Kuhn (this volume) from his infrared sensor, which was flown on the U-2. The dashed line connects these infrared measurements with the relative humidity measurements made by the radiosonde.

Comment: Note that the ozone mixing ratio begins its increase at 170 mbars, well below the minimum temperature, which occurs near 80-90 mbars. Note also the deep isothermal layer beginning near cloud top at 45,000 ft and extending to 58,000 ft. The pilot reported on this anamoly.

Comment: Kuhn's stratospheric water vapor measurements indicate large, day-to-day temperature variations which are positively correlated with easterly waves. Thus, the moist stratosphere appears to be directly related to the highest, coldest clouds. These results are inconsistent with the hypothesis that the dry stratosphere is produced by vapor in equilibrium with cirrus from cumulonimbus clouds.

Figure 11 — Ozonesonde and aircraft measurements show that the water vapor is extremely variable in the troposphere, relative humidities varying from a few percent to 100%; that the ozone mixing ratio is consistently small, with variations generally less than a factor of 2; and the long-lived trace species, such as F-11 and F-12, have very small deviations from the mean. All this implies strong mixing in the middle and upper troposphere. The cumulonimbus provide the vertical mixing, and the larger-scale circulations provide the horizontal mixing. Evidence for this horizontal mixing is shown in figure 11, which illustrates the stream lines at 250 mbars on the 27th of July. Note the strong cross-equatorial flow from the Northern Hemisphere to the Southern and from the Southern to the Northern, associated with predominantly anticyclonic eddies in both hemispheres.

Note that these eddies extend or span the space between the Northern and Southern Hemispheric jet streams which bound the gray areas on the figure, the latter being representative of the stratospheric air at 250 mbars. The effect of these eddies is to modulate the upper and tropospheric winds, changing them from easterly to westerly at Panama. They do not appear to penetrate significantly into the stratosphere.

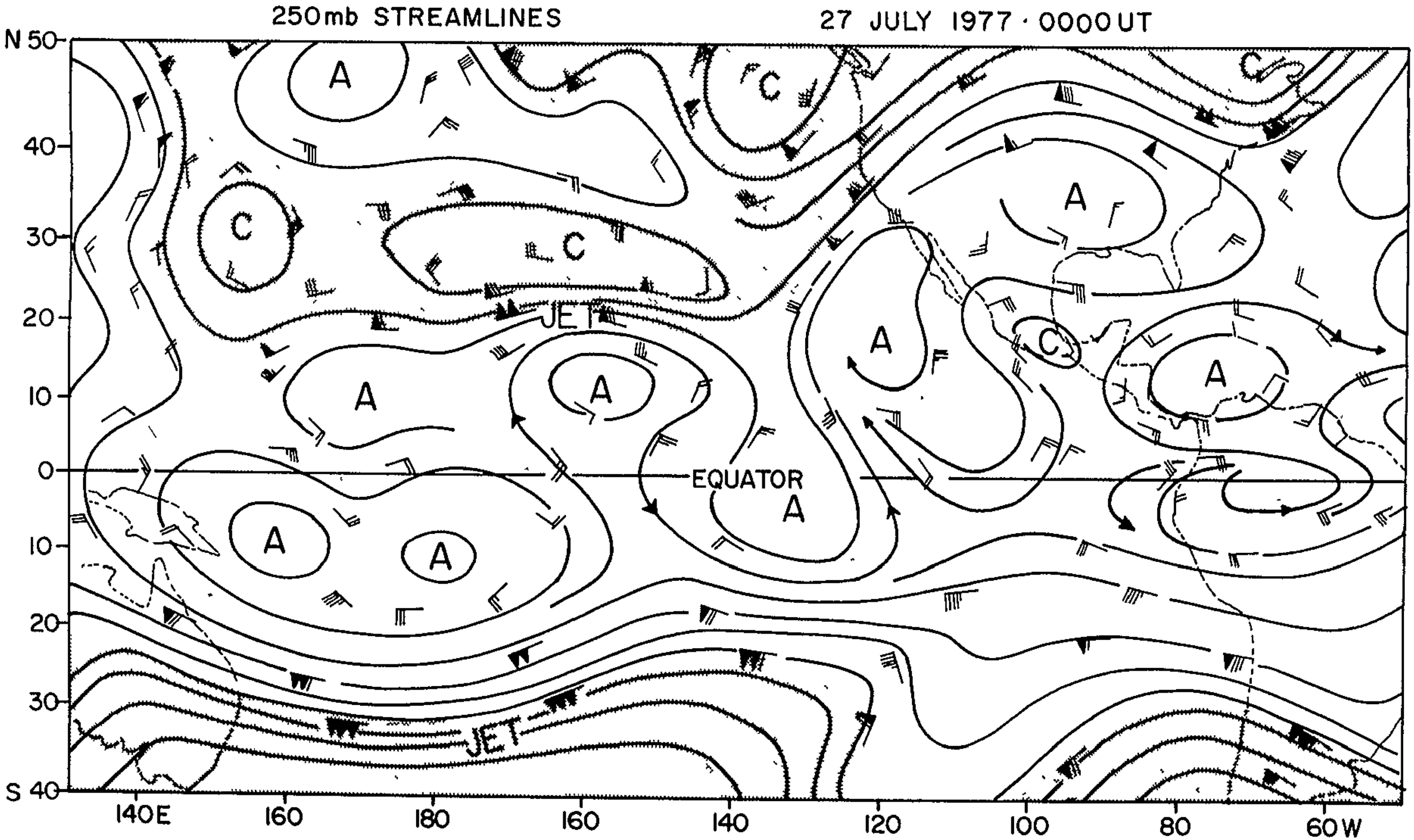

Figure 11.- Horizontal flow at 250 mbars on July 27, 1977.

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IV. BALLOON-BORNE OZONESONDE AND ROCKET TEMPERATURE AND WIND DATA GATHERED DURING THE JULY 1977 INTERTROPICAL CONVERGENCE ZONE EXPERIMENT

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and

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INTRODUCTION

In middle latitudes, it is possible for large concentrations of stratospheric air to be brought down into the troposphere through folds or breaks in the tropopause (ref. 1). The exchange of air from the tropopause into higher altitudes, however, is neither well understood nor extensively studied. It is thought that strong convective activity, such as occurs in the vicinity of the ITCZ may be responsible for such exchange. Thus, the ITCZ experiment conducted from July 16 through July 31, 1977, included a series of balloon-borne ozone soundings. The results of these soundings will help explain the vertical exchange of air and provide needed information on short vertical scales of motion. Four balloon-borne ozonesondes were scheduled each day during the 16-day experiment. Although one balloon launching every 6 hours was possible, it would have been more desirable to have obtained more frequent measurements. Nevertheless, the measurements presented here are invaluable for studying the magnitude of the vertical exchange processes.

During the ITCZ experiment, rocketsonde data also were being gathered in support of a stratospheric scales-of-motion study. The purpose of the scales-of-motion investigation was to determine whether rocketsonde and satellite information currently used to produce weekly high altitude charts at 5.0, 2.0, 1.0, and 0.4 mbars could, if daily measurements were available, yield information on the stratospheric horizontal wave spectrum and its importance with respect to tropospheric and mesospheric interaction and transport. All U.S. operated rocketsonde sites were requested to participate in this investigation.

The agency responsible for obtaining the balloon-borne ozonesonde data at Ft. Sherman, Canal Zone, was Wallops Flight Center, NASA, Wallops Island, Virginia. Atmospheric Sciences Laboratory personnel from White Sands Missile Range, New Mexico, and from Ft. Sherman provided and operated two ground telemetry tracking sets (GMD) and the two radars used for tracking the balloons and rocketsondes. Ames Research Center personnel requested radar tracking of the balloons in order to improve the vertical measurement resolution. The Atmospheric Sciences Laboratory also provided the rocketsonde flight systems used in the scales-of-motion experiment. Processed ozone and meteorological data are presented.

INSTRUMENTATION DESCRIPTION

Electrochemical Concentration Cell Ozonesonde

The ozonesonde instrument used during the ITCZ experiment was the Electrochemical Concentration Cell (ECC) type developed by Komhyr and Harris (ref. 2) for measuring the vertical distribution of atmospheric ozone. The balloon-borne instrument is physically and electronically coupled to the standard U.S. (NWS) radiosonde and measures and transmits data from the surface to altitudes of about 30 km and higher.

The ozone sensor used is an iodine-iodide redox electrode concentration cell (ref. 3) made of two platinum electrodes immersed in potassium iodide solutions of different concentrations contained in separate cathode and anode chambers that are fabricated from polytetrafluoroethylene (Teflon TFE resin). The chambers are linked together with an ion bridge which serves as an ion pathway and retards mixing of the cathode and anode electrolytes, thereby preserving their concentrations. The ECC system does not require the application of an external emf source, but derives an emf from the difference of the potassium iodide concentrations present in the two half cells. The current flowing in the cell external circuit is directly related to the rate of conversion of iodine to iodide, or iodide to iodine which is a result of pumping air containing ozone through the cathode electrolyte. The air pump is designed so that ozone-destroying lubricants are not required during its operation. Pump components that come in contact with sampled air are fabricated from Teflon and glass fiber, both inert to ozone.

The current emitted by the electrochemical concentration cell (0-6 μA) during the measurement of ozone is impressed upon a simple two-transistor coupler, whose resistance varies with the magnitude of the impressed current. Periodic connection of the coupler by means of a mechanical switch provides data using the telemetry of the standard 1680 MHz radiosonde.

Telemetered signals are pressure, temperature, humidity, ozone, and other necessary "housekeeping" signals used for in-flight calibration and proper reduction of the data. Wind data are also obtained when the standard Ground Meteorological Detector GMD is used. (A description of the standard NWS radiosonde and the Ground Meteorological Detector (GMD) is given in Federal Meteorological Handbook No. 3, Department of Commerce, Washington, D.C., 1968.)

An error analysis of ECC ozonesonde (ref. 4) suggests that, when compared with the Dobson spectrophotometer, an rms difference of about 12% exists. If the inherent error of the Dobson of about 5% rms or less (ref. 5) is taken into account, then 5-7% of the 12% remains unexplained. Apparently, the bias between the two techniques is less than 1 Dobson unit.

Loki Datasonde

The Loki rocket system is designed to carry an instrument package, consisting of a meteorological sensing device and a small telemetry transmitter, to altitudes of about 60 km where the package is separated from the vehicle by an expulsion charge (ref. 6).

The Loki rocket motor is an internal-burning type which provides an average thrust of 890 kg for approximately 2 sec, thus producing a rocket velocity of 1500 m/sec at an altitude of 1500 m.

The instrument package transmits temperature data using a nominal 10-mil-diameter bead thermistor as the sensor and descends on a 2.1-m-diameter radar-reflective starute. Temperature data are telemetered from the sensor to the ground receiver, while radar tracking of the parachute provides wind data. Either a 1680 MHz or a 403 MHz sonde can be used depending on ground station equipment.

Data modulation is accomplished with a solid-state relaxation oscillator. Its purpose is to generate pulses for modulation of the transmitter at a rate variable between 10 and 200 pulses/sec. The pulse rate is a function of the resistance of the thermistor which is determined by the air temperature.

Because of the difficulty involved in obtaining a comparison with a standard sensor at the altitudes usually measured by the Datasonde, reliable accuracy figures are not available. Not having knowledge of the "true" value presents problems in determining the errors. Nonetheless, an error analysis has been attempted and it may adequately describe the quality of the measurement (ref. 7). It is possible to compare measurements with themselves, however, and the precision of the Datasonde can be determined. Repeatability study of the Datasonde instrument made in 1969 (ref. 8) indicates an rms difference of 1.1° C for measurements made in the altitude range of 30 to 60 km. A more recent study (ref. 9) of the higher performing Super-Loki Datasonde (the Datasonde instrument is the same, but obtains data to much higher altitudes) indicates a precision of about 1-1.5° C near 30 km and of 3° C near 70 km.

OBSERVATION SCHEDULE

Balloon-Borne Ozonesondes

In order to provide meaningful data, which could be used for studies of tidal motions, vertical motions, and tropospheric-stratospheric dynamics, as well as for the study of the interchange of trace species from the troposphere into the stratosphere, large numbers of observations throughout a day are required. The observational scheme utilized for the ITCZ experiment scheduled ozonesonde balloon observations four times a day at fixed time intervals. An ozonesonde balloon was scheduled for launching daily at 0500, 1100, 1700, and 2300, u.t. Throughout the 16-day experiment, most of the scheduled launchings were made (see table 1).

TABLE 1. BALLOON OZONESONDE FLIGHT HISTORY SHOWING HEIGHT AND TEMPERATURE OF THE TROPOPAUSE LEVEL AND CHARACTERISTICS OF THE OZONE PEAKS.

ECC ASCENSION NO	DATE JULY 1977	RELEASE TIME GMT	ECC SENSOR SERIAL NO	TROPOPAUSE			OZONE PEAK				FINAL ALTITUDE METERS	DATA PRESSURE mb	INTEGRATED TOTAL OZONE M-ATM-CM	REMARKS
				ALTITUDE METERS	PRESSURE mb	TEMP °K	ALTITUDE METERS	PRESSURE mb	MIXING RATIO μg/g	PARTIAL PRESSURE μmb				
1	16	0428	3A-012	-	-	-	-	-	-	-	8247	364 0	-	GMD lost track
2	16	1035	3A-064	16641	97 6	192 5	26286	20 6	12 12	150 6	35713	5 1	268	
3	16	1630	3A-067	14905	133 0	199 5	26180	21 2	10 87	139 1	33842	6 8	255	
4	16	2253	3A-068	-	-	-	-	-	-	-	-	-	-	Failure Balloon iced Meteorological data bad
5	17	0438	3A-069	15475	119 0	196 0	25472	23 1	9 98	139 2	32704	7 8	201	
6	17	1058	3A-070	-	-	-	-	-	-	-	-	-	-	Bad transmitter No GMD track
7	17	1238	3A-071	16279	105 0	196 0	25687	22 9	10 14	140 2	32228	8 7	207	
8	17	1708	3A-072	15722	116 0	195 0	26836	19 2	12 39	143 5	37826	3 9	240	
9	18	0000	3A-074	15343	122 0	194 1	-	-	-	-	23758	30 0	-	Extremely slow ascent Ozone peak not reached
10	18	0424	3A-075	15975	110 0	197 1	26632	19 5	12 06	141 9	30429	11 0	194	
11	18	1049	3A-076	16940	92 8	196 2	25323	24 0	9 74	141 0	32996	7 7	207	
12	18	1641	3A-078	16696	97 8	194 6	25463	23 8	9 97	143 2	28676	14 7	169	
13	18	2332	3A-080	16742	96 0	196 0	-	-	-	-	25527	23 0	-	Ozone peak not reached
14	19	0536	3A-089	-	-	-	-	-	-	-	-	-	-	Failure Telemetry data shifts
15	19	1030	3A-090	15540	118 0	197 2	26202	20 7	12 43	155 3	36917	4 3	249	
16	19	1605	3A-083	15495	120 0	197 7	25962	21 8	11 61	152 8	35156	5 6	235	
17	20	0008	3A-038	17295	88 3	195 6	25577	23 3	10 12	142 2	33819	6 9	212	
18	20	0425	3A-073	15615	117 0	195 5	25635	22 7	10 62	145 5	26208	20 8	-	Integrated total ozone not calculated if burst greater than 20 mbs
19	20	1030	3A-077	14996	129 0	197 5	25339	23 5	10 49	148 8	26198	20 6	-	Integrated total ozone not calculated if burst greater than 20 mbs
20	20	1640	3A-085	14690	139 0	200 0	26121	21 6	11 04	144 0	33705	7 1	231	
21	20	2258	3A-079	16243	103 6	194 5	25425	23 0	11 40	158 2	32118	8 4	237	
22	21	0430	3A-091	16212	105 0	193 1	26069	21 0	6 80	86 2	32975	7 5	126	Ozone measurement values are extremely low
23	21	1036	3A-092	15845	112 0	194 9	25871	21 9	11 83	156 3	33209	7 4	226	
24	21	1623	3A-093	15734	115 0	195 6	25906	22 0	11 23	149 2	33992	6 6	231	
25	21	2240	3A-088	15805	113 0	194 8	26077	21 4	12 02	155 3	33028	7 6	219	Wind data missing from surface through 4823 meters
26	22	0433	3A-094	15700	115 0	194 3	26356	20 2	12 29	149 8	34522	6 0	234	
27	22	1013	3A-095	-	-	-	-	-	-	-	-	-	-	Early balloon burst Insufficient data
28	22	1235	3A-096	15356	123 0	197 7	25208	24 4	10 44	153 7	36693	4 5	254	
29	22	1649	3A-097	15307	124 0	197 1	26192	21 2	10 90	139 5	35676	5 3	221	
30	22	2305	3A-098	15344	123 0	197 5	26056	21 3	11 63	149 4	33770	6 7	251	
31	23	0425	3A-099	15376	121 0	196 3	25934	21 6	11 32	147 5	36368	4 6	243	
32	23	1038	3A-100	16094	107 0	197 4	26181	21 0	10 58	134 0	35601	5 3	230	
33	23	1620	3A-101	15863	113 0	198 4	25683	23 0	10 09	140 0	34725	6 1	227	
34	23	2223	3A-102	15738	114 0	195 9	25206	24 3	10 88	159 5	35570	5 2	233	
35	24	0443	3A-103	14588	139 0	198 9	25810	22 0	11 48	152 4	33690	6 7	243	
36	24	1033	3A-104	15601	117 0	197 6	26106	21 3	10 48	134 1	33526	7 1	216	
37	24	1629	3A-105	15831	113 0	197 2	25450	23 8	10 65	153 0	34452	6 3	233	
38	24	2351	3A-106	15209	125 0	196 3	25761	22 0	11 13	147 8	29489	12 4	223	
39	25	0441	3A-107	16063	107 0	196 6	25955	21 2	11 50	147 2	28024	15 4	205	
40	25	1023	3A-108	15099	127 0	197 3	25644	22 4	11 68	158 0	33240	7 3	246	
41	25	1605	3A-130	-	-	-	-	22 3	11 20	150 8	-	11 3	228	Temperature sensing telemetry failure Unable to calculate altitude
42	25	2224	3A-132	16111	108 0	195 1	25228	24 3	12 44	182 4	32425	8 1	314	
43	26	0435	3A-133	-	-	-	-	-	-	-	-	-	-	Ozonesonde failure
44	26	1037	3A-134	15751	114 0	196 8	27108	18 1	15 19	166 0	39304	3 0	306	
45	26	1609	3A-135	15184	126 0	199 7	25320	24 0	10 84	157 0	33503	7 1	239	
46	26	2226	3A-136	15422	121 0	196 8	25019	25 0	10 37	156 4	31345	9 6	229	
47	27	0438	3A-137	15522	119 0	199 4	25141	24 3	11 04	161 9	39275	3 0	286	
48	27	1028	3A-138	15517	118.0	198 2	24702	26 0	9 86	154 7	32433	8 2	237	
49	27	1603	3A-139	14718	137 0	201 6	26253	20 9	12 02	151 7	29693	12 5	228	
50	27	2240	3A-141	17009	93 0	195 2	26156	21 0	12 99	164 6	29616	12 4	235	
51	28	0443	3A-142	16441	102 0	195 7	26169	21 0	12 32	156 1	37238	4 1	282	
52	28	1040	unknown	-	-	-	-	-	-	-	-	-	-	Balloon failure
53	28	1213	3A-084	15868	111 0	197 7	26227	20 6	11 46	142 5	31552	9 3	219	
54	28	1640	3A-145	-	-	-	-	-	-	-	-	-	-	Data bad
55	28	2237	3A-146	16955	93 0	195 3	25012	25 0	12 48	188 3	40966	2 4	310	
56	29	0426	3A-147	16926	93 0	195 3	24669	26 3	10 39	164 9	29624	12 4	214	
57	29	1040	3A-148	16955	92 0	196 2	24500	27 0	8 68	141 4	31731	9 1	203	
58	29	1602	3A-149	16316	104 0	198 0	25793	22 4	10 96	148 1	34846	5 9	252	
59	29	2236	3A-151	15512	119 0	199 1	25314	24 0	10 69	157 8	37588	3 9	252	
60	30	0326	3A-150	-	-	-	-	-	-	-	-	-	-	
61	30	1020	3A-152	-	-	-	-	-	-	-	-	-	-	Ozonesonde failure
62	30	1600	3A-154	15507	120 0	196 6	24923	25 6	9 66	149 2	35357	5 4	262	
63	30	2329	3A-157	-	-	-	-	-	-	-	-	-	-	
64	31	0414	3A-155	17085	91 0	195 0	24793	26 0	9 12	143 1	35168	5 5	230	
65	31	1051	3A-156	15020	129 0	197 9	26136	21 0	11 26	142 7	38488	3 4	263	
66	31	1659	3A-086	-	-	-	-	-	-	-	-	-	-	Balloon failure

Rocketsondes

The launch schedule of the rocketsondes was coordinated with all of the MRN launch sites involved in the scales-of-motion experiment. The rocketsonde launch site personnel at Ft. Sherman launched, tracked, and reduced all the temperature and wind data. Since the scales-of-motion investigation was aimed at determining whether the wave spectrum of 1 day or longer could be resolved, only one rocket launch a day was required. The agreed launch time was plus or minus 3 hr of local noon. However, because of the difficulty sometimes encountered in launching rockets, any observation obtained during the day was acceptable. Table 2 lists the launch times and other pertinent information.

DATA FORMAT AND LISTINGS

ECC

Data acquired by the GMD were recorded on paper strip charts from which the required information was abstracted for computer entry at 1-min intervals. After key punching, the data were computer reduced. Appendix A contains the measurement results and vertical profiles.

Super-Loki Datasonde

Data were obtained through a combination of tracking by radar and GMD. The Atmospheric Sciences Laboratory personnel were responsible for the data reduction and quality checks. Listings provided by them are reproduced in Appendix B.

Ozone Time-Section

The ozone structure as it existed during the 16-day ITCZ investigation can be seen in the time section of figure 1. Table 1 indicates that the tropopause generally is at a height of 15-16 km; it can also be seen in figure 1 to occur near that altitude. The separation of the troposphere, with the weak ozone gradient, and the stratosphere, with its much stronger gradient, is observed to occur near 16 km. Furthermore, the weak gradients of ozone below 16 km indicate that the constituent is probably well mixed throughout these layers. The closed cells of ozone partial pressure at the ozone peak (25-26 km) suggest the possibility of the existence of oscillations with a period of 3 to 5 days. On few occasions relatively large ozone amounts are observed to reach the surface; further analysis is required.

TABLE 2. ROCKETSONDE LAUNCH DATES AND TIMES WITH RESPECTIVE ALTITUDE RANGE OF TEMPERATURE AND WIND DATA

Date	Launch Time (GMT)	Temperature Data Top (Km)	Temperature Data Bottom (Km)	Wind Data Top (Km)	Wind Data Bottom (Km)
July 16, 1977	1830	57.00	20.00	58.00	20.00
July 17, 1977	1900	58.75	20.00	59.00	20.00
July 18, 1977	1915	62.38	20.00	63.00	20.00
July 19, 1977	1900	52.19	21.40	53.00	21.00
July 20, 1977	1850	64.22	21.03	65.00	21.00
July 21, 1977	1815	63.63	20.46	64.00	20.46
July 22, 1977	1900	66.25	21.00	67.00	21.00
July 23, 1977	1900	64.88	20.97	66.00	20.97
July 24, 1977	2010	66.50	20.33	67.00	20.33
July 25, 1977	1830	60.70	20.74	61.00	20.74
July 26, 1977	1830	59.88	22.16	61.00	21.00
July 27, 1977	1830	62.25	20.00	65.00	20.00
July 28, 1977	1925	59.92	21.12	61.00	21.00
July 29, 1977	-	-	-	-	-
July 30, 1977	1816	63.43	21.08	64.00	21.00
July 31, 1977	1900	60.38	20.44	61.00	20.44

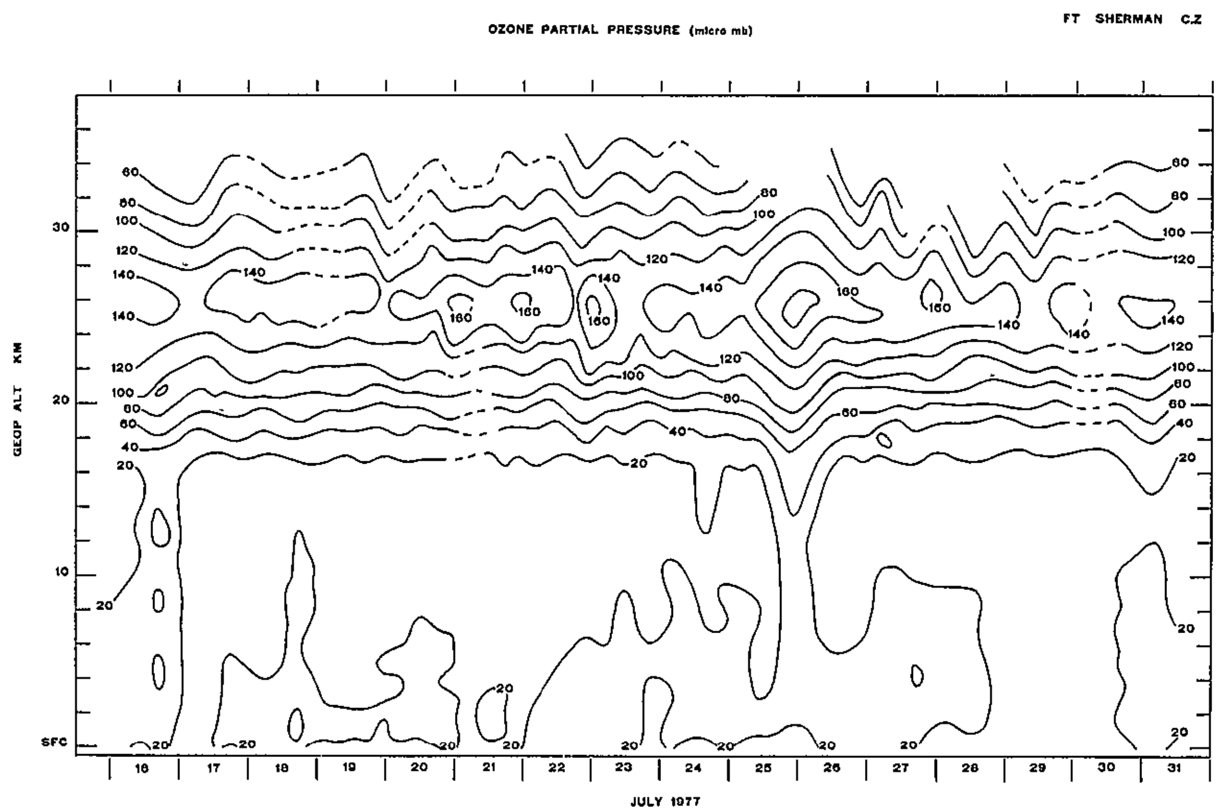

Figure 1.- Time-height section of ozone partial pressure (mbars).

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V. MEASUREMENTS OF NO AND O_3 FROM U-2 AIRCRAFT: 1977 TROPICAL CONVERGENCE ZONE EXPERIMENT

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SYNOPSIS OF THE NO AND O_3 MEASUREMENTS

As part of the Ames Research Center program to explore the nature of stratosphere-troposphere exchange processes occurring in the Intertropical Convergence Zone, simultaneous in situ measurements of nitric oxide and ozone mixing ratios were made with the Ames stratospheric air sampler SAS II (fig. 1). The SAS II is a second-generation system; it employs four parallel sensors and was designed primarily for measurements at altitudes of 60,000 ft and above on the U-2 stratospheric research aircraft. The only modifications required for this study was the addition of an air sample flow restrictor which was switched into the flow to allow measurements below 60,000 ft.

Each of the four sensors consists primarily of a reaction chamber and a photon counter. The NO mixing ratio in the sampled air is determined in one sensor by injection of a large flow of O_3 into the sensor reaction chamber and by measuring the photon emission from electronically excited NO_2 which is produced by the fast reaction between NO and O_3 (fig. 2). At selected periods during the measurement cycle, a measured flow of NO is also injected into the reaction chamber of the sensor. In a similar manner, the O_3 mixing ratio is determined by injecting a large flow of NO into the reaction chamber of a second sensor and measuring the photon emission produced by the resultant $NO+O_3$ chemiluminescent reaction. The other two sensors are being developed for future NO_2 and HNO_3 measurements. Currently, they are used as backup NO sensors.

Data were obtained with the SAS II system on July 26, 27, 30, and 31. Generally, 30-min measurements were made at each of six altitudes ranging from 45,000 ft to 70,000 ft, and separated by 5,000-ft intervals.

After 125 min of the flight of July 26 (during the 60,000-ft run), a flow control device for the reactant O_3 abruptly failed, resulting in rapid depletion of the reactant O_3. As a consequence, no NO data were obtained after that time. The O_3 data were not affected by the failure and continued to be satisfactorily accumulated for the entire flight. A similar, though different, failure occurred on July 27; for this flight no reliable NO data were obtained. Again, O_3 data were obtained at all six altitudes; however, because of a temporary aircraft fuel shortage, each altitude run for that flight was reduced from the usual 30 min to 26 min.

Extensive cirrus clouds were present at 45,000 ft on July 30, and consequently the data run at 45,000 ft was omitted. Both NO and O_3 data were obtained throughout the five altitude runs of this flight. Weather also

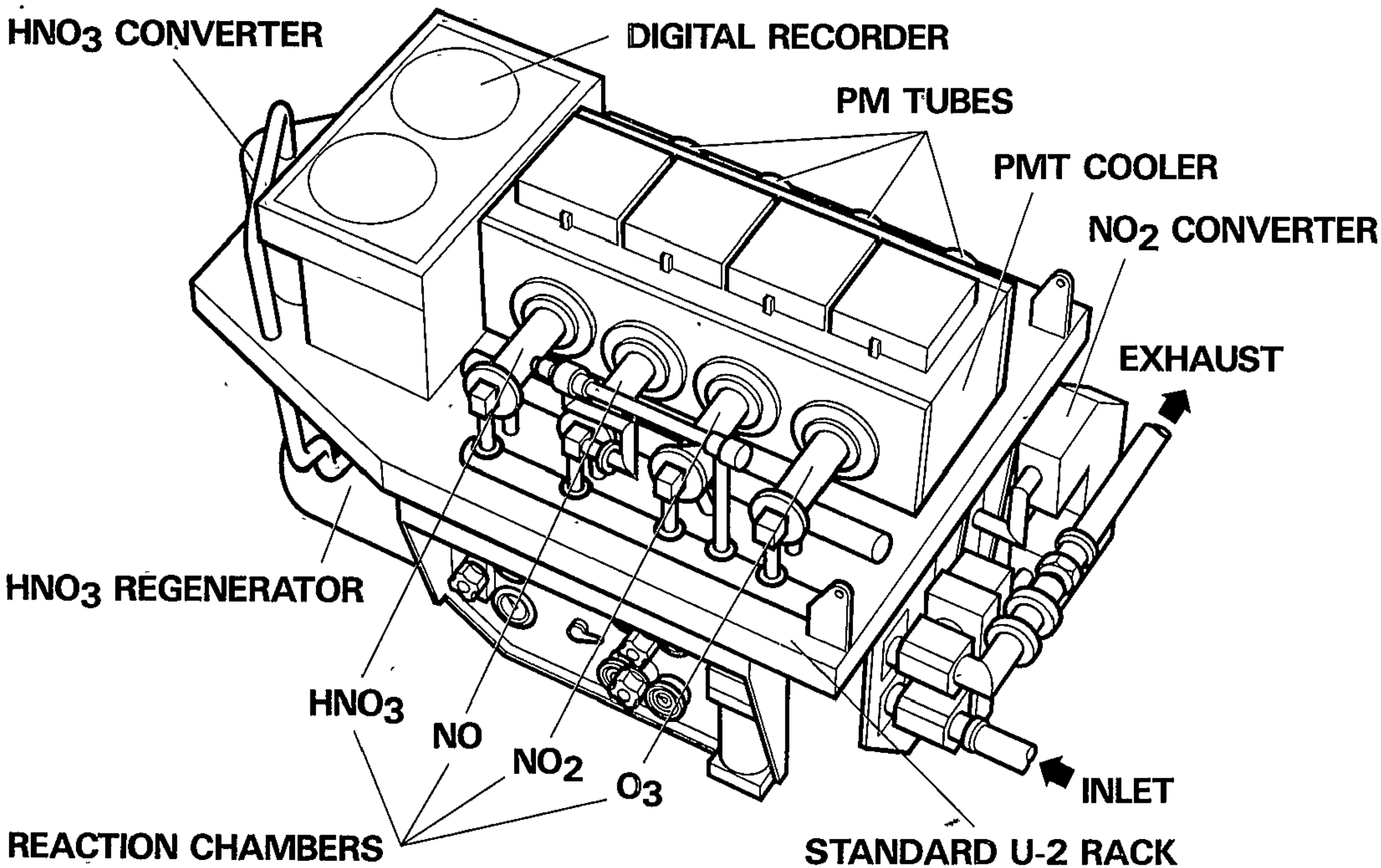

Figure 1.- Physical layout of Ames' stratospheric sampler (SAS II).

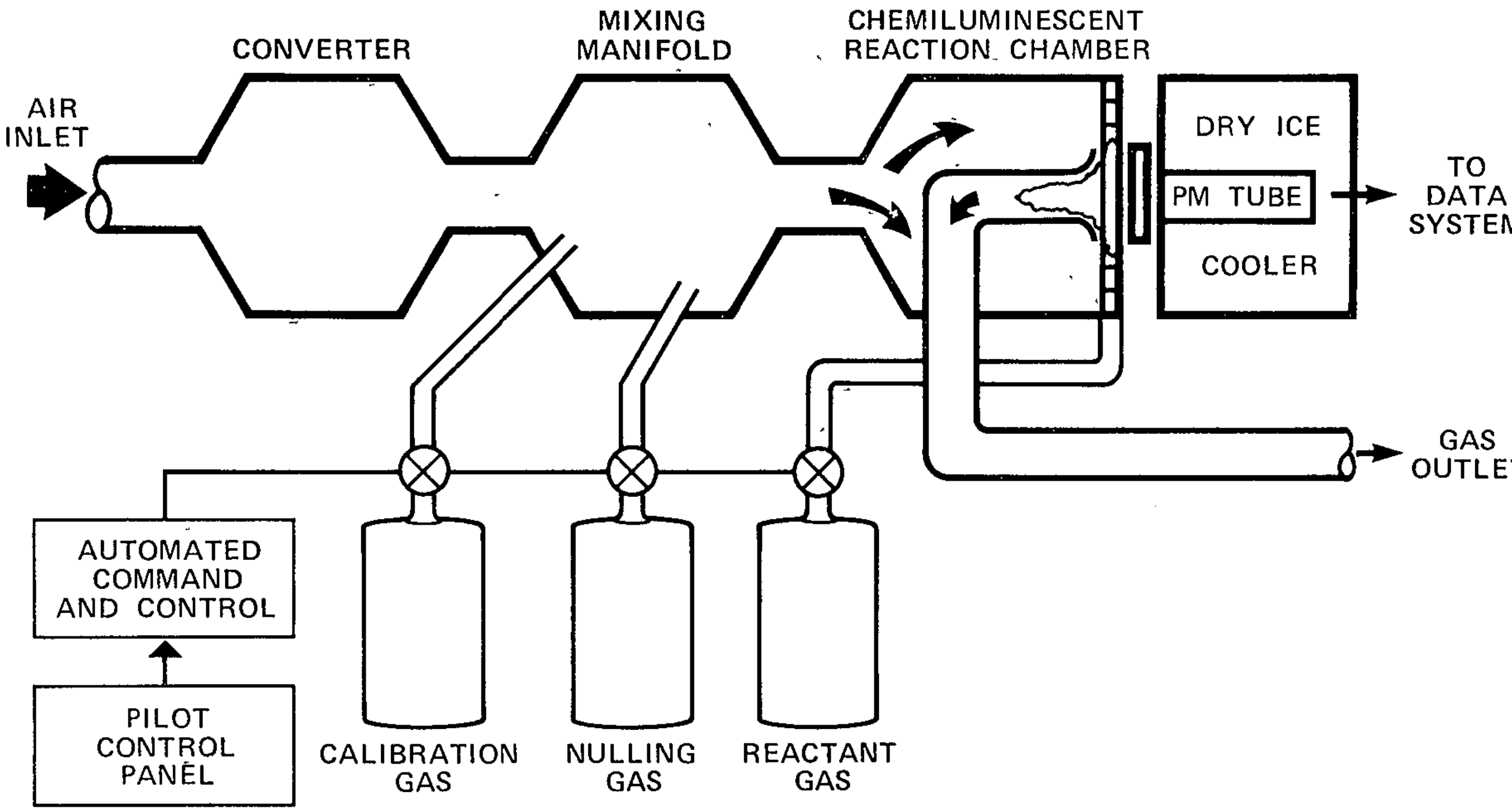

Figure 2.- Ames' stratospheric air sampler (SAS II); functional schematic.

forced the omission of the 45,000-ft and 70,000-ft runs of the July 31 flight; NO and O_3 data were obtained on the four remaining altitude runs. Associated with the severe weather of that date were a large number of cumulonimbus clouds in the region of the flight track. The visible structure of many of these clouds extended to about the 60,000-ft level. To determine the existence of any correlation between the measurements and the presence of cumulonimbus, the pilot was requested to note when the aircraft was over such cells and the approximate altitude of the visible top. The SAS II system was in the measure mode during four passages over cumulonimbus. These data are too limited and qualitative to permit positive conclusions; however, as will be discussed in the following section, some structure in the data is observed near the times of three of these passages.

The data acquisition system for SAS II utilizes a nine-track tape recorder for recording all data in digital form. The photon counts accumulated in the approximately 1-sec interval between successive data scans are recorded for each sensor as 18-bit binary numbers by six of the nine tracks. On the July 30 and July 31 flights, one track of the recording system malfunctioned. This malfunction resulted in the possible loss of three bits (2^2, 2^8, and 2^{14}) in the recorded data. Because of a fortunate peculiarity of the data scan sequence, it was possible to develop a scheme to determine when a bit was missing from the recorded data word. Based on this scheme, a computer program was developed; it examines the tape-recorded data, decides when a bit is missing, and restores the missing bit when required. The data presented for July 30 and July 31 have been corrected by this program.

In addition to the primary sensor data, other recorded data include: the aircraft pressure altitude, Mach number, and total air temperature; data necessary for the determination of mixing ratios from the sensor data; and data indicating the state of the measurement system.

DISCUSSION OF THE DATA

Ozone

The ozone data are presented in figures 3-6. They are generally similar to data of this type we have obtained at other geographical locations and latitudes. Several exceptional data runs should be noted, however:

1. July 27, 55,000 ft — considerable and unusual structure is present in the ozone data; the tropopause was near 52,000 ft; the pilot reported smooth flying.

2. July 27, 65,000 ft — structure with scale of about 8 km is present in the ozone data; pilot reported rough flying which was unusual for this altitude.

3. July 27, 70,000 ft — ozone structure similar to that seen at 65,000 ft is present.

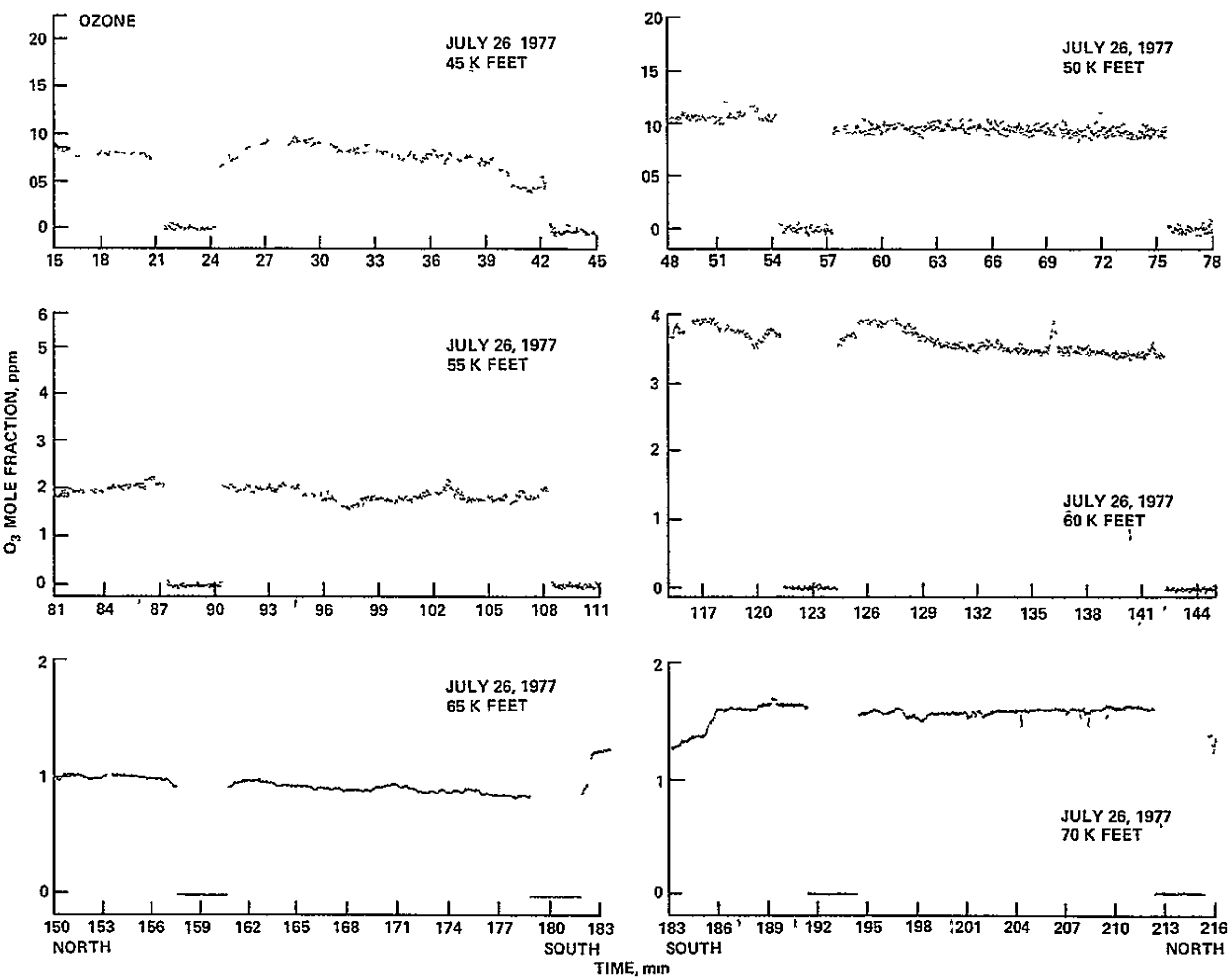

Figure 3.- Ozone mole fraction at constant altitudes, July 26, 1977.

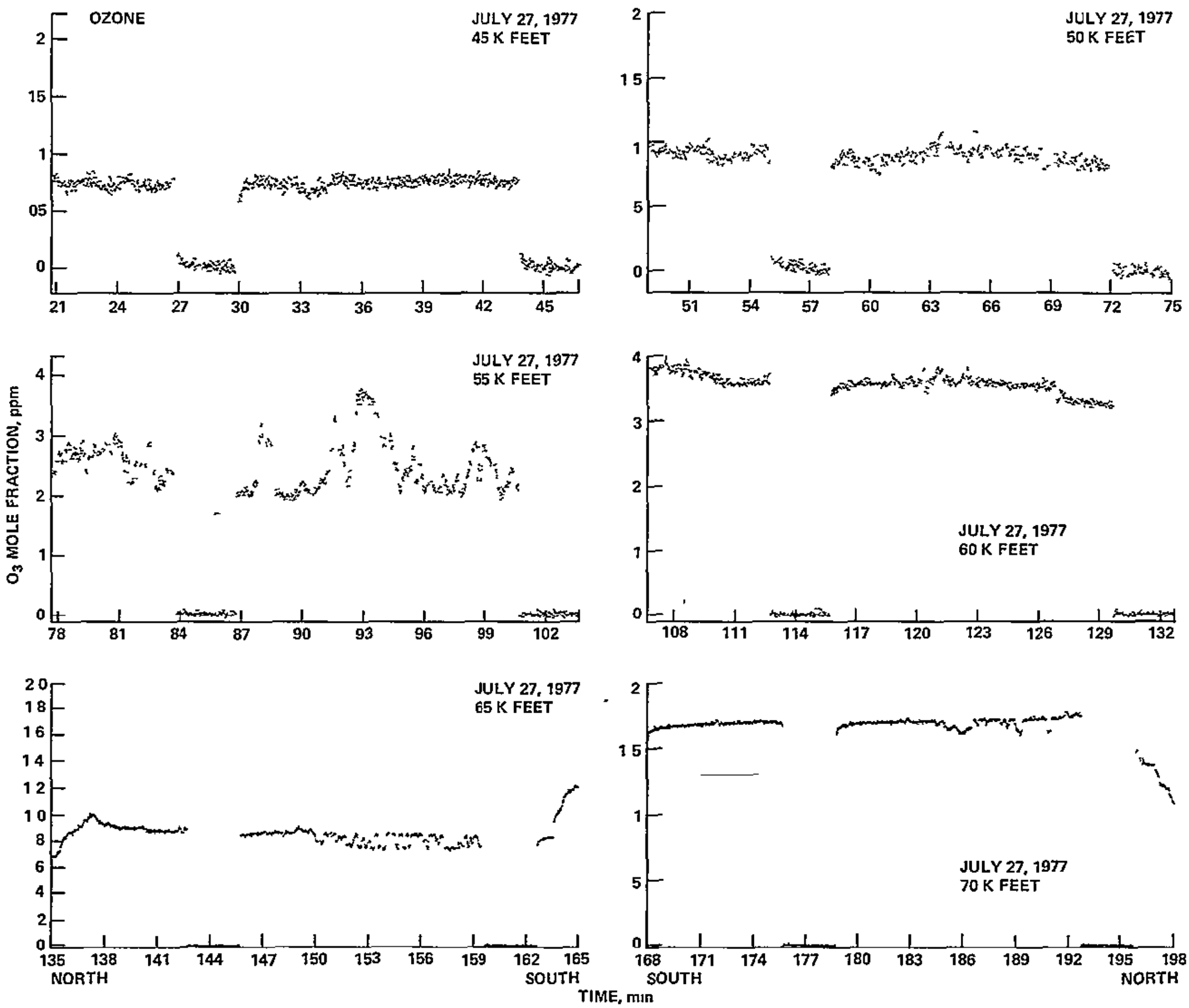

Figure 4.- Ozone mole fraction at constant altitudes, July 27, 1977.

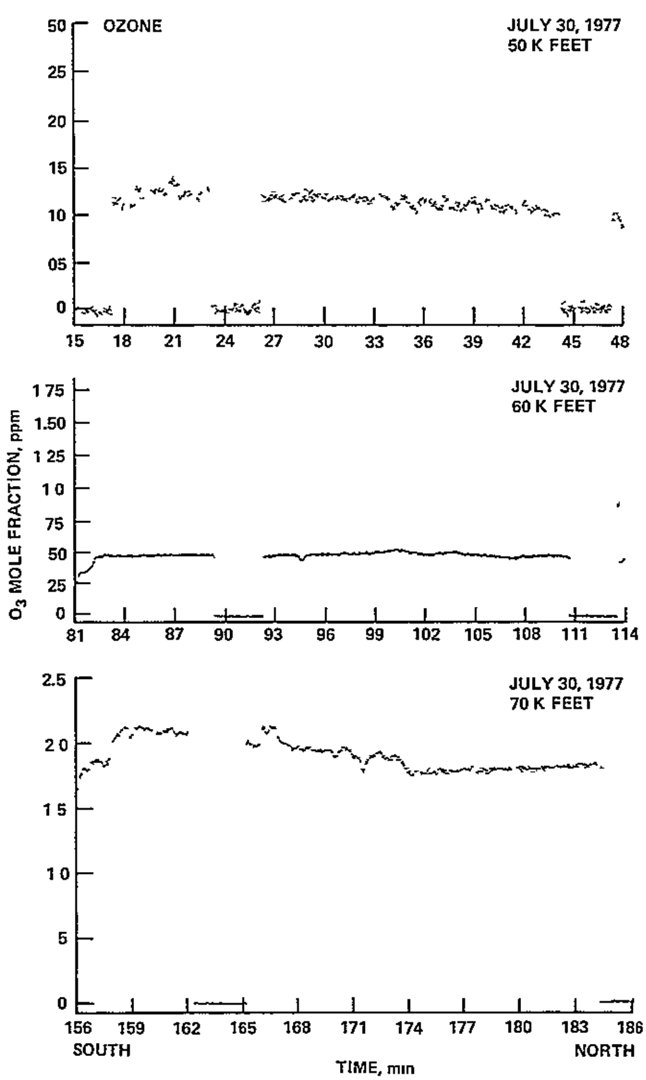

Figure 5.- Ozone mole fraction at constant altitudes, July 30, 1977.

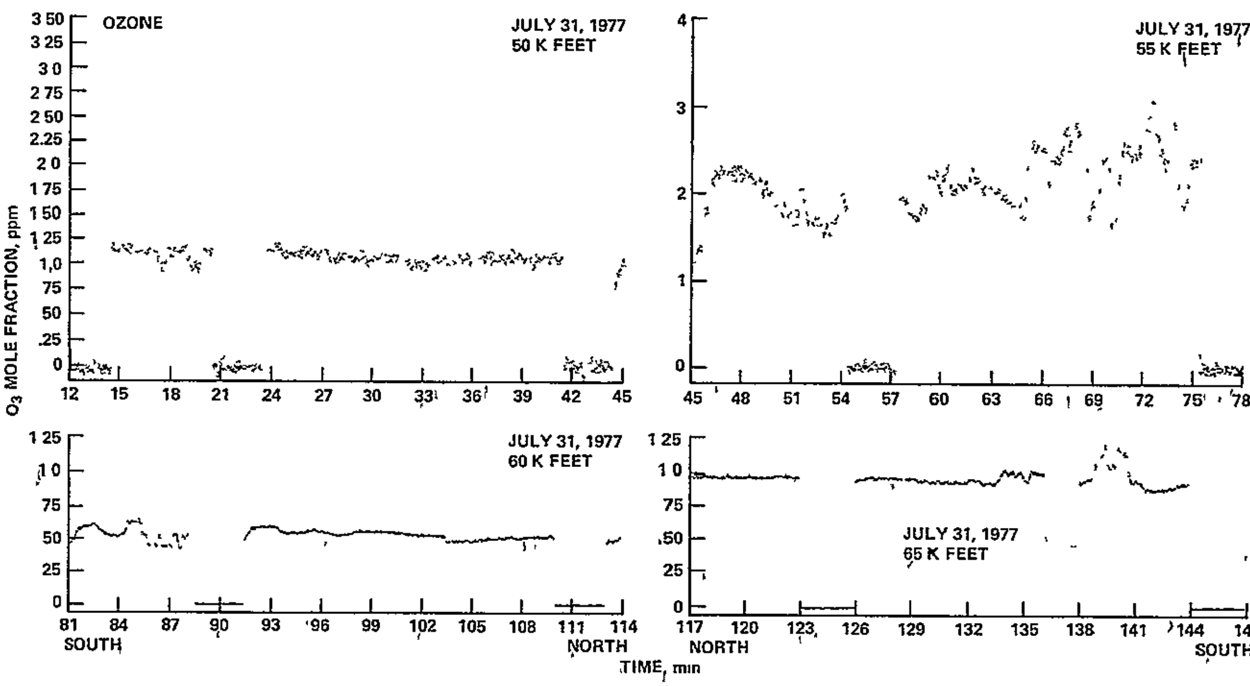

Figure 6.- Ozone mole fraction at constant altitudes, July 31, 1977.

4. July 31, 55,000 ft — ozone structure similar to that of July 27 is again present. Tropopause was at 48,000 ft; the pilot reported smooth flying except near thunderheads. There was also considerable structure in the ozone data near the pilot's recorded flight over cumulonimbus clouds.

5. July 31, 60,000 ft and 65,000 ft — again the data shows large fluctuations (increases) of ozone near the pilot's recorded flight over cumulonimbus.

Nitric Oxide

The NO data are presented in figures 7 and 8. With the exception of the 50,000-ft run of July 31, the NO data are much like other NO measurements we have made at other locations. For example, the mixing ratio measurements with both the SAS I and SAS II instruments at lat. 10° N, long. 156° W were typically: (1) at 60,000 ft, 0.47 ppbv; and (2) at 70,000 ft, 0.45 ppbv. For this ITCZ study we measured: 60,000 ft, 0.40 ppbv (for both July 30 and 31); and 70,000 ft, 0.40 ppbv (measured on July 30 only).

Very little structure is observed in the NO data except for the 50,000-ft run of July 31 (the day of severe weather). For this data run, changes of a factor of 2 to 3 in mixing ratio were observed over horizontal scales of about 25 km.

Air Temperature

The mean values at each altitude of the static air temperature are plotted in figure 9. Included in this figure is a plot of the 1966, lat. 15° N Standard Atmosphere temperature. The static air temperatures were calculated from the measured total air temperature and the Mach numbers scheduled for each altitude. These Mach numbers are listed in table 1.

In all four flights the structure in the air temperature correlates closely with the O_3 structure and possibly, although to a much lesser extent, with the NO structure. This temperature-ozone correlation is especially apparent in the data of July 27. Figures 10-13 present the total air temperature measured on the four flights. The initial values recorded in the first few minutes of the lowest altitude runs of July 26, 30, and 31 are obviously in error. The cause of these errors is not known.

TABLE 1.- SCHEDULED MACH NUMBERS

Altitude, ft	Mach number
45,000	0.645
50,000	.680
55,000	.690
60,000	.700
65,000	.699
70,000	.679

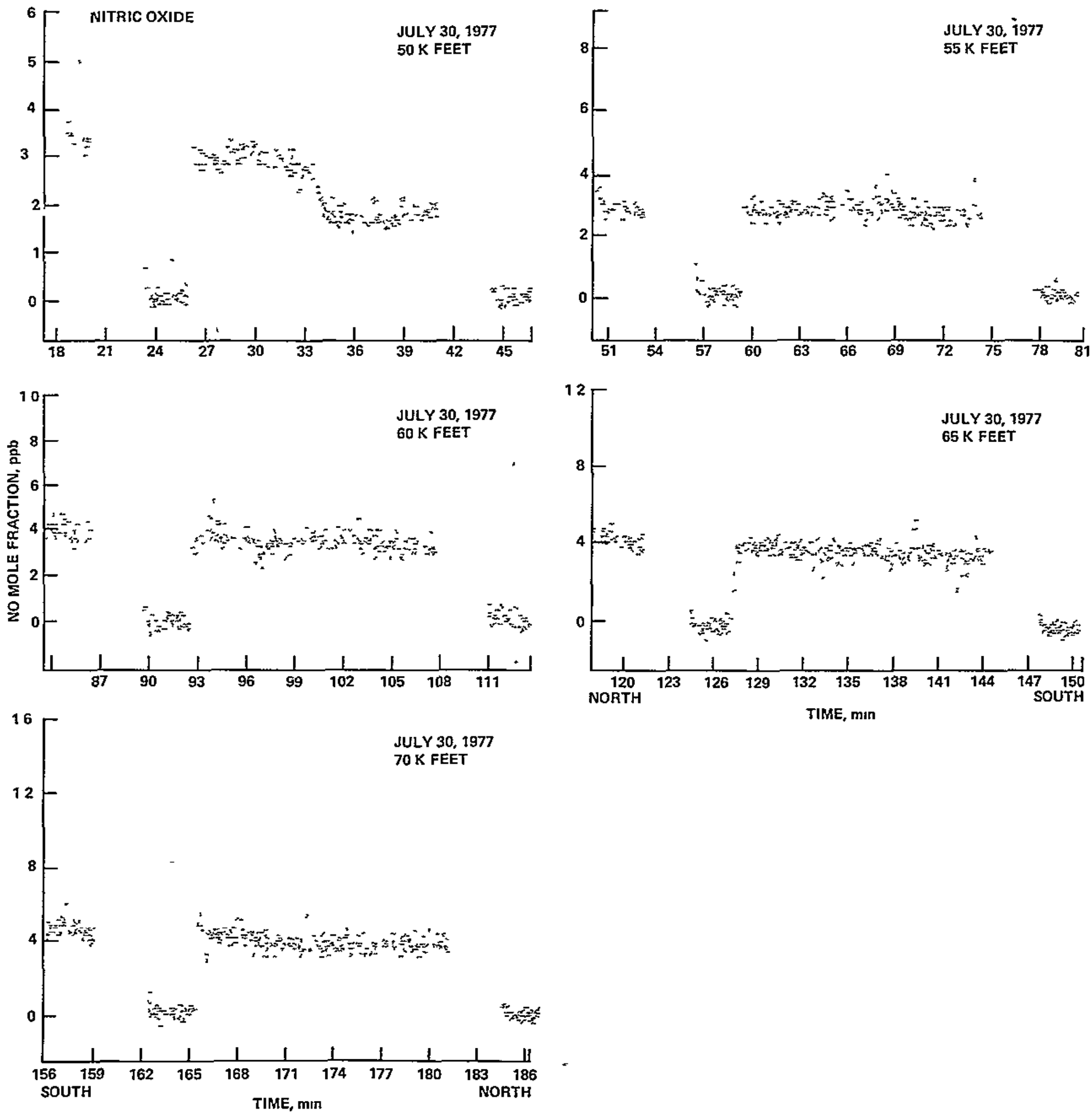

Figure 7.- Nitric oxide mole fraction at constant altitudes, July 30, 1977.

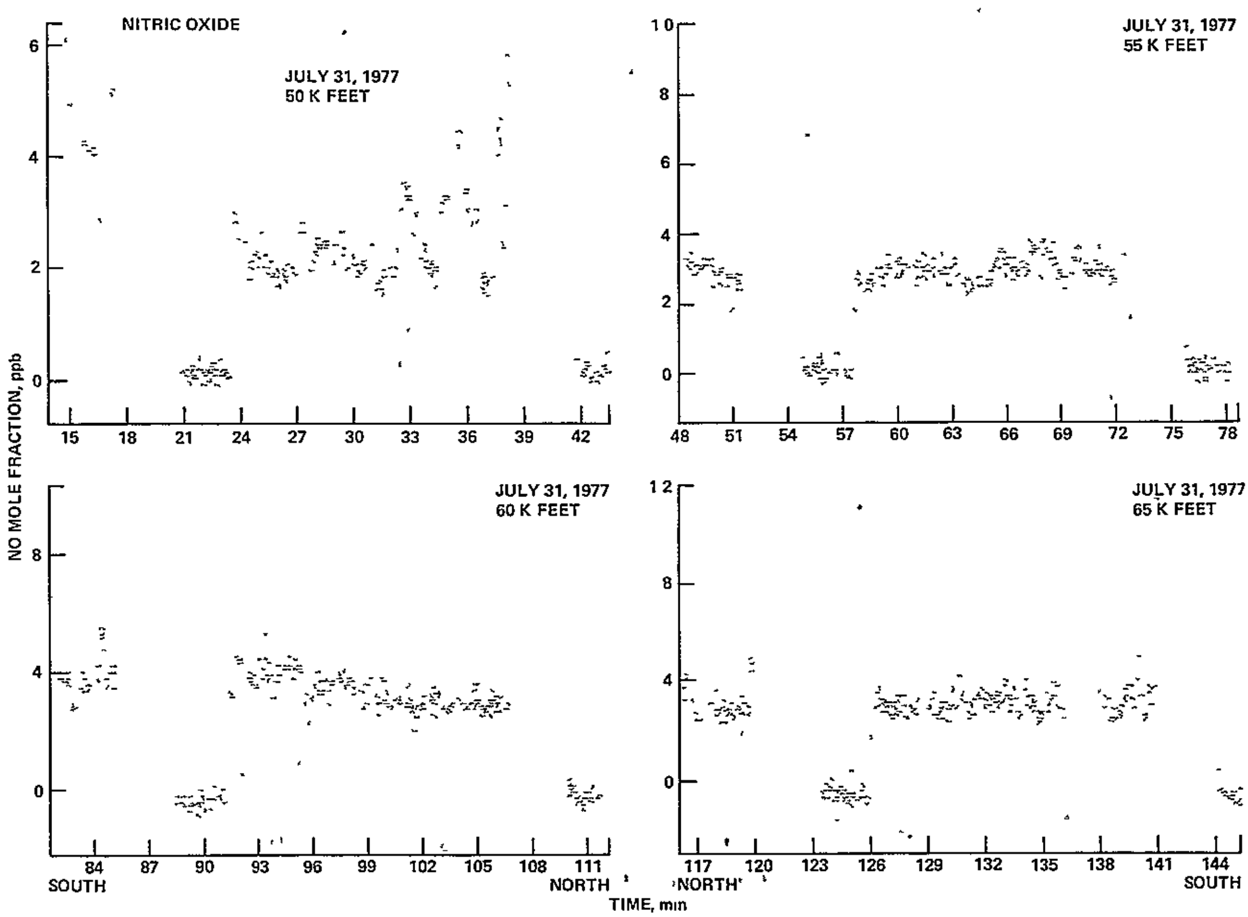

Figure 8.- Nitric oxide mole fraction at constant altitudes, July 31, 1977.

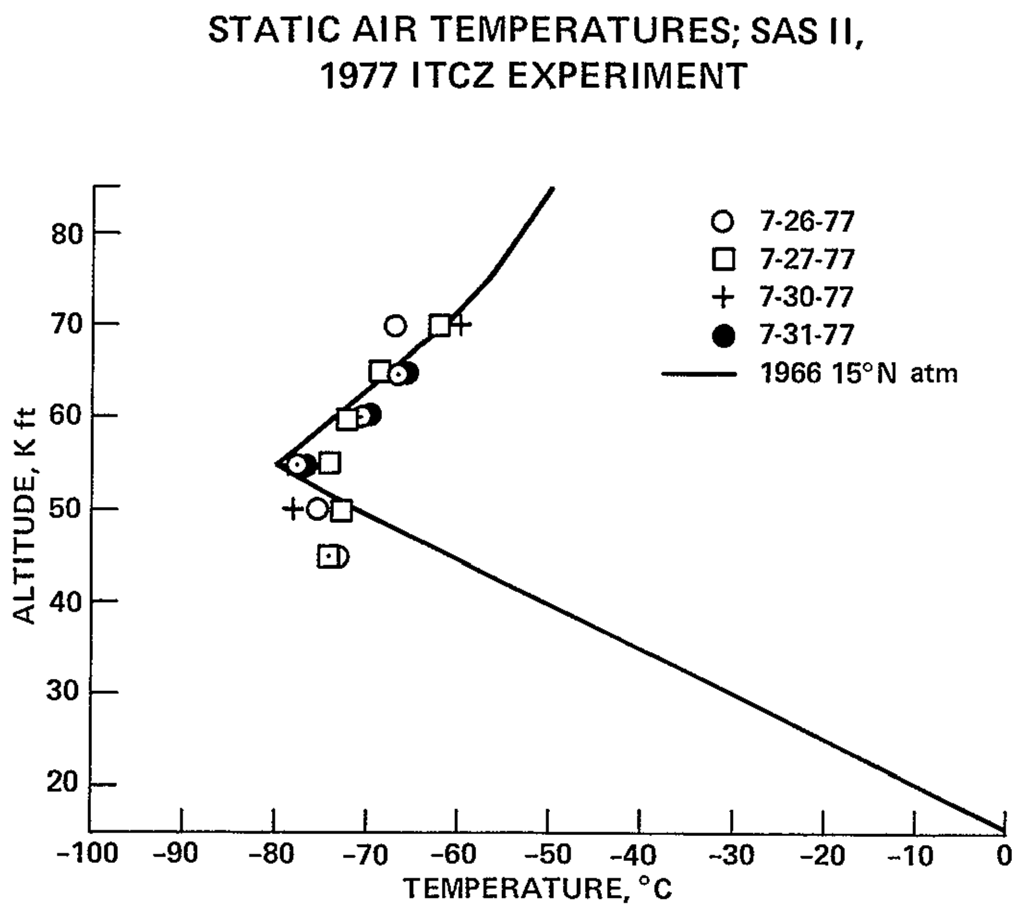

Figure 9.- Average measured static air temperatures at constant altitudes.

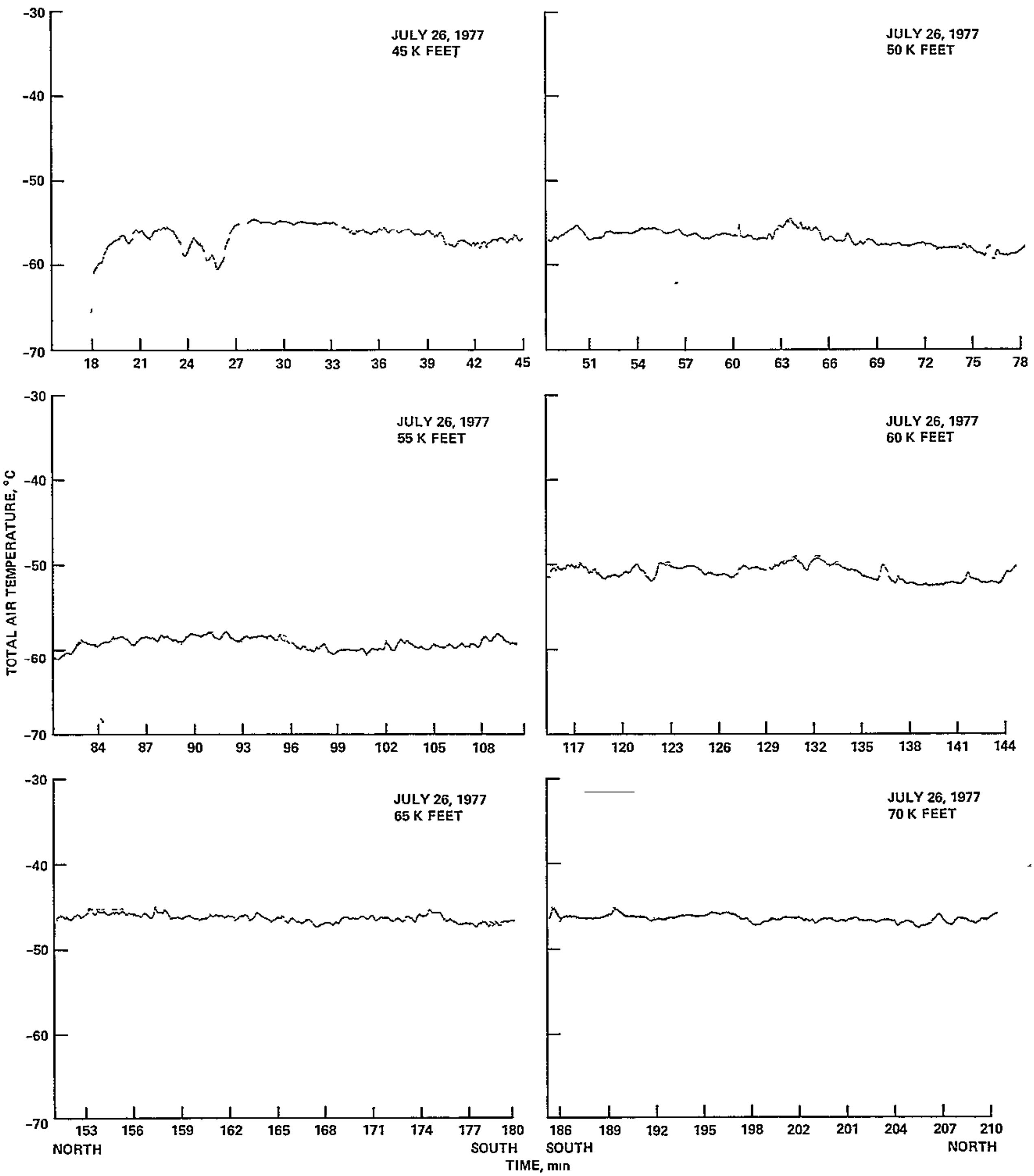

Figure 10.- Total air temperature at constant altitudes, July 26, 1977.

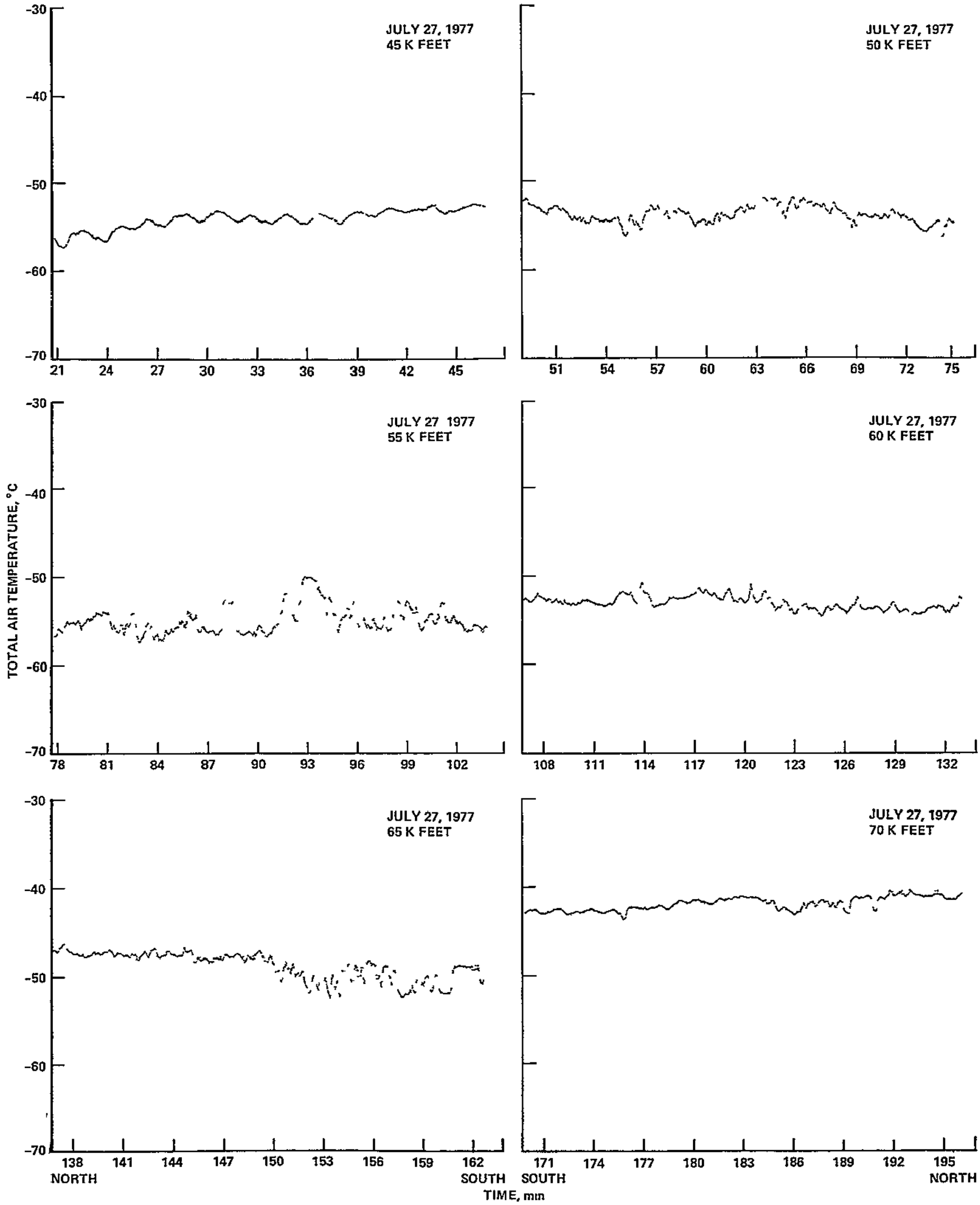

Figure 11.- Total air temperature at constant altitudes, July 27, 1977.

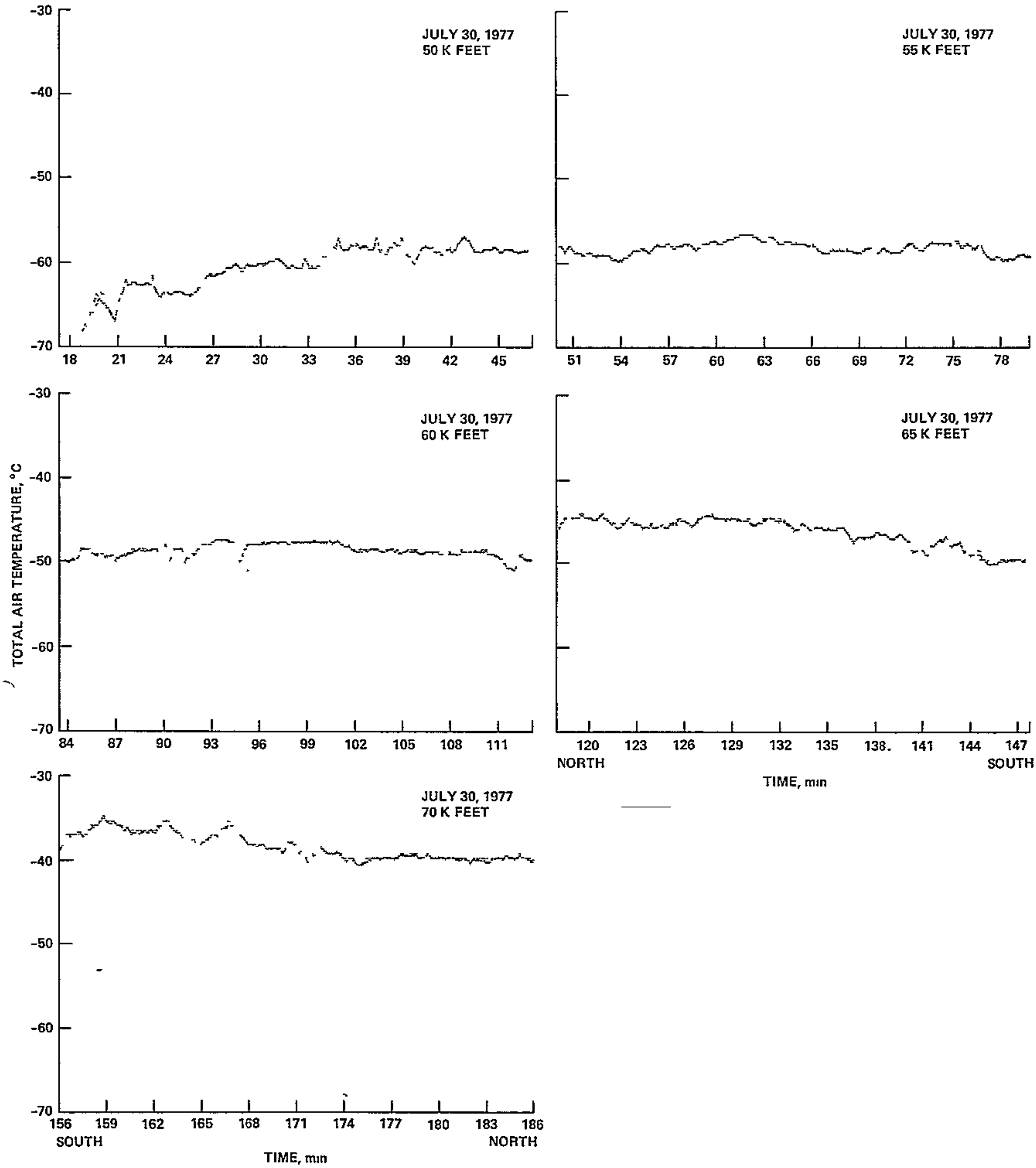

Figure 12.- Total air temperature at constant altitudes, July 30, 1977.

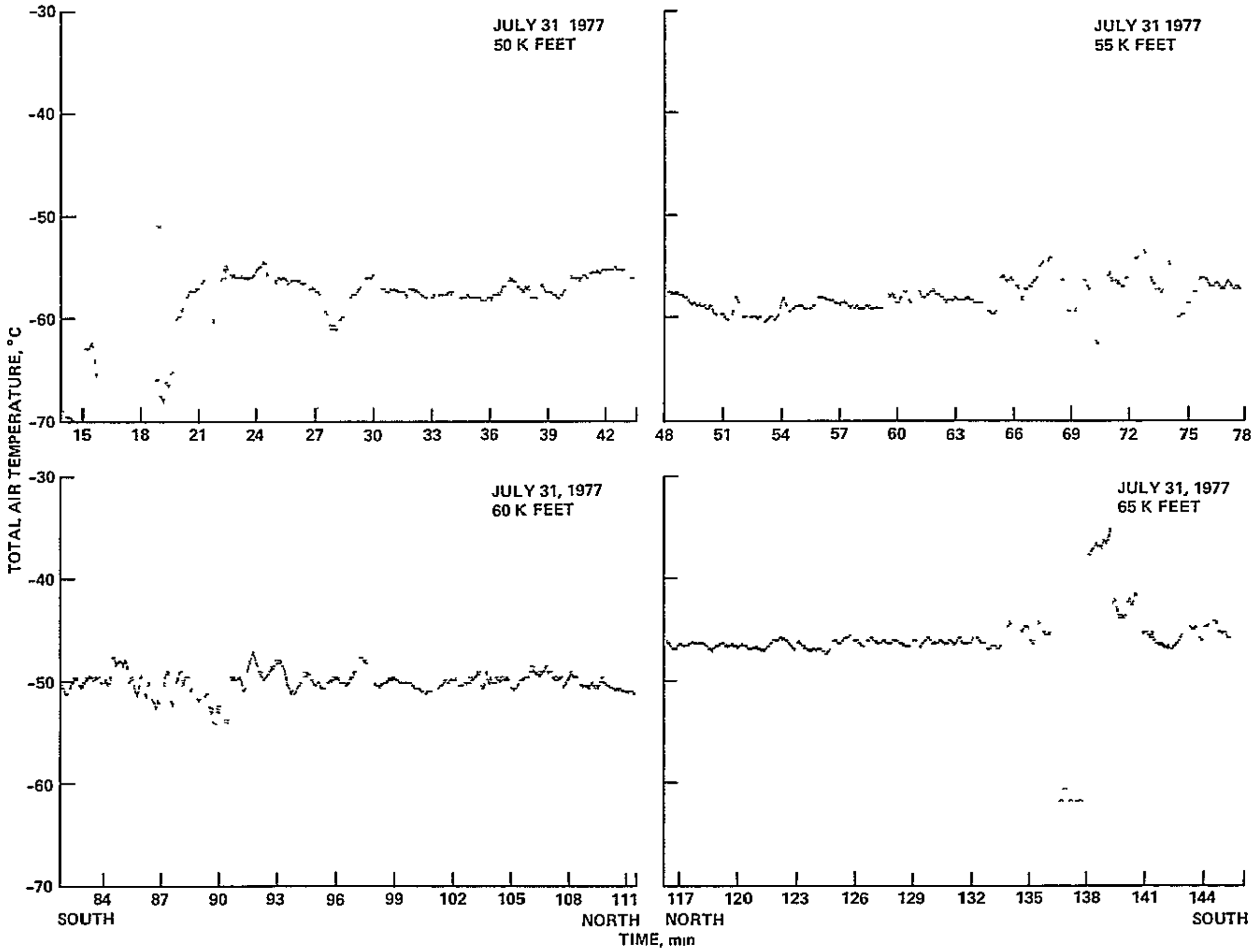

Figure 13.- Total air temperature at constant altitudes, July 31, 1977.

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VI. TRACE CONSTITUENT MIXING RATIOS IN THE LOWER STRATOSPHERE DURING THE 1977 INTERTROPICAL CONVERGENCE ZONE EXPERIMENT

J. F. Vedder, C. O. Boitnott, B. J. Tyson, and E. C. Y. Inn

Ames Research Center

and

Dean O'Hara

LFE Corporation*

INTRODUCTION

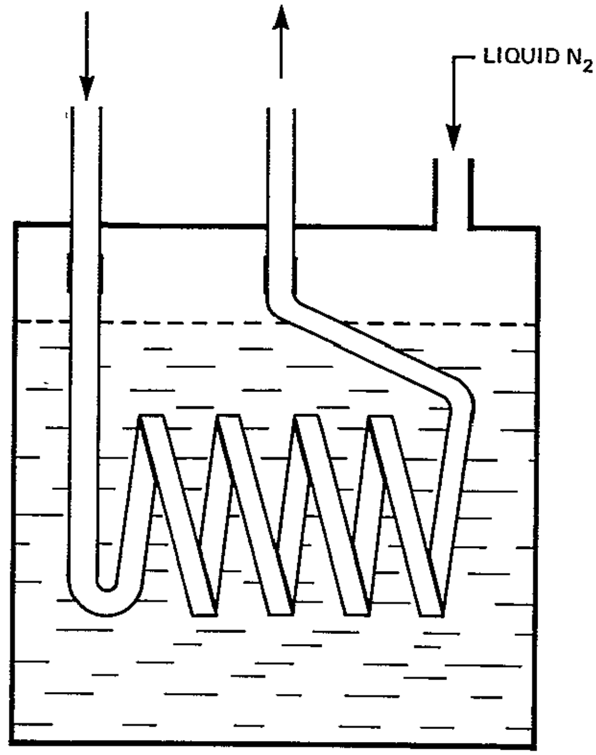
Minor constituents in the atmosphere can play an important role as tracers in studies of atmospheric transport and mixing. Simultaneous measurements of the vertical distribution of trace constituents in the troposphere and lower stratosphere in the region of the Intertropical Convergence Zone (ITCZ) may provide important data related to troposphere-stratosphere exchange processes that are thought to occur in this meteorologically active region. The objective of our effort was to measure the mixing ratios of selected trace constituents in the lower stratosphere during the 1977 ITCZ experiment in Panama.

To accomplish this objective, stratospheric measurements were conducted in a joint experimental effort by investigators from Ames Research Center and Washington State University. Thus, the Ames cryogenic sampling system on board the U-2 aircraft was used to acquire whole-air samples and cryogenically-collected samples at 13.7 to 21.3 km; the analyses of the whole-air samples were done by Washington State University and of the cryogenically-collected samples by Ames Research Center. Simultaneous tropospheric measurements using whole-air sampling canisters on board the Learjet aircraft were also carried out by the Washington State group.

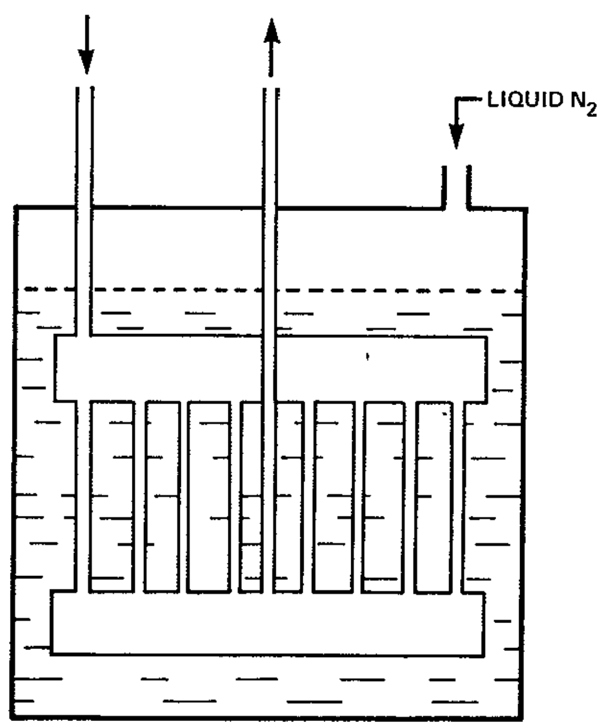
EXPERIMENTAL PROCEDURE

The cryogenic sampling system consisted basically of flow-through liquid-nitrogen-cooled samplers with appropriate plumbing and flow measuring equipment. Two types of cryosamplers were used in these measurements. One consisted of a pyrex tubing, i.d. 1.6 cm, shaped in a helical coil with reentrant dimples spaced at intervals throughout its length; it is shown schematically in figure 1(a). The volumes of these pyrex cryosamplers ranged from about 200 to 500 ml. The other type of cryosampler (all metal) consisted of 80 tubes, each 15 cm long, o.d. 0.64 cm, all connected in parallel. A sketch

*Richmond, California.



(a) Glass cryosampler.



(b) Metal cryosampler.

Figure 1.- Cryogenic samplers.

of this type of sampler is shown in figure 1(b). One sampler was made of monel metal, the other of aluminum.

The effective trapping temperature of these liquid-nitrogen-cooled samplers, under the environmental conditions existing in the instrument bay of the U-2 aircraft, is 68 K. The volume of stratospheric air sampled is determined from the measured flow rate and sampling time. Typically, the volume to be sampled is adjusted to be about 300 STP liters, thereby acquiring samples enriched by several orders of magnitude in concentration. These samples are then analyzed by electron-capture gas-chromatographic techniques.

Supporting measurements are also made in flight on board the aircraft, such as atmospheric pressure, air temperature, and indicated air speed. These data are used to derive potential temperature associated with the atmosphere at the sampling altitudes.

Whole-air samplers used with the Ames sampling system consisted of 1-liter stainless steel bottles. The whole air samples acquired in this experimental study were analyzed by Washington State; electron-capture gas-chromatographic methods were used.

SAMPLING STRATEGY

Atmospheric sampling on board the U-2 aircraft was conducted on six different days, the flight schedule dictated by the operational constraints encountered in the ITCZ experiment. The schedule was as follows:

1. Sampling carried out on July 18, 19, 23, 25, 28, and 29, 1977.

2. Coordinates of sampled region centered at about lat. 9.4° N, long. 79.5° W with flight path in a north-south racetrack pattern.

3. Time of sampling commencing each day at about 1300 u.t.

4. Samples were taken, sequentially, at altitudes of 13.7, 16.8, 18.3, 19.8, and 21.3 km.

Samples acquired each day were distributed for analysis in accordance with the joint Ames-Washington State measurement effort. Whole air samples obtained at 13.7, 15.2, 16.8, and 19.8 km were analyzed by the Washington State group. Cryogenically-collected samples at 18.3 and 21.3 km were analyzed by Ames' group.

RESULTS

During the entire period of the ITCZ Experiment the stratospheric cryogenic sampling system was fully operational. The results of the analyses of all the recovered samples are shown in table 1. We have also included in

TABLE 1.- STRATOSPHERIC MIXING RATIOS OF TRACE CONSTITUENTS[a]

Date, July 1977	Sampler	Volume, liters STP	Alt., km	Lat.	Long.	CO_2, ppmv	N_2O, ppbv	F12, pptv	F11, pptv	CCl_4, pptv
14	7	416	21.3	2° S	79.5° W	325.9	271.7	173.3	---	---
	5	311	21.3	6° N		340.7	284.0	173.9	76.2	52.8
	4	355	18.3			333.7	292.2	182.5	93.0	42.2
	2	201	16.8			341.1	297.4	189.9	105.6	83.1
18	2	250	21.3	9.4° N	79.5° W	355.5	298.5	195.7	74.2	54.7
	1	267	18.3			324.8	275.2	175.8	---	---
19	5	265	21.3	9.4° N	79.5° W	343.2	257.8	166.5	68.9	55.2
23	6	376	21.3	9.4° N	79.5° W	324[b]	259.2	163.1	---	---
	1	270	18.3			324[b]	288.6	181.5	62.6	---
25	5	238	21.3	9.4° N	79.5° W	315.4	252.3	137.5	54.4	42.0
	2	291	18.3			289.7	252.5	158.2	71.5	61.5
28	6	373	21.3	9.4° N	79.5° W	319.8	244.3	175.1	---	---
	1	274	18.3			322.7	264.1	175.1	65.2	---
29	7	350	21.3	9.4° N	79.5° W	317.4	263.1	165.8	---	---
	5	300	18.3			322.3	264.9	180.2	72.1	55.4

[a]Estimated accuracy of mixing ratios ±8%.

[b]No flow rate data; CO_2 mixing ratio of 324 ppmv used to determine flow rate.

table 1 the results of another stratospheric sampling measurement carried out on July 14, 1977 (prior to the ITCZ experiment), in a flight south of Panama from about lat. 9° N to lat. 3° S at long. 79.6° W.

We estimate the uncertainty in the reported mixing ratios to be about ±8%. This estimated accuracy is derived from a consideration of all sources of error, most of which arise from the estimated uncertainties in the trapping efficiency of the cryosampler, measurement of the total volume of stratospheric air sampled, and the precision of the electron-capture gas-chromatographic analysis.

Our results are graphically displayed in figure 2, in which mixing ratios are plotted as a function of time during the ITCZ experiment. The lines connecting the points in the figure have been drawn to serve only as a visual aid to identify the corresponding altitudes (pressure altitudes) of measurement. The results of the July 14 measurements have also been plotted in figure 2 for comparison with those measured later during the ITCZ experiment. Some of the data for F11 and CCl_4 have not been reported because the analysis indicated excessive decay (rate of disappearance of the constituent while stored in the sampler during repetitive analysis). The very large corrections required in attempts to recover the data by extrapolation in these examples make the data suspect. Since the CCl_4 results are very similar to those for F11, we have not plotted them in figure 2.

The results shown in figure 2 suggest a definite trend in the mixing ratios of all constituents at 21.3 km, decreasing with time during the ITCZ experiment, the largest decrease occurring between July 18 and July 23 and 25. The 18.3 km results do not show this trend; instead the mixing ratios appear to remain essentially constant throughout the entire period.

It is also interesting to note that the July 18 results suggest an apparent increase in mixing ratio with increasing altitude. However, the significance and reality of this may be questionable in view of the experimental uncertainties quoted above. On all the other sampling days, the results indicate either a small decrease in concentration from 18.3 to 21.3 km or essentially the same concentration at both altitudes. This suggests that during most of the sampling days of the ITCZ experiment, the lower stratosphere was well-mixed, not unlike that expected to prevail in the underlying upper troposphere. The measured mixing ratios in the lower stratosphere, however, are smaller than the average value associated with the underlying troposphere.

These results are very similar to those obtained in previous studies of vertical profiles of the same constituents from measurements carried out in the fall of 1976 at about lat. 8° N, long. 162° W in the region of the ITCZ (ref. 1). In this latter study, altitude profiles of trace constituents were determined as a function of latitude in the Northern Hemisphere. We have reproduced these results in figures 3-5. Also plotted in these figures are the results of the July 14, 1977 measurements. We note that the low latitude results for the two sets of measurements (9 months apart) are very similar, both indicating only a small decrease in mixing ratio with altitude in the lower stratosphere.

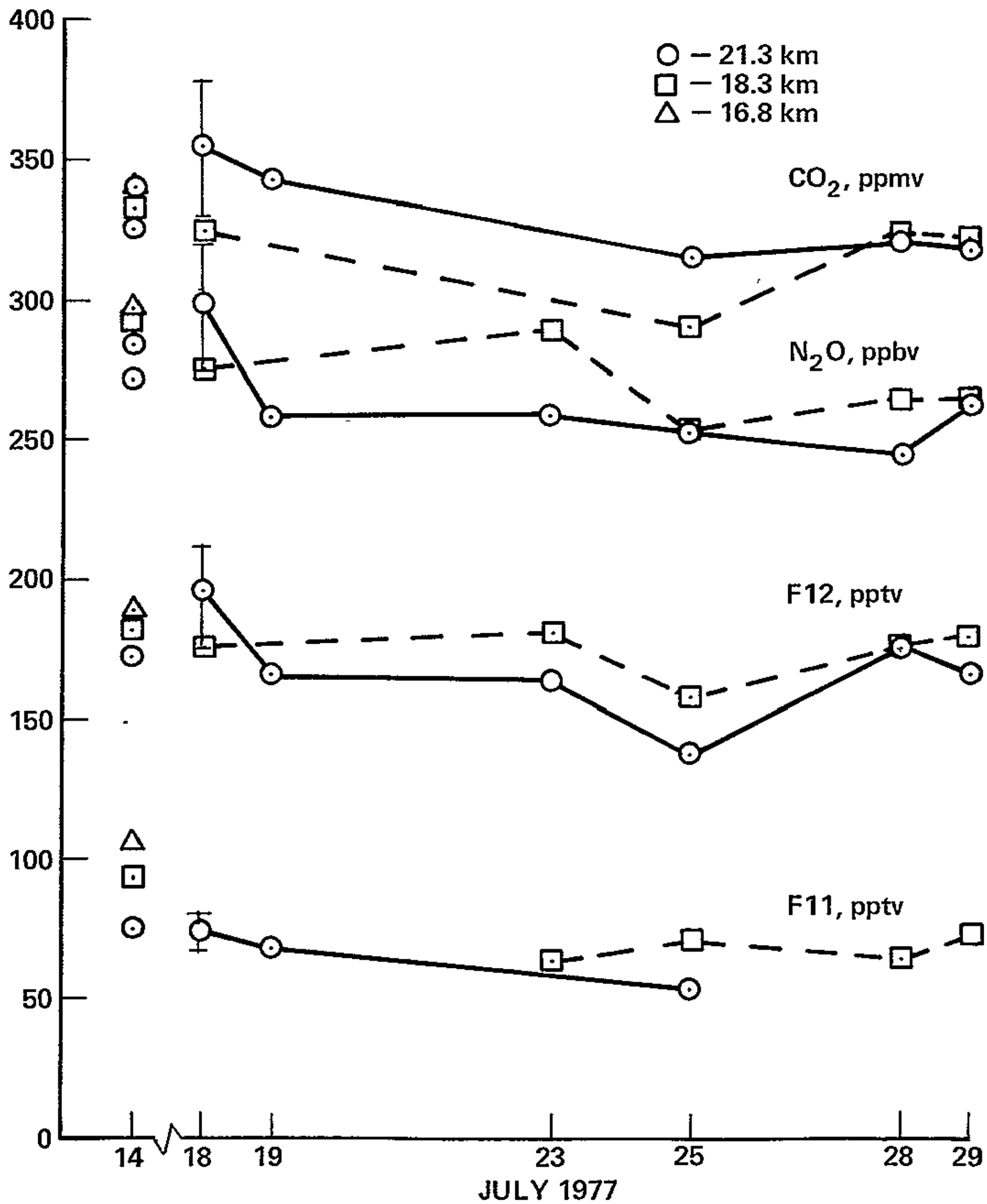


Figure 2.- Altitude distribution of mixing ratios of minor constituents during 1977 ITCZ experiment.

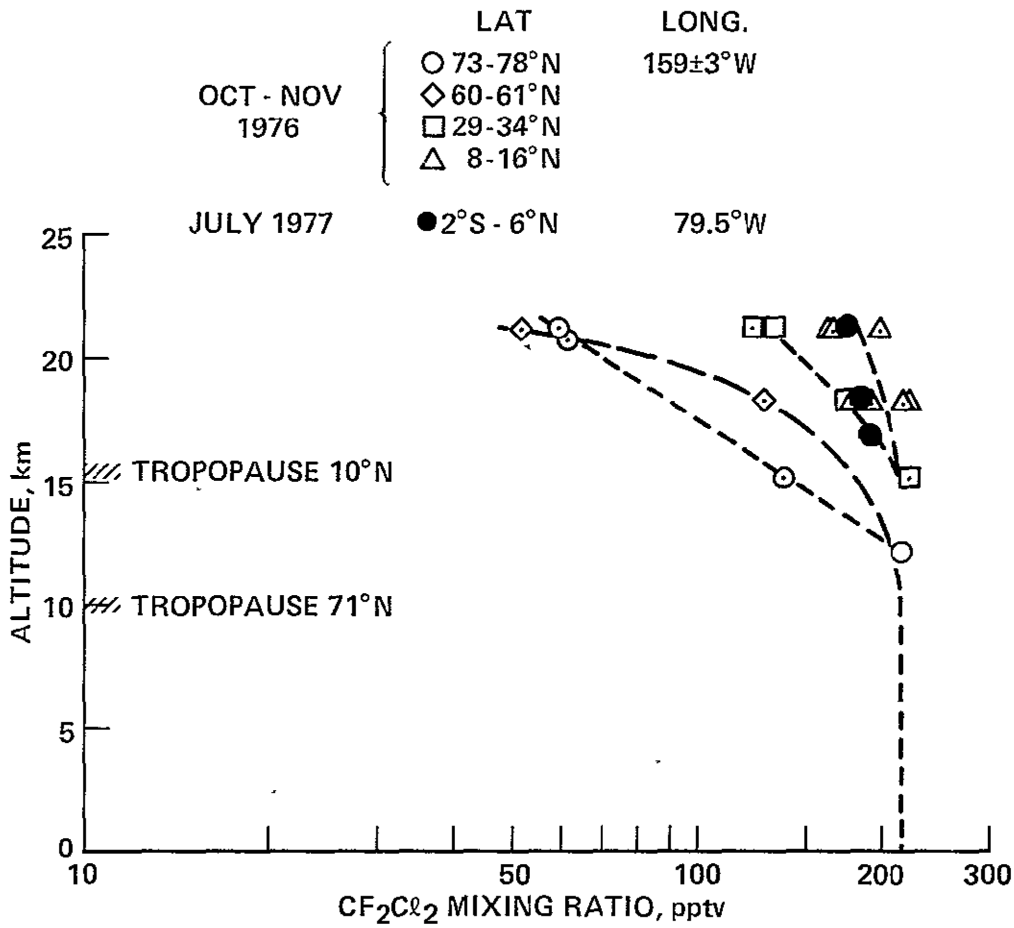


Figure 3.- Lower stratosphere mixing ratios of CF_2Cl_2 at various latitudes in the Northern Hemisphere.

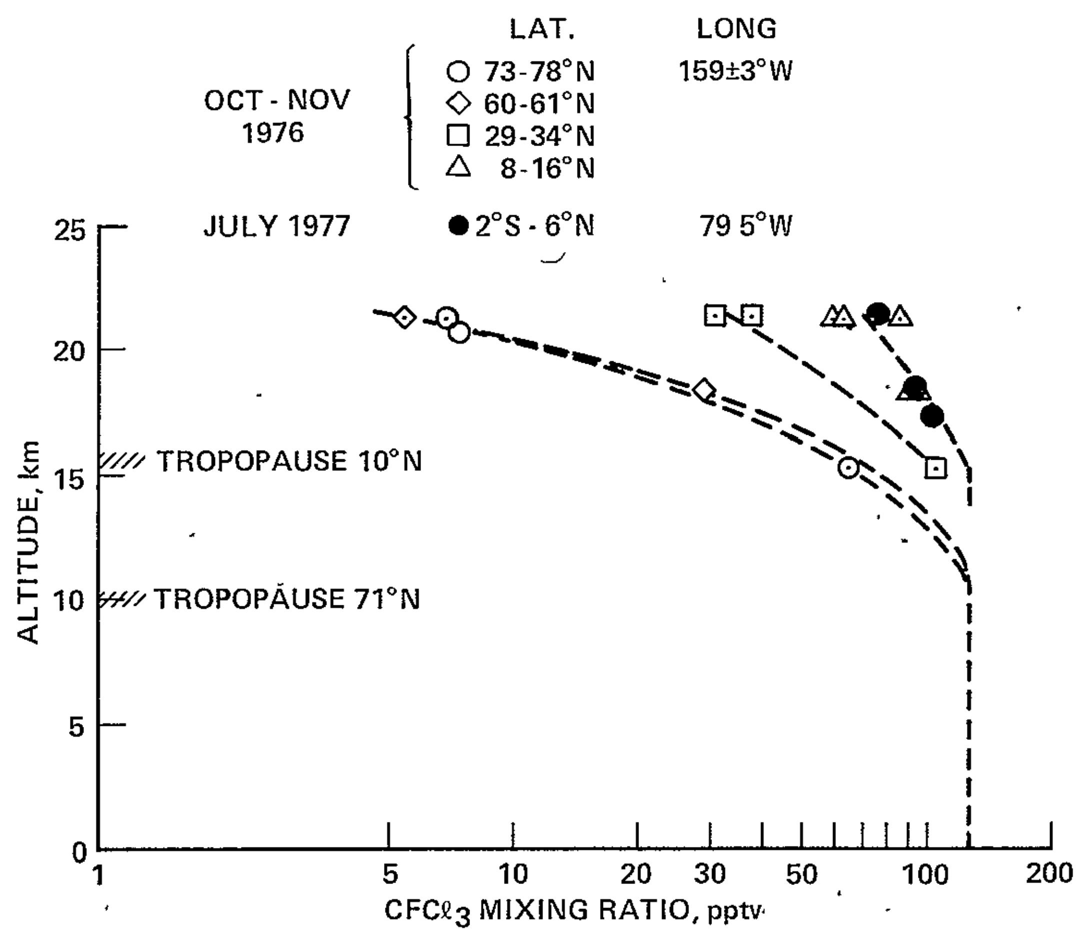


Figure 4.- Lower stratosphere mixing ratios of $CFCl_3$ at various latitudes in the Northern Hemisphere.

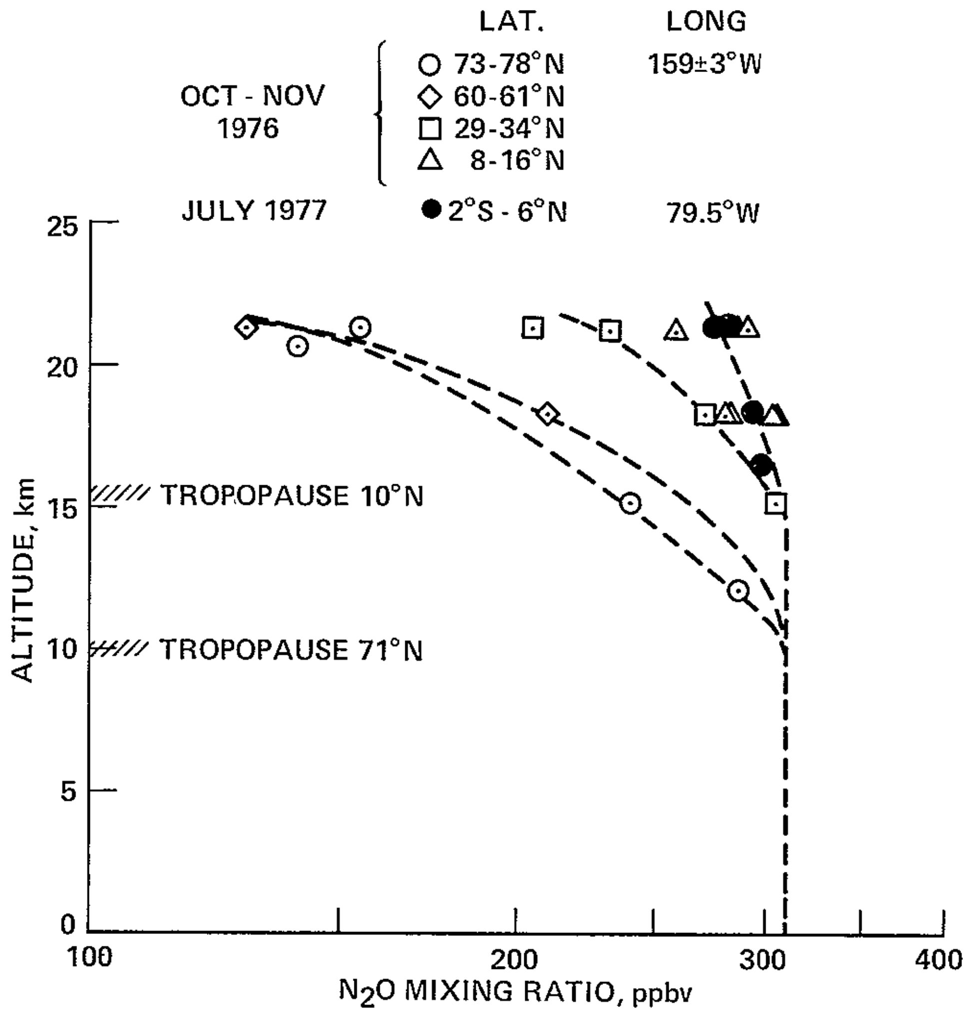


Figure 5.- Lower stratosphere mixing ratios of N_2O at various latitudes in the Northern Hemisphere.

REFERENCE

1. Vedder, J. F.; Tyson, B. J.; Brewer, R. B.; Boitnott, C. A.; and Inn, E. C. Y.: Lower Stratosphere Measurements of Variation with Latitude of CF_2Cl_2, $CFCl_3$, CCl_4, and N_2O Profiles in the Northern Hemisphere. Geophys. Res. Lett., vol. 5, Jan. 1978, pp. 33-36.

N79-26722

VII. DETERMINATION OF TRACE GASES IN LEARJET AND U-2 WHOLE AIR SAMPLES COLLECTED DURING THE INTERTROPICAL CONVERGENCE ZONE EXPERIMENT

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Washington State University

INTRODUCTION

This is a report on the contribution of Washington State University (WSU) to the Intertropical Convergence Zone (ITCZ) study sponsored by the National Aeronautics and Space Administration (NASA), conducted in the Panama Canal zone in July, 1977. The objective of the ITCZ program was to study the meteorology and air chemistry to determine, if possible, the magnitude of injection of tropospheric air into the stratosphere in the intertropical convergence zone. This is an area where a major mechanism of tropospheric transport has been postulated. Understanding the processes which entrain tropospheric air into the stratosphere is important because of the potential perturbations to stratospheric chemical reactions which determine ozone levels.

WSU was responsible for two phases of the air chemistry program for the ITCZ study:

1. The collection of whole-air samples from ground level to 13.7 km using a Learjet as a sampling platform, and the analysis of the samples for selected halocarbons, C2 hydrocarbons, N_2O, and SF_6

2. The analysis for selected halocarbon species and N_2O of low-pressure whole-air samples, collected between 13.7 km and 21.3 km by a U-2 aircraft.

The determination of these tracer compounds for tropospheric air mass influence in the lower stratosphere was considered vital to the study of the transport processes postulated for the equatorial regions.

About 20 whole-air samples were collected on each of 14 Learjet flights from Howard Air Force Base in the Canal Zone. These samples, as well as 16 ground-level samples collected in the Canal Zone, were analyzed in a laboratory set up for that purpose at Howard Air Force Base. Compounds measured included CCl_2F_2 (fluorocarbon 12 or F-12), CCl_3F (fluorocarbon 11 or F-11), CH_3CCl_3 (methyl chloroform), CCl_4 (carbon tetrachloride), and N_2O (nitrous oxide).

Selected samples were then transported back to WSU laboratories in Pullman, Washington, for subsequent analysis for $CClF_2CClF_2$ (fluorocarbon 114 or F-114); $CClF_2CCl_2F$ (fluorocarbon 113 or F-113); $CHCl_3$ (chloroform); $CHCl{=}CCl_2$ (trichloroethylene); C_2Cl_4 (tetrachloroethylene); CH_3Cl (methyl chloride); CH_2Cl_2 (methylene chloride); SF_6; and the C2 hydrocarbons C_2H_6 (ethane), C_2H_4 (ethylene), and C_2H_2 (acetylene).

A total of 30 low-pressure whole-air samples were collected during six U-2 flights from Howard Air Base. These samples were taken by opening an evacuated sampling container at altitude. These samples were analyzed for each of the species N_2O, F-12, F-114, F-11, F-113, $CHCl_3$, CH_3CCl_3, CCl_4, $CHCl{=}CCl_2$, and C_2Cl_4. A new method was developed by WSU to analyze these samples with sufficient sensitivity and precision. The efforts were partly successful in that good sensitivity was achieved for the species N_2O, F-12, F-11, and CH_3CCl_3. Precision of the analysis did not match that of the cryogenic samples which were concurrently collected aboard the U-2. CCl_4 rapidly disappeared in the sampling containers subsequent to sample collection and is therefore not reported. Contamination problems precluded use of the data for the species F-113, $CHCl{=}CCl_2$, and C_2Cl_4.

The report is divided into separate sections describing the Learjet and the U-2 sampling methods, analytical methods, and results. Complete data tables for all samples analyzed are given in appendixes C (Learjet and ground-level samples) and D (U-2 samples).

This research was supported by the National Aeronautics and Space Administration through Grant No. NSG-7214 with the Air Pollution Research Section of the Department of Chemical Engineering at Washington State University.

The following personnel from the Air Pollution Section contributed to this research effort: Dagmar Cronn (Co-Principal Investigator); Elmer Robinson (Co-Principal Investigator); David Harsch; Fred Menzia; Robert Dalluge; Steve Crawford; Kumaraswamy Ganesan; and Dan Middleton.

The Learjet and U-2 aircraft were provided and operated by NASA. The cryogenically-collected samples were analyzed and the sampling manifold for the U-2 aircraft was assembled, mounted, and disassembled by personnel from the Ames Research Center, under the supervision of James Vedder.

SUMMARY

In summary, the Learjet tropospheric sampling showed a generally uniformly well-mixed troposphere above the mixing layer. On occasion, certain of the anthropogenic chemical species and N_2O measured during the ITCZ study were observed to be elevated within the boundary layer. CH_3Cl averaged about 40% higher below 10,000 ft, in keeping with a natural oceanic source. A summary of the averaged background tropospheric mixing ratios of all the species measured in the samples collected from the learjet platform is given in table 1. The July results from the ITCZ area at about lat. 9° N are compared with data collected from a flight series flown in April 1977 at about lat. 37° N. Nitrous oxide concentrations appear to be stable both spacially and temporally in the troposphere. No significant latitudinal gradients were observed for F-12 or F-11. The tropospheric burdens of these two constituents were in keeping with the growth trends in the atmosphere as observed by WSU in the

TABLE 1.- SUMMARY OF NORTHERN HEMISPHERIC MIXING RATIOS OF CERTAIN HALOCARBONS SPECIES, C2 HYDROCARBONS, SF_6 AND N_2O

Compound	July 1977[a]	April 1977[b]
N_2O	331.0 ppb	330 ppt
F-12	246.1 ppt	244 ppt
F-11	152.6 ppt	150 ppt
CH_3CCl_3	97.3 ppt	115 ppt
CCl_4	130.3 ppt	132 ppt
F-113	---	18 ppt
F-114	12 ppt	11 ppt
$CHCl_3$	11 ppt	7 ppt
$CHCl=CCl_2$	15 ppt	11 ppt
C_2Cl_4	9.4 ppt	10 ppt
CH_3Cl	0.6 ppb	0.56 ppb
CH_2Cl_2	34 ppt	30 ppt
SF_6	0.2 ppt	0.2 ppt
C_2H_6	0.95 $\mu g/m^3$	1.3 $\mu g/m^3$
C_2H_2	0.09 $\mu g/m^3$	0.29 $\mu g/m^3$

[a] ITCZ experiment, Panama Canal Zone (~lat. 9° N).

[b] Flight area: Pacific Ocean west of San Francisco (~lat. 37° N).

last 3 years. Methyl chloroform did exhibit a latitudinal gradient with the tropospheric average at the Canal Zone, being about 18% lower than the tropospheric average at lat. 37° N. The explanation for this gradient is suggested to be a greater sink strength due to attack by higher concentrations of OH radicals near the equator. The OH radicals are formed in greater quantities due to stronger sunlight and higher water vapor. The remaining halocarbons gave no surprises; the averaged mixing ratios at lat. 9° N were the same as the midlatitude levels within the precision of the analyses.

Both the C2 hydrocarbons (ethane and acetylene) exhibited significant concentration gradients as a function of latitude. Ethane was a quarter lower in the ITCZ region than at midlatitudes, while acetylene dropped to only one third the levels further north. Since acetylene comes from auto exhaust and has a long, but finite, lifetime, the dropoff is expected.

Average vertical altitude profiles of five chemical species were plotted, combining the data from the Learjet positively-pressurized whole-air samples, the cryogenically-collected U-2 samples (analyzed by Ames personnel), and the low-pressure, whole-air U-2 samples. Profiles for N_2O, F-12, F-11, CH_3CCl_3, and CCl_4 were obtained from the lower troposphere, through the tropopause, and into the lower stratosphere. As mentioned, the troposphere was well mixed. In general, the stratospheric mixing ratios of these five components were lower than the tropospheric levels. The mixing ratios decreased with increasing altitude above the tropopause. The U-2 whole-air sample mixing ratios were intermediate between the tropospheric levels determined from the Learjet samples and the highest altitude (70,000 ft) values acquired from cryogenic collection. The comparison at 60,000 ft between the cryogenic sample results and the whole-air sample results was within the errors of the two determinations (including F-12 if a 4% calibration offset is taken into account). The whole-air samples showed lower mixing ratios at 45,000 ft for N_2O, F-12, and F-11 than the 45,000-ft values observed for the Learjet samples.

The rates of decrease in mixing ratios with increasing height in the stratosphere were not as great as previously observed for altitude profiles at more northern latitudes. This is interpreted to mean that the ITCZ is a region of upward transport into the stratosphere of tropospheric air with its larger burden of halocarbons and N_2O. This entrainment of tropospheric air into the lower stratosphere in this region of the world causes the stratospheric values of these tropospheric tracer compounds, at a certain distance above the tropopause, to exceed the values at the same distance above the tropopause at more northern latitudes.

Plots of the individual stratospheric data points as a function of altitude are also presented for the five components, N_2O, F-12, F-11, CH_3CCl_3, and CCl_4. Consideration of the details of the changes in the lower stratosphere in mixing ratios of the tropospheric air mass tracers can shed light on vertical transport processes responsible for the entrainment of tropospheric air into the stratosphere. This final phase of the data interpretation for the ITCZ project, however, requires intercomparison of the chemical speciation work reported here and the meteorological measurements, such as potential temperature and air-mass trajectories. This kind of data interpretation is not included in this report. Subsequent papers in cooperation with the other investigators will be submitted for publication when this aspect of the analysis is completed.

AIRBORNE SAMPLING PLATFORMS AND SAMPLING METHODS

Learjet Aircraft

NASA Learjet No. 705 was used as the sampling platform for the pressurized whole-air samples collected by WSU in the ITCZ study. Fourteen sampling flights were flown between July 17 and July 30, 1977, from Howard Air Force Base in the Panama Canal Zone. The flight paths were elongated ovals with dimensions of 160 km by 5 km. The long axis was oriented in a north-south direction, and extended from about 25 km south to 135 km north of Howard Air Base. Sampling altitudes typically varied from 10,000 ft (3 km) to 45,000 ft (13.7 km) in 5,000-ft intervals. The location of each sample was determined by the aircraft's distance measuring equipment (DME), which gave a bearing and distance from the Taboga VOR. Manual records were maintained of the canister number, time filled, altitude, position, and Dasibi ozone reading, in addition to the pilot's flight log. Other instrumentation was also installed on board the Learjet to measure water vapor, aerosols, and ambient temperature and pressure. Operation of that equipment was the responsibility of the WSU staff during flight. (The other principal investigators for these projects report on the results of these experiments separately.)

The normal Learjet window/escape hatch on the right side of the aircraft was replaced with a modified hatch, on which an air sampling probe, 2.54 cm in diameter, was mounted facing into the airstream (see photograph in fig. 1). The air stream from this probe was split to provide sample to the inlets of two sampling pumps. A Metal Bellows model "Boeing" pump was used to fill sampling containers with positively-pressurized whole-air samples. A Metal Bellows Model MB-155 pump and a constant-pressure regulation system were used to supply sample air to a Dasibi Model 1003-AAS UV ozone photometer to provide ozone mixing ratios. The ozone instrumentation and data are discussed in a separate report.

Because the Learjet samples were analyzed the same day they were collected, it was possible to observe any contamination in the sampling process and attempt to eliminate the sources during the course of the field experiment. It became apparent early in the Learjet flights that the "Boeing" pump was not able to provide a sufficient flow of noncontaminated samples at the highest flight altitudes. Because of the low pressures supplied to the pump at altitudes between 12.2 and 13.7 km, the pump tended to run very warm. This apparently caused outgassing of halocarbon contaminants from the Teflon head gaskets in the pump. The total sample flow at these high altitudes was sufficiently low that this outgassing resulted in noticeable elevation of the concentrations of F-12, F-11, F-113, and other species. Table 2 shows the concentrations of the halocarbons and N_2O picked up during the storage of zero air in the pump with the pump turned off. Consequently, a second method of sampling was used for most of the Learjet whole-air samples. A 6.35-mm-o.d. tube was inserted into the duct work leading from the cabin to the Learjet compressor

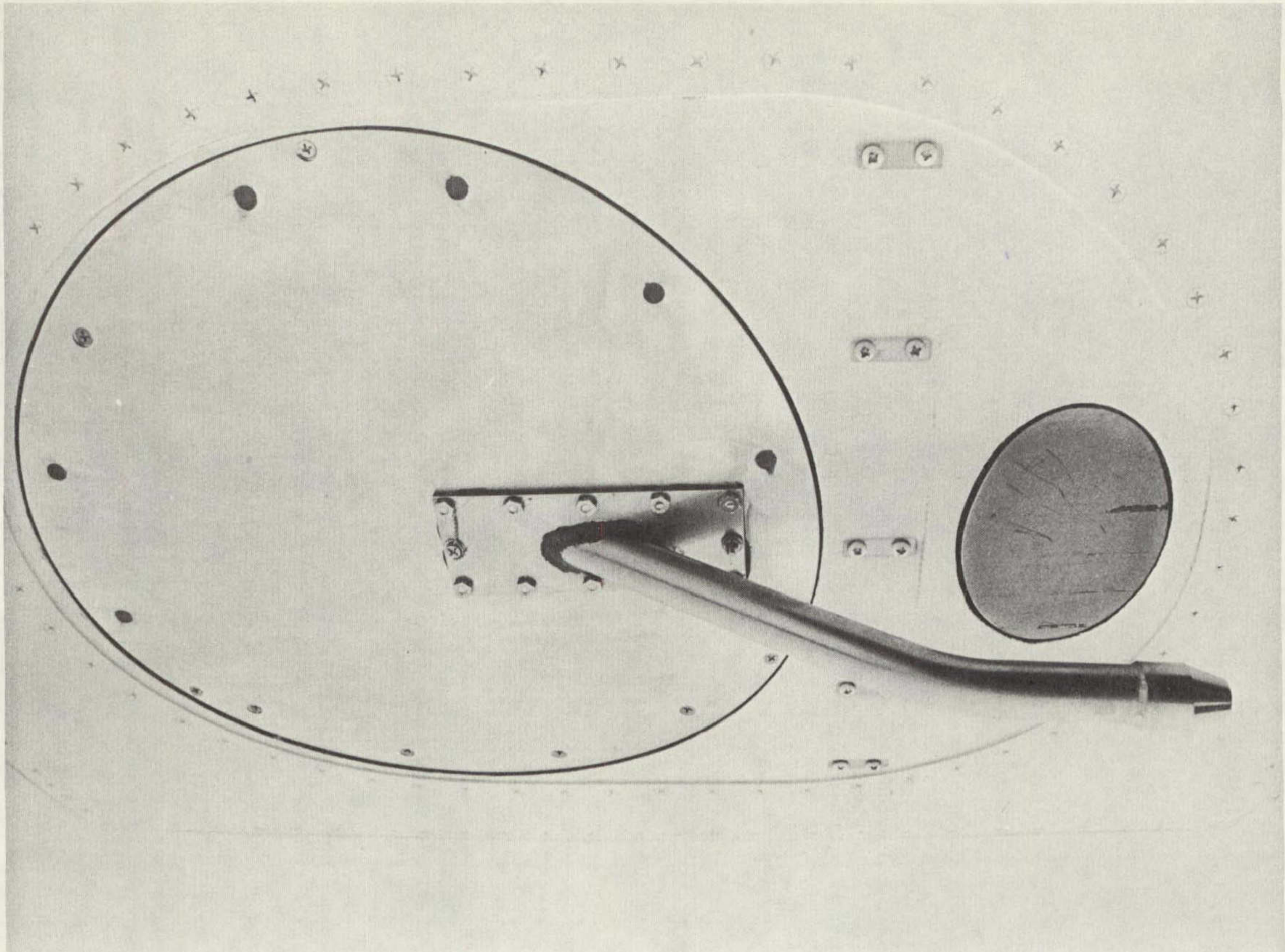

Figure 1.- Learjet escape hatch modified for halocarbon sampling.

TABLE 2.- TESTS FOR HALOCARBON CONTAMINATION FROM METAL BELLOWS MODEL "BOEING" PUMP

Sample[a]	Concentration							
	N_2O, ppb	F-12, ppt	F-11, ppt	F-113, ppt	$CHCl_3$, ppt	CH_3CCl_3, ppt	CCl_4, ppt	$CHCl{=}CCl_2$, ppt
Blank of syringe halocarbon-free air	33	<5	<2	28	<5	45	6	50
Air in pump after pressurizing	8	<5	5	15	<5	320	9	330
Air in pump after 1 day	10	130	98	54	<5	570	2	30
Air in pump after 4 days	19	1010	384	600	13	5500	20	140

[a]Pump was flushed with halocarbon-free air for 24 hr and then pressurized to 50 psig with halocarbon-free air. Tests were conducted by withdrawing samples with a clean ground-glass syringe.

air system. The air supplied by the compressor, used for cabin pressurization and heating, was found to provide a sample under sufficient pressure to allow use of a MB-155 pump. This minimized the sample contamination problems.

Stainless steel sampling containers, 1-liter and 6-liter capacity, fitted with two Nupro B-4H4 brass bellows valves for flow-through sampling, were used to collect the whole-air samples. The interior surfaces of these containers had been passivated by electropolishing, using the patented "Summa" process of the Molectrics Corporation. Typically, 20 of the 1-liter canisters, mounted in a rack in the Learjet, were filled on each flight. On later flights, a rack that would hold twelve 6-liter cans was substituted for the 1-liter rack, and 6-liter canisters and a few 1-liter canisters were filled.

The flow-through design of the canisters allowed them to be purged with sample air before pressurizing with sample air. This flushing removed the gas with which the canisters were filled before each use. Before the field project, selected canisters were filled with either helium of "zero air" from an Aadco Model 737 pure air generator. Blank checks were performed on these canisters to verify the cleanliness of each canister. The remaining canisters were positively-pressurized with clean background air and stored in that manner until used. A purge tee was used to flush cabin air from the dead space in the entrance valve before both valves were opened to begin the flushing. Special care was also taken to make sure that all connections were leak-tight so that no cabin air was introduced into the samples at the various fittings.

U-2 Aircraft

The NASA-Ames U-2 aircraft is capable of operations up to 21.3 km (70,000 ft). It is designed to carry instrument and equipment payloads in several configurations. The low-pressure whole-air samplers that were analyzed for halocarbons in Panama were mounted in a rack supporting a special manifold designed by Ames Research Center for air sample collection. Cryogenic samplers were mounted in the rack along with the whole-air sampling bottles. Combinations of two cryo-samplers and six whole-air bottles (the combination used in the ITCZ project), three cryo-samplers and four whole-air bottles, or four cryo-samplers and two whole-air bottles, can be flown on a mission. The equipment rack is detachable, and can be prepared in the laboratory for a mission.

A typical flight plan called for the U-2 to sequentially cruise at altitudes 5,000 ft apart for about 30 min each, beginning at 45,000 ft (13.7 km) and ending at 70,000 ft (21.3 km). Two whole-air samples were typically collected at 45,000 ft (13.7 km) at each end of the flight track; thus, the samples were separated by about 30 min and 160 km.

A single sample was collected at 55,000 ft (16.8 km), two at 60,000 ft (18.3 km), and the last sample at 65,000 ft (19.8 km). Loss of 6 of the 36 samples occurred due to the valves not closing in flight. The samples taken at 45,000 ft (13.7 km) allowed comparisons between the Learjet positively-pressurized whole-air samples and analysis procedures and the U-2 low-pressure whole-air collection and analysis results. Likewise, the 60,000 ft (18.3 km) samples overlapped the 60,000 ft samples collected cryogenically, again allowing comparisons.

The whole-air sampling bottles, which had been used for methane analysis by Ames Research Center prior to the ITCZ study, were dismantled and electropolished utilizing the patented "Summa" process of the Molectrics Corporation. They were cleaned, reassembled, and evacuated to 30 µm Hg pressure while being heated to 150° C. All bottles were filled with halocarbon-free helium gas, blanked using a 50° C isothermal electron-capture gas-chromatographic analysis method, and then evacuated again to 30 µm Hg pressure before being mounted in the equipment bay. Twelve bottles were available for use during the six U-2 flights, and each flight required six evacuated bottles. Each bottle, then, was used for three flights. The bottles were attached to the equipment bay manifold, opened in turn at appropriate altitudes to collect whole-air samples, and then closed again about 1 min later at the pressure of the manifold. The manifold pressure was about 50% greater than ambient pressure due to the contribution of ram pressure. The bottles were analyzed using the low-pressure method once each on the day they were collected and then once each on the two succeeding days (there were some exceptions during the first and second flights).

ANALYTICAL PROCEDURES

Learjet Sample Analysis

The 20 Learjet samples collected on each flight were analyzed the same day for N_2O and the halocarbons F-12, F-11, CH_3CCl_3, and CCl_4. A dual-column, dual-electron capture detector (^{63}Ni Foil) Perkin-Elmer Model 3920B gas chromatograph was used to analyze for these species. A 5-ml sample loop was used with a 6.35 mm by 3.05 m stainless steel column of 10% SF-96 on 100/120 mesh Chromosorb W for the first detector. A second column, 3.18 mm by 2 m stainless steel packed with Porasil B, was used with the second detector. The first column provided data for F-11, CH_3CCl_3, and CCl_4, and the second was used for N_2O, F-12, and a check for F-11. Since the Learjet samples were under positive pressure relative to the laboratory, the sample was simply allowed to flush and fill the loops (5-ml loop for the SF-96 column and 1-ml loop for the Porasil column) by flow-through sampling when the canister valve was opened. Two Carle Model 5518 six-port switching valves were manually operated to allow the carrier gas (85% argon, 5% methane) to sweep the contents of the loops onto the heads of the columns which were maintained isothermally at 50° C. The detector outputs were recorded on a Hewlett-Packard Model 7132A dual-pen, 1-mV strip chart recorder and peak heights were used for quantification of mixing ratios. Each Learjet canister sample was analyzed in duplicate.

The detection limits (defined as twice the noise level) were determined to be: 0.3 ppb for N_2O; 0.7 ppt for F-11 on the Chromosorb column; 10 ppt for F-12; 6 ppt for CH_3CCl_3; and 2 ppt for CCl_4. The precision is indicated by the percentage standard deviations calculated for five replicate runs of the secondary standard. These were 0.7% for N_2O, 0.6% for F-11, 0.5% for F-12, 4.2% for CH_3CCl_3 and 1.6% for CCl_4.

One-hundred-twenty Learjet samples were selected for transport to WSU laboratories in Pullman for further analyses following the study. The halocarbon and hydrocarbon species measured in the sample containers are known to be stable over the time spans involved. Attempts to measure certain sulfur-containing species were not successful due to degradation of the species in the containers.

Analysis of the other halocarbon species was accomplished by several other techniques. A Perkin-Elmer Model 3920 gas chromatograph with an electron-capture detector (15 mCi ^{63}Ni foil) was used in the temperature-program mode. Sample aliquots (100 ml) were frozen with liquid oxygen in a freezeout loop packed with 60/80 mesh glass beads. The column was 6.35 mm by 3.05 m stainless steel packed with 10% SF-96 on 100/120 mesh Chromosorb W. The temperature of the column was programmed from 0° C to 72° C at 8° C/min. Argon/methane (95%/5%) at 50 ml/min was the carrier gas. This sample analysis scheme provided concentrations for $C_2F_4Cl_2$ (F-114), $C_2F_3Cl_3$ (F-113), $CHCl_3$, $CHCl{=}CCl_2$, and C_2Cl_4 as well as verification of N_2O, F-12, F-11, CH_3CCl_3, and CCl_4. A paper was recently published describing this technique (ref. 1).

Some of the Learjet samples were analyzed for methyl chloride and dichloromethane by gas chromatography/mass spectrometry. The same freezeout procedure for sample transfer was used for this analysis as in the temperature-programmed analysis. The Hewlett-Packard Model 5710A gas chromatograph oven was cooled to 20° C during sample freezeout. The loop was then immersed in hot water and the Carle 8030 sampling valve turned to inject the contents of the sample loop. Helium carrier gas at approximately 12 ml/min swept the sample onto the column (1.6 mm × 6 m stainless steel, packed with Durapak n-octane on 100/120 mesh Porasil C). The oven was temperature-programmed at 16° C/min to 100° C. The determination of methyl chloride in air samples is documented in reference 2.

Calibration procedures involving both primary and secondary standards were used to standardize the halocarbons. Compressed-gas cylinders of background air containing F-12, F-11, CH_3CCl_3, CCl_4, and N_2O were used daily as secondary standards for referencing to the samples. A gas cylinder containing an artificially-prepared mixture of halocarbons in "zero" air was used for quantification of F-113, F-114, $CHCl_3$, CH_3Cl, CH_2Cl_2, $CHCl{=}CCl_2$, and C_2Cl_4. These gas cylinders were standardized with reference to static dilutions of commercially-prepared halocarbon mixtures.

Interlaboratory calibration comparisons for N_2O between WSU and Ames Research Center indicate that WSU typically reports N_2O concentrations about 12% higher than those reported by Ames. We are in the process of checking our absolute calibration for this species by a feedback flow dilution system. Since the secondary standard used to calibrate for N_2O is being maintained by WSU, a calibration correction to the N_2O data will be possible, if indicated at the conclusion of the study.

Overall accuracy is expected to be about 10% for any of the gaseous species analyzed during this project. However, the precision was observed to be better as specified above.

For SF_6, a Perkin-Elmer Model 3920 gas chromatograph with a ^{63}Ni foil for electron-capture detection was also used. The column was 3.18 mm by 2 m, packed with a 5A molecular sieve. Column flow rate was 30 ml/min with argon/methane (95%/5%) carrier gas. The column oven was maintained isothermally at 50° C. A 100-ml sample was transferred, as for the temperature-programmed analysis, into a freezeout loop immersed in liquid oxygen. The standing current was 3.0 A, the detector temperature was 350° C, and the attenuation was typically 4X or 8X. The retention time for SF_6 on this column was about 3.5 min. A typical series of chromatograms is shown in figure 2.

Calibration for SF_6 was performed by comparison to a standard prepared by static dilution of pure SF_6 into helium. The concentration assigned to this standard was 0.59 ppt. This value gives background tropospheric values in agreement with those obtained by Dr. Singh at Stanford Research Institute; however, interlaboratory comparisons with Dr. Lagomarsino at the DOE Environmental Measurements Laboratory (EML) in New York indicate WSU concentrations are lower than those arrived at on the same samples by EML. Further calibration work is in progress to resolve this question.

The analysis for the C2's (ethane, ethylene, and acetylene) was performed by a Hewlett-Packard Model 5700A gas chromatograph equipped with flame ionization detection using a vacuum system for sample transfer. The column was 3.18 mm × 2 m, packed with Porapak N (80/100 mesh). The nitrogen carrier gas flow rate was 6 ml/min and the detector temperature 200° C. The oven was held isothermally at 60° C for 4 min; the temperature was then raised to 100° C at 32° C/min and held for 8 min to drive higher-molecular-weight materials off the column before the same cycle was repeated. A sample cycle time of about 15 min was required.

Figure 3 shows the vacuum system used to pull samples through the freezeout loop, which is immersed in liquid oxygen. Typically, sample aliquots of 500-1000 ml were transferred. The pump was used to evacuate the vacuum chamber. The vacuum sample inlet line was attached to the Carle valve exit port on the GC. The vacuum gauge metered the known sample volume through the freezeout loop.

A typical C2 sample chromatogram is shown in figure 4. Difficulty in interpreting the ethylene data might be caused, in part, by the negative peak just prior to the ethylene peak, which is due to CO_2. N_2O also elutes just before ethylene and may affect the ethylene calibration. Any room air contamination would also affect the ethylene values because of the high concentrations of ethylene in room air. However, contamination of the samples by the Teflon gaskets in the sample pump is the most likely cause of the problem. Interpretation of the ethylene data was not attempted as a result of the variability observed in the results.

Calibrations for the C2's were performed by comparison to standards purchased from Scott Laboratories. These standards are provided with all three

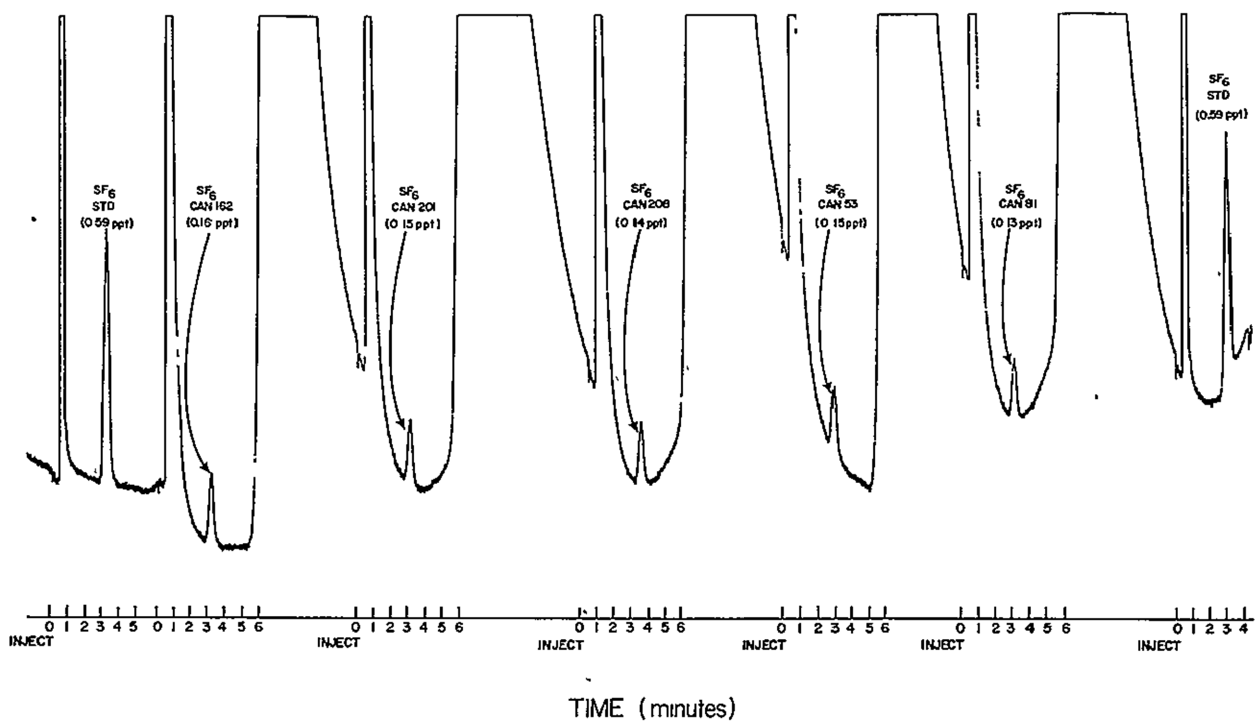

Figure 2.- Typical strip chart trace for ECGC determination of SF_6 in ambient air samples.

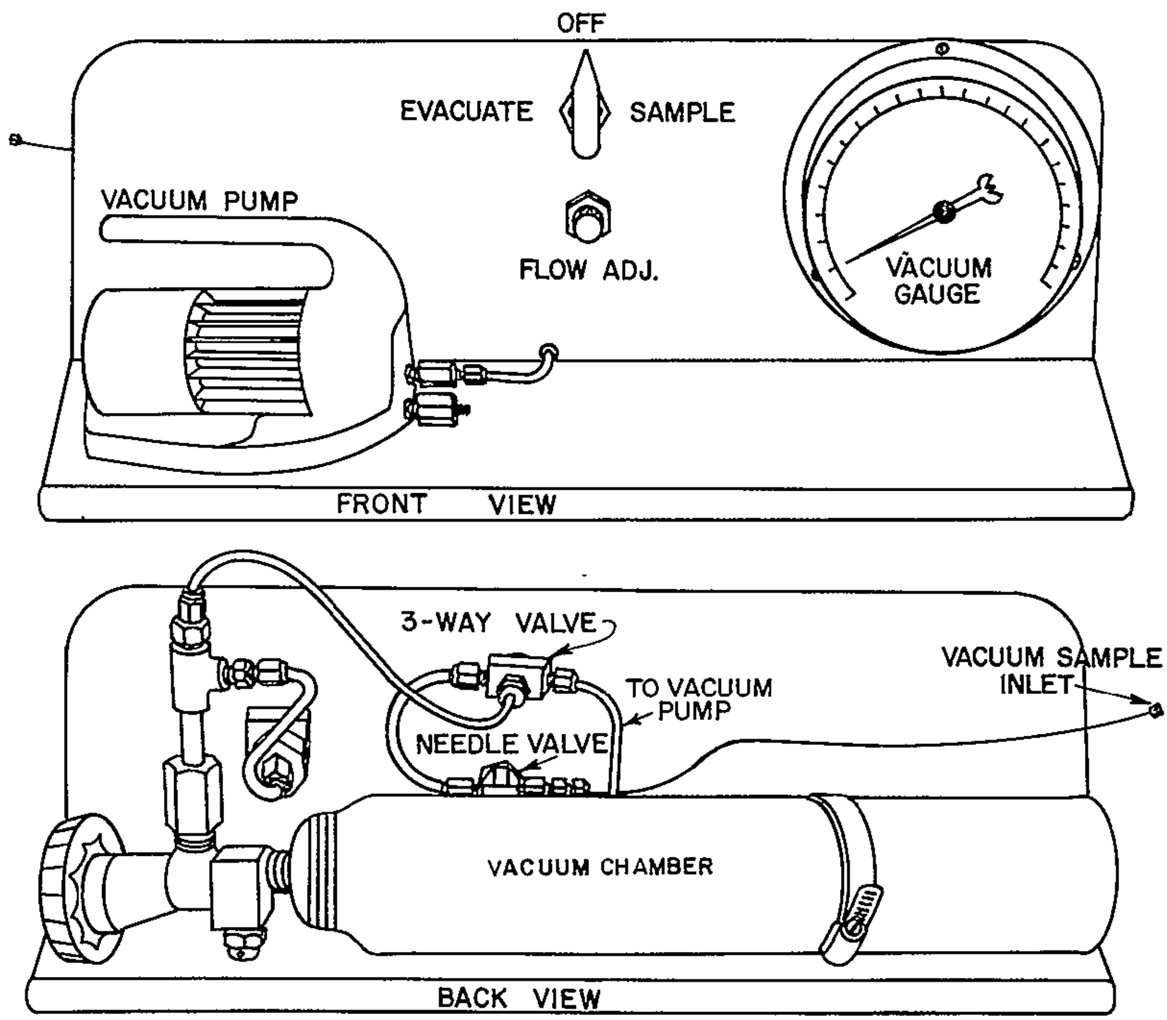

Figure 3.- Vacuum system for sample injection for C2 hydrocarbon analysis.

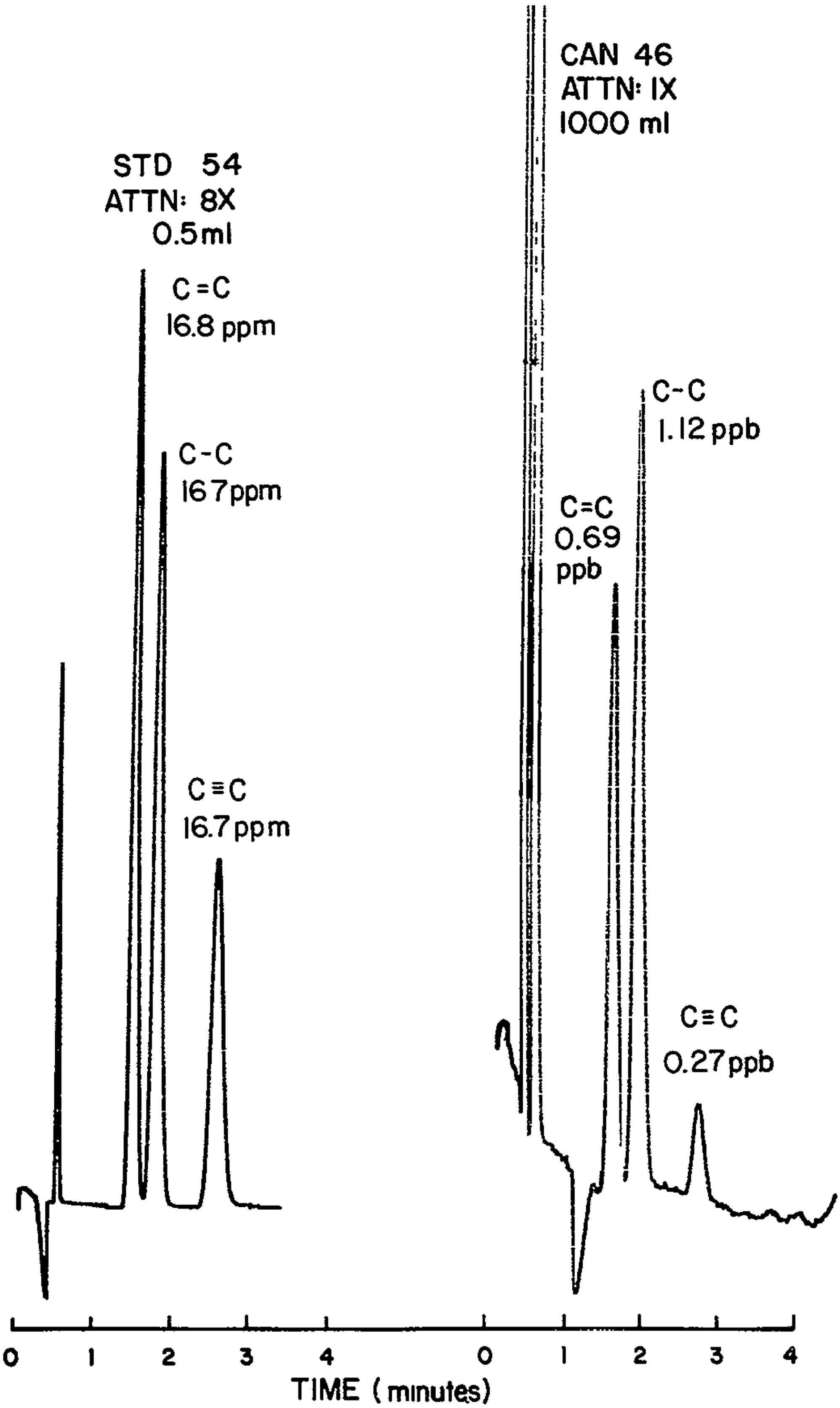

Figure 4.- Typical C2 hydrocarbon analysis.

compounds in the same pressurized can at concentrations in the 10 ppm range. A syringe is used to transfer 0.5 ml of the standard gas to the freezeout loop. No temperature or pressure corrections were made. Because the sample transfer procedures eliminate the temperature and pressure variables for the sample runs but not for the standard runs, this practice might introduce an error of up to 5% into the calibrations.

The results of the C2 analyses are reported in both parts per billion by volume and micrograms per cubic meter at 25° C and 760 mm Hg as ethane (or ethylene or acetylene). The conversion factors are:

ethane	1.227 $\mu g/m^3/ppb$
ethylene	1.145 $\mu g/m^3/ppb$
acetylene	1.063 $\mu g/m^3/ppb$

The detection limits are about 0.17 $\mu g/m^3$ for ethane (0.14 ppb), 0.09 $\mu g/m^3$ for ethylene (0.08 ppb) and 0.06 $\mu g/m^3$ for acetylene (0.06 ppb) for a 500-ml sample aliquot. The precision is indicated by the percentage standard deviations of 1.5% for ethane, 4.1% for ethylene, and 10.5% for acetylene on four replicate analyses of the same sample. The system is linear from sample sizes of 10 ml up to 1000 ml for all three components.

U-2 Sample Analysis

Ames Research Center utilized two methods for air sample collection from the U-2 aircraft. A flow-through, liquid-nitrogen-cooled cryogenic procedure was used for collection (integrated over 20 min) of a concentrated sample for halocarbon, N_2O, and CO_2 analyses. Evacuated 1-liter stainless-steel collection bottles, mounted with the cryogenic samplers in the same U-2 sampling equipment, were previously used for collection of low-pressure whole-air samples, which were used for methane analysis. For the ITCZ study, a method was needed for analysis of halocarbon species in these low-pressure samplers to augment the limited number of cryogenic samples that could be collected and analyzed in the time available. To test the analysis procedure, two preliminary flights were flown in April 1977 to collect stratospheric samples.

Three methods for transferring the subambient pressure samples to the gas chromatograph were considered. A relatively elaborate method of gaseous sample compression with a large bellows, applicable to analysis of subambient pressure samples, was considered. Pressurization (and dilution) with a gas containing zero concentrations of the halocarbon species was actually attempted. A vacuum-transfer procedure using a 5-ml gas sampling loop operated under vacuum was also tried. The last two methods were found to result in samples that were too small to allow for precise analysis of halocarbon species, and both suffered from substantial contamination problems. A vacuum transfer procedure using a freezeout loop for concentration of the sample was found to yield results with sufficient sensitivity and with minimal contamination problems for the species of greatest interest.

The 30 whole-air samples collected on six U-2 flights were analyzed on each of three successive days because of concern about decreases with time of the mixing ratios of the halocarbons in the low-pressure stratospheric air samples. In cases in which the apparent mixing ratio of a particular halocarbon compound decreases with time, the initial mixing ratio could be calculated by determining the intercept of the log plot of mixing ratio versus the elapsed time since sample collection. Extrapolation was not attempted for the whole-air samples collected in Panama. It does appear that significant degradation, especially of CCl_4, did occur. The degradation was apparently very rapid on the first two flights, when the sampling bottles had not been used for air samples subsequent to the cleaning process. After successive uses of the sampling bottles, the magnitude of the problem seemed to be reduced, even though the samplers were evacuated, blanked, and reevacuated between uses. Hindsight dictates that the sample bottles should have been allowed to equilibrate with ambient air for a time, prior to their use in the study, to minimize this problem.

There were problems with contamination during sample analysis, especially for F-113, $CClF_2$-CCl_2F, trichloroethylene, and tetrachloroethylene. A study to determine the extent of the U-2 sampling manifold's contribution to contamination is reported in table 3. A cleaned and blanked bottle was evacuated and mounted in the U-2 sampling manifold system. The manifold was purged and then sealed (manifold pressure ~1 atm) with bleed nitrogen from a liquid nitrogen Dewar. After several hours, the sample bottle was opened to sample nitrogen gas in the manifold. Contamination of the gas by several halocarbon species was observed, but the results were somewhat inconclusive because the bleed nitrogen itself contained elevated amounts of several species, as seen in table 3. As discussed later, contamination in the sample-transfer procedure due to high mixing ratios of halocarbons in laboratory air was more significant.

A schematic of the low-pressure sample-transfer system for halocarbon and nitrous oxide analysis is shown in figure 5. The low-pressure air sampling container was connected to a manifold which provided for sample pressure measurement with a Viatran Model 1105 Indicator and Model 103 pressure transducer (0-20 psia). Sample flow-control (and reasonable sample shutoff at the low pressure differentials employed) was accomplished by means of a needle valve. Initially, the entire sampling system, including the freezeout loop, was evacuated to 30-µm Hg pressure. An initial pressure reading of the sample was taken with the needle valve closed and the sample container valve open.

The sample was then allowed to flow through the needle valve and through a Carle Model 5518 six-port gas sampling valve into the stainless freezeout loop which was packed with 60/80 mesh glass beads and immersed in liquid oxygen. Sample flow rate was adjusted with the needle valve to result in a 200-µm indication on a Varian Model 801 pressure transducer and indicator downstream of the loop. The excess gas flowed through the loop, past the Varian pressure indicator, through a liquid-nitrogen freezeout trap, and was vented through a Duoseal Model 1400 vacuum pump. (The system in its entirety can be evacuated to better than 30-µm Hg pressure with the sample container valve closed.) A uniform 10-min sampling time was employed. (It should be noted here that the actual pressure in the sample container can be in the range of 1-20 psia and not affect the analysis. So long as a 10-min uniform sampling rate is employed and the sample flow is controlled so that a 200 µm

TABLE 3.- U-2 SAMPLING MANIFOLD BLANKS

Compound	No. 4FWD He blank	Liquid N_2 bleed[a]	Nitrogen directly from manifold	No. 4FWD with manifold N_2
F-12, ppt	9	3	5	20
F-114, ppt	11	1	4	13
F-11, ppt	1	1	4	43
F-113, ppt	3	65	53	167
$CHCl_3$, ppt	ND[b]	ND[b]	ND[b]	5
CH_3CCl_3, ppt	5	28	27	100
CCl_4, ppt	ND[b]	ND[b]	5	ND
$CHCl{=}CCl_2$, ppt	2	ND[b]	7	87
C_2Cl_4, ppt	1	44	45	23
N_2O, ppb	7	2	4	11

[a] Analyzed by positive pressure sample transfer procedure.

[b] ND = not detected.

C-2

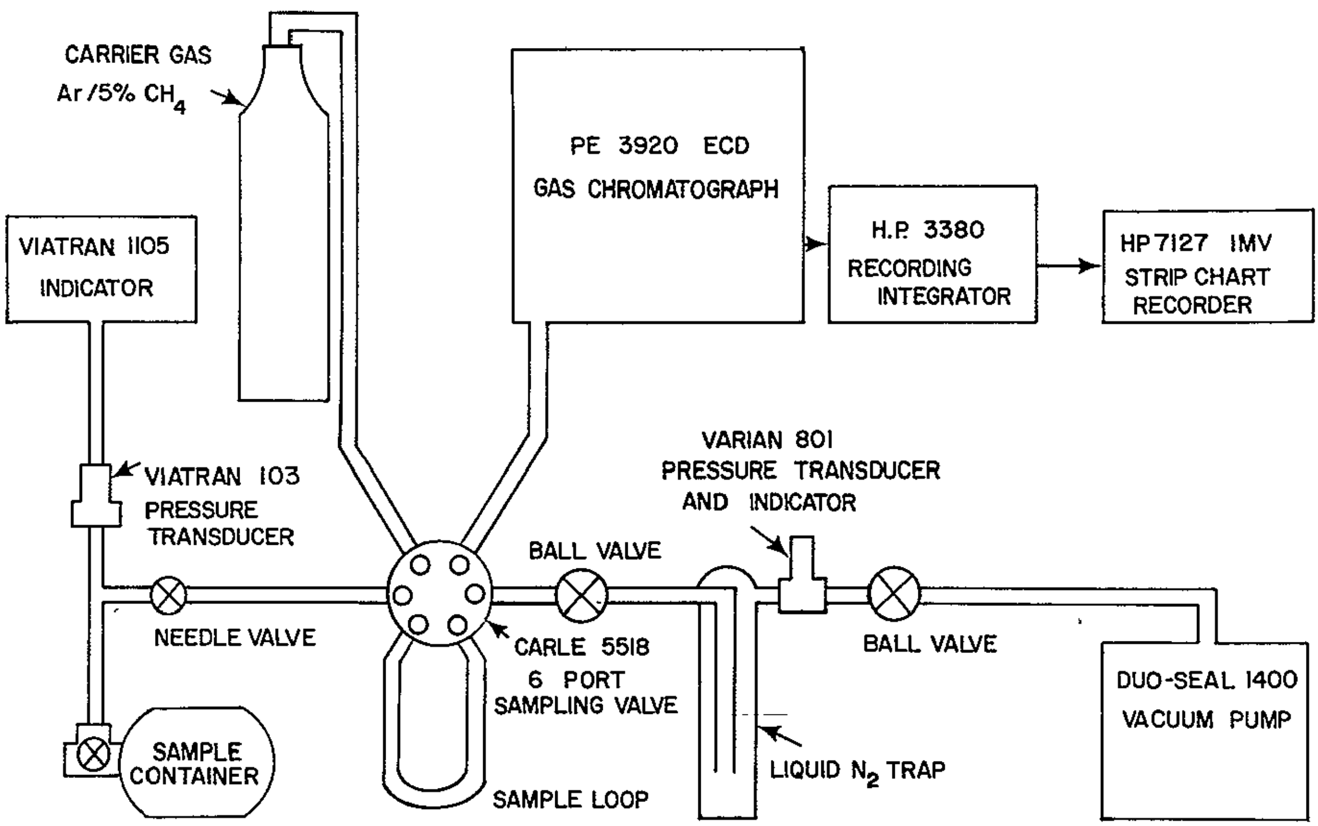

Figure 5.- Schematic of the low-pressure air sample transfer system.

pressure is maintained on the Varian 801 pressure indicator, a sample volume of about 30 ml measured at room temperature and pressure will be drawn through the freezeout loop.) The sizes of sample volumes transferred during the field study ranged from 8 to 40 ml (measured at room temperature and pressure). The 200-μm pressure and 10-min sample time are arbitrary conditions, and were selected because the lowest-pressure samples analyzed during the study contained only enough pressure (1 psia) to produce a 200-μm pressure in the system with the needle valve completely open.

After the sampling period was completed, the needle valve was closed and a final sample pressure reading was noted on the Viatran indicator. The liquid oxygen was removed and hot water was applied to the freezeout loop simultaneously with the operation of the Carle valve. The argon/methane (95%/5%) carrier gas swept the contents of the loop onto the head of the column (6.35 mm by 3.05 m stainless steel, 10% SF-96 on 100/120 mesh Chromosorb W). The valve on the sample container was closed, the Perkin Elmer 3920 GC oven was temperature programmed (-10° to +70° C at 8° C/min with an initial 1-min hold at -10° C), and recording instrumentation was started. The output of the electron-capture detector was recorded on a Hewlett-Packard Model 3380 recording integrator and, on a magnified scale, on a Hewlett-Packard Model 7127 strip chart recorder. An example of the integrator trace for an ambient air sample is shown in figure 6. Both integrator areas and peak heights can be used to calculate mixing ratios of the sample components.

Table 4 lists the halocarbons that were measured using this method, and presents data on precision of analysis and detection limits. Linearity studies of two types have been performed concerning this method. Linearity of the electron-capture detector has been verified over a range much greater than that required to analyze 30-ml aliquots of stratospheric air. A study of the response of the method to various sized sample aliquots was also made using a sample from one of the U-2 flights. Instrument responses observed for this sample for various sized aliquots are plotted in figure 7. The efficiency of cryogenically trapping the sample components was proved by the similar mixing ratios of components obtained when comparing this sample transfer procedure to the use of a normal analysis using a 5-ml sample loop on the same known sample.

Because this vacuum sampling technique was employed in a laboratory containing greater levels of the halocarbon species of interest than the mixing ratios in the samples, it was essential to maintain a leak-tight system to prevent contamination. Silver soldering of system components that need not be dismantled was employed to minimize the number of potential sources of leaks. A leak test was performed each time a sample container was connected to the system. The test was conducted as follows: The entire system was opened to the vacuum pump by moving the Carle valve into the sample loading position to include the freezeout loop in the sampling system. After a stable pressure was reached, as read on the Varian 801 vacuum indicator, the vacuum pump was isolated from the system. A rise in pressure in the system, as noted on the Varian 801 indicator, was indicative of a leak.

The volume of a sample that had been passed through the freezeout loop was calculated by finding the difference between the initial and final pressures in the sampling container, dividing by the barometric pressure, and

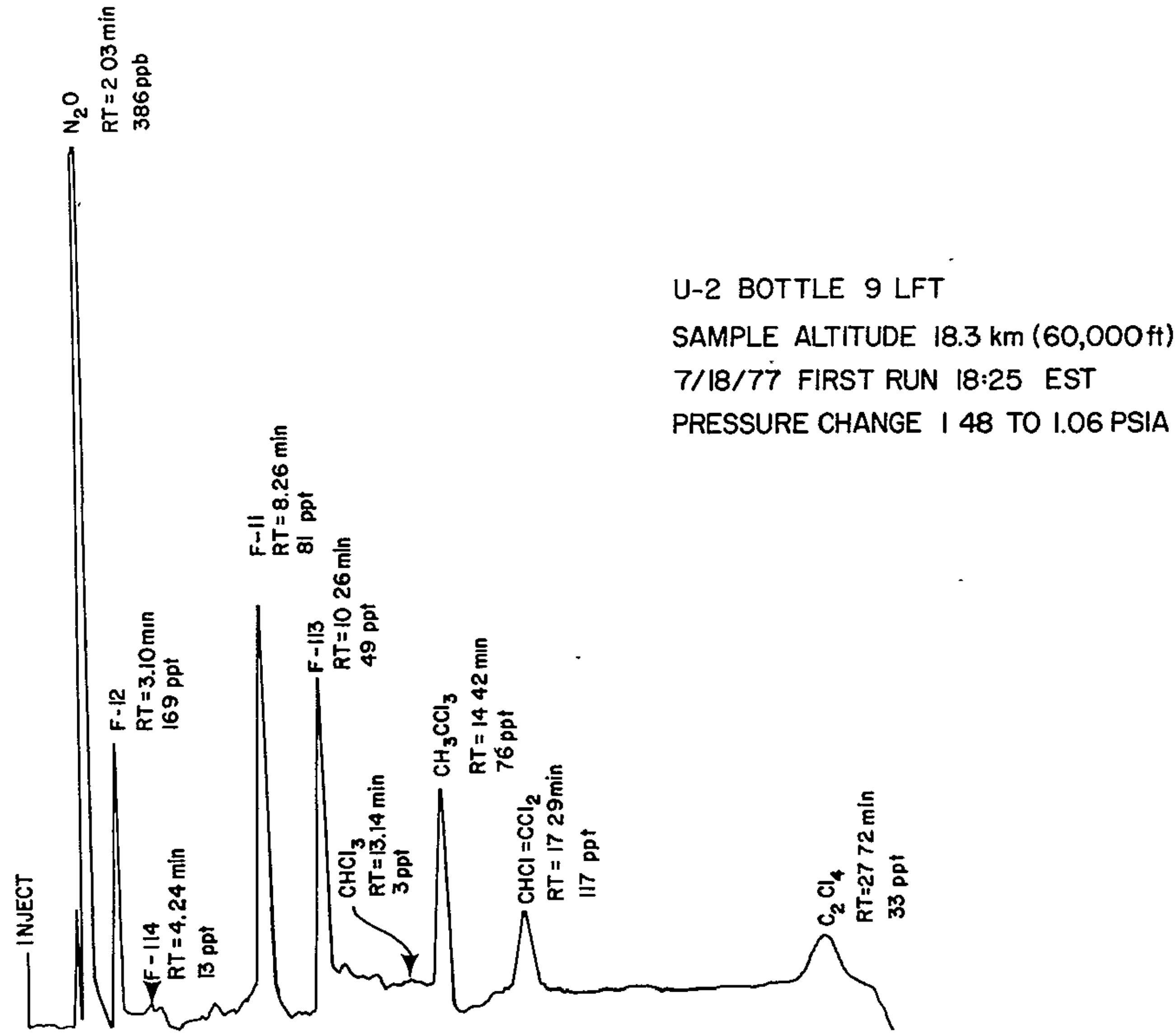

Figure 6.- Sample chromatogram of a stratospheric air sample.

TABLE 4.- PRECISION OF ANALYSIS AND DETECTION LIMITS FOR LOW-PRESSURE SAMPLES OF SECONDARY STANDARD

Compound	Mixing ratio, ppt	Precision, % S.D.	Number of analyses	Detection limit[a] for 30-ml sample at STP, ppt
F-12	238	2	10	4
F-14	11	8	10	2
F-11	144	3	10	1
F-113	23	10	2[b]	2
$CHCl_3$	29	5	10	2
CH_3CCl_3	105	7	10	2
CCl_4	138	5	10	1
$CHCl{=}CCl_2$	22	10	10	1
C_2Cl_4	33	6	10	1
N_2O	331 ppb	2	10	3 ppb

[a]Defined as 2X noise or 1000 area units on the HP 3380 integrator.

[b]Other samples were contaminated by hangar air.

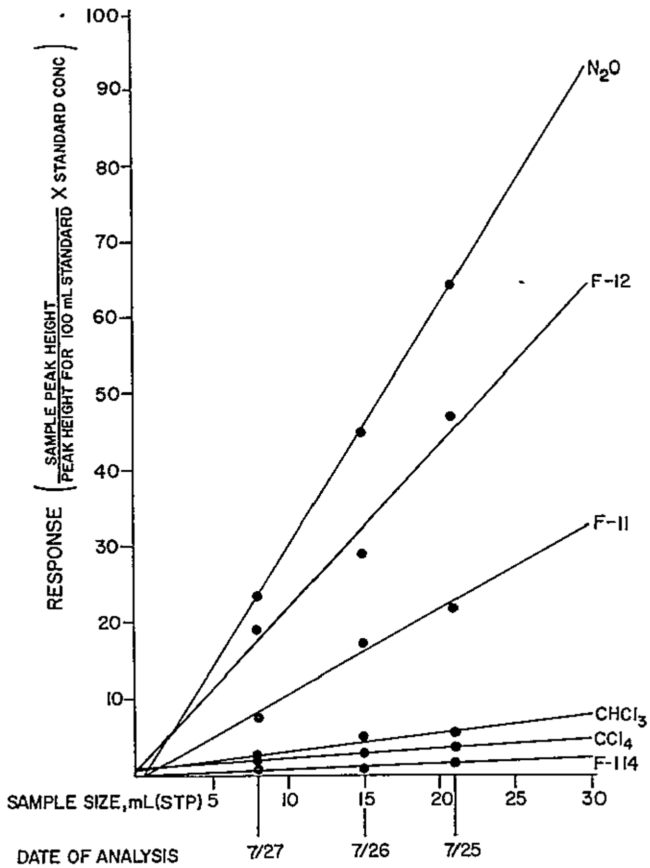

Figure 7.- Detector response as a function of sample size for a stratospheric air sample.

multiplying by the volume of the sampling container. Calibration was accomplished by sampling a known volume from a container of a secondary standard of halocarbons and nitrous oxide in air, which had been standardized against static dilutions of commercial gas mixtures of halocarbons and nitrous oxide. The formulas for these calculations are shown in table 5.

Contamination by halocarbons within the sampling system was monitored by analysis of a sample container containing a zero gas with no halocarbons present. A 10-min sample of the zero gas was taken and analyzed in the usual manner. Blanks of less than 10 ppt of any halocarbon were routine in the laboratory air at Howard Air Base. Blanks of less than 5 ppt are routine in normal laboratory air. When gross halocarbon concentrations are not present in the laboratory air, all 11 of the halocarbon species listed in table 4 can be measured. During the Panama ITCZ study, however, the analytical laboratory was housed in a corner of a large aircraft hangar, and extremely large mixing ratios of F-113 (15-20 ppb), trichloroethylene (1-2 ppb), and tetrachloroethylene (0.1 ppb) were found. It appeared that gross contamination in the laboratory of these relatively high-boiling halocarbons resulted in adsorption of the halocarbons on the surfaces of the fittings of the sampling containers and system plumbing during periods when the system was exposed to laboratory air. It then became impossible to obtain satisfactory blanks for these three species. Lower-boiling halocarbons did not appear to present contamination problems, nor do more reasonable levels of the higher-boiling halocarbons in the laboratory environment.

RESULTS

Learjet Samples

Results of the analyses performed on the Learjet samples are presented in appendix C. (Note that in the discussion that follows, tables in the appendixes are designated as, e.g., table C or table D — meaning tables 1 and 2 in appendixes C and D, respectively — to differentiate those tables from tables within this section.) The first section of appendix C, table C1, contains the average of the duplicate results from the isothermal ECGC analyses obtained at the ground laboratory in Panama for each of the 14 Learjet flights. The altitude (in both feet and kilometers), outside (ambient) temperature in degrees Celsius, canister designation, sample location, and sampling time are also given in table C1. Where this information is not repeated in subsequent tables, cross-correlation is possible through the canister designation. The 14 daily Learjet flights provided a total of 264 whole-air samples. Table C2 gives the halocarbon and N_2O analytical results from the 16 ground level samples. Table C3 details the temperature-programmed halocarbon analyses for the remaining halocarbon species for 61 samples analyzed at WSU. CH_3Cl and CH_2Cl_2 analytical results from 40 selected samples are given in table C4; SF_6 data for 12 samples are in table C5; and the C2 hydrocarbon data for 30 samples are in table C6.

TABLE 5.- FORMULAS FOR CALCULATION OF MIXING RATIOS FOR LOW-PRESSURE SAMPLING METHOD

$$\text{Standard response value} = \frac{\text{Mixing ratio of standard}}{\dfrac{100}{\dfrac{\Delta P}{P_{baro}}\begin{pmatrix}\text{volume of}\\ \text{sample}\\ \text{container}\end{pmatrix}}\begin{pmatrix}\text{observed}\\ \text{response of}\\ \text{standard}\end{pmatrix}}$$

$$\text{Mixing ratio of sample} = \begin{pmatrix}\text{standard}\\ \text{response}\\ \text{value}\end{pmatrix}\frac{100}{\dfrac{\Delta P}{P_{baro}}\begin{pmatrix}\text{volume of}\\ \text{sample}\\ \text{container}\end{pmatrix}}\begin{pmatrix}\text{actual}\\ \text{response}\\ \text{of sample}\end{pmatrix}$$

where:

ΔP = initial pressure of sample or standard in container minus final pressure

P_{baro} = barometric pressure in same pressure units as P

All calculations are normalized to a 100 ml sample volume

Volume expressed in ml; mixing ratio in parts by volume; responses can be either peak heights or peak areas

U-2 Samples

Appendix D contains all the data available on halocarbon and N_2O mixing ratios obtained from the U-2 samples. Table D1 gives data from both the cryogenic samples analyzed by personnel from Ames, and the WSU whole-air samples. The WSU data are averages of the results determined by three analyses of each sample. The analytical data for each analysis are given in table D2. The flights, numbered 21-26, were made between July 18 and 28, 1977.

Again, the discrepancy between Ames and WSU calibrations for N_2O must be noted. The WSU values for N_2O are believed to be higher by a factor of about 1.12 relative to those of Ames Research Center, but further work is in progress to confirm this. WSU values for F-113 are not reported because the high concentration levels in the analytical laboratory at Howard Air Force Base caused unavoidable contamination of the exposed surfaces of the sample containers and of the sampling system. Additionally, many of the values reported for F-114, $CHCl_3$, $CHCl{=}CCl_2$, and C_2Cl_4 obviously suffer from contamination problems. The very low values observed for CCl_4 apparently resulted from degradation of CCl_4 in the whole-air bottles between the times of sampling and of analysis.

DISCUSSION

Because of the relatively high tropopause in the ITCZ area (average 51,500 ft or 15.7 km during the field work), all of the Learjet samples were collected in tropospheric air. Samples were taken at various altitudes to determine if there was any variation in the mixing ratios of any of the chemical species measured as a function of altitude. In general, no concentration gradients were observed; that is, the tropospheric vertical profiles were uniform with height above the boundary layer. This is consistent with the expectation that the troposphere is vertically well mixed.

Specifically, 257 whole-air samples gave an average of 331.0 ppb for N_2O with a percentage standard deviation of 0.7%. Of the 264 possible samples, 2 were lost, 2 were Learjet cabin-air samples, and 3 samples were collected in the boundary layer (discussed later). This is the same mixing ratio reported by WSU in several other studies, for example, 331.0 ppb for flights in March 1976, 330.4 ppb from flights in April 1977 (ref. 3). There is no evidence of a tropospheric time trend or of any latitudinal gradient for this atmospheric constituent. Therefore, N_2O should act as a very useful tracer of transport of tropospheric air into the stratosphere as discussed later.

In discussions of F-12, F-11, and CH_3CCl_3, note that the data from the first Learjet flight have been discarded due to severe sample contamination which was traced to a contaminated sample line (subsequently replaced). Likewise, none of the samples collected using the "Boeing" pump are considered in the following discussion of these species. (There is no discernible difference between the CH_3CCl_3 values observed from the probe samples and the compressor air samples, despite the expectation of sample contamination from the information in table 2.) The samples that were collected from bleed air off the engine compressors are marked with a "C" in table C1.

There were 140 samples collected at and above 10,000 ft from the compressor system. F-12 averaged 246.1 ppt with a standard deviation of 3.5 (1.4% S.D.). By comparison, in April 1977 F-12 averaged 244 ppt at lat. 37° N for 28 samples collected above an altitude of 20,000 ft and 247 ppt at a remote ground site in Washington State on July 16-17, 1977. These data support the observation that F-12 is well mixed within the Northern Hemisphere. That conclusion is only valid when comparisons are made within a very short time period due to the increasing hemispheric burden of this compound in the atmosphere (about 10% per year).

F-11 gave a tropospheric average of 152.6 ppt with a standard deviation of 2.6 (1.7% S.D.). Comparing again to the April 1977 flight and July 1977 ground data sets, no significant latitudinal gradient was observed during this time period (<1.5%) in spite of some latitudinal variations which were observed in October, 1976.[1] The F-11 values were observed to be slightly higher at the beginning of each flight, indicating there may still have been a small contamination problem remaining for this species even with the compressor air sampling system. This may have raised the tropospheric average by as much as 2-3 ppt.

Methyl chloroform, on the other hand, did exhibit a latitudinal gradient in the Northern Hemisphere. The tropospheric average observed for this atmospheric constituent in the ITCZ was 97.3 ±4.6 ppt. Both the late April 1977 aircraft samples and the July ground samples at midlatitudes averaged 115 ppt. This 18% decline cannot be attributed to normal mixing processes because the fluorocarbons do not show such a precipitous decline. The most likely explanation is that the major attacking species for this compound, OH radical, is more abundant near the equator due to the intense sunlight and higher water vapor content in that region.

Carbon tetrachloride had a tropospheric average of 130.3 ±3.4 ppt for 247 samples collected at, or above, 10,000 ft. This is about the same as the 132 ppt observed in April at lat. 37° N. Although the atmospheric burden of this compound might be increasing very slowly (1-2% per year), the rate is not nearly as great as for F-12 (~10% per year), F-11 (~12-14% per year), or CH_3CCl_3 (~10-20% per year).

Of the remaining halocarbon species reported in table C3, the F-113 data appear to show contamination (see table 1) compared to a tropospheric background average of 18 ppt from the April flights. F-114 averaged 12 ±3.2 ppt for 50 samples; $CHCl_3$ averaged 11 ±5.1 ppt for 46 samples; and $CHCl{=}CCl_2$ averaged 15.2 ±6.1 ppt for 42 samples. Each of these three components were apparently exposed to intermittent sample contamination. These averages are in good agreement with the 11 ±1 ppt for F-114, 7 ±2 ppt for $CHCl_3$, and 11 ±6 ppt for $CHCl{=}CCl_2$ measured during April. The 53 samples at, or above, 10,000 ft gave an average of 9.4 ±2.8 ppt for C_2Cl_4; an average of 10 ±5 ppt was obtained in the midlatitudes.

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[1]Saunders, W. D.; Robinson, E.; Cronn, D. R.; Rasmussen, R. A.; and Pierotti, D.: F-11 and N_2O in the North American Troposphere and Lower Stratosphere. Submitted to Water, Air, Soil Pollut., 1978.

The values for the 25 samples collected above 10,000 ft and analyzed for CH_3Cl (table C4) averaged 0.6 ppb with a 10% standard deviation. Previous measurements at WSU of midlatitudinal tropospheric background levels of this compound have given values of 0.53 to 0.57 ppb. Due to the poor precision of these measurements, the difference cannot be assumed to be statistically significant. This is the only known naturally-occurring chlorine-containing compound in the troposphere and, based on the average values of all the chlorine-containing material measured in this study, accounts for only about one fifth to one quarter of the total reservoir of chlorine which might effect stratospheric ozone levels.

CH_2Cl_2 averaged 34 ppt for 26 samples collected above 10,000 ft with an 11% standard deviation. This agrees quite well with the average of 30 ppt (27% S.D.) from 28 midlatitude samples collected in April 1977. Although there are huge anthropogenic emissions of this compound worldwide, the lifetime against OH radical attack is very short; therefore, the low levels observed seem reasonable.

The remaining halocarbon measured during the ITCZ experiment is SF_6. Twelve analyses gave an average value of 0.2 ppt with a standard deviation of 9%. Again this is similar to measurements made by WSU in the midlatitudes.

Two C2 hydrocarbons were also measured in selected samples from the field project. Thirty samples were analyzed for ethane, acetylene, and ethylene (table C6). Although the ethylene data are also given in table C6, no interpretation of the concentration is attempted due to an indication that the Teflon gaskets in the sample pump outgas ethylene.

Ethane averaged 0.95 $\mu g/m^3$; 1.3 $\mu g/m^3$ were observed in tropospheric air at lat. 37° N in April 1977. Acetylene averaged 0.09 $\mu g/m^3$ compared to 0.29 $\mu g/m^3$ in April 1977 at lat. 37° N. Since the source for acetylene is anthropogenic (vehicle exhaust), the large drop-off is not unexpected.

Table 6 summarizes the tropospheric background averaged mixing ratios for all the chemical species measured in the positively-pressurized whole-air samples collected on board the Learjet during the ITCZ study. The comparison with the values collected during the flight series in late April 1977 at lat. 37° N is also included in table 6.

The Learjet samples collected at the lowest altitudes did show occasional elevations in mixing ratios for individual compounds. For example, N_2O was 350 ppb at 500 ft on July 18, 372 ppb at 5,000 ft on July 21, and 349 ppb at 2,000 ft on July 26 (table C1). These elevated mixing ratios coincided with periods of heavy use of the landing field, and since the samples were collected at low altitudes on a northbound final approach to the runway at Howard Air Force Base, it is assumed that these higher levels occurred due to emissions of N_2O (or a compound with an identical retention time) in the engine exhaust of the planes landing at the field.

Although the precision of the CH_3Cl analysis was only about 10%, the samples collected at altitudes less than 10,000 ft averaged 10.8 ppb or 40% higher than the average of the samples collected above 10,000 ft (table C4).

TABLE 6.- NORTHERN HEMISPHERIC MIXING RATIOS OF CERTAIN HALOCARBON SPECIES, C2 HYDROCARBONS, SF_6, AND N_2O

Compound	July 1977[a]	April 1977[b]	
N_2O	331.0 2.2 (0.7%) 257	330 1.8 (0.5%) 28	Mean M.R., ppb S.D., % n
F-12	246.1 3.5 (1.4%) 140	244 3.7 (1.5%) 28	Mean M.R., ppt S.D., % n
F-11	152.6 2.6 (1.7%) 139	150.0 5.2 (3.5%) 24	Mean M.R., ppt S.D., % n
CH_3CCl_3	97.3 4.6 (4.8%) 139	115 15 (13%) 25	Mean M.R., ppt S.D., % n
CCl_4	130.3 3.4 (2.6%) 247	132 5.3 (4.0%) 24	Mean M.R., ppt S.D., % n
F-113	---	18 2.3 (13%) 28	Mean M.R., ppt S.D., % n
F-114	12 3.2 (26%) 50	11 0.75 (6.7%) 22	Mean M.R., ppt S.D., % n
$CHCl_3$	11.0 5.1 (46%) 46	7 1.6 (23%) 28	Mean M.R., ppt S.D., % n
$CHCl{=}CCl_2$	15 6.1 (40%) 42	11 5.7 (51%) 28	Mean M.R., ppt S.D., % n
C_2Cl_4	9.4 2.8 (30%) 53	10 4.7 (48%) 26	Mean M.R., ppt S.D., % n

[a]ITCZ experiment, Panama Canal Zone (~lat. 9° N).

[b]Flight area: Pacific Ocean west of San Francisco (~lat. 37° N).

TABLE 6.- CONCLUDED.

Compound	July 1977[a]	April 1977[b]	
CH_3Cl	0.6 0.09 (14%) 26	0.56 0.05 (9.1%) 28	Mean M.R., ppb S.D., % n
CH_2Cl_2	34 3.7 (11%) 26	30 8.0 (27%) 28	Mean M.R., ppt S.D., % n
SF_6	0.2 0.02 (9%) 12	0.2 0.01 (8%) 28	Mean M.R., ppt S.D., % n
C_2H_6	0.95 0.37 (39%) 28	1.3 0.35 (27%) 19	Mean Conc. ($\mu g/m^3$) S.D., % n
C_2H_2	0.09 0.09 (97%) 28	0.29 0.20 (70%) 19	Mean Conc. ($\mu g/m^3$) S.D., % n

This observation is consistent with the understanding that the source of atmospheric CH_3Cl is biogenic, coming from marine algae in the ocean. (The lowest altitudes sampled were on the approach to landing and the approach was over the Pacific Ocean.) Chloroform also appeared to have higher concentrations in the lower altitude samples (if obviously contaminated samples are disregarded). Dr. Hanwant Singh at Stanford Research Institute has suggested elevated atmospheric $CHCl_3$ values near the ocean are due to anthropogenic contamination of coastal waters which act as a source. On the other hand, Dr. Hal Westberg at Washington State University believes this component may have a natural source in bogs and marshes (private communication).

The mixing ratios of F-12, F-11, and CH_3CCl_3 within the boundary layer were sometimes elevated relative to the values above the mixing layer. The most pronounced example of this behavior was the levels of 282 ppt for F-12, 166 ppt for F-11, and 180 ppt for CH_3CCl_3 at 1,700 ft on July 28. On other flights, the mixing ratios for these three compounds remained close to those at higher altitudes (e.g., 248 ppt for F-12, 155 ppt for F-11, and 101 ppt for CH_3CCl_3 at 1,700 ft on July 30). The differences can be attributed to the meteorological conditions, especially wind direction and dispersion characteristics, that existed for each day. CCl_4 never exhibited higher levels within the mixing layer relative to the upper levels for aircraft samples.

All of these observations are reasonable. Although most of the anthropogenic emissions of F-12, F-11, and CH_3CCl_3 occur in the midlatitudes of the Northern Hemisphere (half the worldwide F-11 and F-12 emissions come from the U.S.), any fairly industrialized or high-technology area, such as Howard Air Force Base, will contribute local emissions of these compounds as well. Such a local influence has been measured from the Learjet as well as in the ground-level samples.

The ground-level samples (table C2) generally showed F-12 and F-11 levels elevated above tropospheric background values in, and near, the vicinity of Howard Air Force Base. Decreasing values correlate well with distance from the center of the base and, hence, human activity (Building 519, Kobbe Elementary School, Howard Elementary School, rifle range near the canal bank). Near-background values of 249 ppt for F-12 and 149 ppt for F-11 were observed in the more rural areas; that is, in the marsh north of the base and in the Spanish Trail park. Methyl chloroform and carbon tetrachloride typically showed near-background values. The highest values for these two species were observed at the sites closest to the canal, indicating that activity associated with the canal could be a local source of these two compounds. The nitrous oxide values were always consistent with background values showing that the presumed natural source (soil bacteria) is highly diffuse (or far enough away to allow complete mixing).

The U-2 aircraft collected both tropospheric and stratospheric air samples. All of the cryogenically-collected samples were collected above the tropopause (which ranged from 14.5 km or 47,500 ft to 17.5 km or 57,500 ft) at 19.8 km (60,000 ft) and 21.3 km (70,000 ft). Six low-pressure whole-air samples were collected below the tropopause at 13.7 km (45,000 ft). Six additional samples were collected at or just above the tropopause at 16.8 km

(55,000 ft). The remaining U-2 whole-air samples were split between 18.3 km (60,000 ft) and 19.8 km (65,000 ft), with 11 and 7 samples, respectively.

In general, the whole-air sample results are intermediate between the troposphere values observed from the Learjet and the mixing ratios observed from the highest altitude samples collected cryogenically. Vertical altitude profiles can be constructed for most of the species measured during the ITCZ experiment because the three sampling and analysis procedures used appear to be generally compatible. By combining the three sets of results, the profiles can be extended from the lower troposphere, through the tropopause and into the lower stratosphere.

However, there is a considerable amount of scatter in the halocarbon data collected by whole-air sampling from the U-2 platform. This is attributed, in part, to the fact that the sampling and analysis methods are prone to contamination, degradation of species in the sampling containers, and adsorption and desorption of the components of interest on the surfaces of both the samplers and the analysis equipment.

The precision of the three replicate analyses of each U-2 whole-air sample was not as good as had been expected. Three reasons are noted. The first two are a result of the 1 to 2 days that elapsed between sample collection and the second and third analyses. During that time, the sample could have been contaminated by outgassing from the sample bottles or during the previous sample transfer steps. That possibility would cause increasing sample concentrations to be observed over time. Any sample degradation, on the other hand, would give decreasing values as a function of time. A third contributor to the less-than-ideal precision was the difficulty already discussed in obtaining blanks in the hangar laboratory. This problem occurred randomly and would always cause extraneously elevated values for any species involved.

As a result of the large observed variability in both the replicate analyses of a given U-2 whole-air sample and the comparison of samples collected at the same altitude, much effort has been made to understand and explain the variability statistically. Normally, mixing ratios are obtained on an electron-capture detector GC by bracketing several sample runs by external standard runs. The standard responses are averaged before comparison to each sample run. Furthermore, the first chromatographic run each day (always a standard run) is typically discarded. The number of standard runs for the U-2 whole-air analyses had to be restricted in order to complete the sample analyses before the samplers were prepared for the next flight. Therefore, a "t" test was made for each chemical species to determine if there were sufficient differences between the first run of each day and the subsequent runs to necessitate deletion of the first standard run from calibration considerations. The results of the "t" tests for F-12, F-11, CH_3CCl_3, F-114, $CHCl_3$, $CHCl{=}CCl_2$, and C_2Cl_4 indicated that there were no significant differences at the 95% confidence limit between the first calibration run of each day and any subsequent runs. Therefore, these runs were averaged with the other standard runs. On the other hand, the "t" test for N_2O showed that there were statistically significant differences between the first run and subsequent ones (first run peak areas were typically higher than subsequent ones). For this component, the first run of each day was discarded.

The precision on replicate runs of a low-pressure secondary standard was lower than for the pressurized standards used to calibrate Learjet samples (table 4). An analysis of variance was completed for both N_2O and F-12 to ensure that the variability in the course of 1 day due to changes in instrument sensitivity was still larger than all other sources of variability. If this were no longer true, a better estimate of the mixing ratios observed from each analysis run would be obtained by averaging all of the standard runs for the entire period the instrument was operating in the Panama Canal Zone, rather than averaging each set of daily standard runs. The results of the analysis of variance were not clear-cut. For N_2O, the within-day variability was significantly less than the variability over all days at the 5% level, but not at the 2.5% level. For F-12, at the 5% probability level, the within-day variability was large enough to indicate that the instrumental sensitivity was not the largest source of imprecision. Since the statistical analysis did not clearly indicate that a different calibration procedure was necessary, the decision was made to continue averaging only the standards run on a given day to assign mixing ratios for the samples run on the same day.

A chi-squared test was also done for each compound on the ranked individual analysis results. If outgassing of a particular component in the sampling canisters occurred, or loss of a sample component with time took place, that test would indicate such an occurrence by rejecting the null hypothesis which stated that the ranking would be evenly distributed between the six permutations of the ranking of three analyses per sample. The null hypothesis was easily accepted for every compound except F-12. Increasing concentrations with time were more often observed for F-12 than would have been predicted.

Finally, consideration was given to the effect on the sample results of errors in measuring the initial and final pressures in a sampling container for each separate analysis. Since the absolute error in the difference of the two pressure measurements increases as the pressure differential decreases, it was decided to discard any analyses with a starting pressure less than about 1 psia. The effect of contamination problems is also more significant at lower sample pressures. In practice, this resulted in retaining all three of the analyses for samples collected at 45,000 and 55,000 ft. The first two analyses of the 60,000 ft samples were also retained. Only the first analysis for the 65,000 ft samples was used in the data interpretation.

The average altitude profiles for five compounds have been plotted using the data from the Learjet and both the cryogenically collected and the whole-air U-2 samples. The five compounds are N_2O, F-12, F-11, CH_3CCl_3, and CCl_4. Figure 8 shows the average vertical profile for N_2O. The averaged values at 70,000 ft and 60,000 ft from the U-2 cryo samples are shown as filled-in circles with one standard deviation limits. The low-pressure whole-air sample averages at the four collection altitudes (65,000, 60,000, 55,000, and 45,000 ft) are shown as open circles with error limits. The averaged values at each 5,000-ft interval obtained from the Learjet are shown as filled circles connected by straight lines. The conventions are maintained for the remaining four compounds as well.

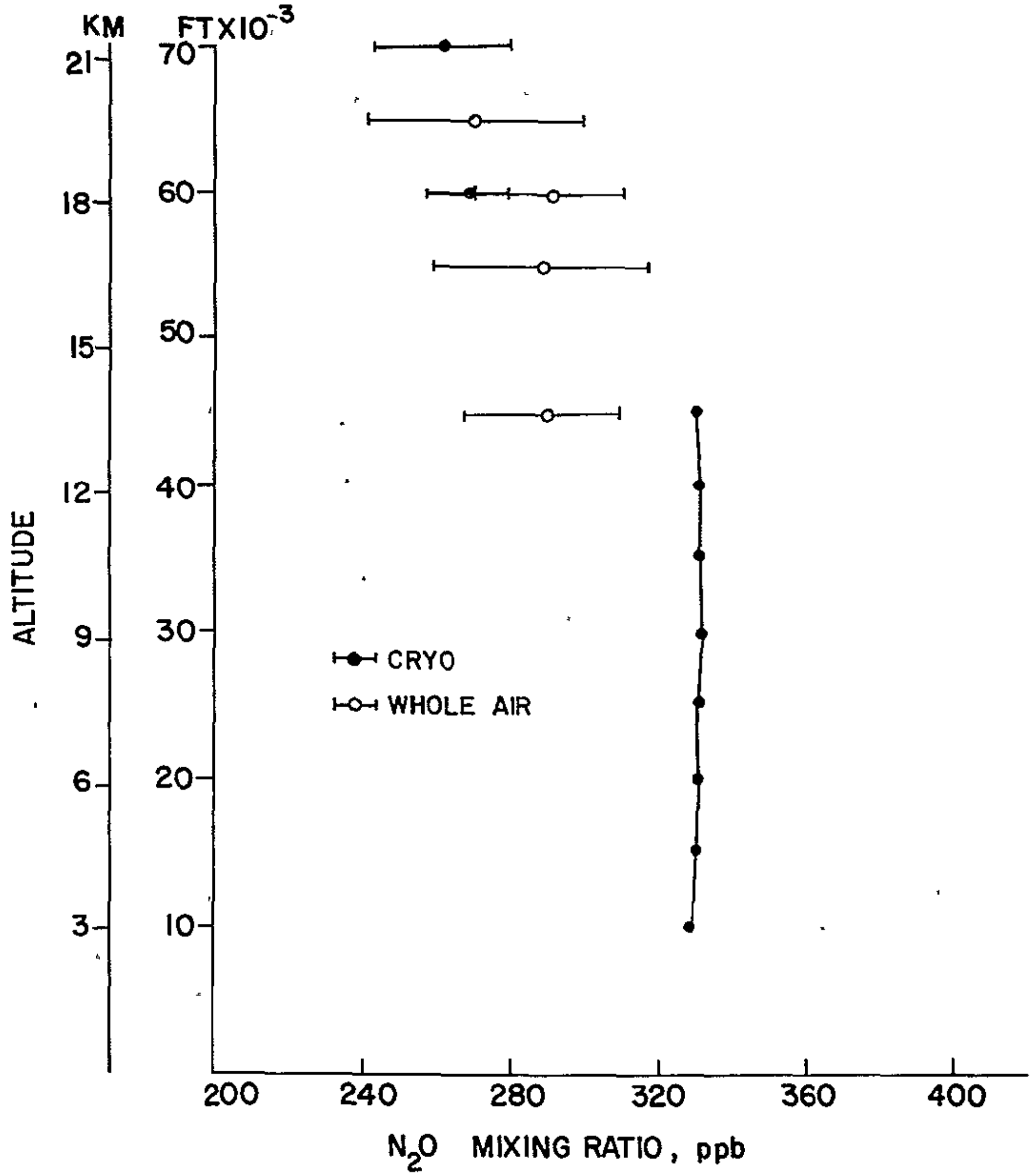

Figure 8.- Average altitude profiles for N_2O.

The uniform tropospheric distribution observed from the Learjet sampling platform for N_2O can be clearly seen in figure 8. As expected, the stratospheric samples have generally lower mixing ratios than the tropospheric samples. There is a continuing decrease with increasing altitude above the tropopause zone around 50,000 ft to 55,000 ft. As has been observed before (ref. 4), the fall-off with increasing altitude is not very pronounced near the equator. At 60,000 ft, the U-2 average for N_2O is about 7% lower than the average of the whole-air samples. This is probably due, in great part, to the calibration offset between the WSU and Ames laboratories. The only data point that appears extraneous is the average mixing ratio observed at 45,000 ft from the U-2 whole-air samples. The reason for the apparent low average is not clear. As will be seen, this same apparent anomaly also occurred for the 45,000-ft averages for F-12 and F-11. An explanation for one chemical species should probably be expected to account for the other two compounds as well.

The averaged vertical profile for F-12 is shown in figure 9. The slight bulge in the tropospheric distribution seen at 30,000 ft in the Learjet trace is probably due to sample contamination. The samples at 30,000 ft were always collected first. Any contaminant in the sample collection system at the start of each flight might not be completely flushed out of the system before the first samples were collected. The tropospheric distribution is uniform, however, within the 2% range of values observed from the Learjet. The stratospheric averages were generally lower than the tropospheric values. And the mixing ratio decreased with increasing altitude above the tropopause zone. The fall-off with increasing altitude is more pronounced for F-12 than it was for N_2O. The average mixing ratio observed from the 60,000 ft cryo samples is about 11% lower than the average of the 60,000 ft U-2 whole-air samples. The calibration offset between WSU and Ames would account for about 4% of this difference (ref. 5). After taking this calibration difference into account, the two averages are within each other's error limits. As mentioned in the discussion of N_2O, the averaged mixing ratio for F-12 at 45,000 ft from the U-2 whole-air samples is lower than expected.

The behavior of F-11 as a function of altitude is not that much different from F-12 as can be seen in figure 10. Again, the bulge at 30,000 ft is likely due to sample contamination. So within this limitation, the troposphere is uniformly well-mixed with respect to F-11. The fall-off is even more pronounced than for F-12 (at 70,000 ft the F-11 mixing ratio is down by more than half relative to the tropospheric average). The agreement at 60,000 ft between the cryo result and the whole-air average is quite good. The 45,000 ft whole-air sample average is low, as it was for N_2O and F-12. The fall-off through the tropopause zone appears to have been precipitous with a lesser decrease with altitude in the lower stratosphere. Differences in the slopes across the tropopause and in the lower stratosphere have been reported by WSU previously (ref. 6).

Although CH_3CCl_3 was not reported in the cryo samples, figure 11 shows the averaged altitude profile observed from the U-2 whole-air samples and the Learjet samples. The tropospheric distribution is uniform; the stratospheric averages are lower. Like F-11, it appears that there was a precipitous drop in mixing ratio across the tropopause zone and a further decrease to 65,000 ft.

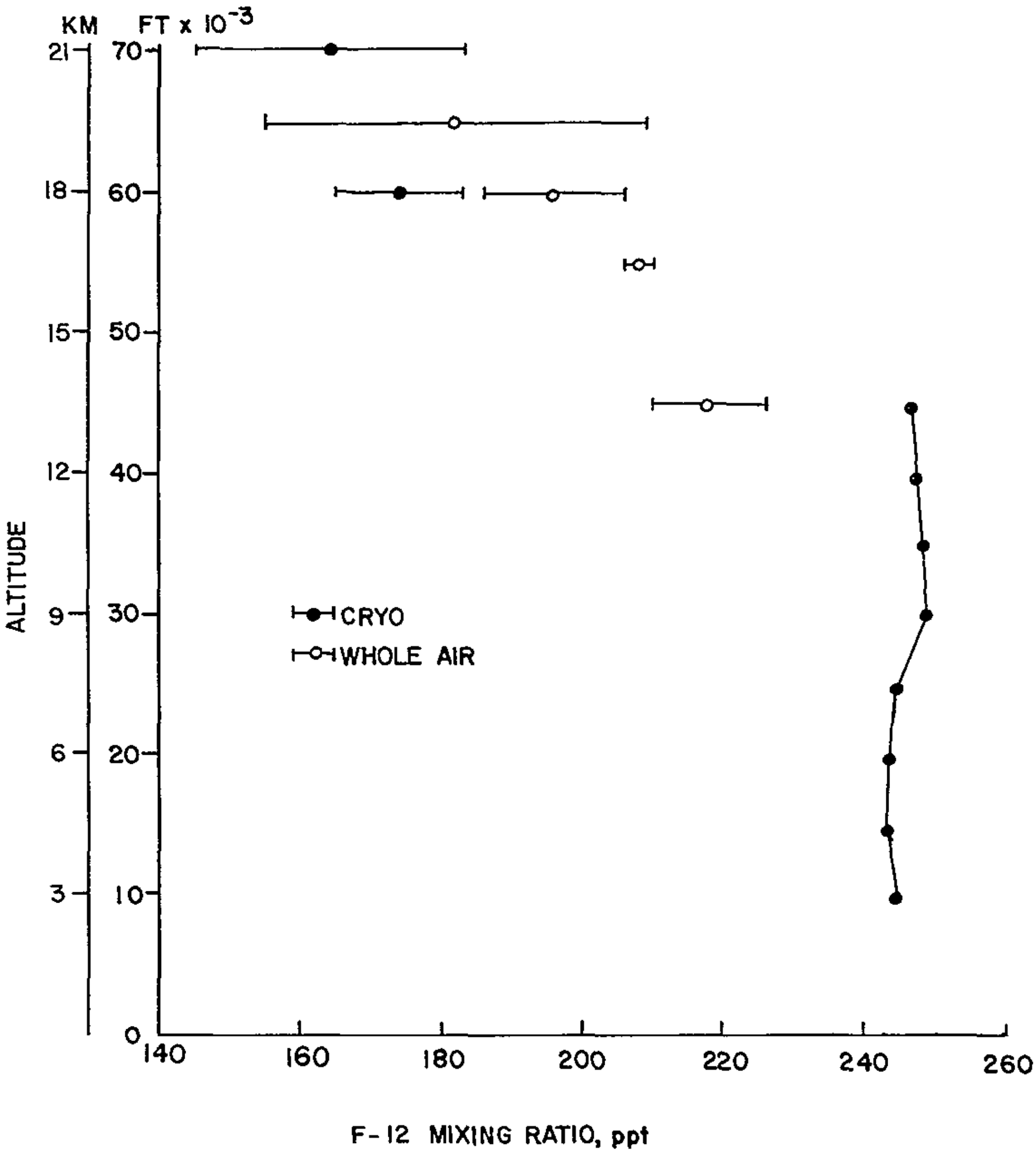

Figure 9.- Average altitude profiles for F-12.

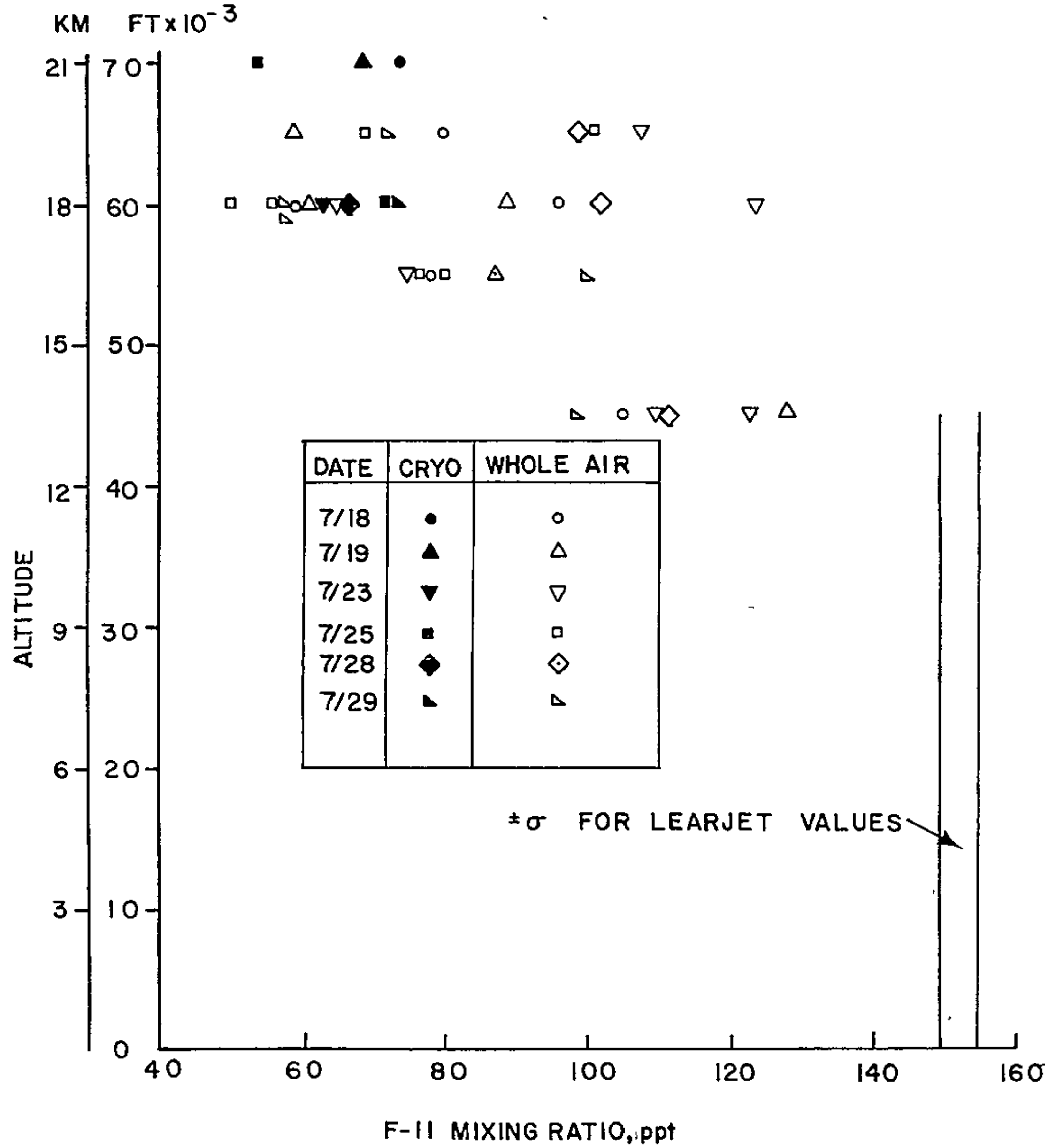

Figure 10.- Average altitude profiles for F-11.

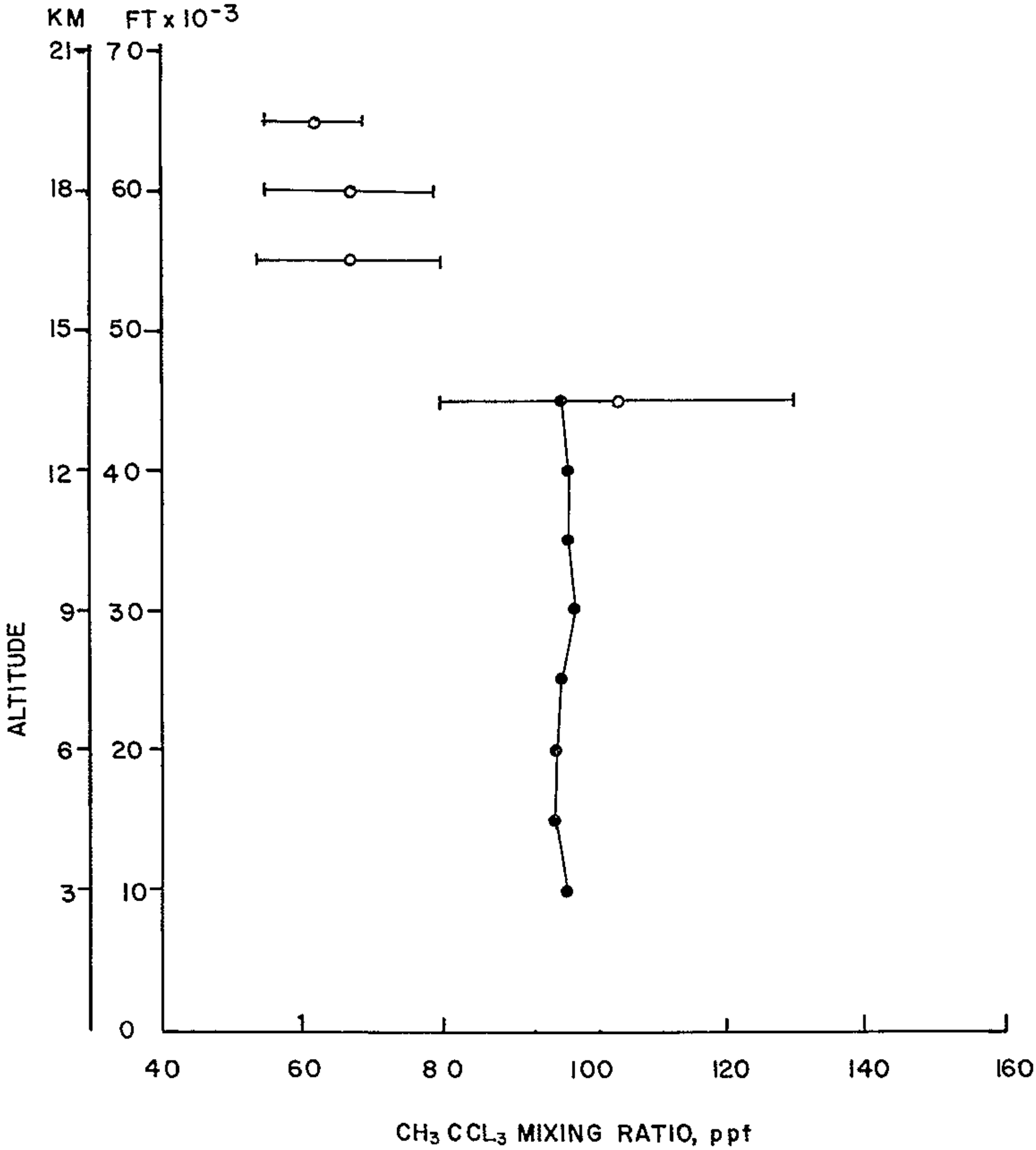

Figure 11.- Average altitude profiles for CH_3CCl_3.

The average altitude profile for CCl_4 is presented in figure 12. No CCl_4 results were reported from the U-2 whole-air samples. CCl_4 was uniformly distributed in the troposphere. The averaged 70,000-ft mixing ratio of 50.6 ppt from the cryo samples was less than the 60,000-ft average of 58.5 ppt. Both of these stratospheric altitudes showed substantially lower mixing ratios than the tropospheric average. The interlaboratory comparison for CCl_4 showed the calibration procedures were within 2%.

The objective of the project was to use the results of the chemical analysis of the air samples collected during the ITCZ experiment to provide useful information on tropospheric-stratospheric exchange processes. The only known sinks for the constituents N_2O, F-12, F-11, and CCl_4 are photodissociation in the stratosphere above 20 km. Therefore, the altitude distributions in the lower stratosphere are controlled by vertical transport processes. The slow fall-off in mixing ratios of these components, relative to tropospheric values, indicates a flux of these compounds into the lower stratosphere through the tropical tropopause. In order to study this transport process in detail, the variations as a function of time, latitude, and altitude of tracers of tropospheric air mass influences can be studied. The halocarbons and N_2O are just such tracers.

Figures 13 through 17 are plots of the mixing ratios of the individual data points for the U-2 samples (both cryo and whole-air) as a function of altitude for N_2O (fig. 13), F-12 (fig. 14), F-11 (fig. 15), CH_3CCl_3 (fig. 16), and CCl_4 (fig. 17). The solid symbols in the figures designate cryo sample results; the open symbols show whole-air sample results. A different symbol is used for each sample flight. The range of Learjet values is also shown for N_2O and CCl_4; the error limits (plus and minus 1 standard deviation) are shown for F-12, F-11, and CH_3CCl_3.

If entrainment of tropospheric air occurs as a result of convective updrafts associated with the thunderstorms in the ITCZ, then it might be expected that higher mixing ratios of tropospheric tracer gases would be observed in the lower stratosphere when the ITCZ is within the sampling area. Conversely, lower mixing ratios would be expected when the ITCZ had dissipated or was farther south or north of the sample area. Table D includes the position of the ITCZ each day the U-2 collected air samples for halocarbon and N_2O analyses. A study of figures 13 through 17 does not indicate that such a simple hypothesis will explain the variability of these constituents in the lower stratosphere. A more elaborate analysis is certainly needed. But to make maximum use of the chemical data collected during the ITCZ study requires the simultaneous consideration of some of the concurrently collected meteorological data. Specifically, the potential temperature and air mass trajectories should be intercompared with the data set discussed in this report. This more extensive interpretation requires the cooperation of several of the investigators who took part in the Canal Zone study. But this final phase in the analysis of the results could not precede the tabulation and reporting of each portion of the project separately. Therefore, it is anticipated that further work subsequent to this report will result in papers submitted for publication with joint authorship.

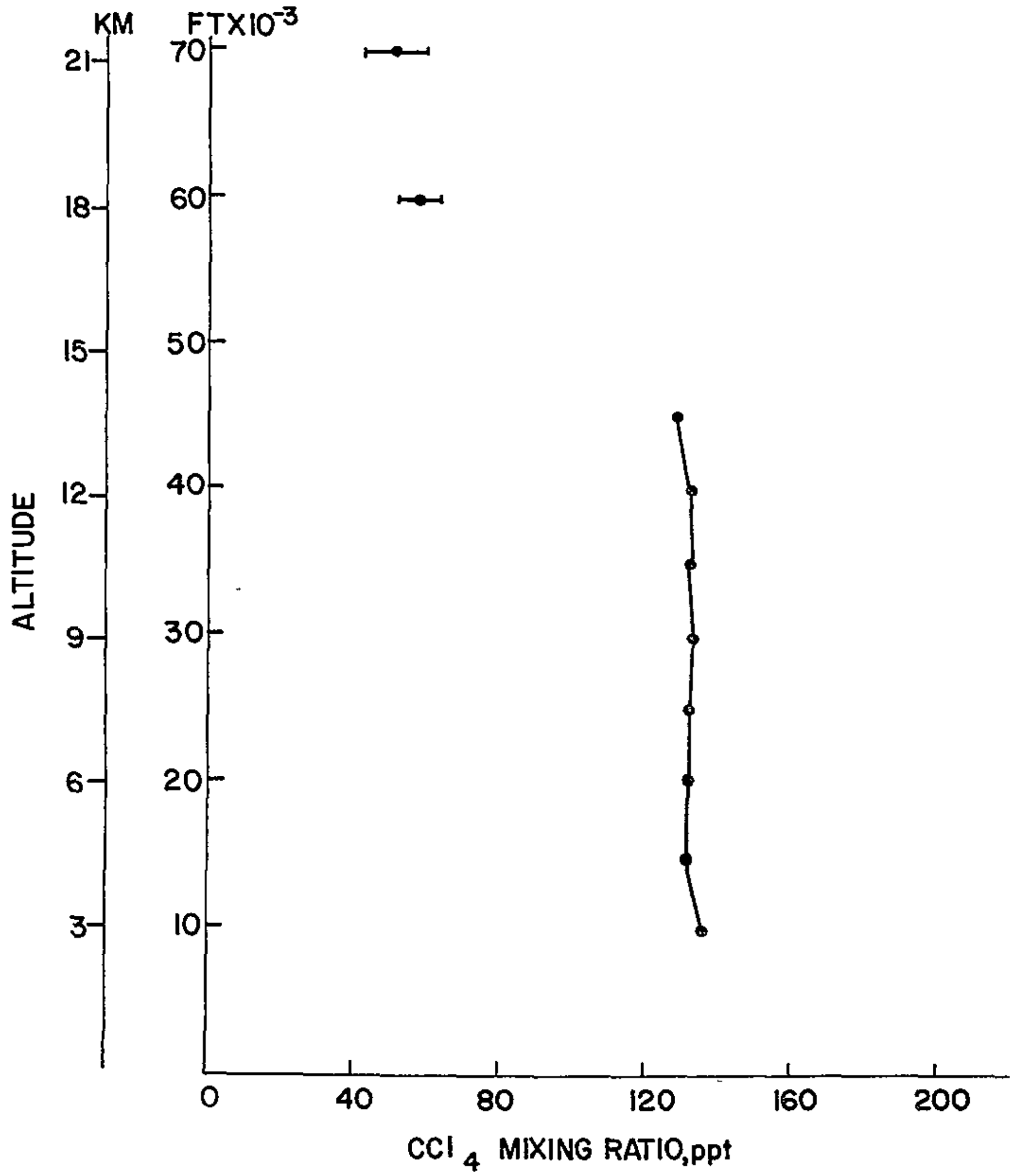

Figure 12.- Average altitude profiles for CCl_4.

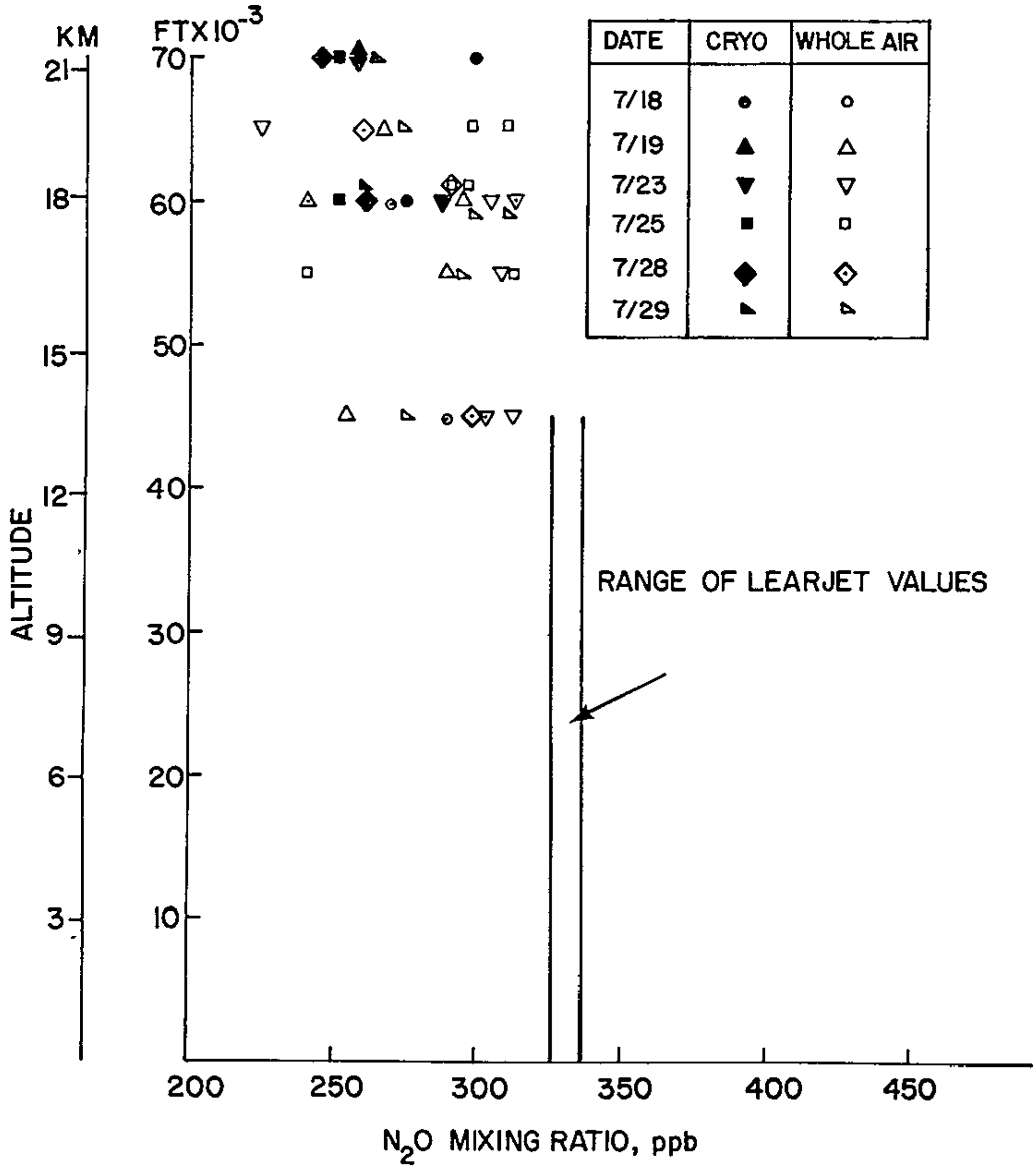

Figure 13.- Mixing ratio distribution of N_2O.

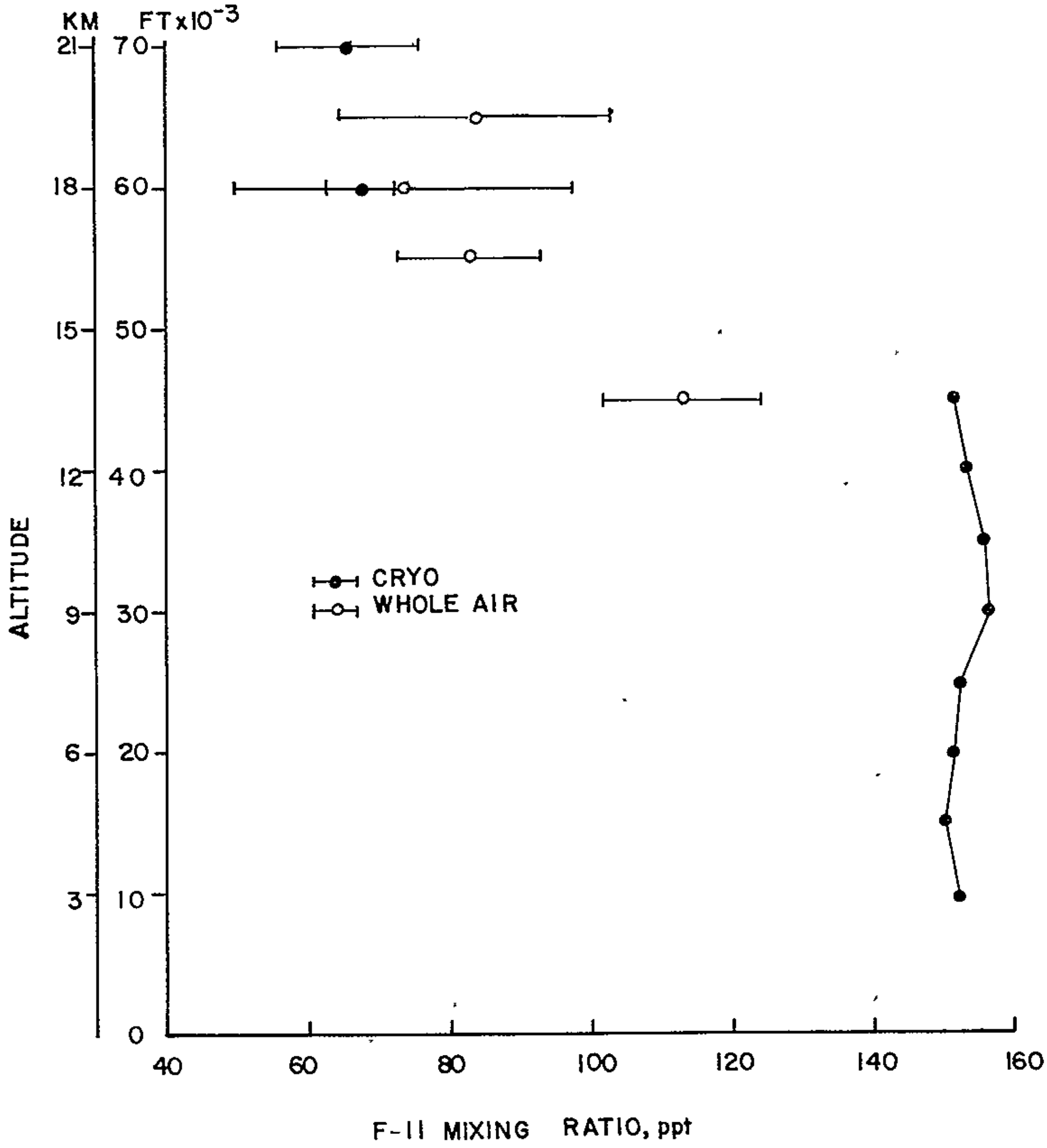

Figure 14.- Average altitude profile for F-11.

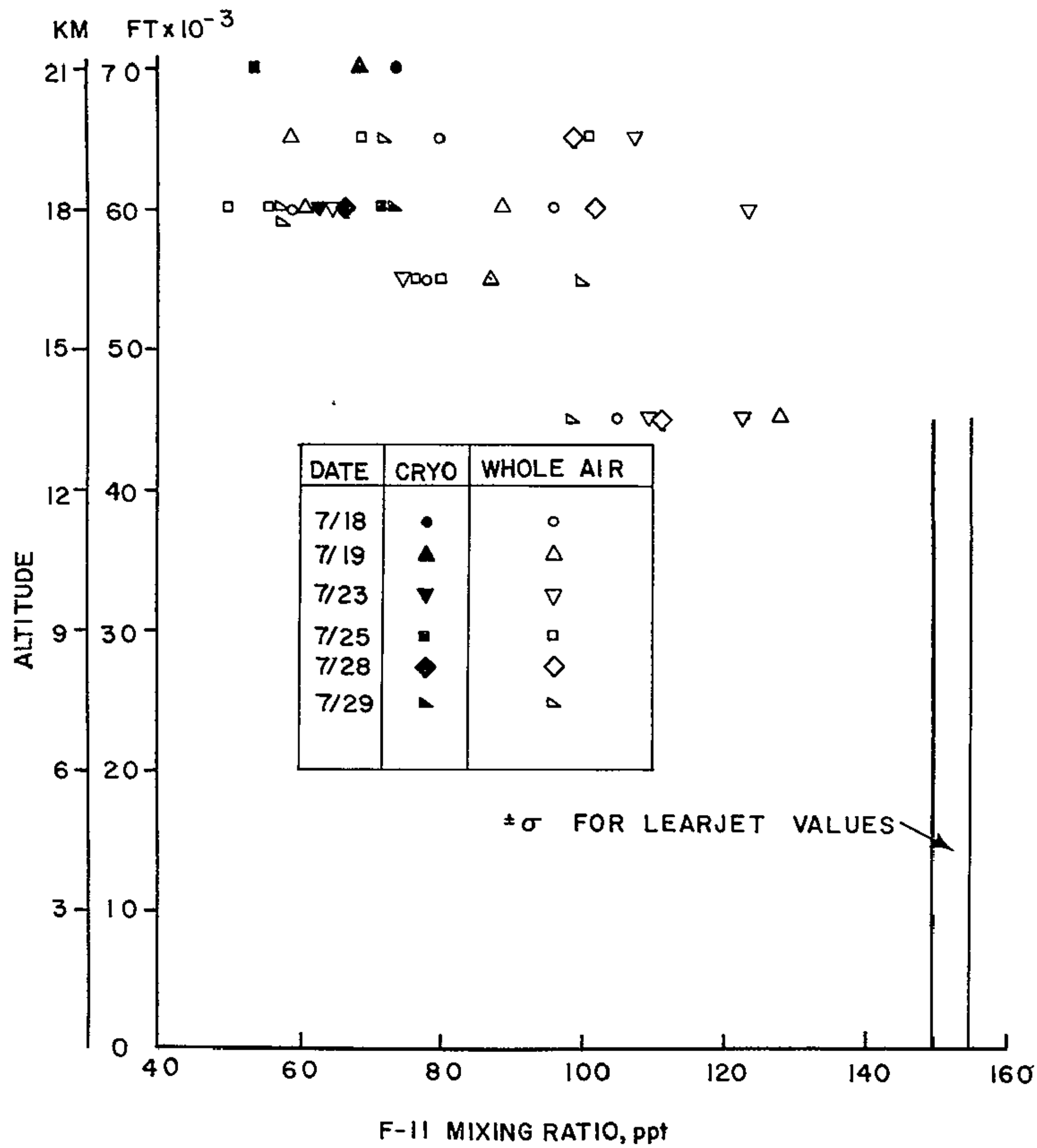

Figure 15.- F-11 mixing ratio distribution as a function of altitude.

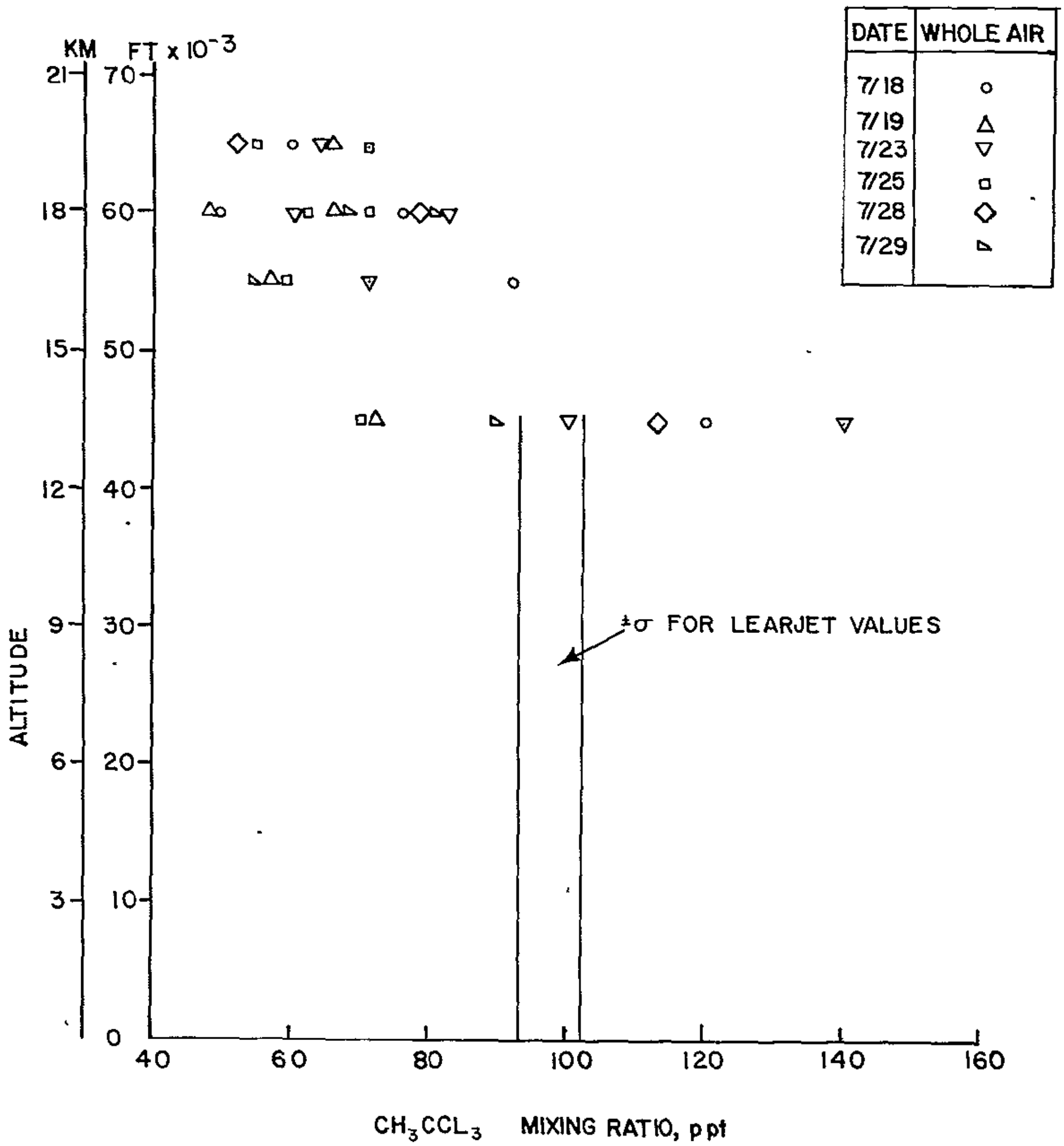

Figure 16.- Mixing ratio distribution of CH_3CCl_3.

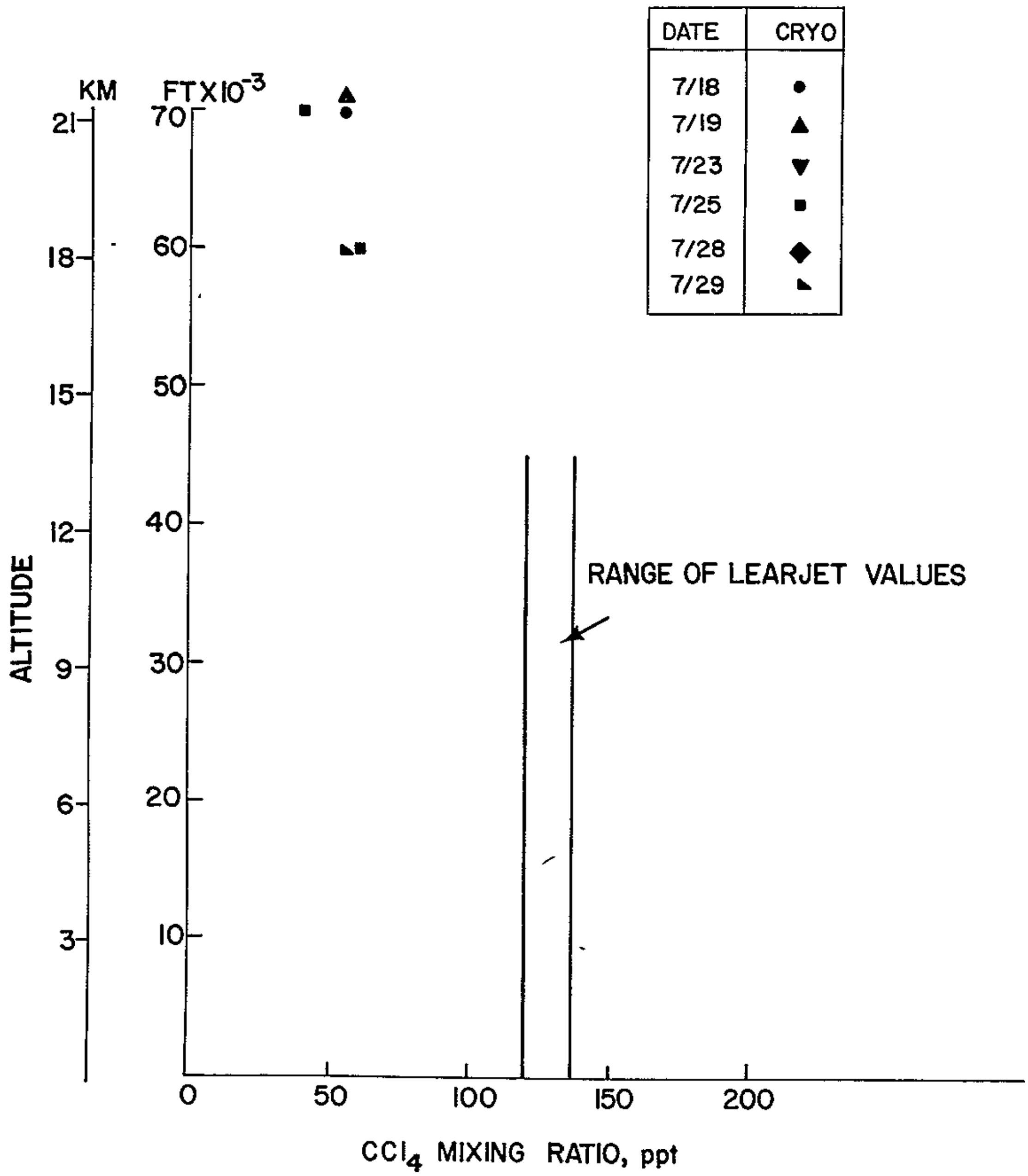

Figure 17.- Mixing ratio distribution of CCl_4.

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VIII. INTERTROPICAL CONVERGENCE ZONE OZONE PROFILES FROM THE LEARJET OZONE ANALYZER

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Washington State University

A Dasibi ozone analyzer, Model 1003 AAS operated as part of the sampling package aboard the NASA Learjet on each flight in the Panama ITCZ experiment. The measurement program was not successful because of instrument failure, apparently due to high humidity effects on one or more components of the ozone sensing instrument. The following is a brief description of the experimental installation; some comments about an apparent correlation between very low ozone concentrations and cloud layers at altitude are also provided. The ozone analyzer on the Learjet was operated off an air stream from the ram probe. The O_3 sampling system is shown in figure 10. In this sampling system the airstream is pressurized into a regulated, constant pressure manifold at a pressure above cabin pressure. This inlet air stream, as shown in figure 1, was also available for filling halocarbon sampling canisters.

The ozone analyzer signal was recorded on a strip chart. In addition, periodic notations were made of the manifold pressure because above 35,000 ft the two-stage bellows pump was not able to maintain a constant manifold pressure.

A careful review of the Dasibi data has been made and although on some occasions the O_3 profile showed an upward gradient as expected, the concentrations were always just a small fraction of the ozonesonde data for the time corresponding to the flight time. Some differences had been expected because of anticipated losses in the sampling system but not the 50-90% observed. The very low indicated O_3 concentrations were recognized during this experiment and attempts were made to find and correct the cause. It was suspected that the high humidity at ground level caused the ozone destructing canister in the Dasibi zero reference line to become ineffective and thus to reduce the apparent difference between the ambient O_3 level and the instrument zero level. A low apparent concentration would then be indicated. Nevertheless, a spare replacement canister failed to correct the situation, at least for any length of time; as a result, there may be some doubt about that explanation of the failure. However, as far as the data are concerned, the results are very erratic relative to the ozonesonde and do not appear to justify the effort of trying to calibrate the Dasibi against the ozonesonde.

Although quantitative ozone data have not been obtained, the Learjet Dasibi data frequently seemed to indicate near-zero O_3 concentrations at times when the observer noted the presence of clouds at flight level. This attracted this investigator's attention because it is the third time that such an ozone concentration pattern has been observed in ITCZ clouds. The first was in June 1976 over the central Pacific in at least three crossings of the ITCZ. At that time and at altitudes of 35,000 to 43,000 ft, ozone levels would approach zero as soon as the aircraft entered ITCZ clouds, even thin cirrus

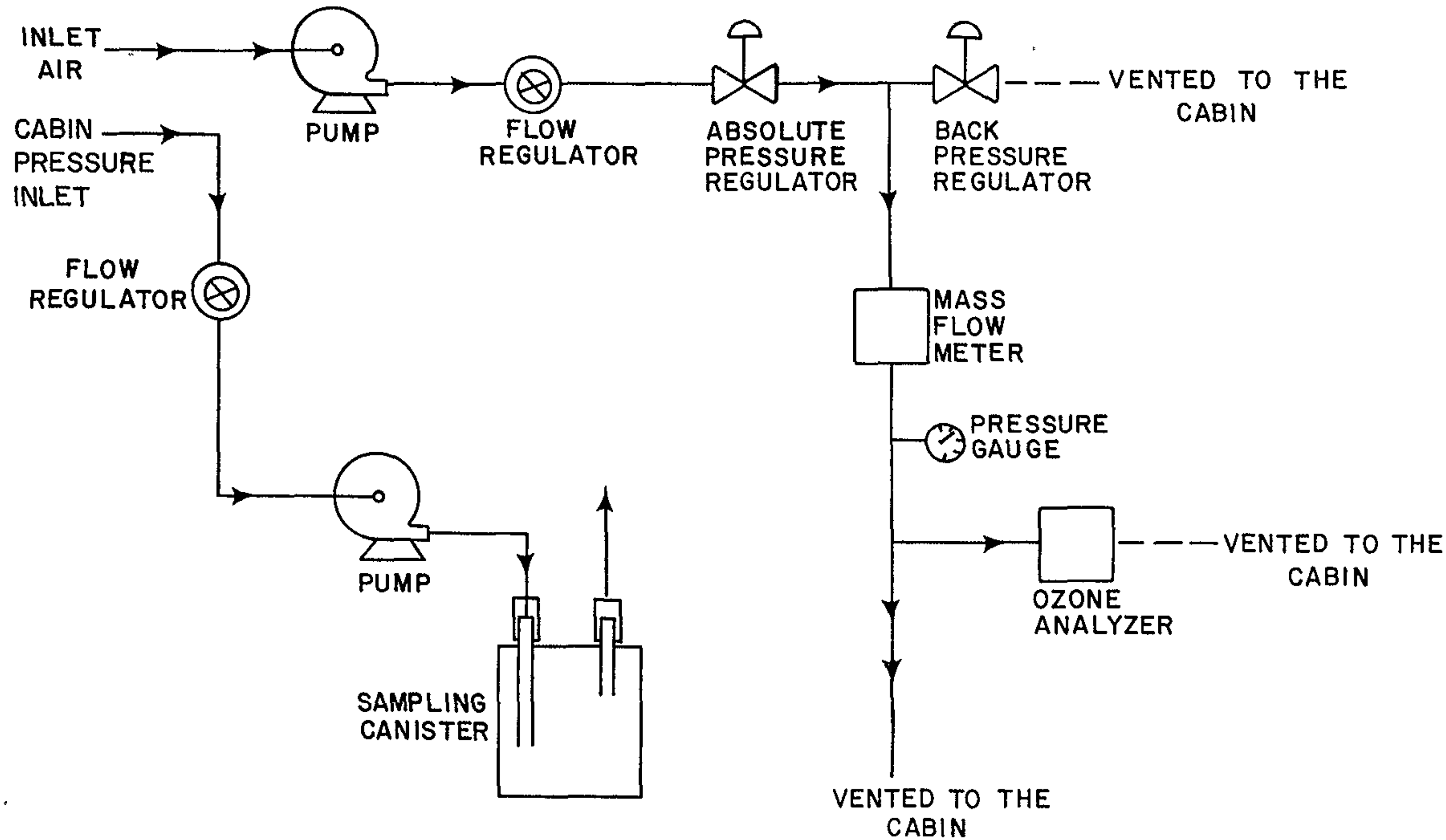

Figure 1.- Aircraft sampling system, 1977 Learjet program.

tops. Recovery was rapid as soon as the aircraft passed back into clear air. This pattern has not usually been observed with midlatitude clouds. Near-zero-ozone in ITCZ clouds was again noted over the central Pacific in October 1977 at a flight altitude of about 22,000 ft. If it is a fact that ozone is scavenged rapidly by deep tropical cloud systems it might be indicative of other scavenging roles that could be assumed by the ITCZ cloud system. In planning future tropical experiments some attempts should be made to sample within the clouds as well as in the clear air around the clouds because the air chemistry values may be different in the two regions. It is recognized, of course, that the pilots may have the controlling vote in such mission plans; however, we should recognize the possibility of sampling bias if we only sample clean air.

IX. PRELIMINARY RESULTS FROM THE UNIVERSITY OF DENVER INFRARED SPECTROMETER — 1977 INTERTROPICAL CONVERGENCE ZONE EXPERIMENT

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University of Denver

The Denver University Infrared Spectrometer (DUIRS) is a liquid-helium-cooled emission radiometer designed to study minor atmospheric constituents. (It should be noted that DUIRS is designated as FLO elsewhere in this report.) For U-2 aircraft operation the radiometer is mounted in the right wing tank looking at right angles to the flight path and 13° above the horizon with a field of view of 1° vertical and 4° horizontal (fig. 1). Molecular radiation from the atmosphere enters through a zinc selenide window, is scanned by a grating and is imaged through a beam splitter onto two copper-doped germanium detectors covering the 3-7 and 6-14 μm spectral regions with an average resolution of about 4 cm^{-1}. The spectrometer is operated continuously during flight at about 80 scans/hr with all data digitally recorded for subsequent analysis.

DUIRS flew on NASA 708 on 12 data flights during the 1977 Intertropical Convergence Zone experiment. No data were obtained on the flight from Wallops Island to Panama because of a power supply failure (possibly due to extensive condensation in the wing tank during the unpowered ferry flight from Moffett Field) or on the return flight to Wallops Island because of a cryogen line freeze-up. Useful data were recorded during the entire July 14 latitude survey to lat. 3.5° S. Table 1 shows the data coverage on the nine vertical profile flights that were flown before the cryogen line freeze-up terminated operations.

Electronic malfunctions during the early flights were due to the extremely low temperatures in the tropopause. After additional heating was added, the equipment performed well except for a recorder component failure on July 21.

Prior to the Panama deployment and following the flight on July 24, the spectrometer was radiometrically calibrated against a standard blackbody to allow each of the recorded scans to be computer calculated and plotted as radiant power received vs wavelength. Figures 2 and 3 show typical spectra and variations as a function of U-2 altitude. In figure 2, fluorocarbon-12 can be seen at 10.75 μm and F-11 at 11.75; the broad HNO_3 band extends from about 11.1 to 11.3 μm; the 12.6 peak is CO_2. In figure 3, the strong CH_4 line appears at 7.6 μm with weaker CH_4 and N_2O on either side.

Radiometric data and rawinsonde temperature data were used to perform band model calculations to obtain molecular number densities in the column above the aircraft at each altitude. Figure 4 shows the HNO_3 latitude survey data from the July 14 flight compared with earlier flights of the DUIRS aboard a U-2 and an RB-57. Figure 5 represents the HNO_3 results from the vertical profile flights using radiometric data averaged for each altitude; the reported height of the tropopause is shown for comparison. The HNO_3 mass

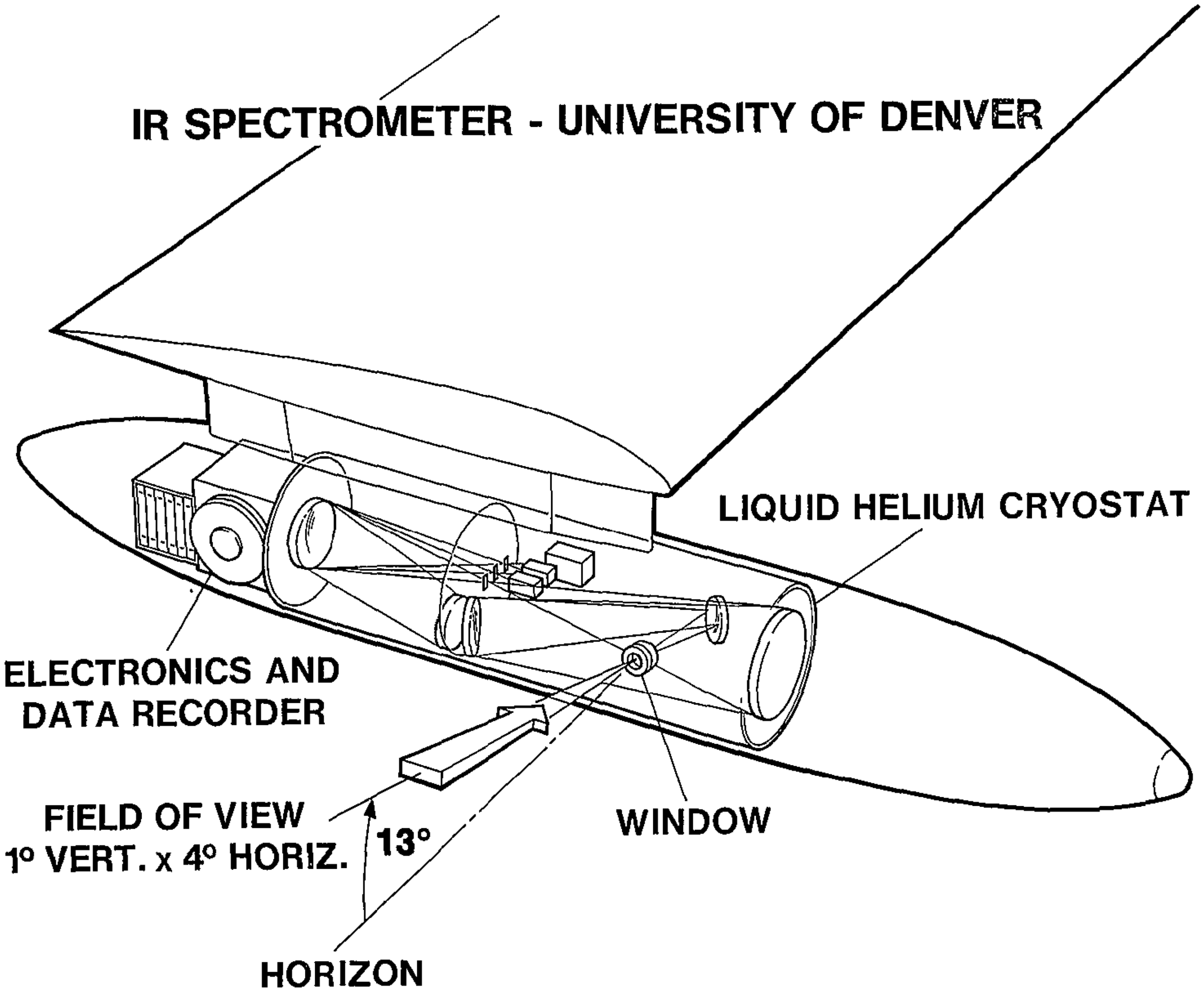

Figure 1.- IR spectrometer.

TABLE 1.- DIURS DATA COVERAGE ON ITCZ FLIGHTS

Altitude, km	Data coverage[a]					
	13.7	15.2	16.8	18.3	19.8	21.3
July 16	t	D	i	i	i	i
17	t	D	D	i	i	i
18	i	D	D	i	D	D
19	D	D	D	D	D	D
20	No flight — weather problems and spectrometer vacuum problems					
21	i	i	i	i	i	i
22	D	D	D	D	D	D
23	D	D	D	D	D	D
24	D	D	D	D	D	D
25	In clouds		D	D	D	i

[a] D = data recorded; i = instrument malfunction; t = turbulence.

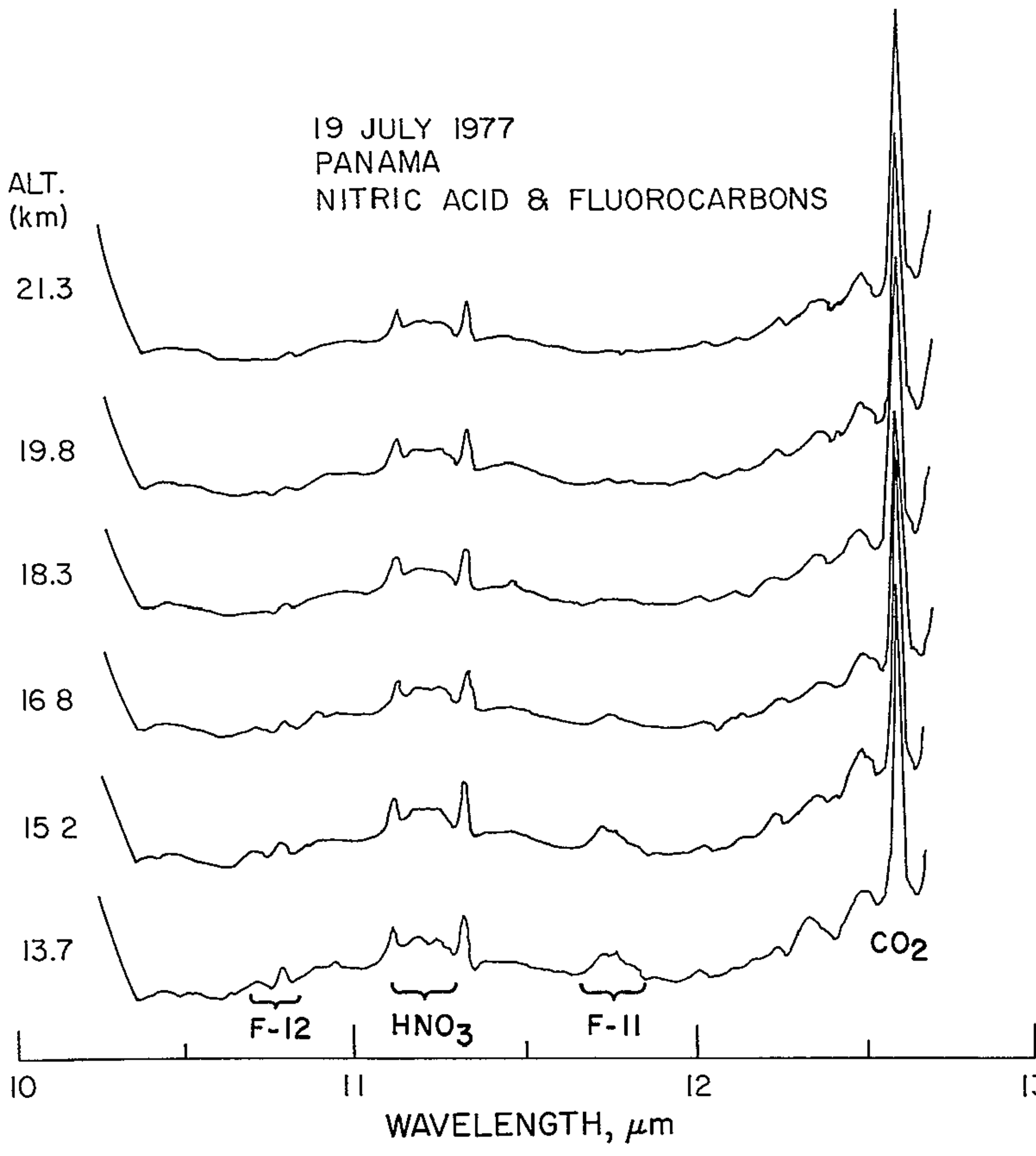

Figure 2.- Sample spectra during the July 19, 1977 flight at the six sampling altitudes: nitric acid and fluorocarbons.

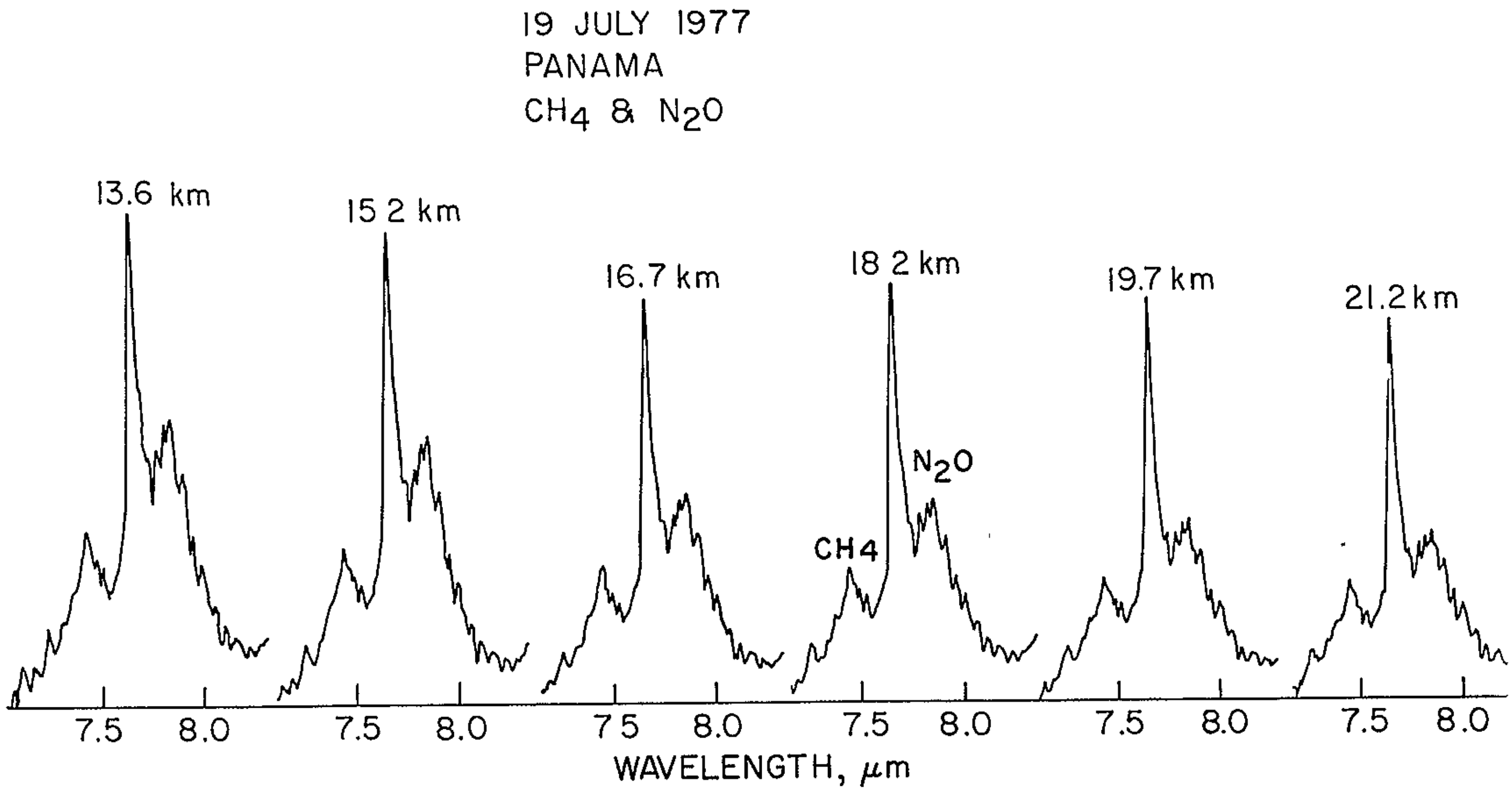

Figure 3.- Sample spectra during the July 19, 1977 flight at the six sampling altitudes: CH_4 and N_2O.

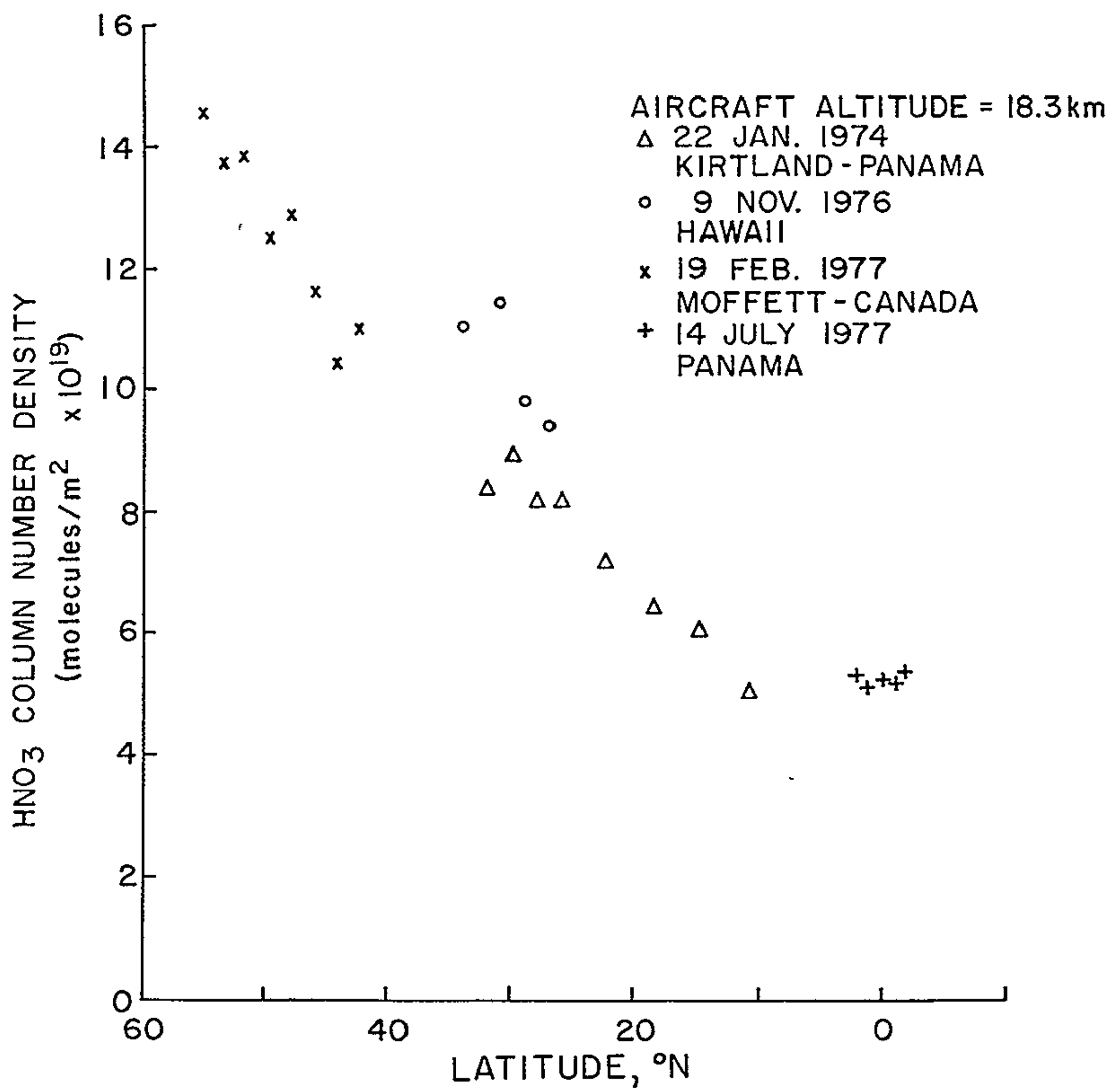

Figure 4.- HNO_3 column number density vs latitude.

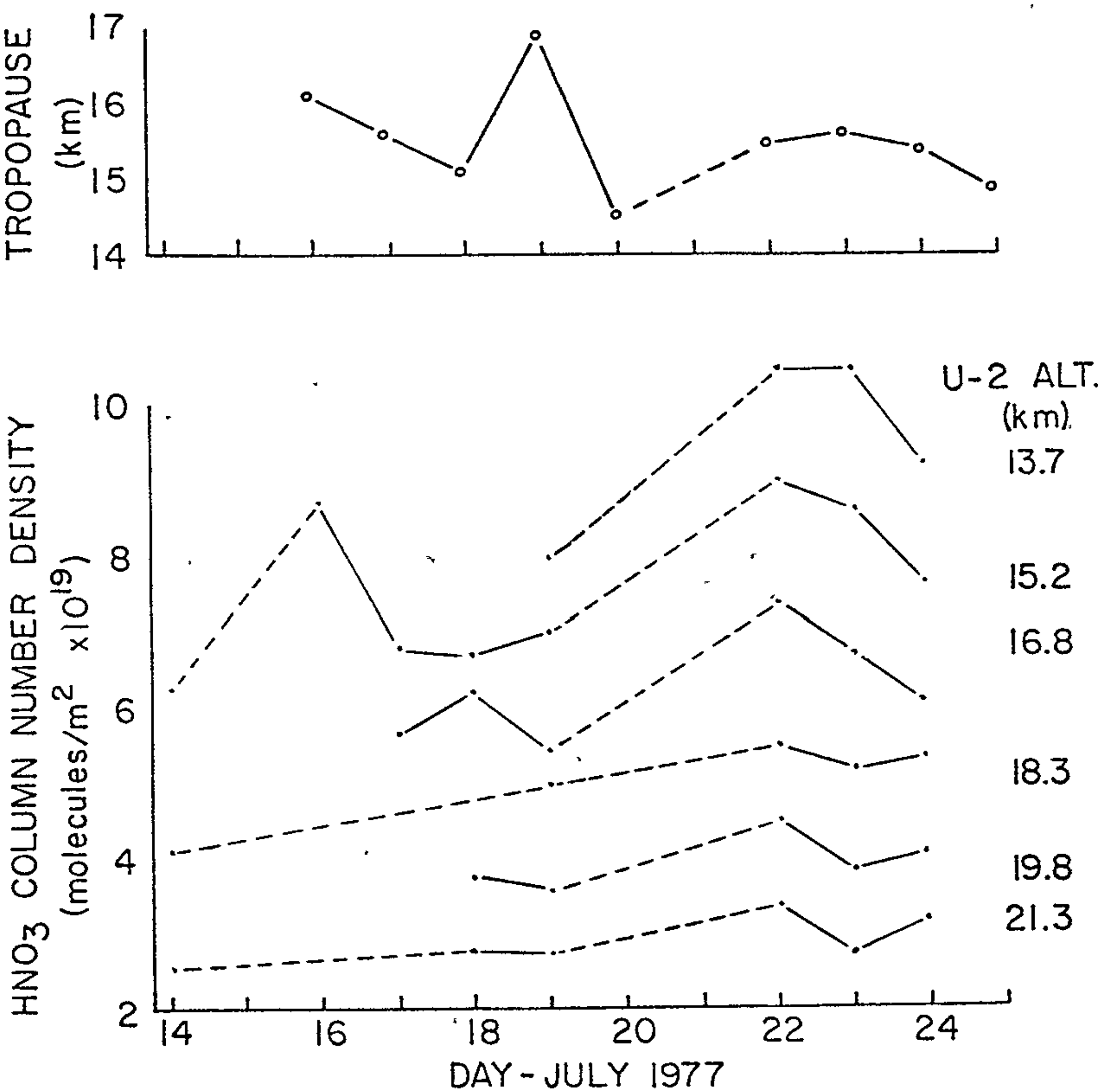

Figure 5.- Variation of HNO_3 column number density during ITCZ experiment period; variation in the tropopause height is shown for comparison.

mixing ratio calculated from radiometric differences for the five intervals of the vertical flights is plotted in figure 6.

The spectral region covered with the grating spectrometer includes regions where the major contribution to the observed emission is due to CH_4, N_2O, O_3, and CO_2. Since these species are present at much higher concentrations than the HNO_3, F-11, and F-12, their atmospheric emissions are quite intense. This complicates the analysis of the emission data in two ways: (1) the absorptions are strong enough that radiative transfer calculations are required and (2) the absorptions are no longer in the linear region and, therefore, more complicated transmission calculations are necessary. As a result complete inversion of the data will require extensive computer program development which has not been completed. The data for CH_4 and O_3 have been analyzed on the basis of a single layer above the aircraft at a pressure and temperature comparable to that measured 3 km above the aircraft altitude. The results of this analysis for CH_4 and O_3 are given in figures 7 through 11. In examining these results, it should be emphasized that the data are intended for determining relative changes rather than absolute values. In examining the data for CH_4 given in figure 7, the one point of immediate concern is the large variability in the CH_4 column density determined from the data obtained at the lower altitudes. It is felt that these excursions are not due to large changes in CH_4, which would be required to explain the data, but rather indicate the presence of an additional emission in the region between 7 and 9.6 μm due to a variable source. This may be due to the presence of grey emitter (possibly small ice crystals) in the region between 13 km and 17 km. At this time it is difficult to estimate whether the variability at the higher altitudes represent real variability or reflects the measurement precision.

The ozone data are shown in figure 8. The data again show larger variability at the lower altitudes. Since ozone is much more variable than CH_4 some variability is not unexpected, however, the excursions are larger than expected.

The fact that the extreme excursions at the lower altitude occur on the same days as those of the CH_4 and in the same direction lends credence to the possible presence of a gray emitter on these days. The higher altitude data show less variability, most of which probably represents the measurement precision. As mentioned above, it is difficult to estimate the measurement precision at this time.

The CH_4 column data have been reduced to volume mixing ratio data for July 19 and July 24. These data show that the CH_4 mixing ratio profile decreases very rapidly across the tropopause. A similar analysis for ozone is given in figure 11. Again the data verify the increase of ozone mixing ratio with altitude. These data are based on a single layer above the aircraft altitude and the mixing ratios should be less than the local mixing ratio in the case of CH_4 and more than the local mixing ratio in the case of O_3. As mentioned above, the data are not intended to be absolute; however, the absolute mixing ratios are not that much different from those measured by other techniques.

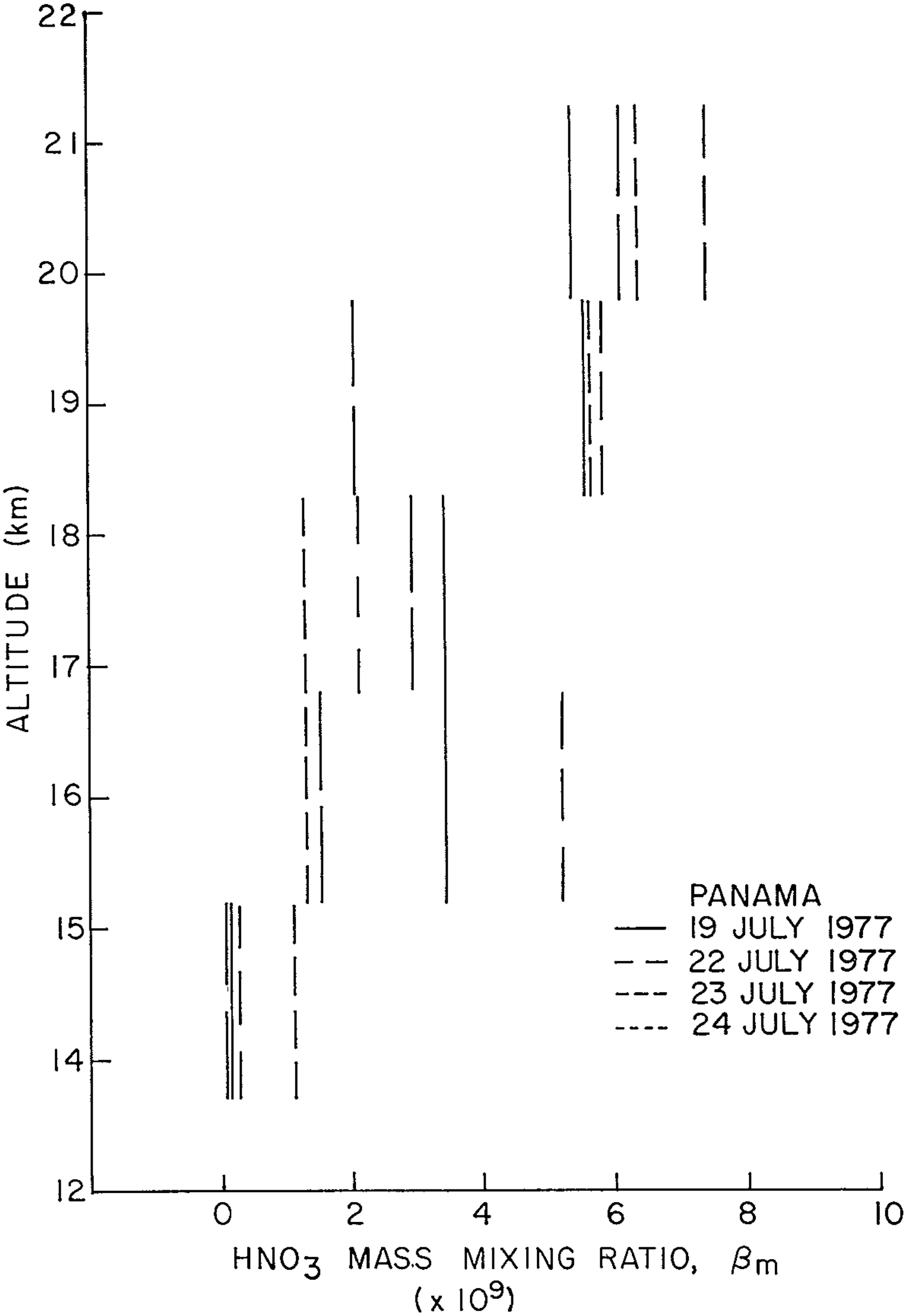

Figure 6.- HNO_3 mass mixing ratio.

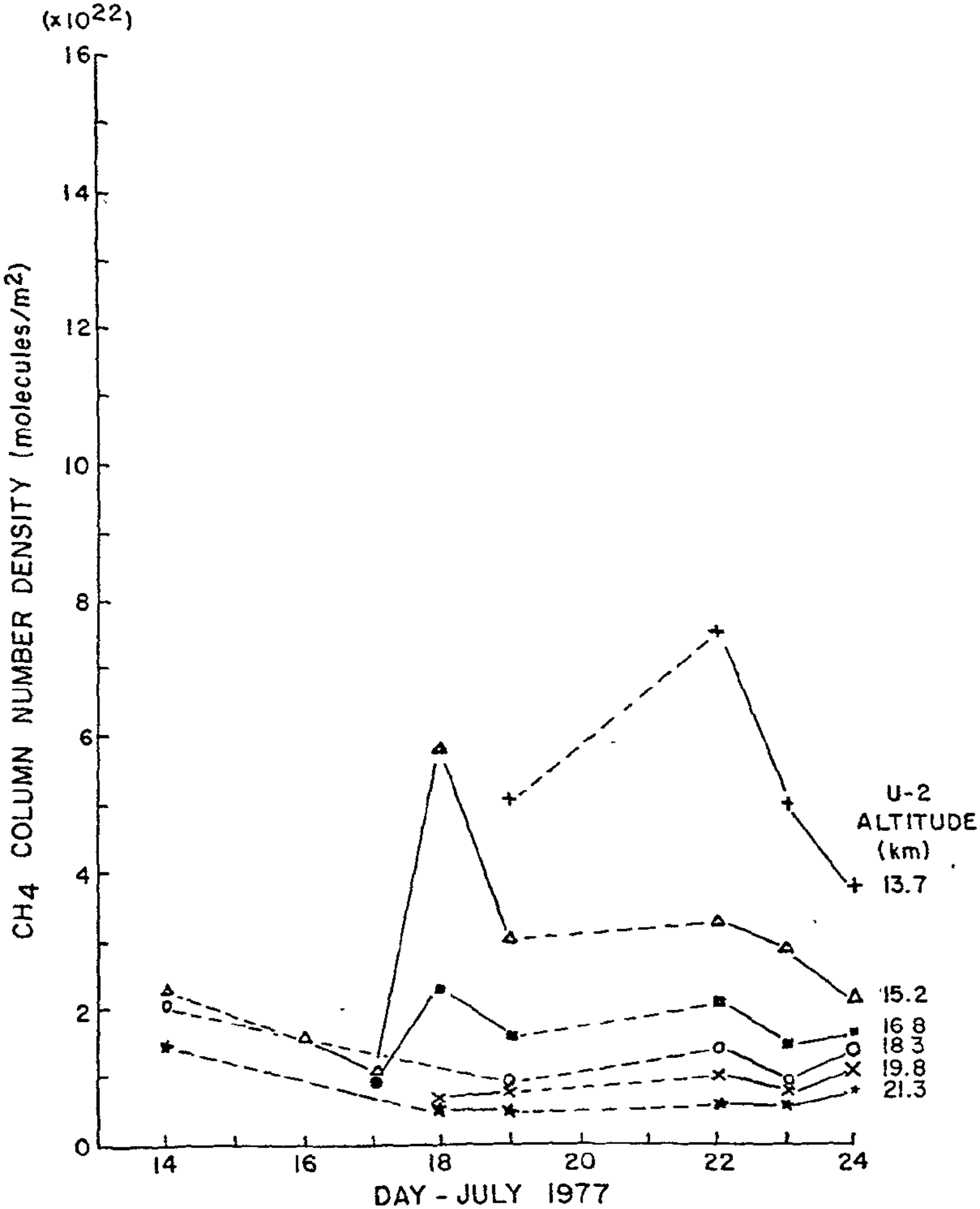

Figure 7.- CH_4 column number densities as a function of instrument altitude during ITCZ experiment period.

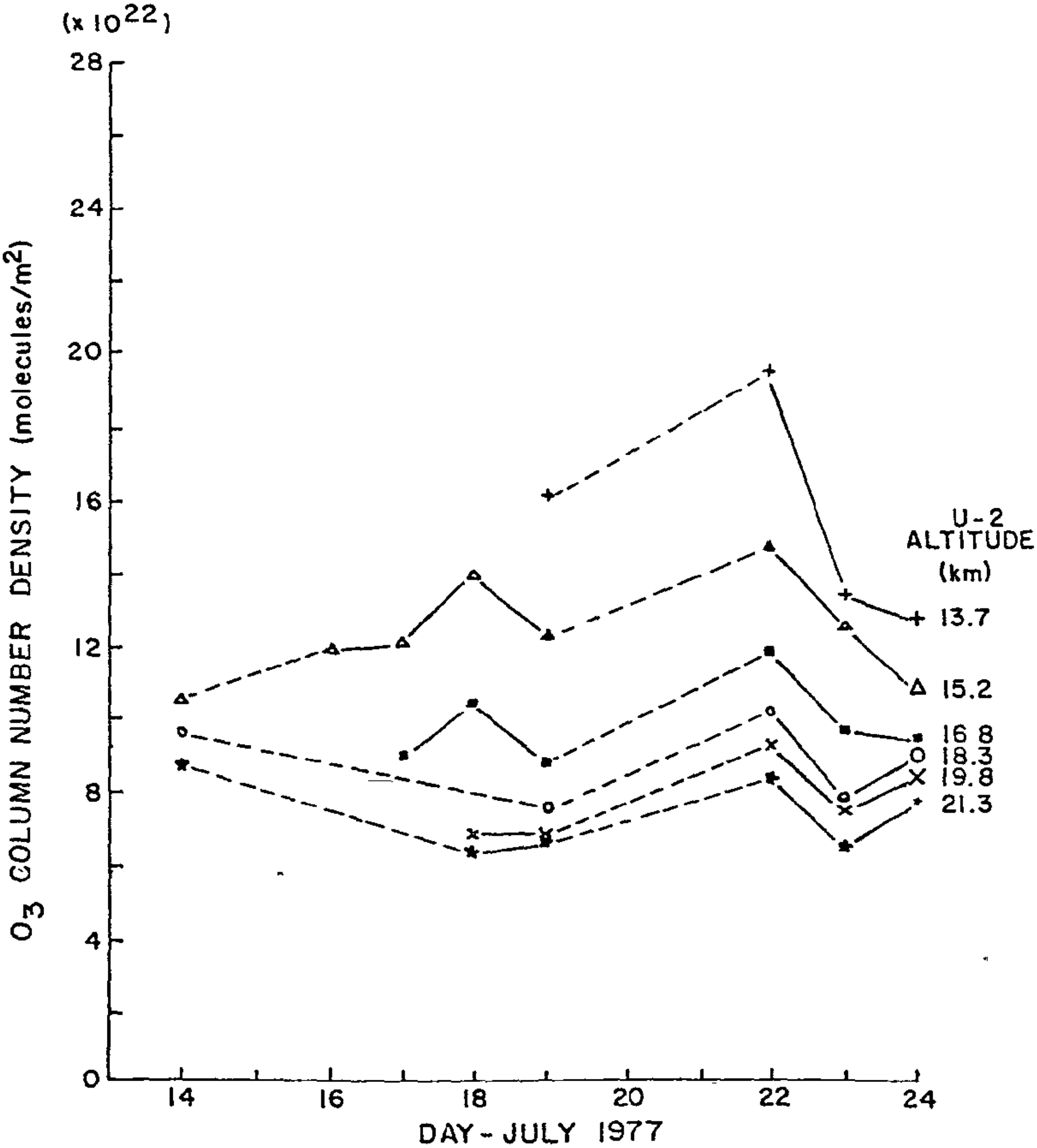

Figure 8.- O_3 column number densities as a function of instrument altitude during ITCZ study period.

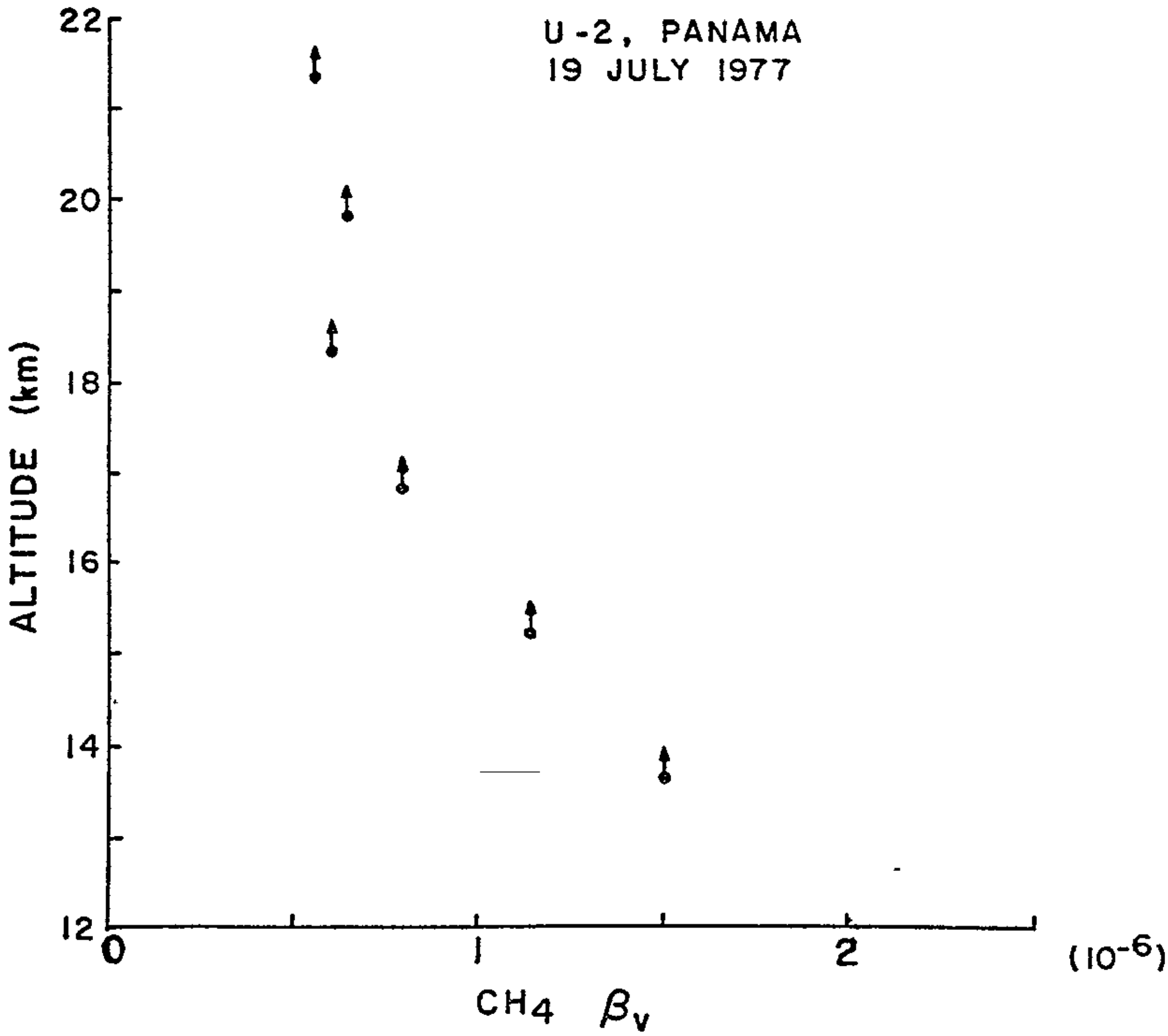

Figure 9.- CH_4 column mixing ratio for several altitudes on July 19, 1977.

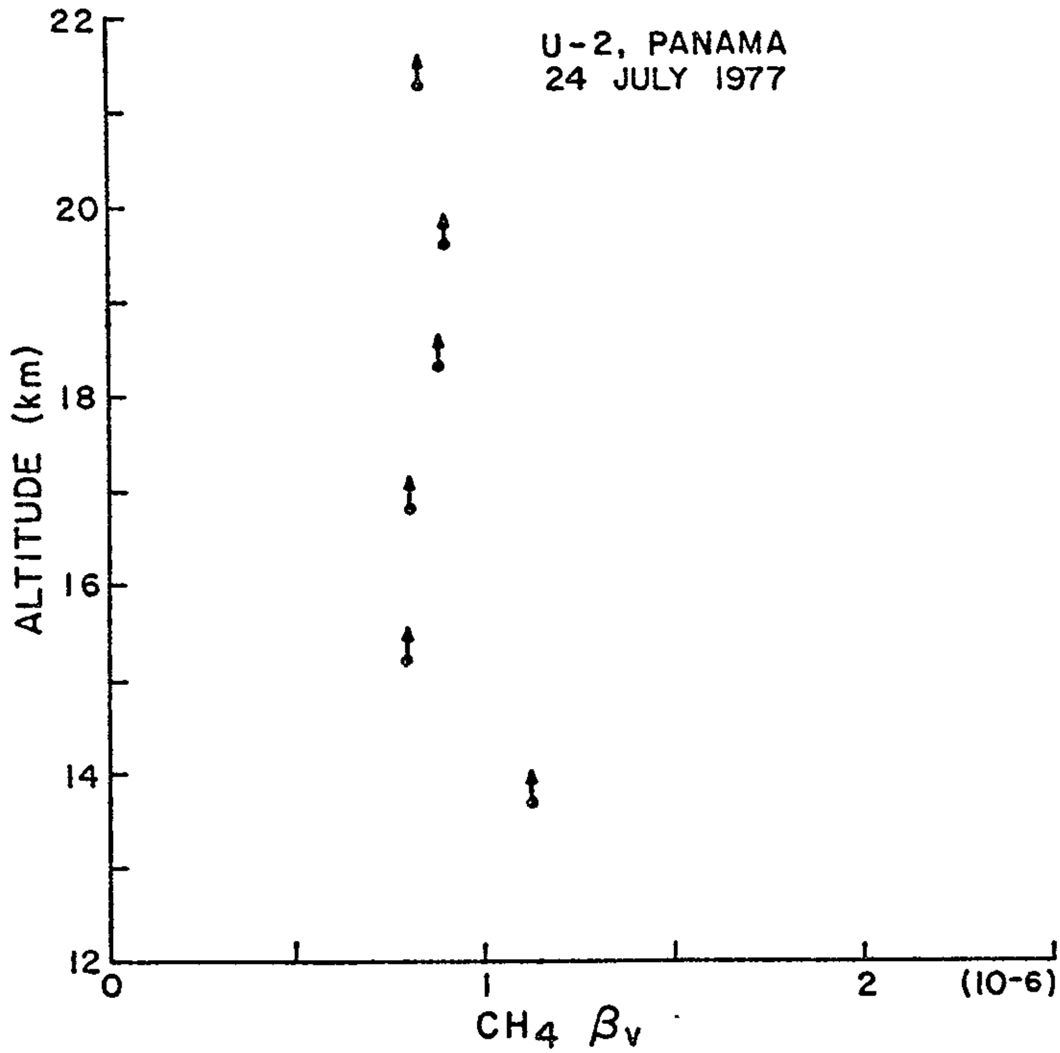

Figure 10.- CH_4 column mixing ratio for several altitudes on July 24, 1977.

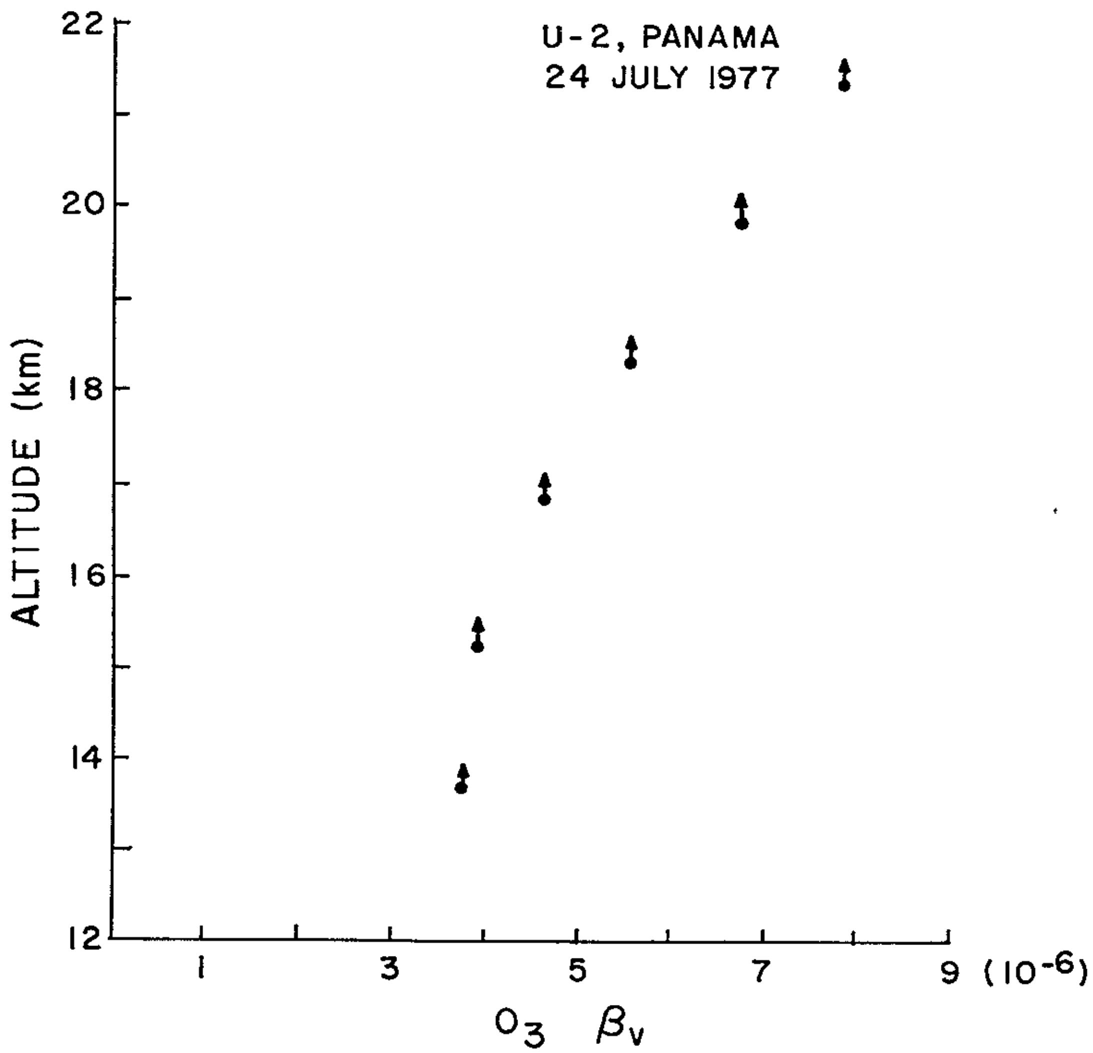

Figure 11.- O_3 column mixing ratio for several altitudes on July 24, 1977.

In summary, the infrared emission spectra obtained during the series of flights performed during the ITCZ contain information on the daily variability of a number of atmospheric species of interest in photochemistry of ozone. Retrieval of the information contained in the spectra for the species present at higher concentrations (CH_4, O_3, N_2O, etc.) requires more elaborate analysis than it has been possible to complete to date. Calculations made assuming a single layer above the aircraft yields results in reasonable agreement with other measurement techniques; however, derivation of detailed profile information from these data is not possible at this time.

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X. STRATOSPHERIC AEROSOLS IN THE INTERTROPICAL CONVERGENCE ZONE, PANAMA CANAL ZONE

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Ames Research Center

and

Homer Y. Lem and Dennis M. Hayes

LFE Corporation*

INTRODUCTION

Lazrus and Gandrud (ref. 1) studied the distribution of sulfate mass in the stratosphere from lat. 50° S to lat. 70° N using filter samples collected with aircraft and balloons. Over several years of sampling they found that the maximum concentration of sulfate was distributed in a layer extending from higher altitudes in the equatorial regions to lower altitudes toward the poles. Earlier studies had suggested the aerosol was distributed this way because tropospheric sulfur entered the stratosphere through the tropical tropopause, then diffused poleward and downward. However, Machta and Telegadas (ref. 2) had shown that radioactive injections at polar latitudes diffused upward toward the equator to form similar concentration layers. Based on these data and similar measurements of other radioactive debris injected in other regions, Lazrus and Gandrud (ref. 1) concluded that the form of the layer is not necessarily indicative of the region where tropospheric sulfur enters the stratosphere. Rather, they believe that once the tropospheric sulfur enters the stratosphere, whether through the tropical tropopause or, perhaps, on the anticyclonic side of jet streams, dynamic stratospheric processes distribute it throughout the observed region.

To further investigate whether injection sources of the stratospheric aerosol layer could be detected in the tropical stratosphere, we have examined a feature of the aerosol particles that Lazrus and Gandrud could not measure with their methods. This feature is the vertical and horizontal particle size distribution around the Intertropical Convergence Zone (ITCZ) at the Panama Canal Zone during the summer of 1977. By comparing these data with similar measurements in temperate and polar regions, we hoped to discover variations in particle size that would indicate whether a young aerosol is forming and entering the stratosphere at the ITCZ; where the aerosol matures; and, finally, where it reenters the troposphere. Indicators we looked for were smaller particles suggesting a young, growing aerosol; larger particles suggesting a mature aerosol; and layers of mature aerosols beneath the tropopause suggesting an ejection region from the stratosphere. In the following sections we

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describe the methods used in these investigations and the results obtained from the analyses.

METHODS

Instrumentation

Aircraft collections of aerosol particles for size analysis from the upper troposphere and lower stratosphere are made with instruments (fig. 1) developed at Ames Research Center, NASA (refs. 3 and 4). In this approach, particles are collected by direct impaction on very thin carbon-coated palladium wires (0.075 mm diameter) deployed directly into the airstream below the wing and beyond the boundary layer. The collecting wires are inserted into the airstream, then returned to a vacuum-sealable flight module processed before and after flight under clean-room conditions. The carbon coating is used on the wires to prevent fluid particles from spreading out thinly on the surface and complicating the analyses.

Particles are collected at various altitudes from 12 to 21 km, with most collections obtained at 12, 15, and 18 km on each flight. Collection times of 1 min at each altitude are used to obtain adequate samples for determining particle size distributions.

Analysis

A scanning electron microscope (SEM) is used to examine the wire surfaces at magnifications of 6000 X. Consecutive pictures are taken along the stagnation line at this magnification to provide analysts with images of about 100 to 200 particles on which particle radii measurements can be made. The collecting wire is then rotated so that the vertical profile of representative particles can be imaged in the SEM and photographed. This enables an average shape to be defined and a vertical height deduced. Usually the particles are fluid mixtures of crystals and liquid (ref. 5), that form into flattened spherical segments on the collecting surfaces. Hence the volume of each collected particle can be calculated from the diameter, shape, and average vertical dimension. These volumes, then, are equated to equivalent spheres to provide the size distributions presented in this report. Aerosol concentrations in the stratosphere are determined by the relationship $C = N/AD$, where N is the number of particles on a measured area of the collecting surface, A is that measured area, and D is the distance traveled by the aircraft during the collecting period, all in appropriate units.

The formula used to calculate the equivalent-sphere size that has the same volume as a particle shaped like a spherical segment on our collection surface is the spherical segment formula,

$$r_e = \left[\frac{1}{8}\, h(h^2 + 3a^2)\right]^{1/3} \qquad (1)$$

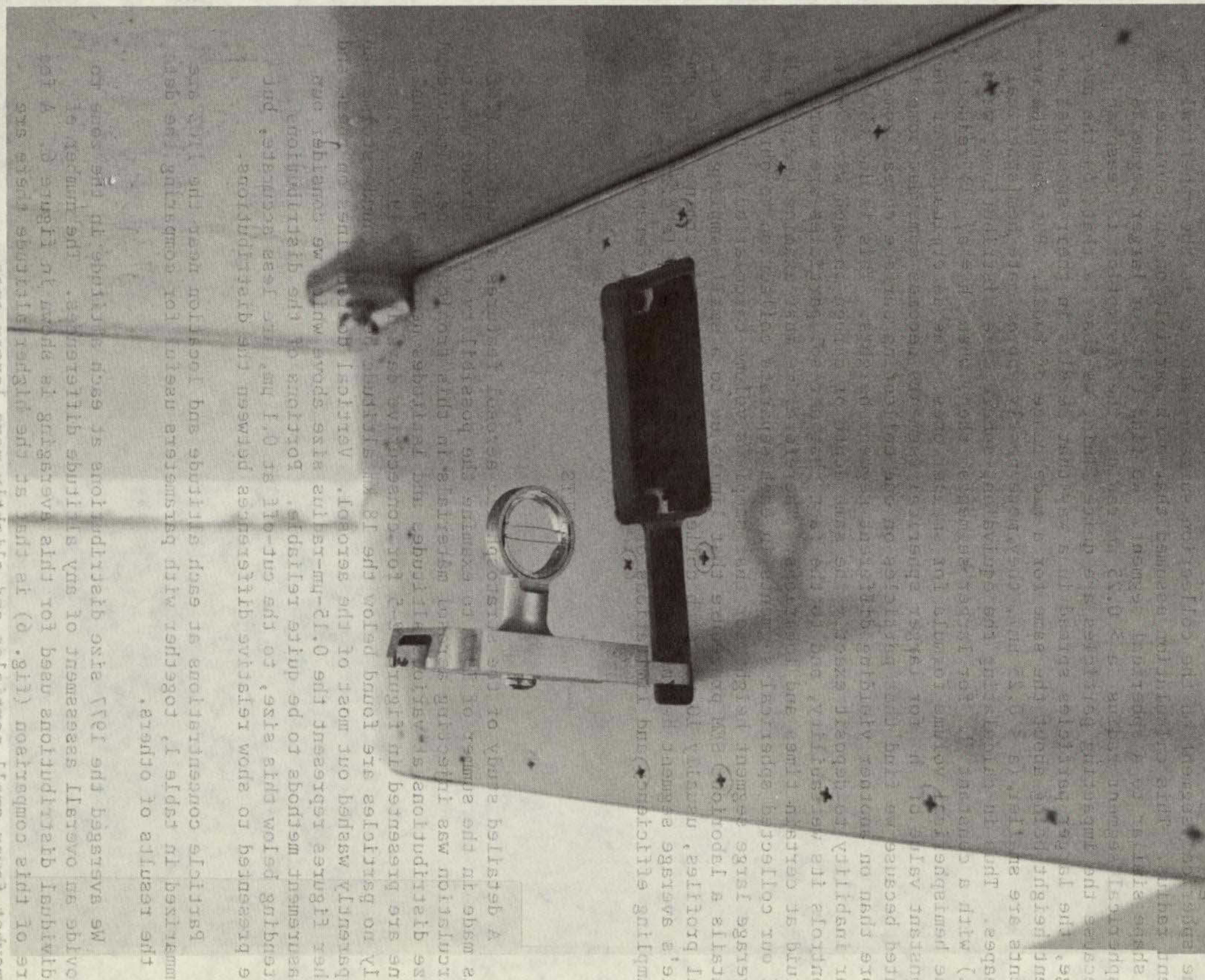

Figure 1.- Aerosol collecting instrument installed on U-2 aircraft wing with sampling arm extended; collecting wires are suspended across circular ring on arm.

where r_e is the radius of the equivalent sphere, h is the average height of the spherical segment on the collection surface, and a is the spherical segment radius. This calculation assumed that each particle on our surfaces has a shape similar to a spherical segment. We find that for larger segments (spherical segment radius $a \gtrsim 0.25$ μm radius) the assumption is reasonable. Because the impacting particles are quite fluid, we observe that, on the average, the larger particles spread in a way that results in their spherical segment height being about the same for a wide range of radii. But when the segments are smaller ($a \lesssim 0.25$ μm), they more nearly approximate hemispherical shapes. Thus in calculating the equivalent-sphere size distributions, we use (1) with a constant h for larger segments; then, when $h = a$, (1) reduces to the hemispherical volume formula for smaller ones. The determination of the constant value of h for larger spherical segments becomes somewhat complicated because we find that particles on one collecting surface spread somewhat more than on another yielding different segment heights. This is due to both our inability to deposit exactly the same depth of carbon on each wire, which controls its wettability, and to the fact that aerosol particles are more fluid at certain times and locations. Therefore, we must examine the profiles of our collected spherical segments in each separate collection to obtain an average large segment height for that sample's volume calculation. This entails a laborious SEM procedure that limits us to a small sampling of vertical profiles, usually 10 per each collection, on which to determine that sample's average segment height. For more details on our particle sizing methods, sampling efficiency and limitations of the technique, see reference 6.

RESULTS

A detailed study of the stratospheric aerosol features around the ITCZ was made in the summer of 1977 to examine the possibility that strong upward circulation was injecting aerosol materials in this tropical zone. Individual size distributions at various altitudes and latitudes near the Panama Canal Zone are presented in figures 2-5 for consecutive days in July 1977. Virtually no particles are found below the 18 km altitude because thunderstorms had apparently washed out most of the aerosol. Vertical dotted lines on these and other figures represent the 0.15-μm-radius size above which we consider our measurement methods to be quite reliable. Portions of the distributions extending below this size, to the cut-off at 0.1 μm, are less accurate, but are presented to show relative differences between the distributions.

Particle concentrations at each altitude and location near the ITCZ are summarized in table 1, together with parameters useful for comparing the data to the results of others.

We averaged the 1977 size distributions at each altitude in the zone to provide an overall assessment of any altitude differences. The number of individual distributions used for this averaging is shown in figure 6. A feature of this comparison (fig. 6) is that at the higher altitude there are somewhat fewer small particles and slightly more larger ones.

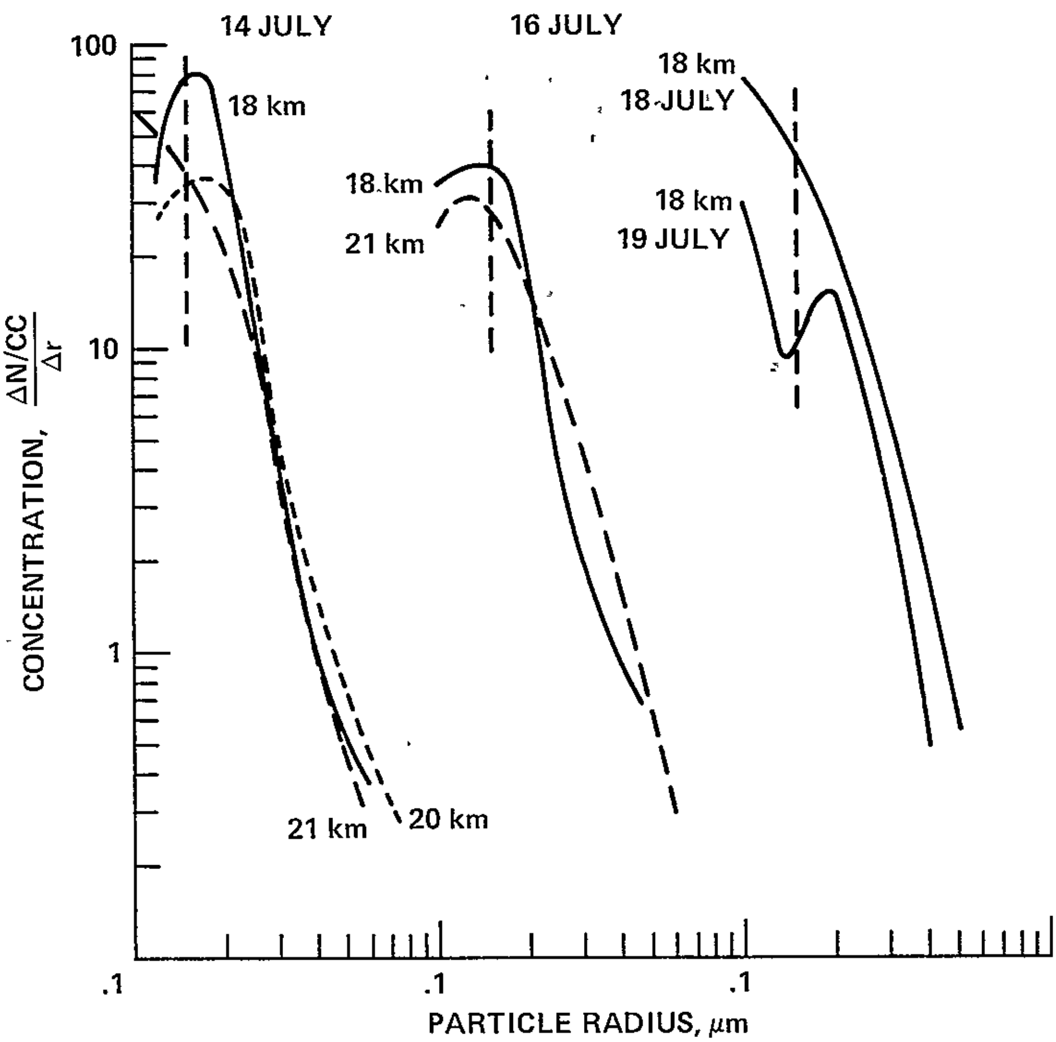

Figure 2.- Individual size distributions near the ITCZ, Panama Canal Zone, July 14-19, 1977.

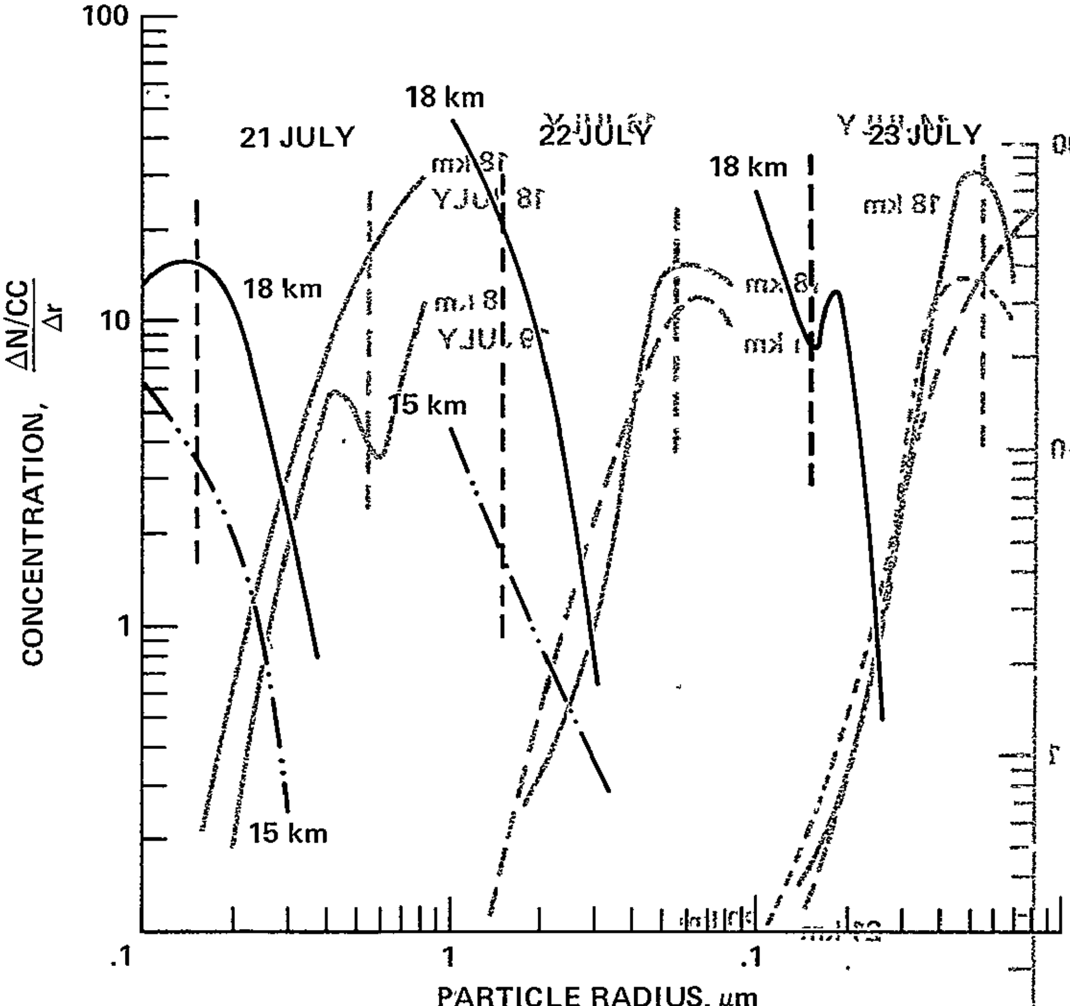

Figure 3.- Individual size distributions near the ITCZ, Panama Canal Zone, July 21-23, 1977.

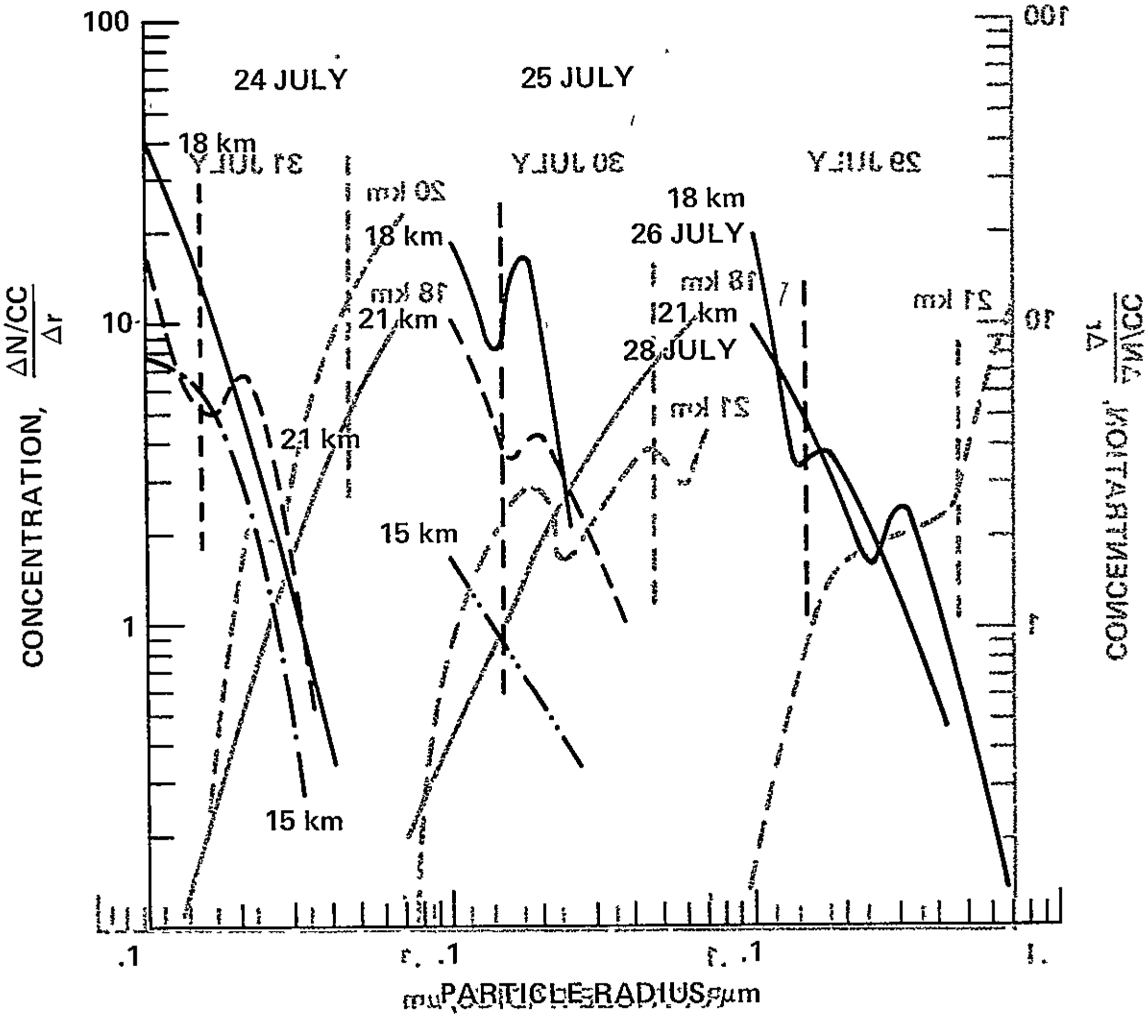

Figure 4.- Individual size distributions near the ITCZ, Panama Canal Zone.

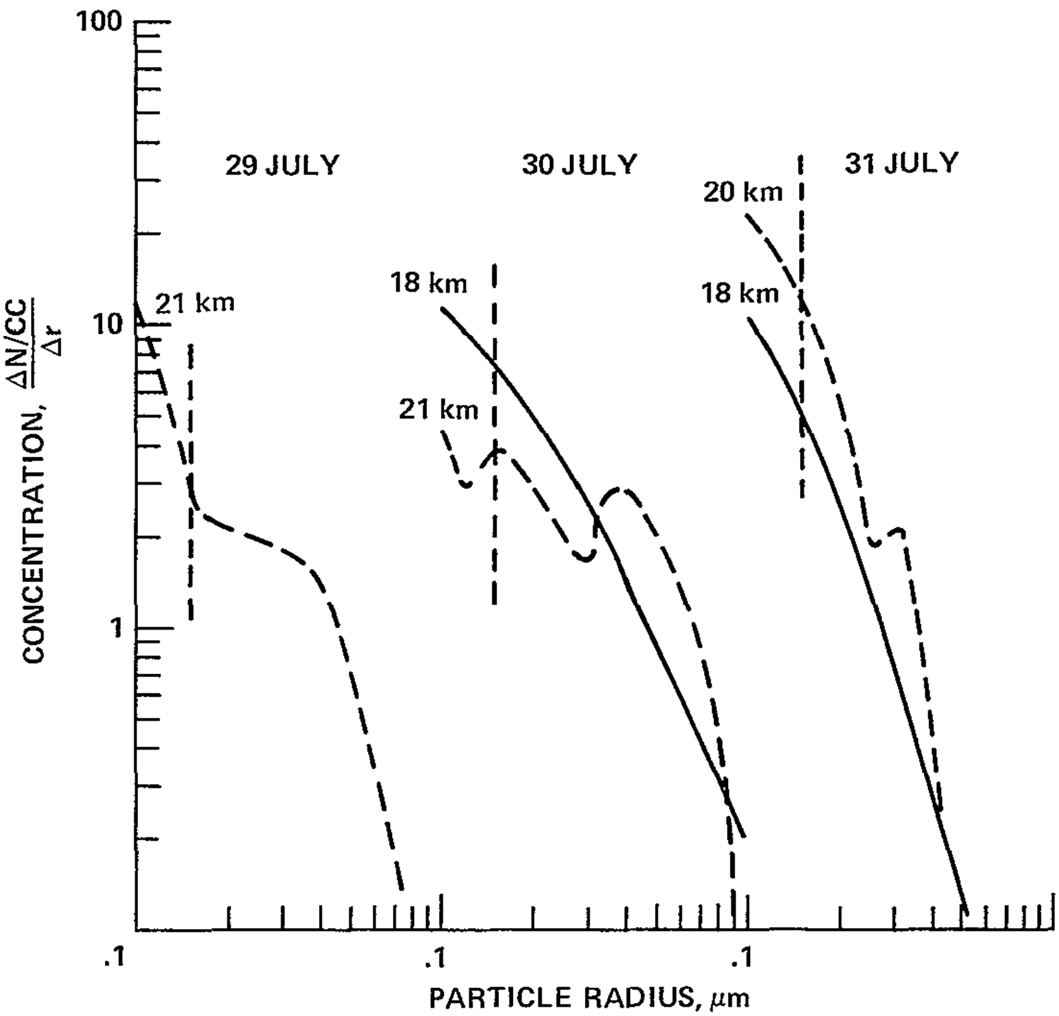

Figure 5.- Individual size distributions near the ITCZ, Panama Canal Zone, July 29-31, 1977.

TABLE 1.- LOCATION AND CONCENTRATION OF STRATOSPHERIC AEROSOLS COLLECTED NEAR THE INTERTROPICAL CONVERGENCE ZONE, PANAMA CANAL, JULY 1977

Date July 1977	Sampling altitude, km	Sampling latitude	Concentration (NO/cm^3)		Size ratio $\frac{r > 0.15 \text{ m}}{r > 0.25 \text{ μm}}$	Mixing ratio r > 0.15 μm/mg air
			r > 0.1 μm	r > 0.15 μm		
14	18	3° S	6.7	5.1	9.5	43.9
14	21	3° S	5.0	2.9	4.4	40.8
16	18	10° N	4.6	2.6	8.4	22.4
16	21	10° N	3.6	2.3	3.1	32.4
18	18	9° N	6.3	3.4	3.9	29.3
19	18	9° N	2.3	1.5	5.2	12.9
21	18	9° N	2.0	1.3	6.1	11.2
22	18	9° N	2.4	1.1	8.3	9.5
23	18	9° N	1.3	0.59	20.5	5.1
24	18	11° N	1.9	0.81	3.5	7.0
24	21	11° N	1.0	0.65	4.3	9.2
25	18	9° N	1.4	0.84	8.3	7.2
25	21	8° N	0.89	0.58	2.6	8.2
26	18	9° N	0.84	0.36	3.1	3.1
28	21	9° N	0.99	0.66	1.7	9.3
29	21	9° N	1.02	0.69	1.5	9.7
30	18	9° N	1.7	1.2	1.5	10.3
30	21	8° N	1.4	1.3	1.3	18.3
31	18	10° N	0.71	0.38	2.9	3.3

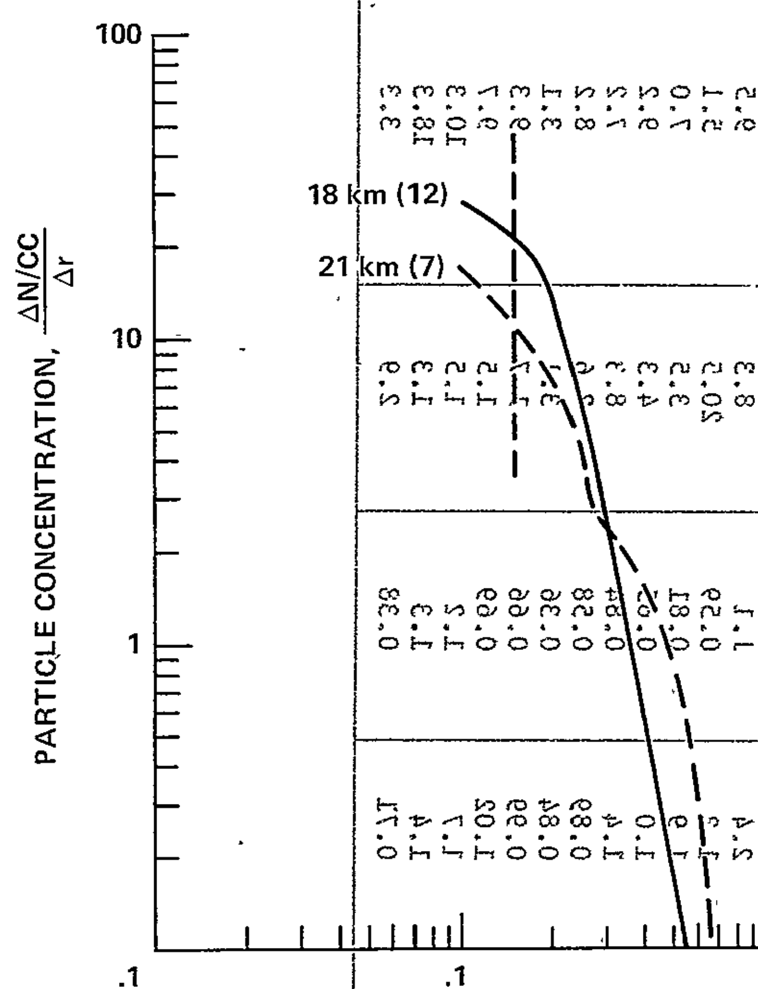

Figure 6.- Average size distributions near the ITCZ, Panama Canal Zone, July 1977: the number of individual distributions used for this averaging is shown in parentheses.

In order to examine the possible size distribution changes during the two-week mission, we averaged the distributions into sets representing these two time periods. We see in this comparison (fig. 7) that at both altitudes, the collections made during the first week of the operation contain more smaller particles ($r < 0.4$ µm) than those obtained during the second week. This finding is further demonstrated when the particle size ratio is calculated (fig. 8). This ratio enables us to compare the relative abundance of smaller particles compared to larger ones. In figure 8 we see the features of both more small particles occurring during the first week and more at lower altitudes in both locations. This latter feature, of course, is consistent with our comparisons given above of the general size distribution curves (fig. 6).

Another useful comparison is obtained when we calculate large particle mixing ratios ($r > 0.15$ µm/mg air) during the first and second weeks. This parameter emphasizes total population differences between the two locations. We see in figure 9 that the general population during the first week is considerably larger at both altitudes than that during the second. Again, this is consistent with the findings presented above.

Finally, we present the time history of the two parameters: particle size ratio (fig. 10) and particle mixing ratios (fig. 11) at two altitudes. Except for a very large, but momentary, increase in the relative numbers of small particles on July 23 (fig. 10) the general trend from mid-July to the end of the month is a decrease in both total population and the small particle component.

We have combined the 1977 ITCZ size distributions with 1976 data obtained south of Hawaii at each of four altitudes and compared it (fig. 12) with two summer seasons of polar measurements and 2 years of temperate zone data (ref. 6). A noticeable general feature is the occurrence of larger concentrations, particularly of smaller particles, at higher altitudes in the tropics, trailing off to fewer particles at lower altitudes in the polar zone.

DISCUSSION

Sources and Sinks

We examined in detail the data presented above, searching for the indicators that might suggest where young aerosols were growing, where they had matured, and where they might be leaving the lower stratosphere. We found that the small particle component was significantly increased in the tropical zones at 18 km altitude (see fig. 12). Fewer small particles occur above this height in the tropics and virtually no particles of any size are found below 15 km where their absence may be due to washout. The presence of this small particle component is consistent with the concept of growth of a young aerosol. Because we observe this apparent growth mainly in the tropical zone, we suggest this region may be an injection site for components necessary for aerosol formation.

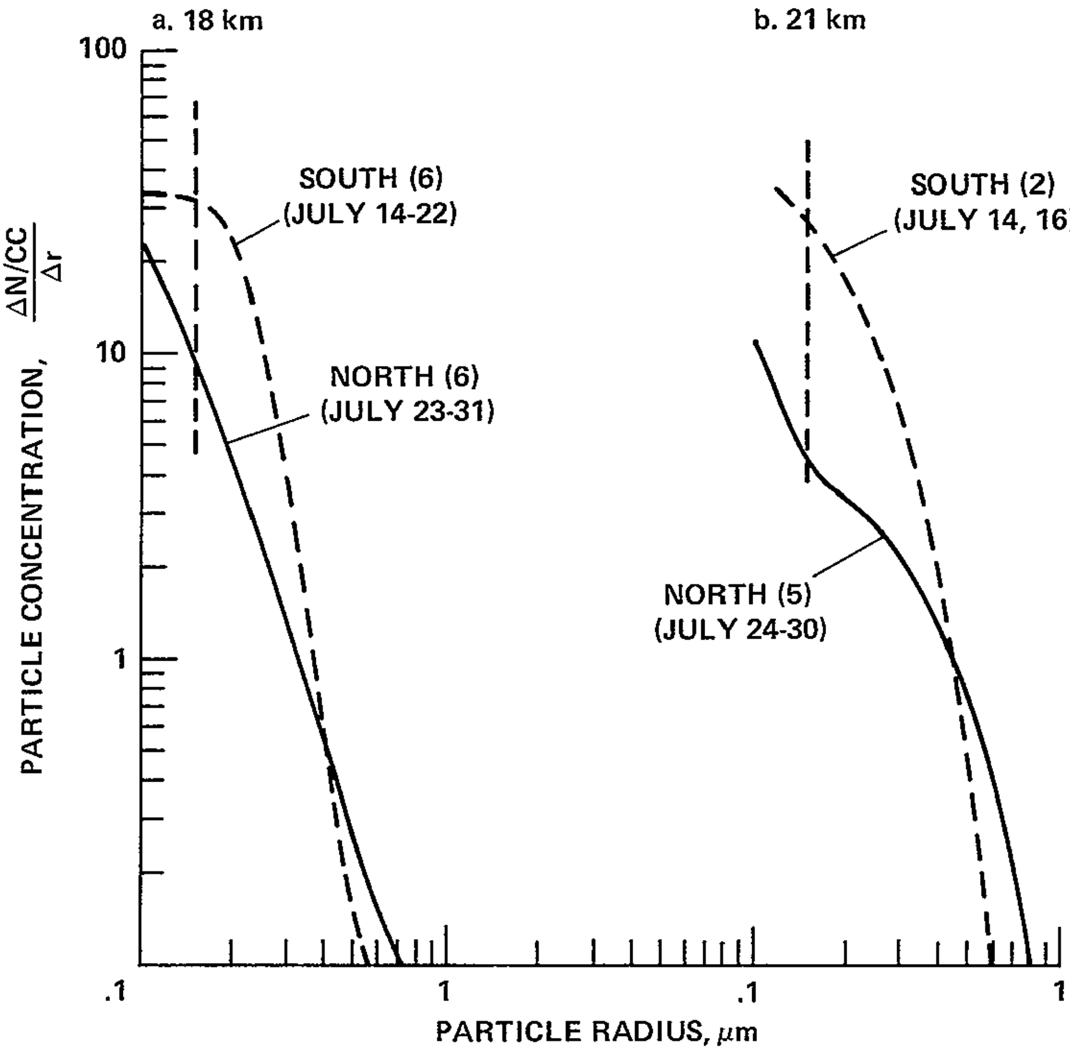

Figure 7.- Average size distributions, (July 14-22, July 23-31) 1977, Panama Canal Zone.

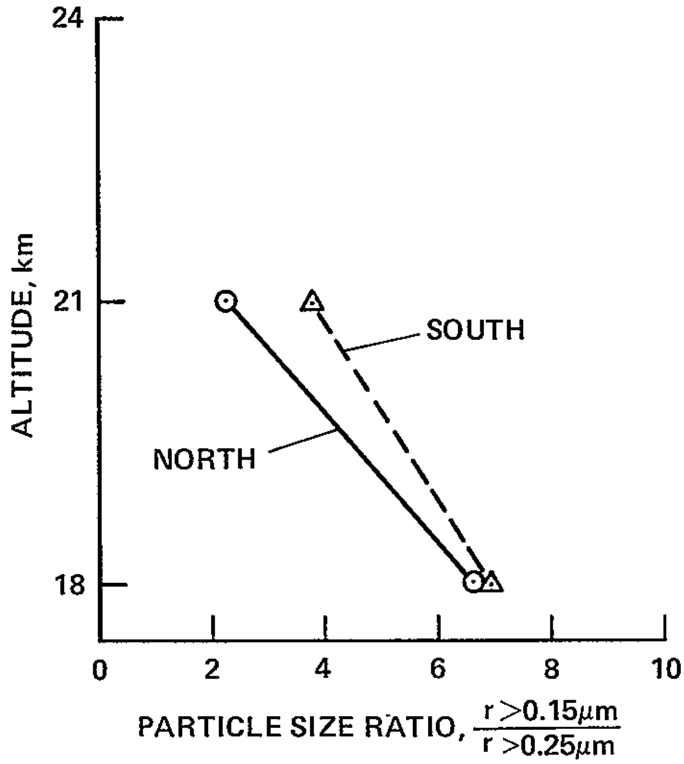

Figure 8.- Particle size ratios, (July 14-22, July 23-31) 1977, first and second weeks, Panama Canal Zone.

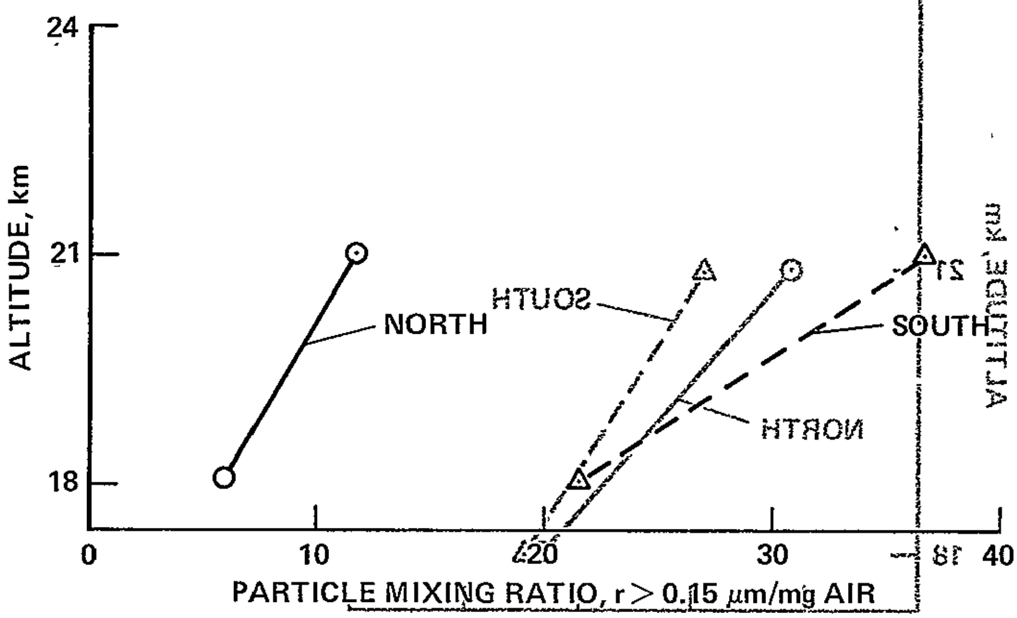

Figure 9.- Large particle mixing ratios, (July 14-22, July 23-31) 1977, Panama Canal Zone.

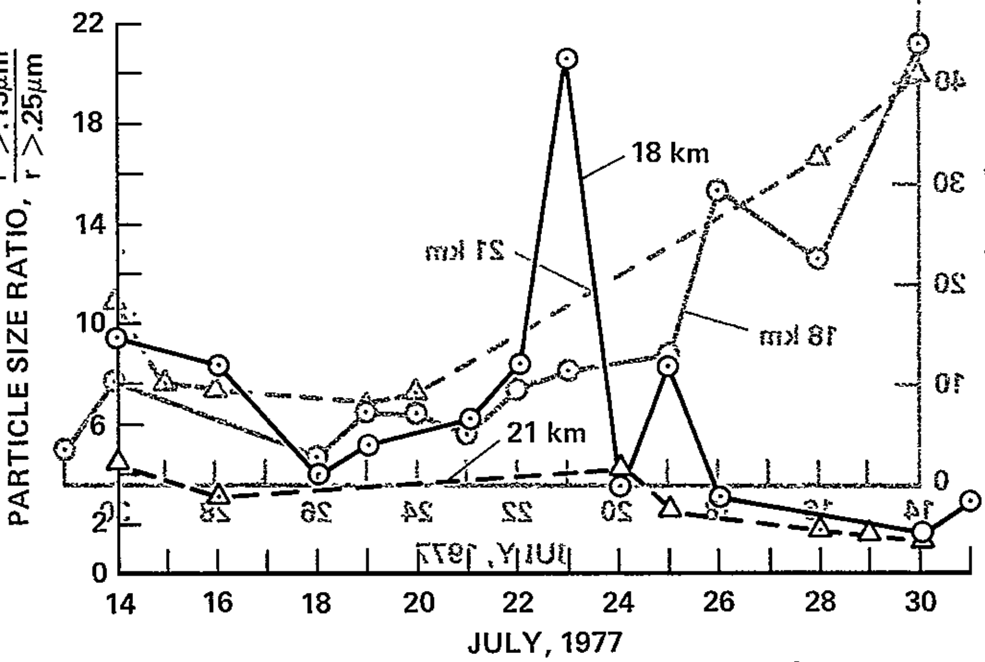

Figure 10.- Time history of particle size ratios, Panama Canal Zone, July 1977.

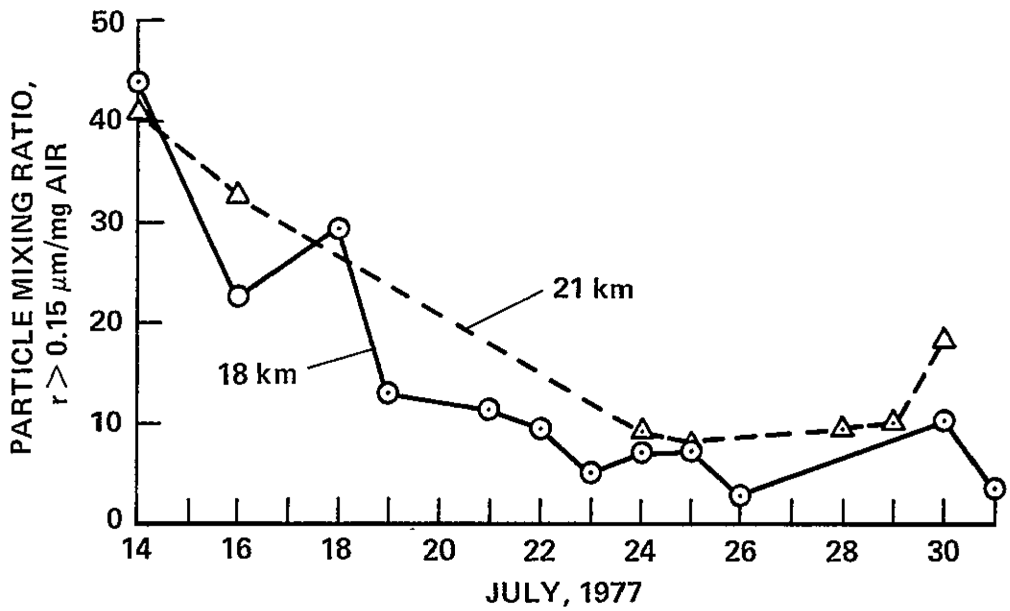

Figure 11.- History of large particle mixing ratios, Panama Canal Zone, July 1977.

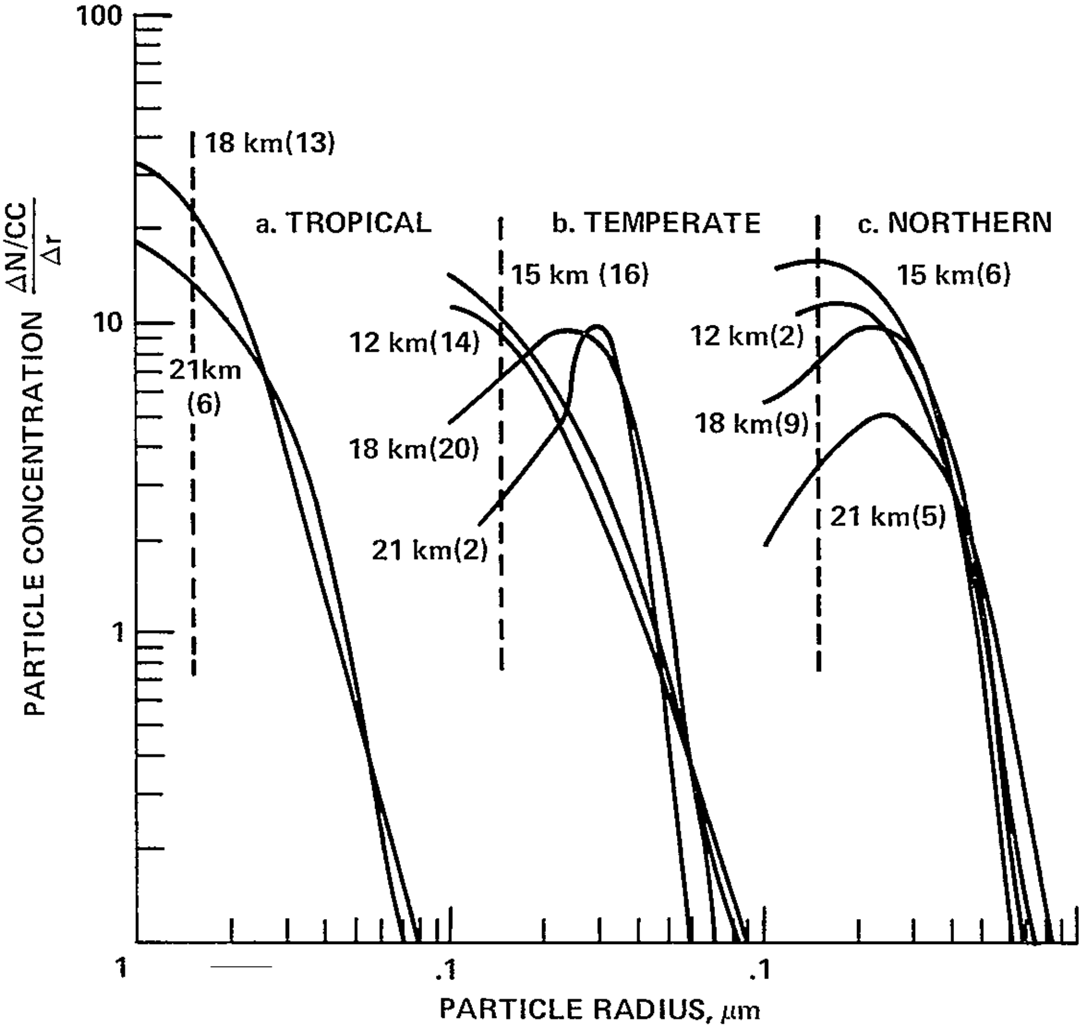

Figure 12.- Average particle size distributions vs altitude and latitude, 1976-1977. The number of individual distributions used for this averaging is shown in parentheses.

Finding more small particles in the tropics does not preclude, of course, the existence of other injection zones in the temperature region, as suggested by Lazrus and Gandrud (ref. 1). Perhaps the trend of the 12 and 15 km distributions in figure 12(b), where fewer large particles and more small ones are present, is indicative of such a midlatitude injection zone. Our sampling method is presently insensitive to very small particles such as Aitken nuclei that are considered precursors to aerosol growth. Hence, we were unable to explore this important size range at any location.

An interesting finding arising from the ITCZ results in the tropics is the apparent higher population of small particles early in the sampling period, decreasing later in the operation. The exact location of the ITCZ at our sampling altitude has not yet been determined. Hence we cannot yet infer the sources of the air parcels at different times during the operation. We speculate, however, that aerosol-forming components, such as nuclei and water vapor, may be locally uplifted to the stratosphere during the first week. And wherever the source may be, locally or at great distances, it weakens as the month passes, resulting in ever-decreasing amounts of small particles.

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N79-26726 D11

XI. U-2 WATER VAPOR BURDEN OBSERVATIONS THROUGH THE TROPOPAUSE

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The Ames Research Center's U-2 aircraft provided a platform for an infrared radiometer inferring water vapor burdens associated with the Intertropical Convergence Zone. Flight altitudes were 16 to 23 km. The radiometer system, coupled with an algorithm to produce an inverse solution of the radiative transfer equation, resulted in an rms error of 20% in the inferred water vapor burden. A unique, bivariate solution including radiance and vertical temperature profiles produced an essentially real-time solution for the water vapor burden.

Results of these July 1977 missions over the Canal Zone region between latitudes 7.5° N and 11.0° N produced a correlation between low water vapor burden above 23 km (averaging 1.5×10^{-4} g cm^{-2}) and convergence aloft. A larger burden above 23 km (2.5×10^{-4} g cm^{-2}) was evidently associated with divergence aloft or the outflow at the tops of strong cumulonimbus. Mass mixing ratio profiles were estimated from the burden observations and ranged from 2.0 to 5.8 ppm at 23 km.

ANALYTICAL METHOD

Data analysis to obtain water vapor burden is based on an inverse solution of the radiative transfer equation (RTE) and direct observations of radiance (W cm^{-2} sr^{-1}) from a zenith-looking IR radiometer.

The observed radiance is given by

$$N_0^{\downarrow}(\mathrm{W\ cm^{-2}\ sr^{-1}}) = k(GV_0 + a_0 + a_1T_a + a_2T_a^2 - V_E) + N_R \qquad (1)$$

where

k	radiometer system coefficient, W cm^{-2} sr^{-1} V^{-1}
T	air temperature, K
V	voltage output
G	system gain
a_0,a_1,a_2	second-order coefficients

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V_E offset voltage

N_R reference cavity radiance (W cm^{-2} sr^{-1})

The computed radiance is given by

$$N_c^{\downarrow}(\text{W cm}^{-2}\ \text{sr}^{-1}) = -\iint_{\nu\ \rho} B(\nu,T)\phi(\nu)\ \frac{\partial\tau[u(H_2O)]}{\partial p}\ dp\ d\nu \qquad (2)$$

where

B Planck radiance, W cm^{-2} sr^{-1}

ν wave number, cm^{-1}

T absolute temperature

$\phi(\nu)$ filter-detector system throughout

$\tau(\nu)$ transmission due to water vapor in the pass band 270 to 520 cm^{-1}

$u(H_2O)$ water vapor burden, g cm^{-2}

p pressure, mbars

The transmission may be written

$$\tau_\nu = \ell^{-\int \bar{K}_\nu\ du} \qquad (3)$$

where

$$du = \frac{1}{g}\int_{p_1}^{p_2} \bar{q}\ dp(\text{g cm}^{-2}) \qquad (4)$$

and

g acceleration of gravity

$\bar{q}$ average mass mixing ration from p_1 to p_2

and the absorption coefficient, K_ν, is defined for a spectral interval from the AFGL compilation. No continuum problems exist at this altitude.

In solving equation (2) we must make an assumption about temperature profile above our flight level. We do know whether we are above or below the tropopause from observations of the IR air temperature sensor on board.

We have two choices in assigning this temperature profile. They are:

1. Assume a constant temperature profile at, say, 220 K with height as did Brewer and Houghton and others in interpreting their balloon radiance to water vapor research

2. Define a temperature profile above flight level from the overflown sounding stations, as we did for Panama

We now iterate equation (2) stepwise increasing the total water vapor burden using an initial dry mass mixing ratio profile (gg^{-1}), until the condition

$$N_o\downarrow - N_c\downarrow \leq N.E.\Delta N$$

is satisfied.

This inferred water vapor burden may be written in terms of q (see eq. (4)) and distributed throughout the atmosphere above the aircraft by the power law

$$q = q_o\left(\frac{P}{P_o}\right)^{\lambda} \tag{5}$$

where λ is an exponent determined by region and season, and q_o is the mass mixing ratio at aircraft level.

All observations in Panama aboard the U-2 were conducted in this manner with on-board downward radiance and IR air temperature (CO_2 band). Solutions were reached in the manner outlined and there were no instrumental malfunctions of which we were aware. Preflight and postflight calibrations agreed within 3.5%. We have calculated an overall accuracy of our H_2O burden observations of ±20% at this level. The N.E.ΔN (noise equivalent radiance of the system) is 5.0×10^{-6} W cm^{-2} sr^{-1}.

RESULTS

Table 1 summarizes the U-2 water vapor burden observations with respect to date; location of the Intertropical Convergence Zone (i.e., whether it was north, overhead, or south of the flight track); the type of flight with respect to water vapor burden; and the cloud conditions during the mission. The flight track extended from lat. 7°30' N to lat. 11°00' N aligned within 10' either side of long. 79°30' W.

Specifically, the data obtained during the period July 17 through July 31 are illustrated in a series of three double figures. The ordinate in each figure is the height in kilometers; the abscissa is the mixing ratio in grams

TABLE 1.- U-2 WATER VAPOR BURDEN OBSERVATIONS

July 1977	ITCZ[a]			Flight type	Clouds
	N	Overhead	S		
17		X		Wet	Above cirrus, clear whole track
18	X			Dry	Cirrus only on south portion
19	X 13°			Dry	Persistent contrails
20	No flight				
21	X 12°			Dry	80 mi S. of Howard
22	X 12.5°			Very dry	
23			X 7°	Dry	
24			X 7.5°	Dry	North end-transparent cirrus
25(ave)		X 8° N		Wetter	S. end of flight track
26(ave)		X 7°,8° N		Dry	
27				Dry	
28	X 10°			Wet	Over ITCZ
29			X 6.5,7°	Dry	
30			X 7.5°	Wet	Cumulus South
31		X		Wettest	ITCZ above Howard, cumulonimbus all around and in pattern

[a]Location of ITCZ with respect to flight track: north, overhead, south.

X signifies that a measurement was made.

of water vapor per gram of dry air (or parts per million of water vapor to dry air) and the sloping straight lines are those of frost point in degrees celsius.

The "dry" soundings of July 18, 21 through 27, and July 29, figures 1 and 2, are characterized by generally lower frost points, averaging -88.0°C for most of the soundings above 15 km. In all cases, the temperatures of 15 and 21.5 km were close to -50°C and -42°C, respectively.

For the "wet" soundings, figure 3, of July 17, 28, 30, and 31 the frost points averaged above -84.0°C. Here the mixing ratio profiles, at least on July 28, tended to turn toward a constant or increasing-with-height profile. The 21.5 km temperatures for the "wet" soundings averaged -38°C, some 4°C higher for the free air soundings than for the dry soundings.

Short of a detailed analysis, it was evident that the wet soundings were taken over strong convective cell activity with the ITCZ generally below the flight track. Preliminary upper air analyses indicates that the wet flight profiles were associated with divergence aloft and that the dry profiles were associated with at least weak convergence aloft.

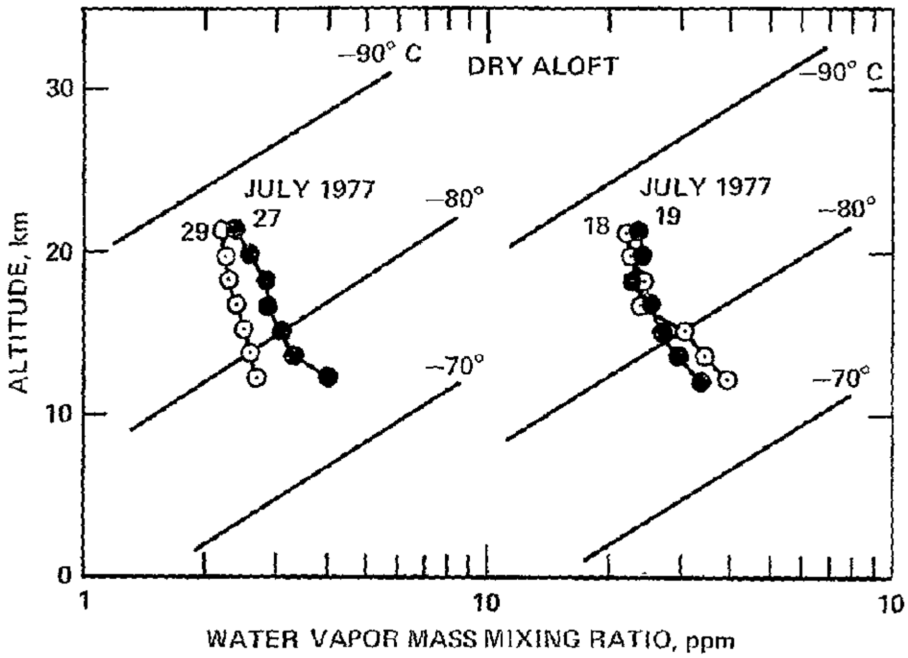

Figure 1.- Dry soundings, two sections; sloping solid straight lines are lines of constant frost point.

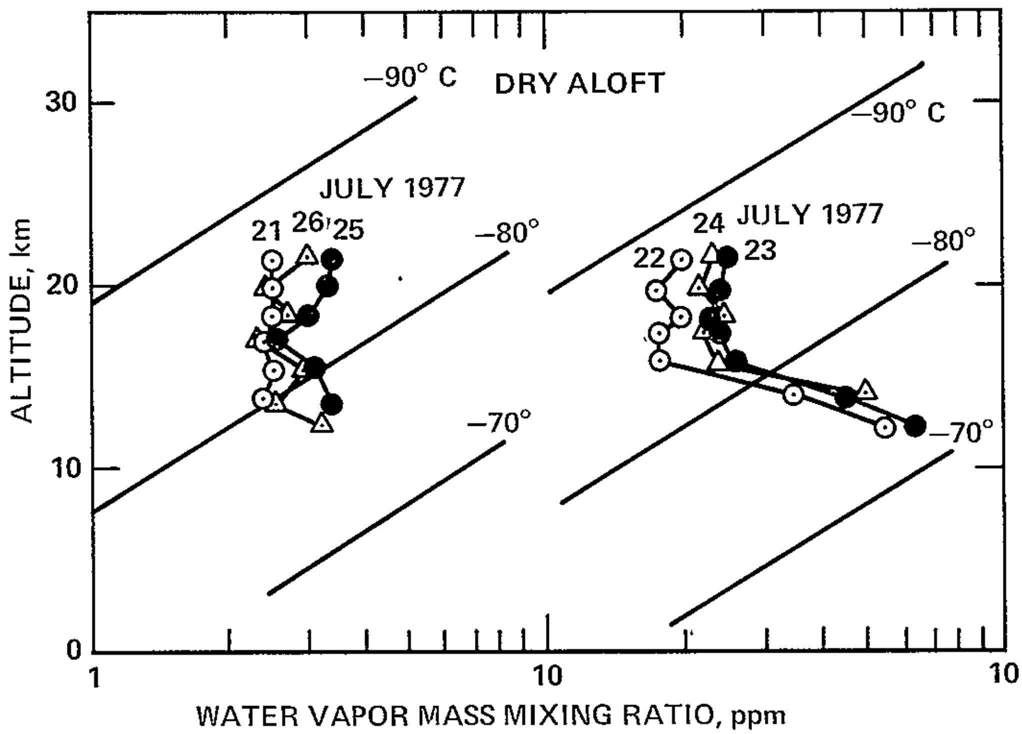

Figure 2.- Dry soundings, two sections.

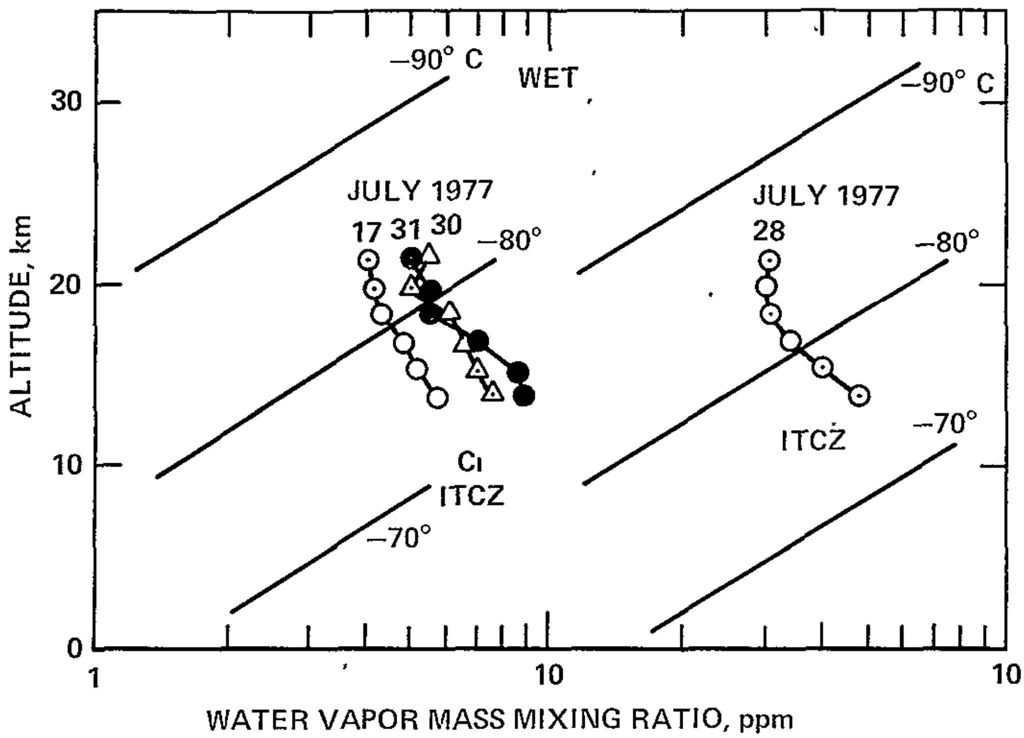

Figure 3.- Wet soundings near ITCZ, two sections.

N79-26727 D/12

XII. AIRBORNE PRESSURE AND TEMPERATURE MEASUREMENTS DURING THE 1977 INTERTROPICAL CONVERGENCE ZONE EXPERIMENT

Robert M. Muñoz

Ames Research Center

During the 1977 ITCZ experiment in Panama two aircraft and numerous balloon-borne radiosonde instruments were equipped to measure pressure and temperature. The experiment was a coordinated effort to evaluate the meteorological conditions that prevailed from July 17 through July 31, 1977. This paper presents a critical analysis of the data collected on one of the aircraft — the Learjet — operating at altitudes to 13,000 m for about 2 hr each day during most days of the experiment. The discussion includes a comparison of the vertical profiles of potential temperature obtained from the Learjet with those obtained from balloons launched at Ft. Sherman. It further presents time histories of pressure, temperature, and potential temperature, as observed from the Learjet. Also included is a discussion of several potential sources of error which indicate that the Learjet instruments were limited by a total uncertainty of about ±3 K in evaluation of potential temperature as a function of altitude.

MEASUREMENT SYSTEM

Figure 1 shows a block diagram of the instrumentation system used on the Learjet for obtaining pressure and temperature data. No attempt will be made here to describe the details of the system, which is discussed at length elsewhere,[1] together with instrument ground-based calibration procedures and operational considerations. The platinum resistance temperature probe by Rosemount Engineering and the Intercontinental Dynamics Corporation (IDC) altimeter, discussed in the reference of footnote (1), constitute the primary sensors. A Validyne pressure sensor arranged to measure ram pressure, also discussed in the reference of footnote (1), was found inadequate for flight measurements even though laboratory tests and calibrations suggested otherwise. This sensor produced erratic results, some of which were attributable to the ambient temperature fluctuations of the cabin environment; as a consequence, data from the sensor were not used in the data reduction process. The analysis and results presented here are based on the Rosemount and IDC sensors.

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[1]Muñoz, Robert M.: Airborne Pressure and Temperature Instrumentation for the Intertropical Convergence Zone (ITCZ) Study, June 28, 1977 (available from author).

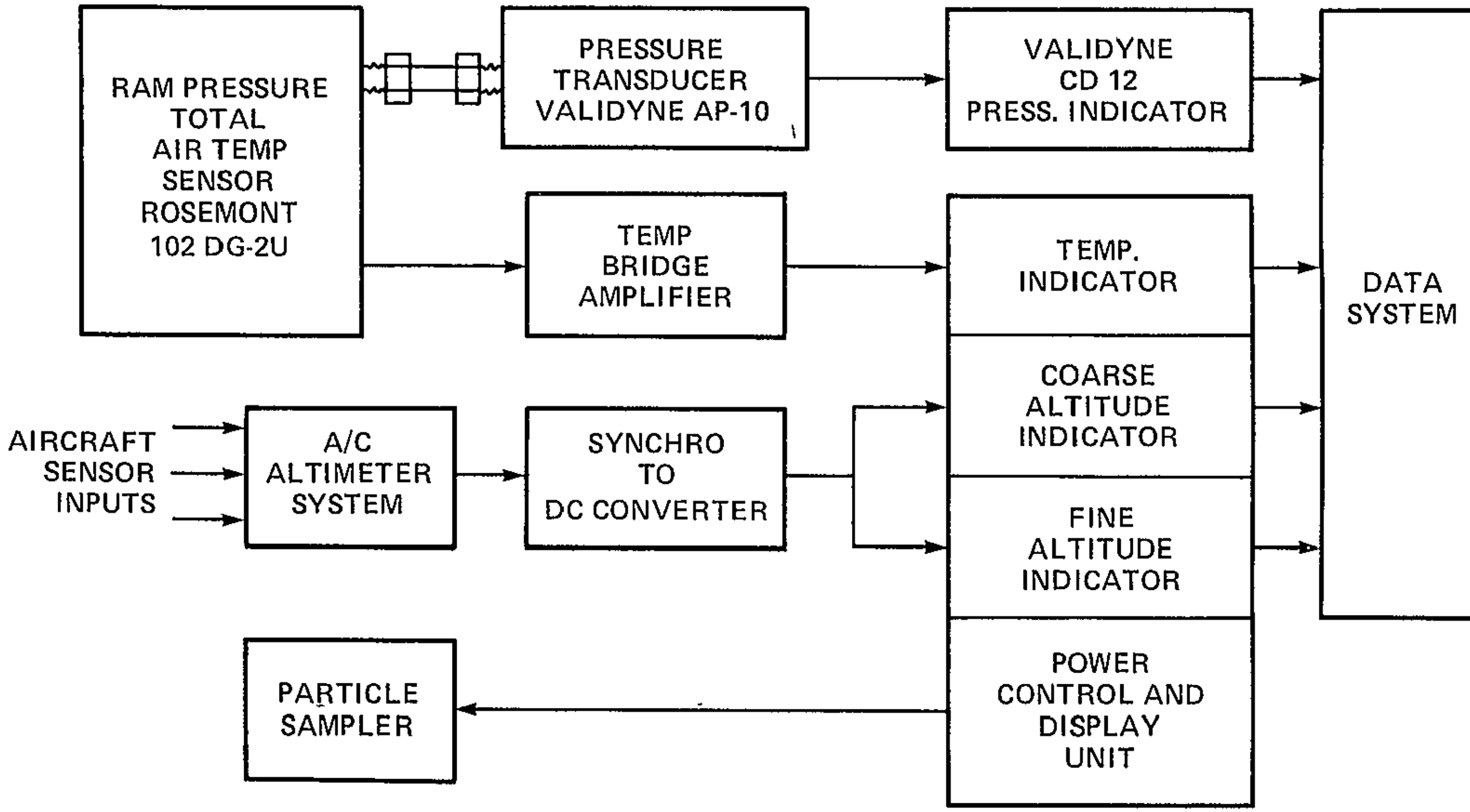

Figure 1.- Functional block diagram of P and T instrumentation for Learjet.

DATA

An atlas of all data covering about 99% of 14 days of Learjet flying is available from the author by request. This atlas contains the following data elements:

1. Listings of pressure altitude, total air temperature, free-air static pressure, and computed potential temperature vs universal time corrected to approximately ±3 sec

2. Pilots' log listing flight level, Mach number, cloud condition, and radial DME measurements

3. Plots of altitude, total air temperature, and potential temperature vs time

4. Cross plots of potential temperature vs pressure altitude from Learjet data.

5. Plots of potential temperature vs pressure altitude obtained from balloon radiosonde data

6. An operator's log containing qualitative discussion of day-by-day operations.

These data have been augmented to some degree by informal discussions with pilots, operators, and other experimenters in the analysis that follows.

ANALYSIS OF THE DATA

In order to obtain a quantitative estimate of the range of variation of the potential temperature during the ITCZ experiment and thus have a standard against which to compare the results of this instrumentation system, plots of potential temperature vs altitude for each flying day were made. These data, obtained by Schmidlin (see appendix A), are illustrated in the data points of figure 2a and constitute a portion of the data contained in summary form and bracketed by the curves showing the expected range of variation of potential temperature during the experiment. The balloon data and aircraft data are in reasonable agreement with some exceptions which will be discussed. Changes greater than a few degrees K from time to time within a single day and ±5° from day to day during the experiment were rare.

It was necessary to reduce data to potential temperature by using pressure altitude measurements and readings of Mach number recorded by the pilots (see fig. 3). These were used to construct a model of Mach number throughout the flights; potential temperature was computed according to the following equation:

$$\theta = T_{\tau}(1 + 0.2\ M^2)^{-1}(P_S)^{-2/7} \qquad (1)$$

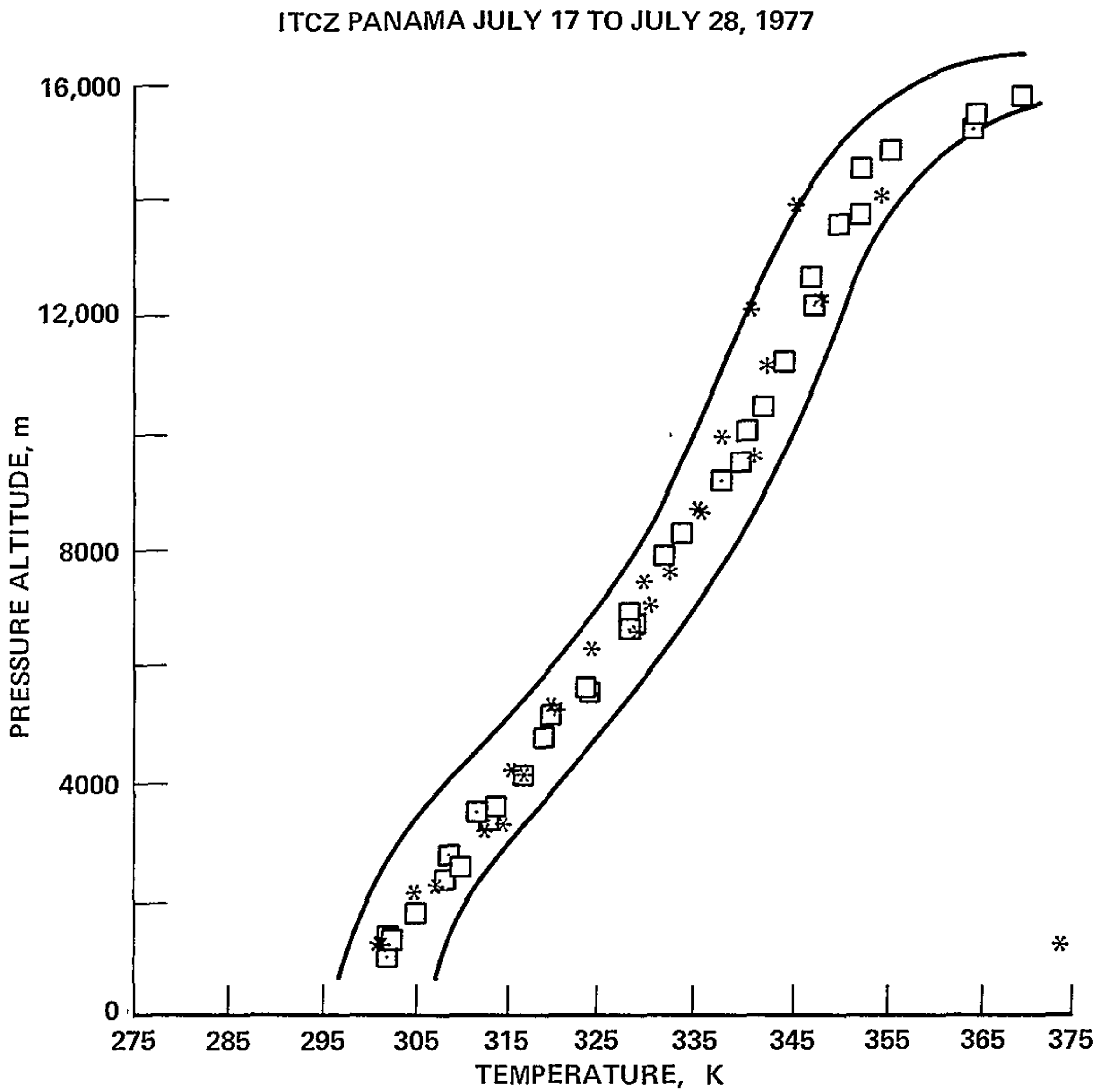

Figure 2.- Range of variation of potential temperature.

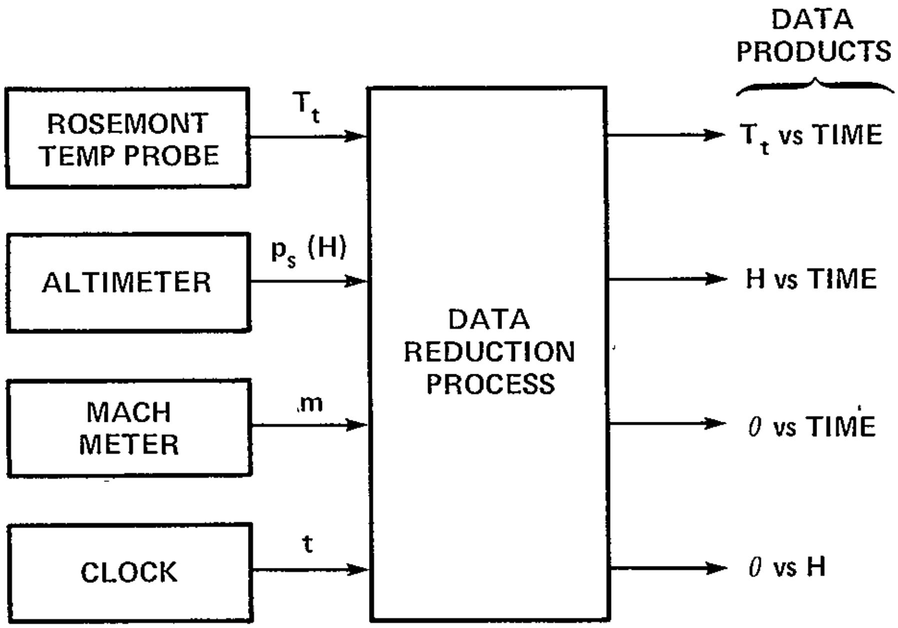

Figure 3.- Data reduction process for 1977 Panama ITCA P + T measurements from Learjet.

where Θ is potential temperature, T_T is total air temperature, M is Mach number, and P_S is free-air static pressure ratio referenced to 1000 mbars. Figures 4-6 illustrate the reduced data in terms of time histories of pressure altitude, total air temperature, and potential temperature for July 18, a day chosen as typical among the 14 days of Learjet flights. Although these plots may appear normal, careful examination of them reveals a minor defect in the time response of the temperature profiles; it will be discussed next.

A critical analysis of total air temperature data discussed above demonstrates a relatively long thermal lag. Since the aircraft flew in stairstep fashion at several different constant altitudes, the total air temperature profiles should reflect abrupt changes during transition followed by relatively constant readings while at altitude. The data do show the abrupt changes but also show an asymptotic approach to constant readings at fixed flight levels leading to a conclusion, later confirmed by laboratory tests, that a thermal lag in the Rosemount temperature probe was limiting the precision with which dynamic measurements could be made. A careful study of this problem revealed that a large aluminum baseplate on which the probe was mounted acted as a heat sink to the probe strut causing errors of more than 10% of the temperature difference from one flight level to another.

An effort was made to improve the data by means of compensating for this thermal lag by a new technique[2] but it met with limited success because time constants varied over a large range due to changes in the conductance of the air stream with varying weather conditions and because the compensation technique accentuated noise during the large transitions — the intervals for which improved results would be most desirable. Figures 5 and 6 show typical compensated and uncompensated data for July 18, illustrating the improvements possible and some of the difficulties encountered during transitions.

The best data are encountered after a settling time of 2 to 4 min at a constant altitude and it was during intervals such as these that reasonable results have been obtained, as illustrated in figure 7. Here, the data for constant flight levels have been presented as mean values shown together with variations from the mean of ±1 standard deviation. These results agree very closely with those of the expected range of variation of figure 2. They differ only slightly from day to day indicating that there were only small changes in the potential temperature distribution as a function of pressure altitude during the experiment. Radar data are now available from Riegel (appendix E) to compare some of these results as a function of geometric altitude.

RESULTS

Although thermal lag in the temperature probe limited the precision of measurement during rapid altitude changes, survey measurements of potential

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[2]Muñoz, Robert M.: Compensation for Systematic Sensor Errors by Discrete Convolution (available from author).

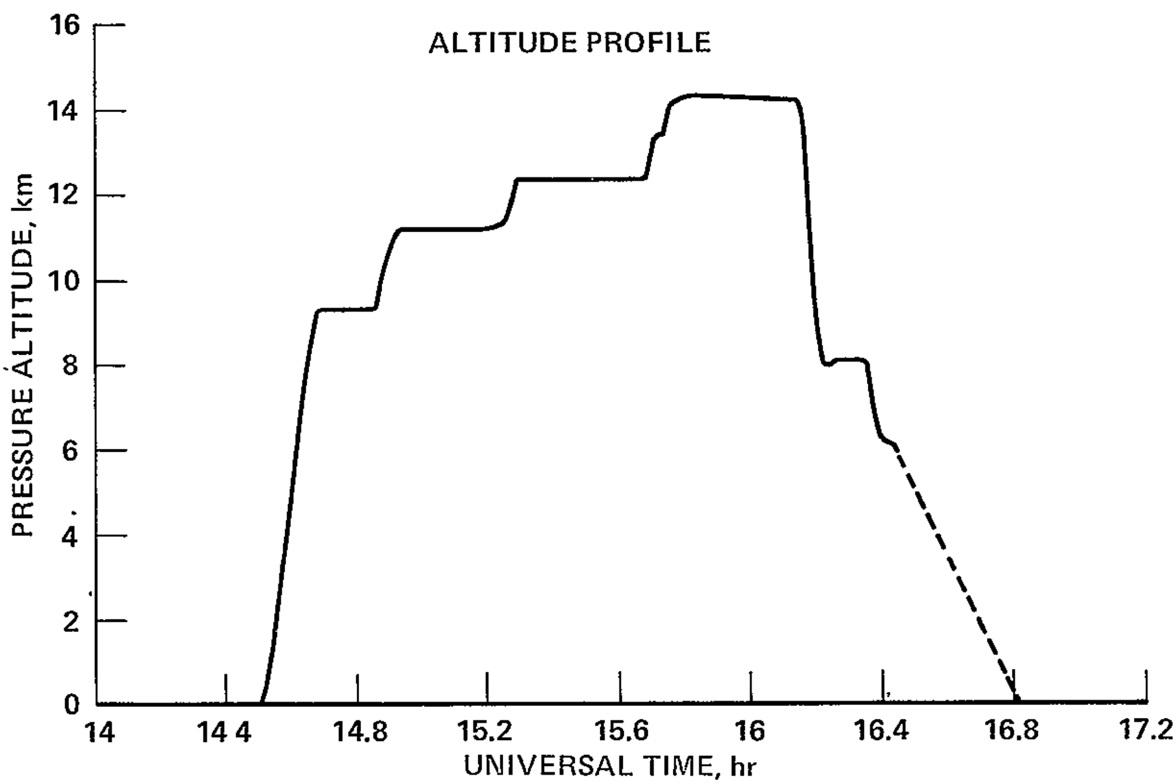

Figure 4.- ITCZ Panama Learjet, July 18, 1977.

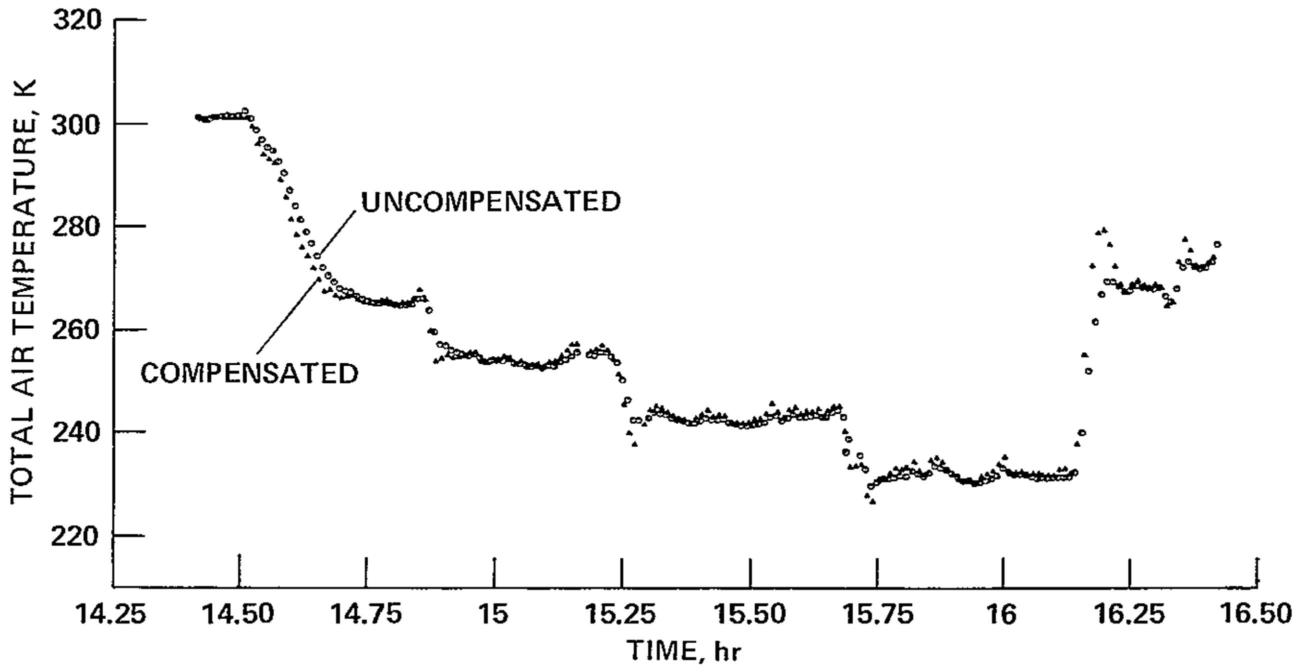

Figure 5.- Total air temperature time history for ITCZ experiment, Panama, July 18, 1977.

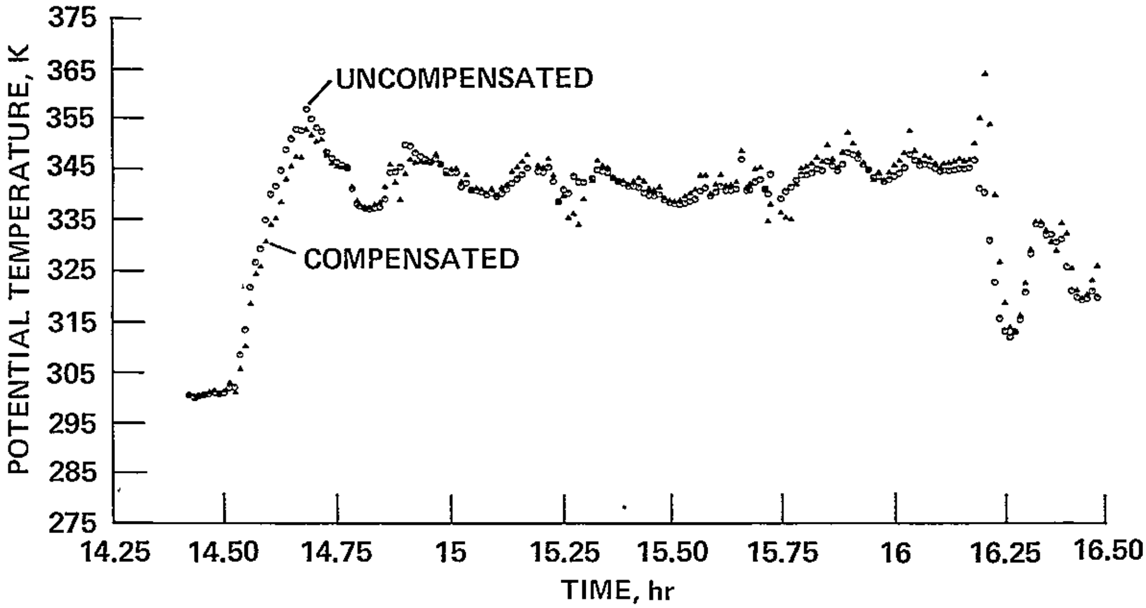

Figure 6.- Potential temperature time history for ITCZ experiment, Panama, July 18, 1977.

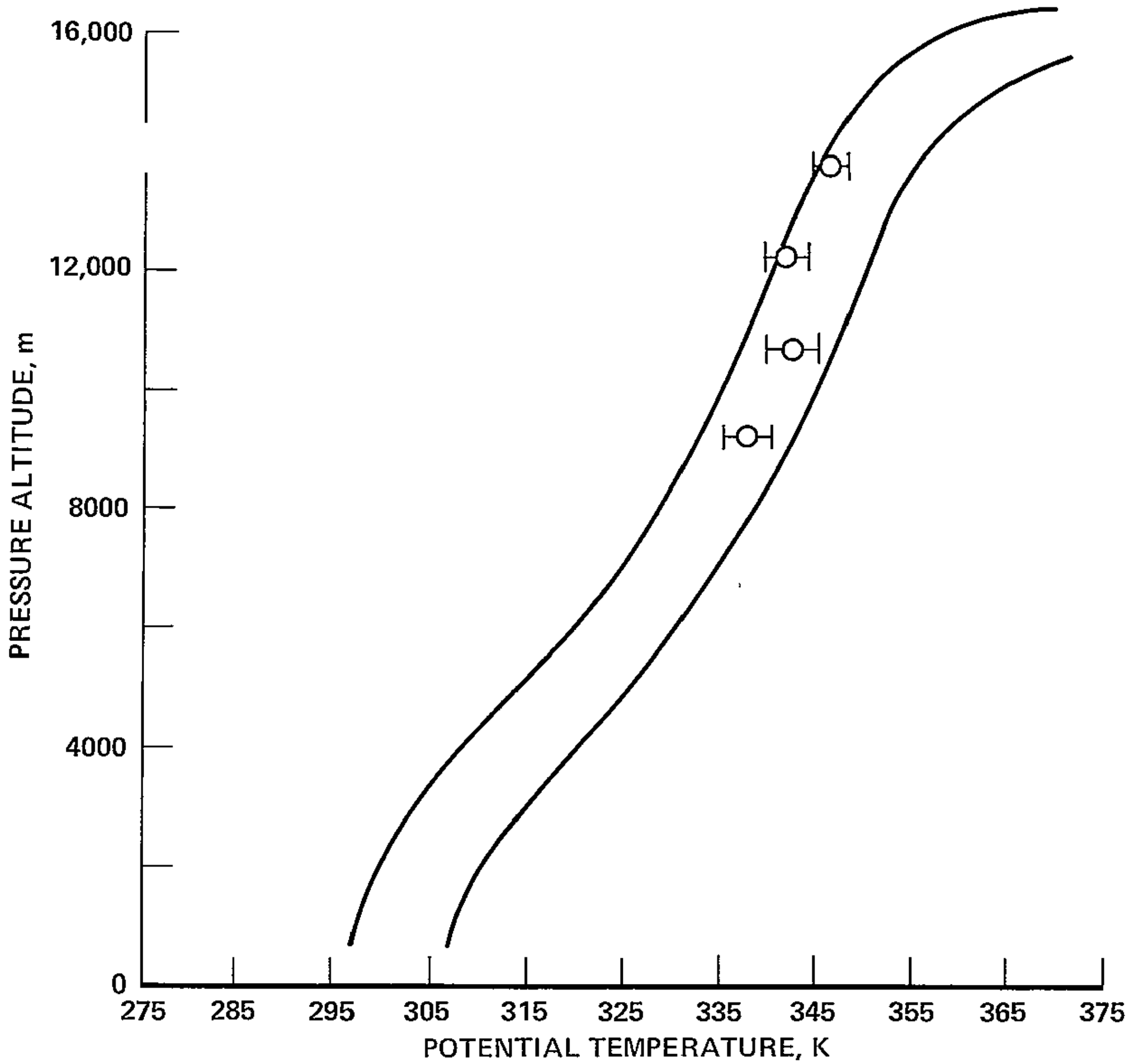

Figure 7.- Potential temperature vs altitude for ITCZ experiment, Panama, July 18, 1977.

temperature were made with an estimated uncertainty of ±3 K at selected flight levels for 14 days during July 1977. The minimum settling time for good readings after rapid changes in flight altitude is about 2 min. Better readings might have been obtained with more gradual changes of altitude or with a temperature probe with intrinsically more rapid response.

The data reduction process was complicated by the necessity of making a model of the Mach variations from pilot inputs during the flight — the pilot seldom made adequate records during rapid altitude changes. An improved measuring system might contain automated Mach measurements and an accurate, stable, and reliable ram pressure measurement probe coupled with a temperature probe of rapid response. It would also be an advantage in the study of atmospheric gravity wave and mountain lee wave phenomena to have automated measurement of position in terms of longitude and latitude from an inertial navigation system or the equivalent.

CONCLUSIONS

A considerable amount of pressure and temperature data was collected leading, albeit by a difficult path, to a measurement of potential temperature profile in the troposphere during the ITCZ experiment. These data agree reasonably well with the data obtained from radiosonde instrumentation borne aloft by balloons launched at Ft. Sherman. Improvements are definitely possible and desirable on future missions. Summaries of the data for the 14 days of Learjet flights are given in appendix F.

N79-26728

XIII. PRESSURE AND TEMPERATURE MEASUREMENTS FROM THE U-2 AIRCRAFT DURING THE 1977 INTERTROPICAL CONVERGENCE EXPERIMENT

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Ames Research Center

INTRODUCTION

For the study of the Intertropical Convergence Zone, the aircraft provided pressure and temperature data to supplement the radiosonde records. The results obtained from the U-2 aircraft during the six flights of the cryogenic and whole-air sampling system on July 18, 19, 23, 25, 28, and 29, 1977, are presented in this document.

DESCRIPTION OF EXPERIMENT

The total temperature of the air was measured with a Rosemount temperature probe mounted on the instrument bay hatch of the U-2 aircraft. Static pressure and indicated air speed were obtained from the air data computer on the aircraft. The information, digitized every 8 sec, was recorded on a cassette tape. To provide data throughout the flight, the recorder operated for a period of 99 sec of every 197 sec for the first four missions and for 138 sec of every 197 sec for the last two missions, which were of shorter duration. Since the data system lacked a clock, universal times for the records were derived from the pilots' log of times of initiation of certain operations that were reflected in the recorded data and from the recording and cycling rates of the cassette transport. The times assigned are for the temperature reading and are within 20 sec of universal time. The pressure reading occurs 4 sec prior to the temperature reading.

RESULTS

The static pressure and static temperature — derived from the recorded data of pressure altitude, indicated air speed, and probe temperature (ref. 1) — are shown in figures 1 through 6. A tabulation of the data is available from the author. Table 1 is a sample of the data available on the pressures and temperatures recorded by the U-2 aircraft on July 18, 19, 23, 25, and 29, 1977, over the Panama Canal Zone; ancillary data have been omitted. It should be noted that more significant figures than are warranted by the accuracy of the data are presented. The approximate position of the aircraft at a given time can be determined from navigation records by the pilot and the incomplete radar tracking data.

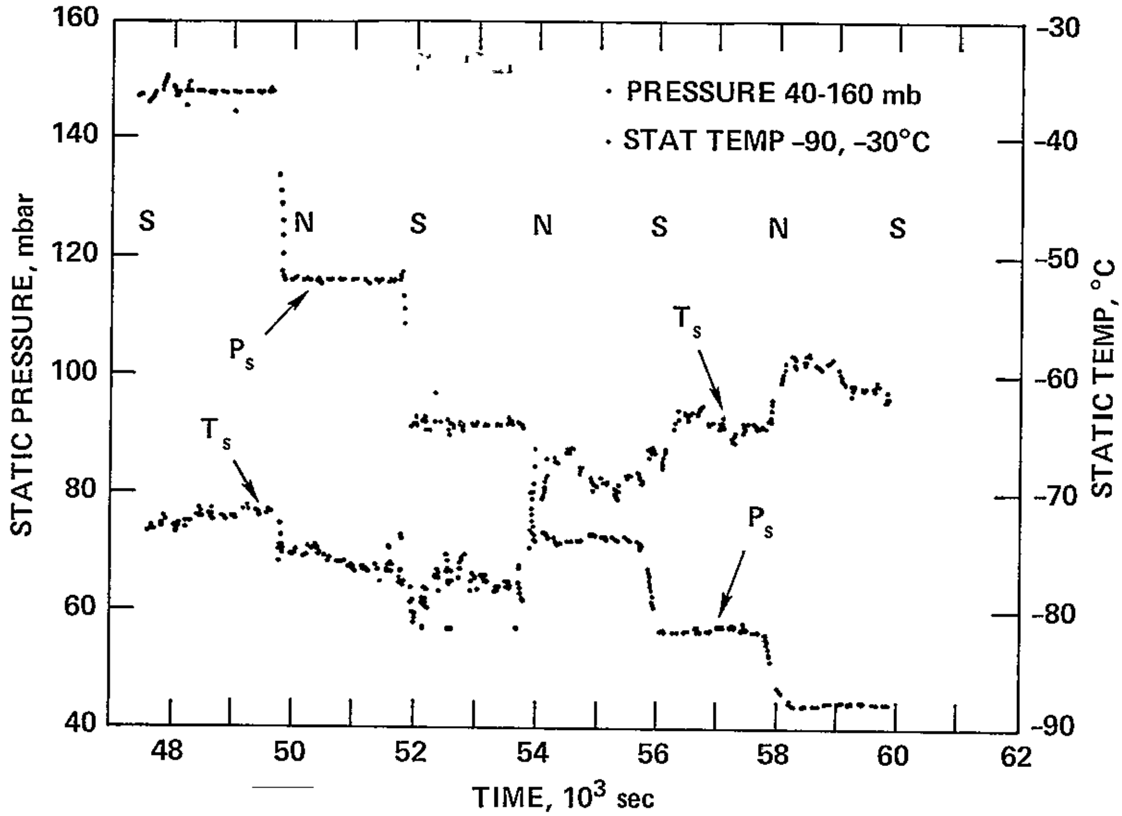

Figure 1.- Static pressure and temperature as a function of universal time for the U-2 aircraft above an altitude of 12 km following the standard race-track course on July 18. The northern and southern ends of the track are designated N and S, respectively.

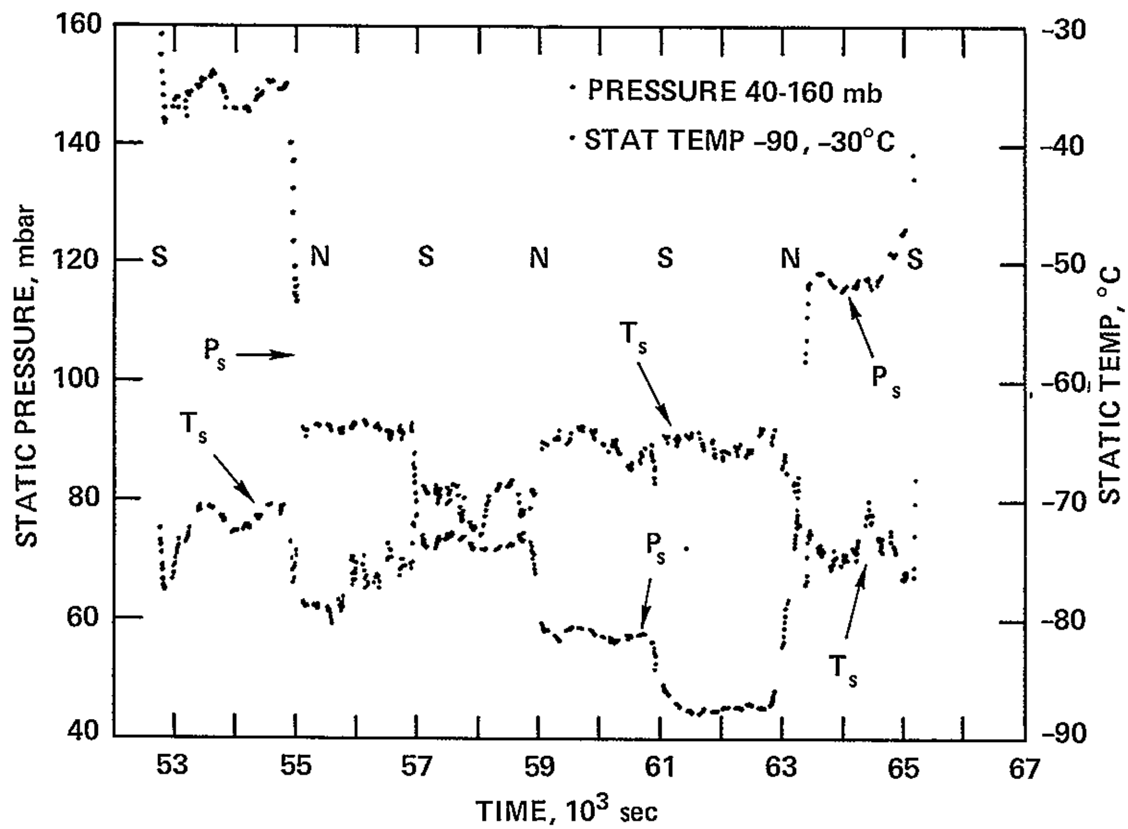

Figure 2.- Static pressure and temperature as a function of universal time for the U-2 aircraft above an altitude of 12 km on July 19. Sampling was delayed by an aircraft problem. The level at 15.2 km was flown last in case developing weather conditions should require cancellation for an earlier landing.

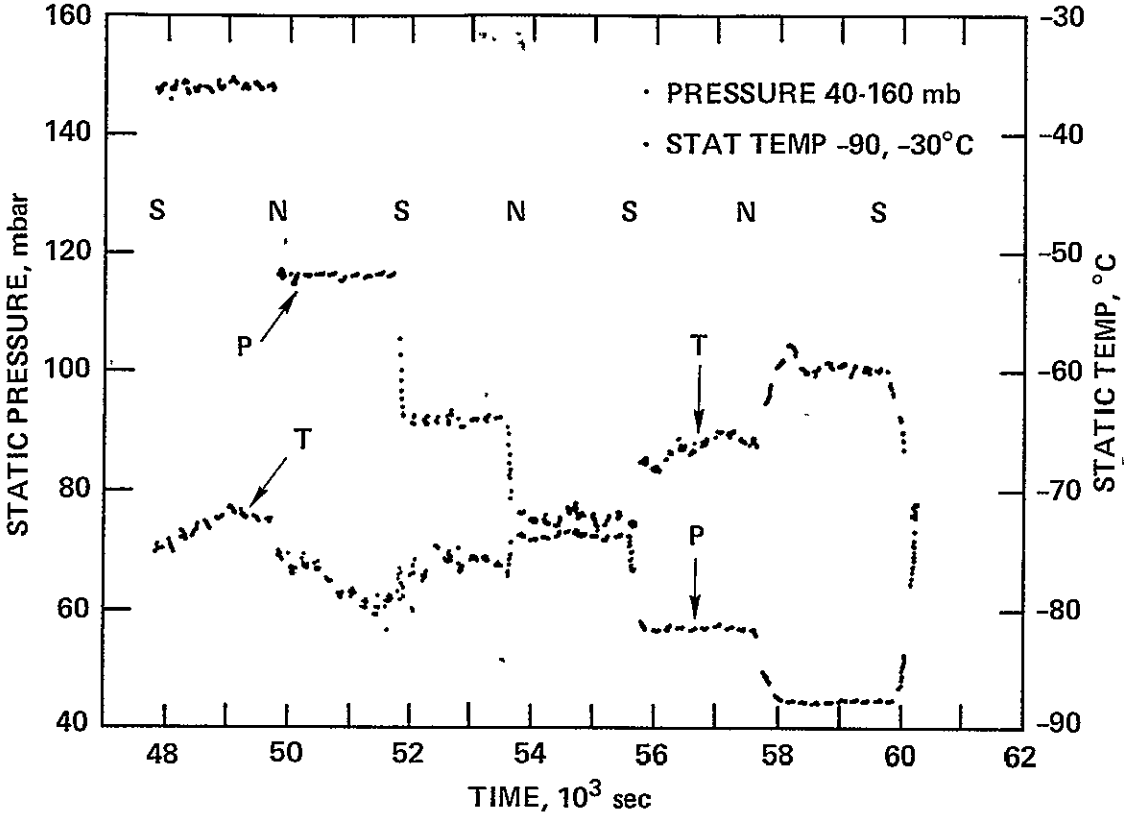

Figure 3.- Static pressure and temperature as a function of universal time for the U-2 aircraft above an altitude of 12 km following the standard race-track course on July 23.

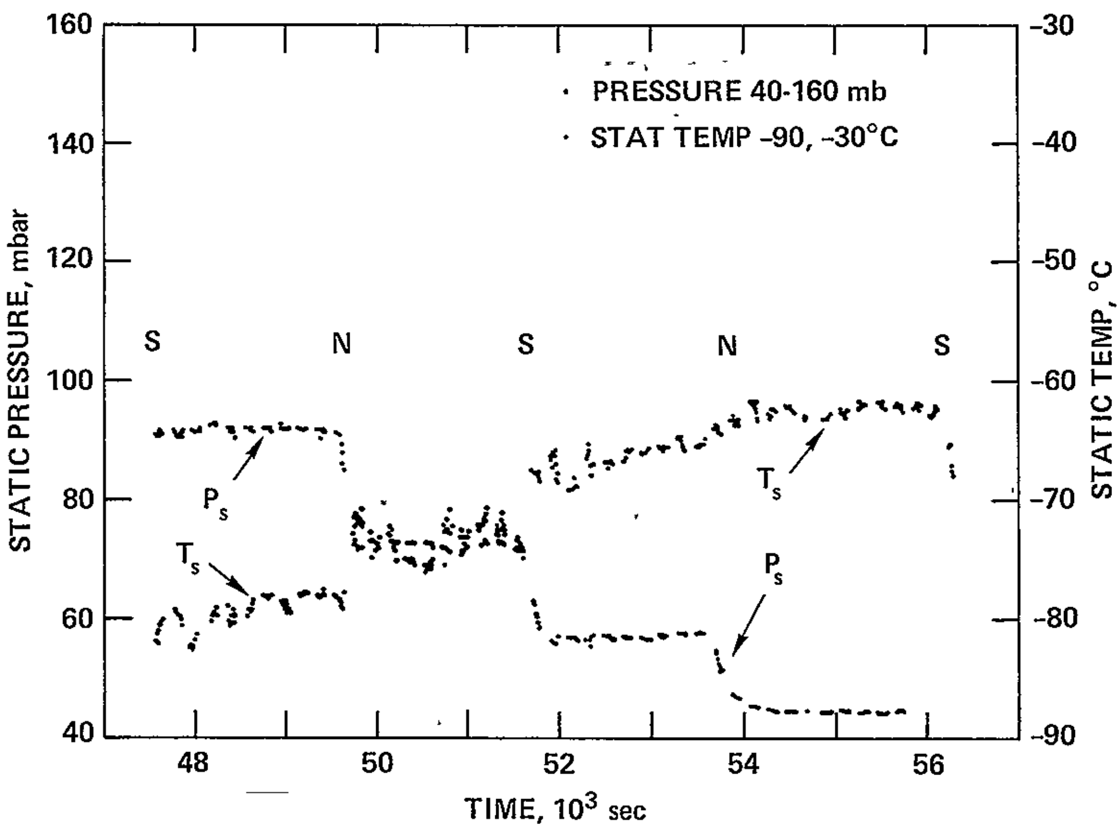

Figure 4.- Static pressure and temperature as a function of universal time for the U-2 aircraft above an altitude of 16 km on July 25. Weather conditions did not permit sampling at lower levels.

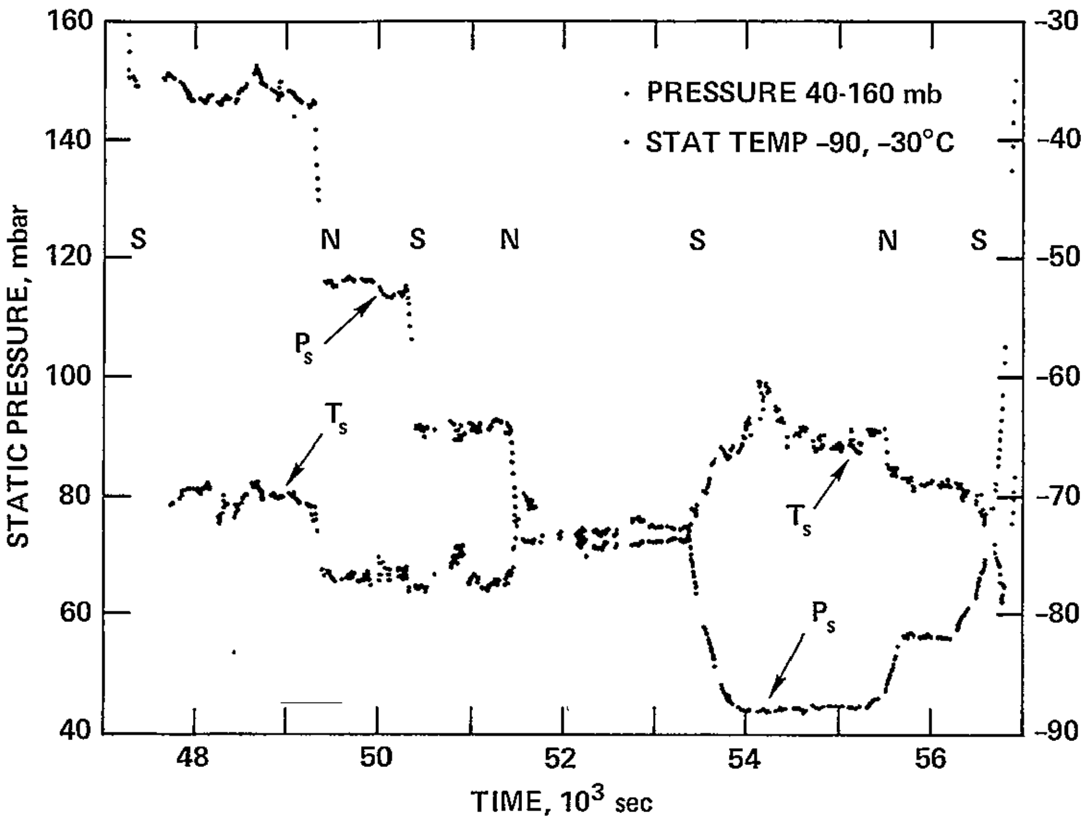

Figure 5.- Static pressure and temperature as a function of universal time for the U-2 aircraft above an altitude of 12 km on July 28. The flight profile was modified for optimum gas sampling with a limited flight duration.

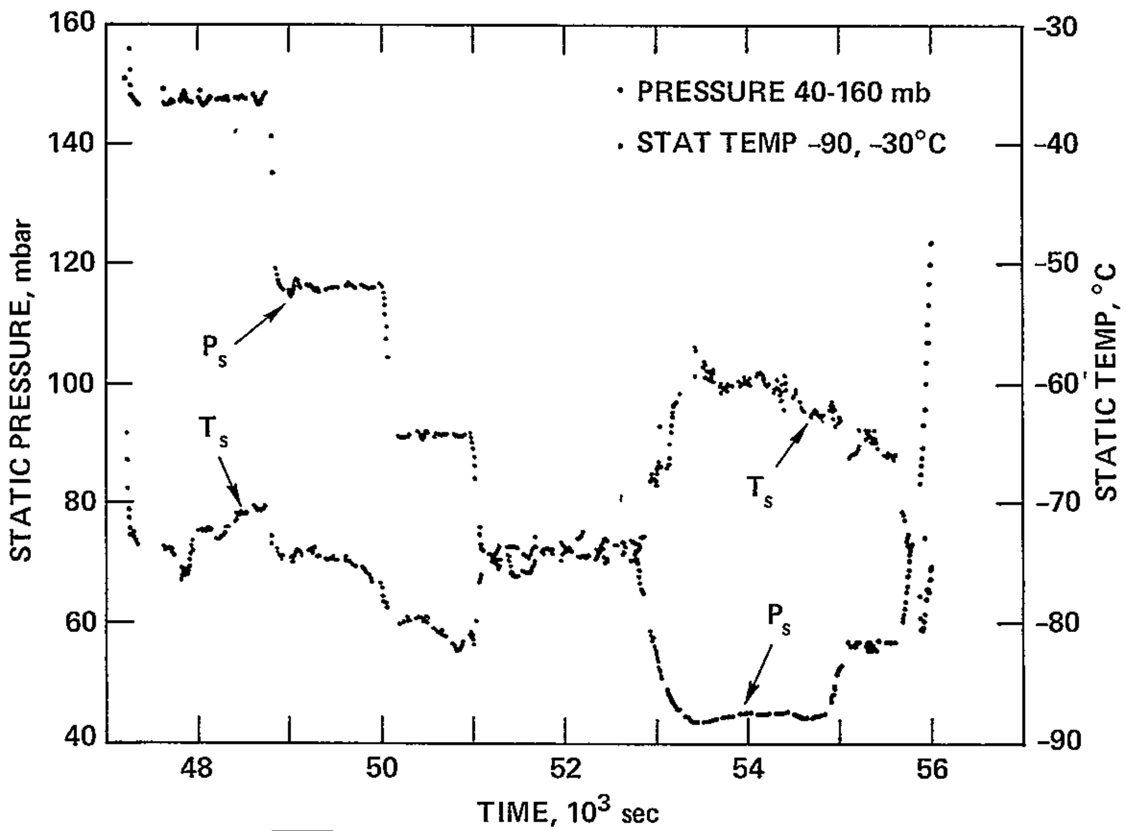

Figure 6.- Static pressure and temperature as a function of universal time for the U-2 aircraft above an altitude of 12 km on July 29. The flight profile was similar to the one on the preceding day.

TABLE 1.- SAMPLE OF PRESSURE AND TEMPERATURE DATA.

Altitude, km	Air pressure, mbars	Total temp., °C	Static temp., °C	Potential temp., K	Universal time,		
					hr	min	sec
19.88	56.33	-43.0	-63.6	476	15	38	32
19.88	56.37	-43.1	-63.7	476	15	38	40
19.87	56.43	-42.9	-63.0	478	15	38	48
Periodic record gap							
19.85	56.59	-42.5	-63.3	478	15	40	42
19.85	56.57	-42.5	-63.1	477	15	40	50
19.84	56.73	-42.5	-63.2	477	15	40	58

C-3

REFERENCE

1. Aiken, W. S., Jr.: Standard Nomenclature for Airspeeds with Tables and Charts for Use in Calculation of Airspeed. NACA Report No. 837, 1946.

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APPENDIX A

BALLOON-BORNE ECC OZONESONDE DATA

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The calculated residual ozone figure in the box at the head of each ozonesonde data set is the residual ozone to one millibar pressure altitude. For balloons reaching a maximum altitude corresponding to 15 millibars or less, a residual ozone value to zero millibars may be calculated by multiplying the last figure in the third column from the left (ozone micmb at maximum altitude) by 0.000790. This new value for residual ozone can then be added to the value in the box for integrated ozone to obtain a total ozone value to zero millibars pressure altitude.

STATION FT SHERMAN LAUNCH DATE 71677 LAUNCH TIME 0428 GMT ECC SONDE 3A-012X

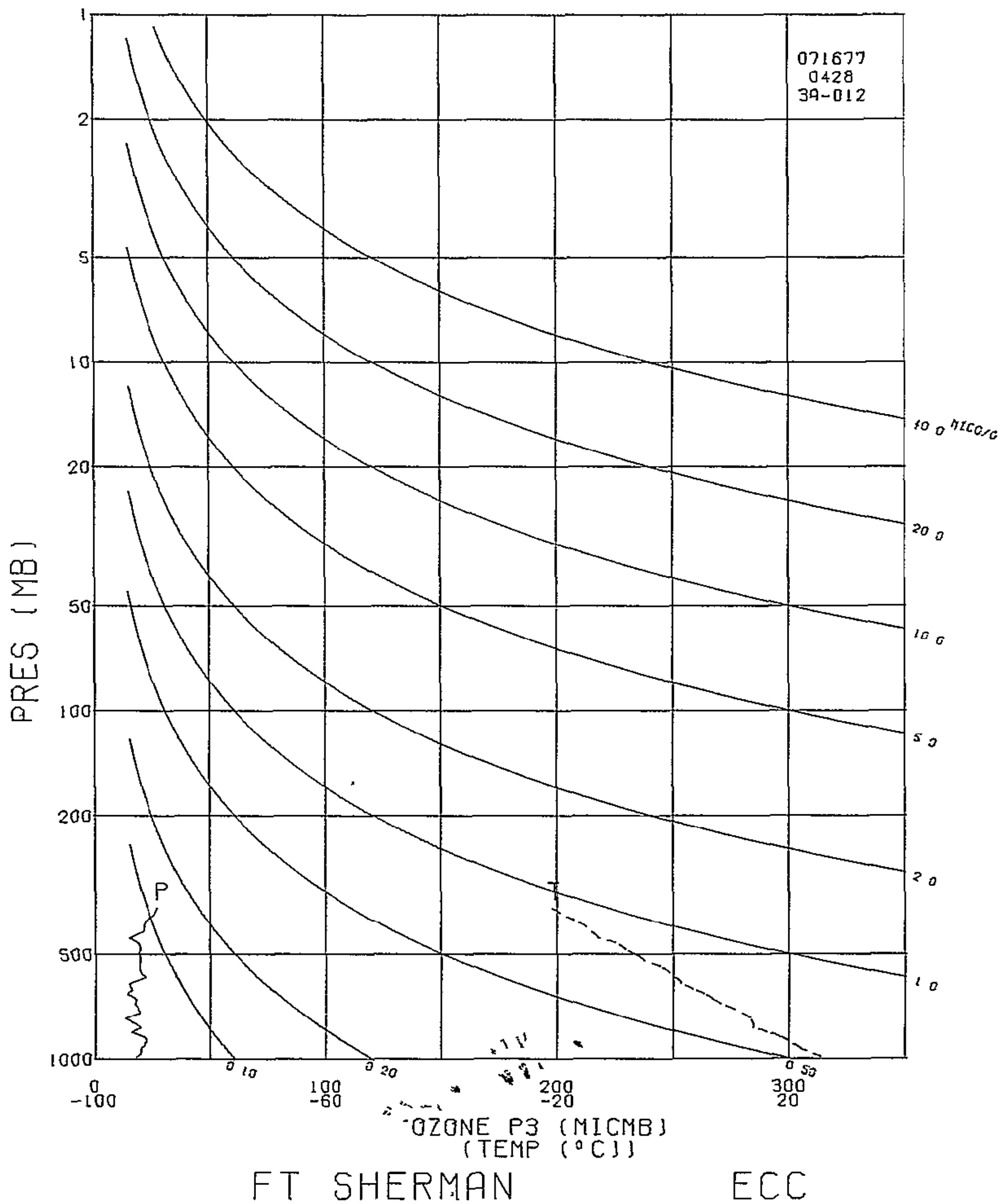
SURFACE CONDITIONS					
PRESS	1003.6 MB	OO3 = 32.5	TBOX CAL =	30.0 C	AT 73.8 ORD
TEMP	299.8 K	OIZ = 32.0	BASE CAL =	30.0 C	AT 73.8 ORD
HUMY	87.0 %	OZC = 61.5	HUMIDITY =	61.0 %	AT 46.0 ORD
		IO = 0.088			
		PS = 31.2			

	PROFILE	DOBSON
INTEGRATED OZONE	0.01514	
RESIDUAL OZONE		
TOTAL OZONE		0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	19.8	0.	38.3	0.03	1003.6	3.0016	298.9	298.6	302.06	82.4	295.7	0.0171	5.0	55.0	-2.9	-4.1
0.2	84	19.5	0.00005	37.6	0.03	1000.0	3.0000	298.9	298.9	302.07	83.7	295.9	0.0176	4.7	52.9	-2.8	-3.7
1.0	245	17.8	0.00032	34.3	0.03	982.0	2.9921	298.7	300.2	302.14	90.2	297.0	0.0189	3.2	36.6	-2.6	-1.9
2.0	435	19.8	0.00064	38.5	0.03	961.0	2.9827	297.5	300.9	300.76	90.2	295.8	0.0179	3.8	26.0	-3.4	-1.6
3.0	675	19.4	0.00107	38.0	0.03	935.0	2.9708	295.0	300.7	297.86	92.2	293.6	0.0161	2.9	20.8	-2.7	-1.0
4.0	920	21.4	0.00152	42.1	0.04	909.0	2.9586	293.8	302.0	296.61	92.3	292.5	0.0155	2.7	10.8	-2.7	-0.5
4.3	1006	21.6	0.00169	42.6	0.04	900.0	2.9542	293.5	302.4	296.19	91.5	292.0	0.0149	2.5	7.8	-2.5	-0.3
5.0	1181	22.1	0.00204	43.6	0.04	882.0	2.9455	292.7	303.4	295.32	89.7	291.0	0.0145	2.2	0.4	-2.2	-0.0
6.0	1408	20.9	0.00249	41.5	0.04	859.0	2.9340	291.2	304.2	293.45	82.8	288.2	0.0125	1.2	35.6	-1.0	-0.7
6.3	1497	19.2	0.00264	38.1	0.04	850.0	2.9294	290.6	304.4	292.79	85.8	288.1	0.0125	1.3	36.8	-1.1	-0.8
7.0	1691	15.5	0.00296	31.0	0.03	831.0	2.9196	289.1	304.8	291.36	92.2	287.9	0.0126	1.6	38.8	-1.2	-1.0
8.0	1929	19.5	0.00335	39.3	0.04	808.0	2.9074	286.9	304.9	288.90	92.6	285.7	0.0113	1.9	51.6	-1.2	-1.5
8.3	2012	18.4	0.00349	37.1	0.04	800.0	2.9031	286.8	305.7	288.76	90.8	285.3	0.0110	2.1	60.3	-1.0	-1.8
9.0	2248	15.4	0.00387	31.0	0.03	778.0	2.8910	286.5	307.8	288.38	85.8	284.2	0.0106	2.8	76.8	-0.6	-2.7
10.0	2456	12.6	0.00415	25.4	0.03	759.0	2.8802	286.1	309.6	287.68	71.6	281.1	0.0088	3.1	99.6	0.5	-3.0
11.0	2726	18.9	0.00455	38.1	0.04	735.0	2.8663	285.9	312.2	287.27	60.7	278.5	0.0076	4.4	120.0	2.2	-3.8
12.0	2957	18.2	0.00495	37.1	0.04	715.0	2.8543	283.5	312.0	284.62	61.4	276.4	0.0067	4.2	109.6	1.4	-4.0
12.6	3132	17.5	0.00524	35.7	0.04	700.0	2.8451	282.1	312.4	283.17	61.2	275.0	0.0061	4.4	98.3	0.6	-4.4
13.0	3240	17.0	0.00542	34.9	0.04	691.0	2.8395	281.3	312.6	282.28	61.1	274.2	0.0059	4.7	92.2	0.2	-4.7
14.0	3482	17.8	0.00583	36.7	0.04	671.0	2.8267	279.8	313.6	280.90	69.3	274.6	0.0063	5.8	98.1	0.8	-5.7
15.0	3780	13.6	0.00628	28.2	0.03	647.0	2.8109	278.2	315.1	279.25	69.8	273.2	0.0059	5.9	98.5	0.9	-5.8
16.0	4022	15.7	0.00662	32.8	0.04	628.0	2.7980	276.4	315.7	277.35	76.6	272.7	0.0058	5.4	108.4	1.7	-5.1
17.0	4337	14.3	0.00708	30.1	0.04	604.0	2.7810	274.4	316.9	275.37	86.8	272.4	0.0060	6.1	99.3	1.0	-6.0
17.2	4390	15.4	0.00718	32.5	0.04	600.0	2.7782	274.4	317.5	275.35	82.7	271.7	0.0055	6.2	97.6	0.8	-6.1
18.0	4677	21.6	0.00768	45.3	0.06	579.0	2.7627	274.5	320.9	275.27	60.7	267.8	0.0044	6.6	89.2	-0.1	-6.6
19.0	4930	19.2	0.00819	40.7	0.06	561.0	2.7490	272.3	321.2	273.00	69.9	267.5	0.0044	6.0	115.0	2.5	-5.4
20.0	5263	19.2	0.00882	40.9	0.06	538.0	2.7308	270.7	323.1	271.27	60.6	264.1	0.0036	5.8	125.1	3.3	-4.7
21.0	5547	19.3	0.00937	41.6	0.06	519.0	2.7152	267.9	323.1	268.39	60.4	261.4	0.0030	5.2	121.8	2.7	-4.4
22.0	5839	18.7	0.00993	40.4	0.06	500.0	2.6990	266.7	325.1	267.13	58.0	259.8	0.0027	4.3	120.1	2.2	-3.7
23.0	6141	19.7	0.01051	42.9	0.07	481.0	2.6821	264.9	326.5	265.30	57.4	258.0	0.0024	3.8	89.0	-0.1	-3.8
24.0	6469	18.4	0.01115	40.5	0.07	461.0	2.6637	263.0	328.1	263.46	72.0	258.9	0.0027	4.5	125.6	2.6	-3.7
25.0	6722	14.8	0.01158	32.9	0.06	446.0	2.6493	259.9	327.3	260.30	86.3	258.1	0.0026	6.3	149.4	5.5	-3.2
26.0	7035	20.4	0.01216	45.4	0.08	428.0	2.6314	259.2	330.3	259.57	81.4	256.7	0.0024	4.3	121.7	2.3	-3.7
27.0	7268	20.9	0.01266	46.8	0.08	415.0	2.6180	257.9	331.6	258.27	78.3	255.0	0.0022	4.2	125.8	2.4	-3.4
27.8	7544	21.9	0.01328	49.4	0.09	400.0	2.6021	256.2	332.9	256.55	75.8	253.0	0.0019	4.8	146.4	4.0	-2.7
28.0	7607	22.1	0.01343	50.0	0.09	396.7	2.5985	255.9	333.2	256.16	75.3	252.5	0.0019	5.1	150.1	4.4	-2.5
29.0	7870	25.5	0.01409	57.6	0.11	383.0	2.5832	255.3	335.9	255.60	73.7	251.8	0.0018	3.7	123.7	2.0	-3.0
30.0	8248	27.1	0.01514	62.2	0.12	364.0	2.5611	251.7	335.9	251.89	71.8	248.0	0.0013	999.9	999.9	999.9	999.9

*** TOTAL INTEGRATED OZONE INVALID ***
*** BALLOON SHORT OF 20 MB HEIGHT ***

ORIGINAL PAGE IS OF POOR QUALITY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3A-012
PRES (MB)
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2
5
10
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50
100
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500
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100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
P
T
FT SHERMAN
ECC

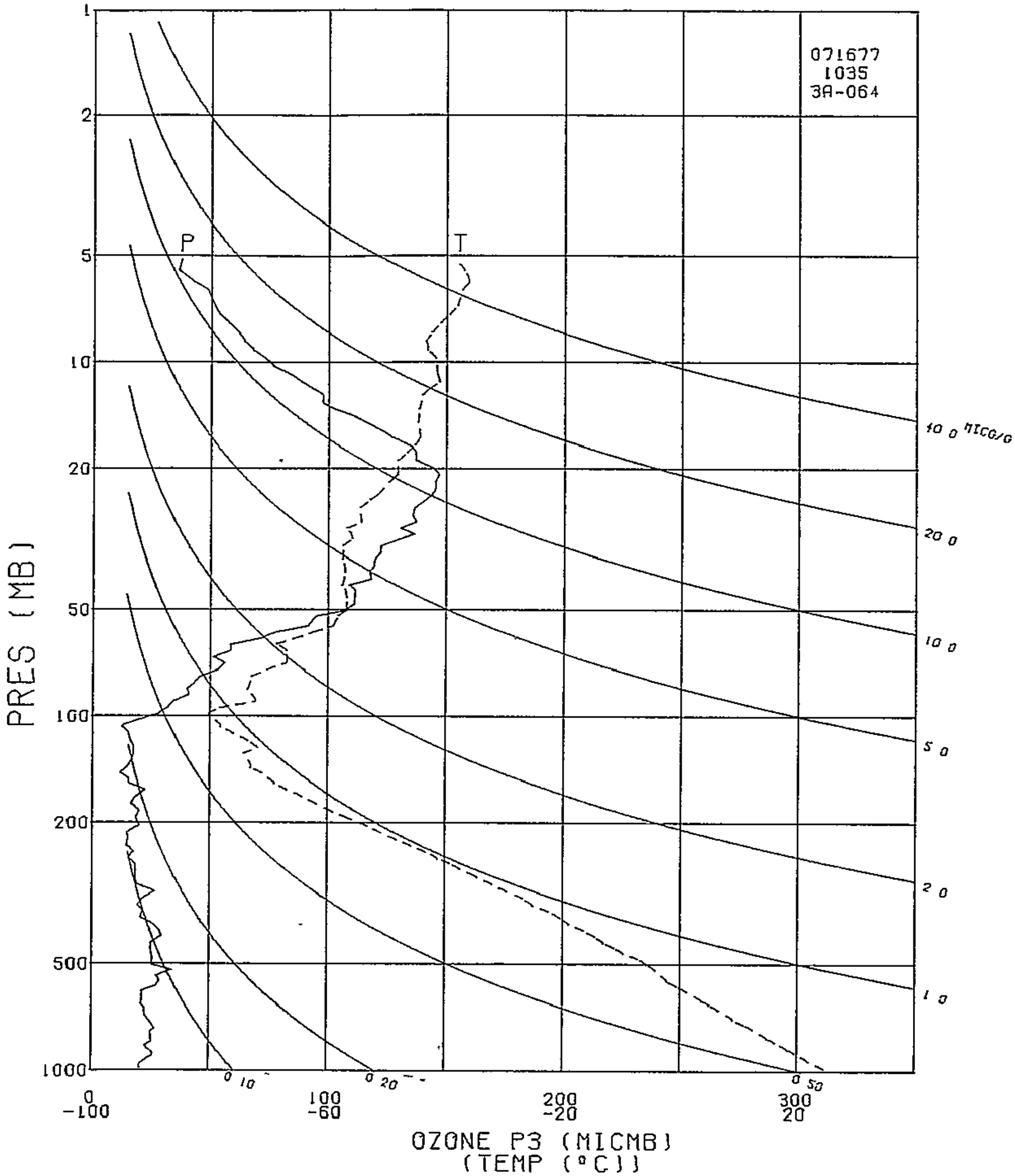
STATION FT SHERMAN   LAUNCH DATE 71677   LAUNCH TIME 1035 GMT   ECC SONDE 3A-064X

SURFACE CONDITIONS				
PRESS 1002.9 MB	003 = 33.0	TBOX CAL = 30.0 C	AT	73.7 ORD
TEMP 298.8 K	OIZ = 32.6	BASE CAL = 30.0 C	AT	73.8 ORD
HUMY 94.0 %	OZC = 61.1	HUMIDITY = 61.8 %	AT	46.0 ORD
	IO = 0.073			
	PS = 34.0			

	PROFILE	DOBSON
INTEGRATED OZONE	0.25002	
RESIDUAL OZONE	0.02345	
TOTAL OZONE	0.27346	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	17.2	0.	33.2	0.03	1002.9	3.0013	298.7	298.4	302.18	93.4	297.5	0.0191	1.0	90.0	-0.0	-1.0
0.1	78	17.6	0.00004	34.0	0.03	1000.0	3.0000	298.6	298.6	302.07	93.9	297.5	0.0192	1.7	74.2	-0.5	-1.6
1.0	262	20.3	0.00035	39.4	0.03	979.4	2.9910	297.7	299.5	301.24	97.4	297.3	0.0193	7.0	58.1	-3.7	-6.0
2.0	508	20.6	0.00080	40.1	0.04	952.4	2.9788	297.0	301.2	300.32	93.0	295.8	0.0181	8.0	45.8	-5.6	-5.7
3.0	727	22.9	0.00123	44.8	0.04	928.8	2.9679	295.0	301.2	297.86	91.6	293.5	0.0161	5.9	35.0	-4.8	-3.4
4.0	944	25.8	0.00171	50.7	0.05	905.9	2.9571	293.8	302.2	296.63	92.5	292.6	0.0156	4.1	28.6	-3.6	-2.0
4.3	1000	25.8	0.00184	50.7	0.05	900.0	2.9542	293.5	302.5	296.32	93.3	292.4	0.0155	3.7	29.5	-3.3	-1.8
5.0	1153	25.7	0.00220	50.7	0.05	884.3	2.9466	292.7	303.2	295.49	95.5	292.0	0.0154	2.7	33.2	-2.2	-1.5
6.0	1355	23.5	0.00266	46.6	0.05	863.8	2.9364	291.4	303.9	293.97	93.5	290.4	0.0142	2.2	54.1	-1.3	-1.8
6.7	1493	23.1	0.00295	45.8	0.04	850.0	2.9294	290.7	304.6	293.21	93.9	289.7	0.0138	2.5	63.7	-1.1	-2.2
7.0	1563	22.8	0.00310	45.4	0.04	843.1	2.9259	290.4	304.9	292.82	94.2	289.4	0.0137	2.7	67.7	-1.0	-2.5
8.0	1750	25.5	0.00352	50.9	0.05	824.8	2.9163	289.3	305.7	291.64	92.9	288.2	0.0130	4.0	69.6	-1.4	-3.7
9.0	1968	25.7	0.00404	51.5	0.05	803.9	2.9052	287.9	306.4	289.93	87.6	285.9	0.0114	5.4	74.3	-1.5	-5.2
9.2	2009	25.6	0.00414	51.3	0.05	800.0	2.9031	287.8	306.8	289.83	87.3	285.7	0.0113	5.5	75.1	-1.4	-5.3
10.0	2225	25.0	0.00464	50.2	0.05	779.9	2.8920	287.3	308.5	289.27	86.0	285.0	0.0111	5.8	79.2	-1.1	-5.7
11.0	2474	26.7	0.00525	54.0	0.06	757.2	2.8792	285.4	309.0	287.22	90.7	283.9	0.0106	6.8	83.1	-0.8	-6.8
12.0	2723	25.2	0.00586	51.3	0.06	735.0	2.8663	283.8	309.9	285.67	96.6	283.3	0.0105	9.0	83.3	-1.0	-8.9
13.0	2982	23.9	0.00646	48.8	0.06	712.5	2.8528	282.0	310.7	283.66	98.1	281.7	0.0098	10.1	87.6	-0.4	-10.0
13.6	3128	23.3	0.00678	47.7	0.06	700.0	2.8451	281.5	311.7	283.09	95.8	280.8	0.0092	10.3	91.6	0.3	-10.3
14.0	3246	22.8	0.00704	46.8	0.05	690.1	2.8389	281.1	312.5	282.63	94.0	280.2	0.0091	10.5	94.7	0.9	-10.5
15.0	3489	22.7	0.00758	46.8	0.06	670.0	2.8261	279.6	313.5	280.97	86.0	277.5	0.0077	11.4	98.0	1.6	-11.2
16.0	3769	20.9	0.00816	43.4	0.05	647.5	2.8112	278.1	314.8	279.33	88.8	276.4	0.0074	11.0	101.8	2.2	-10.8
17.0	4006	21.6	0.00865	45.1	0.06	628.9	2.7986	276.7	315.9	277.79	82.7	274.0	0.0064	9.8	106.7	2.8	-9.4
18.0	4235	21.5	0.00913	45.1	0.06	611.4	2.7863	275.7	317.3	276.70	80.2	272.6	0.0060	9.8	111.5	3.6	-9.2
18.6	4386	21.3	0.00945	44.7	0.06	600.0	2.7782	274.7	317.8	275.59	79.5	271.5	0.0055	10.3	110.5	3.6	-9.6
19.0	4476	21.1	0.00964	44.4	0.06	593.4	2.7733	274.0	318.1	274.94	79.1	270.8	0.0054	10.6	110.0	3.6	-9.9
20.0	4748	27.6	0.01029	58.5	0.08	573.6	2.7586	272.4	319.3	273.26	80.7	269.5	0.0051	10.5	108.2	3.3	-10.0
21.0	5002	28.9	0.01100	61.7	0.09	555.6	2.7448	270.8	320.4	271.42	61.4	264.4	0.0035	10.1	110.7	3.6	-9.5
22.0	5253	27.4	0.01170	58.5	0.08	538.3	2.7310	270.2	322.5	270.68	50.5	261.4	0.0029	10.9	109.7	3.7	-10.3
23.0	5562	34.1	0.01265	73.3	0.11	517.6	2.7140	268.8	324.5	269.06	28.2	253.2	0.0015	11.0	110.2	3.8	-10.3
23.9	5833	26.2	0.01347	56.5	0.09	500.0	2.6990	267.4	326.0	267.86	58.4	260.4	0.0030	9.8	110.9	3.5	-9.2
24.0	5852	25.6	0.01352	55.4	0.09	498.8	2.6979	267.3	326.1	267.78	60.5	260.9	0.0030	9.7	111.0	3.5	-9.1
25.0	6142	26.0	0.01428	56.4	0.09	480.6	2.6818	265.8	327.7	266.25	61.2	259.6	0.0028	8.5	107.4	2.5	-8.1
26.0	6416	25.2	0.01499	55.2	0.09	463.9	2.6664	263.3	327.9	263.68	60.9	257.2	0.0024	8.1	111.1	2.9	-7.6
27.0	6694	25.2	0.01571	55.5	0.09	447.4	2.6507	261.7	329.3	262.02	52.8	254.0	0.0019	8.3	122.6	4.5	-7.0
28.0	6933	25.2	0.01634	56.1	0.10	433.6	2.6371	260.0	330.1	260.32	58.2	253.6	0.0019	9.2	124.4	5.2	-7.6
29.0	7240	29.3	0.01721	65.5	0.12	416.4	2.6195	258.5	332.0	258.75	58.1	252.1	0.0017	8.2	129.6	5.2	-6.3
30.0	7543	28.3	0.01812	63.8	0.12	400.0	2.6021	256.6	333.4	256.80	55.6	249.8	0.0014	6.6	144.4	5.4	-3.9
30.0	7547	28.3	0.01813	63.7	0.12	399.8	2.6018	256.6	333.4	256.78	55.6	249.8	0.0014	6.6	144.6	5.4	-3.8
31.0	7850	25.9	0.01900	58.8	0.11	383.9	2.5842	254.1	334.0	254.31	62.8	248.8	0.0014	5.6	143.6	4.5	-3.3
32.0	8135	20.7	0.01971	47.3	0.09	369.4	2.5675	252.5	335.6	252.67	59.0	246.6	0.0012	5.3	125.4	3.1	-4.3
33.0	8457	21.6	0.02044	49.7	0.10	353.6	2.5485	250.6	337.3	250.77	56.7	244.4	0.0010	6.3	116.2	2.8	-5.7
33.3	8531	20.9	0.02060	48.3	0.10	350.0	2.5441	249.9	337.3	250.04	57.1	243.8	0.0009	6.4	118.8	3.1	-5.6
34.0	8745	19.0	0.02107	44.4	0.09	339.9	2.5314	247.8	337.3	247.96	58.4	242.1	0.0008	6.7	125.6	3.9	-5.5
35.0	9087	21.9	0.02184	51.3	0.11	324.2	2.5108	246.1	339.6	246.24	56.6	240.2	0.0007	5.5	138.2	4.1	-3.7
36.0	9394	26.7	0.02266	63.4	0.14	310.6	2.4922	243.5	340.1	243.57	41.6	234.7	0.0004	4.7	141.3	3.7	-2.9
36.8	9640	20.9	0.02328	49.8	0.11	300.0	2.4771	241.7	341.0	241.78	37.9	232.1	0.0003	5.8	138.0	4.3	-3.9
37.0	9721	18.9	0.02349	45.3	0.11	296.6	2.4722	241.1	341.3	241.19	36.6	231.3	0.0003	6.1	137.1	4.5	-4.2
38.0	10090	18.2	0.02426	44.0	0.11	281.4	2.4493	238.2	342.3	238.28	33.4	227.8	0.0002	7.0	135.8	5.0	-4.9
39.0	10420	18.4	0.02495	45.1	0.11	268.3	2.4286	235.6	343.1	235.62	32.7	225.3	0.0002	6.6	126.1	3.9	-5.3
40.0	10659	17.6	0.02544	43.4	0.11	259.1	2.4135	233.9	344.0	233.87	30.8	223.2	0.0001	6.9	116.0	3.0	-6.2
41.0	10870	15.1	0.02584	37.7	0.10	251.2	2.4000	231.8	344.0	231.82				8.5	109.3	2.8	-8.1
41.1	10902	15.4	0.02590	38.4	0.10	250.0	2.3979	231.6	344.2	231.60				8.5	107.9	2.6	-8.1
42.0	11172	17.5	0.02642	43.9	0.12	240.2	2.3806	229.8	345.3	229.76				8.6	96.1	0.9	-8.6
43.0	11439	14.4	0.02692	36.5	0.10	230.8	2.3632	227.2	345.5	227.24				6.8	74.9	-1.8	-6.5
44.0	11699	15.3	0.02738	39.2	0.11	221.9	2.3462	224.8	345.6	224.81				5.6	56.3	-3.1	-4.7
45.0	11997	14.4	0.02791	37.4	0.11	212.0	2.3263	222.1	346.0	222.15				4.8	35.3	-3.9	-2.8
46.0	12287	19.7	0.02852	51.9	0.16	202.7	2.3069	219.9	346.9	219.86				4.4	352.9	-4.4	0.5
46.3	12372	19.3	0.02872	50.9	0.16	200.0	2.3010	219.0	346.8	218.97				4.7	346.9	-4.6	1.1
47.0	12610	18.1	0.02927	48.3	0.16	192.7	2.2849	216.5	346.6	216.52				5.8	334.2	-5.2	2.5
48.0	12887	20.1	0.02994	54.2	0.16	184.4	2.2658	213.7	346.4	213.67				6.5	335.1	-5.9	2.8
49.0	13191	16.2	0.03064	44.4	0.15	175.6	2.2445	211.0	346.9	211.02				5.9	338.1	-5.5	2.2
50.0	13477	18.6	0.03128	51.6	0.18	167.6	2.2243	208.6	347.5	208.61				5.2	332.8	-4.6	2.4
51.0	13751	22.4	0.03201	62.9	0.23	160.2	2.2047	206.1	347.7	206.05				3.8	308.6	-2.4	3.0
52.0	13988	15.4	0.03260	43.6	0.17	154.0	2.1875	204.0	348.1	203.97				5.0	285.4	-1.3	4.8
52.8	14145	15.4	0.03292	43.6	0.17	150.0	2.1761	204.0	350.7	203.97				5.7	305.4	-3.3	4.6
53.0	14173	15.4	0.03298	43.5	0.17	149.3	2.1741	204.0	351.2	203.97				5.9	308.3	-3.7	4.6
54.0	14387	11.3	0.03336	32.4	0.13	144.0	2.1584	201.8	351.0	201.78				7.1	335.0	-6.4	3.0
55.0	14586	14.4	0.03370	41.6	0.17	139.2	2.1436	199.9	351.2	199.93				8.6	341.1	-8.1	2.8
56.0	14870	16.7	0.03430	48.3	0.21	132.6	2.1225	199.4	355.2	199.45				9.8	351.8	-9.7	1.4
57.0	15130	17.7	0.03490	51.3	0.23	126.8	2.1031	198.7	358.5	198.72				9.2	345.8	-8.9	2.2
57.4	15213	17.7	0.03510	51.1	0.23	125.0	2.0969	199.6	361.6	199.64				8.3	348.3	-8.1	1.7
58.0	15346	17.7	0.03542	50.9	0.24	122.2	2.0871	201.1	366.6	201.10				6.9	353.4	-6.8	0.8

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	15621	16.1	0.03604	46.5	0.23	116.6	2.0667	199.4	368.5	199.45				6.4	57.4	-3.4	-5.4
60.0	15901	15.5	0.03665	45.3	0.23	111.1	2.0457	196.9	369.0	196.95				8.5	87.0	-0.4	-8.5
61.0	16154	12.3	0.03713	36.4	0.19	106.3	2.0265	194.8	369.6	194.81				6.1	103.3	1.4	-6.0
62.0	16251	13.7	0.03730	40.7	0.22	104.5	2.0191	194.2	370.3	194.25				7.1	116.9	3.2	-6.4
62.6	16499	22.9	0.03803	68.4	0.38	100.0	2.0000	193.1	372.9	193.13				8.7	103.9	2.1	-8.4
63.0	16637	27.9	0.03842	83.8	0.47	97.6	1.9894	192.5	374.3	192.51				9.6	98.7	1.5	-9.5
64.0	16850	31.9	0.03931	94.6	0.56	94.0	1.9731	194.8	382.8	194.81				12.4	90.9	0.2	-12.4
65.0	17089	34.2	0.04039	98.3	0.63	90.2	1.9552	200.9	399.4	200.86				13.4	97.0	1.6	-13.3
66.0	17348	40.5	0.04169	116.7	0.78	86.3	1.9360	200.4	403.5	200.40				11.3	100.6	2.1	-11.1
67.0	17548	39.7	0.04277	115.0	0.79	83.4	1.9212	199.4	405.6	199.45				11.1	93.8	0.7	-11.1
68.0	17791	43.0	0.04413	124.6	0.89	80.0	1.9031	199.4	410.4	199.45				11.4	87.8	-0.4	-11.4
69.0	18045	45.6	0.04565	131.5	0.99	76.6	1.8842	200.2	417.0	200.16				12.0	92.5	0.5	-12.0
70.0	18296	53.1	0.04731	151.4	1.20	73.4	1.8657	202.7	427.4	202.67				16.1	97.9	2.2	-16.0
71.0	18562	55.8	0.04923	156.4	1.32	70.2	1.8463	206.1	440.1	206.05				18.2	94.1	1.3	-18.2
71.1	18579	55.4	0.04935	155.3	1.31	70.0	1.8451	206.0	440.4	205.98				18.4	93.5	1.1	-18.4
72.0	18771	50.8	0.05069	142.9	1.24	67.8	1.8312	205.2	442.8	205.23				20.6	87.9	-0.8	-20.5
73.0	19015	57.8	0.05244	162.1	1.47	65.1	1.8136	206.1	449.7	206.05				23.2	83.1	-2.8	-23.0
74.0	19279	58.3	0.05445	164.7	1.55	62.3	1.7945	204.4	451.8	204.40				22.2	80.1	-3.8	-21.9
75.0	19505	70.3	0.05636	195.9	1.94	60.0	1.7782	207.2	463.0	207.25				26.6	84.5	-2.5	-26.5
76.0	19776	77.8	0.05895	213.3	2.25	57.4	1.7589	210.7	476.6	210.66				29.7	91.6	0.8	-29.6
77.0	20007	90.9	0.06143	245.2	2.72	55.3	1.7427	214.0	489.4	214.01				31.2	98.0	4.3	-30.9
78.0	20249	92.9	0.06424	250.7	2.89	53.2	1.7259	214.0	494.8	214.01				29.6	101.3	5.8	-29.0
79.0	20440	95.3	0.06651	256.1	3.06	51.6	1.7126	214.9	501.2	214.86				27.4	102.4	5.9	-26.8
80.0	20638	106.2	0.06901	283.6	3.52	50.0	1.6990	216.2	508.8	216.19				26.0	97.9	3.6	-25.8
81.0	20896	111.0	0.07251	297.3	3.83	48.0	1.6812	215.7	513.6	215.70				22.6	92.4	0.9	-22.6
82.0	21165	111.3	0.07624	296.9	4.01	46.0	1.6628	216.4	521.5	216.36				25.9	91.0	0.5	-25.9
83.0	21446	111.6	0.08015	298.8	4.20	44.0	1.6435	215.5	526.1	215.53				27.1	88.3	-0.8	-27.1
84.0	21694	108.6	0.08357	291.0	4.26	42.3	1.6263	215.5	532.1	215.53				24.2	84.8	-2.2	-24.1
85.0	21937	117.6	0.08701	314.0	4.79	40.7	1.6096	216.2	539.6	216.19				26.2	80.4	-4.4	-25.8
85.4	22046	117.4	0.08862	313.7	4.86	40.0	1.6021	216.1	542.2	216.12				27.9	80.2	-4.8	-27.5
86.0	22207	117.2	0.09097	313.1	4.98	39.0	1.5911	216.0	545.8	216.03				30.5	80.0	-5.3	-30.0
87.0	22471	119.5	0.09488	320.7	5.30	37.4	1.5729	215.2	550.3	215.20				30.2	83.2	-3.6	-29.9
88.0	22746	119.7	0.09900	320.7	5.54	35.8	1.5539	215.5	558.1	215.53				28.2	88.3	-0.9	-28.2
88.5	22888	121.0	0.10116	324.1	5.73	35.0	1.5441	215.5	561.7	215.53				29.2	92.0	1.0	-29.2
89.0	23034	122.3	0.10337	327.5	5.92	34.2	1.5340	215.5	565.4	215.53				30.4	95.5	2.9	-30.2
90.0	23297	122.4	0.10740	327.6	6.18	32.8	1.5159	215.7	572.6	215.70				32.8	98.2	4.7	-32.5
91.0	23573	130.2	0.11175	346.2	6.87	31.4	1.4969	217.2	583.8	217.17				30.4	96.3	3.3	-30.3
92.0	23778	136.2	0.11515	362.0	7.42	30.4	1.4829	217.2	589.2	217.17				30.3	93.6	1.9	-30.2
92.4	23861	134.0	0.11655	356.8	7.40	30.0	1.4771	216.9	590.6	216.88				30.1	94.3	2.2	-30.0
93.0	24011	130.2	0.11903	347.4	7.36	29.3	1.4669	216.4	593.2	216.36				29.8	95.5	2.9	-29.6
94.0	24254	136.7	0.12306	360.8	8.03	28.2	1.4502	218.8	606.4	218.77				26.0	98.5	3.9	-25.7
95.0	24532	135.5	0.12773	357.6	8.32	27.0	1.4314	218.8	614.0	218.77				26.6	98.7	4.0	-26.3
96.0	24873	136.4	0.13344	360.2	8.83	25.6	1.4082	218.6	623.0	218.61				28.1	96.8	3.3	-27.9
96.5	25025	138.5	0.13603	364.6	9.19	25.0	1.3979	219.4	629.5	219.39				26.8	94.3	2.0	-26.7
97.0	25208	141.2	0.13914	369.9	9.62	24.3	1.3856	220.3	637.3	220.32				25.3	91.1	0.5	-25.3
98.0	25424	143.8	0.14291	374.8	10.14	23.5	1.3711	221.5	646.9	221.54				23.3	88.7	-0.5	-23.3
99.0	25706	145.5	0.14787	379.1	10.71	22.5	1.3522	221.5	655.0	221.54				25.0	86.4	-1.6	-25.0
100.0	26002	145.4	0.15309	375.4	11.21	21.5	1.3324	223.6	669.9	223.63				25.0	81.5	-3.7	-24.8
101.0	26282	146.8	0.15802	377.0	11.81	20.6	1.3139	224.8	681.6	224.81				23.9	88.4	-0.7	-23.9
101.7	26475	144.6	0.16140	371.7	11.98	20.0	1.3010	224.6	686.8	224.61				20.9	97.6	2.8	-20.8
102.0	26575	143.5	0.16313	369.0	12.07	19.7	1.2945	224.5	689.5	224.51				19.7	103.3	4.5	-19.2
103.0	26882	136.6	0.16830	350.5	12.04	18.8	1.2742	225.0	700.1	224.95				15.2	111.8	5.6	-14.1
104.0	27206	136.9	0.17359	349.2	12.68	17.9	1.2529	226.4	714.6	226.39				17.9	112.8	6.9	-16.5
104.4	27356	135.3	0.17600	344.2	12.81	17.5	1.2430	227.0	721.2	227.01				18.9	116.7	8.5	-16.9
105.0	27549	133.3	0.17909	337.8	12.99	17.0	1.2304	227.8	729.7	227.81				20.2	121.1	10.4	-17.3
106.0	27871	126.2	0.18403	318.7	12.91	16.2	1.2095	228.6	742.6	228.65				16.3	116.2	7.2	-14.7
107.0	28166	121.8	0.18835	307.3	13.02	15.5	1.1903	228.8	752.5	228.79				13.7	101.7	2.8	-13.5
107.6	28385	117.8	0.19142	297.5	13.00	15.0	1.1761	228.5	758.7	228.53				12.2	103.0	2.8	-11.9
108.0	28520	115.3	0.19331	291.5	12.99	14.7	1.1673	228.4	762.5	228.37				11.3	104.0	2.7	-11.0
109.0	28846	108.8	0.19762	274.5	12.87	14.0	1.1461	228.8	774.7	228.79				4.3	92.4	0.2	-4.3
110.0	29089	101.7	0.20064	257.0	12.49	13.5	1.1303	228.5	781.8	228.51				7.4	41.5	-5.6	-4.9
111.0	29341	97.1	0.20360	245.3	12.38	13.0	1.1139	228.6	790.8	228.65				15.1	59.6	-7.7	-13.0
111.7	29603	97.2	0.20661	245.2	12.89	12.5	1.0969	228.9	800.7	228.95				18.1	76.4	-4.3	-17.6
112.0	29712	97.2	0.20785	245.1	13.10	12.3	1.0899	229.1	804.8	229.07				19.7	81.6	-2.9	-19.5
113.0	29991	92.3	0.21095	231.5	12.96	11.8	1.0719	230.2	818.4	230.18				18.1	87.9	-0.7	-18.1
114.0	30284	87.7	0.21402	218.3	12.86	11.3	1.0531	232.0	835.0	231.96				15.2	87.1	-0.8	-15.2
115.0	30654	82.3	0.21768	205.3	12.75	10.7	1.0294	231.5	846.6	231.55				15.5	87.1	-0.8	-15.5
116.0	30978	75.9	0.22067	188.8	12.33	10.2	1.0086	232.1	860.3	232.09				15.0	82.1	-2.1	-14.8
116.4	31111	74.5	0.22183	185.7	12.34	10.0	1.0000	231.7	863.8	231.72				15.3	82.2	-2.1	-15.1
117.0	31318	72.4	0.22361	180.9	12.37	9.7	0.9868	231.1	869.1	231.14				15.7	82.3	-2.1	-15.6
118.0	31675	67.5	0.22653	169.5	12.15	9.2	0.9638	229.9	877.6	229.90				18.6	91.4	0.5	-18.6
119.0	32050	63.6	0.22942	160.1	12.12	8.7	0.9395	229.5	890.2	229.49				19.7	98.8	3.0	-19.5
120.0	32448	60.9	0.23233	152.4	12.30	8.2	0.9138	230.6	909.7	230.59				21.1	102.1	4.4	-20.6
120.4	32615	59.2	0.23348	147.9	12.26	8.0	0.9031	231.2	918.5	231.18				22.6	102.9	5.0	-22.1
121.0	32874	56.7	0.23525	141.0	12.20	7.7	0.8865	232.1	932.2	232.09				25.0	103.8	6.0	-24.3
122.0	33237	52.7	0.23755	130.3	11.96	7.3	0.8633	233.6	952.6	233.58				26.2	106.7	7.5	-25.1
122.7	33524	51.0	0.23926	125.6	12.08	7.0	0.8451	234.6	968.3	234.58				31.1	102.7	6.9	-30.4
123.0	33623	50.4	0.23984	124.0	12.11	6.9	0.8388	234.9	973.7	234.93				32.8	101.6	6.6	-32.2
124.0	34360	47.4	0.24397	116.0	12.67	6.2	0.7924	235.9	1007.9	235.86				27.6	101.0	5.3	-27.1
124.7	34586	43.7	0.24513	106.7	12.06	6.0	0.7782	236.6	1020.4	236.56				21.9	100.9	4.2	-21.5
125.0	34703	41.8	0.24572	101.9	11.75	5.9	0.7709	236.9	1026.9	236.93				18.9	100.9	3.6	-18.6
126.0	35189	35.4	0.24786	86.7	10.68	5.5	0.7404	236.1	1044.1	236.13				23.2	88.9	-0.4	-23.2
127.9	35709	37.0	0.25002	91.0	12.01	5.1	0.7076	234.5	1059.7	234.53				999.9	999.9	999.9	999.9



FT SHERMAN ECC

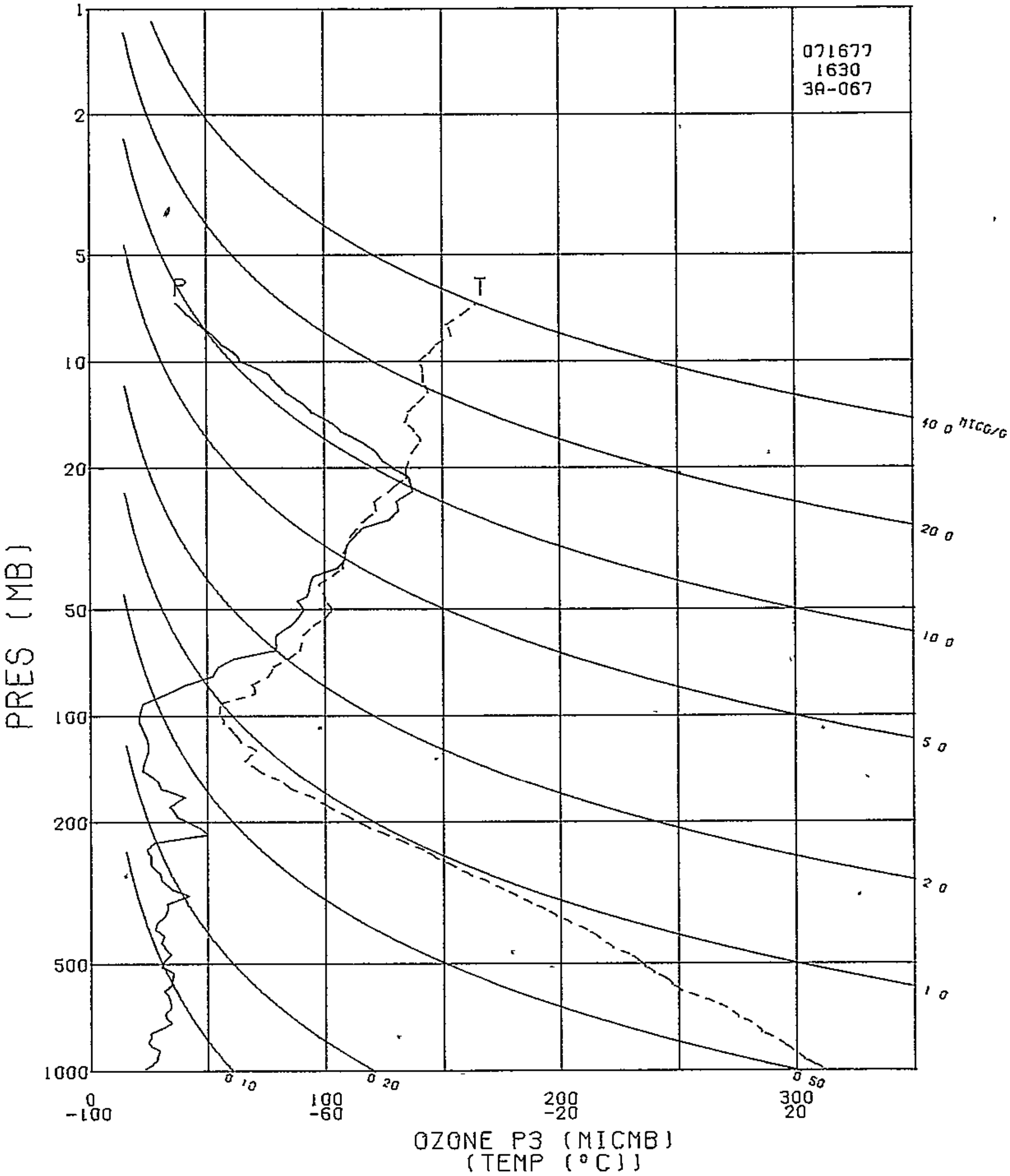
STATION FT SHERMAN   LAUNCH DATE 71677   LAUNCH TIME 1630 GMT   ECC SONDE 3A-067X

SURFACE CONDITIONS			
PRESS 1004.7 MB	OO3 = 31.4	TBOX CAL = 30.0 C	AT 73.8 ORD
TEMP 300.8 K	OIZ = 31.3	BASE CAL = 30.0 C	AT 73.2 ORD
HUMY 87.0 %	OZC = 62.0	HUMIDITY = 62.4 %	AT 46.0 ORD
	IO = 0.019		
	PS = 28.4		

	PROFILE	DOBSON
INTEGRATED OZONE	0.23819	
RESIDUAL OZONE	0.02458	
TOTAL OZONE	0.26278	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	19.1	0.	36.6	0.03	1004.7	3.0020	300.7	300.3	304.20	82.5	297.5	0.0190	3.0	260.0	0.5	3.0
0.2	94	19.8	0.00008	38.2	0.03	1000.0	3.0000	300.1	300.1	303.49	84.3	297.2	0.0185	2.9	267.6	0.1	2.9
1.0	264	22.9	0.00040	44.4	0.04	981.0	2.9917	297.4	299.0	300.60	91.9	296.0	0.0178	2.9	301.4	-1.5	2.5
2.0	481	26.0	0.00087	50.7	0.05	957.0	2.9809	296.0	299.7	299.07	93.3	294.8	0.0170	3.4	353.9	-3.4	0.4
3.0	740	28.0	0.00151	55.0	0.05	929.0	2.9680	294.4	300.7	297.21	90.7	292.8	0.0155	3.9	10.9	-3.8	-0.7
4.0	996	28.5	0.00216	56.0	0.05	902.0	2.9552	293.6	302.3	296.18	87.8	291.5	0.0146	3.9	36.7	-3.1	-2.3
4.1	1015	28.5	0.00221	56.1	0.05	900.0	2.9542	293.5	302.4	296.07	87.3	291.3	0.0144	3.9	39.1	-3.0	-2.5
5.0	1259	29.3	0.00286	57.9	0.06	875.0	2.9420	292.5	303.9	294.79	80.7	289.1	0.0129	4.8	64.1	-2.1	-4.4
6.0	1507	25.9	0.00349	51.3	0.05	850.0	2.9294	291.3	305.1	293.48	81.4	288.0	0.0124	5.9	81.1	-0.9	-5.8
6.0	1518	25.7	0.00351	51.0	0.05	849.0	2.9289	291.2	305.2	293.42	81.5	288.0	0.0124	5.9	81.7	-0.9	-5.9
7.0	1764	24.5	0.00408	48.8	0.05	825.0	2.9165	290.4	306.8	292.42	77.2	286.4	0.0115	7.0	91.3	0.2	-7.0
8.0	2005	25.9	0.00464	51.8	0.05	802.0	2.9042	289.0	307.8	290.86	77.3	285.0	0.0108	8.1	92.4	0.3	-8.0
8.1	2026	25.9	0.00469	51.7	0.05	800.0	2.9031	288.8	307.8	290.70	77.5	284.9	0.0107	8.1	92.7	0.4	-8.1
9.0	2252	25.4	0.00523	51.0	0.05	779.0	2.8915	287.2	308.4	288.96	79.6	283.7	0.0102	8.5	95.4	0.8	-8.5
10.0	2494	30.0	0.00586	60.3	0.07	757.0	2.8791	287.6	311.4	289.09	64.0	280.8	0.0087	8.3	95.5	0.8	-8.2
11.0	2788	34.2	0.00674	69.2	0.08	731.0	2.8639	285.4	312.2	286.79	63.8	278.8	0.0078	8.0	97.0	1.0	-7.9
12.0	3079	31.8	0.00765	64.8	0.07	706.0	2.8488	283.2	312.8	284.38	63.5	276.6	0.0069	8.0	89.6	-0.1	-8.0
12.3	3149	31.8	0.00786	65.0	0.08	700.0	2.8451	282.9	313.3	284.11	63.5	276.3	0.0068	8.2	89.4	-0.1	-8.2
13.0	3330	31.9	0.00841	65.3	0.08	685.0	2.8357	282.3	314.5	283.43	63.6	275.7	0.0067	8.7	89.0	-0.1	-8.7
14.0	3587	34.1	0.00922	69.9	0.09	664.0	2.8222	281.2	316.1	282.29	63.5	274.7	0.0064	10.0	98.3	1.4	-9.9
15.0	3902	33.8	0.01025	70.1	0.09	639.0	2.8055	278.9	317.0	279.87	63.1	272.4	0.0057	10.2	96.3	1.1	-10.1
16.0	4201	33.1	0.01122	69.2	0.09	616.0	2.7896	276.2	317.2	277.12	71.6	271.6	0.0055	10.0	99.1	1.6	-9.9
16.7	4413	31.6	0.01188	66.5	0.09	600.0	2.7782	274.2	317.3	275.19	88.9	272.4	0.0062	10.3	104.4	2.5	-10.0
17.0	4494	31.0	0.01214	65.5	0.09	594.0	2.7738	273.4	317.3	274.45	95.5	272.8	0.0062	10.4	106.3	2.9	-10.0
18.0	4796	34.5	0.01311	73.2	0.10	572.0	2.7574	272.0	319.0	272.93	94.1	271.1	0.0057	11.5	108.6	3.7	-10.9
19.0	5108	34.8	0.01418	74.2	0.10	550.0	2.7404	270.9	321.3	271.65	80.2	267.9	0.0047	11.4	103.8	2.7	-11.0
20.0	5416	35.4	0.01526	76.1	0.11	529.0	2.7235	268.9	322.5	269.48	71.0	264.4	0.0037	9.5	103.6	2.2	-9.2
21.0	5719	30.2	0.01626	65.3	0.10	509.0	2.7067	267.4	324.3	268.03	84.4	265.2	0.0041	8.1	109.5	2.7	-7.6
21.4	5858	30.8	0.01670	66.6	0.10	500.0	2.6990	266.8	325.3	267.40	74.5	262.9	0.0032	7.9	113.2	3.1	-7.2
22.0	6032	31.4	0.01724	68.1	0.11	489.0	2.6893	266.2	326.5	266.63	62.1	260.1	0.0029	7.6	117.9	3.6	-6.7
23.0	6357	34.0	0.01831	74.1	0.12	469.0	2.6712	264.5	328.4	264.96	61.1	258.4	0.0026	8.3	126.8	5.0	-6.6
24.0	6659	31.2	0.01932	66.8	0.11	451.0	2.6542	262.0	328.9	262.24	51.0	253.8	0.0018	8.5	127.3	5.2	-6.8
25.0	6935	30.0	0.02019	66.3	0.11	435.0	2.6385	261.0	331.0	261.29	61.5	255.1	0.0021	7.5	124.9	4.3	-6.1
26.0	7257	31.4	0.02122	70.0	0.12	417.0	2.6201	259.1	332.7	259.37	49.1	250.8	0.0015	5.4	125.0	3.1	-4.5
27.0	7572	27.5	0.02218	61.8	0.11	400.0	2.6021	257.3	334.3	257.56	54.6	250.3	0.0015	5.6	129.8	3.6	-4.3
28.0	7917	28.2	0.02320	63.9	0.12	382.0	2.5821	254.7	335.3	254.87	39.4	244.3	0.0009	7.4	131.8	4.9	-5.5
29.0	8255	31.6	0.02427	72.3	0.14	365.0	2.5623	252.3	336.5	252.48	59.6	246.5	0.0012	8.3	139.3	6.3	-5.4
29.9	8563	33.0	0.02534	76.0	0.16	350.0	2.5441	250.4	338.0	250.54	45.1	241.8	0.0008	8.5	149.1	7.3	-4.4
30.0	8585	33.0	0.02541	76.2	0.16	349.0	2.5428	250.3	338.1	250.41	44.1	241.5	0.0008	8.5	149.7	7.3	-4.3
31.0	8862	32.8	0.02640	76.3	0.16	336.0	2.5263	248.0	338.7	248.09	25.4	234.0	0.0004	8.2	144.8	6.7	-4.7
32.0	9214	41.9	0.02784	98.5	0.22	320.0	2.5051	245.5	340.0	245.60	43.9	237.0	0.0005	7.2	131.0	4.7	-5.4
33.0	9487	34.8	0.02899	82.5	0.19	308.0	2.4886	243.3	340.6	243.32	31.2	231.7	0.0003	6.9	120.9	3.6	-6.0
33.5	9673	32.6	0.02967	77.8	0.18	300.0	2.4771	241.9	341.2	241.95	33.1	231.0	0.0003	6.9	116.7	3.1	-6.2
34.0	9865	30.4	0.03036	72.9	0.17	292.0	2.4654	240.5	341.9	240.54	35.1	230.3	0.0003	7.0	112.4	2.6	-6.4
35.0	10158	29.7	0.03136	72.2	0.18	280.0	2.4472	237.6	341.8	237.60	37.4	228.2	0.0002	6.5	99.8	1.1	-6.4
36.0	10557	25.9	0.03262	63.6	0.16	264.3	2.4221	234.7	343.3	234.77	37.2	225.6	0.0002	7.4	91.6	0.2	-7.4
37.0	10936	25.6	0.03375	63.8	0.17	250.0	2.3979	231.6	344.1	231.59				6.1	68.6	-2.2	-5.7
38.0	11268	23.6	0.03471	59.3	0.16	238.0	2.3766	229.6	346.1	229.63				6.5	36.2	-5.3	-3.9
39.0	11613	27.6	0.03575	70.3	0.20	226.0	2.3541	226.3	346.2	226.35				6.9	28.3	-6.1	-3.3
40.0	11941	49.6	0.03727	128.3	0.38	215.0	2.3324	223.2	346.3	223.24				6.8	11.4	-6.7	-1.3
41.0	12250	45.5	0.03906	119.4	0.37	205.0	2.3118	220.2	346.2	220.16				7.5	10.9	-7.4	-1.4
41.4	12407	42.3	0.03986	111.5	0.35	200.0	2.3010	218.9	346.7	218.94				7.3	14.7	-7.0	-1.8
42.0	12669	37.0	0.04119	98.5	0.32	192.0	2.2833	216.9	347.6	216.92				6.9	21.6	-6.4	-2.5
43.0	13075	33.7	0.04299	91.1	0.31	180.0	2.2553	213.5	348.5	213.50				6.5	25.5	-5.9	-2.8
44.0	13466	40.0	0.04483	109.7	0.39	169.0	2.2279	210.8	350.3	210.78				7.5	27.7	-6.7	-3.5
45.0	13816	30.1	0.04641	84.1	0.31	159.6	2.2030	206.9	349.5	206.88				8.1	11.6	-8.0	-1.6
46.0	14150	28.0	0.04768	78.7	0.31	151.0	2.1790	205.2	352.2	205.22				10.6	354.1	-10.5	1.1
46.1	14189	27.3	0.04781	77.0	0.30	150.0	2.1761	204.8	352.2	204.83				10.5	354.9	-10.5	0.9
47.0	14516	22.1	0.04890	63.2	0.26	142.0	2.1523	201.7	352.2	201.66				10.0	1.7	-10.0	-0.3
48.0	14900	23.3	0.05007	67.3	0.29	133.0	2.1239	199.5	355.0	199.50				6.3	37.1	-5.0	-3.8
48.9	15263	24.7	0.05124	70.9	0.33	125.0	2.0969	201.0	364.1	201.00				3.6	69.7	-1.2	-3.4
49.0	15311	24.9	0.05140	71.4	0.33	124.0	2.0934	201.2	365.3	201.19				3.4	77.2	-0.8	-3.3
50.0	15651	24.2	0.05252	70.3	0.34	117.0	2.0682	198.5	366.4	198.50				2.0	83.1	-0.2	-1.9
51.0	15956	22.6	0.05349	66.1	0.34	111.0	2.0453	197.5	370.0	197.46				8.3	87.2	-0.4	-8.3
52.0	16331	20.6	0.05460	60.6	0.33	104.0	2.0170	195.8	373.9	195.84				13.8	99.2	2.2	-13.6
52.7	16555	20.9	0.05525	61.9	0.35	100.0	2.0000	195.3	377.0	195.29				14.1	100.4	2.6	-13.9
53.0	16671	21.1	0.05558	62.6	0.36	98.0	1.9912	195.0	378.7	195.00				14.3	101.0	2.7	-14.1
54.0	17057	22.3	0.05674	66.0	0.40	91.6	1.9619	195.3	386.6	195.29				16.4	87.3	-0.8	-16.4
55.0	17423	32.5	0.05810	93.2	0.63	86.0	1.9345	201.2	405.5	201.19				17.4	89.6	-0.1	-17.4
56.0	17761	40.6	0.05976	116.8	0.83	81.2	1.9096	200.7	411.3	200.72				17.8	99.4	2.9	-17.5
56.3	17848	43.7	0.06030	125.0	0.91	80.0	1.9031	201.5	414.6	201.46				17.9	99.6	3.0	-17.7
57.0	18090	52.0	0.06179	147.5	1.12	76.8	1.8854	203.5	423.6	203.48				18.3	100.2	3.2	-18.0
58.0	18450	54.7	0.06433	154.5	1.25	72.3	1.8591	204.4	432.9	204.36				19.5	90.9	0.3	-19.5

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA*	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.6	18644	58.7	0.06582	164.5	1.39	70.0	1.8451	205.8	440.1	205.83				20.6	91.1	0.4	-20.6
59.0	18783	61.5	0.06688	171.7	1.49	68.4	1.8351	206.9	445.2	206.88				21.4	91.3	0.5	-21.4
60.0	19093	78.0	0.06968	215.6	1.99	65.0	1.8129	208.9	456.1	208.87				23.8	95.5	2.3	-23.7
61.0	19382	78.9	0.07261	217.8	2.11	62.0	1.7924	209.1	462.7	209.07				28.4	94.3	2.1	-28.4
61.6	19582	79.1	0.07465	218.2	2.19	60.0	1.7782	209.3	467.6	209.30				28.0	99.5	4.6	-27.6
62.0	19717	79.2	0.07602	218.4	2.24	58.7	1.7686	209.5	470.9	209.45				27.8	103.0	6.3	-27.0
63.0	20084	85.2	0.07989	233.0	2.55	55.3	1.7427	211.2	482.9	211.15				24.4	108.8	7.8	-23.1
64.0	20395	88.4	0.08332	239.6	2.79	52.6	1.7210	213.1	494.4	213.15				22.7	103.5	5.3	-22.1
65.0	20712	90.8	0.08690	244.7	3.01	50.0	1.6990	214.2	504.1	214.20				21.3	98.3	3.1	-21.0
66.0	21099	87.9	0.09127	238.2	3.10	47.0	1.6721	213.1	510.6	213.15				19.1	96.3	2.1	-18.9
67.0	21273	92.4	0.09326	250.8	3.35	45.7	1.6599	212.6	513.4	212.61				24.0	95.7	2.4	-23.9
68.0	21768	93.8	0.09911	255.3	3.68	42.2	1.6253	212.1	523.9	212.07				27.7	92.1	1.0	-27.7
69.0	22102	95.0	0.10310	255.8	3.93	40.0	1.6021	214.4	537.8	214.38				28.5	91.1	0.5	-28.5
70.0	22425	105.0	0.10715	280.7	4.58	38.0	1.5798	216.1	550.1	216.09				28.2	91.9	1.0	-28.2
71.0	22732	108.1	0.11123	288.5	4.95	36.2	1.5587	216.4	558.6	216.42				23.5	91.9	0.8	-23.5
71.7	22945	108.6	0.11412	289.7	5.14	35.0	1.5441	216.4	564.0	216.42				24.8	94.1	1.8	-24.7
72.0	23036	108.8	0.11535	290.1	5.22	34.5	1.5378	216.4	566.3	216.42				25.4	95.0	2.2	-25.3
73.0	23375	109.4	0.11996	291.9	5.55	32.7	1.5145	216.4	575.1	216.42				32.6	94.9	2.8	-32.5
74.0	23796	113.0	0.12579	300.0	6.12	30.6	1.4857	217.6	589.2	217.58				34.4	96.6	3.9	-34.2
74.4	23922	114.4	0.12758	303.5	6.32	30.0	1.4771	217.6	592.8	217.65				31.3	97.7	4.2	-31.1
75.0	24116	116.5	0.13034	309.0	6.63	29.1	1.4639	217.7	598.2	217.75				26.6	99.9	4.6	-26.2
76.0	24408	127.0	0.13473	333.2	7.57	27.8	1.4440	220.0	612.3	220.00				22.1	94.5	1.7	-22.1
77.0	24791	131.0	0.14076	340.9	8.29	26.2	1.4183	221.9	628.1	221.87				29.2	91.7	0.9	-29.2
77.8	25094	130.2	0.14559	339.1	8.63	25.0	1.3979	221.6	635.8	221.62				32.6	94.4	2.5	-32.5
78.0	25173	130.0	0.14683	338.7	8.72	24.7	1.3927	221.6	637.9	221.56				33.5	95.0	2.9	-33.4
79.0	25581	136.7	0.15342	352.4	9.76	23.2	1.3655	224.0	656.5	223.99				25.0	91.5	0.6	-25.0
80.0	25870	136.0	0.15816	348.8	10.15	22.2	1.3464	225.2	668.3	225.18				20.4	87.4	-0.9	-20.4
81.0	26175	135.8	0.16311	345.3	10.62	21.2	1.3263	227.1	682.9	227.07				20.1	92.1	0.7	-20.1
82.0	26562	129.0	0.16920	328.3	10.69	20.0	1.3010	226.9	693.9	226.93				17.2	93.6	1.1	-17.1
83.0	26902	124.2	0.17432	316.0	10.83	19.0	1.2788	226.9	704.2	226.93				17.6	108.3	5.5	-16.7
84.0	27336	120.7	0.18063	305.6	11.24	17.8	1.2504	228.1	721.0	228.08				16.9	116.6	7.6	-15.1
84.3	27449	119.0	0.18220	300.8	11.27	17.5	1.2430	228.5	725.8	228.45				15.4	112.4	5.9	-14.3
85.0	27763	114.3	0.18654	287.6	11.34	16.7	1.2227	229.5	738.9	229.49				11.9	95.8	1.2	-11.8
86.0	28177	106.5	0.19192	269.1	11.24	15.7	1.1959	228.4	748.3	228.36				12.4	81.0	-2.0	-12.3
86.8	28480	103.2	0.19568	262.3	11.40	15.0	1.1761	227.1	754.1	227.14				14.2	72.9	-4.2	-13.6
87.0	28570	102.2	0.19678	260.3	11.45	14.8	1.1703	226.8	755.8	226.78				14.8	71.0	-4.8	-14.0
88.0	29035	94.0	0.20220	238.8	11.29	13.8	1.1399	227.4	773.0	227.36				16.0	66.4	-6.4	-14.6
89.0	29434	89.6	0.20652	225.9	11.42	13.0	1.1139	228.9	791.7	228.93				17.5	84.8	-1.6	-17.4
89.6	29697	85.7	0.20920	215.0	11.35	12.5	1.0969	230.1	804.6	230.06				17.8	92.3	0.7	-17.8
90.0	29861	83.2	0.21085	208.3	11.31	12.2	1.0864	230.8	812.7	230.76				18.2	96.8	2.1	-18.0
91.0	30318	78.6	0.21518	197.3	11.42	11.4	1.0569	229.9	825.5	229.92				16.5	105.3	4.3	-15.9
92.0	30744	75.2	0.21903	188.8	11.64	10.7	1.0294	229.8	840.1	229.78				19.7	106.6	5.6	-18.9
92.9	31198	65.6	0.22275	165.3	10.86	10.0	1.0000	229.3	854.7	229.28				22.7	105.6	6.1	-21.9
93.0	31266	64.2	0.22330	161.8	10.75	9.9	0.9956	229.2	856.9	229.21				23.2	105.5	6.2	-22.3
94.0	31615	61.5	0.22587	153.7	10.83	9.4	0.9731	230.9	876.0	230.89				21.0	98.5	3.1	-20.7
95.0	31985	55.7	0.22840	138.6	10.38	8.9	0.9494	232.1	894.6	232.14				18.9	90.4	0.1	-18.9
96.0	32380	52.4	0.23086	129.0	10.34	8.4	0.9243	234.6	919.2	234.60				20.4	91.7	0.6	-20.4
96.7	32714	48.3	0.23276	119.1	9.99	8.0	0.9031	234.2	930.3	234.16				20.7	92.5	0.9	-20.7
97.0	32888	46.2	0.23375	114.0	9.81	7.6	0.8921	233.9	936.1	233.92				20.8	92.9	1.0	-20.8
98.0	33344	41.0	0.23602	100.0	9.30	7.3	0.8633	236.5	964.5	236.49				21.5	94.1	1.5	-21.5
98.6	33635	38.3	0.23731	93.1	9.06	7.0	0.8451	237.9	982.1	237.92				999.9	999.9	999.9	999.9
99.0	33837	36.5	0.23819	88.3	8.90	6.8	0.8325	238.9	994.3	238.90				999.9	999.9	999.9	999.9



FT SHERMAN ECC

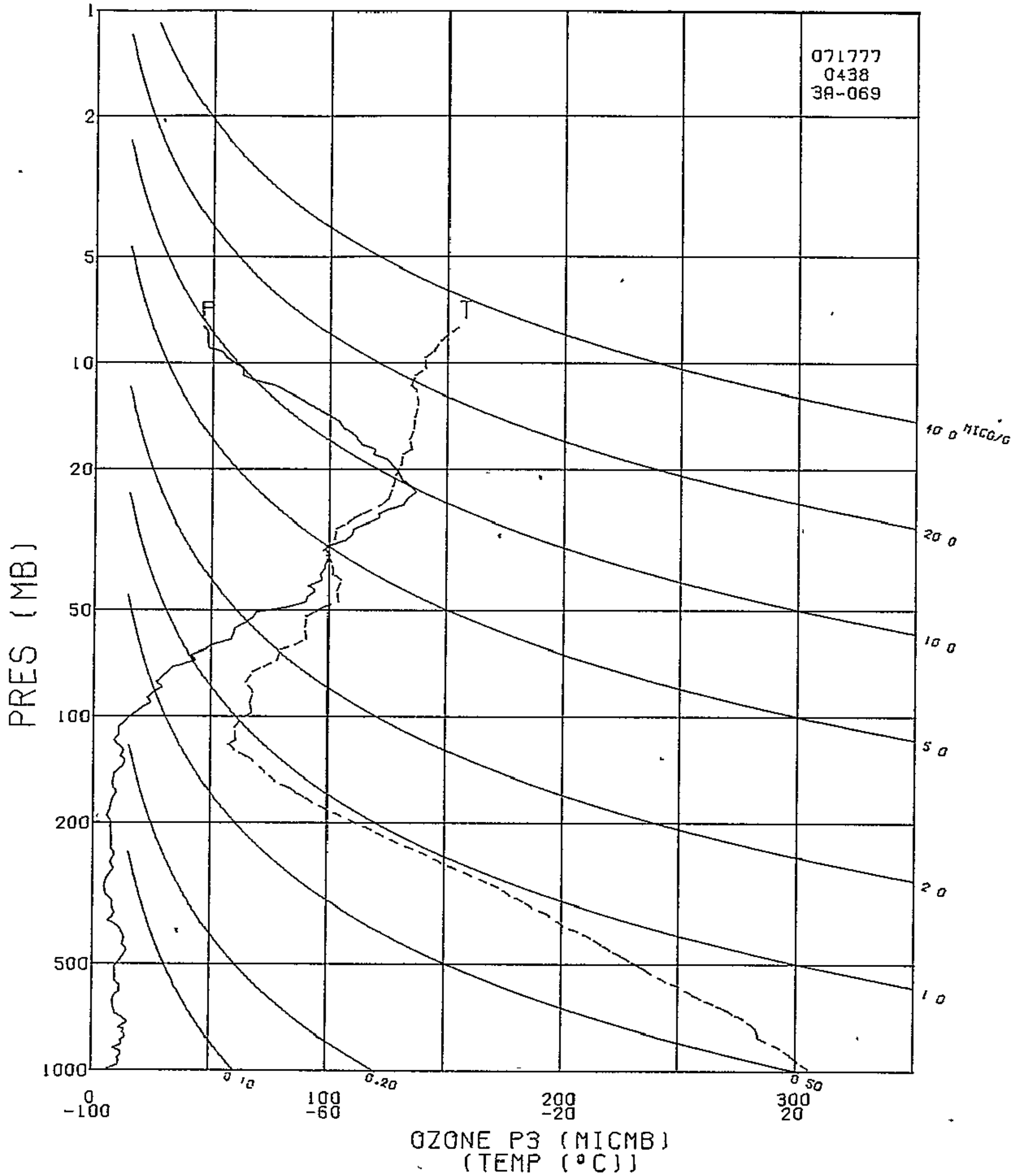
STATION FT SHERMAN   LAUNCH DATE 71777   LAUNCH TIME 0438 GMT   ECC SONDE 3A-069X

SURFACE CONDITIONS				
PRESS 1004.2 MB	OO3 = 36.9	TBOX CAL = 30.0 C	AT	73.8 ORD
TEMP 300.4 K	OIZ = 36.0	BASE CAL = 30.0 C	AT	73.5 ORD
HUMY 87.0 %	OZC = 59.8	HUMIDITY = 62.5 %	AT	46.0 ORD
	IO = 0.192			
	PS = 29.3			

	PROFILE	DOBSON
INTEGRATED OZONE	0.18175	
RESIDUAL OZONE	0.03128	
TOTAL OZONE	0.21303	O.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	9.0	0.	17.6	0.01	1004.2	3.0018	295.5	295.1	297.98	82.5	292.3	0.0139	5.0	270.0	-0.0	5.0
0.2	89	8.6	0.00003	16.7	0.01	1000.0	3.0000	295.4	295.4	298.05	86.1	292.9	0.0150	4.7	271.3	-0.1	4.7
1.0	230	6.9	0.00013	13.5	0.01	984.0	2.9930	295.2	296.6	298.31	100.0	295.2	0.0169	3.4	278.8	-0.5	3.3
2.0	427	10.8	0.00029	21.2	0.02	962.0	2.9832	294.1	297.4	297.04	99.9	294.1	0.0162	3.1	309.3	-2.0	2.4
3.0	627	11.5	0.00049	22.6	0.02	940.0	2.9731	293.5	298.7	296.20	95.8	292.8	0.0152	3.3	341.9	-3.2	1.0
4.0	813	10.8	0.00068	21.4	0.02	920.0	2.9638	292.4	299.4	295.09	99.7	292.3	0.0151	3.5	359.0	-3.5	0.1
5.0	993	12.0	0.00087	23.8	0.02	901.0	2.9547	292.2	301.0	294.90	100.0	292.2	0.0153	3.6	31.7	-3.0	-1.9
5.0	1002	12.0	0.00088	23.8	0.02	900.0	2.9542	292.1	301.1	294.86	100.0	292.1	0.0153	3.6	33.0	-3.0	-1.9
6.0	1206	12.2	0.00110	24.3	0.02	879.0	2.9440	291.3	302.3	293.97	100.0	291.3	0.0149	4.3	56.7	-2.4	-3.6
7.0	1393	9.0	0.00129	17.8	0.02	860.0	2.9345	290.5	303.3	293.04	100.0	290.5	0.0144	5.6	69.4	-2.0	-5.3
7.5	1492	10.8	0.00139	21.6	0.02	850.0	2.9294	290.2	304.0	292.73	100.0	290.2	0.0142	6.5	75.6	-1.6	-6.3
8.0	1604	12.9	0.00150	25.7	0.03	839.0	2.9238	289.9	304.8	292.38	100.0	289.9	0.0142	7.5	80.7	-1.2	-7.4
9.0	1799	11.7	0.00172	23.4	0.02	820.0	2.9138	288.0	304.8	290.20	95.0	287.2	0.0123	8.2	86.8	-0.5	-8.1
10.0	1997	14.3	0.00196	28.9	0.03	801.0	2.9036	286.7	305.4	288.68	95.7	286.0	0.0116	8.6	83.5	-1.0	-8.5
10.0	2007	14.3	0.00198	28.7	0.03	800.0	2.9031	286.6	305.5	288.61	94.9	285.8	0.0113	8.6	83.3	-1.0	-8.5
11.0	2210	13.1	0.00224	26.4	0.03	781.0	2.8927	285.7	306.6	287.31	79.8	282.3	0.0093	9.1	78.7	-1.8	-8.9
12.0	2406	13.7	0.00248	27.7	0.03	763.0	2.8825	286.1	309.1	287.60	71.8	281.1	0.0087	8.4	81.2	-1.3	-8.3
13.0	2483	11.2	0.00257	22.6	0.02	756.0	2.8785	286.1	309.9	287.45	64.1	279.4	0.0079	10.2	83.8	-1.1	-10.1
14.0	2800	15.1	0.00296	30.5	0.03	728.0	2.8621	285.7	312.8	287.07	63.8	279.0	0.0079	10.7	90.5	0.1	-10.7
15.0	2986	13.2	0.00321	26.8	0.03	712.0	2.8525	284.2	313.1	285.43	63.4	277.5	0.0073	9.0	99.1	1.4	-8.9
15.5	3127	11.5	0.00337	23.4	0.03	700.0	2.8451	283.2	313.5	284.36	63.1	276.5	0.0067	9.1	98.5	1.3	-9.0
16.0	3247	10.1	0.00350	20.6	0.02	690.0	2.8388	282.3	313.9	283.45	62.8	275.6	0.0066	9.1	98.0	1.3	-9.0
17.0	3490	9.4	0.00373	19.4	0.02	670.0	2.8261	281.0	315.1	282.13	63.5	274.6	0.0063	10.0	97.5	1.3	-9.9
18.0	3790	8.9	0.00399	18.4	0.02	646.0	2.8102	278.9	316.0	279.88	63.2	272.5	0.0056	10.9	101.3	2.1	-10.7
19.0	4046	8.8	0.00421	18.4	0.02	626.0	2.7966	276.9	316.5	277.82	71.0	272.1	0.0056	10.1	105.7	2.7	-9.7
20.0	4269	9.4	0.00441	19.8	0.03	609.0	2.7846	275.5	317.5	276.41	70.8	270.8	0.0052	8.6	108.8	2.8	-8.1
20.6	4388	10.8	0.00453	22.7	0.03	600.0	2.7782	275.0	318.2	275.81	66.2	269.4	0.0046	8.6	110.7	3.0	-8.0
21.0	4456	11.6	0.00460	24.3	0.03	595.0	2.7745	274.7	318.6	275.47	63.6	268.5	0.0045	8.6	111.8	3.2	-8.0
22.0	4717	11.7	0.00490	24.7	0.03	576.0	2.7604	273.2	319.9	273.95	63.9	267.2	0.0042	8.5	108.1	2.7	-8.1
23.0	4970	9.7	0.00517	20.8	0.03	558.0	2.7466	271.0	320.2	271.70	71.5	266.6	0.0042	8.9	118.6	4.3	-7.9
24.0	5215	9.7	0.00540	20.8	0.03	541.0	2.7332	269.9	321.7	270.56	70.3	265.3	0.0039	10.0	121.3	5.2	-8.6
25.0	5512	9.7	0.00569	20.9	0.03	521.0	2.7168	267.6	322.4	268.20	72.3	263.4	0.0035	9.3	116.5	4.1	-8.3
26.0	5771	9.5	0.00594	20.7	0.03	504.0	2.7024	266.3	323.9	266.96	92.5	265.3	0.0042	8.7	123.3	4.8	-7.3
26.2	5832	10.0	0.00601	21.8	0.03	500.0	2.6990	265.9	324.1	266.53	91.2	264.7	0.0039	8.6	124.6	4.9	-7.1
27.0	6022	11.5	0.00621	25.2	0.04	488.0	2.6884	264.7	324.9	265.24	87.3	262.9	0.0036	8.4	128.6	5.3	-6.6
28.0	6278	13.1	0.00653	28.7	0.05	472.1	2.6740	263.2	326.2	263.69	80.6	260.5	0.0030	7.6	138.9	5.8	-5.0
29.0	6551	14.5	0.00692	32.0	0.05	455.6	2.6586	261.3	327.2	261.88	99.9	261.3	0.0034	6.7	157.2	6.2	-2.6
30.0	6834	12.6	0.00732	28.0	0.05	439.0	2.6425	259.8	328.7	260.16	76.5	256.5	0.0024	7.8	171.1	7.7	-1.2
31.0	7169	13.4	0.00777	30.1	0.05	420.0	2.6232	258.0	330.5	258.25	61.6	252.3	0.0017	9.9	172.4	9.8	-1.3
32.0	7480	12.1	0.00819	27.2	0.05	403.0	2.6053	255.8	331.6	256.00	60.5	250.0	0.0015	10.1	160.6	9.6	-3.4
32.2	7535	11.8	0.00825	26.6	0.05	400.0	2.6021	255.3	331.7	255.51	58.8	249.2	0.0013	9.6	157.5	8.9	-3.7
33.0	7763	10.6	0.00853	24.2	0.05	388.0	2.5888	253.3	332.0	253.50	51.8	246.0	0.0010	8.0	141.5	6.3	-5.0
34.0	8015	6.4	0.00876	14.6	0.03	375.0	2.5740	253.2	335.1	253.40	60.6	247.6	0.0013	5.7	128.5	3.6	-4.5
35.0	8336	9.1	0.00902	21.1	0.04	359.0	2.5551	250.5	335.7	250.70	67.9	246.2	0.0012	5.0	130.4	3.3	-3.8
35.6	8521	8.2	0.00919	19.1	0.04	350.0	2.5441	248.9	336.0	249.07	67.6	244.7	0.0010	5.2	134.7	3.7	-3.7
36.0	8626	7.7	0.00929	18.0	0.04	345.0	2.5378	248.0	336.1	248.15	67.5	243.8	0.0010	5.3	137.1	3.9	-3.6
37.0	8904	8.5	0.00953	19.9	0.04	332.0	2.5211	246.3	337.5	246.40	59.5	240.8	0.0007	5.5	134.9	3.9	-3.9
38.0	9190	5.7	0.00976	13.5	0.03	319.0	2.5038	244.1	338.3	244.15	59.3	238.7	0.0006	6.6	126.3	3.9	-5.3
39.0	9556	5.0	0.00998	12.0	0.03	303.0	2.4814	242.2	340.7	242.29	59.0	236.9	0.0006	7.1	131.3	4.7	-5.3
39.3	9626	5.0	0.01001	12.1	0.03	300.0	2.4771	241.6	340.8	241.66	58.9	236.2	0.0005	7.0	132.9	4.8	-5.2
40.0	9793	5.1	0.01011	12.2	0.03	293.0	2.4669	240.1	341.0	240.17	58.6	234.8	0.0005	6.9	136.8	5.0	-4.7
41.0	10085	6.4	0.01030	15.6	0.04	281.0	2.4487	237.4	341.3	237.50	57.8	232.1	0.0004	7.4	131.1	4.8	-5.6
42.0	10386	8.5	0.01056	20.9	0.05	269.0	2.4298	234.9	341.8	234.95	57.1	229.6	0.0003	7.6	128.1	4.7	-6.0
43.0	10671	7.1	0.01081	17.7	0.05	258.0	2.4116	232.5	342.3	232.46				9.2	126.3	5.4	-7.4
43.6	10884	8.4	0.01102	20.9	0.06	250.0	2.3979	231.0	343.2	230.95				9.7	126.9	5.9	-7.8
44.0	11021	9.2	0.01115	23.0	0.06	245.0	2.3892	230.0	343.7	229.98				10.1	127.3	6.1	-8.0
45.0	11277	7.8	0.01140	19.7	0.05	235.8	2.3725	227.6	343.9	227.59				10.1	125.4	5.8	-8.2
46.0	11529	7.8	0.01164	20.1	0.06	227.0	2.3560	225.0	343.7	224.99				10.6	120.0	5.3	-9.2
47.0	11824	7.8	0.01191	20.3	0.06	217.0	2.3365	222.6	344.5	222.62				8.7	119.9	4.4	-7.6
48.0	12098	7.1	0.01216	18.5	0.06	208.0	2.3181	220.5	345.3	220.48				7.7	120.8	4.0	-6.7
48.9	12348	7.6	0.01239	20.2	0.06	200.0	2.3010	218.1	345.4	218.09				6.4	106.8	1.8	-6.1
49.0	12381	7.7	0.01242	20.4	0.06	199.0	2.2989	217.8	345.4	217.79				6.3	104.6	1.6	-6.1
50.0	12667	5.7	0.01266	15.3	0.05	190.2	2.2792	215.3	345.9	215.31				4.9	75.7	-1.2	-4.8
51.0	12943	7.1	0.01288	19.3	0.06	182.0	2.2601	212.9	346.4	212.89				5.1	72.2	-1.6	-4.9
52.0	13221	7.8	0.01315	21.3	0.07	174.0	2.2405	210.5	347.0	210.54				4.5	51.7	-2.8	-3.6
53.0	13436	8.5	0.01337	23.5	0.08	168.0	2.2253	209.0	348.0	209.03				5.2	25.3	-4.7	-2.2
54.0	13620	9.9	0.01359	27.5	0.10	163.0	2.2122	207.7	348.7	207.67				5.2	26.2	-4.7	-2.3
55.0	13816	8.4	0.01383	23.6	0.09	157.8	2.1981	206.5	349.9	206.47				6.2	4.8	-6.2	-0.5
56.0	14041	8.4	0.01408	23.7	0.09	152.0	2.1818	204.2	349.7	204.17				4.4	43.6	-3.2	-3.0
56.2	14119	8.5	0.01417	24.2	0.09	150.0	2.1761	203.7	350.3	203.74				4.8	69.7	-1.7	-4.5
57.0	14362	9.0	0.01445	25.7	0.10	144.0	2.1584	202.4	352.1	202.41				9.4	109.4	3.1	-8.9
58.0	14614	12.3	0.01480	35.2	0.15	138.0	2.1399	202.0	355.6	201.95				11.1	112.5	4.2	-10.2
59.0	14831	13.6	0.01518	39.3	0.17	133.0	2.1239	200.3	356.5	200.32				10.4	116.4	4.6	-9.3

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
60.0	15009	11.7	0.01549	33.9	0.15	129.0	2.1106	199.1	357.4	199.11				8.9	120.0	4.5	-7.7
60.8	15191	12.8	0.01579	37.3	0.17	125.0	2.0969	197.5	357.7	197.49				8.4	119.2	4.1	-7.4
61.0	15238	13.0	0.01587	38.2	0.17	124.0	2.0934	197.1	357.8	197.08				8.3	119.0	4.0	-7.3
62.0	15474	9.7	0.01624	28.6	0.14	119.0	2.0755	196.0	360.1	196.01				9.0	112.2	3.4	-8.3
63.0	15621	8.9	0.01643	26.1	0.13	116.0	2.0645	197.3	365.2	197.34				11.0	115.7	4.8	-9.9
64.0	15823	10.7	0.01670	31.5	0.16	112.0	2.0492	197.3	368.9	197.34				16.0	120.7	8.2	-13.8
65.0	16086	10.2	0.01708	30.0	0.16	107.0	2.0294	197.1	373.2	197.08				19.2	118.6	9.2	-16.8
66.0	16305	13.5	0.01744	39.8	0.22	103.0	2.0128	196.3	375.8	196.28				17.4	121.5	9.1	-14.8
67.0	16475	14.8	0.01777	43.1	0.25	100.0	2.0000	198.6	383.5	198.61				12.6	126.2	7.4	-10.1
68.0	16652	17.9	0.01816	51.6	0.31	97.0	1.9868	200.1	389.7	200.08				8.3	123.2	4.5	-7.0
69.0	16836	20.4	0.01864	58.6	0.36	94.0	1.9731	200.6	394.1	200.56				7.5	125.0	4.3	-6.1
70.0	17039	24.1	0.01924	69.6	0.44	90.8	1.9581	199.8	396.6	199.84				9.4	106.9	2.7	-9.0
71.0	17222	22.9	0.01982	66.2	0.43	88.0	1.9445	199.8	400.2	199.84				12.3	80.1	-2.1	-12.1
72.0	17425	25.4	0.02048	73.2	0.49	85.0	1.9294	200.3	405.1	200.32				11.7	71.6	-3.7	-11.1
73.0	17635	29.0	0.02126	83.4	0.59	82.0	1.9138	200.6	409.8	200.56				12.3	86.7	-0.7	-12.2
73.7	17778	27.2	0.02180	78.8	0.56	80.0	1.9031	199.5	410.5	199.49				15.1	91.8	0.5	-15.1
74.0	17830	26.6	0.02199	77.2	0.56	79.3	1.8993	199.1	410.8	199.11				16.2	93.2	0.9	-16.1
75.0	18017	29.2	0.02270	84.5	0.63	76.8	1.8854	199.8	416.1	199.84				15.7	90.0	0.0	-15.7
76.0	18234	31.8	0.02359	91.6	0.71	74.0	1.8692	200.3	421.5	200.32				15.9	89.0	-0.3	-15.9
77.0	18428	33.6	0.02444	96.0	0.78	71.6	1.8549	202.2	429.4	202.18				18.9	83.0	-2.3	-18.8
77.6	18562	39.1	0.02512	110.9	0.93	70.0	1.8451	203.5	435.0	203.48				19.9	81.4	-3.0	-19.6
78.0	18656	42.9	0.02560	121.3	1.03	68.9	1.8382	204.4	438.9	204.38				20.5	80.4	-3.4	-20.2
79.0	18877	41.1	0.02683	115.7	1.03	66.4	1.8222	205.0	445.0	205.02				20.8	90.2	0.1	-20.8
80.0	19069	47.0	0.02794	132.4	1.21	64.3	1.8082	205.0	449.1	205.02				19.4	94.6	1.6	-19.4
81.0	19259	50.0	0.02915	139.0	1.33	62.3	1.7945	207.5	458.6	207.47				18.8	93.5	1.2	-18.7
82.0	19488	58.5	0.03076	161.3	1.62	60.0	1.7782	209.4	467.8	209.41				19.5	91.4	0.5	-19.5
83.0	19696	59.4	0.03234	163.0	1.70	58.0	1.7634	210.4	474.5	210.35				22.6	91.0	0.4	-22.6
84.0	19944	60.1	0.03425	165.9	1.79	55.7	1.7459	209.2	477.5	209.22				23.7	89.3	-0.3	-23.7
85.0	20168	64.8	0.03605	178.7	2.00	53.7	1.7300	209.4	482.9	209.41				20.5	78.1	-4.2	-20.1
86.0	20377	68.0	0.03784	187.5	2.17	51.9	1.7152	209.4	487.6	209.41				18.6	71.5	-5.9	-17.7
87.0	20582	69.2	0.03964	189.4	2.28	50.2	1.7007	210.9	495.8	210.91				19.8	78.6	-3.9	-19.4
87.1	20606	70.9	0.03988	194.0	2.35	50.0	1.6990	211.1	496.8	211.09				20.3	79.0	-3.9	-19.9
88.0	20757	81.4	0.04132	221.4	2.76	48.8	1.6884	212.2	502.9	212.18				23.2	81.0	-3.6	-22.9
89.0	20991	90.3	0.04386	243.0	3.18	47.0	1.6721	214.6	514.1	214.63				26.8	82.8	-3.3	-26.6
90.0	21208	90.9	0.04634	244.0	3.32	45.4	1.6571	215.0	520.1	214.97				27.6	85.4	-2.2	-27.6
91.0	21419	94.4	0.04880	254.2	3.56	43.9	1.6425	214.5	523.8	214.46				25.3	84.7	-2.3	-25.1
92.0	21637	90.9	0.05134	244.2	3.55	42.4	1.6274	214.8	529.9	214.80				24.9	87.3	-1.2	-24.9
93.0	21848	96.7	0.05382	259.6	3.91	41.0	1.6128	215.1	535.9	215.14				26.6	89.1	-0.4	-26.6
93.6	22003	96.2	0.05570	259.1	3.98	40.0	1.6021	214.3	537.5	214.29				29.1	90.7	0.3	-29.1
94.0	22098	95.8	0.05685	258.7	4.03	39.4	1.5955	213.8	538.6	213.77				30.7	91.5	0.8	-30.7
95.0	22324	98.3	0.05962	265.2	4.28	38.0	1.5798	213.9	544.6	213.94				31.3	92.7	1.5	-31.3
96.0	22593	98.9	0.06296	267.8	4.50	36.4	1.5611	213.2	549.5	213.24				27.7	91.5	0.7	-27.7
96.9	22837	99.8	0.06604	270.3	4.73	35.0	1.5441	213.2	555.7	213.24				28.6	94.6	2.3	-28.6
97.0	22873	100.0	0.06649	270.6	4.76	34.8	1.5416	213.2	556.6	213.24				28.8	95.0	2.5	-28.7
98.0	23073	98.6	0.06901	268.3	4.85	33.7	1.5276	212.2	559.0	212.18				29.3	94.8	2.4	-29.1
99.0	23260	99.1	0.07136	269.8	5.02	32.7	1.5145	212.2	563.8	212.18				32.4	91.6	0.9	-32.4
100.0	23513	106.9	0.07465	288.5	5.64	31.4	1.4969	213.9	575.1	213.94				34.2	93.3	1.9	-34.2
101.0	23736	109.7	0.07770	295.8	6.00	30.3	1.4814	214.1	581.5	214.11				32.4	88.9	-0.6	-32.4
101.3	23798	109.8	0.07856	296.1	6.07	30.0	1.4771	214.2	583.2	214.16				31.9	87.7	-1.3	-31.9
102.0	23967	110.2	0.08091	297.0	6.26	29.2	1.4654	214.3	588.1	214.28				30.7	84.1	-3.2	-30.6
103.0	24186	115.8	0.08402	309.4	6.81	28.2	1.4502	216.1	599.1	216.15				29.7	82.8	-3.7	-29.5
104.0	24391	121.0	0.08705	321.4	7.34	27.3	1.4362	217.3	607.9	217.30				31.6	83.1	-3.8	-31.3
105.0	24580	120.8	0.08989	318.7	7.56	26.5	1.4232	218.9	617.7	218.91				30.7	84.1	-3.2	-30.6
106.0	24752	125.1	0.09248	328.2	8.03	25.8	1.4116	220.0	625.6	220.01				26.9	86.7	-1.5	-26.9
107.0	24955	131.4	0.09567	341.7	8.71	25.0	1.3979	222.0	637.0	222.01				25.5	88.3	-0.7	-25.5
108.0	25221	133.1	0.09993	344.2	9.19	24.0	1.3802	223.2	647.9	223.22				27.2	88.6	-0.7	-27.2
109.0	25471	136.4	0.10399	352.2	9.79	23.1	1.3636	223.7	656.4	223.67				27.3	96.0	2.9	-27.1
110.0	25731	134.0	0.10823	345.5	10.00	22.2	1.3464	224.0	664.7	223.96				25.3	107.2	7.5	-24.2
111.0	26002	130.7	0.11256	335.9	10.17	21.3	1.3284	224.7	674.9	224.70				21.5	116.6	9.6	-19.2
112.0	26189	129.7	0.11549	333.7	10.38	20.7	1.3160	224.4	679.5	224.41				19.4	111.6	7.1	-18.0
113.0	26415	128.0	0.11899	329.6	10.61	20.0	1.3010	224.3	685.8	224.26				17.1	105.3	4.5	-16.5
114.0	26649	126.1	0.12256	323.3	10.83	19.3	1.2856	225.3	695.9	225.29				17.1	101.1	3.3	-16.8
115.0	26928	123.4	0.12673	316.2	11.06	18.5	1.2672	225.4	704.9	225.43				15.3	91.9	0.5	-15.3
116.0	27108	118.1	0.12934	302.3	10.87	18.0	1.2553	225.6	710.9	225.58				12.6	71.8	-3.9	-12.0
116.8	27294	119.0	0.13198	303.0	11.27	17.5	1.2430	226.8	720.4	226.78				13.6	62.9	-6.2	-12.1
117.0	27332	119.2	0.13252	303.2	11.35	17.4	1.2405	227.0	722.4	227.02				13.8	61.3	-6.6	-12.1
118.0	27525	113.3	0.13519	288.2	11.10	16.9	1.2279	226.9	728.0	226.88				16.5	72.2	-5.0	-15.7
119.0	27765	111.3	0.13840	283.5	11.32	16.3	1.2122	226.7	735.1	226.73				16.2	86.4	-1.0	-16.2
120.0	27971	109.6	0.14111	278.8	11.49	15.8	1.1987	226.9	742.1	226.88				13.6	95.9	1.4	-13.5
121.0	28228	105.5	0.14439	267.7	11.50	15.2	1.1818	227.4	752.2	227.45				18.7	95.9	1.9	-18.7
121.3	28316	105.0	0.14549	266.2	11.59	15.0	1.1761	227.7	755.9	227.68				18.6	98.8	2.8	-18.3
122.0	28496	103.9	0.14772	263.0	11.80	14.6	1.1644	228.2	763.3	228.16				18.3	104.7	4.7	-17.7
123.0	28728	100.1	0.15053	253.8	11.76	14.1	1.1492	227.6	769.0	227.59				17.5	120.0	8.7	-15.1
124.0	28969	96.1	0.15332	242.7	11.71	13.6	1.1335	228.6	780.4	228.58				21.4	124.3	12.0	-17.7
125.0	29270	91.1	0.15665	230.4	11.61	13.0	1.1139	228.2	789.1	228.16				20.2	126.7	12.1	-16.2
126.0	29532	86.5	0.15940	219.1	11.47	12.5	1.0969	228.0	797.5	228.02				18.3	120.6	9.3	-15.7
127.0	29804	81.3	0.16210	205.9	11.22	12.0	1.0792	227.9	806.3	227.87				17.8	116.6	8.0	-15.9
128.0	30087	76.2	0.16475	193.8	10.98	11.5	1.0607	226.9	812.6	226.88				14.1	136.7	10.3	-9.7
129.0	30203	71.8	0.16577	183.2	10.53	11.3	1.0531	226.4	815.1	226.44				12.2	156.2	11.2	-4.9
130.0	30321	66.7	0.16675	170.4	9.96	11.1	1.0453	226.0	817.7	226.01				11.5	138.6	8.7	-7.6
131.0	30503	62.5	0.16814	158.6	9.59	10.8	1.0334	227.6	829.9	227.59				14.9	116.0	6.5	-13.4
132.0	30820	62.9	0.17049	158.3	10.11	10.3	1.0128	229.3	847.5	229.28				16.1	109.4	5.3	-15.1
133.0	31018	59.0	0.17191	148.4	9.77	10.0	1.0000	229.4	855.2	229.42				14.6	98.5	2.2	-14.4
134.0	31292	55.2	0.17375	139.1	9.53	9.6	0.9823	229.3	864.7	229.28				16.2	87.5	-0.7	-16.2
135.0	31578	53.1	0.17557	133.0	9.57	9.2	0.9638	230.7	880.6	230.68				16.5	81.9	-2.3	-16.4
136.0	31726	47.6	0.17644	118.7	8.76	9.0	0.9542	231.5	889.3	231.50				20.4	80.2	-3.5	-20.1
137.0	32034	47.4	0.17815	117.9	9.13	8.6	0.9345	232.1	903.1	232.05				28.4	78.1	-5.8	-27.8
138.0	32442	46.9	0.18037	115.9	9.60	8.1	0.9085	233.7	925.2	233.69				33.5	74.8	-8.8	-32.3
138.3	32527	46.4	0.18083	114.5	9.62	8.0	0.9031	234.2	930.6	234.22				999.9	999.9	999.9	999.9
139.0	32701	45.5	0.18175	111.5	9.66	7.8	0.8921	235.3	941.7	235.31				999.9	999.9	999.9	999.9



FT SHERMAN ECC

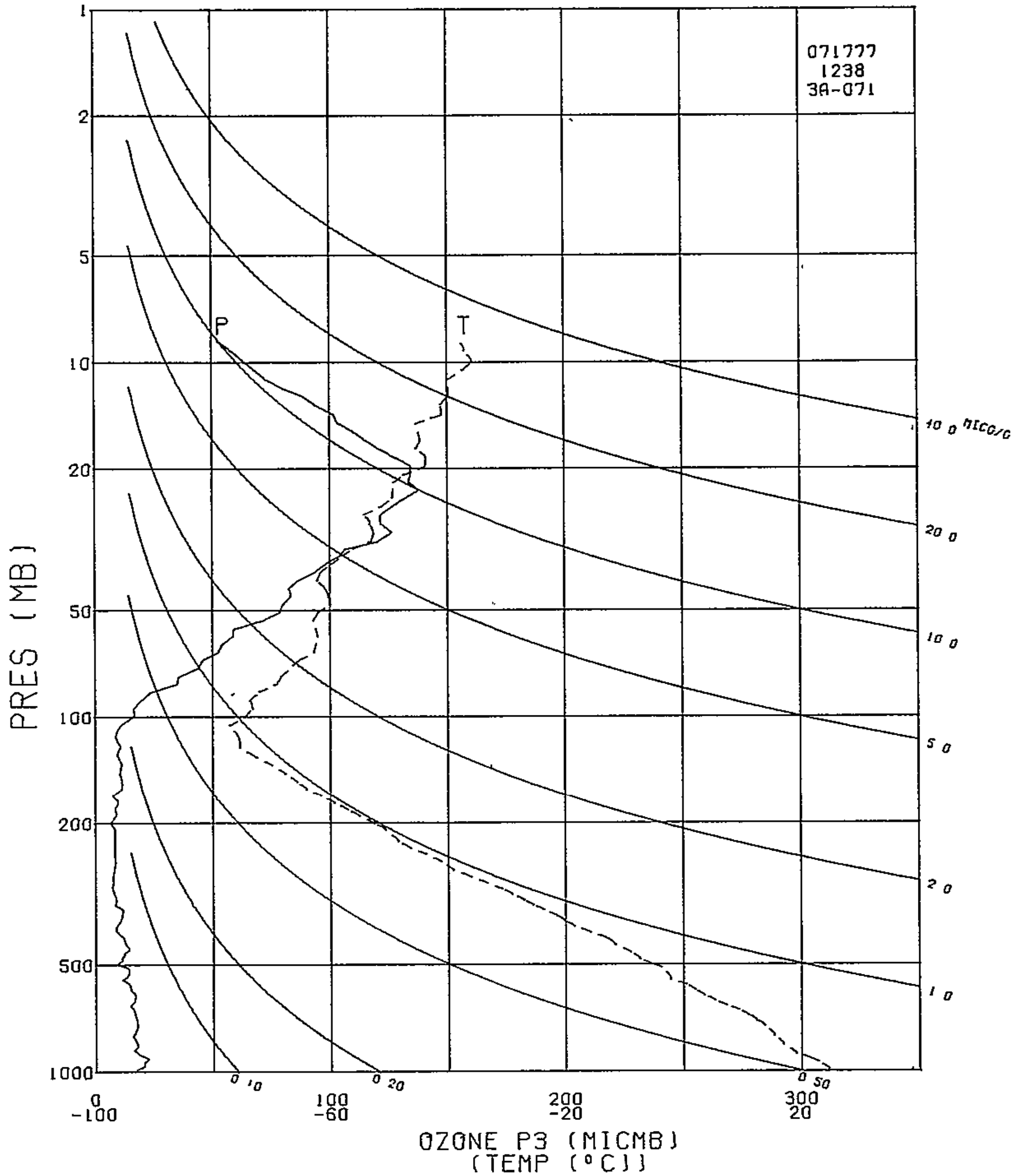
STATION FT SHERMAN   LAUNCH DATE 71777   LAUNCH TIME 1238 GMT   ECC SONDE 3A-071X

SURFACE CONDITIONS			
PRESS 1003.4 MB	003 = 30.4	TBOX CAL = 30.0 C AT 73.8 ORD	
TEMP 299.2 K	OIZ = 29.8	BASE CAL = 30.0 C AT 73.5 ORD	
HUMY 92.0 %	OZC = 60.0	HUMIDITY = 62.0 % AT 46.0 ORD	
	IO = 0.102		
	PS = 28.0		

	PROFILE	DOBSON
INTEGRATED OZONE	0.18551	
RESIDUAL OZONE	0.03663	
TOTAL OZONE	0.22214	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	9.5	0.	18.3	0.02	1003.4	3.0015	298.7	298.4	302.09	89.5	296.9	0.0184	4.0	70.0	-1.4	-3.8
0.2	82	10.7	0.00004	20.7	0.02	1000.0	3.0000	298.6	298.6	301.96	90.9	297.0	0.0187	4.7	71.6	-1.5	-4.4
1.0	234	17.1	0.00021	33.1	0.03	983.0	2.9926	297.8	299.2	301.31	97.8	297.4	0.0194	8.0	75.6	-2.0	-7.8
2.0	396	20.2	0.00049	39.2	0.03	965.0	2.9845	297.1	300.1	300.45	96.1	296.4	0.0186	9.1	45.0	-6.4	-6.4
3.0	635	20.6	0.00093	40.1	0.04	939.0	2.9727	295.9	301.3	299.14	96.0	295.3	0.0178	9.2	27.2	-8.2	-4.2
4.0	842	22.4	0.00133	43.9	0.04	917.0	2.9624	294.6	302.0	297.62	96.8	294.0	0.0169	5.4	43.4	-3.9	-3.7
4.7	1003	19.6	0.00163	38.6	0.04	900.0	2.9542	293.0	302.0	295.83	97.2	292.6	0.0153	4.6	51.8	-2.9	-3.6
5.0	1091	18.1	0.00179	35.7	0.03	891.0	2.9499	292.2	302.0	294.87	97.5	291.8	0.0151	4.2	57.6	-2.3	-3.6
6.0	1336	16.2	0.00217	32.0	0.03	866.0	2.9375	291.7	304.0	294.41	96.3	291.1	0.0149	4.7	68.2	-1.8	-4.4
6.6	1495	17.4	0.00242	34.6	0.03	850.0	2.9294	290.7	304.5	293.22	96.9	290.2	0.0141	5.0	69.0	-1.8	-4.7
7.0	1587	18.1	0.00257	36.1	0.04	841.0	2.9248	290.1	304.8	292.54	97.2	289.6	0.0139	5.1	69.5	-1.8	-4.8
8.0	1803	16.8	0.00292	33.5	0.03	820.0	2.9138	289.5	306.3	291.83	95.1	288.7	0.0134	5.6	72.7	-1.7	-5.3
8.8	2012	15.9	0.00323	31.8	0.03	800.0	2.9031	288.7	307.7	290.89	90.7	287.2	0.0123	6.3	75.7	-1.6	-6.1
9.0	2077	15.6	0.00333	31.2	0.03	794.0	2.8998	288.4	308.1	290.60	89.4	286.7	0.0122	6.5	76.4	-1.5	-6.3
10.0	2337	17.0	0.00372	34.2	0.04	770.0	2.8865	287.4	309.7	289.30	80.2	284.1	0.0106	7.7	88.0	-0.3	-7.7
11.0	2627	17.8	0.00420	35.7	0.04	744.0	2.8716	286.9	312.1	288.31	63.2	280.0	0.0083	8.5	96.2	0.9	-8.5
12.0	2914	17.2	0.00467	34.8	0.04	719.0	2.8567	285.5	313.7	286.87	63.3	278.7	0.0079	9.2	105.2	2.4	-8.9
12.8	3138	16.7	0.00502	34.0	0.04	700.0	2.8451	284.4	315.0	285.70	60.3	277.0	0.0070	10.1	112.5	3.8	-9.3
13.0	3198	16.6	0.00512	33.8	0.04	695.0	2.8420	284.2	315.3	285.38	59.5	276.6	0.0070	10.3	114.2	4.2	-9.4
14.0	3503	15.9	0.00559	32.6	0.04	670.0	2.8261	282.5	316.7	283.68	63.0	275.8	0.0069	9.7	122.5	5.2	-8.2
15.0	3741	14.6	0.00594	30.0	0.04	651.0	2.8136	280.3	316.9	281.37	62.3	273.6	0.0060	9.7	123.0	5.3	-8.1
16.0	4010	16.6	0.00634	34.5	0.04	630.0	2.7993	278.4	317.7	279.46	70.4	273.5	0.0062	9.6	117.2	4.4	-8.5
17.0	4286	16.7	0.00678	34.9	0.05	609.0	2.7846	276.5	318.6	277.48	70.6	271.7	0.0056	10.9	108.0	3.4	-10.4
17.4	4406	16.1	0.00697	33.6	0.04	600.0	2.7782	275.9	319.2	276.81	72.7	271.5	0.0056	10.6	108.4	3.4	-10.1
18.0	4556	15.3	0.00721	32.0	0.04	589.0	2.7701	275.0	319.9	275.97	75.3	271.1	0.0056	10.2	109.0	3.3	-9.7
19.0	4848	14.6	0.00763	30.9	0.04	568.0	2.7543	273.6	321.5	274.39	71.9	269.1	0.0050	7.7	109.7	2.6	-7.2
20.0	5124	11.3	0.00799	24.0	0.03	548.7	2.7393	270.9	321.5	271.57	73.6	266.8	0.0043	8.6	103.0	1.9	-8.4
21.0	5384	14.0	0.00831	30.0	0.04	531.0	2.7251	270.1	323.6	270.66	61.8	263.8	0.0035	13.0	100.8	2.4	-12.8
22.0	5750	13.4	0.00881	28.7	0.04	507.0	2.7050	269.3	327.0	269.88	61.6	263.0	0.0035	9.5	112.1	3.6	-8.8
22.6	5859	10.7	0.00894	23.1	0.04	500.0	2.6990	268.2	327.0	268.45				5.4	143.6	4.4	-3.2
23.0	5922	9.2	0.00901	19.8	0.03	496.0	2.6955	267.6	327.0	267.63				4.8	180.0	4.8	-0.0
24.0	6161	10.9	0.00925	23.8	0.04	481.0	2.6821	265.7	327.5	265.69				7.6	139.5	5.8	-5.0
25.0	6507	12.3	0.00966	27.0	0.04	460.0	2.6628	264.1	329.7	264.48	60.5	257.8	0.0025	20.8	176.4	20.7	-1.3
26.0	6676	14.4	0.00990	31.6	0.05	450.0	2.6532	263.3	330.8	263.35				7.3	169.5	7.2	-1.3
27.0	6936	12.3	0.01025	27.1	0.05	435.0	2.6385	261.2	331.3	261.20				10.2	41.4	-7.6	-6.7
28.0	7236	11.6	0.01062	25.7	0.05	418.2	2.6214	259.9	333.4	259.93				7.3	160.5	6.9	-2.4
29.0	7535	8.8	0.01094	19.8	0.04	402.0	2.6042	257.0	333.4	257.26	59.8	251.0	0.0016	11.0	168.6	10.8	-2.2
29.1	7572	8.8	0.01098	19.9	0.04	400.0	2.6021	256.7	333.5	256.91	60.9	250.9	0.0016	10.6	166.6	10.3	-2.5
30.0	7800	8.9	0.01119	20.1	0.04	388.0	2.5888	254.6	333.6	254.79	67.9	250.1	0.0015	8.7	151.3	7.6	-4.2
31.0	8053	10.5	0.01145	24.1	0.05	375.0	2.5740	252.9	334.7	253.12	60.0	247.2	0.0012	5.8	129.4	3.7	-4.5
32.0	8293	11.2	0.01173	25.8	0.05	363.0	2.5599	251.6	336.1	251.76	58.3	245.6	0.0011	8.1	149.6	7.0	-4.1
32.9	8560	11.8	0.01206	27.2	0.06	350.0	2.5441	249.5	336.8	249.64	58.5	243.7	0.0009	8.3	148.6	7.1	-4.4
33.0	8581	11.8	0.01209	27.3	0.06	349.0	2.5428	249.3	336.8	249.47	58.5	243.5	0.0009	8.4	148.5	7.1	-4.4
34.0	8792	8.4	0.01232	19.5	0.04	339.0	2.5302	247.6	337.3	247.72	52.8	240.8	0.0007	6.4	143.1	5.2	-3.9
35.0	9030	9.1	0.01254	21.2	0.05	328.0	2.5159	246.0	338.3	246.11	44.6	237.7	0.0006	7.2	125.9	4.2	-5.8
36.0	9320	7.7	0.01281	18.2	0.04	315.0	2.4983	244.1	339.5	244.10	29.5	231.9	0.0003	7.6	127.8	4.7	-6.0
37.0	9549	7.0	0.01300	16.6	0.04	305.0	2.4843	242.3	340.2	242.39	33.0	231.4	0.0003	7.5	139.1	5.7	-4.9
37.4	9665	7.2	0.01309	17.3	0.04	300.0	2.4771	241.2	340.2	241.24	32.8	230.3	0.0003	7.2	140.2	5.5	-4.6
38.0	9832	7.6	0.01323	18.4	0.04	293.0	2.4669	239.6	340.2	239.61	32.6	228.8	0.0002	6.7	141.8	5.3	-4.1
39.0	10148	7.6	0.01350	18.6	0.05	280.0	2.4472	236.5	340.3	236.55	41.2	228.1	0.0002	4.7	143.4	3.8	-2.8
40.0	10424	8.0	0.01375	19.8	0.05	269.0	2.4298	233.8	340.3	233.85	45.8	226.6	0.0002	4.4	136.9	3.2	-3.0
41.0	10788	8.6	0.01410	21.5	0.06	255.0	2.4065	231.8	342.5	231.78				3.1	120.2	1.5	-2.6
41.4	10921	8.4	0.01423	20.9	0.06	250.0	2.3979	230.8	342.9	230.75				2.9	91.4	0.1	-2.9
42.0	11113	8.0	0.01442	20.1	0.05	243.0	2.3856	229.3	343.5	229.28				3.8	57.6	-2.0	-3.2
43.0	11393	8.0	0.01468	20.4	0.06	233.0	2.3674	226.4	343.3	226.44				6.4	57.9	-3.4	-5.4
44.0	11653	7.9	0.01493	20.2	0.06	224.0	2.3502	224.6	344.3	224.55				7.3	56.7	-4.0	-6.1
45.0	11922	7.8	0.01518	20.1	0.06	215.0	2.3324	224.6	348.4	224.55				6.6	47.4	-4.4	-4.8
46.0	12201	7.8	0.01545	20.3	0.06	206.0	2.3139	222.2	348.9	222.17				4.1	11.4	-4.0	-0.8
46.9	12392	6.6	0.01561	17.4	0.06	200.0	2.3010	220.7	349.6	220.72				4.0	357.5	-4.0	0.2
47.0	12425	6.5	0.01564	16.9	0.05	199.0	2.2989	220.5	349.7	220.48				4.0	355.1	-4.0	0.3
48.0	12755	8.8	0.01595	23.3	0.08	189.0	2.2765	217.8	350.6	217.79				4.3	23.3	-3.9	-1.7
49.0	12994	8.1	0.01620	21.6	0.07	182.0	2.2601	216.0	351.4	215.98				5.3	9.6	-5.2	-0.9
50.0	13276	9.9	0.01652	26.7	0.09	174.0	2.2405	213.8	352.3	213.77				7.0	8.8	-6.9	-1.1
51.0	13569	7.2	0.01684	19.8	0.07	166.0	2.2201	211.5	353.2	211.46				6.9	22.5	-6.4	-2.7
52.0	13834	11.2	0.01715	30.9	0.12	159.0	2.2014	209.0	353.5	209.03				6.9	43.9	-4.9	-4.8
53.0	14108	11.2	0.01755	31.2	0.12	152.0	2.1818	207.5	355.4	207.47				7.8	75.8	-1.9	-7.5
53.2	14187	11.1	0.01766	30.9	0.12	150.0	2.1761	207.0	355.9	206.97				7.7	81.3	-1.2	-7.6
54.0	14434	10.6	0.01801	29.7	0.12	144.0	2.1584	205.4	357.4	205.44				8.0	97.9	1.1	-7.9
55.0	14775	11.2	0.01851	32.0	0.14	136.0	2.1335	203.1	359.1	203.08				7.8	103.1	1.8	-7.6
56.0	15132	9.3	0.01900	26.8	0.12	128.0	2.1072	200.1	360.0	200.08				4.9	106.2	1.4	-4.7
56.4	15269	9.8	0.01918	28.5	0.13	125.0	2.0969	199.0	360.5	199.03				3.9	110.4	1.3	-3.6
57.0	15459	10.6	0.01944	30.9	0.14	121.0	2.0828	197.6	361.3	197.60				2.5	121.6	1.3	-2.2
58.0	15803	8.5	0.01989	24.9	0.12	114.0	2.0569	197.3	367.0	197.34				7.3	120.9	3.7	-6.3

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	16062	9.4	0.02021	27.6	0.14	109.0	2.0374	197.3	371.7	197.34				13.2	126.6	7.9	-10.6
60.0	16277	10.7	0.02050	31.5	0.17	105.0	2.0212	196.0	373.2	196.01				15.7	124.3	8.9	-13.0
60.8	16558	15.4	0.02103	44.9	0.26	100.0	2.0000	198.2	382.6	198.17				12.3	112.9	4.8	-11.4
61.0	16617	16.4	0.02113	47.7	0.27	99.0	1.9956	198.6	384.6	198.61				11.7	109.7	4.0	-11.0
62.0	16907	16.2	0.02177	46.9	0.29	94.2	1.9741	199.8	392.5	199.84				8.4	69.2	-3.0	-7.9
63.0	17219	19.6	0.02253	56.9	0.36	89.3	1.9509	199.4	397.5	199.36				10.6	53.5	-6.3	-8.5
64.0	17549	23.9	0.02350	68.6	0.47	84.4	1.9263	201.0	407.4	201.03				13.3	55.9	-7.4	-11.0
65.0	17844	34.5	0.02465	97.7	0.71	80.3	1.9047	204.0	419.2	203.95				16.3	60.8	-8.0	-14.3
65.1	17866	34.6	0.02475	97.9	0.72	80.0	1.9031	204.0	419.8	204.02				16.5	61.8	-7.8	-14.5
66.0	18134	35.7	0.02599	100.5	0.77	76.5	1.8837	204.8	426.9	204.81				18.5	72.2	-5.7	-17.6
67.0	18456	43.7	0.02767	123.0	1.00	72.5	1.8603	205.0	433.9	205.02				20.9	88.2	-0.7	-20.9
67.6	18667	45.0	0.02891	125.7	1.07	70.0	1.8451	206.8	442.2	206.83				21.4	97.0	2.6	-21.2
68.0	18790	45.8	0.02962	127.3	1.11	68.6	1.8363	207.9	447.0	207.87				21.9	101.8	4.5	-21.4
69.0	19091	52.2	0.03153	143.4	1.33	65.3	1.8149	210.4	458.7	210.35				20.3	106.8	5.9	-19.5
70.0	19400	54.0	0.03363	148.2	1.44	62.1	1.7931	210.4	465.3	210.35				16.0	103.6	3.8	-15.6
70.7	19612	56.9	0.03516	155.8	1.57	60.0	1.7782	210.8	471.1	210.85				14.6	100.8	2.7	-14.3
71.0	19716	58.3	0.03590	159.5	1.64	59.0	1.7709	211.1	473.9	211.09				13.9	99.3	2.2	-13.7
72.0	20038	59.1	0.03832	161.8	1.75	56.0	1.7482	210.9	480.6	210.91				20.2	95.4	1.9	-20.1
73.0	20377	71.5	0.04116	196.2	2.23	53.0	1.7243	210.4	486.9	210.35				25.2	88.3	-0.8	-25.2
74.0	20699	78.5	0.04425	214.8	2.59	50.3	1.7016	211.1	496.0	211.09				25.0	81.4	-3.7	-24.7
74.1	20736	78.7	0.04463	214.9	2.61	50.0	1.6990	211.4	497.5	211.37				25.3	81.0	-4.0	-25.0
75.0	20989	79.8	0.04718	215.9	2.75	48.0	1.6812	213.2	507.8	213.24				27.4	78.1	-5.7	-26.8
76.0	21336	83.2	0.05076	225.8	3.04	45.4	1.6571	212.9	515.1	212.89				27.8	81.4	-4.1	-27.5
77.0	21645	82.2	0.05400	223.8	3.15	43.2	1.6355	212.2	520.7	212.18				28.6	90.7	0.4	-28.6
78.0	21968	86.2	0.05747	235.9	3.48	41.0	1.6128	210.9	525.3	210.91				29.5	94.9	2.5	-29.4
78.4	22120	89.5	0.05922	244.6	3.71	40.0	1.6021	211.2	529.7	211.15				29.3	94.3	2.2	-29.3
79.0	22309	93.6	0.06138	255.4	4.00	38.8	1.5888	211.5	535.1	211.46				29.1	93.5	1.8	-29.1
80.0	22655	98.3	0.06559	265.9	4.44	36.7	1.5647	213.4	548.7	213.42				29.4	89.6	-0.2	-29.4
80.9	22952	103.7	0.06938	278.1	4.91	35.0	1.5441	215.2	560.8	215.20				29.4	89.2	-0.4	-29.4
81.0	22970	104.0	0.06961	278.9	4.94	34.9	1.5428	215.3	561.6	215.31				29.4	89.2	-0.4	-29.4
82.0	23267	106.7	0.07351	283.7	5.31	33.3	1.5224	217.1	574.0	217.13				31.7	90.4	0.2	-31.7
83.0	23562	119.9	0.07763	314.5	6.25	31.8	1.5024	220.2	589.7	220.17				35.8	89.4	-0.4	-35.8
84.0	23916	126.2	0.08296	330.2	6.95	30.1	1.4786	220.6	600.3	220.63				32.3	88.3	-0.9	-32.3
84.1	23937	125.9	0.08329	329.5	6.95	30.0	1.4771	220.6	600.8	220.60				32.0	88.5	-0.8	-32.0
85.0	24291	121.4	0.08864	318.6	7.08	28.4	1.4533	220.0	608.6	220.01				26.8	93.1	1.5	-26.8
86.0	24687	121.3	0.09455	319.8	7.53	26.7	1.4265	219.1	616.8	219.07				29.9	99.3	4.8	-29.5
87.0	25034	126.4	0.09982	328.8	8.28	25.3	1.4031	222.0	634.8	222.01				39.0	98.5	5.7	-38.5
87.2	25111	127.7	0.10104	331.4	8.47	25.0	1.3979	222.4	638.2	222.42				37.8	98.9	5.9	-37.4
88.0	25378	132.0	0.10520	340.4	9.11	24.0	1.3802	223.8	649.7	223.81				34.1	100.8	6.4	-33.5
89.0	25685	137.4	0.11018	354.1	9.94	22.9	1.3598	224.1	659.3	224.11				22.5	104.1	5.5	-21.8
90.0	26038	133.3	0.11593	343.4	10.18	21.7	1.3365	224.1	669.5	224.11				25.9	105.5	6.9	-25.0
91.0	26348	134.2	0.12091	343.4	10.75	20.7	1.3160	225.7	683.5	225.72				24.2	113.4	9.6	-22.2
91.6	26576	134.4	0.12456	340.3	11.14	20.0	1.3010	228.1	697.4	228.05				18.9	117.1	8.6	-16.9
92.0	26711	134.5	0.12670	338.5	11.37	19.6	1.2923	229.4	705.6	229.42				15.9	120.3	8.0	-13.7
93.0	27099	127.8	0.13268	321.5	11.45	18.5	1.2672	229.6	717.8	229.56				9.6	132.3	6.5	-7.1
93.9	27470	120.9	0.13812	306.0	11.44	17.5	1.2430	228.0	724.4	228.03				6.8	115.9	3.0	-6.1
94.0	27509	120.1	0.13868	304.4	11.44	17.4	1.2405	227.9	725.1	227.87				6.5	113.5	2.6	-6.0
95.0	27864	114.5	0.14359	289.1	11.50	16.5	1.2175	228.6	738.5	228.58				10.3	86.0	-0.7	-10.3
96.0	28196	109.8	0.14799	277.7	11.59	15.7	1.1959	228.3	748.1	228.30				13.3	92.5	0.6	-13.3
96.8	28500	104.8	0.15182	265.3	11.57	15.0	1.1761	228.0	756.8	227.97				15.4	90.1	0.0	-15.4
97.0	28590	103.3	0.15295	261.7	11.56	14.8	1.1703	227.9	759.4	227.87				16.0	89.5	-0.1	-16.0
98.0	28964	101.6	0.15744	252.5	12.02	14.0	1.1461	232.2	786.2	232.19				19.7	84.7	-1.8	-19.6
99.0	29415	93.4	0.16256	232.5	11.82	13.1	1.1173	232.1	800.8	232.05				19.7	84.4	-1.9	-19.6
99.7	29734	88.7	0.16590	219.8	11.76	12.5	1.0969	233.1	815.2	233.07				14.4	73.2	-4.2	-13.8
100.0	29844	87.1	0.16704	215.5	11.73	12.3	1.0899	233.4	820.1	233.42				12.8	67.3	-4.9	-11.8
101.0	30127	80.0	0.16978	197.8	11.23	11.8	1.0719	233.4	829.9	233.42				9.6	63.4	-4.3	-8.6
102.0	30545	72.3	0.17345	178.8	10.79	11.1	1.0453	233.4	844.5	233.42				11.4	85.0	-1.0	-11.4
103.0	30992	67.3	0.17704	164.7	10.72	10.4	1.0170	236.0	869.8	235.98				11.0	78.6	-2.2	-10.7
103.8	31263	64.1	0.17906	156.1	10.62	10.0	1.0000	237.1	884.0	237.15				10.2	77.2	-2.3	-10.0
104.0	31333	63.3	0.17958	153.9	10.59	9.9	0.9956	237.4	887.7	237.45				10.0	76.8	-2.3	-9.8
105.0	31841	57.6	0.18308	140.9	10.38	9.2	0.9638	236.1	901.4	236.11				9.7	88.9	-0.2	-9.7
106.0	32226	52.5	0.18551	128.7	9.99	8.7	0.9395	235.3	912.7	235.31				999.9	999.9	999.9	999.9



FT SHERMAN ECC

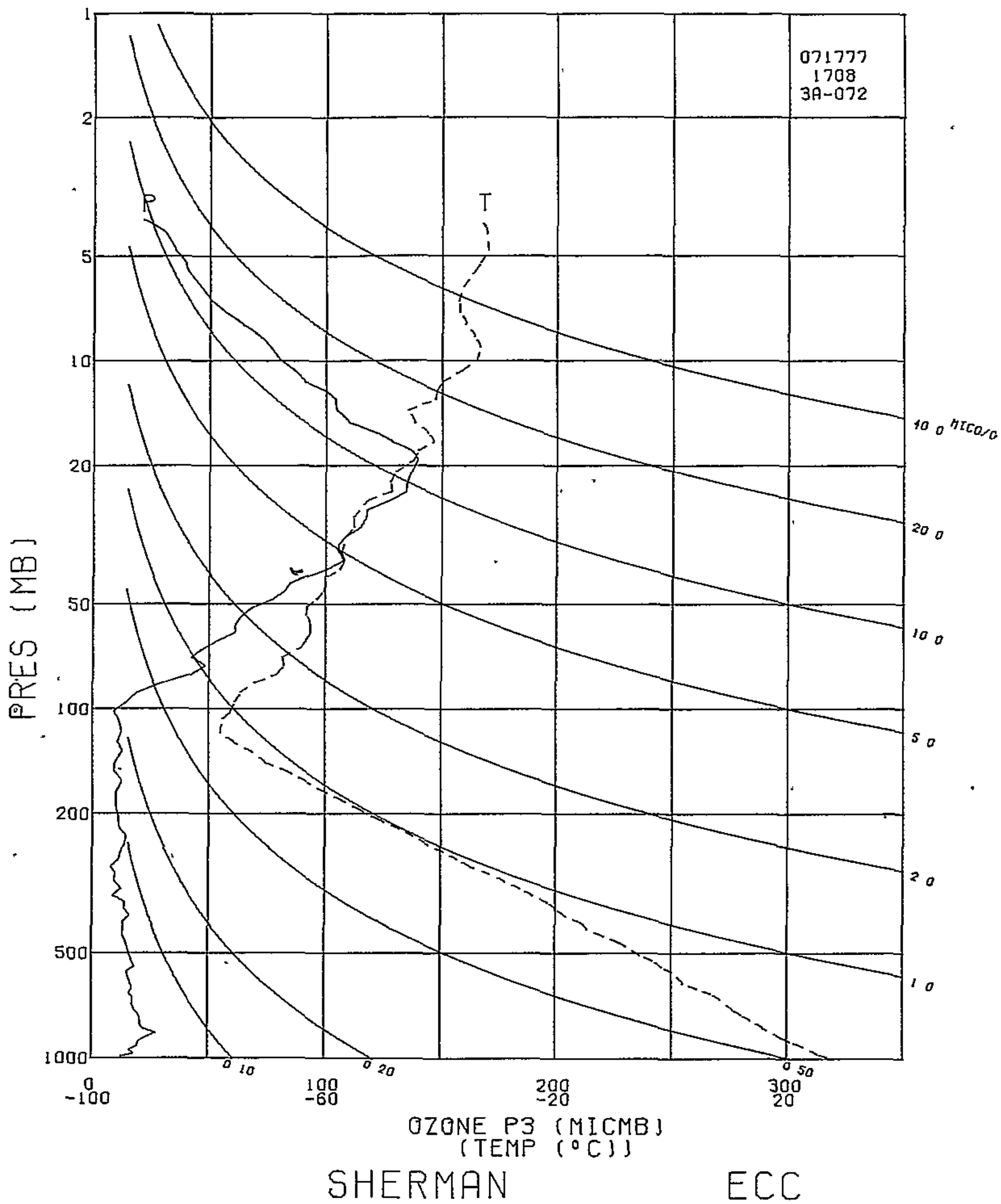
STATION FT SHERMAN   LAUNCH DATE 71777   LAUNCH TIME 1708 GMT   ECC SONDE 3A-072X

SURFACE CONDITIONS				
PRESS 1004.6 MB	003 = 36.3	TBOX CAL = 30.0 C	AT	74.8 ORD
TEMP 301.9 K	01Z = 36.0	BASE CAL = 30.0 C	AT	73.9 ORD
HUMY 81.0 %	0ZC = 69.5	HUMIDITY = 62.5 %	AT	46.0 ORD
	IO = 0.047			
	PS = 29.4			

	PROFILE	DOBSON
INTEGRATED OZONE	0.22574	
RESIDUAL OZONE	0.01230	
TOTAL OZONE	0.23804	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	12.3	0.	23.6	0.02	1004.6	3.0020	301.4	301.0	304.81	77.0	297.0	0.0184	5.0	30.0	-4.3	-2.5
0.2	93	12.3	0.00004	23.7	0.02	1000.0	3.0000	301.1	301.1	304.48	77.0	296.7	0.0181	4.9	33.1	-4.1	-2.7
1.0	228	12.5	0.00019	24.0	0.02	985.0	2.9934	300.2	301.5	303.37	77.4	295.8	0.0176	4.9	43.5	-3.5	-3.3
2.0	382	17.5	0.00040	34.0	0.03	968.0	2.9859	298.4	301.2	301.82	88.8	296.4	0.0185	5.8	53.7	-3.5	-4.7
3.0	622	15.7	0.00076	30.5	0.03	942.0	2.9741	297.2	302.4	300.36	86.1	294.8	0.0172	6.6	64.1	-2.9	-6.0
4.0	857	19.8	0.00113	38.6	0.04	917.0	2.9624	295.6	303.0	298.43	84.0	292.8	0.0156	6.8	64.2	-3.0	-6.2
4.6	1019	19.9	0.00143	39.0	0.04	900.0	2.9542	294.3	303.3	296.95	82.7	291.3	0.0141	6.5	58.9	-3.4	-5.5
5.0	1117	20.0	0.00160	39.3	0.04	890.0	2.9494	293.6	303.5	296.06	82.0	290.4	0.0138	6.3	55.4	-3.6	-5.2
6.0	1343	22.8	0.00204	45.2	0.04	867.0	2.9380	292.0	304.2	294.31	80.5	288.6	0.0127	6.0	49.2	-3.9	-4.6
6.7	1513	25.8	0.00244	51.0	0.05	850.0	2.9294	291.5	305.3	293.80	83.7	288.7	0.0131	5.9	51.6	-3.7	-4.7
7.0	1605	27.3	0.00265	54.2	0.05	841.0	2.9248	291.2	306.0	293.53	85.4	288.7	0.0131	5.9	53.0	-3.5	-4.7
8.0	1842	21.8	0.00318	43.6	0.04	818.0	2.9128	288.9	306.0	290.90	83.1	286.0	0.0113	4.2	60.4	-2.1	-3.6
8.9	2030	20.8	0.00356	41.8	0.04	800.0	2.9031	288.0	306.9	289.99	86.7	285.8	0.0114	3.6	72.0	-1.1	-3.4
9.0	2052	20.7	0.00360	41.5	0.04	798.0	2.9020	287.9	307.1	289.89	87.1	285.8	0.0114	3.5	73.6	-1.0	-3.3
10.0	2321	20.6	0.00412	41.6	0.04	773.0	2.8882	286.7	308.6	288.85	98.7	286.5	0.0124	4.2	86.1	-0.3	-4.2
11.0	2587	19.7	0.00462	39.8	0.04	749.0	2.8745	285.1	309.7	287.12	98.2	284.8	0.0115	5.9	84.2	-0.6	-5.9
12.0	2859	18.2	0.00511	37.0	0.04	725.0	2.8603	283.6	310.9	285.01	74.7	279.3	0.0081	7.5	94.0	0.5	-7.5
13.0	3151	17.3	0.00560	35.3	0.04	700.0	2.8451	283.4	313.8	284.79	71.5	278.5	0.0080	8.1	101.9	1.7	-7.9
14.0	3453	17.4	0.00610	35.7	0.04	675.0	2.8293	281.4	314.8	282.63	71.8	276.6	0.0072	7.8	99.1	1.2	-7.7
15.0	3764	15.7	0.00659	32.4	0.04	650.0	2.8129	279.8	316.4	280.93	72.4	275.2	0.0068	7.7	100.9	1.4	-7.5
16.0	4043	17.3	0.00703	36.0	0.05	628.2	2.7981	277.3	316.7	278.38	75.8	273.4	0.0062	8.4	107.9	2.6	-8.0
17.0	4321	16.1	0.00749	33.7	0.04	607.0	2.7832	275.0	317.1	276.05	90.2	273.5	0.0064	10.2	107.4	3.0	-9.7
17.3	4414	15.8	0.00763	33.2	0.04	600.0	2.7782	274.7	317.9	275.81	89.9	273.3	0.0063	10.3	108.0	3.2	-9.8
18.0	4660	15.1	0.00800	31.8	0.04	582.0	2.7649	274.1	320.0	275.19	89.0	272.5	0.0062	10.6	109.4	3.5	-10.0
19.0	4912	14.5	0.00837	30.7	0.04	564.0	2.7513	273.2	321.7	274.00	74.3	269.1	0.0050	9.8	117.4	4.5	-8.7
20.0	5186	17.9	0.00881	38.0	0.05	545.0	2.7364	271.4	322.8	272.04	62.6	265.2	0.0038	9.5	119.4	4.6	-8.2
21.0	5498	16.5	0.00934	35.2	0.05	524.0	2.7193	269.7	324.4	270.26	62.5	263.6	0.0035	8.9	117.3	4.1	-8.0
22.0	5789	16.0	0.00981	34.5	0.05	505.0	2.7033	267.5	325.2	268.04	62.4	261.5	0.0031	8.6	114.2	3.5	-7.8
22.2	5866	15.7	0.00993	34.0	0.05	500.0	2.6990	267.4	325.9	267.89	62.4	261.4	0.0031	8.6	114.5	3.6	-7.9
23.0	6105	15.0	0.01031	32.4	0.05	485.0	2.6857	266.9	328.2	267.43	62.3	260.9	0.0031	8.8	115.5	3.8	-7.9
24.0	6449	14.1	0.01081	30.8	0.05	464.0	2.6665	264.0	328.7	264.38	61.9	258.0	0.0025	9.0	118.6	4.3	-7.9
25.0	6788	13.0	0.01128	28.7	0.05	444.0	2.6474	261.1	329.3	261.52	79.0	258.2	0.0027	8.7	122.3	4.7	-7.4
26.0	7121	13.6	0.01174	30.3	0.05	425.0	2.6284	258.4	330.0	258.80	84.5	256.4	0.0024	9.0	116.8	4.1	-8.0
27.0	7448	12.3	0.01218	27.7	0.05	407.0	2.6096	257.3	332.7	257.62	71.0	253.3	0.0019	10.1	110.8	3.6	-9.4
27.4	7578	13.7	0.01237	30.9	0.06	400.0	2.6021	256.1	332.8	256.43	72.4	252.4	0.0017	10.2	109.2	3.4	-9.6
28.0	7768	15.7	0.01265	35.6	0.07	390.0	2.5911	254.4	333.0	254.70	74.4	251.0	0.0016	10.3	107.0	3.0	-9.9
29.0	8099	13.5	0.01317	30.7	0.06	373.0	2.5717	253.0	335.3	253.15	60.6	247.3	0.0012	9.7	107.9	3.0	-9.2
30.0	8423	14.0	0.01364	32.1	0.06	357.0	2.5527	251.6	337.7	251.79	57.8	245.6	0.0011	9.2	120.6	4.7	-7.9
30.4	8568	11.7	0.01382	26.9	0.06	350.0	2.5441	250.5	338.1	250.60	43.1	240.6	0.0006	9.3	124.4	5.3	-7.7
31.0	8759	8.7	0.01405	20.1	0.04	341.0	2.5328	249.0	338.6	249.03	23.8	234.1	0.0004	9.6	129.2	6.0	-7.4
32.0	9085	12.0	0.01442	28.1	0.06	326.0	2.5132	246.9	340.0	246.91	22.9	232.0	0.0003	9.8	137.9	7.3	-6.6
33.0	9446	9.2	0.01484	21.7	0.05	310.0	2.4914	244.1	341.1	244.15	26.0	230.8	0.0003	9.6	146.9	8.0	-5.2
33.7	9678	9.7	0.01509	23.1	0.05	300.0	2.4771	242.2	341.7	242.29	25.8	229.1	0.0002	8.8	140.6	6.8	-5.6
34.0	9774	9.9	0.01519	23.6	0.06	296.0	2.4713	241.5	341.9	241.52	25.7	228.4	0.0002	8.6	137.7	6.4	-5.8
35.0	10114	7.6	0.01552	18.4	0.04	282.0	2.4502	238.1	341.8	238.10	32.3	227.4	0.0002	7.9	115.2	3.4	-7.2
36.0	10441	11.3	0.01587	27.6	0.07	269.0	2.4298	236.0	343.4	235.98	36.4	226.5	0.0002	8.0	92.8	0.4	-7.9
37.0	10808	12.3	0.01637	30.4	0.08	255.0	2.4065	233.4	344.9	233.43	28.0	222.0	0.0001	6.9	74.0	-1.9	-6.6
37.4	10942	12.8	0.01657	31.8	0.08	250.0	2.3979	232.2	345.0	232.20				5.7	65.2	-2.4	-5.2
38.0	11135	13.5	0.01686	33.8	0.09	243.0	2.3856	230.4	345.2	230.42				4.4	45.2	-3.1	-3.1
39.0	11475	14.3	0.01742	36.2	0.10	231.0	2.3636	228.2	346.9	228.20				3.7	8.5	-3.7	-0.6
40.0	11799	11.5	0.01791	29.5	0.09	220.0	2.3424	225.8	348.0	225.80				2.8	336.7	-2.6	1.1
41.0	12198	11.0	0.01846	28.5	0.09	207.0	2.3160	222.3	348.6	222.29				0.5	206.7	0.4	0.2
41.5	12420	10.3	0.01874	27.1	0.09	200.0	2.3010	220.6	349.4	220.59				1.7	172.8	1.7	-0.2
42.0	12617	9.8	0.01899	25.8	0.08	194.0	2.2878	219.1	350.0	219.08				2.8	167.9	2.7	-0.6
43.0	13023	9.4	0.01947	25.2	0.09	182.0	2.2601	215.9	351.2	215.88				3.0	172.5	3.0	-0.4
44.0	13377	10.0	0.01990	27.2	0.10	172.0	2.2355	213.0	352.2	213.00				4.9	142.1	3.9	-3.0
45.0	13786	12.4	0.02049	34.1	0.13	161.0	2.2068	209.8	353.5	209.78				8.9	146.9	7.4	-4.8
46.0	14181	9.4	0.02105	26.3	0.10	150.9	2.1787	206.7	354.8	206.71				10.6	157.2	9.8	-4.1
46.1	14216	9.4	0.02109	26.3	0.10	150.0	2.1761	206.3	354.8	206.32				10.4	158.0	9.6	-3.9
47.0	14545	9.4	0.02150	26.8	0.11	142.0	2.1523	202.8	354.1	202.76				8.3	167.8	8.1	-1.8
48.0	14976	12.3	0.02212	35.5	0.15	132.0	2.1206	200.5	357.6	200.50				5.3	205.7	4.8	2.3
48.9	15293	10.8	0.02262	31.5	0.14	125.0	2.0969	197.7	358.2	197.74				3.2	214.9	2.6	1.8
49.0	15340	10.6	0.02269	30.9	0.14	124.0	2.0934	197.3	358.3	197.33				2.9	217.3	2.3	1.8
50.0	15723	12.3	0.02329	36.3	0.18	116.0	2.0645	195.0	360.8	194.96				6.6	127.6	4.0	-5.2
51.0	16238	10.7	0.02411	31.5	0.17	106.0	2.0253	195.5	371.2	195.50				8.7	111.1	3.1	-8.1
52.0	16515	8.9	0.02448	26.1	0.15	101.0	2.0043	196.8	378.9	196.82				9.7	71.4	-3.1	-9.2
52.2	16572	9.8	0.02457	28.7	0.16	100.0	2.0000	196.9	380.2	196.94				10.5	71.1	-3.4	-9.9
53.0	16874	14.6	0.02506	42.6	0.25	94.9	1.9773	197.6	387.2	197.59				14.4	69.9	-5.0	-13.5
54.0	17246	19.1	0.02591	55.6	0.36	89.0	1.9494	198.6	396.4	198.59				18.0	75.2	-4.6	-17.4
55.0	17640	30.4	0.02723	87.3	0.61	83.2	1.9201	201.2	409.4	201.19				20.9	77.9	-4.4	-20.4
55.8	17872	39.1	0.02834	110.5	0.81	80.0	1.9031	203.8	419.5	203.83				21.8	85.4	-1.8	-21.8
56.0	17947	41.8	0.02870	118.0	0.88	79.0	1.8976	204.7	422.7	204.68				22.2	87.6	-0.9	-22.2
57.0	18275	48.1	0.03064	134.8	1.07	74.8	1.8739	205.9	431.9	205.91				21.8	100.3	3.9	-21.4

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	18631	42.1	0.03275	118.2	0.99	70.5	1.8482	205.7	438.9	205.71				20.7	112.0	7.7	-19.2
58.1	18674	42.8	0.03300	119.8	1.01	70.0	1.8451	206.1	440.6	206.07				20.2	112.3	7.7	-18.7
59.0	19003	47.9	0.03493	132.4	1.20	66.3	1.8215	208.8	453.5	208.84				16.7	114.8	7.0	-15.1
60.0	19315	54.1	0.03698	149.0	1.42	63.0	1.7993	209.8	462.2	209.78				12.9	96.4	1.4	-12.8
61.0	19615	60.9	0.03920	167.1	1.68	60.0	1.7782	210.5	470.3	210.51				14.9	84.4	-1.5	-14.8
62.0	19952	61.3	0.04184	168.0	1.79	56.8	1.7543	210.5	477.7	210.51				19.7	78.7	-3.9	-19.3
63.0	20308	64.0	0.04471	176.1	1.98	53.6	1.7292	209.8	484.0	209.78				23.7	79.1	-4.5	-23.3
64.0	20662	69.0	0.04773	189.6	2.26	50.6	1.7042	210.0	492.5	209.96				27.0	82.8	-3.4	-26.8
64.2	20735	70.9	0.04841	194.5	2.35	50.0	1.6990	210.3	495.1	210.35				27.2	82.0	-3.8	-26.9
65.0	20974	77.1	0.05065	210.4	2.66	48.1	1.6821	211.6	503.5	211.60				27.9	79.7	-5.0	-27.5
66.0	21292	82.4	0.05387	223.4	2.99	45.7	1.6599	212.8	513.9	212.83				28.5	84.5	-2.7	-28.4
67.0	21613	84.6	0.05727	229.6	3.23	43.4	1.6375	212.7	521.2	212.66				28.2	91.8	0.9	-28.2
68.0	21907	91.7	0.06055	247.9	3.67	41.4	1.6170	213.5	530.4	213.52				25.4	90.3	0.1	-25.4
68.7	22123	98.0	0.06315	263.0	4.06	40.0	1.6021	215.0	539.4	215.00				28.3	91.6	0.8	-28.3
69.0	22202	100.3	0.06411	268.5	4.21	39.5	1.5966	215.5	542.6	215.55				29.3	92.0	1.0	-29.3
70.0	22547	107.1	0.06858	285.9	4.75	37.4	1.5729	216.4	553.3	216.37				31.6	97.4	4.1	-31.4
71.0	22930	105.2	0.07365	281.3	4.95	35.2	1.5465	215.9	561.7	215.88				31.7	99.6	5.3	-31.2
71.1	22966	105.2	0.07413	281.4	4.98	35.0	1.5441	215.9	562.7	215.91				31.8	99.8	5.4	-31.3
72.0	23262	105.7	0.07802	282.2	5.24	33.4	1.5237	216.2	571.0	216.20				32.6	101.0	6.2	-32.0
73.0	23593	108.8	0.08244	289.8	5.69	31.7	1.5011	216.7	580.9	216.69				31.0	101.4	6.1	-30.3
74.0	23943	115.1	0.08731	304.7	6.35	30.0	1.4771	218.0	593.6	217.98				37.1	96.6	4.2	-36.9
75.0	24383	117.6	0.09364	311.4	6.96	28.0	1.4472	218.0	605.5	217.98				41.5	97.8	5.6	-41.1
76.0	24710	118.1	0.09841	312.9	7.35	26.6	1.4249	217.8	613.9	217.82				36.7	102.6	8.0	-35.8
77.0	25108	127.9	0.10443	334.9	8.48	25.0	1.3979	220.5	632.5	220.47				32.9	102.2	6.9	-32.2
78.0	25455	134.6	0.10996	346.3	9.41	23.7	1.3747	224.5	654.0	224.50				25.1	101.9	5.2	-24.6
79.0	25884	135.1	0.11691	347.6	10.08	22.2	1.3464	224.4	665.9	224.35				20.9	107.7	6.3	-19.9
80.0	26344	136.9	0.12442	350.8	10.96	20.7	1.3160	225.2	682.0	225.22				18.1	115.2	7.7	-16.4
80.5	26572	138.0	0.12817	351.6	11.45	20.0	1.3010	226.6	693.0	226.59				13.7	106.9	4.0	-13.1
81.0	26843	139.4	0.13262	352.6	12.03	19.2	1.2833	228.2	706.0	228.20				9.2	87.4	-0.4	-9.2
82.0	27275	136.6	0.13965	344.5	12.58	18.0	1.2553	229.0	721.8	229.04				11.9	43.1	-8.7	-8.1
82.5	27464	132.7	0.14259	332.8	12.56	17.5	1.2430	230.3	731.8	230.33				13.2	46.9	-9.0	-9.6
83.0	27660	128.7	0.14563	320.7	12.54	17.0	1.2304	231.7	742.0	231.65				14.5	50.1	-9.3	-11.1
84.0	28070	121.3	0.15161	303.7	12.57	16.0	1.2041	230.7	751.9	230.70				16.0	70.4	-5.4	-15.1
84.9	28503	110.9	0.15749	280.2	12.24	15.0	1.1761	228.4	758.4	228.44				17.9	86.8	-1.0	-17.9
85.0	28548	109.8	0.15810	277.8	12.21	14.9	1.1732	228.2	759.1	228.20				18.2	88.2	-0.6	-18.2
86.0	29059	104.3	0.16458	265.1	12.53	13.8	1.1399	227.2	772.5	227.22				21.7	99.4	3.6	-21.4
87.0	29564	103.5	0.17075	257.6	13.40	12.8	1.1072	231.9	805.6	231.93				22.0	109.6	7.4	-20.7
87.4	29725	101.7	0.17265	253.1	13.48	12.5	1.0969	232.0	811.6	232.04				20.2	109.7	6.8	-19.0
88.0	29946	99.3	0.17525	246.9	13.60	12.1	1.0828	232.2	819.7	232.20				17.7	109.9	6.0	-16.6
89.0	30352	90.6	0.17971	224.2	13.16	11.4	1.0569	233.1	837.1	233.14				17.7	100.6	3.2	-17.4
90.0	30852	85.8	0.18478	209.4	13.41	10.6	1.0253	236.6	867.5	236.62				16.3	93.8	1.1	-16.2
90.9	31257	80.9	0.18859	195.6	13.40	10.0	1.0000	238.8	890.0	238.76				15.8	87.2	-0.8	-15.8
91.0	31327	80.0	0.18925	193.2	13.39	9.9	0.9956	239.1	893.9	239.13				15.7	86.1	-1.1	-15.7
92.0	31917	75.6	0.19442	182.1	13.77	9.1	0.9590	239.8	918.2	239.78				15.1	81.3	-2.3	-14.9
93.0	32395	71.7	0.19839	173.3	13.98	8.5	0.9294	238.9	932.7	238.86				14.1	84.1	-1.4	-14.0
93.7	32817	66.1	0.20163	160.5	13.67	8.0	0.9031	237.7	944.2	237.65				15.7	90.8	0.2	-15.7
94.0	32994	63.7	0.20298	155.2	13.54	7.8	0.8921	237.1	949.0	237.15				16.4	93.2	0.9	-16.4
95.0	33548	56.0	0.20676	137.0	12.90	7.2	0.8573	236.1	966.6	236.09				17.5	93.3	1.0	-17.5
95.4	33742	53.7	0.20794	131.5	12.71	7.0	0.8451	236.0	974.1	235.98				19.1	93.5	1.2	-19.0
96.0	34045	50.2	0.20978	122.8	12.41	6.7	0.8261	235.8	985.6	235.82				21.4	93.8	1.4	-21.4
97.0	34694	45.4	0.21332	110.8	12.34	6.1	0.7853	236.7	1016.4	236.75				30.2	96.7	3.5	-29.9
97.2	34808	44.6	0.21387	108.6	12.30	6.0	0.7782	237.1	1022.6	237.07				29.6	96.7	3.5	-29.4
98.0	35414	40.0	0.21681	96.8	12.06	5.5	0.7404	238.7	1055.6	238.73				26.6	96.7	3.1	-26.4
99.0	35807	38.9	0.21856	93.7	12.41	5.2	0.7160	239.8	1077.4	239.78				19.7	107.0	5.7	-18.8
99.5	36082	36.9	0.21970	88.5	12.20	5.0	0.6990	240.4	1092.6	240.43				22.8	108.7	7.3	-21.6
100.0	36370	34.7	0.22088	83.1	11.98	4.8	0.6812	241.1	1108.4	241.10				26.0	110.0	8.9	-24.4
101.0	37312	29.6	0.22427	70.9	11.67	4.2	0.6232	240.8	1150.2	240.83				74.8	101.0	14.3	-73.5
101.7	37655	23.9	0.22524	57.5	9.85	4.0	0.6021	240.0	1162.2	239.97				999.9	999.9	999.9	999.9
102.0	37833	21.0	0.22574	50.5	8.90	3.9	0.5911	239.5	1168.4	239.52				999.9	999.9	999.9	999.9



071777
1708
3A-072
P
T
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
40 0 MICO/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 71877   LAUNCH TIME 0000 GMT   ECC SONDE 3A-074X

SURFACE CONDITIONS			
PRESS	1003.6 MB	003 = 34.2	TBOX CAL = 30.0 C AT 73.4 ORD
TEMP	299.5 K	OIZ = 33.9	BASE CAL = 30.0 C AT 73.2 ORD
HUMY	85.0 %	OZC = 60.4	HUMIDITY = 62.2 % AT 46.0 ORD
		IO = 0.059	
		PS = 27.6	

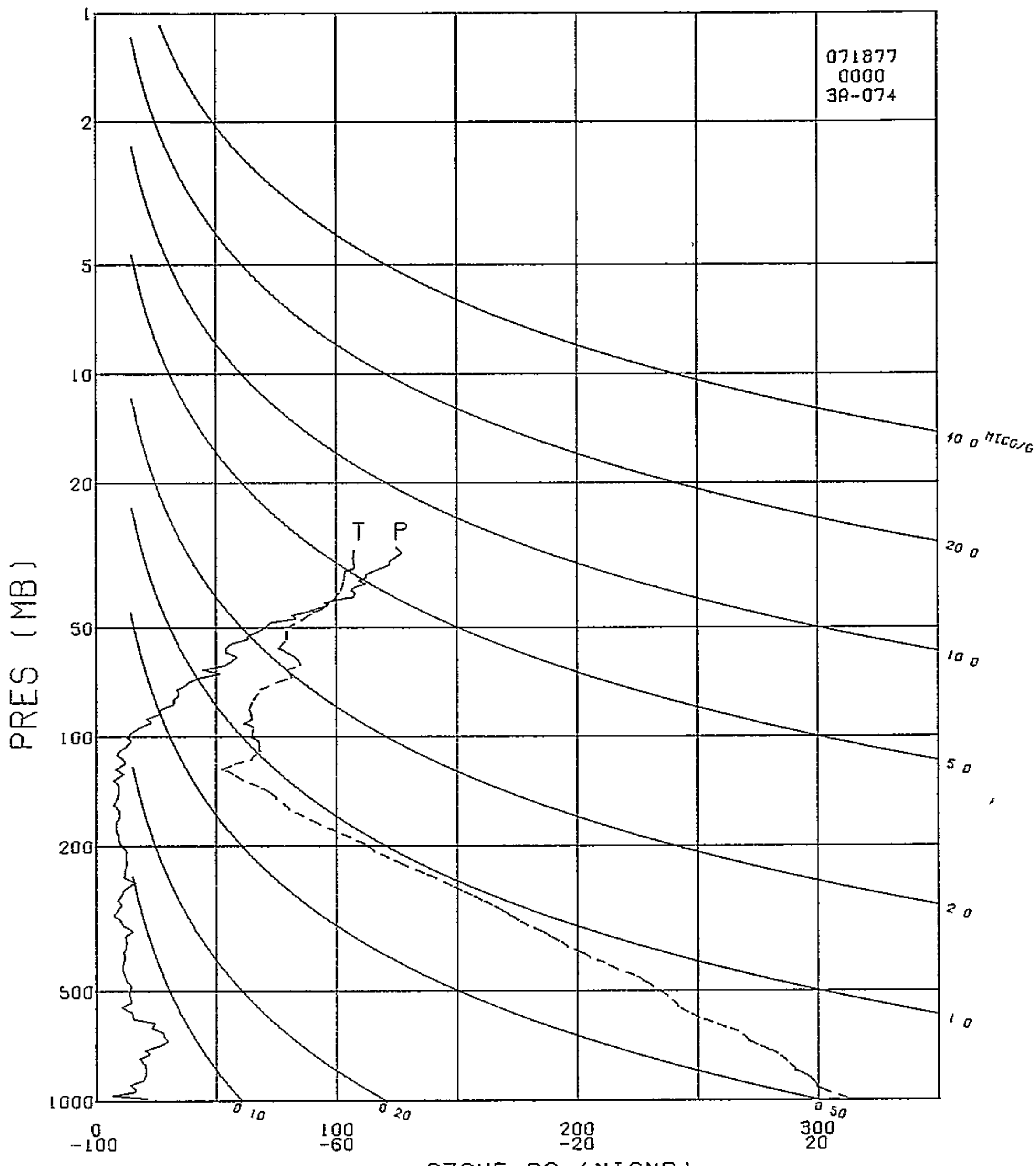
	PROFILE	DOBSON
INTEGRATED OZONE	0.08823	
RESIDUAL OZONE		
TOTAL OZONE		0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	22.4	0.	43.4	0.04	1003.6	3.0016	298.8	298.5	301.79	80.4	295.2	0.0165	3.0	30.0	-2.6	-1.5
0.2	84	22.4	0.00006	43.4	0.04	1000.0	3.0000	298.6	298.6	301.66	81.6	295.2	0.0168	3.7	25.9	-3.3	-1.6
1.0	245	22.4	0.00039	43.5	0.04	982.0	2.9921	297.8	299.4	300.99	87.3	295.6	0.0173	7.1	17.2	-6.8	-2.1
2.0	435	6.6	0.00063	12.9	0.01	961.0	2.9827	296.7	300.1	299.80	91.2	295.1	0.0172	8.1	17.7	-7.7	-2.5
3.0	637	15.8	0.00084	31.1	0.03	939.0	2.9727	294.2	299.5	297.03	94.2	293.2	0.0157	7.3	16.2	-7.0	-2.0
4.0	833	15.2	0.00112	30.0	0.03	918.0	2.9628	292.9	300.2	295.53	93.5	291.8	0.0147	5.3	6.3	-5.3	-0.6
4.9	1003	13.6	0.00134	26.9	0.03	900.0	2.9542	292.3	301.2	294.83	92.0	291.0	0.0142	3.7	5.8	-3.7	-0.4
5.0	1013	13.5	0.00135	26.8	0.02	899.0	2.9538	292.3	301.3	294.79	91.9	290.9	0.0142	3.6	5.8	-3.6	-0.4
6.0	1256	19.5	0.00172	38.5	0.04	874.0	2.9415	292.1	303.5	294.35	82.5	289.0	0.0129	3.4	23.7	-3.1	-1.3
6.8	1495	20.5	0.00216	40.6	0.04	850.0	2.9294	291.0	304.8	293.15	79.6	287.4	0.0118	2.4	24.6	-2.1	-1.0
7.0	1546	20.7	0.00226	41.0	0.04	845.0	2.9269	290.8	305.1	292.89	79.0	287.1	0.0118	2.1	24.9	-1.9	-0.9
8.0	1740	20.8	0.00263	41.5	0.04	826.0	2.9170	289.4	305.6	291.24	76.5	285.2	0.0107	3.1	54.5	-1.8	-2.5
9.0	1980	20.5	0.00309	40.8	0.04	803.0	2.9047	289.4	308.1	291.23	73.6	284.6	0.0105	6.3	65.3	-2.6	-5.7
9.1	2011	20.3	0.00315	40.5	0.04	800.0	2.9031	289.2	308.2	291.00	73.3	284.4	0.0103	6.4	66.6	-2.6	-5.9
10.0	2205	19.1	0.00350	38.4	0.04	782.0	2.8932	288.0	308.9	289.65	71.6	282.9	0.0096	7.4	73.1	-2.2	-7.1
11.0	2435	17.9	0.00390	35.9	0.04	761.0	2.8814	287.8	311.1	289.29	63.7	281.0	0.0087	7.3	75.5	-1.8	-7.1
12.0	2638	22.0	0.00428	44.4	0.05	742.9	2.8709	286.4	311.8	287.80	62.8	279.5	0.0080	6.4	67.9	-2.4	-5.9
13.0	2866	20.1	0.00473	40.8	0.05	723.0	2.8591	284.9	312.5	286.10	59.8	277.3	0.0071	5.2	49.0	-3.4	-3.9
14.0	3100	26.3	0.00524	53.6	0.06	703.0	2.8470	283.0	313.0	283.84	44.7	271.6	0.0048	4.1	43.0	-3.0	-2.8
14.2	3135	26.8	0.00534	54.7	0.06	700.0	2.8451	282.8	313.1	283.58	44.4	271.3	0.0047	4.1	44.7	-2.9	-2.9
15.0	3315	29.3	0.00581	60.2	0.07	685.0	2.8357	281.6	313.7	282.29	42.9	269.7	0.0043	4.0	53.8	-2.4	-3.2
16.0	3584	28.2	0.00655	58.0	0.07	663.0	2.8215	280.7	315.6	281.60	56.4	272.6	0.0055	4.9	73.4	-1.4	-4.7
17.0	3810	27.0	0.00715	55.8	0.07	645.0	2.8096	279.8	317.1	280.60	50.9	270.3	0.0048	5.7	85.4	-0.5	-5.6
18.0	4028	22.9	0.00768	47.5	0.06	628.0	2.7980	277.7	317.2	278.56	59.9	270.6	0.0050	6.5	78.5	-1.3	-6.4
19.0	4290	24.5	0.00828	51.4	0.07	608.0	2.7839	275.5	317.6	276.31	62.7	269.2	0.0047	6.3	87.7	-0.2	-6.3
19.5	4396	20.0	0.00849	42.0	0.06	600.0	2.7782	274.5	317.6	275.36	75.8	270.5	0.0055	6.0	95.5	0.6	-6.0
20.0	4505	15.4	0.00870	32.5	0.04	592.0	2.7723	273.4	317.6	274.38	89.1	271.8	0.0058	5.9	103.8	1.4	-5.8
21.0	4794	14.9	0.00913	31.7	0.04	571.0	2.7566	271.5	318.6	272.46	98.0	271.2	0.0058	4.9	97.8	0.7	-4.9
22.0	5077	10.1	0.00948	21.6	0.03	551.0	2.7412	269.8	319.9	270.67	99.0	269.7	0.0053	3.2	106.8	0.9	-3.1
23.0	5310	14.1	0.00977	30.2	0.04	535.0	2.7284	269.2	321.8	270.04	99.7	269.1	0.0053	5.0	122.5	2.7	-4.2
24.0	5580	13.6	0.01014	29.4	0.04	517.0	2.7135	268.1	323.7	268.71	72.9	264.0	0.0037	7.8	121.7	4.1	-6.7
25.0	5842	13.6	0.01050	29.3	0.05	500.0	2.6990	267.4	325.9	267.85	60.8	261.0	0.0030	9.3	118.8	4.5	-8.2
26.0	6096	14.4	0.01086	31.3	0.05	484.0	2.6846	265.6	326.8	266.02	61.8	259.5	0.0027	9.1	116.4	4.0	-8.1
27.0	6357	12.6	0.01122	27.6	0.04	468.0	2.6702	264.1	328.1	264.52	61.5	258.1	0.0025	9.0	119.1	4.4	-7.8
28.0	6649	11.5	0.01158	25.3	0.04	450.6	2.6538	262.5	329.7	262.89	61.4	256.6	0.0023	9.8	120.5	5.0	-8.5
29.0	6936	10.3	0.01190	23.0	0.04	434.0	2.6375	259.5	329.5	259.90	72.2	255.6	0.0022	10.7	115.5	4.6	-9.7
30.0	7239	11.1	0.01224	24.8	0.04	417.0	2.6201	257.6	330.7	257.94	79.5	254.9	0.0022	10.5	110.4	3.7	-9.9
31.0	7477	11.7	0.01252	26.4	0.05	404.0	2.6064	255.3	330.7	255.53	70.7	251.3	0.0016	9.7	107.5	2.9	-9.3
31.3	7551	11.5	0.01261	26.0	0.05	400.0	2.6021	254.9	331.1	255.11	70.5	250.8	0.0016	9.9	108.1	3.1	-9.4
32.0	7721	11.0	0.01282	25.0	0.05	391.0	2.5922	253.9	332.1	254.15	70.2	249.9	0.0015	10.2	109.5	3.4	-9.6
33.0	7991	12.5	0.01315	28.7	0.05	377.0	2.5763	251.5	332.3	251.69	71.2	247.7	0.0013	10.1	116.7	4.6	-9.1
34.0	8269	12.6	0.01353	29.2	0.06	363.0	2.5599	250.0	334.0	250.18	60.4	244.5	0.0010	9.2	122.0	4.8	-7.8
35.0	8493	11.9	0.01383	27.7	0.06	352.0	2.5465	248.6	335.0	248.69	55.6	242.3	0.0008	9.4	119.5	4.6	-8.2
35.2	8534	12.5	0.01389	29.0	0.06	350.0	2.5441	248.3	335.2	248.42	55.2	241.9	0.0008	9.6	118.3	4.5	-8.4
36.0	8723	15.0	0.01417	35.0	0.07	341.0	2.5328	247.1	336.0	247.21	53.5	240.5	0.0007	10.4	113.6	4.2	-9.5
37.0	8981	11.1	0.01454	26.3	0.06	329.0	2.5172	244.9	336.4	244.94	49.6	237.6	0.0006	11.3	114.0	4.6	-10.3
38.0	9224	9.9	0.01482	23.5	0.05	318.0	2.5024	243.3	337.5	243.33	33.9	232.5	0.0003	11.4	116.2	5.0	-10.2
39.0	9428	6.9	0.01501	16.4	0.04	309.0	2.4900	242.0	338.4	241.99	24.2	228.2	0.0002	10.8	114.3	4.4	-9.8
39.9	9636	8.7	0.01519	20.8	0.05	300.0	2.4771	240.8	339.6	240.79	20.3	225.6	0.0002	9.5	113.1	3.7	-8.7
40.0	9660	8.9	0.01521	21.3	0.05	299.0	2.4757	240.6	339.7	240.65				9.3	113.0	3.6	-8.6
41.0	9898	10.1	0.01547	24.5	0.06	289.0	2.4609	238.9	340.6	238.96	53.8	232.8	0.0004	8.0	111.5	2.9	-7.4
42.0	10118	8.8	0.01570	21.5	0.05	280.0	2.4472	237.2	341.2	237.22	65.9	233.1	0.0004	7.5	111.9	2.8	-7.0
43.0	10318	10.4	0.01592	25.5	0.06	272.0	2.4346	235.6	341.7	235.60	65.7	231.5	0.0004	6.3	99.0	1.0	-6.3
44.0	10523	11.1	0.01618	27.3	0.07	264.0	2.4216	233.9	342.2	233.96	56.2	228.5	0.0003	7.0	81.5	-1.0	-6.9
45.0	10733	13.5	0.01648	33.7	0.09	256.0	2.4082	232.1	342.6	232.14				6.9	72.3	-2.1	-6.6
46.0	10893	16.1	0.01675	40.2	0.11	250.0	2.3979	231.2	343.5	231.17				6.9	59.6	-3.5	-6.0
47.0	11098	11.5	0.01709	29.0	0.08	242.5	2.3847	229.4	343.8	229.35				7.2	57.4	-3.9	-6.1
48.0	11279	12.1	0.01734	30.6	0.08	236.0	2.3729	227.5	343.7	227.50				6.5	56.7	-3.6	-5.5
49.0	11441	12.1	0.01757	30.9	0.09	230.3	2.3623	226.3	344.3	226.35				6.3	59.5	-3.2	-5.4
50.0	11659	12.7	0.01790	32.8	0.09	222.8	2.3479	223.8	343.8	223.84				6.8	65.7	-2.8	-6.2
51.0	11921	12.2	0.01829	31.7	0.09	214.0	2.3304	221.7	344.4	221.71				6.1	55.8	-3.5	-5.1
52.0	12167	12.7	0.01867	33.6	0.10	206.0	2.3139	219.4	344.5	219.36				6.2	41.2	-4.7	-4.1
52.6	12355	10.9	0.01893	28.8	0.09	200.0	2.3010	218.4	345.9	218.40				5.7	31.6	-4.8	-3.0
53.0	12485	9.7	0.01911	25.6	0.08	196.0	2.2923	217.7	346.9	217.75				5.5	24.1	-5.0	-2.2
54.0	12749	9.3	0.01942	24.8	0.08	188.0	2.2742	215.2	347.0	215.24				4.7	350.3	-4.7	0.8
55.0	12986	8.0	0.01968	21.7	0.07	181.0	2.2577	213.0	347.1	212.97				2.8	11.0	-2.8	-0.5
56.0	13301	8.0	0.02000	22.0	0.08	172.0	2.2355	209.8	347.0	209.84				3.4	62.7	-1.6	-3.0
57.0	13577	9.8	0.02031	27.2	0.10	164.4	2.2159	207.5	347.6	207.49				4.3	75.5	-1.1	-4.2
58.0	13816	9.0	0.02061	25.4	0.09	158.0	2.1987	205.2	347.7	205.22				4.6	86.5	-0.3	-4.6
59.0	14009	7.1	0.02081	20.2	0.08	153.0	2.1847	204.8	350.1	204.79				4.6	79.1	-0.9	-4.5
59.5	14126	8.0	0.02094	22.7	0.09	150.0	2.1761	203.9	350.6	203.92				4.9	81.3	-0.7	-4.8
60.0	14247	8.9	0.02107	25.4	0.10	147.0	2.1673	203.0	351.1	203.03				5.2	83.2	-0.6	-5.2
61.0	14494	9.5	0.02137	27.2	0.11	141.0	2.1492	201.9	353.3	201.89				5.7	104.7	1.5	-5.5

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
62.0	14706	9.5	0.02164	27.5	0.12	136.0	2.1335	200.0	353.6	199.99				4.7	117.3	2.2	-4.2
63.0	14924	7.1	0.02189	20.8	0.09	131.0	2.1173	197.5	352.9	197.46				3.6	123.5	2.0	-3.0
64.0	15148	11.4	0.02217	33.6	0.15	126.0	2.1004	195.8	354.0	195.84				3.9	126.4	2.3	-3.2
64.2	15193	10.5	0.02223	30.9	0.14	125.0	2.0969	195.4	354.0	195.42				4.2	120.9	2.2	-3.6
65.0	15332	7.7	0.02241	22.8	0.10	122.0	2.0864	194.1	354.1	194.14				5.3	108.4	1.7	-5.1
66.0	15522	11.9	0.02267	34.9	0.17	118.0	2.0719	196.1	361.2	196.12				9.3	102.2	2.0	-9.1
67.0	15670	10.9	0.02290	31.6	0.16	115.0	2.0607	198.7	368.7	198.75				13.3	108.9	4.3	-12.6
68.0	15823	8.7	0.02311	25.4	0.13	112.0	2.0492	198.5	371.0	198.50				14.0	106.0	3.9	-13.5
69.0	15992	9.4	0.02331	27.0	0.14	108.8	2.0366	200.2	377.4	200.24				12.5	94.5	1.0	-12.5
70.0	16144	12.4	0.02354	35.7	0.19	106.0	2.0253	200.5	380.7	200.48				12.9	84.9	-1.1	-12.8
71.0	16323	14.2	0.02386	41.0	0.23	102.8	2.0120	200.2	383.6	200.24				14.6	74.7	-3.9	-14.1
71.9	16484	13.0	0.02416	37.8	0.22	100.0	2.0000	199.1	384.4	199.08				16.0	71.1	-5.2	-15.2
72.0	16496	12.9	0.02418	37.5	0.21	99.8	1.9991	199.0	384.4	199.00				16.1	70.9	-5.3	-15.2
73.0	16673	14.7	0.02451	42.6	0.25	96.8	1.9859	198.5	386.8	198.50				16.6	73.1	-4.8	-15.9
74.0	16862	18.2	0.02493	52.7	0.32	93.7	1.9717	199.3	391.9	199.25				15.6	75.7	-3.8	-15.1
75.0	17031	22.7	0.02540	66.2	0.41	91.0	1.9590	197.7	392.2	197.72				15.3	82.9	-1.9	-15.2
76.0	17186	20.9	0.02586	60.6	0.39	88.6	1.9474	199.0	397.7	199.00				13.7	89.4	-0.2	-13.7
77.0	17353	26.4	0.02640	76.2	0.51	86.1	1.9350	199.7	402.5	199.75				13.1	91.5	0.4	-13.1
78.0	17524	26.6	0.02701	77.5	0.53	83.6	1.9222	198.5	403.4	198.50				12.4	89.8	-0.1	-12.4
79.0	17693	31.7	0.02768	92.1	0.65	81.2	1.9096	198.7	407.2	198.75				12.8	85.5	-1.0	-12.8
79.5	17779	32.0	0.02806	92.7	0.66	80.0	1.9031	199.0	409.5	198.98				14.5	89.4	-0.2	-14.5
80.0	17882	32.3	0.02850	93.5	0.68	78.6	1.8954	199.3	412.1	199.25				16.4	92.9	0.8	-16.4
81.0	18071	34.5	0.02935	99.4	0.75	76.1	1.8814	200.2	418.0	200.24				19.0	100.1	3.3	-18.8
82.0	18259	33.2	0.03021	95.8	0.75	73.7	1.8675	200.5	422.3	200.48				18.1	101.5	3.6	-17.8
83.0	18396	36.8	0.03086	105.6	0.85	72.0	1.8573	201.4	427.2	201.43				17.0	107.1	5.0	-16.2
84.0	18563	39.0	0.03170	110.7	0.92	70.0	1.8451	203.5	435.0	203.48				16.8	106.2	4.7	-16.2
85.0	18710	43.2	0.03250	121.4	1.05	68.3	1.8344	205.6	442.7	205.64				15.1	93.7	1.0	-15.0
86.0	18861	51.3	0.03344	143.9	1.28	66.6	1.8235	205.8	446.4	205.85				15.3	87.5	-0.7	-15.3
87.0	19007	44.4	0.03435	125.1	1.13	65.0	1.8129	204.8	447.2	204.79				14.8	94.2	1.1	-14.8
88.0	19176	53.4	0.03544	148.9	1.40	63.2	1.8007	207.1	455.8	207.08				13.3	89.6	-0.1	-13.3
89.0	19321	56.2	0.03648	156.7	1.51	61.7	1.7903	207.1	459.0	207.08				14.0	77.0	-3.1	-13.7
90.0	19490	58.5	0.03774	163.9	1.62	60.0	1.7782	206.3	460.8	206.27				15.1	72.6	-4.5	-14.4
91.0	19663	54.0	0.03902	152.2	1.53	58.3	1.7657	204.8	461.3	204.79				17.1	71.6	-5.4	-16.2
92.0	19829	54.0	0.04020	153.3	1.58	56.7	1.7536	203.5	462.0	203.48				21.3	78.0	-4.4	-20.9
93.0	20010	56.3	0.04153	160.1	1.70	55.0	1.7404	203.0	465.0	203.03				22.7	90.2	0.1	-22.7
94.0	20186	63.0	0.04292	177.6	1.96	53.4	1.7275	204.8	473.0	204.79				21.6	99.6	3.6	-21.3
95.0	20322	63.2	0.04405	178.3	2.01	52.2	1.7177	204.8	476.1	204.79				21.4	100.3	3.8	-21.0
96.0	20449	66.9	0.04514	188.8	2.17	51.1	1.7084	204.6	478.5	204.57				21.3	101.0	4.1	-20.9
96.8	20579	69.4	0.04632	195.7	2.30	50.0	1.6990	204.7	481.9	204.74				21.7	102.8	4.8	-21.2
97.0	20615	70.1	0.04664	197.7	2.34	49.7	1.6964	204.8	482.8	204.79				21.9	103.3	5.0	-21.3
98.0	20823	72.6	0.04860	204.2	2.51	48.0	1.6812	205.2	488.7	205.22				25.8	101.8	5.3	-25.2
99.0	20963	82.8	0.05003	230.3	2.93	46.9	1.6712	207.7	497.8	207.69				26.7	96.9	3.2	-26.5
100.0	21094	80.8	0.05142	224.0	2.92	45.9	1.6618	208.3	502.3	208.29				23.1	96.4	2.6	-23.0
101.0	21215	87.2	0.05273	240.7	3.21	45.0	1.6532	209.3	507.6	209.26				25.1	96.1	2.7	-25.0
102.0	21339	91.3	0.05415	250.1	3.43	44.1	1.6444	210.8	514.2	210.78				28.5	94.0	2.0	-28.4
103.0	21466	96.0	0.05568	262.2	3.68	43.2	1.6355	211.3	518.6	211.34				28.1	94.3	2.1	-28.0
104.0	21581	94.8	0.05708	258.7	3.70	42.4	1.6274	211.5	521.8	211.52				28.8	94.4	2.2	-28.7
105.0	21699	100.1	0.05855	271.9	3.99	41.6	1.6191	212.6	527.4	212.61				27.9	94.7	2.3	-27.8
106.0	21820	107.0	0.06013	289.8	4.34	40.8	1.6107	213.1	531.7	213.15				26.5	90.9	0.4	-26.5
107.0	21943	107.8	0.06181	291.4	4.46	40.0	1.6021	213.5	535.6	213.50				27.3	86.8	-1.5	-27.3
108.0	22069	105.8	0.06351	285.5	4.47	39.2	1.5933	213.9	539.6	213.85				24.6	88.5	-0.6	-24.6
109.0	22214	107.4	0.06547	289.2	4.65	38.3	1.5832	214.4	544.5	214.38				24.8	88.4	-0.7	-24.8
110.0	22329	111.9	0.06706	300.9	4.93	37.6	1.5752	214.7	548.2	214.72				26.4	83.9	-2.8	-26.2
111.0	22447	108.6	0.06870	292.5	4.88	36.9	1.5670	214.4	550.3	214.38				25.7	81.0	-4.0	-25.4
112.0	22584	112.4	0.07061	302.8	5.16	36.1	1.5575	214.4	553.8	214.38				26.3	85.7	-2.0	-26.2
113.0	22706	112.3	0.07235	303.3	5.26	35.4	1.5490	213.9	555.5	213.85				27.0	87.9	-1.0	-27.0
113.6	22777	114.1	0.07337	307.4	5.40	35.0	1.5441	214.3	558.4	214.25				26.5	85.0	-2.3	-26.4
114.0	22831	115.4	0.07414	310.5	5.51	34.7	1.5403	214.6	560.5	214.55				26.1	82.7	-3.3	-25.9
115.0	22959	118.6	0.07602	317.0	5.78	34.0	1.5315	216.1	567.8	216.09				27.5	82.8	-3.4	-27.3
116.0	23090	121.9	0.07800	326.3	6.07	33.3	1.5224	215.8	570.3	215.75				31.8	83.5	-3.6	-31.6
117.0	23204	121.6	0.07974	326.0	6.16	32.7	1.5145	215.4	572.4	215.41				35.0	81.8	-5.0	-34.7
118.0	23340	123.7	0.08184	330.9	6.41	32.0	1.5051	215.9	577.3	215.92				32.8	83.1	-4.0	-32.6
119.0	23540	127.0	0.08498	339.0	6.79	31.0	1.4914	216.3	583.5	216.26				29.0	84.4	-2.8	-28.8
120.0	23747	124.6	0.08823	333.0	6.88	30.0	1.4771	216.1	588.5	216.09				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***

*** TOTAL INTEGRATED OZONE INVALID ***
*** BALLOON SHORT OF 20 MB HEIGHT ***



FT SHERMAN ECC

STATION FT SHERMAN LAUNCH DATE 71877 LAUNCH TIME 0424 GMT ECC SONDE 3A-075X

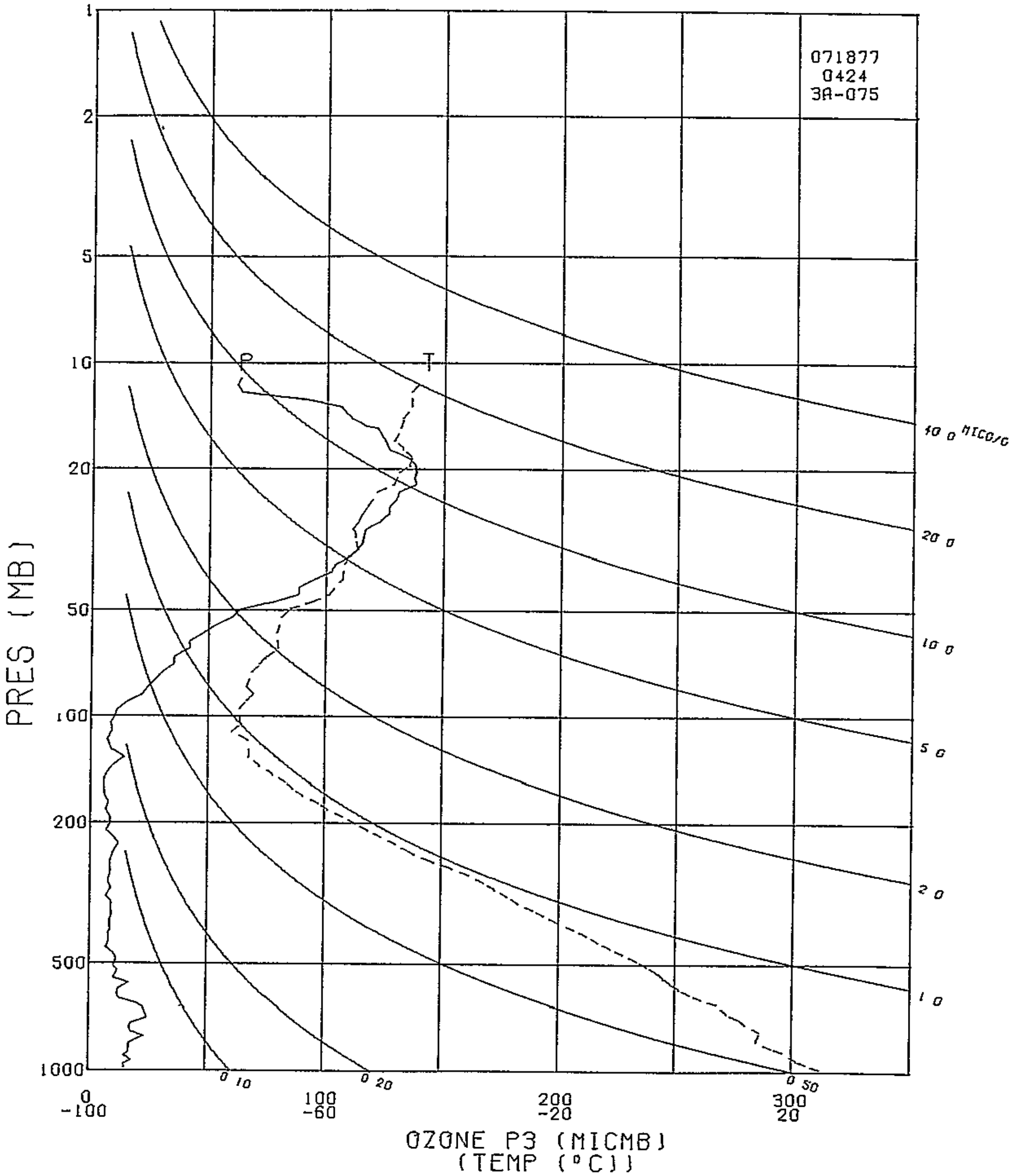
SURFACE CONDITIONS			
PRESS 1005.2 MB	003 = 36.3	TBOX CAL = 30.0 C	AT 73.9 ORD
TEMP 299.3 K	0IZ = 35.7	BASE CAL = 30.0 C	AT 73.7 ORD
HUMY 92.0 %	0ZC = 60.2	HUMIDITY = 61.9 %	AT 46.0 ORD
	IO = 0.126		
	PS = 27.6		

	PROFILE	DOBSON
INTEGRATED OZONE	0.17018	
RESIDUAL OZONE	0.04510	
TOTAL OZONE	0.21528	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMAR MICGG	PRESS MB	LOG PRLSS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	14.4	0.	27.8	0.02	1005.2	3.0023	298.7	298.3	302.05	89.6	296.9	0.0183	5.0	20.0	-4.7	-1.7
0.2	98	14.6	0.00006	28.3	0.02	1000.0	3.0000	298.5	298.5	301.87	90.9	296.9	0.0186	5.1	21.3	-4.8	-1.9
1.0	273	15.5	0.00030	30.1	0.03	980.4	2.9914	297.8	299.4	301.21	96.0	297.1	0.0190	5.7	25.7	-5.1	-2.5
2.0	531	14.8	0.00065	28.9	0.03	952.0	2.9786	295.4	299.6	298.53	97.1	294.9	0.0172	6.3	19.9	-5.9	-2.1
3.0	744	18.3	0.00097	35.9	0.03	929.0	2.9680	293.9	300.1	296.73	97.0	293.4	0.0160	4.8	2.0	-4.8	-0.2
4.0	994	14.8	0.00134	29.1	0.03	902.6	2.9555	293.9	302.6	296.71	93.7	292.8	0.0159	4.4	343.5	-4.2	1.3
4.1	1018	15.1	0.00138	29.6	0.03	900.0	2.9542	293.6	302.6	296.42	93.7	292.6	0.0155	4.3	343.7	-4.2	1.2
5.0	1233	17.3	0.00169	34.2	0.03	878.0	2.9435	291.5	302.5	293.99	94.1	290.5	0.0141	3.5	345.8	-3.4	0.9
6.0	1450	17.3	0.00204	34.4	0.03	856.0	2.9325	289.6	302.7	291.92	96.7	289.1	0.0132	2.6	356.9	-2.6	0.1
6.3	1509	17.1	0.00213	34.1	0.03	850.0	2.9294	289.3	303.1	291.65	97.1	288.9	0.0131	2.6	0.5	-2.6	-0.0
7.0	1641	16.7	0.00234	33.3	0.03	837.0	2.9227	288.8	303.8	291.06	98.1	288.5	0.0130	2.6	8.2	-2.6	-0.4
8.0	1846	19.3	0.00268	38.8	0.04	817.0	2.9122	286.8	303.8	288.44	80.0	283.4	0.0095	4.1	38.8	-3.2	-2.6
8.7	2023	22.3	0.00303	44.7	0.05	800.0	2.9031	287.5	306.4	289.14	73.5	282.8	0.0093	5.0	50.9	-3.1	-3.9
9.0	2087	23.3	0.00316	46.8	0.05	794.0	2.8998	287.8	307.4	289.40	71.1	282.6	0.0093	5.3	54.2	-3.1	-4.3
10.0	2324	18.0	0.00362	36.2	0.04	772.0	2.8876	287.6	309.6	288.92	58.2	279.5	0.0077	5.3	68.1	-2.0	-4.9
11.0	2568	17.4	0.00402	35.0	0.04	750.0	2.8751	286.4	310.9	287.75	61.9	279.2	0.0078	5.7	77.4	-1.3	-5.6
12.0	2818	18.1	0.00444	36.6	0.04	728.0	2.8621	284.8	311.9	285.85	49.8	274.7	0.0058	5.9	65.5	-2.5	-5.4
13.0	3086	24.3	0.00498	49.5	0.06	705.0	2.8482	283.7	313.5	284.41	36.8	269.5	0.0041	4.4	61.2	-2.1	-3.8
13.2	3145	24.2	0.00511	49.4	0.06	700.0	2.8451	283.2	313.6	284.02	41.1	270.4	0.0047	4.0	67.6	-1.5	-3.7
14.0	3325	23.9	0.00552	48.9	0.06	685.0	2.8357	281.8	314.0	282.80	54.2	273.1	0.0055	3.2	94.9	0.3	-3.2
15.0	3582	23.4	0.00610	47.8	0.06	664.0	2.8222	282.2	317.2	282.73	27.8	264.6	0.0030	4.6	102.8	1.0	-4.4
16.0	3847	19.9	0.00665	41.0	0.05	643.0	2.8082	280.1	317.7	280.99	57.0	272.1	0.0055	4.7	93.2	0.3	-4.7
17.0	4096	12.6	0.00704	26.3	0.03	623.7	2.7950	277.6	317.7	278.49	61.9	270.9	0.0052	3.9	98.7	0.6	-3.9
18.0	4329	12.0	0.00732	25.2	0.03	606.0	2.7825	275.6	318.0	276.37	62.3	269.1	0.0047	4.5	109.5	1.5	-4.3
18.3	4409	12.1	0.00742	25.5	0.03	600.0	2.7782	275.1	318.3	275.88	66.1	269.4	0.0049	5.1	109.9	1.7	-4.8
19.0	4613	12.5	0.00766	26.3	0.04	585.0	2.7672	273.8	319.1	274.63	75.9	270.0	0.0052	6.7	110.8	2.4	-6.3
20.0	4906	16.8	0.00808	35.5	0.05	564.0	2.7513	272.3	320.7	272.96	61.2	265.8	0.0039	7.8	113.3	3.1	-7.2
21.0	5164	10.1	0.00843	21.5	0.03	546.0	2.7372	271.1	322.2	271.74	69.6	266.3	0.0042	8.3	108.8	2.7	-7.8
22.0	5490	11.9	0.00879	25.6	0.04	524.0	2.7193	269.8	324.5	270.38	61.8	263.5	0.0035	8.5	108.5	2.7	-8.1
23.0	5765	10.1	0.00909	21.7	0.03	506.0	2.7042	268.3	325.9	268.77	59.2	261.5	0.0031	8.6	116.3	3.8	-7.7
23.3	5858	10.5	0.00919	22.6	0.03	500.0	2.6990	267.7	326.3	268.20	59.7	261.1	0.0030	9.0	117.6	4.2	-8.0
24.0	6065	11.3	0.00941	24.6	0.04	487.0	2.6875	266.5	327.3	266.92	60.9	260.2	0.0029	9.9	120.2	5.0	-8.5
25.0	6391	10.0	0.00977	21.8	0.04	467.0	2.6693	264.1	328.3	264.48	58.2	257.4	0.0024	10.0	118.5	4.8	-8.8
26.0	6694	6.9	0.01003	15.2	0.03	449.0	2.6522	261.9	329.3	262.28	60.8	255.9	0.0022	8.6	117.6	4.0	-7.7
27.0	6989	8.2	0.01026	18.3	0.03	432.0	2.6355	259.8	330.2	260.11	60.8	253.9	0.0019	7.8	112.6	3.0	-7.2
28.0	7311	7.6	0.01052	17.1	0.03	414.0	2.6170	257.9	331.7	258.11	58.1	251.5	0.0016	7.5	105.6	2.0	-7.2
28.9	7569	8.7	0.01075	19.6	0.04	400.0	2.6021	255.9	332.5	256.16	59.5	250.0	0.0014	7.1	104.2	1.8	-6.9
29.0	7607	8.8	0.01078	19.9	0.04	398.0	2.5999	255.7	332.6	255.88	59.7	249.7	0.0014	7.1	104.0	1.7	-6.9
30.0	7971	8.2	0.01111	18.8	0.04	379.0	2.5786	252.7	333.4	252.86	60.0	247.0	0.0012	6.7	101.3	1.3	-6.6
31.0	8288	9.4	0.01141	21.6	0.04	363.0	2.5599	250.4	334.5	250.56	58.6	244.6	0.0010	6.8	109.7	2.3	-6.4
32.0	8554	8.6	0.01166	20.0	0.04	350.0	2.5441	248.6	335.5	248.67	52.7	241.7	0.0008	8.0	110.9	2.9	-7.5
33.0	8849	9.2	0.01195	21.6	0.05	336.0	2.5263	246.1	336.0	246.10	28.3	233.2	0.0003	9.8	102.1	2.1	-9.6
34.0	9176	6.7	0.01224	15.6	0.03	321.0	2.5065	244.2	337.9	244.22				10.1	102.3	2.1	-9.8
35.0	9493	8.6	0.01251	20.6	0.05	307.0	2.4871	242.1	339.3	242.15	27.6	229.5	0.0003	11.8	103.7	2.8	-11.4
35.5	9655	8.0	0.01265	19.2	0.04	300.0	2.4771	241.2	340.2	241.23				12.0	101.1	2.3	-11.8
36.0	9822	7.4	0.01280	17.8	0.04	293.0	2.4669	240.3	341.2	240.28				12.3	98.6	1.8	-12.2
37.0	10189	8.6	0.01314	20.9	0.05	278.0	2.4440	237.5	342.4	237.50				9.1	90.5	0.1	-9.1
38.0	10504	8.7	0.01345	21.3	0.05	265.6	2.4242	234.4	342.4	234.43				7.5	79.6	-1.4	-7.4
39.0	10808	8.7	0.01375	21.6	0.06	254.0	2.4048	231.0	341.8	231.03				9.0	74.5	-2.4	-8.7
39.3	10914	9.0	0.01387	22.7	0.06	250.0	2.3979	230.1	341.9	230.06				9.0	72.8	-2.7	-8.6
40.0	11188	10.0	0.01417	25.3	0.07	240.0	2.3802	227.5	342.1	227.55				9.2	68.3	-3.4	-8.6
41.0	11519	11.9	0.01460	30.4	0.09	228.3	2.3585	225.3	343.5	225.26				8.5	58.0	-4.5	-7.2
42.0	11821	9.3	0.01498	24.2	0.07	218.0	2.3385	222.8	344.2	222.75				7.7	57.6	-4.1	-6.5
43.0	12094	6.6	0.01525	17.4	0.05	209.0	2.3201	220.5	344.8	220.48				6.4	62.2	-3.0	-5.7
44.0	12376	8.6	0.01551	22.6	0.07	200.0	2.3010	218.4	346.0	218.44				6.7	62.0	-3.1	-5.9
45.0	12669	7.9	0.01581	21.1	0.07	191.0	2.2810	216.2	346.9	216.18				6.2	48.6	-4.1	-4.7
46.0	12938	6.4	0.01605	17.3	0.06	183.0	2.2625	213.6	347.1	213.65				4.9	49.0	-3.2	-3.7
47.0	13216	7.6	0.01630	20.8	0.07	175.0	2.2430	211.9	348.6	211.89				4.9	74.7	-1.3	-4.7
48.0	13504	5.7	0.01655	15.8	0.06	167.0	2.2227	209.3	349.0	209.32				3.9	89.2	-0.1	-3.9
49.0	13765	5.7	0.01674	16.0	0.06	160.0	2.2041	207.6	350.4	207.59				4.2	92.4	0.2	-4.2
50.0	14036	5.1	0.01693	14.3	0.06	153.0	2.1847	206.2	352.5	206.19				7.1	93.9	0.5	-7.1
50.4	14154	5.6	0.01702	15.9	0.06	150.0	2.1761	205.3	353.0	205.31				7.9	102.2	1.7	-7.7
51.0	14317	6.4	0.01715	18.1	0.07	146.0	2.1644	204.1	353.7	204.11				9.1	111.2	3.3	-8.5
52.0	14652	8.9	0.01749	25.6	0.11	138.0	2.1399	201.9	355.6	201.91				9.8	124.9	5.6	-8.0
53.0	15003	14.0	0.01803	40.5	0.18	130.0	2.1139	200.1	358.4	200.06				7.9	111.8	2.9	-7.3
53.8	15232	9.7	0.01838	28.1	0.13	125.0	2.0969	199.9	362.0	199.86				10.5	95.2	1.0	-10.5
54.0	15279	8.9	0.01846	25.6	0.12	124.0	2.0934	199.8	362.8	199.82				11.1	92.8	0.5	-11.1
55.0	15669	6.9	0.01887	20.0	0.10	116.0	2.0645	199.6	369.3	199.58				14.2	99.3	2.3	-14.0
56.0	15977	8.8	0.01920	25.7	0.13	110.0	2.0414	197.1	370.3	197.08				12.2	104.8	3.1	-11.8
57.0	16257	8.1	0.01952	23.6	0.13	104.8	2.0204	198.6	378.3	198.60				10.7	89.4	-0.1	-10.7
58.0	16529	10.0	0.01986	29.2	0.17	100.0	2.0000	198.4	383.0	198.35				13.3	74.0	-3.7	-12.8
59.0	16826	11.2	0.02029	32.6	0.20	95.0	1.9777	198.4	388.6	198.35				14.9	80.2	-2.5	-14.7
60.0	17141	16.0	0.02087	46.3	0.29	90.0	1.9542	199.6	397.1	199.58				14.2	95.8	1.4	-14.1

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
61.0	17407	22.0	0.02155	63.4	0.42	86.0	1.9345	200.8	404.7	200.77				15.7	100.9	3.0	-15.4
62.0	17686	24.0	0.02242	69.5	0.49	82.0	1.9138	199.6	407.8	199.58				15.9	94.7	1.3	-15.9
62.5	17829	25.7	0.02291	74.4	0.53	80.0	1.9031	199.6	410.7	199.58				14.7	91.3	0.3	-14.7
63.0	17955	27.2	0.02335	78.6	0.58	78.3	1.8938	199.6	413.2	199.58				13.7	88.0	-0.5	-13.7
64.0	18246	30.0	0.02447	86.4	0.67	74.5	1.8722	200.5	421.1	200.53				17.3	88.2	-0.5	-17.3
65.0	18546	35.0	0.02578	100.0	0.82	70.8	1.8500	201.9	430.3	201.91				18.7	94.7	1.5	-18.6
65.2	18613	35.0	0.02609	100.1	0.83	70.0	1.8451	202.2	432.2	202.16				17.2	94.6	1.4	-17.1
66.0	18846	35.3	0.02718	100.3	0.87	67.3	1.8280	203.0	438.9	203.03				12.0	93.6	0.8	-11.9
67.0	19165	41.3	0.02880	116.4	1.07	63.8	1.8048	205.0	449.9	204.95				10.2	84.9	-0.9	-10.2
68.0	19464	41.8	0.03043	117.8	1.14	60.7	1.7832	205.0	456.4	204.95				11.6	89.7	-0.1	-11.6
68.2	19533	43.2	0.03084	121.6	1.19	60.0	1.7782	204.9	457.8	204.91				12.4	88.7	-0.3	-12.4
69.0	19757	47.4	0.03215	133.8	1.36	57.8	1.7619	204.7	462.3	204.75				15.1	86.1	-1.0	-15.1
70.0	20076	52.7	0.03426	148.6	1.59	54.8	1.7388	204.7	469.4	204.75				22.2	89.7	-0.1	-22.2
71.0	20391	60.0	0.03659	168.5	1.91	52.0	1.7160	205.6	478.4	205.58				24.3	99.2	3.9	-24.0
71.7	20627	62.8	0.03851	175.4	2.08	50.0	1.6990	206.6	486.3	206.62				22.3	100.5	4.0	-22.0
72.0	20713	63.8	0.03919	177.9	2.14	49.3	1.6928	207.0	489.1	206.99				21.6	101.0	4.1	-21.2
73.0	21005	76.9	0.04185	210.5	2.71	47.0	1.6721	210.8	505.0	210.80				24.9	96.7	2.9	-24.7
74.0	21289	87.6	0.04481	236.7	3.23	44.9	1.6522	213.6	518.5	213.65				29.7	93.9	2.0	-29.6
75.0	21603	88.3	0.04830	238.6	3.43	42.7	1.6304	213.8	526.4	213.82				28.5	94.4	2.2	-28.4
76.0	21904	94.5	0.05176	252.8	3.85	40.7	1.6096	215.8	538.8	215.85				29.1	93.3	1.7	-29.1
76.3	22013	97.1	0.05310	259.8	4.03	40.0	1.6021	215.8	541.3	215.79				29.4	91.6	0.8	-29.4
77.0	22222	102.1	0.05567	273.2	4.37	38.7	1.5877	215.7	546.2	215.68				30.0	88.6	-0.7	-29.9
78.0	22540	103.9	0.05976	277.2	4.68	36.8	1.5658	216.3	555.8	216.34				29.8	88.4	-0.8	-29.8
79.0	22858	110.3	0.06399	293.4	5.22	35.0	1.5441	217.0	565.5	217.00				31.8	88.3	-0.9	-31.8
80.0	23099	112.9	0.06733	298.4	5.55	33.7	1.5276	218.4	575.5	218.44				31.7	86.8	-1.8	-31.7
81.0	23390	115.4	0.07143	304.8	5.94	32.2	1.5079	218.6	583.4	218.60				30.8	86.4	-1.9	-30.7
82.0	23632	115.8	0.07489	306.5	6.19	31.0	1.4914	218.1	588.5	218.13				32.2	87.7	-1.3	-32.1
82.6	23841	116.3	0.07790	308.2	6.43	30.0	1.4771	217.8	593.2	217.83				32.3	88.5	-0.9	-32.3
83.0	23970	116.6	0.07975	309.3	6.57	29.4	1.4683	217.6	596.2	217.64				32.4	88.9	-0.6	-32.4
84.0	24281	122.5	0.08435	323.4	7.25	28.0	1.4472	218.6	607.2	218.60				33.2	93.2	1.9	-33.1
85.0	24609	126.4	0.08939	332.8	7.87	26.6	1.4249	219.2	617.9	219.23				32.0	95.0	2.8	-31.9
86.0	24931	126.7	0.09439	332.2	8.30	25.3	1.4031	220.2	629.5	220.17				26.1	94.4	2.0	-26.0
86.3	25007	127.5	0.09560	334.3	8.46	25.0	1.3979	220.3	631.9	220.25				25.8	95.1	2.3	-25.7
87.0	25217	129.7	0.09889	339.8	8.88	24.2	1.3838	220.5	638.5	220.48				25.2	96.9	3.0	-25.0
88.0	25546	130.8	0.10411	340.3	9.42	23.0	1.3617	221.9	651.8	221.85				28.8	96.4	3.2	-28.6
89.0	25836	137.6	0.10882	353.7	10.36	22.0	1.3424	224.5	668.1	224.53				26.5	88.8	-0.6	-26.5
90.0	26079	137.1	0.11283	352.3	10.71	21.2	1.3263	224.7	675.7	224.67				17.6	81.4	-2.6	-17.4
91.0	26365	137.9	0.11754	353.1	11.26	20.3	1.3075	225.5	686.8	225.55				11.9	86.0	-0.8	-11.8
91.4	26463	137.9	0.11916	352.1	11.43	20.0	1.3010	226.1	691.5	226.13				12.3	82.7	-1.6	-12.2
92.0	26631	137.8	0.12192	350.3	11.71	19.5	1.2900	227.1	699.6	227.12				13.2	77.6	-2.8	-12.9
93.0	26981	134.7	0.12758	341.8	12.07	18.5	1.2672	227.5	711.5	227.55				16.8	61.8	-7.9	-14.8
94.0	27350	126.5	0.13330	323.0	11.98	17.5	1.2430	226.1	718.3	226.12				18.8	57.2	-10.2	-15.8
95.0	27738	124.2	0.13912	319.1	12.47	16.5	1.2175	224.7	725.8	224.67				21.0	69.4	-7.4	-19.6
96.0	28279	120.9	0.14706	309.3	13.18	15.2	1.1818	225.7	746.4	225.69				17.2	63.9	-7.5	-15.4
97.0	28366	116.0	0.14829	296.8	12.82	15.0	1.1761	225.7	749.3	225.69				15.1	64.0	-6.6	-13.6
98.0	28682	110.1	0.15256	281.1	12.76	14.3	1.1553	226.1	761.0	226.12				19.7	88.7	-0.4	-19.7
99.0	28917	107.6	0.15561	274.8	12.92	13.8	1.1399	226.1	768.8	226.12				17.5	103.2	4.0	-17.0
100.0	29212	105.2	0.15935	266.8	13.20	13.2	1.1206	227.5	783.5	227.55				15.5	101.2	3.0	-15.2
101.0	29522	91.1	0.16295	230.9	11.98	12.6	1.1004	227.8	795.0	227.83				15.1	89.0	-0.3	-15.1
101.2	29575	86.5	0.16343	219.3	11.45	12.5	1.0969	227.8	796.7	227.78				14.8	89.7	-0.1	-14.8
102.0	29847	63.1	0.16592	160.1	8.71	12.0	1.0792	227.5	805.2	227.55				13.3	93.9	0.9	-13.3
103.0	30131	61.3	0.16801	155.3	8.84	11.5	1.0607	228.1	817.0	228.11				13.5	103.9	3.2	-13.1
104.0	30428	62.9	0.17018	158.1	9.47	11.0	1.0414	229.5	832.5	229.51				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN LAUNCH DATE 71877 LAUNCH TIME 1049 GMT ECC SONDE 3A-076X

SURFACE CONDITIONS
PRESS 1003.2 MB
TEMP 298.9 K
HUMY 87.0 %

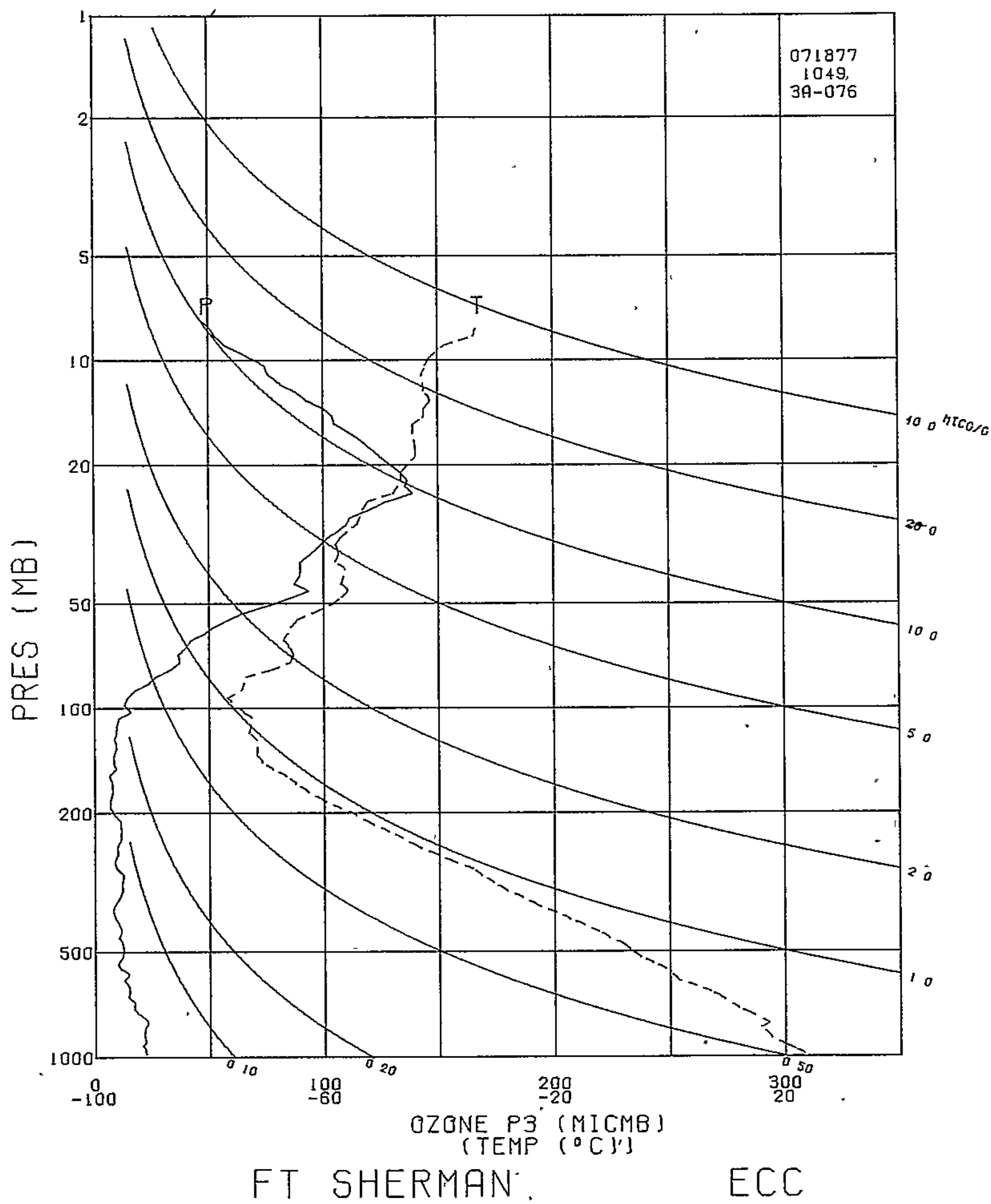
OO3 = 32.6
OIZ = 32.2
OZC = 63.2
IO = 0.067
PS = 27.5

TBOX CAL = 30.0 C AT 73.8 ORD
BASE CAL = 30.0 C AT 74.2 ORD
HUMIDITY = 62.0 % AT 46.0 ORD

	PROFILE	DOBSON
INTEGRATED OZONE	0.18670	
RESIDUAL OZONE	0.03247	
TOTAL OZONE	0.21917	0.

TIME MIN	ALT GP M	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	20.9	0.	40.4	0.03	1003.2	3.0014	298.4	298.1	301.45	83.7	295.4	0.0168	3.0	30.0	-2.6	-1.5
0.1	81	21.0	0.00005	40.7	0.03	1000.0	3.0000	298.1	298.1	301.22	84.9	295.4	0.0169	3.5	32.0	-2.9	-1.8
1.0	276	22.0	0.00043	42.9	0.04	978.0	2.9903	296.5	298.4	299.57	93.0	295.3	0.0171	6.7	38.1	-5.3	-4.1
2.0	539	21.6	0.00095	42.3	0.04	949.0	2.9773	294.8	299.3	297.79	95.3	294.0	0.0163	10.0	25.4	-9.1	-4.3
3.0	771	20.4	0.00139	40.1	0.04	924.0	2.9657	293.3	300.0	295.97	94.3	292.3	0.0150	8.1	20.2	-7.6	-2.8
3.9	997	21.9	0.00183	43.2	0.04	900.0	2.9542	292.7	301.6	294.97	81.9	289.5	0.0127	6.4	359.1	-6.4	0.1
4.0	1017	22.0	0.00187	43.5	0.04	898.0	2.9533	292.6	301.7	294.88	80.8	289.2	0.0127	6.3	356.9	-6.3	0.3
5.0	1259	20.9	0.00235	41.5	0.04	873.0	2.9410	290.4	301.9	292.57	84.4	287.8	0.0119	5.5	333.7	-4.9	2.4
6.0	1477	21.4	0.00277	42.7	0.04	851.0	2.9299	289.8	303.5	292.09	91.9	288.5	0.0128	5.3	351.1	-5.3	0.8
6.0	1487	21.4	0.00279	42.7	0.04	850.0	2.9294	289.8	303.6	292.06	92.1	288.5	0.0128	5.3	352.2	-5.3	0.7
7.0	1773	21.6	0.00336	43.1	0.04	822.0	2.9149	289.0	305.6	291.34	97.6	288.6	0.0134	6.1	19.4	-5.7	-2.0
7.9	2004	22.6	0.00383	44.9	0.05	800.0	2.9031	290.1	309.2	291.52	54.2	280.4	0.0074	6.3	35.5	-5.2	-3.7
8.0	2036	22.7	0.00390	45.2	0.05	797.0	2.9015	290.2	309.7	291.54	48.2	279.2	0.0073	6.4	37.5	-5.1	-3.9
9.0	2296	21.5	0.00443	43.0	0.05	773.0	2.8882	289.4	311.5	290.91	57.3	280.9	0.0085	6.1	51.1	-3.8	-4.8
10.0	2574	18.6	0.00495	37.4	0.04	748.0	2.8739	287.0	311.8	288.37	61.5	279.7	0.0081	6.3	81.0	-1.0	-6.2
11.0	2848	16.7	0.00541	33.9	0.04	724.0	2.8597	285.0	312.5	286.25	60.6	277.6	0.0072	7.1	108.4	2.3	-6.8
11.9	3130	17.1	0.00586	34.5	0.04	700.0	2.8451	285.2	315.8	286.46	59.4	277.5	0.0074	6.8	126.8	4.1	-5.4
12.0	3154	17.1	0.00589	34.6	0.04	698.0	2.8439	285.2	316.0	286.47	59.3	277.5	0.0074	6.8	128.4	4.2	-5.3
13.0	3455	14.3	0.00634	29.3	0.04	673.2	2.8281	282.0	315.7	283.08	62.0	275.1	0.0065	7.1	130.8	4.7	-5.4
14.0	3770	14.9	0.00678	30.7	0.04	648.0	2.8116	280.1	317.1	281.17	62.6	273.5	0.0060	7.2	117.5	3.3	-6.4
15.0	4066	14.2	0.00720	29.6	0.04	625.0	2.7959	277.7	317.6	278.57	62.6	271.2	0.0053	6.9	111.1	2.5	-6.5
16.0	4382	12.4	0.00761	26.2	0.03	601.1	2.7789	274.5	317.4	275.29	71.4	269.9	0.0050	7.7	117.2	3.5	-6.9
16.0	4396	12.5	0.00763	26.4	0.03	600.0	2.7782	274.5	317.6	275.28	71.0	269.8	0.0049	7.8	117.8	3.6	-6.9
17.0	4697	14.7	0.00803	30.9	0.04	578.0	2.7619	274.3	320.8	275.04	62.3	267.9	0.0044	8.4	128.1	5.2	-6.6
18.0	4993	11.0	0.00840	23.3	0.03	557.0	2.7459	272.2	321.7	272.83	62.2	265.9	0.0039	8.3	126.4	4.9	-6.7
19.0	5284	9.8	0.00870	21.0	0.03	537.0	2.7300	270.1	322.6	270.69	61.8	263.8	0.0035	9.0	116.9	4.1	-8.0
20.0	5583	11.7	0.00902	25.1	0.04	517.0	2.7135	267.9	323.5	268.52	70.3	263.4	0.0035	9.0	119.9	4.5	-7.8
20.8	5844	12.3	0.00934	26.6	0.04	500.0	2.6990	266.6	324.9	267.04	63.4	260.8	0.0028	7.8	117.7	3.6	-6.9
21.0	5923	12.5	0.00944	27.1	0.04	495.0	2.6946	266.1	325.4	266.59	61.3	260.0	0.0028	7.4	117.0	3.4	-6.6
22.0	6227	12.2	0.00982	26.5	0.04	476.0	2.6776	265.1	327.7	265.52	59.9	258.7	0.0026	5.9	100.2	1.0	-5.8
23.0	6593	10.3	0.01024	22.6	0.04	454.0	2.6571	262.5	328.9	262.81	58.3	255.9	0.0022	4.5	101.6	0.9	-4.4
24.0	6885	11.5	0.01057	25.4	0.04	437.0	2.6405	260.8	330.3	261.06	58.0	254.2	0.0019	3.8	107.9	1.2	-3.6
25.0	7223	10.2	0.01095	22.8	0.04	418.0	2.6212	258.1	331.1	258.33	55.6	251.2	0.0016	4.0	91.4	0.1	-4.0
26.0	7498	8.9	0.01122	20.1	0.04	403.0	2.6053	255.7	331.6	255.93	49.4	247.7	0.0012	5.2	83.5	-0.6	-5.2
26.2	7553	8.7	0.01127	19.6	0.04	400.0	2.6021	255.4	331.8	255.53	49.1	247.3	0.0011	5.4	84.9	-0.5	-5.3
27.0	7838	7.6	0.01152	17.4	0.03	385.0	2.5855	253.3	332.7	253.46	47.3	245.0	0.0010	6.2	91.1	0.1	-6.2
28.0	8191	8.4	0.01182	19.4	0.04	367.0	2.5647	250.0	332.9	250.08	43.6	241.1	0.0007	7.9	95.6	0.8	-7.9
28.9	8536	10.5	0.01218	24.5	0.05	350.0	2.5441	247.7	334.4	247.82	34.4	236.6	0.0004	9.8	97.5	1.3	-9.7
29.0	8578	10.8	0.01222	25.1	0.05	348.0	2.5416	247.5	334.6	247.54	33.3	236.1	0.0004	10.0	97.7	1.3	-9.9
30.0	8917	12.0	0.01265	28.2	0.06	332.0	2.5211	244.5	335.0	244.52	33.3	233.4	0.0004	10.1	107.0	3.0	-9.7
31.0	9269	11.9	0.01311	28.4	0.06	316.0	2.4997	242.5	337.0	242.55	27.5	229.9	0.0003	8.9	108.0	2.8	-8.5
32.0	9589	12.5	0.01355	30.1	0.07	302.0	2.4800	240.4	338.5	240.45	21.7	225.9	0.0002	8.5	100.9	1.6	-8.3
32.1	9635	12.1	0.01361	29.1	0.07	300.0	2.4771	240.2	338.8	240.22	22.0	225.8	0.0002	8.4	100.3	1.5	-8.3
33.0	9914	9.6	0.01395	23.1	0.05	288.3	2.4598	238.9	340.8	238.88	23.8	225.4	0.0002	8.1	96.7	1.0	-8.0
34.0	10239	8.6	0.01429	21.1	0.05	275.1	2.4395	235.6	340.6	235.58	20.6	221.3	0.0001	8.2	77.3	-1.8	-8.0
35.0	10573	9.8	0.01464	24.3	0.06	262.0	2.4183	232.6	341.1	232.63				9.6	70.0	-3.3	-9.0
35.9	10889	9.8	0.01500	24.6	0.06	250.0	2.3979	229.6	341.2	229.61				8.8	70.6	-2.9	-8.3
36.0	10944	9.8	0.01507	24.6	0.07	248.0	2.3945	229.1	341.2	229.09				8.6	70.8	-2.8	-8.1
37.0	11275	11.5	0.01548	29.3	0.08	236.0	2.3729	226.7	342.5	226.73				7.2	63.8	-3.2	-6.4
38.0	11590	11.5	0.01592	29.5	0.08	225.0	2.3522	224.3	343.5	224.30				7.4	64.4	-3.2	-6.6
39.0	11947	11.4	0.01641	29.7	0.09	213.0	2.3284	221.2	344.1	221.21				7.7	67.1	-3.0	-7.1
40.0	12288	8.5	0.01682	22.3	0.07	202.0	2.3054	218.6	345.3	218.62				6.5	67.8	-2.4	-6.0
40.2	12351	8.1	0.01688	21.3	0.07	200.0	2.3010	218.1	345.4	218.06				6.2	66.9	-2.5	-5.7
41.0	12578	6.6	0.01710	17.7	0.06	193.0	2.2856	216.1	345.7	216.07				5.5	63.1	-2.5	-4.9
42.0	12912	6.8	0.01738	18.4	0.06	183.0	2.2625	212.9	345.9	212.90				6.5	55.5	-3.7	-5.4
43.0	13296	7.9	0.01774	21.6	0.08	172.0	2.2355	210.1	347.4	210.08				6.3	62.3	-3.0	-5.6
44.0	13587	7.2	0.01802	20.1	0.07	164.0	2.2148	208.2	349.0	208.22				5.6	79.2	-1.0	-5.5
45.0	13890	6.0	0.01828	16.9	0.06	156.0	2.1931	206.5	351.1	206.49				5.9	90.4	0.0	-5.9
45.9	14125	8.5	0.01851	24.0	0.09	150.0	2.1761	204.6	351.8	204.59				6.1	90.3	0.0	-6.1
46.0	14166	8.9	0.01855	25.2	0.10	149.0	2.1732	204.3	351.9	204.26				6.1	90.3	0.0	-6.1
47.0	14410	7.9	0.01882	22.5	0.09	143.0	2.1553	202.3	352.7	202.35				6.1	97.7	0.8	-6.0
48.0	14706	8.4	0.01915	24.0	0.10	136.0	2.1335	201.5	356.2	201.46				7.3	118.9	3.5	-6.4
49.0	15017	9.5	0.01952	27.3	0.12	129.0	2.1106	201.2	361.3	201.24				6.3	107.8	1.9	-6.0
49.7	15202	8.7	0.01974	25.0	0.12	125.0	2.0969	201.2	364.5	201.24				5.5	87.0	-0.3	-5.5
50.0	15297	8.3	0.01985	23.9	0.11	123.0	2.0899	201.2	366.2	201.24				5.5	74.8	-1.4	-5.3
51.0	15590	9.5	0.02021	27.4	0.13	117.0	2.0682	200.1	369.4	200.10				6.6	78.6	-1.3	-6.4
52.0	15845	9.7	0.02054	28.0	0.14	112.0	2.0492	199.4	372.7	199.39				10.9	88.1	-0.4	-10.9
53.0	16167	10.6	0.02098	30.6	0.17	106.0	2.0253	200.6	380.8	200.56				13.0	87.7	-0.5	-13.0
54.0	16369	15.5	0.02133	44.9	0.25	102.4	2.0103	199.2	381.9	199.15				12.1	82.6	-1.6	-12.0
54.5	16506	14.1	0.02160	40.9	0.23	100.0	2.0000	199.0	384.3	199.04				13.4	84.8	-1.2	-13.4
55.0	16648	12.7	0.02187	36.9	0.22	97.6	1.9894	198.9	386.7	198.92				14.9	86.6	-0.9	-14.8
56.0	16939	14.3	0.02240	42.2	0.26	92.8	1.9675	196.2	386.9	196.17				17.1	97.2	2.2	-17.0
57.0	17239	17.6	0.02306	51.1	0.33	88.1	1.9450	198.7	397.7	198.68				14.3	104.6	3.6	-13.9

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	17489	23.4	0.02375	67.9	0.46	84.4	1.9263	199.4	404.1	199.39				11.5	98.4	1.7	-11.4
59.0	17750	26.6	0.02464	76.9	0.55	80.7	1.9069	199.6	409.8	199.63				9.6	86.9	-0.5	-9.5
59.2	17801	27.8	0.02484	80.0	0.58	80.0	1.9031	200.4	412.5	200.45				9.8	84.9	-0.9	-9.7
60.0	18027	32.9	0.02574	93.2	0.71	77.0	1.8865	204.1	424.5	204.05				10.7	77.3	-2.4	-10.5
61.0	18299	37.0	0.02699	103.0	0.83	73.6	1.8669	207.3	436.8	207.27				14.5	85.4	-1.2	-14.5
62.0	18603	36.2	0.02843	100.6	0.86	70.0	1.8451	207.8	444.3	207.84				17.2	99.7	2.9	-17.0
63.0	18942	40.2	0.03012	112.0	1.01	66.2	1.8209	207.1	449.8	207.07				18.7	104.6	4.7	-18.1
64.0	19213	42.0	0.03157	117.6	1.10	63.3	1.8014	206.1	453.4	206.09				16.8	102.0	3.5	-16.4
65.0	19466	47.7	0.03305	133.1	1.30	60.7	1.7832	206.9	460.7	206.88				16.4	94.3	1.2	-16.4
65.3	19536	48.8	0.03351	136.2	1.35	60.0	1.7782	207.0	462.5	207.03				17.2	90.3	0.1	-17.2
66.0	19742	52.1	0.03484	145.0	1.49	58.0	1.7634	207.5	468.0	207.46				20.0	80.6	-3.2	-19.7
67.0	20032	58.3	0.03692	161.5	1.75	55.3	1.7427	208.6	477.0	208.60				21.2	77.0	-4.8	-20.7
68.0	20328	65.3	0.03927	178.2	2.05	52.7	1.7218	211.7	490.8	211.69				20.6	82.4	-2.7	-20.4
69.0	20656	77.0	0.04222	207.1	2.55	50.0	1.6990	214.6	505.1	214.60				26.1	83.1	-3.1	-25.9
70.0	20939	85.9	0.04512	229.4	2.98	47.8	1.6794	216.2	515.5	216.24				27.3	84.1	-2.8	-27.2
71.0	21210	93.2	0.04814	247.6	3.37	45.8	1.6609	217.4	524.5	217.36				28.1	86.1	-1.9	-28.0
72.0	21508	86.9	0.05147	232.2	3.30	43.7	1.6405	216.2	528.9	216.24				27.7	88.4	-0.8	-27.6
73.0	21819	89.5	0.05490	239.0	3.57	41.6	1.6191	216.2	536.4	216.24				23.4	94.6	1.9	-23.4
73.8	22067	89.9	0.05768	239.4	3.72	40.0	1.6021	216.8	543.8	216.78				26.6	97.5	3.5	-26.4
74.0	22115	90.0	0.05821	239.5	3.75	39.7	1.5988	216.9	545.2	216.88				27.3	98.0	3.8	-27.0
75.0	22442	89.8	0.06188	240.9	3.95	37.7	1.5763	215.3	549.2	215.26				28.8	98.2	4.1	-28.5
76.0	22768	94.5	0.06564	253.0	4.38	35.8	1.5539	215.7	558.6	215.75				25.6	98.8	3.9	-25.3
76.4	22910	96.1	0.06736	257.3	4.55	35.0	1.5441	215.6	561.8	215.56				25.5	97.9	3.5	-25.2
77.0	23130	98.4	0.07002	264.1	4.83	33.8	1.5289	215.3	566.6	215.26				25.3	96.5	2.8	-25.1
78.0	23436	101.8	0.07385	272.1	5.24	32.2	1.5079	216.1	576.7	216.07				28.5	94.7	2.3	-28.4
79.0	23676	105.7	0.07696	281.6	5.65	31.0	1.4914	216.7	584.7	216.72				30.6	96.1	3.2	-30.4
79.7	23884	108.5	0.07975	287.1	6.00	30.0	1.4771	218.2	594.2	218.18				28.8	97.8	3.9	-28.5
80.0	23992	109.9	0.08118	289.9	6.17	29.5	1.4698	218.9	599.1	218.93				27.9	98.8	4.3	-27.6
81.0	24303	111.8	0.08543	294.8	6.59	28.1	1.4487	218.9	607.5	218.93				25.5	98.5	3.8	-25.2
82.0	24631	120.1	0.09010	315.2	7.45	26.7	1.4265	220.0	619.4	220.00				27.7	93.2	1.6	-27.7
83.0	24978	127.5	0.09537	333.3	8.35	25.3	1.4031	220.9	631.6	220.91				29.0	90.0	-0.0	-29.0
83.2	25055	130.0	0.09662	338.3	8.63	25.0	1.3979	221.9	636.7	221.91				28.2	90.8	0.4	-28.2
84.0	25322	138.7	0.10091	355.3	9.57	24.0	1.3802	225.3	654.0	225.31				25.6	93.9	1.7	-25.5
85.0	25602	135.4	0.10551	347.0	9.76	23.0	1.3617	225.3	662.0	225.31				22.5	92.3	0.9	-22.5
86.0	25866	136.5	0.10979	347.7	10.24	22.1	1.3444	226.7	673.8	226.73				25.5	86.1	-1.7	-25.4
87.0	26268	133.0	0.11624	338.7	10.60	20.8	1.3181	226.7	685.6	226.73				24.9	88.0	-0.9	-24.9
87.8	26528	129.6	0.12029	329.5	10.74	20.0	1.3010	227.1	694.3	227.06				19.0	84.9	-1.7	-18.9
88.0	26595	128.7	0.12133	327.2	10.77	19.8	1.2967	227.1	696.6	227.15				17.5	83.8	-1.9	-17.4
89.0	26941	124.5	0.12650	313.7	10.98	18.8	1.2742	229.2	713.5	229.23				14.9	82.6	-1.9	-14.8
90.0	27345	119.8	0.13231	301.7	11.21	17.7	1.2480	229.2	725.9	229.23				15.2	93.5	0.9	-15.2
90.2	27421	118.9	0.13337	299.4	11.26	17.5	1.2430	229.2	728.2	229.23				15.2	93.5	0.9	-15.1
91.0	27695	115.7	0.13716	291.4	11.41	16.8	1.2253	229.2	736.8	229.23				15.0	93.5	0.9	-15.0
92.0	27980	111.1	0.14097	280.4	11.44	16.1	1.2068	228.8	744.4	228.82				18.1	105.9	5.0	-17.4
93.0	28365	105.0	0.14588	265.1	11.45	15.2	1.1818	228.8	756.8	228.82				18.8	126.0	11.1	-15.2
93.3	28454	104.8	0.14697	263.8	11.58	15.0	1.1761	229.3	761.3	229.32				17.4	129.8	11.2	-13.4
94.0	28682	104.1	0.14977	260.6	11.89	14.5	1.1614	230.6	773.0	230.60				14.2	142.8	11.3	-8.6
95.0	29065	99.8	0.15433	249.8	12.08	13.7	1.1367	230.7	786.1	230.74				11.8	140.5	9.1	-7.5
96.0	29420	92.8	0.15832	231.1	11.83	13.0	1.1139	231.8	801.7	231.82				13.0	125.3	7.5	-10.6
96.6	29685	89.3	0.16110	223.1	11.83	12.5	1.0969	231.2	808.4	231.15				11.9	128.8	7.5	-9.3
97.0	29850	87.1	0.16283	218.1	11.84	12.2	1.0864	230.7	812.6	230.74				11.3	131.3	7.4	-8.5
98.0	30132	81.4	0.16561	204.3	11.52	11.7	1.0682	229.9	819.4	229.92				8.0	133.0	5.5	-5.9
99.0	30547	76.2	0.16945	191.2	11.48	11.0	1.0414	230.2	835.0	230.19				9.8	101.2	1.9	-9.6
100.0	30991	73.9	0.17334	184.8	11.90	10.3	1.0128	231.0	853.9	231.01				10.6	81.1	-1.6	-10.5
100.6	31191	70.3	0.17499	175.4	11.64	10.0	1.0000	231.4	862.6	231.41				11.1	74.7	-2.9	-10.7
101.0	31328	67.8	0.17612	169.0	11.47	9.8	0.9912	231.7	868.6	231.69				11.5	70.7	-3.8	-10.8
102.0	31683	61.2	0.17879	152.4	10.91	9.3	0.9685	232.0	882.8	231.96				11.3	69.5	-4.0	-10.6
103.0	31906	56.6	0.18032	139.4	10.42	9.0	0.9542	234.4	900.3	234.37				12.6	68.7	-4.6	-11.7
104.0	32302	52.6	0.18278	126.9	10.26	8.5	0.9294	239.4	934.7	239.37				14.5	74.8	-3.8	-14.0
105.0	32727	50.0	0.18523	120.4	10.36	8.0	0.9031	239.8	952.6	239.77				11.7	79.7	-2.1	-11.5
106.0	32995	47.3	0.18670	114.1	-10.18	7.7	0.8865	239.4	961.5	239.37				999.9	999.9	999.9	999.9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1049,
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PRES (MB)
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200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

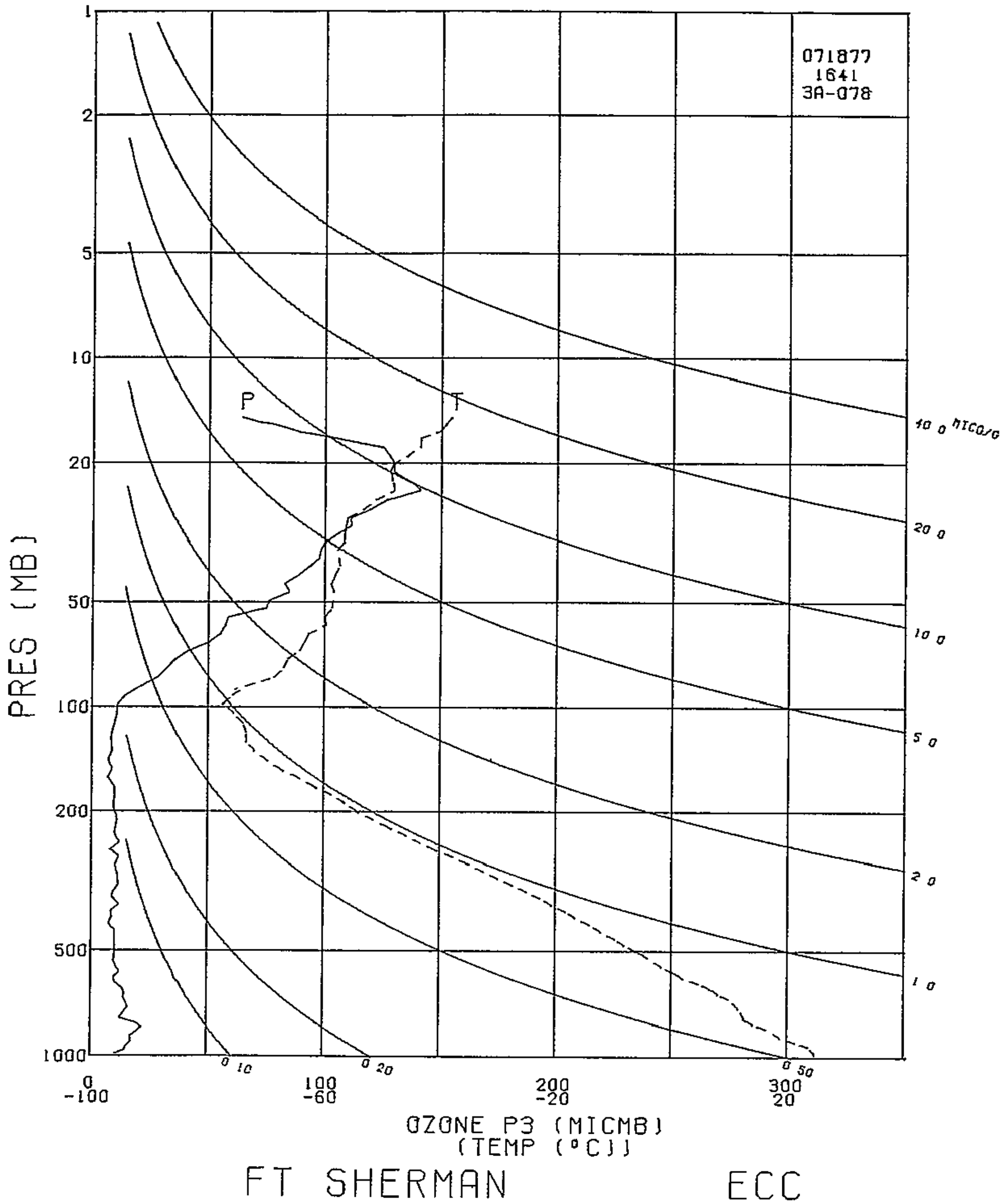
STATION FT SHERMAN   LAUNCH DATE 71877   LAUNCH TIME 1641 GMT   ECC SONDE 3A-078X

SURFACE CONDITIONS			
PRESS 1005.6 MB	003 = 32.7	TBOX CAL = 30.0 C	AT 74.4 ORD
TEMP 302.6 K	01Z = 32.0	BASE CAL = 30.0 C	AT 74.0 ORD
HUMY 74.0 %	0ZC = 61.5	HUMIDITY = 59.0 %	AT 46.0 ORD
	IO = 0.122		
	PS = 29.0		

	PROFILE	DOBSON
INTEGRATED OZONE	0.14554	
RESIDUAL OZONE	0.04707	
TOTAL OZONE	0.19261	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	11.5	0.	22.2	0.02	1005.6	3.0024	298.4	297.9	300.97	69.7	292.5	0.0140	4.0	355.0	-4.0	0.3
0.2	102	11.3	0.00005	21.9	0.02	1000.0	3.0000	298.3	298.3	300.95	72.3	292.9	0.0149	4.1	2.5	-4.1	-0.2
1.0	271	10.7	0.00022	20.8	0.02	981.0	2.9917	297.9	299.6	300.89	81.3	294.5	0.0162	4.9	24.0	-4.5	-2.0
2.0	488	14.7	0.00047	28.6	0.03	957.0	2.9809	297.0	300.7	300.07	87.9	294.9	0.0170	6.4	23.9	-5.9	-2.6
3.0	736	15.7	0.00081	30.6	0.03	930.3	2.9686	296.8	302.9	299.27	71.1	291.2	0.0139	5.9	12.8	-5.8	-1.3
4.0	986	17.6	0.00118	34.6	0.03	904.0	2.9562	294.4	303.1	296.64	69.6	288.7	0.0122	4.7	359.8	-4.7	0.0
4.1	1024	17.5	0.00124	34.4	0.03	900.0	2.9542	294.1	303.1	296.29	71.9	288.8	0.0124	4.5	1.3	-4.5	-0.1
5.0	1258	16.9	0.00161	33.4	0.03	876.0	2.9425	291.8	303.0	294.15	86.0	289.4	0.0132	2.9	16.0	-2.8	-0.8
6.0	1486	19.4	0.00199	38.5	0.04	853.0	2.9309	290.9	304.5	293.21	85.3	288.4	0.0127	3.3	60.9	-1.6	-2.9
6.1	1516	19.6	0.00205	39.0	0.04	850.0	2.9294	290.8	304.6	293.02	85.8	288.3	0.0127	3.3	63.5	-1.5	-3.0
7.0	1761	21.7	0.00251	43.3	0.04	826.0	2.9170	289.3	305.5	291.47	89.7	287.6	0.0124	3.9	81.5	-0.6	-3.9
8.0	2011	19.7	0.00299	39.6	0.04	802.0	2.9042	287.0	305.7	289.05	92.7	285.9	0.0115	4.6	106.0	1.3	-4.4
8.1	2032	19.1	0.00303	38.5	0.04	800.0	2.9031	286.9	305.8	288.91	92.7	285.7	0.0113	4.7	105.6	1.3	-4.6
9.0	2278	12.6	0.00340	25.6	0.03	777.0	2.8904	285.5	306.8	287.31	91.9	284.2	0.0106	6.0	101.4	1.2	-5.8
10.0	2542	14.1	0.00373	28.5	0.03	753.0	2.8768	285.7	309.8	287.46	85.8	283.3	0.0103	8.2	98.6	1.2	-8.1
11.0	2825	15.6	0.00412	31.6	0.04	728.0	2.8621	284.5	311.5	285.72	61.1	277.3	0.0070	9.5	103.6	2.2	-9.2
12.0	3081	15.3	0.00450	31.1	0.04	706.0	2.8488	284.3	314.0	285.51	58.8	276.5	0.0069	10.3	100.8	1.9	-10.1
12.2	3152	15.0	0.00460	30.5	0.04	700.0	2.8451	284.0	314.4	285.13	58.8	276.2	0.0067	10.2	101.3	2.0	-10.0
13.0	3381	14.1	0.00492	28.8	0.03	681.0	2.8331	282.8	315.6	283.92	58.8	275.1	0.0064	9.8	102.7	2.1	-9.5
14.0	3628	14.6	0.00525	30.0	0.04	661.0	2.8202	281.0	316.3	281.97	58.6	273.4	0.0059	9.1	104.3	2.3	-8.8
15.0	3932	13.2	0.00566	27.3	0.03	637.0	2.8041	279.5	318.0	280.47	58.4	272.0	0.0055	8.7	97.2	1.1	-8.6
16.0	4219	10.3	0.00599	21.5	0.03	615.0	2.7889	277.6	319.0	278.46	58.4	270.2	0.0050	7.9	92.2	0.3	-7.9
16.7	4418	10.1	0.00618	21.1	0.03	600.0	2.7782	275.6	318.9	276.40	63.7	269.4	0.0047	8.2	91.1	0.2	-8.2
17.0	4519	9.9	0.00628	20.9	0.03	592.6	2.7728	274.6	318.9	275.37	66.4	269.0	0.0047	8.3	90.6	0.1	-8.3
18.0	4789	12.3	0.00658	26.0	0.04	573.0	2.7582	273.4	320.6	274.18	66.3	267.9	0.0045	8.9	89.7	-0.0	-8.9
19.0	5087	10.2	0.00691	21.8	0.03	552.0	2.7419	271.3	321.5	272.00	66.0	265.8	0.0040	8.9	92.0	0.3	-8.9
20.0	5321	9.6	0.00714	20.5	0.03	536.0	2.7292	271.0	323.9	271.61	57.9	263.9	0.0035	8.0	91.2	0.2	-8.0
21.0	5622	10.3	0.00744	22.1	0.03	516.0	2.7126	268.7	324.6	269.26	66.0	263.3	0.0035	6.6	79.5	-1.2	-6.5
21.9	5869	10.3	0.00770	22.4	0.03	500.0	2.6990	267.2	325.7	267.73	66.2	261.9	0.0032	5.0	70.9	-1.6	-4.7
22.0	5901	10.4	0.00773	22.4	0.03	498.0	2.6972	267.0	325.9	267.54	66.2	261.7	0.0032	4.8	69.3	-1.7	-4.5
23.0	6204	10.2	0.00804	22.3	0.04	479.0	2.6803	264.9	326.9	265.38	65.4	259.6	0.0028	3.3	74.8	-0.9	-3.2
24.0	6517	10.3	0.00837	22.5	0.04	460.0	2.6628	263.3	328.7	263.68	57.3	256.5	0.0022	4.3	70.9	-1.4	-4.1
25.0	6893	10.2	0.00877	22.7	0.04	438.0	2.6415	260.9	330.3	261.19	56.7	254.1	0.0019	5.1	76.9	-1.2	-4.9
26.0	7249	7.6	0.00910	16.8	0.03	418.0	2.6212	258.9	332.2	259.15	49.4	250.7	0.0015	5.5	94.6	0.4	-5.4
27.0	7581	8.7	0.00938	19.6	0.04	400.0	2.6021	256.4	333.2	256.58	39.2	245.8	0.0010	6.6	106.0	1.8	-6.3
28.0	7886	8.1	0.00965	18.3	0.03	384.0	2.5843	254.8	334.9	254.90	31.4	242.0	0.0007	7.3	114.0	3.0	-6.7
29.0	8202	11.9	0.00998	27.1	0.05	368.0	2.5658	252.4	335.8	252.47	34.8	240.9	0.0007	8.9	114.2	3.6	-8.1
30.0	8550	8.8	0.01037	20.3	0.04	351.0	2.5453	250.4	337.7	250.48	44.7	241.7	0.0008	10.1	118.9	4.9	-8.9
30.1	8570	8.9	0.01039	20.5	0.04	350.0	2.5441	250.2	337.7	250.32	44.8	241.5	0.0008	10.1	119.3	4.9	-8.8
31.0	8849	9.6	0.01067	22.4	0.05	336.9	2.5275	248.0	338.4	248.09	45.9	239.7	0.0007	9.1	123.9	5.1	-7.6
32.0	9171	11.7	0.01104	27.4	0.06	322.2	2.5081	245.6	339.5	245.70	44.0	237.1	0.0005	7.1	127.2	4.3	-5.7
33.0	9470	11.6	0.01143	27.6	0.06	309.0	2.4900	243.1	340.1	243.20	40.2	234.0	0.0004	5.5	122.7	3.0	-4.7
33.6	9679	11.1	0.01169	26.5	0.06	300.0	2.4771	241.6	340.7	241.60	38.8	232.2	0.0003	5.8	101.9	1.2	-5.7
34.0	9798	10.8	0.01184	25.9	0.06	295.0	2.4698	240.7	341.1	240.70	38.0	231.2	0.0003	6.2	91.5	0.2	-6.2
35.0	10163	10.6	0.01228	25.7	0.06	280.0	2.4472	237.9	342.2	237.92	21.4	223.6	0.0001	7.1	78.5	-1.4	-7.0
36.0	10466	11.8	0.01266	29.0	0.07	268.0	2.4281	235.2	342.7	235.26	21.9	221.5	0.0001	7.3	83.9	-0.8	-7.3
37.0	10779	7.9	0.01302	19.7	0.05	256.0	2.4082	232.2	342.7	232.16				7.3	86.5	-0.4	-7.3
37.5	10939	10.1	0.01321	25.3	0.07	250.0	2.3979	230.8	343.0	230.84				6.9	80.5	-1.1	-6.8
38.0	11076	12.0	0.01337	30.1	0.08	245.0	2.3892	229.7	343.3	229.70				6.6	74.8	-1.7	-6.4
39.0	11412	10.0	0.01380	25.4	0.07	233.0	2.3674	227.2	344.5	227.20				7.7	57.7	-4.1	-6.5
40.0	11761	10.5	0.01423	27.2	0.08	221.0	2.3444	224.0	344.9	224.05				8.2	54.5	-4.7	-6.7
41.0	12094	11.1	0.01467	29.0	0.09	210.0	2.3222	221.5	346.0	221.53				7.4	58.3	-3.9	-6.3
41.9	12407	10.0	0.01507	26.3	0.08	200.0	2.3010	218.9	346.7	218.89				3.1	58.6	-1.6	-2.7
42.0	12440	9.8	0.01511	26.0	0.08	199.0	2.2989	218.6	346.7	218.61				2.7	58.7	-1.4	-2.3
43.0	12802	9.6	0.01555	25.6	0.08	188.0	2.2742	216.5	349.1	216.54				7.8	97.6	1.0	-7.7
44.0	13146	10.1	0.01597	27.2	0.09	178.0	2.2504	214.4	351.1	214.39				15.3	262.2	2.1	15.2
45.0	13469	9.5	0.01637	25.9	0.09	169.0	2.2279	211.5	351.4	211.45				4.4	94.2	0.3	-4.4
46.0	13844	6.9	0.01677	19.1	0.07	159.0	2.2014	208.7	352.9	208.70				29.2	89.0	-0.5	-29.1
47.0	14157	8.8	0.01709	24.7	0.10	151.0	2.1790	205.8	353.2	205.77				3.8	134.3	2.6	-2.7
47.1	14196	8.6	0.01713	24.2	0.10	150.0	2.1761	205.5	353.4	205.50				3.8	137.3	2.8	-2.6
48.0	14525	7.0	0.01747	19.9	0.08	142.0	2.1523	203.3	355.0	203.27				4.5	158.0	4.2	-1.7
49.0	14912	8.9	0.01788	25.5	0.11	133.0	2.1239	201.1	357.8	201.06				4.6	157.1	4.2	-1.8
50.0	15229	8.2	0.01824	23.7	0.11	126.0	2.1004	199.7	360.9	199.66				5.6	111.3	2.0	-5.2
50.1	15275	8.3	0.01830	23.9	0.11	125.0	2.0969	199.6	361.6	199.63				5.8	106.2	1.6	-5.6
51.0	15612	8.8	0.01868	25.5	0.12	118.0	2.0719	199.4	367.2	199.42				7.9	79.2	-1.5	-7.8
52.0	15968	9.9	0.01913	28.6	0.15	111.0	2.0453	198.9	372.8	198.94				8.2	71.5	-2.6	-7.8
53.0	16346	11.1	0.01967	32.3	0.18	104.0	2.0170	197.5	377.0	197.46				9.6	78.4	-1.9	-9.4
53.6	16571	11.1	0.02001	32.6	0.18	100.0	2.0000	196.3	379.0	196.30				10.1	81.6	-1.5	-10.0
54.0	16699	11.1	0.02021	32.8	0.19	97.8	1.9903	195.6	380.1	195.64				10.4	83.3	-1.2	-10.3
55.0	17038	14.5	0.02080	42.4	0.26	92.2	1.9647	197.2	389.7	197.20				10.1	82.7	-1.3	-10.1
56.0	17388	21.2	0.02166	61.4	0.41	86.8	1.9385	199.7	401.4	199.66				12.1	80.5	-2.0	-11.9
57.0	17739	28.5	0.02282	80.4	0.58	81.8	1.9128	204.5	418.2	204.54				16.9	94.6	1.4	-16.9
57.4	17872	29.9	0.02335	84.2	0.62	80.0	1.9031	205.1	422.1	205.12				17.6	99.1	2.8	-17.4

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	18118	32.6	0.02434	91.2	0.70	76.8	1.8854	206.2	429.2	206.17				19.0	106.4	5.4	-18.3
59.0	18474	36.1	0.02594	100.8	0.83	72.4	1.8597	207.0	438.2	206.97				16.1	114.2	6.6	-14.7
59.6	18679	39.5	0.02697	109.5	0.94	70.0	1.8451	208.1	444.9	208.11				16.9	114.1	6.9	-15.5
60.0	18820	41.8	0.02768	115.5	1.01	68.4	1.8351	208.9	449.5	208.89				17.5	114.1	7.1	-16.0
61.0	19141	50.0	0.02958	137.6	1.28	64.9	1.8122	209.6	458.0	209.64				17.9	97.7	2.4	-17.7
62.0	19481	55.2	0.03188	151.4	1.49	61.4	1.7882	210.4	466.9	210.37				17.9	89.7	-0.1	-17.9
62.4	19623	56.0	0.03291	152.9	1.55	60.0	1.7782	211.5	472.6	211.52				19.1	91.2	0.4	-19.1
63.0	19834	57.3	0.03441	155.1	1.64	58.0	1.7634	213.2	480.9	213.20				20.9	93.2	1.2	-20.9
64.0	20199	58.7	0.03709	158.9	1.78	54.7	1.7380	213.2	489.1	213.20				22.1	94.4	1.7	-22.0
65.0	20552	74.3	0.04005	200.2	2.38	51.7	1.7135	214.4	499.8	214.39				24.7	93.2	1.4	-24.6
65.6	20761	75.5	0.04204	203.5	2.51	50.0	1.6990	214.3	504.4	214.29				25.5	93.3	1.5	-25.4
66.0	20888	76.3	0.04324	205.5	2.58	49.0	1.6902	214.2	507.1	214.23				26.0	93.4	1.5	-25.9
67.0	21216	84.5	0.04656	227.3	3.01	46.5	1.6675	214.7	516.0	214.73				22.6	97.3	2.9	-22.4
68.0	21563	82.3	0.05020	221.9	3.10	44.0	1.6435	214.2	522.9	214.23				23.8	94.9	2.0	-23.7
69.0	21900	88.3	0.05381	237.3	3.51	41.7	1.6201	214.9	532.7	214.90				26.5	93.8	1.7	-26.4
69.7	22161	91.7	0.05680	245.8	3.80	40.0	1.6021	215.5	540.5	215.45				25.9	93.8	1.7	-25.9
70.0	22289	93.4	0.05824	250.0	3.95	39.2	1.5933	215.7	544.3	215.73				25.7	93.9	1.7	-25.6
71.0	22602	97.2	0.06198	260.7	4.32	37.3	1.5717	215.2	550.8	215.23				26.8	96.5	3.0	-26.6
72.0	22949	98.1	0.06623	262.9	4.60	35.3	1.5478	215.4	560.0	215.40				28.0	99.0	4.4	-27.7
72.2	23002	98.4	0.06689	263.5	4.66	35.0	1.5441	215.6	561.8	215.57				28.0	98.2	4.0	-27.8
73.0	23261	99.7	0.07008	266.0	4.92	33.6	1.5263	216.4	570.5	216.38				28.2	94.3	2.1	-28.1
74.0	23609	105.0	0.07452	280.1	5.47	31.8	1.5024	216.4	579.6	216.38				30.2	90.6	0.3	-30.2
75.0	23957	110.8	0.07920	295.2	6.10	30.1	1.4786	216.7	589.6	216.70				29.3	89.0	-0.5	-29.3
75.1	23978	110.8	0.07949	295.2	6.12	30.0	1.4771	216.7	590.2	216.72				29.4	88.9	-0.6	-29.4
76.0	24303	110.9	0.08398	295.1	6.45	28.5	1.4548	217.0	599.8	217.03				30.1	87.5	-1.3	-30.1
77.0	24648	118.7	0.08888	311.9	7.28	27.0	1.4314	219.7	616.6	219.70				32.5	87.5	-1.4	-32.5
78.0	25068	126.3	0.09516	328.7	8.27	25.3	1.4031	221.8	634.3	221.83				31.2	89.7	-0.1	-31.2
78.2	25145	129.1	0.09642	334.9	8.57	25.0	1.3979	222.5	638.3	222.46				30.4	90.8	0.4	-30.4
79.0	25467	140.4	0.10160	360.2	9.77	23.8	1.3766	225.1	654.8	225.06				27.1	95.8	2.7	-27.0
80.0	25866	135.8	0.10820	349.2	10.05	22.4	1.3502	224.6	665.0	224.63				26.3	96.0	2.7	-26.2
81.0	26258	129.3	0.11446	332.9	10.15	21.1	1.3243	224.2	675.1	224.19				23.9	98.7	3.6	-23.7
82.0	26610	129.4	0.11992	332.5	10.72	20.0	1.3010	224.8	687.3	224.77				17.5	98.2	2.5	-17.3
83.0	26949	127.2	0.12512	323.4	11.09	19.0	1.2788	227.1	704.6	227.06				15.8	86.6	-0.9	-15.7
84.0	27385	124.7	0.13160	313.9	11.61	17.8	1.2504	229.4	725.3	229.43				11.5	88.4	-0.3	-11.5
84.6	27498	118.3	0.13320	297.8	11.20	17.5	1.2430	229.4	728.9	229.43				8.9	97.2	1.1	-8.8
85.0	27576	114.0	0.13428	286.9	10.92	17.3	1.2380	229.4	731.2	229.43				7.4	106.6	2.1	-7.0
86.0	27693	107.9	0.13581	271.4	10.51	17.0	1.2304	229.4	734.9	229.43				6.2	127.3	3.8	-4.9
87.0	27772	104.0	0.13680	261.4	10.25	16.8	1.2253	229.6	737.8	229.57				4.0	105.8	1.1	-3.8
88.0	27934	95.9	0.13870	240.5	9.69	16.4	1.2148	230.3	745.2	230.25				3.5	63.0	-1.6	-3.2
89.0	28059	87.9	0.14004	218.0	9.05	16.1	1.2068	232.8	757.5	232.84				3.7	20.3	-3.5	-1.3
90.0	28230	82.5	0.14173	203.7	8.71	15.7	1.1959	233.9	766.5	233.91				6.2	4.1	-6.2	-0.4
91.0	28406	76.5	0.14335	188.8	8.29	15.3	1.1847	233.9	772.2	233.91				6.2	358.9	-6.2	0.1
92.0	28496	70.2	0.14411	172.9	7.70	15.1	1.1790	234.4	776.9	234.45				3.8	23.2	-3.5	-1.5
92.2	28541	68.7	0.14447	169.1	7.58	15.0	1.1761	234.5	778.7	234.55				999.9	999.9	999.9	999.9
93.0	28680	64.0	0.14554	157.3	7.21	14.7	1.1673	234.8	784.2	234.85				999.9	999.9	999.9	999.9


071877
1641
3A-078
P
T
PRES (MB)
1
2
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100
200
500
1000
40 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 71877   LAUNCH TIME 2332 GMT   ECC SONDE 3A-080X

SURFACE CONDITIONS			
PRESS 1004.2 MB	003 = 33.6	TBOX CAL = 30.0 C	AT 74.1 ORD
TEMP 299.9 K	OIZ = 33.3	BASE CAL = 30.0 C	AT 74.1 ORD
HUMY 86.0 %	OZC = 60.8	HUMIDITY = 61.0 %	AT 46.0 ORD
	IO = 0.057		
	PS = 27.1		

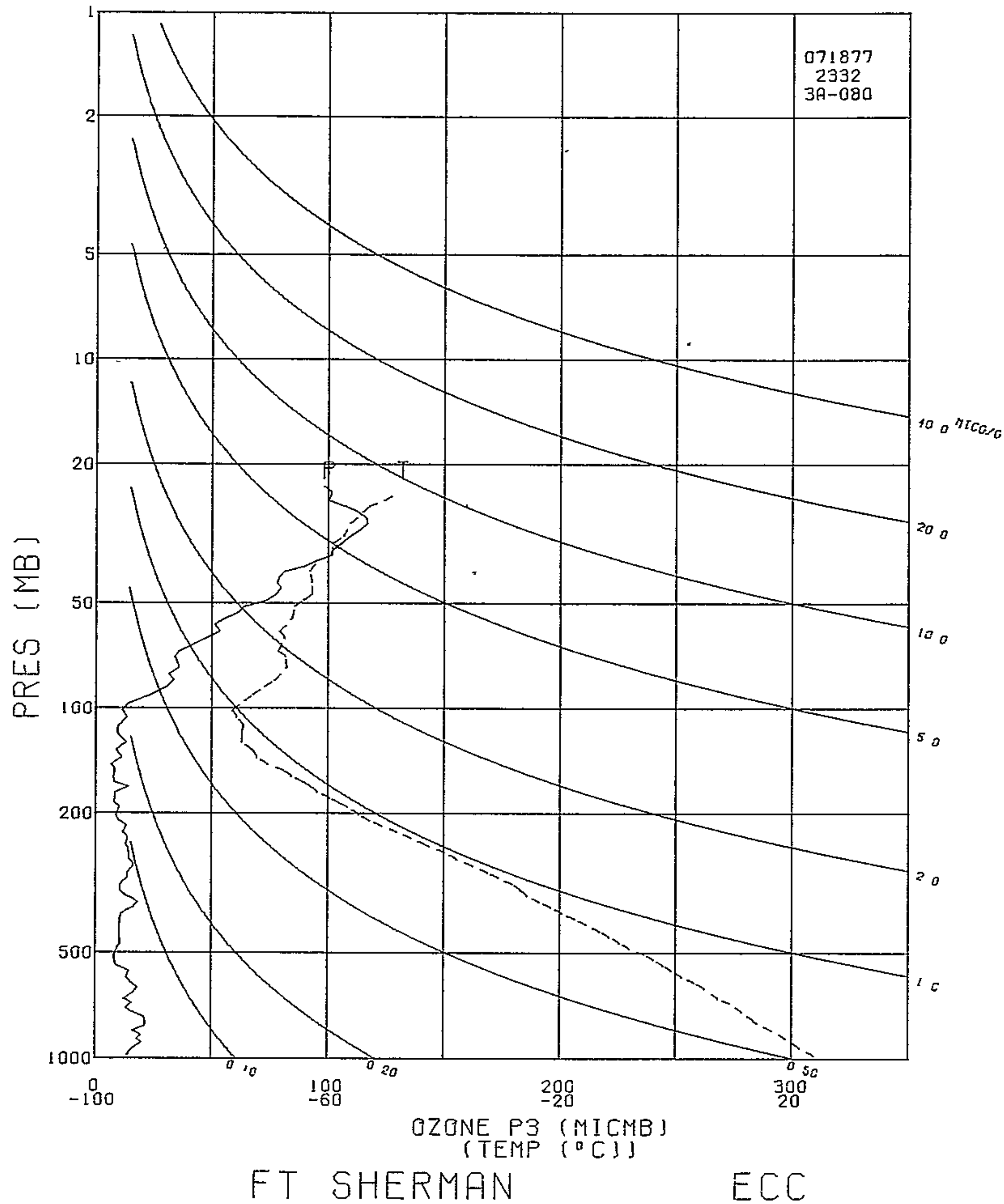
	PROFILE	DOBSON
INTEGRATED OZONE	0.10331	
RESIDUAL OZONE		
TOTAL OZONE		0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	12.8	0.	24.6	0.02	1004.2	3.0018	299.4	299.0	302.55	81.3	295.9	0.0173	3.0	20.0	-2.8	-1.0
0.2	89	12.9	0.00004	25.0	0.02	1000.0	3.0000	299.0	299.0	302.13	82.0	295.7	0.0170	3.4	17.8	-3.2	-1.0
1.0	284	13.8	0.00028	26.9	0.02	978.2	2.9904	297.0	298.8	299.89	85.4	294.4	0.0161	5.4	11.3	-5.3	-1.1
2.0	540	14.7	0.00060	28.7	0.03	950.0	2.9777	296.0	300.4	299.27	97.5	295.6	0.0179	5.7	6.8	-5.7	-0.7
3.0	772	16.9	0.00094	33.2	0.03	925.0	2.9661	294.2	300.8	296.82	86.6	291.9	0.0146	5.3	1.0	-5.3	-0.1
4.0	1009	19.5	0.00133	38.4	0.04	900.0	2.9542	293.8	302.7	296.33	84.7	291.1	0.0143	4.9	348.8	-4.8	1.0
4.0	1019	19.6	0.00135	38.6	0.04	899.0	2.9538	293.7	302.8	296.31	84.6	291.1	0.0143	4.9	348.2	-4.8	1.0
5.0	1243	17.6	0.00173	34.8	0.03	876.0	2.9425	292.0	303.2	294.39	86.7	289.7	0.0135	3.8	343.7	-3.7	1.1
6.0	1441	19.7	0.00207	39.2	0.04	856.0	2.9325	290.9	304.1	293.27	89.3	289.1	0.0133	3.4	359.2	-3.4	0.0
6.2	1501	18.9	0.00217	37.5	0.04	850.0	2.9294	290.6	304.4	292.97	90.2	289.0	0.0132	3.4	4.3	-3.4	-0.3
7.0	1705	15.9	0.00250	31.7	0.03	830.0	2.9191	289.6	305.5	291.98	93.2	288.5	0.0132	3.7	20.2	-3.5	-1.3
8.0	1955	21.0	0.00293	42.0	0.04	806.0	2.9063	288.6	307.0	290.77	89.8	286.9	0.0122	4.8	53.1	-2.9	-3.9
8.2	2018	21.1	0.00306	42.2	0.04	800.0	2.9031	288.1	307.1	290.21	88.4	286.2	0.0114	5.0	58.4	-2.6	-4.2
9.0	2222	21.2	0.00346	42.7	0.04	781.0	2.8927	286.6	307.6	288.41	83.8	283.9	0.0103	5.6	73.1	-1.6	-5.4
10.0	2474	20.7	0.00395	41.9	0.05	758.0	2.8797	285.6	309.1	287.28	80.0	282.3	0.0095	5.3	83.2	-0.6	-5.3
11.0	2721	15.9	0.00437	32.2	0.04	736.0	2.8669	284.5	310.5	285.99	77.9	280.7	0.0088	5.6	83.9	-0.6	-5.6
12.0	2962	13.1	0.00471	26.7	0.03	715.0	2.8543	283.3	311.8	284.46	61.3	276.2	0.0066	6.5	84.8	-0.6	-6.5
12.7	3137	14.7	0.00495	30.1	0.03	700.0	2.8451	282.7	313.0	283.81	61.4	275.6	0.0065	6.5	93.1	0.3	-6.5
13.0	3221	15.5	0.00506	31.7	0.04	693.0	2.8407	282.4	313.6	283.49	61.4	275.4	0.0064	6.5	97.0	0.8	-6.5
14.0	3463	12.1	0.00538	25.0	0.03	673.0	2.8280	280.4	314.0	281.44	66.2	274.5	0.0062	6.7	113.8	2.7	-6.1
15.0	3736	15.9	0.00575	32.9	0.04	651.0	2.8136	279.5	315.9	280.44	61.4	272.6	0.0056	8.1	105.9	2.2	-7.8
16.0	4017	17.8	0.00620	37.0	0.05	629.0	2.7987	277.9	317.3	278.78	61.1	271.1	0.0052	9.5	95.3	0.9	-9.5
17.0	4306	15.3	0.00667	31.9	0.04	607.0	2.7832	276.4	318.7	277.17	60.8	269.5	0.0048	10.1	92.5	0.4	-10.1
17.3	4399	14.7	0.00680	30.7	0.04	600.0	2.7782	275.7	319.0	276.49	60.8	268.9	0.0045	10.5	92.5	0.5	-10.5
18.0	4618	13.3	0.00710	27.9	0.04	584.0	2.7664	274.2	319.7	274.90	60.8	267.5	0.0043	11.4	92.6	0.5	-11.4
19.0	4940	14.3	0.00754	30.4	0.04	561.0	2.7490	272.4	321.3	273.03	59.5	265.5	0.0038	11.8	94.6	0.9	-11.7
20.0	5214	9.1	0.00786	19.4	0.03	542.0	2.7340	271.0	322.8	271.55	60.0	264.2	0.0036	10.7	95.2	1.0	-10.6
21.0	5512	8.0	0.00811	17.2	0.03	522.0	2.7177	269.2	324.2	269.78	60.5	262.7	0.0033	9.9	95.9	1.0	-9.8
22.0	5796	8.1	0.00834	17.5	0.03	503.5	2.7020	267.7	325.7	268.20	59.4	261.1	0.0030	9.6	96.8	1.1	-9.6
22.2	5850	8.3	0.00839	18.0	0.03	500.0	2.6990	267.2	325.8	267.72	61.0	260.9	0.0030	9.5	96.1	1.0	-9.4
23.0	6088	9.2	0.00860	20.0	0.03	485.0	2.6857	265.2	326.1	265.63	68.0	260.3	0.0029	8.7	92.7	0.4	-8.7
24.0	6381	10.5	0.00889	23.0	0.04	467.0	2.6693	263.4	327.4	263.78	59.9	257.1	0.0023	7.8	88.6	-0.2	-7.8
25.0	6683	10.4	0.00922	23.0	0.04	449.0	2.6522	261.7	328.9	262.01	59.8	255.4	0.0021	7.3	91.6	0.2	-7.3
26.0	6978	10.4	0.00953	23.2	0.04	432.0	2.6355	260.0	330.4	260.31	67.4	255.2	0.0021	8.6	91.9	0.3	-8.6
27.0	7319	10.4	0.00990	23.4	0.04	413.0	2.6160	257.6	331.6	257.85	57.8	251.2	0.0016	9.7	91.7	0.3	-9.7
27.9	7559	10.5	0.01017	23.7	0.04	400.0	2.6021	255.9	332.5	256.10	42.2	246.1	0.0010	8.5	90.9	0.1	-8.5
28.0	7597	10.5	0.01021	23.7	0.04	398.0	2.5999	255.7	332.7	255.83	39.7	245.3	0.0010	8.3	90.7	0.1	-8.3
29.0	7864	11.1	0.01051	25.2	0.05	384.0	2.5843	253.5	333.2	253.57				9.4	85.7	-0.7	-9.4
30.0	8178	16.1	0.01097	36.9	0.07	368.0	2.5658	251.5	334.6	251.51				10.6	93.2	0.6	-10.6
31.0	8421	18.0	0.01141	41.7	0.08	356.0	2.5515	249.5	335.2	249.54				10.2	100.0	1.8	-10.0
31.4	8544	15.9	0.01162	37.0	0.08	350.0	2.5441	248.6	335.6	248.69				9.6	100.3	1.7	-9.5
32.0	8713	13.1	0.01191	30.6	0.06	342.0	2.5340	247.4	336.2	247.55	69.9	243.6	0.0009	8.9	100.8	1.7	-8.7
33.0	8971	10.5	0.01224	24.7	0.05	330.0	2.5185	246.2	338.0	246.33	57.8	240.4	0.0007	7.7	97.6	1.0	-7.7
34.0	9282	10.6	0.01260	25.0	0.06	316.0	2.4997	244.8	340.2	244.83	25.7	231.2	0.0003	7.5	91.5	0.2	-7.5
35.0	9558	13.4	0.01297	31.9	0.07	304.0	2.4829	242.4	340.7	242.44				6.3	76.5	-1.5	-6.1
35.4	9651	13.5	0.01311	32.1	0.07	300.0	2.4771	241.7	340.9	241.71				6.7	71.1	-2.2	-6.4
36.0	9794	13.5	0.01332	32.5	0.08	294.0	2.4683	240.6	341.3	240.61				7.5	64.3	-3.2	-6.8
37.0	10110	16.3	0.01386	39.5	0.10	281.0	2.4487	238.0	342.0	237.98				8.7	74.9	-2.3	-8.4
38.0	10412	14.4	0.01438	35.3	0.09	269.0	2.4298	235.2	342.3	235.21				8.2	84.7	-0.8	-8.2
39.0	10725	14.4	0.01490	35.7	0.09	257.0	2.4099	233.2	343.8	233.21				7.8	89.9	-0.0	-7.8
39.6	10912	13.5	0.01520	33.6	0.09	250.0	2.3979	231.3	343.7	231.33				7.6	86.1	-0.5	-7.6
40.0	11049	12.8	0.01541	32.1	0.09	245.0	2.3892	229.9	343.7	229.95				7.4	83.2	-0.9	-7.4
41.0	11356	13.8	0.01590	35.0	0.10	234.0	2.3692	227.5	344.4	227.45				7.3	69.8	-2.5	-6.9
42.0	11615	11.5	0.01629	29.5	0.08	225.0	2.3522	225.0	344.6	225.04				8.0	64.8	-3.4	-7.3
43.0	11882	13.2	0.01668	34.2	0.10	216.0	2.3345	222.4	344.6	222.42				7.9	61.4	-3.8	-6.9
44.0	12095	9.8	0.01698	25.7	0.08	209.0	2.3201	220.3	344.6	220.31				7.3	62.9	-3.3	-6.5
45.0	12345	8.8	0.01727	23.2	0.07	201.0	2.3032	218.5	345.5	218.46				7.5	79.5	-1.4	-7.4
45.1	12376	8.9	0.01731	23.5	0.07	200.0	2.3010	218.3	345.7	218.27				7.3	80.7	-1.2	-7.2
46.0	12670	9.9	0.01765	26.5	0.09	191.0	2.2810	216.6	347.5	216.55				5.8	95.0	0.5	-5.8
47.0	12837	7.8	0.01783	20.9	0.07	186.0	2.2695	215.1	347.8	215.08				4.1	105.7	1.1	-3.9
48.0	13042	8.3	0.01804	22.5	0.08	180.0	2.2553	213.4	348.3	213.40				4.1	93.7	0.3	-4.1
49.0	13288	8.3	0.01830	22.7	0.08	173.0	2.2380	211.3	348.8	211.30				2.6	69.3	-0.9	-2.4
50.0	13505	13.9	0.01861	38.1	0.14	167.0	2.2227	210.0	350.3	210.04				1.6	327.4	-1.3	0.8
51.0	13691	7.7	0.01887	21.3	0.08	162.0	2.2095	208.7	351.1	208.74				2.3	283.1	-0.5	2.3
52.0	13920	7.6	0.01910	21.3	0.08	156.0	2.1931	206.8	351.7	206.83				1.5	226.4	1.0	1.1
53.0	14156	8.1	0.01934	22.6	0.09	150.0	2.1761	205.4	353.2	205.43				2.6	154.6	2.4	-1.1
54.0	14399	6.4	0.01957	18.3	0.07	144.0	2.1584	202.7	352.6	202.70				3.5	143.4	2.8	-2.1
55.0	14650	10.8	0.01986	31.1	0.13	138.0	2.1399	200.9	353.8	200.92				2.4	111.2	0.9	-2.2
56.0	14955	8.5	0.02026	24.6	0.11	131.0	2.1173	200.0	357.5	200.00				3.3	51.6	-2.1	-2.6
57.0	15228	12.9	0.02066	37.6	0.17	125.0	2.0969	198.3	359.2	198.32				5.7	32.3	-4.8	-3.0
58.0	15562	9.2	0.02116	26.8	0.13	118.0	2.0719	198.1	364.8	198.08				6.9	64.7	-2.9	-6.2
59.0	15865	9.4	0.02154	27.4	0.14	112.0	2.0492	198.6	371.2	198.57				11.0	87.9	-0.4	-11.0
60.0	16184	13.2	0.02203	38.5	0.21	106.0	2.0253	197.3	374.7	197.33				12.0	92.5	0.5	-12.0

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
61.0	16462	11.0	0.02250	32.3	0.18	101.0	2.0043	196.6	378.4	196.56				10.3	102.3	2.2	-10.1
61.2	16519	11.6	0.02259	34.2	0.19	100.0	2.0000	196.5	379.3	196.46				10.6	101.2	2.1	-10.4
62.0	16753	14.2	0.02300	41.9	0.25	96.0	1.9823	196.0	382.9	196.04				11.7	97.5	1.5	-11.6
63.0	17063	23.5	0.02380	67.9	0.43	91.0	1.9590	200.2	397.1	200.23				14.2	81.5	-2.1	-14.0
64.0	17382	30.4	0.02495	86.8	0.58	86.2	1.9355	202.3	407.4	202.26				16.6	75.6	-4.1	-16.0
65.0	17621	33.4	0.02596	94.4	0.67	82.8	1.9180	204.0	415.6	203.98				16.2	89.5	-0.1	-16.2
65.8	17826	31.6	0.02684	89.1	0.65	80.0	1.9031	204.5	420.9	204.51				16.1	99.4	2.6	-15.9
66.0	17864	31.2	0.02700	88.1	0.65	79.5	1.9004	204.6	421.8	204.61				16.2	101.2	3.1	-15.8
67.0	18118	35.8	0.02812	100.3	0.78	76.2	1.8820	206.0	429.9	206.03				16.8	94.5	1.3	-16.8
68.0	18336	34.6	0.02912	96.5	0.78	73.5	1.8663	207.0	436.4	207.02				15.6	91.8	0.5	-15.6
69.0	18545	33.8	0.03006	94.9	0.79	71.0	1.8513	205.8	438.3	205.83				14.1	105.7	3.8	-13.6
69.4	18630	34.6	0.03045	97.2	0.82	70.0	1.8451	205.4	439.0	205.37				13.7	111.3	5.0	-12.8
70.0	18769	35.8	0.03108	100.9	0.87	68.4	1.8351	204.6	440.3	204.61				13.4	120.9	6.9	-11.5
71.0	19019	41.5	0.03235	117.0	1.05	65.6	1.8169	204.6	445.6	204.61				11.9	122.4	6.4	-10.0
72.0	19281	47.2	0.03388	132.4	1.24	62.8	1.7980	205.6	453.4	205.63				11.8	102.2	2.5	-11.5
73.0	19555	53.2	0.03568	149.9	1.47	60.0	1.7782	204.8	457.6	204.82				17.4	88.5	-0.5	-17.4
74.0	19831	50.7	0.03757	143.0	1.47	57.3	1.7582	204.8	463.6	204.82				18.5	88.5	-0.5	-18.5
75.0	20078	55.8	0.03929	155.5	1.68	55.0	1.7404	207.0	474.1	207.02				14.7	92.9	0.7	-14.7
76.0	20337	61.6	0.04127	171.4	1.94	52.7	1.7218	207.6	481.3	207.60				17.6	95.6	1.7	-17.6
77.0	20560	63.7	0.04309	177.4	2.08	50.8	1.7059	207.4	485.9	207.41				22.1	95.8	2.2	-22.0
77.4	20656	67.5	0.04395	187.4	2.24	50.0	1.6990	208.0	489.6	208.01				21.3	96.3	2.3	-21.2
78.0	20804	73.4	0.04526	202.7	2.49	48.8	1.6884	208.9	495.2	208.93				20.2	97.2	2.5	-20.0
79.0	21034	77.3	0.04749	212.2	2.73	47.0	1.6721	210.4	504.0	210.41				18.3	96.9	2.2	-18.2
80.0	21275	79.5	0.04991	217.1	2.91	45.2	1.6551	211.3	511.9	211.30				20.2	96.6	2.3	-20.0
81.0	21511	77.9	0.05229	213.9	2.97	43.5	1.6385	210.4	515.3	210.41				21.3	96.7	2.5	-21.1
82.0	21771	79.1	0.05491	217.6	3.14	41.7	1.6201	209.9	520.2	209.86				22.7	91.9	0.7	-22.7
83.0	21996	81.2	0.05723	223.2	3.35	40.2	1.6042	210.0	526.1	210.04				25.2	88.9	-0.5	-25.2
83.1	22026	82.5	0.05756	226.7	3.42	40.0	1.6021	210.0	526.8	210.02				25.4	89.1	-0.4	-25.4
84.0	22213	90.1	0.05962	248.0	3.85	38.8	1.5888	209.9	531.0	209.86				26.6	90.4	0.2	-26.6
85.0	22423	94.9	0.06211	259.2	4.19	37.5	1.5740	211.3	539.9	211.30				29.1	88.9	-0.6	-29.0
86.0	22642	101.2	0.06484	273.5	4.63	36.2	1.5587	213.7	551.7	213.74				28.7	83.2	-3.4	-28.5
87.0	22853	101.6	0.06754	274.5	4.81	35.0	1.5441	213.7	557.0	213.74				30.2	81.7	-4.4	-29.8
88.0	23146	105.9	0.07137	285.6	5.25	33.4	1.5237	214.1	565.4	214.08				35.3	86.0	-2.4	-35.2
89.0	23415	109.0	0.07500	291.8	5.65	32.0	1.5051	215.7	576.8	215.74				35.7	88.4	-1.0	-35.6
90.0	23697	113.6	0.07893	303.4	6.15	30.6	1.4857	216.2	585.5	216.23				34.1	91.3	0.7	-34.1
90.5	23822	115.1	0.08073	306.8	6.36	30.0	1.4771	216.6	589.9	216.59				33.4	92.7	1.6	-33.4
91.0	23972	116.8	0.08288	310.8	6.61	29.3	1.4669	217.0	595.1	217.03				32.5	94.6	2.6	-32.4
92.0	24215	115.9	0.08639	308.6	6.81	28.2	1.4502	216.9	601.2	216.87				32.9	93.3	1.9	-32.9
93.0	24469	112.5	0.08998	296.2	6.88	27.1	1.4330	219.2	614.7	219.24				32.2	90.5	0.3	-32.2
94.0	24711	106.6	0.09323	279.3	6.77	26.1	1.4166	220.3	624.4	220.31				28.9	88.9	-0.6	-28.9
95.0	24938	100.1	0.09609	259.4	6.58	25.2	1.4014	222.9	637.9	222.86				25.4	88.9	-0.5	-25.4
95.2	24990	100.3	0.09672	259.5	6.65	25.0	1.3979	223.2	640.4	223.22				24.9	88.5	-0.6	-24.9
96.0	25258	101.3	0.09997	260.0	7.00	24.0	1.3802	225.0	653.2	225.04				22.5	86.4	-1.4	-22.5
97.0	25538	98.1	0.10331	251.5	7.07	23.0	1.3617	225.2	661.6	225.19				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***

EGRATED OZONE INVALID ***
HORT OF 20 MB HEIGHT ***


071877
2332
3A-080
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
P
T
10 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

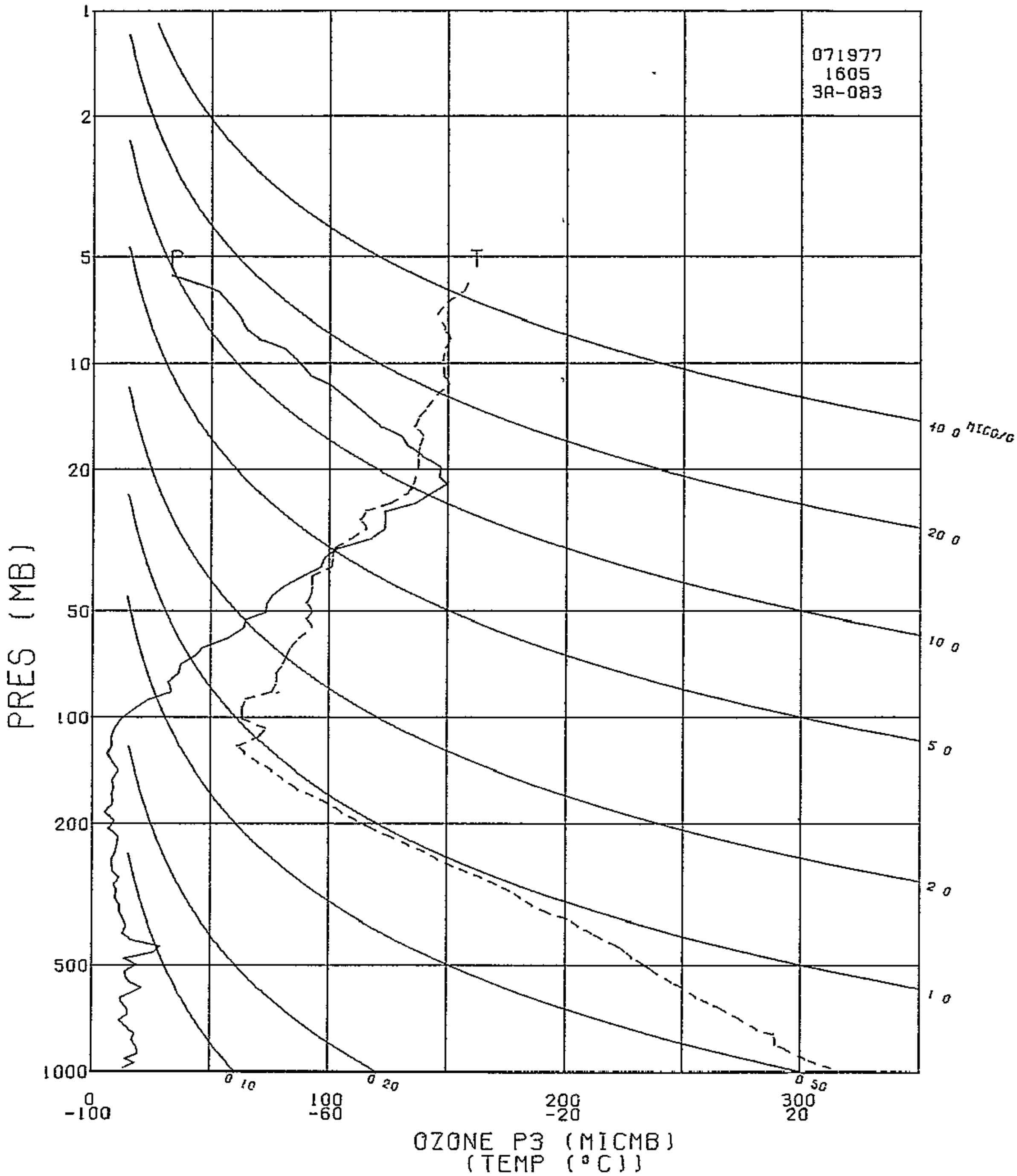
STATION FT SHERMAN   LAUNCH DATE 71977   LAUNCH TIME 1605 GMT   ECC SONDE 3A-083X

SURFACE CONDITIONS			
PRESS 1005.2 MB	OO3 = 34.8	TBOX CAL = 30.0 C	AT 74.2 ORD
TEMP 301.6 K	OIZ = 34.0	BASE CAL = 30.0 C	AT 74.2 ORD
HUMY 83.0 %	OZC = 65.2	HUMIDITY = 53.9 %	AT 46.0 ORD
	IO = 0.131		
	PS = 27.2		

	PROFILE	DOBSON
INTEGRATED OZONE	0.21731	
RESIDUAL OZONE	0.02133	
TOTAL OZONE	0.23864	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	12.3	0.	23.6	0.02	1005.2	3.0023	301.1	300.7	304.43	76.0	296.5	0.0179	4.0	320.0	-3.1	2.6
0.2	99	12.5	0.00005	24.0	0.02	1000.0	3.0000	300.7	300.7	304.00	77.9	296.5	0.0180	3.9	329.7	-3.3	1.9
1.0	342	13.7	0.00033	26.5	0.02	973.0	2.9881	298.4	300.7	301.71	88.1	296.3	0.0182	4.9	15.7	-4.7	-1.3
2.0	626	18.1	0.00074	35.3	0.03	942.0	2.9741	295.8	300.9	298.62	86.3	293.4	0.0158	5.6	14.6	-5.4	-1.4
3.0	850	13.6	0.00106	26.8	0.02	918.0	2.9628	293.9	301.2	296.29	78.1	290.0	0.0131	6.0	14.1	-5.8	-1.5
3.6	1021	17.1	0.00132	33.6	0.03	900.0	2.9542	293.4	302.3	295.60	75.7	288.9	0.0122	5.6	13.7	-5.5	-1.3
4.0	1118	19.0	0.00146	37.5	0.04	890.0	2.9494	293.0	303.0	295.22	74.4	288.3	0.0121	5.4	13.5	-5.3	-1.3
5.0	1383	19.1	0.00193	38.0	0.04	863.0	2.9360	290.7	303.2	292.69	78.9	287.0	0.0114	5.3	28.0	-4.7	-2.5
5.4	1512	18.5	0.00215	36.9	0.04	850.0	2.9294	289.8	303.6	291.88	83.6	287.0	0.0117	5.6	30.4	-4.8	-2.8
6.0	1675	17.7	0.00242	35.4	0.04	834.0	2.9212	288.8	304.1	290.87	89.4	287.0	0.0119	5.9	33.1	-5.0	-3.2
7.0	1933	16.8	0.00284	33.7	0.03	809.0	2.9079	288.0	305.9	289.87	83.7	285.2	0.0109	5.9	63.4	-2.6	-5.3
7.3	2027	17.2	0.00299	34.4	0.04	800.0	2.9031	288.1	307.1	289.89	77.4	284.1	0.0098	6.4	77.9	-1.3	-6.3
8.0	2232	18.0	0.00332	36.0	0.04	781.0	2.8927	288.4	309.5	289.92	64.0	281.6	0.0088	8.5	99.8	1.4	-8.4
9.0	2484	15.4	0.00371	31.0	0.03	758.0	2.8797	285.8	309.3	287.07	62.3	278.8	0.0075	8.6	98.0	1.2	-8.5
10.0	2765	13.4	0.00409	27.1	0.03	733.0	2.8651	284.8	311.2	286.02	60.4	277.4	0.0070	5.8	48.9	-3.8	-4.4
11.0	3019	11.3	0.00439	23.1	0.03	711.0	2.8519	282.9	311.8	284.03	62.5	276.1	0.0066	7.1	99.8	1.2	-7.0
11.4	3148	12.9	0.00455	26.4	0.03	700.0	2.8451	282.7	313.1	283.87	62.4	275.9	0.0066	9.1	112.3	3.5	-8.4
12.0	3316	15.0	0.00476	30.7	0.04	686.0	2.8363	282.5	314.6	283.67	62.4	275.7	0.0067	12.0	122.0	6.4	-10.2
13.0	3610	14.5	0.00518	29.9	0.04	662.0	2.8209	279.6	314.6	280.64	66.6	273.9	0.0060	7.7	118.7	3.7	-6.8
14.0	3938	12.5	0.00560	26.1	0.03	636.0	2.8035	277.5	315.8	278.47	70.1	272.5	0.0057	7.2	116.9	3.3	-6.4
15.0	4223	11.9	0.00594	24.9	0.03	614.0	2.7882	275.5	316.6	276.21	61.1	268.7	0.0045	7.8	98.9	1.2	-7.7
15.7	4408	15.2	0.00620	31.9	0.04	600.0	2.7782	274.9	318.1	275.45	44.8	263.9	0.0028	9.2	88.0	-0.3	-9.2
16.0	4503	16.9	0.00634	35.4	0.05	593.0	2.7731	274.6	318.8	275.06	36.5	261.4	0.0026	10.0	83.7	-1.1	-9.9
17.0	4750	20.8	0.00680	43.9	0.06	575.0	2.7597	273.0	319.7	273.35	34.3	259.1	0.0022	11.2	74.0	-3.1	-10.7
18.0	5003	16.1	0.00726	34.2	0.05	557.0	2.7459	271.2	320.6	271.56	34.8	257.7	0.0021	9.8	65.9	-4.0	-9.0
19.0	5308	14.1	0.00772	30.1	0.04	536.0	2.7292	270.3	323.0	270.74	49.4	261.2	0.0028	7.4	65.2	-3.1	-6.7
20.0	5608	14.0	0.00814	30.2	0.05	516.0	2.7126	267.8	323.5	268.16	44.6	257.6	0.0022	7.0	65.8	-2.9	-6.4
20.8	5854	17.5	0.00854	37.8	0.06	500.0	2.6990	266.7	325.1	266.91	33.5	253.1	0.0014	6.7	62.7	-3.1	-6.0
21.0	5933	18.6	0.00867	40.3	0.06	495.0	2.6946	266.3	325.5	266.51	29.9	251.6	0.0014	6.6	61.7	-3.1	-5.8
22.0	6253	13.3	0.00919	28.9	0.05	475.0	2.6767	264.4	327.0	264.61	37.7	252.6	0.0015	6.2	63.0	-2.8	-5.6
23.0	6585	26.3	0.00986	57.7	0.10	455.0	2.6580	263.0	329.4	263.08				7.5	68.7	-2.7	-7.0
24.0	6860	28.8	0.01064	63.6	0.11	439.0	2.6425	261.8	331.2	261.79				9.8	70.7	-3.2	-9.2
25.0	7215	16.0	0.01146	35.6	0.06	419.0	2.6222	259.1	332.2	259.22	32.9	246.3	0.0010	9.7	71.4	-3.1	-9.2
26.0	7490	12.6	0.01187	28.3	0.05	404.0	2.6064	257.4	333.5	257.52	29.1	243.5	0.0008	9.1	74.1	-2.5	-8.7
26.2	7564	12.9	0.01198	29.1	0.05	400.0	2.6021	256.9	333.8	257.02	29.2	243.1	0.0008	9.2	75.0	-2.4	-8.9
27.0	7818	13.9	0.01233	31.5	0.06	386.7	2.5874	255.2	334.8	255.32	29.8	241.8	0.0007	9.7	78.0	-2.0	-9.5
28.0	8146	12.6	0.01279	28.6	0.06	370.0	2.5682	253.3	336.5	253.41	30.7	240.5	0.0006	8.6	84.9	-0.8	-8.6
29.0	8455	11.3	0.01319	26.1	0.05	354.8	2.5500	250.1	336.3	250.19	32.4	238.2	0.0005	7.9	95.1	0.7	-7.9
29.3	8554	11.3	0.01331	26.2	0.05	350.0	2.5441	249.3	336.5	249.35	35.7	238.3	0.0006	8.2	97.0	1.0	-8.1
30.0	8765	11.4	0.01357	26.5	0.06	340.0	2.5315	247.5	336.8	247.56	42.9	238.6	0.0006	8.8	100.7	1.6	-8.7
31.0	9135	9.3	0.01399	21.8	0.05	323.0	2.5092	245.5	339.1	245.59	46.1	237.5	0.0006	7.7	102.2	1.6	-7.5
32.0	9452	9.9	0.01432	23.5	0.05	309.0	2.4900	243.7	340.8	243.75	41.2	234.7	0.0004	5.4	105.3	1.4	-5.2
32.7	9661	9.0	0.01454	21.3	0.05	300.0	2.4771	242.2	341.6	242.21	36.1	232.1	0.0003	5.5	107.5	1.7	-5.3
33.0	9757	8.5	0.01464	20.4	0.05	296.0	2.4713	241.5	341.9	241.51	33.8	230.8	0.0003	5.5	108.5	1.8	-5.3
34.0	10073	11.1	0.01498	26.9	0.07	283.0	2.4518	239.0	342.8	239.01	28.7	227.1	0.0002	6.8	117.8	3.2	-6.0
35.0	10323	8.2	0.01526	20.1	0.05	273.0	2.4362	236.5	342.7	236.51	25.9	224.0	0.0002	7.8	125.6	4.5	-6.3
36.0	10580	8.3	0.01550	20.5	0.05	263.0	2.4200	234.1	342.9	234.12	26.9	222.2	0.0001	8.7	124.2	4.9	-7.2
37.0	10871	7.6	0.01577	19.0	0.05	252.0	2.4014	231.6	343.3	231.55				9.0	114.7	3.8	-8.2
37.2	10924	7.9	0.01582	19.7	0.05	250.0	2.3979	231.2	343.6	231.20				8.7	112.8	3.4	-8.0
38.0	11228	9.5	0.01613	23.9	0.07	239.0	2.3784	229.2	345.0	229.23				7.1	98.7	1.1	-7.0
39.0	11513	10.1	0.01646	25.7	0.07	229.0	2.3598	226.7	345.5	226.73				6.0	85.2	-0.5	-6.0
40.0	11868	10.8	0.01690	27.8	0.08	217.0	2.3365	223.7	346.2	223.72				5.9	85.3	-0.5	-5.9
41.0	12237	6.8	0.01729	17.8	0.05	205.0	2.3118	220.3	346.5	220.31				5.0	66.4	-2.0	-4.5
41.5	12394	7.7	0.01744	20.4	0.06	200.0	2.3010	219.1	347.0	219.09				4.8	61.1	-2.3	-4.2
42.0	12557	8.7	0.01760	23.0	0.07	195.0	2.2900	217.8	347.5	217.83				4.7	55.4	-2.7	-3.9
43.0	12925	5.1	0.01792	13.8	0.05	184.0	2.2648	215.1	348.9	215.09				4.9	97.1	0.6	-4.8
44.0	13275	8.4	0.01821	22.7	0.08	174.0	2.2405	212.9	350.9	212.90				3.8	117.9	1.8	-3.4
45.0	13566	7.6	0.01851	21.0	0.08	166.0	2.2201	210.4	351.5	210.44				0.8	146.5	0.7	-0.5
46.0	13868	8.8	0.01883	24.5	0.09	158.0	2.1987	207.5	351.5	207.46				2.2	125.4	1.3	-1.8
46.9	14181	8.2	0.01918	23.1	0.09	150.0	2.1761	205.5	353.4	205.54				5.0	112.5	1.9	-4.6
47.0	14222	8.1	0.01922	22.9	0.09	149.0	2.1732	205.3	353.7	205.29				5.4	111.8	2.0	-5.0
48.0	14552	10.6	0.01963	30.1	0.12	141.0	2.1492	203.4	356.0	203.42				6.0	96.2	0.6	-6.0
49.0	14853	8.1	0.02001	23.2	0.10	134.0	2.1271	201.2	357.4	201.24				5.5	81.5	-0.8	-5.5
50.0	15213	6.2	0.02036	18.0	0.08	126.0	2.1004	198.9	359.5	198.92				4.4	94.6	0.4	-4.4
50.2	15259	6.5	0.02040	18.9	0.09	125.0	2.0969	198.7	360.0	198.72				4.5	95.8	0.4	-4.4
51.0	15496	8.0	0.02063	23.3	0.11	120.0	2.0792	197.7	362.3	197.70				4.5	101.7	0.9	-4.4
52.0	15847	7.9	0.02101	22.6	0.12	113.0	2.0531	201.2	375.2	201.24				1.3	59.6	-0.6	-1.1
53.0	16169	9.1	0.02137	26.1	0.14	107.0	2.0294	202.3	383.2	202.35				4.0	325.6	-3.3	2.3
54.0	16566	12.1	0.02194	35.3	0.20	100.0	2.0000	198.4	383.1	198.43				3.4	8.0	-3.3	-0.5
55.0	16925	17.5	0.02266	50.9	0.31	94.0	1.9731	198.2	389.5	198.19				4.4	68.9	-1.6	-4.1
56.0	17308	24.0	0.02374	69.6	0.45	88.0	1.9445	199.2	398.8	199.15				7.5	91.8	0.2	-7.5
57.0	17582	33.2	0.02479	94.1	0.65	84.0	1.9243	203.4	412.8	203.42				10.4	89.5	-0.1	-10.4
57.8	17872	32.2	0.02604	91.0	0.67	80.0	1.9031	204.1	420.0	204.08				12.5	81.3	-1.9	-12.4

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	17955	31.9	0.02640	90.1	0.67	78.9	1.8971	204.3	422.0	204.26				13.2	79.5	-2.4	-13.0
59.0	18322	36.6	0.02806	103.3	0.82	74.2	1.8704	204.3	429.5	204.26				17.7	88.7	-0.4	-17.7
60.0	18671	37.4	0.02976	105.2	0.89	70.0	1.8451	205.3	438.9	205.29				16.9	98.2	2.4	-16.7
61.0	19007	43.4	0.03154	121.6	1.09	66.2	1.8209	205.9	447.2	205.89				13.4	91.4	0.3	-13.4
62.0	19344	46.8	0.03352	130.6	1.24	62.6	1.7966	206.7	456.2	206.68				14.5	94.6	1.1	-14.4
62.7	19601	54.2	0.03526	150.6	1.50	60.0	1.7782	207.7	463.9	207.65				16.4	95.5	1.6	-16.4
63.0	19703	57.1	0.03595	158.5	1.60	59.0	1.7709	208.0	467.0	208.03				17.2	95.8	1.7	-17.1
64.0	20110	64.2	0.03914	176.2	1.93	55.2	1.7419	210.3	481.1	210.26				20.4	89.7	-0.1	-20.4
65.0	20429	64.9	0.04179	178.9	2.05	52.4	1.7193	209.3	486.1	209.35				20.4	93.4	1.2	-20.4
66.0	20717	73.2	0.04434	200.9	2.42	50.0	1.6990	210.3	494.9	210.26				19.2	94.6	1.5	-19.1
67.0	21071	73.5	0.04767	202.7	2.58	47.2	1.6739	209.3	500.9	209.35				20.8	92.2	0.8	-20.8
68.0	21405	76.1	0.05089	209.2	2.82	44.7	1.6503	210.1	510.5	210.08				22.6	88.7	-0.5	-22.6
69.0	21788	81.6	0.05476	223.9	3.22	42.0	1.6232	210.3	520.1	210.26				26.3	86.5	-1.6	-26.2
69.8	22088	87.4	0.05804	239.9	3.62	40.0	1.6021	210.3	527.4	210.26				27.6	89.2	-0.4	-27.6
70.0	22150	88.6	0.05871	243.2	3.71	39.6	1.5977	210.3	529.0	210.26				27.9	89.7	-0.1	-27.9
71.0	22521	96.4	0.06308	260.5	4.28	37.3	1.5717	213.6	546.6	213.59				27.4	93.3	1.6	-27.4
72.0	22919	98.2	0.06796	265.2	4.65	35.0	1.5441	213.8	557.1	213.76				31.5	93.1	1.7	-31.4
73.0	23306	104.0	0.07290	280.6	5.24	32.9	1.5172	214.1	567.9	214.09				31.3	93.7	2.0	-31.2
74.0	23681	117.4	0.07810	312.7	6.28	31.0	1.4914	216.9	585.1	216.88				33.2	91.8	1.0	-33.2
74.5	23890	120.6	0.08121	319.1	6.67	30.0	1.4771	218.2	594.2	218.18				34.3	90.7	0.4	-34.3
75.0	24085	123.6	0.08411	325.2	7.04	29.1	1.4639	219.4	602.7	219.39				35.3	89.8	-0.1	-35.3
76.0	24447	123.8	0.08963	327.3	7.46	27.5	1.4393	218.5	609.9	218.46				35.1	92.3	1.4	-35.1
77.0	24831	123.8	0.09549	325.8	7.92	25.9	1.4133	219.4	623.1	219.39				35.7	94.9	3.0	-35.6
77.7	25060	132.4	0.09912	343.9	8.79	25.0	1.3979	222.3	637.7	222.27				32.9	96.7	3.9	-32.7
78.0	25165	136.3	0.10077	352.1	9.18	24.6	1.3909	223.6	644.4	223.58				31.7	97.7	4.2	-31.4
79.0	25579	142.9	0.10770	364.3	10.25	23.1	1.3636	226.4	664.5	226.45				26.4	101.9	5.4	-25.8
80.0	25963	149.2	0.11438	379.0	11.34	21.8	1.3385	227.3	678.1	227.29				18.2	103.7	4.3	-17.7
81.0	26275	146.2	0.11985	370.4	11.64	20.8	1.3181	227.8	689.0	227.85				13.0	85.8	-0.9	-13.0
81.7	26536	146.7	0.12439	371.5	12.16	20.0	1.3010	228.0	697.3	228.03				14.8	73.9	-4.1	-14.2
82.0	26671	147.0	0.12673	372.1	12.43	19.6	1.2923	228.1	701.6	228.13				15.9	68.8	-5.7	-14.8
83.0	27166	138.8	0.13508	351.3	12.64	18.2	1.2601	228.1	716.6	228.13				17.0	78.1	-3.5	-16.7
83.6	27428	135.3	0.13928	342.2	12.81	17.5	1.2430	228.3	725.3	228.28				16.4	87.5	-0.7	-16.4
84.0	27622	132.7	0.14239	335.5	12.93	17.0	1.2304	228.4	731.6	228.40				16.2	94.7	1.3	-16.1
85.0	28028	130.2	0.14868	328.4	13.49	16.0	1.2041	229.0	746.2	228.96				15.5	107.9	4.7	-14.7
86.0	28459	121.3	0.15508	307.6	13.39	15.0	1.1761	227.6	755.5	227.57				12.8	125.6	7.5	-10.4
87.0	28872	116.3	0.16088	294.1	13.66	14.1	1.1492	228.3	771.3	228.26				8.6	133.6	5.9	-6.2
88.0	29314	111.3	0.16680	279.8	13.97	13.2	1.1206	229.6	790.7	229.64				8.7	119.6	4.3	-7.6
88.7	29681	106.9	0.17145	267.5	14.17	12.5	1.0969	230.8	807.2	230.77				9.0	128.1	5.5	-7.1
89.0	29845	104.9	0.17352	262.0	14.25	12.2	1.0864	231.3	814.5	231.28				9.1	131.6	6.1	-6.8
90.0	30306	99.2	0.17898	245.6	14.42	11.4	1.0569	233.3	837.7	233.30				6.1	135.9	4.4	-4.2
91.0	30674	91.6	0.18305	227.4	14.05	10.8	1.0334	232.5	847.8	232.49				12.4	82.6	-1.6	-12.3
91.8	31197	87.0	0.18844	216.5	14.42	10.0	1.0000	232.2	865.5	232.17				15.8	79.2	-3.0	-15.6
92.0	31335	85.9	0.18986	213.6	14.52	9.8	0.9912	232.1	870.1	232.09				16.8	78.5	-3.3	-16.4
93.0	31914	80.0	0.19543	198.3	14.72	9.0	0.9542	232.8	894.2	232.76				7.4	76.5	-1.7	-7.2
94.0	32304	70.1	0.19881	173.2	13.66	8.5	0.9294	233.6	912.0	233.57				3.1	30.6	-2.7	-1.6
95.0	32717	65.0	0.20204	161.2	13.46	8.0	0.9031	232.6	924.2	232.63				8.8	65.9	-3.6	-8.0
96.0	33432	60.5	0.20726	151.1	13.93	7.2	0.8573	231.3	947.0	231.28				13.7	78.5	-2.7	-13.4
96.4	33623	58.9	0.20856	146.7	13.94	7.0	0.8451	232.0	957.5	231.96				14.0	78.6	-2.8	-13.7
97.0	33921	56.5	0.21058	139.9	13.96	6.7	0.8261	233.0	973.9	233.03				14.5	78.8	-2.8	-14.2
98.0	34453	51.8	0.21389	126.8	13.85	6.2	0.7924	236.0	1008.3	235.96				13.3	85.8	-1.0	-13.2
98.7	34679	46.0	0.21512	112.3	12.67	6.0	0.7782	236.3	1019.3	236.31				11.4	94.5	0.9	-11.4
99.0	34796	43.0	0.21575	104.9	12.06	5.9	0.7709	236.5	1025.0	236.49				10.6	100.1	1.9	-10.4
100.0	35157	32.9	0.21731	80.1	9.74	5.6	0.7482	237.1	1043.2	237.14				999.9	999.9	999.9	999.9



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 71977   LAUNCH TIME 1030 GMT   ECC SONDE 3A-090X

SURFACE CONDITIONS		003 = 33.7	TBOX CAL = 30.0 C	AT	73.4 ORD
PRESS	1004.2 MB	OIZ = 33.6	BASE CAL = 30.0 C	AT	74.0 ORD
TEMP	298.8 K	OZC = 62.2	HUMIDITY = 62.0 %	AT	46.0 ORD
HUMY	89.0 %	IO = 0.020			
		PS = 29.4			

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****                                            ****
****                      PROFILE   DOBSON      ****
****    INTEGRATED OZONE  0.23150               ****
****    RESIDUAL OZONE    0.01861               ****
****    TOTAL OZONE       0.25011   0.          ****
****                                            ****
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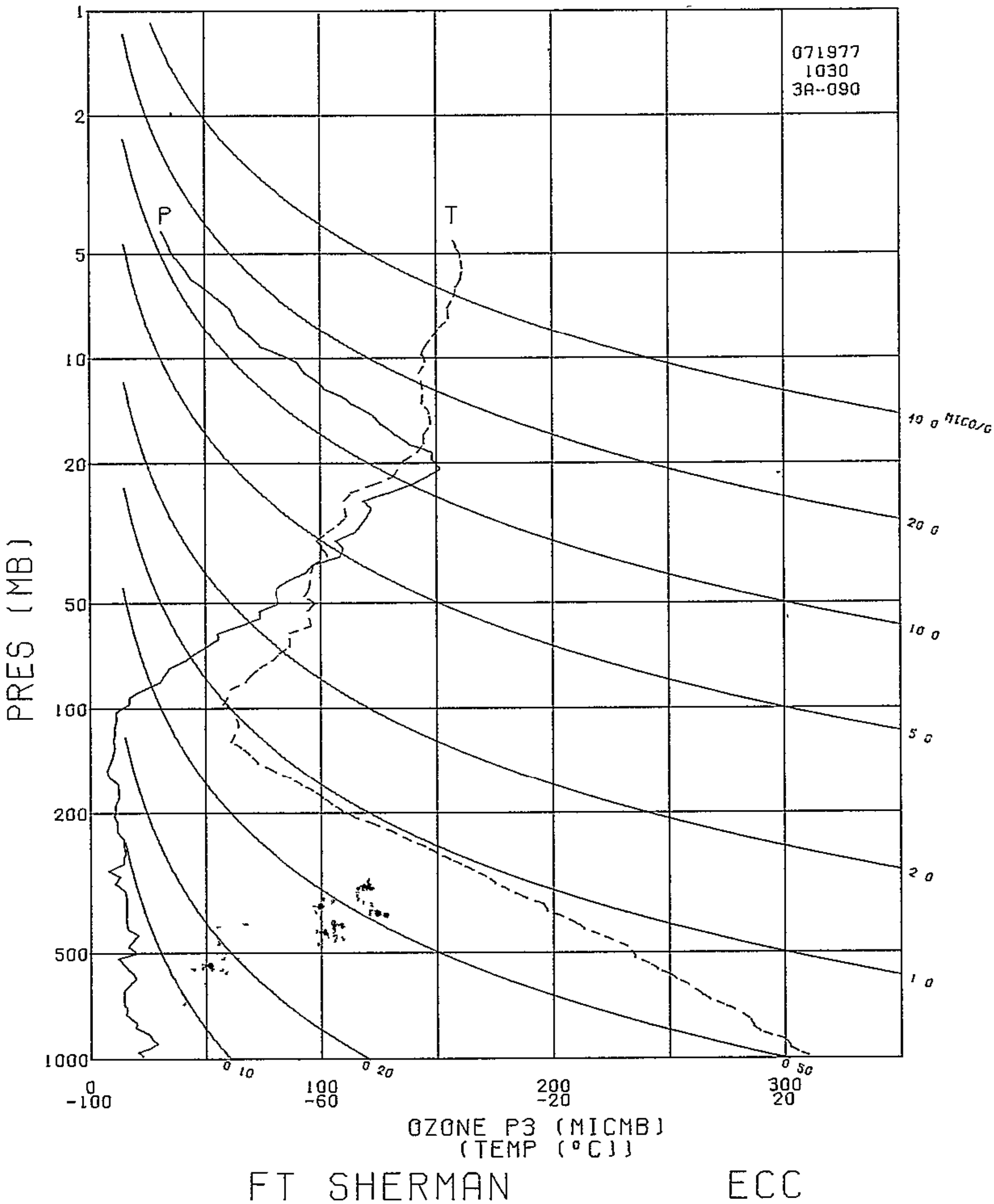
TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	18.6	0.	36.0	0.03	1004.2	3.0018	298.4	298.1	301.59	86.4	296.0	0.0174	2.0	360.0	-2.0	-0.0
0.2	89	19.2	0.00007	37.2	0.03	1000.0	3.0000	298.2	298.2	301.39	87.3	296.0	0.0174	2.6	7.9	-2.6	-0.4
1.0	268	22.3	0.00039	43.2	0.04	980.0	2.9912	297.2	298.9	300.42	91.7	295.8	0.0176	5.7	21.5	-5.3	-2.1
2.0	503	20.4	0.00085	39.9	0.04	954.0	2.9795	295.4	299.4	298.06	85.3	292.8	0.0150	6.7	9.5	-6.6	-1.1
3.0	734	25.3	0.00132	49.7	0.05	929.0	2.9680	294.0	300.2	296.49	83.6	291.1	0.0139	6.7	355.4	-6.7	0.5
4.0	980	28.7	0.00193	56.4	0.05	903.0	2.9557	293.8	302.5	296.23	81.3	290.5	0.0137	5.3	356.4	-5.3	0.3
4.1	1008	28.4	0.00200	55.8	0.05	900.0	2.9542	293.7	302.7	296.11	80.4	290.2	0.0133	5.2	357.4	-5.2	0.2
5.0	1203	26.4	0.00249	52.1	0.05	880.0	2.9445	293.1	304.0	295.30	74.0	288.3	0.0123	4.1	6.1	-4.1	-0.4
6.0	1431	26.0	0.00304	51.6	0.05	857.0	2.9330	290.7	303.8	292.80	79.3	287.1	0.0116	3.6	11.3	-3.6	-0.7
6.3	1500	25.1	0.00320	49.9	0.05	850.0	2.9294	290.1	303.9	292.14	81.9	286.9	0.0116	3.8	19.4	-3.5	-1.2
7.0	1632	23.4	0.00350	46.7	0.05	837.0	2.9227	288.9	303.9	290.89	86.6	286.6	0.0115	4.1	32.9	-3.5	-2.2
8.0	1879	19.4	0.00399	38.9	0.04	813.0	2.9101	287.6	305.2	289.78	96.1	287.0	0.0122	5.5	41.3	-4.2	-3.7
8.6	2015	19.8	0.00424	39.8	0.04	800.0	2.9031	287.6	306.6	289.54	83.9	284.9	0.0102	5.4	44.9	-3.8	-3.8
9.0	2111	20.2	0.00442	40.5	0.04	791.0	2.8982	287.6	307.6	289.36	75.4	283.3	0.0098	5.3	47.5	-3.6	-3.9
10.0	2349	17.4	0.00483	34.9	0.04	769.0	2.8859	286.8	309.2	288.43	71.2	281.7	0.0090	4.8	55.8	-2.7	-3.9
11.0	2571	15.2	0.00517	30.8	0.03	749.0	2.8745	285.7	310.3	286.99	63.2	278.9	0.0076	5.5	65.4	-2.3	-5.0
12.0	2867	15.9	0.00561	32.3	0.04	723.0	2.8591	284.3	311.9	285.57	63.5	277.6	0.0073	6.1	76.3	-1.4	-5.9
13.0	3100	14.5	0.00594	29.6	0.03	703.0	2.8470	282.4	312.4	283.70	70.9	277.4	0.0073	5.7	81.8	-0.8	-5.6
13.1	3135	14.5	0.00599	29.6	0.03	700.0	2.8451	282.1	312.4	283.40	71.4	277.2	0.0072	5.8	82.1	-0.8	-5.8
14.0	3387	14.5	0.00634	30.0	0.04	679.0	2.8319	280.1	312.8	281.25	75.5	276.0	0.0069	7.0	84.0	-0.7	-6.9
15.0	3645	14.5	0.00670	30.1	0.04	658.0	2.8182	278.7	314.1	279.71	72.2	274.0	0.0062	9.1	85.9	-0.6	-9.1
16.0	3923	14.5	0.00709	30.2	0.04	636.0	2.8035	278.0	316.3	278.97	70.4	273.0	0.0059	10.2	88.6	-0.2	-10.2
17.0	4209	16.8	0.00753	35.1	0.05	614.0	2.7882	276.2	317.6	277.07	62.9	269.9	0.0049	10.2	89.5	-0.1	-10.2
17.7	4395	18.3	0.00785	38.5	0.05	600.0	2.7782	274.9	318.1	275.65	59.7	267.9	0.0041	10.4	86.2	-0.7	-10.4
18.0	4490	19.1	0.00802	40.3	0.05	593.0	2.7731	274.2	318.4	274.92	58.1	266.9	0.0040	10.6	84.6	-1.0	-10.5
19.0	4751	18.5	0.00850	39.1	0.05	574.0	2.7589	272.9	319.9	273.53	54.0	264.8	0.0035	10.9	83.4	-1.3	-10.8
20.0	5005	16.2	0.00894	34.4	0.05	556.0	2.7451	271.0	320.5	271.63	62.0	264.7	0.0036	9.6	82.9	-1.2	-9.5
21.0	5310	13.9	0.00940	29.8	0.04	535.0	2.7284	269.5	322.2	270.01	61.8	263.2	0.0033	8.1	78.6	-1.6	-7.9
22.0	5609	11.7	0.00978	25.2	0.04	515.0	2.7118	267.2	322.9	267.64	60.9	260.8	0.0029	6.9	77.1	-1.5	-6.8
22.9	5840	18.8	0.01015	40.5	0.06	500.0	2.6990	267.4	326.0	267.73	36.6	254.8	0.0017	6.6	82.4	-0.9	-6.5
23.0	5872	19.7	0.01020	42.5	0.07	498.0	2.6972	267.5	326.4	267.74	33.4	253.9	0.0017	6.6	83.1	-0.8	-6.5
24.0	6176	16.2	0.01075	35.1	0.06	479.0	2.6803	265.8	328.0	266.10	37.9	253.9	0.0017	6.1	84.9	-0.5	-6.1
25.0	6506	18.5	0.01133	40.5	0.07	459.0	2.6618	263.2	328.8	263.36	29.1	248.6	0.0011	6.0	77.1	-1.3	-5.8
26.0	6795	20.7	0.01191	45.7	0.08	442.0	2.6454	260.9	329.4	260.89				7.3	77.0	-1.6	-7.1
27.0	7057	16.2	0.01242	36.3	0.06	427.0	2.6304	258.4	329.5	258.38				7.9	82.5	-1.0	-7.8
28.0	7345	15.5	0.01289	34.8	0.06	411.0	2.6138	257.0	331.3	257.16	45.5	247.9	0.0012	8.0	87.3	-0.4	-7.9
28.6	7547	15.5	0.01323	35.0	0.06	400.0	2.6021	255.6	332.0	255.75	47.8	247.2	0.0011	7.6	91.0	0.1	-7.6
29.0	7680	15.5	0.01344	35.1	0.07	393.0	2.5944	254.7	332.5	254.83	49.3	246.7	0.0011	7.3	93.7	0.5	-7.3
30.0	7949	15.5	0.01389	35.5	0.07	379.0	2.5786	251.8	332.3	251.94	38.8	241.6	0.0007	7.4	92.8	0.4	-7.4
31.0	8307	15.6	0.01448	35.8	0.07	361.0	2.5575	251.2	336.0	251.25	30.6	238.5	0.0005	8.0	85.1	-0.7	-7.9
31.6	8532	15.2	0.01485	35.2	0.07	350.0	2.5441	248.9	335.9	248.95	35.7	238.0	0.0005	8.1	88.4	-0.2	-8.1
32.0	8659	14.9	0.01506	34.9	0.07	344.0	2.5366	247.6	335.9	247.67	38.6	237.7	0.0005	8.1	90.2	0.0	-8.1
33.0	8959	14.3	0.01554	33.5	0.07	330.0	2.5185	245.4	336.8	245.44	43.0	236.7	0.0005	10.0	98.1	1.4	-9.9
34.0	9269	10.5	0.01596	24.9	0.05	316.0	2.4997	243.0	337.7	243.06	34.0	232.3	0.0003	9.5	95.2	0.9	-9.5
35.0	9590	12.6	0.01638	30.2	0.07	302.0	2.4800	241.4	339.9	241.48	32.6	230.5	0.0003	7.5	94.6	0.6	-7.4
35.2	9636	11.8	0.01643	28.2	0.06	300.0	2.4771	241.1	340.0	241.09	32.8	230.2	0.0003	7.5	94.7	0.6	-7.5
36.0	9875	7.3	0.01670	17.7	0.04	290.0	2.4624	239.1	340.5	239.11	34.0	228.7	0.0002	7.7	95.2	0.7	-7.7
37.0	10169	14.0	0.01705	34.2	0.08	278.0	2.4440	237.1	341.8	237.12				7.5	93.9	0.5	-7.4
38.0	10370	14.0	0.01738	34.3	0.09	270.0	2.4314	235.2	342.0	235.26	20.2	220.8	0.0001	7.7	92.8	0.4	-7.7
39.0	10655	15.4	0.01786	38.2	0.10	259.0	2.4133	233.0	342.7	232.97				9.1	92.7	0.4	-9.1
39.8	10894	14.8	0.01828	36.9	0.10	250.0	2.3979	231.3	343.7	231.32				8.9	94.0	0.6	-8.8
40.0	10949	14.6	0.01837	36.5	0.10	248.0	2.3945	230.9	344.0	230.94				8.8	94.3	0.7	-8.8
41.0	11197	14.6	0.01880	37.0	0.10	239.0	2.3784	228.5	343.9	228.46				10.1	106.5	2.9	-9.7
42.0	11568	11.7	0.01938	29.9	0.09	226.0	2.3541	225.6	345.1	225.64				8.4	101.1	1.6	-8.3
43.0	11925	11.7	0.01988	30.3	0.09	214.0	2.3304	222.1	345.1	222.13				6.1	73.9	-1.7	-5.9
44.0	12221	10.2	0.02028	26.8	0.08	204.4	2.3105	218.8	344.3	218.77				5.4	86.5	-0.3	-5.4
44.5	12359	10.5	0.02046	27.9	0.09	200.0	2.3010	217.7	344.8	217.70				5.1	96.4	0.6	-5.1
45.0	12488	10.9	0.02063	29.0	0.09	196.0	2.2923	216.7	345.2	216.70				5.0	106.3	1.4	-4.8
46.0	12751	10.9	0.02098	29.3	0.10	188.0	2.2742	214.9	346.4	214.90				3.8	103.0	0.9	-3.7
47.0	13023	12.2	0.02138	33.1	0.11	180.0	2.2553	213.4	348.3	213.37				2.8	95.7	0.3	-2.8
48.0	13305	12.2	0.02182	33.4	0.12	172.0	2.2355	211.6	349.9	211.63				3.2	120.9	1.6	-2.8
49.0	13561	12.1	0.02222	33.3	0.12	165.0	2.2175	209.6	350.8	209.64				4.3	140.0	3.3	-2.8
50.0	13825	8.5	0.02257	23.6	0.09	158.0	2.1987	207.7	352.0	207.75				5.9	127.5	3.6	-4.7
51.0	14138	7.1	0.02289	20.1	0.08	150.0	2.1761	204.5	351.7	204.54				5.9	97.5	0.8	-5.8
52.0	14443	8.6	0.02321	24.5	0.10	142.5	2.1538	202.0	352.4	201.96				6.6	53.4	-3.9	-5.3
53.0	14748	9.9	0.02359	28.5	0.12	135.3	2.1313	200.6	355.2	200.60				7.8	50.4	-5.0	-6.0
54.0	15027	10.6	0.02397	30.8	0.14	129.0	2.1106	199.2	357.6	199.18				7.2	78.2	-1.5	-7.0
54.8	15209	10.1	0.02423	29.3	0.13	125.0	2.0969	197.8	358.3	197.81				4.9	96.4	0.5	-4.9
55.0	15256	9.9	0.02429	28.9	0.13	124.0	2.0934	197.5	358.5	197.46				4.4	103.9	1.1	-4.3
56.0	15542	10.6	0.02470	31.0	0.15	118.0	2.0719	197.2	363.2	197.20				1.5	225.1	1.1	1.1
57.0	15844	10.7	0.02513	31.0	0.16	112.0	2.0492	198.7	371.4	198.70				2.2	260.8	0.4	2.2
58.0	16109	11.3	0.02553	32.9	0.18	107.0	2.0294	198.9	376.7	198.94				2.7	130.0	1.8	-2.1
59.0	16415	11.2	0.02600	32.7	0.18	101.5	2.0065	197.7	380.1	197.71				5.9	89.7	-0.0	-5.9

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.3	16500	12.8	0.02616	37.6	0.21	100.0	2.0000	197.2	380.8	197.24				7.0	79.9	-1.2	-6.9
60.0	16694	16.6	0.02653	48.8	0.28	96.7	1.9854	196.2	382.4	196.17				10.0	67.0	-3.9	-9.2
61.0	16980	17.2	0.02719	50.7	0.31	92.0	1.9638	196.2	387.9	196.17				15.1	74.8	-3.9	-14.5
62.0	17282	23.8	0.02804	69.7	0.45	87.3	1.9410	197.5	396.3	197.46				16.1	80.7	-2.6	-15.8
63.0	17527	30.2	0.02894	87.4	0.60	83.7	1.9227	199.9	406.1	199.90				15.7	84.5	-1.5	-15.6
64.0	17792	32.2	0.03006	92.5	0.67	80.0	1.9031	200.8	413.3	200.83				20.1	87.2	-1.0	-20.1
65.0	18087	34.5	0.03137	98.4	0.75	76.1	1.8814	202.4	422.5	202.40				15.1	86.7	-0.9	-15.0
66.0	18367	41.1	0.03278	116.1	0.94	72.6	1.8609	204.5	432.7	204.54				7.9	69.9	-2.7	-7.4
66.8	18585	44.5	0.03402	124.9	1.05	70.0	1.8451	205.7	439.7	205.66				10.6	74.3	-2.9	-10.2
67.0	18646	45.4	0.03436	127.3	1.09	69.3	1.8407	206.0	441.6	205.97				11.4	75.2	-2.9	-11.0
68.0	18923	50.5	0.03610	140.4	1.26	66.2	1.8209	207.7	451.3	207.75				14.8	87.3	-0.7	-14.8
69.0	19205	55.2	0.03803	153.3	1.45	63.2	1.8007	207.7	457.3	207.75				17.2	83.9	-1.8	-17.1
70.0	19460	55.1	0.03986	153.2	1.51	60.6	1.7825	207.7	462.8	207.75				17.8	88.5	-0.5	-17.8
70.2	19521	57.1	0.04032	157.9	1.58	60.0	1.7782	208.5	465.9	208.55				17.9	89.5	-0.2	-17.9
71.0	19729	63.7	0.04191	174.2	1.82	58.0	1.7634	211.3	476.6	211.27				18.4	92.9	0.9	-18.3
72.0	20046	73.0	0.04468	199.4	2.20	55.1	1.7412	211.5	484.0	211.45				18.7	87.7	-0.7	-18.6
73.0	20368	73.3	0.04769	200.7	2.32	52.3	1.7185	210.9	490.1	210.91				20.2	84.8	-1.8	-20.1
74.0	20646	81.1	0.05043	220.8	2.69	50.0	1.6990	212.0	498.9	211.98				22.2	82.2	-3.0	-22.0
75.0	20963	80.4	0.05370	220.8	2.81	47.5	1.6767	210.4	502.4	210.37				21.8	80.8	-3.5	-21.6
76.0	21283	80.7	0.05700	220.8	2.97	45.1	1.6542	211.1	511.7	211.09				24.5	80.9	-3.9	-24.2
77.0	21592	85.9	0.06028	234.7	3.32	42.9	1.6325	211.3	519.5	211.27				28.8	83.3	-3.4	-28.6
78.0	21917	93.4	0.06401	255.0	3.80	40.7	1.6096	211.5	527.8	211.45				30.0	86.8	-1.7	-29.9
78.3	22024	94.5	0.06531	257.8	3.92	40.0	1.6021	211.6	530.7	211.57				30.9	87.6	-1.3	-30.8
79.0	22245	96.6	0.06798	263.4	4.15	38.6	1.5866	211.8	536.7	211.81				32.7	89.0	-0.6	-32.7
80.0	22576	108.3	0.07228	291.8	4.90	36.6	1.5635	214.2	551.2	214.23				32.8	89.5	-0.3	-32.8
80.9	22855	109.5	0.07612	296.1	5.18	35.0	1.5441	213.5	556.3	213.47				32.6	92.4	1.3	-32.5
81.0	22891	109.6	0.07662	296.6	5.22	34.8	1.5416	213.4	557.0	213.37				32.5	92.7	1.5	-32.5
82.0	23222	106.1	0.08114	288.2	5.33	33.0	1.5185	212.5	563.2	212.51				37.9	94.3	2.8	-37.8
83.0	23572	114.7	0.08602	309.1	6.09	31.2	1.4942	214.2	576.9	214.23				37.1	93.1	2.0	-37.0
83.8	23818	117.0	0.08962	312.9	6.46	30.0	1.4771	215.8	587.8	215.81				34.6	91.3	0.8	-34.6
84.0	23882	117.5	0.09054	313.9	6.56	29.7	1.4728	216.2	590.5	216.22				33.9	90.8	0.5	-33.9
85.0	24211	120.0	0.09539	318.6	7.05	28.2	1.4502	217.5	602.9	217.51				37.4	90.8	0.5	-37.4
86.0	24535	121.8	0.10025	323.7	7.53	26.8	1.4281	217.2	610.9	217.19				36.5	91.4	0.9	-36.4
87.0	24876	118.0	0.10533	313.6	7.70	25.4	1.4048	217.2	620.3	217.19				29.9	91.7	0.9	-29.8
87.3	24977	121.3	0.10687	321.8	8.05	25.0	1.3979	217.6	624.2	217.57				27.7	93.4	1.7	-27.6
88.0	25211	128.9	0.11045	340.8	8.87	24.1	1.3820	218.5	633.4	218.46				22.7	98.8	3.5	-22.5
89.0	25568	139.2	0.11631	361.6	10.12	22.8	1.3579	222.3	654.7	222.28				15.2	95.6	1.5	-15.1
90.0	25892	145.6	0.12187	372.6	11.12	21.7	1.3365	225.6	674.1	225.64				14.4	82.0	-2.0	-14.3
91.0	26204	151.3	0.12740	386.5	12.11	20.7	1.3160	226.1	684.5	226.06				17.5	91.7	0.5	-17.5
91.6	26432	149.4	0.13146	380.1	12.38	20.0	1.3010	226.9	693.8	226.88				18.8	94.8	1.6	-18.7
92.0	26600	147.9	0.13445	375.4	12.57	19.5	1.2900	227.5	700.7	227.48				19.7	96.8	2.3	-19.6
93.0	26952	148.2	0.14060	372.3	13.27	18.5	1.2672	229.8	718.7	229.84				18.7	107.1	5.5	-17.8
94.0	27326	137.9	0.14687	344.7	13.05	17.5	1.2430	230.9	733.6	230.94				12.8	123.4	7.1	-10.7
95.0	27724	131.9	0.15313	329.6	13.24	16.5	1.2175	230.9	746.1	230.94				9.3	118.5	4.4	-8.1
96.0	28191	125.7	0.16014	312.7	13.53	15.4	1.1875	232.2	765.0	232.16				12.0	101.2	2.3	-11.7
96.4	28369	124.0	0.16271	308.6	13.70	15.0	1.1761	232.1	770.4	232.06				12.0	103.3	2.8	-11.6
97.0	28647	121.4	0.16669	302.2	13.97	14.4	1.1584	231.9	778.9	231.89				12.0	106.6	3.4	-11.5
98.0	29134	112.7	0.17334	282.2	13.94	13.4	1.1271	230.7	790.9	230.67				9.5	135.1	6.7	-6.7
99.0	29443	108.6	0.17734	271.5	14.06	12.8	1.1072	230.9	802.2	230.94				6.8	150.4	5.9	-3.3
99.5	29603	105.0	0.17930	262.5	13.90	12.5	1.0969	230.9	807.5	230.87				5.6	142.4	4.4	-3.4
100.0	29767	101.2	0.18131	253.2	13.75	12.2	1.0864	230.8	812.8	230.80				4.5	130.0	2.9	-3.5
101.0	30107	98.0	0.18527	245.5	14.00	11.6	1.0645	230.4	823.2	230.39				2.7	137.4	2.0	-1.8
102.0	30465	92.8	0.18927	232.7	13.97	11.0	1.0414	230.1	834.7	230.12				7.3	104.4	1.8	-7.1
103.0	30975	89.1	0.19469	222.6	14.48	10.2	1.0086	231.2	857.0	231.21				7.1	96.4	0.8	-7.1
103.4	31108	86.4	0.19603	216.0	14.31	10.0	1.0000	230.9	860.9	230.94				5.8	90.3	0.0	-5.8
104.0	31314	82.2	0.19809	205.9	14.04	9.7	0.9868	230.5	866.8	230.53				4.0	73.3	-1.1	-3.8
105.0	31671	73.4	0.20134	183.2	13.22	9.2	0.9638	231.2	882.6	231.21				10.3	64.6	-4.4	-9.3
106.0	32129	68.9	0.20512	171.0	13.27	8.6	0.9345	232.6	905.1	232.57				13.5	55.3	-7.7	-11.1
107.0	32537	64.8	0.20828	160.1	13.25	8.1	0.9085	233.6	925.0	233.64				14.4	66.3	-5.8	-13.2
107.2	32622	64.3	0.20890	158.7	13.32	8.0	0.9031	234.0	929.6	233.96				14.6	70.8	-4.8	-13.8
108.0	32974	62.2	0.21147	152.7	13.57	7.6	0.8808	235.2	948.4	235.25				16.2	87.5	-0.7	-16.1
109.0	33442	59.7	0.21475	146.6	13.93	7.1	0.8513	235.1	966.5	235.11				15.4	91.5	0.4	-15.4
109.2	33539	58.5	0.21538	143.5	13.84	7.0	0.8451	235.3	971.3	235.32				15.2	90.7	0.2	-15.2
110.0	33946	53.6	0.21801	131.0	13.45	6.6	0.8195	236.2	991.3	236.18				14.7	87.5	-0.6	-14.6
111.0	34378	48.7	0.22053	118.8	13.01	6.2	0.7924	236.6	1010.9	236.57				14.0	87.5	-0.6	-14.0
111.7	34605	45.6	0.22173	111.0	12.57	6.0	0.7782	237.1	1022.7	237.10				14.7	84.6	-1.4	-14.6
112.0	34722	44.0	0.22234	107.0	12.35	5.9	0.7709	237.4	1028.8	237.37				15.1	83.2	-1.8	-15.0
113.0	35210	40.7	0.22469	98.8	12.25	5.5	0.7404	237.6	1050.8	237.63				18.4	80.4	-3.1	-18.2
114.0	35735	36.6	0.22699	89.1	11.90	5.1	0.7076	237.4	1072.5	237.37				17.7	91.2	0.4	-17.7
114.3	35872	35.8	0.22754	87.2	11.87	5.0	0.6990	237.1	1077.4	237.11				21.0	90.6	0.2	-21.0
115.0	36155	34.2	0.22868	83.4	11.80	4.8	0.6812	236.6	1087.6	236.57				27.8	89.8	-0.1	-27.8
116.0	36914	30.7	0.23150	75.5	11.84	4.3	0.6335	235.1	1115.4	235.11				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***


071977
1030
3A-090
P
T
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
10 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72077   LAUNCH TIME 0008 GMT   ECC SONDE 3A-038X

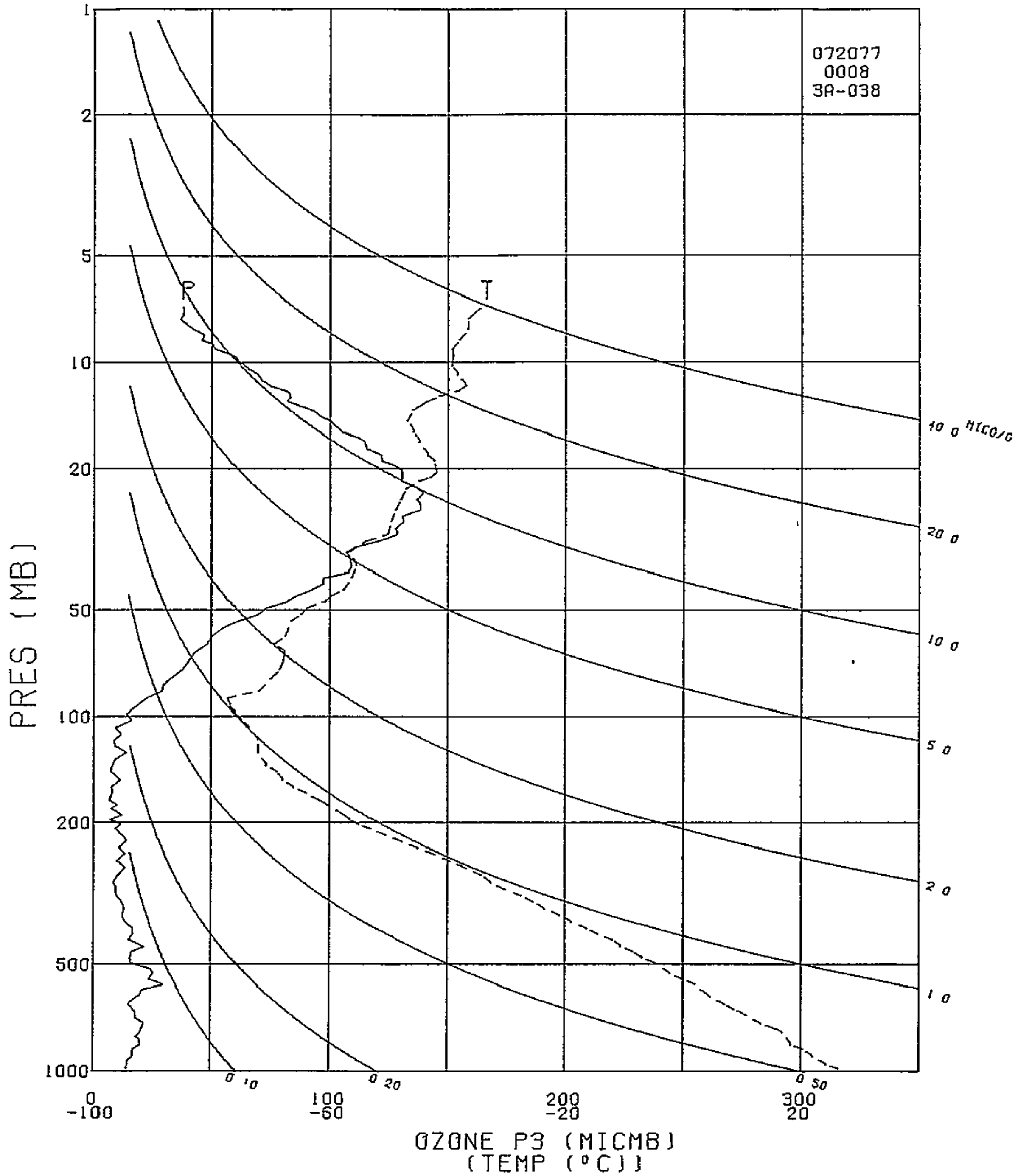
SURFACE CONDITIONS			
PRESS 1003.4 MB	003 = 32.5	TBOX CAL = 30.0 C AT 74.2 ORD	
TEMP 300.1 K	OIZ = 32.0	BASE CAL = 30.0 C AT 72.7 ORD	
HUMY 86.0 %	OZC = 61.5	HUMIDITY = 18.2 % AT 46.0 ORD	
	IO = 0.088		
	PS = 29.3		

	PROFILE	DOBSON
INTEGRATED OZONE	0.19497	
RESIDUAL OZONE	0.02543	
TOTAL OZONE	0.22040	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	10.4	0.	19.8	0.02	1003.4	3.0015	302.7	302.4	304.22	31.2	283.9	0.0080	2.0	340.0	-1.9	0.7
0.1	83	10.8	0.00003	20.7	0.02	1000.0	3.0000	302.3	302.3	303.82	32.6	284.1	0.0083	2.3	339.5	-2.2	0.8
1.0	280	13.7	0.00024	26.4	0.02	978.0	2.9903	299.6	301.5	301.22	41.3	285.4	0.0091	4.3	338.1	-4.0	1.6
2.0	516	14.3	0.00054	27.8	0.02	952.0	2.9786	297.5	301.7	299.00	42.8	284.0	0.0085	5.7	332.0	-5.1	2.7
3.0	748	14.5	0.00085	28.3	0.03	927.0	2.9671	296.3	302.8	297.76	41.4	282.5	0.0079	6.3	320.7	-4.9	4.0
4.0	966	16.4	0.00115	32.2	0.03	904.0	2.9562	295.2	303.8	296.44	37.2	279.9	0.0068	6.5	313.4	-4.5	4.7
4.2	1004	16.5	0.00121	32.2	0.03	900.0	2.9542	295.1	304.1	296.33	38.0	280.1	0.0070	6.5	312.9	-4.4	4.7
5.0	1160	16.5	0.00144	32.4	0.03	884.0	2.9465	294.6	305.1	295.88	41.0	280.8	0.0074	6.3	310.4	-4.1	4.8
6.0	1398	16.7	0.00180	32.9	0.03	860.0	2.9345	293.5	306.4	294.80	42.8	280.4	0.0074	4.2	318.6	-3.1	2.8
6.4	1498	18.0	0.00197	35.6	0.04	850.0	2.9294	292.6	306.5	293.84	43.1	279.7	0.0070	3.1	337.6	-2.8	1.2
7.0	1631	19.8	0.00219	39.2	0.04	837.0	2.9227	291.4	306.6	292.58	43.7	278.8	0.0068	2.6	21.2	-2.4	-0.9
8.0	1848	19.6	0.00259	38.8	0.04	816.0	2.9117	291.4	308.8	292.36	34.8	275.6	0.0055	5.1	62.7	-2.3	-4.5
8.7	2016	18.3	0.00288	36.3	0.04	800.0	2.9031	291.2	310.4	291.57				6.2	71.5	-2.0	-5.9
9.0	2092	17.8	0.00301	35.2	0.04	793.0	2.8993	291.2	311.1	291.22				6.7	74.4	-1.8	-6.5
10.0	2320	19.8	0.00341	39.5	0.04	772.0	2.8876	289.9	312.2	289.94				7.5	77.9	-1.6	-7.3
11.0	2576	20.6	0.00389	41.1	0.05	749.0	2.8745	288.5	313.4	288.60				8.2	79.7	-1.5	-8.1
12.0	2815	21.3	0.00436	42.9	0.05	728.0	2.8621	286.4	313.6	286.82				7.8	85.2	-0.7	-7.8
13.0	3096	17.7	0.00488	35.7	0.04	704.0	2.8476	286.0	316.2	286.07				6.6	91.5	0.2	-6.6
13.2	3143	17.7	0.00496	35.8	0.04	700.0	2.8451	285.5	316.1	285.60				6.5	91.5	0.2	-6.5
14.0	3312	17.7	0.00524	36.1	0.04	686.0	2.8363	283.6	315.8	283.93				6.3	91.7	0.2	-6.3
15.0	3569	16.4	0.00566	33.6	0.04	665.0	2.8228	281.8	316.6	282.12				6.6	90.9	0.1	-6.6
16.0	3820	14.5	0.00603	29.8	0.04	645.0	2.8096	280.2	317.6	280.52				5.9	98.4	0.9	-5.9
17.0	4038	15.9	0.00635	32.8	0.04	628.0	2.7980	279.2	318.8	279.29				5.8	101.5	1.2	-5.7
18.0	4315	19.2	0.00682	40.0	0.05	607.0	2.7832	277.3	319.8	277.29				6.4	73.5	-1.8	-6.1
18.3	4408	19.7	0.00700	40.9	0.05	600.0	2.7782	277.1	320.6	277.09				6.2	68.2	-2.3	-5.8
19.0	4628	20.7	0.00743	43.1	0.06	584.0	2.7664	276.6	322.6	276.63				5.9	55.0	-3.4	-4.9
20.0	4866	29.6	0.00801	62.0	0.09	567.0	2.7536	275.1	323.6	275.14				4.8	84.9	-0.4	-4.7
21.0	5139	23.3	0.00872	49.2	0.07	548.0	2.7388	273.0	324.2	273.05				6.5	98.9	1.0	-6.5
22.0	5420	25.3	0.00940	53.8	0.08	529.0	2.7235	270.8	324.9	270.85				6.3	90.9	0.1	-6.3
23.0	5678	23.5	0.01003	50.3	0.08	512.0	2.7093	269.8	326.6	269.77				6.6	86.5	-0.4	-6.6
23.7	5864	18.3	0.01039	39.3	0.06	500.0	2.6990	268.8	327.6	268.76				7.9	85.2	-0.7	-7.8
24.0	5959	15.6	0.01058	33.7	0.05	494.0	2.6937	268.2	328.1	268.25				8.5	84.7	-0.8	-8.5
25.0	6233	15.3	0.01101	33.2	0.05	477.0	2.6785	266.2	328.8	266.16				9.0	79.3	-1.7	-8.9
26.0	6532	15.9	0.01148	34.7	0.06	459.0	2.6618	264.7	330.6	264.69				9.1	81.4	-1.4	-9.0
27.0	6788	21.1	0.01197	46.5	0.08	444.0	2.6474	262.7	331.3	262.67				10.7	86.3	-0.7	-10.6
28.0	7123	14.6	0.01258	32.2	0.06	425.0	2.6284	261.2	333.6	261.25				11.1	88.5	-0.3	-11.1
29.0	7396	16.5	0.01302	36.7	0.07	410.0	2.6128	258.7	333.8	258.72				11.3	90.6	0.1	-11.3
29.6	7582	16.5	0.01334	37.0	0.07	400.0	2.6021	257.5	334.6	257.52				11.8	88.6	-0.3	-11.8
30.0	7696	16.5	0.01354	37.2	0.07	394.0	2.5955	256.8	335.1	256.79				12.1	87.4	-0.5	-12.1
31.0	8006	12.7	0.01402	29.0	0.06	378.0	2.5775	254.2	335.6	254.19				12.4	87.3	-0.6	-12.4
32.0	8326	12.1	0.01444	27.6	0.06	362.0	2.5587	252.2	337.1	252.17				11.8	91.6	0.3	-11.8
32.8	8572	12.5	0.01477	28.9	0.06	350.0	2.5441	250.0	337.5	250.03				10.8	96.4	1.2	-10.8
33.0	8636	12.6	0.01485	29.2	0.06	347.0	2.5403	249.5	337.6	249.49				10.6	97.8	1.4	-10.5
34.0	8957	11.3	0.01527	26.3	0.06	332.0	2.5211	247.6	339.3	247.70	35.5	236.8	0.0005	9.1	104.0	2.2	-8.8
35.0	9268	9.3	0.01562	21.8	0.05	318.0	2.5024	245.5	340.6	245.57	38.4	235.7	0.0005	8.7	115.1	3.7	-7.9
36.0	9543	9.2	0.01590	22.0	0.05	306.0	2.4857	242.8	340.6	242.89	34.7	232.3	0.0003	10.1	124.1	5.7	-8.4
36.5	9683	8.6	0.01603	20.5	0.05	300.0	2.4771	241.8	341.1	241.85	33.1	230.9	0.0003	10.4	123.1	5.7	-8.7
37.0	9850	7.8	0.01619	18.8	0.04	293.0	2.4669	240.8	341.6	240.61	31.2	229.3	0.0003	10.7	121.9	5.7	-9.1
38.0	10193	9.9	0.01654	24.0	0.06	279.0	2.4456	238.8	343.9	238.85	20.1	223.9	0.0001	10.1	115.7	4.4	-9.1
39.0	10524	12.9	0.01697	31.7	0.08	266.0	2.4249	236.0	344.5	236.00				8.6	107.1	2.5	-8.2
40.0	10841	9.4	0.01737	23.3	0.06	254.0	2.4048	233.5	345.4	233.53				7.7	94.8	0.6	-7.7
40.4	10948	10.7	0.01751	26.5	0.07	250.0	2.3979	232.5	345.4	232.48				7.1	95.2	0.6	-7.1
41.0	11141	12.9	0.01776	32.3	0.09	243.0	2.3856	230.6	345.4	230.59				6.1	96.1	0.6	-6.0
42.0	11394	10.2	0.01811	25.8	0.07	234.0	2.3692	227.9	345.1	227.87				4.6	97.0	0.6	-4.5
43.0	11683	13.5	0.01851	34.5	0.10	224.0	2.3502	225.1	345.1	225.07				3.6	86.0	-0.3	-3.6
44.0	11951	11.4	0.01892	29.6	0.09	215.0	2.3324	222.3	344.9	222.32				4.0	89.3	-0.0	-4.0
45.0	12196	8.6	0.01922	22.7	0.07	207.0	2.3160	220.0	345.0	219.96				4.6	86.0	-0.3	-4.6
46.0	12384	11.2	0.01945	29.7	0.09	201.0	2.3032	218.0	344.8	218.00				4.1	86.1	-0.3	-4.1
46.2	12415	10.5	0.01948	27.7	0.09	200.0	2.3010	217.7	344.9	217.75				4.1	87.2	-0.2	-4.1
47.0	12576	6.6	0.01966	17.5	0.06	195.0	2.2900	216.5	345.4	216.48				4.3	92.5	0.2	-4.3
48.0	12773	11.6	0.01988	31.0	0.10	189.0	2.2765	215.3	346.5	215.28				5.0	91.8	0.2	-5.0
49.0	13010	6.8	0.02016	18.4	0.06	182.0	2.2601	214.4	348.8	214.40				4.6	83.1	-0.6	-4.6
50.0	13184	9.5	0.02034	25.9	0.09	177.0	2.2480	212.6	348.7	212.60				4.0	64.0	-1.8	-3.6
51.0	13361	6.2	0.02052	17.0	0.06	172.0	2.2355	211.3	349.4	211.30				4.9	54.5	-2.9	-4.0
52.0	13654	7.5	0.02077	20.8	0.08	164.0	2.2148	209.0	350.3	208.98				3.8	30.9	-3.3	-2.0
53.0	13881	6.8	0.02098	19.1	0.07	158.0	2.1987	206.9	350.6	206.95				3.0	337.0	-2.7	1.2
54.0	14154	10.9	0.02130	30.6	0.12	151.0	2.1790	205.0	351.9	205.03				3.5	8.0	-3.5	-0.5
54.1	14193	10.4	0.02135	29.2	0.11	150.0	2.1761	204.9	352.4	204.92				3.5	12.1	-3.4	-0.7
55.0	14480	6.9	0.02168	19.4	0.08	143.0	2.1553	204.1	355.9	204.15				4.0	38.4	-3.2	-2.5
56.0	14735	7.6	0.02193	21.6	0.09	137.0	2.1367	202.3	357.0	202.32				3.2	102.7	0.7	-3.1
57.0	14999	8.9	0.02222	25.6	0.11	131.0	2.1173	201.6	360.3	201.61				7.2	142.8	5.7	-4.3
58.0	15228	13.6	0.02256	39.1	0.18	126.0	2.1004	200.9	363.1	200.88				8.0	146.1	6.6	-4.5
58.2	15274	12.7	0.02263	36.4	0.17	125.0	2.0969	201.1	364.2	201.07				7.3	142.3	5.8	-4.5

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	15466	8.9	0.02292	25.4	0.12	121.0	2.0828	201.8	369.0	201.85				5.2	117.5	2.4	-4.6
60.0	15714	8.3	0.02321	23.8	0.12	116.0	2.0645	200.9	371.7	200.88				4.9	73.0	-1.4	-4.7
61.0	15920	11.3	0.02348	32.5	0.17	112.0	2.0492	200.1	374.1	200.15				7.3	55.3	-4.2	-6.0
62.0	16187	8.6	0.02384	25.0	0.13	107.0	2.0294	199.4	377.6	199.39				8.8	46.4	-6.1	-6.4
63.0	16465	15.7	0.02430	45.8	0.26	102.0	2.0086	198.1	380.3	198.09				6.6	49.2	-4.3	-5.0
63.5	16579	14.8	0.02453	43.1	0.24	100.0	2.0000	197.6	381.5	197.60				6.6	62.0	-3.1	-5.8
64.0	16714	13.7	0.02480	40.1	0.23	97.7	1.9899	197.0	382.9	197.02				7.0	76.3	-1.6	-6.8
65.0	16997	17.9	0.02541	52.8	0.32	93.0	1.9685	196.2	386.7	196.19				11.2	88.5	-0.3	-11.2
66.0	17294	22.2	0.02623	65.5	0.42	88.3	1.9460	195.6	391.4	195.62				13.2	97.9	1.8	-13.1
67.0	17563	28.8	0.02717	82.8	0.57	84.3	1.9258	201.1	407.7	201.13				10.6	102.4	2.3	-10.3
68.0	17798	29.5	0.02808	84.2	0.60	81.0	1.9085	202.1	414.4	202.08				9.1	113.9	3.7	-8.3
68.3	17871	30.4	0.02839	86.7	0.63	80.0	1.9031	202.4	416.5	202.39				10.4	116.7	4.7	-9.3
69.0	18075	33.0	0.02924	93.6	0.71	77.3	1.8882	203.2	422.4	203.24				14.2	121.6	7.5	-12.1
70.0	18392	37.7	0.03072	106.4	0.85	73.3	1.8651	204.6	431.7	204.59				15.6	121.6	8.2	-13.3
70.8	18667	39.9	0.03214	112.2	0.94	70.0	1.8451	205.1	438.5	205.09				11.2	115.0	4.7	-10.1
71.0	18754	40.5	0.03258	114.0	0.97	69.0	1.8388	205.2	440.6	205.25				9.9	111.7	3.6	-9.2
72.0	19085	43.2	0.03440	121.3	1.10	65.3	1.8149	205.5	448.1	205.46				9.8	81.7	-1.4	-9.7
73.0	19395	48.2	0.03627	136.7	1.29	62.0	1.7924	203.7	450.8	203.70				12.3	79.2	-2.3	-12.1
73.7	19591	49.5	0.03755	139.4	1.37	60.0	1.7782	204.9	457.7	204.86				13.8	79.8	-2.4	-13.5
74.0	19692	50.1	0.03820	140.8	1.41	59.0	1.7709	205.5	461.2	205.46				14.5	80.1	-2.5	-14.3
75.0	19984	54.1	0.04020	152.1	1.60	56.2	1.7497	205.5	467.7	205.46				20.7	82.0	-2.9	-20.5
76.0	20303	61.0	0.04260	170.6	1.90	53.3	1.7267	206.5	477.3	206.53				21.9	84.1	-2.2	-21.8
77.0	20547	69.4	0.04467	192.4	2.24	51.2	1.7093	208.2	486.6	208.18				22.2	85.0	-1.9	-22.1
77.5	20691	71.3	0.04600	197.3	2.37	50.0	1.6990	208.7	491.2	208.72				23.0	84.3	-2.3	-22.9
78.0	20815	73.0	0.04714	201.5	2.47	49.0	1.6902	209.2	495.2	209.17				23.7	83.8	-2.6	-23.6
79.0	21072	81.5	0.04968	221.7	2.87	47.0	1.6721	212.2	508.4	212.23				23.8	82.3	-3.2	-23.6
80.0	21301	85.8	0.05211	232.1	3.14	45.3	1.6561	213.3	516.4	213.33				27.1	82.5	-3.5	-26.9
81.0	21541	92.0	0.05479	246.6	3.50	43.6	1.6395	215.5	527.3	215.45				25.6	84.3	-2.5	-25.5
82.0	21777	96.7	0.05758	259.0	3.82	42.0	1.6232	215.6	533.4	215.62				26.1	87.9	-1.0	-26.1
83.0	22038	97.1	0.06074	258.6	3.99	40.3	1.6053	216.8	542.7	216.82				26.6	94.4	2.0	-26.5
83.2	22085	99.5	0.06134	264.7	4.13	40.0	1.6021	217.1	544.5	217.05				26.2	95.5	2.5	-26.1
84.0	22246	107.6	0.06339	285.3	4.57	39.0	1.5911	217.8	550.4	217.83				25.1	99.6	4.2	-24.7
85.0	22530	109.1	0.06720	289.3	4.85	37.3	1.5717	217.7	557.0	217.66				28.3	95.1	2.5	-28.2
86.0	22827	108.4	0.07120	287.9	5.05	35.6	1.5515	217.5	564.1	217.50				28.2	91.7	0.8	-28.2
86.5	22934	107.6	0.07264	286.2	5.09	35.0	1.5441	217.0	565.4	216.96				26.9	92.0	1.0	-26.9
87.0	23063	106.5	0.07436	284.2	5.14	34.3	1.5353	216.3	567.0	216.31				25.4	92.5	1.1	-25.4
88.0	23307	111.0	0.07767	296.0	5.57	33.0	1.5185	216.5	573.7	216.48				27.5	93.9	1.9	-27.4
89.0	23543	119.8	0.08104	315.5	6.24	31.8	1.5024	219.3	587.4	219.31				29.1	91.0	0.5	-29.1
90.0	23813	128.2	0.08513	332.2	6.96	30.5	1.4843	222.8	603.9	222.79				25.0	87.4	-1.1	-25.0
90.4	23920	127.6	0.08679	330.5	7.05	30.0	1.4771	223.0	607.3	223.00				24.0	87.0	-1.3	-24.0
91.0	24052	127.0	0.08883	328.4	7.16	29.4	1.4683	223.2	611.5	223.25				22.8	86.3	-1.5	-22.7
92.0	24371	130.9	0.09379	338.3	7.75	28.0	1.4472	223.4	620.5	223.40				30.0	87.5	-1.3	-30.0
93.0	24608	130.3	0.09754	336.7	8.00	27.0	1.4314	223.4	627.0	223.40				27.3	87.3	-1.3	-27.2
94.0	24855	137.6	0.10153	354.3	8.77	26.0	1.4150	224.2	636.0	224.16				15.2	88.2	-0.5	-15.2
95.0	25060	138.0	0.10492	354.6	9.08	25.2	1.4014	224.8	643.4	224.77				22.7	89.2	-0.3	-22.7
95.2	25112	137.7	0.10579	353.5	9.13	25.0	1.3979	224.8	645.1	224.83				23.8	89.2	-0.3	-23.8
96.0	25299	136.4	0.10886	349.8	9.30	24.3	1.3856	225.1	651.0	225.07				27.8	89.1	-0.4	-27.8
97.0	25576	139.2	0.11343	357.0	9.90	23.3	1.3674	225.1	658.8	225.07				18.7	91.0	0.3	-18.7
98.0	25777	136.7	0.11675	349.2	10.02	22.6	1.3541	226.0	667.2	225.96				11.2	90.6	0.1	-11.2
99.0	25955	133.6	0.11962	341.0	10.07	22.0	1.3424	226.3	673.3	226.26				10.4	88.3	-0.3	-10.4
100.0	26107	129.6	0.12201	327.9	9.99	21.5	1.3324	228.2	683.4	228.16				10.5	88.3	-0.3	-10.5
101.0	26264	130.1	0.12442	326.7	10.27	21.0	1.3222	230.0	693.6	230.02				12.4	92.6	0.6	-12.4
102.0	26492	129.9	0.12790	324.6	10.61	20.3	1.3075	231.2	703.8	231.15				14.1	100.0	2.4	-13.9
102.4	26592	129.1	0.12941	322.1	10.70	20.0	1.3010	231.5	707.9	231.51				12.5	99.6	2.1	-12.4
103.0	26730	128.0	0.13147	318.7	10.83	19.6	1.2923	232.0	713.5	231.99				10.4	99.0	1.6	-10.3
104.0	26976	121.4	0.13505	303.8	10.64	18.9	1.2765	230.7	717.0	230.73				9.5	82.8	-1.2	-9.5
105.0	27230	121.3	0.13866	304.9	11.04	18.2	1.2601	229.6	721.2	229.59				5.9	59.3	-3.0	-5.1
106.0	27493	115.4	0.14232	290.8	10.92	17.5	1.2430	229.0	727.6	229.02				2.9	4.8	-2.9	-0.2
107.0	27806	114.4	0.14656	289.4	11.35	16.7	1.2227	228.2	734.6	228.16				4.1	337.8	-3.8	1.6
108.0	28008	110.8	0.14926	281.3	11.34	16.2	1.2095	227.4	738.6	227.43				5.0	10.0	-4.9	-0.9
109.0	28216	104.7	0.15193	266.2	11.05	15.7	1.1959	227.1	744.3	227.14				7.5	72.7	-2.2	-7.1
110.0	28475	101.6	0.15510	257.8	11.15	15.1	1.1790	227.6	754.1	227.58				9.6	87.7	-0.4	-9.6
110.2	28519	101.2	0.15563	257.0	11.18	15.0	1.1761	227.3	754.6	227.29				9.6	88.9	-0.2	-9.6
111.0	28698	99.4	0.15777	253.9	11.29	14.6	1.1644	226.1	756.5	226.11				9.7	93.6	0.6	-9.6
112.0	28928	94.7	0.16044	242.4	11.13	14.1	1.1492	225.7	762.5	225.66				11.4	92.8	0.6	-11.3
113.0	29167	91.9	0.16310	233.7	11.20	13.6	1.1335	227.0	775.0	226.99				10.9	77.1	-2.4	-10.6
114.0	29366	86.5	0.16520	218.7	10.85	13.2	1.1206	228.3	786.1	228.30				13.1	78.8	-2.6	-12.9
115.0	29572	81.2	0.16724	204.3	10.52	12.8	1.1072	229.6	797.5	229.59				17.4	87.6	-0.7	-17.4
115.7	29731	82.4	0.16877	205.7	10.92	12.5	1.0969	231.2	808.5	231.18				16.3	87.6	-0.7	-16.3
116.0	29786	82.7	0.16929	206.1	11.05	12.4	1.0934	231.7	812.2	231.71				15.9	87.6	-0.7	-15.9
117.0	30009	81.1	0.17141	199.4	11.20	12.0	1.0792	234.8	830.7	234.76				11.7	87.6	-0.5	-11.7
118.0	30242	74.1	0.17349	181.3	10.59	11.6	1.0645	236.1	843.6	236.13				9.8	81.3	-1.5	-9.7
119.0	30484	70.5	0.17549	172.4	10.43	11.2	1.0492	236.1	852.1	236.13				10.3	69.2	-3.7	-9.6
120.0	30734	69.2	0.17749	170.3	10.62	10.8	1.0334	234.8	856.1	234.76				10.3	69.0	-3.7	-9.6
121.0	30993	65.2	0.17949	160.5	10.38	10.4	1.0170	234.3	863.8	234.35				8.1	71.5	-2.6	-7.7
122.0	31126	63.4	0.18048	156.5	10.30	10.2	1.0086	233.8	866.6	233.80				7.0	87.2	-0.3	-7.0
122.7	31261	61.6	0.18145	152.4	10.21	10.0	1.0000	233.5	870.5	233.52				9.6	96.0	1.0	-9.5
123.0	31330	60.8	0.18194	150.3	10.17	9.9	0.9956	233.4	872.5	233.38				10.9	98.9	1.7	-10.8
124.0	31540	59.9	0.18341	147.9	10.35	9.6	0.9823	233.9	882.2	233.94				11.5	110.1	4.0	-10.8
125.0	31757	55.1	0.18485	135.6	9.82	9.3	0.9685	234.6	892.9	234.62				8.6	110.5	3.0	-8.0
126.0	31906	51.0	0.18576	126.0	9.29	9.1	0.9590	233.8	895.3	233.80				9.2	94.7	0.8	-9.2
127.0	32136	50.1	0.18710	123.1	9.43	8.8	0.9445	234.8	907.6	234.76				9.9	107.8	3.0	-9.4
128.0	32294	45.3	0.18796	111.4	8.74	8.6	0.9345	235.0	914.7	235.03				10.4	114.1	4.2	-9.5
129.0	32538	46.5	0.18925	113.6	9.28	8.3	0.9191	236.1	928.3	236.13				12.3	116.0	5.4	-11.1
130.0	32792	41.7	0.19053	101.8	8.64	8.0	0.9031	236.5	939.7	236.53				10.9	113.5	4.4	-10.0
131.0	32967	39.2	0.19134	96.0	8.34	7.8	0.8921	236.1	944.9	236.13				11.3	94.4	0.9	-11.2
132.0	33238	36.3	0.19251	88.5	8.01	7.5	0.8751	236.5	957.2	236.53				15.8	92.8	0.8	-15.8
133.0	33521	37.9	0.19370	92.2	8.73	7.2	0.8573	237.6	972.9	237.62				17.1	92.6	0.8	-17.1
133.7	33717	37.8	0.19454	91.4	8.94	7.0	0.8451	238.5	984.5	238.51				999.9	999.9	999.9	999.9
134.0	33818	37.7	0.19497	91.0	9.05	6.9	0.8388	239.0	990.4	238.96				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN LAUNCH DATE 72077 LAUNCH TIME 0425 GMT ECC SONDE 3A-073X

SURFACE CONDITIONS			
PRESS 1004.8 MB	003 = 33.0	TBOX CAL = 30.0 C	AT 74.2 ORD
TEMP 299.5 K	0IZ = 32.4	BASE CAL = 30.0 C	AT 74.3 ORD
HUMY 91.0 %	0ZC = 62.3	HUMIDITY = 59.1 %	AT 46.0 ORD
	I0 = 0.103		
	PS = 26.5		

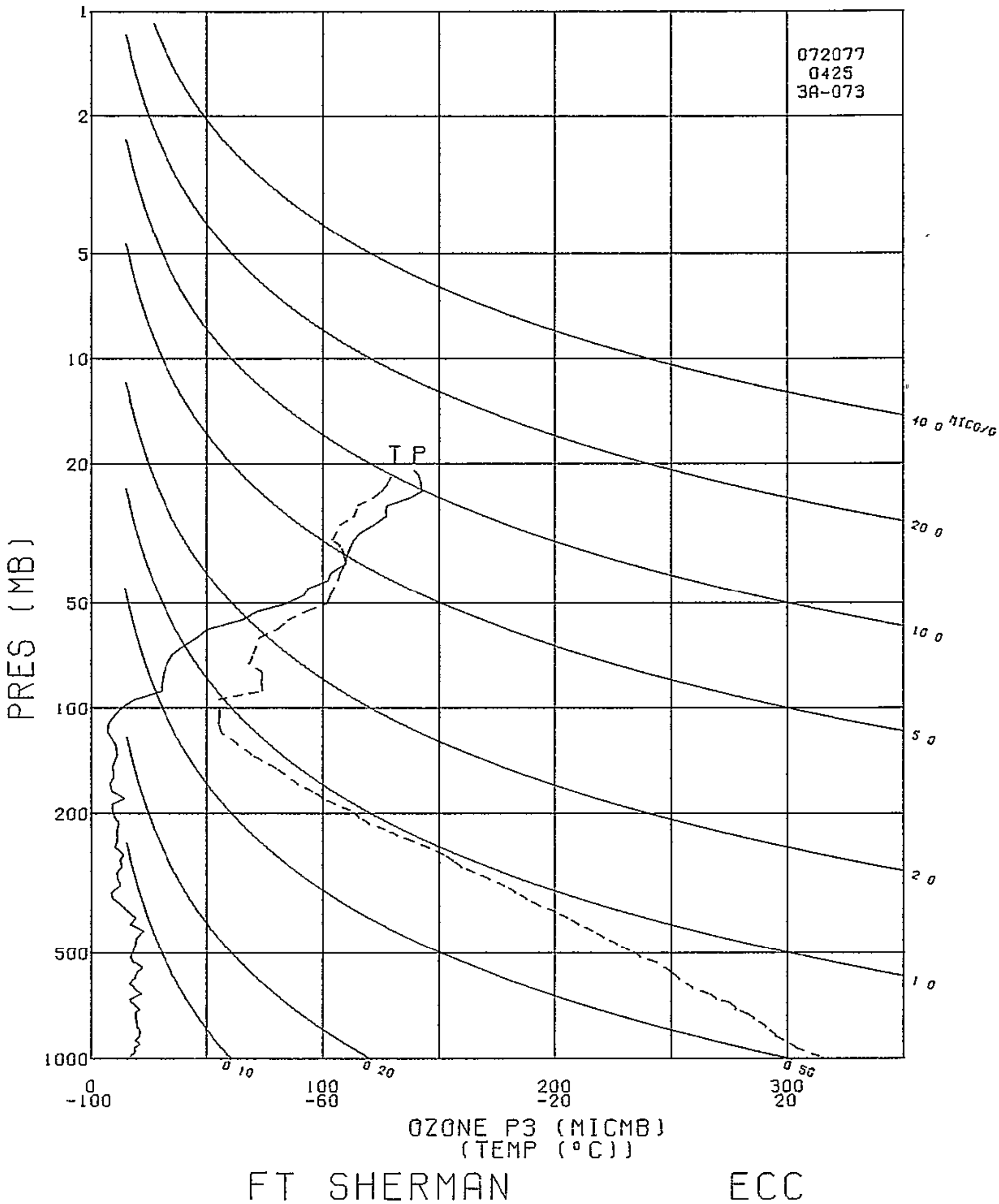
	PROFILE	DOBSON
INTEGRATED OZONE	0.12856	
RESIDUAL OZONE		
TOTAL OZONE		0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	14.0	0.	27.0	0.02	1004.8	3.0021	298.6	298.2	301.85	87.2	296.3	0.0177	3.0	360.0	-3.0	-0.0
0.2	95	14.5	0.00006	28.0	0.02	1000.0	3.0000	298.6	298.6	301.92	88.6	296.6	0.0184	3.1	356.0	-3.1	0.2
1.0	265	16.4	0.00029	31.7	0.03	981.0	2.9917	298.6	300.3	302.21	94.6	297.7	0.0197	3.6	342.3	-3.4	1.1
2.0	509	18.6	0.00067	36.1	0.03	954.2	2.9796	297.6	301.7	300.88	88.0	295.5	0.0178	5.2	342.1	-5.0	1.6
3.0	743	18.3	0.00106	35.9	0.03	929.0	2.9680	294.6	300.9	297.08	80.3	291.0	0.0138	5.7	336.3	-5.2	2.3
4.0	960	20.7	0.00145	40.7	0.04	906.0	2.9571	293.7	302.1	296.12	81.2	290.3	0.0135	5.7	328.0	-4.9	3.0
4.3	1017	20.1	0.00155	39.6	0.04	900.0	2.9542	293.3	302.3	295.70	79.7	289.7	0.0128	5.3	326.6	-4.4	2.9
5.0	1182	18.5	0.00184	36.5	0.03	883.0	2.9460	292.4	302.9	294.48	75.6	287.9	0.0119	4.2	321.2	-3.3	2.6
6.0	1409	20.8	0.00225	41.4	0.04	860.0	2.9345	291.1	303.9	293.10	77.5	287.1	0.0115	2.1	1.0	-2.1	-0.0
6.4	1509	20.9	0.00244	41.4	0.04	850.0	2.9294	290.7	304.5	292.81	81.2	287.4	0.0122	2.6	31.4	-2.2	-1.3
7.0	1641	20.9	0.00270	41.5	0.04	837.0	2.9227	290.2	305.3	292.42	86.2	287.9	0.0125	3.9	52.6	-2.3	-3.1
8.0	1900	19.6	0.00318	39.1	0.04	812.0	2.9096	289.4	307.1	291.36	79.7	285.8	0.0113	6.3	66.1	-2.6	-5.8
8.5	2026	19.6	0.00341	39.1	0.04	800.0	2.9031	289.1	308.2	290.87	69.0	283.3	0.0090	7.5	67.3	-2.9	-6.9
9.0	2144	19.6	0.00363	39.2	0.04	789.0	2.8971	288.9	309.2	290.42	59.0	281.0	0.0084	8.5	68.2	-3.2	-7.9
10.0	2383	19.2	0.00406	38.5	0.04	767.0	2.8848	287.3	309.9	288.86	67.4	281.4	0.0089	9.4	64.9	-4.0	-8.5
11.0	2640	18.4	0.00451	37.2	0.04	744.0	2.8716	286.1	311.3	287.59	67.4	280.2	0.0084	8.9	66.5	-3.6	-8.2
12.0	2903	20.2	0.00499	41.0	0.05	721.0	2.8579	284.2	312.0	285.33	58.9	276.5	0.0067	8.2	65.3	-3.4	-7.4
12.7	3149	18.2	0.00542	37.0	0.04	700.0	2.8451	283.4	313.8	284.56	58.9	275.7	0.0065	7.3	67.1	-2.9	-6.7
13.0	3281	17.1	0.00566	34.9	0.04	689.0	2.8382	283.0	314.8	284.15	58.9	275.4	0.0065	6.9	68.2	-2.5	-6.4
14.0	3451	16.5	0.00593	34.0	0.04	675.0	2.8293	280.8	314.2	281.78	58.8	273.3	0.0057	6.4	82.5	-0.8	-6.4
15.0	3748	21.3	0.00647	43.9	0.05	651.0	2.8136	279.4	315.8	280.28	58.5	271.8	0.0053	7.3	98.2	1.0	-7.2
16.0	4015	18.3	0.00698	38.1	0.05	630.0	2.7993	276.8	315.8	277.54	59.4	269.6	0.0046	7.8	106.4	2.2	-7.4
17.0	4290	16.4	0.00744	34.3	0.04	609.0	2.7846	275.7	317.7	276.44	55.8	267.8	0.0042	7.3	95.5	0.7	-7.2
17.4	4409	17.2	0.00765	36.2	0.05	600.0	2.7782	275.1	318.3	275.59	42.3	262.6	0.0025	7.1	91.5	0.2	-7.1
18.0	4586	18.5	0.00795	39.0	0.05	587.0	2.7686	274.1	319.1	274.33	22.5	255.0	0.0016	7.0	85.4	-0.6	-7.0
19.0	4878	19.6	0.00850	41.5	0.06	566.0	2.7528	272.9	321.1	273.51	53.2	264.6	0.0035	7.5	88.3	-0.2	-7.5
20.0	5150	21.9	0.00906	46.6	0.07	547.0	2.7380	271.8	322.9	271.96				7.7	93.1	0.4	-7.7
21.0	5415	18.0	0.00959	38.4	0.06	529.0	2.7235	270.4	324.3	270.78	43.6	259.7	0.0025	6.6	82.6	-0.9	-6.5
22.0	5703	16.8	0.01009	36.2	0.05	510.0	2.7076	267.6	324.3	268.03	55.8	260.2	0.0027	6.6	67.7	-2.5	-6.1
22.5	5857	17.4	0.01036	37.6	0.06	500.0	2.6990	266.7	325.1	267.09	46.5	257.0	0.0019	6.9	68.2	-2.6	-6.4
23.0	6031	18.0	0.01066	39.1	0.06	489.0	2.6893	265.8	326.0	266.03	36.2	253.4	0.0016	7.3	68.6	-2.7	-6.8
24.0	6354	19.0	0.01127	41.5	0.07	469.0	2.6712	263.7	327.4	263.71				7.7	72.2	-2.4	-7.4
25.0	6689	19.5	0.01194	43.1	0.07	449.0	2.6522	261.4	328.6	261.44				8.1	76.1	-1.9	-7.8
26.0	7018	22.3	0.01265	49.6	0.09	430.0	2.6335	259.4	330.2	259.42				9.1	68.8	-3.3	-8.5
27.0	7341	16.6	0.01330	37.2	0.07	412.0	2.6149	257.1	331.2	257.12				9.7	72.7	-2.9	-9.3
27.7	7562	18.2	0.01372	41.1	0.08	400.0	2.6021	255.7	332.2	255.73				8.6	82.3	-1.2	-8.6
28.0	7657	18.9	0.01389	42.7	0.08	395.0	2.5966	255.1	332.7	255.14				8.3	87.1	-0.4	-8.3
29.0	7964	15.4	0.01445	35.0	0.07	379.0	2.5786	253.1	334.0	253.11				6.8	92.8	0.3	-6.8
30.0	8261	12.8	0.01490	29.5	0.06	364.0	2.5611	250.3	334.1	250.52	81.3	248.0	0.0013	5.6	100.7	1.0	-5.5
30.9	8547	9.5	0.01524	22.0	0.04	350.0	2.5441	248.3	335.2	248.56	98.7	248.2	0.0014	4.6	118.3	2.2	-4.0
31.0	8568	9.2	0.01527	21.4	0.04	349.0	2.5428	248.2	335.3	248.42	100.0	248.2	0.0014	4.5	119.8	2.2	-3.9
32.0	8886	8.5	0.01557	20.0	0.04	334.0	2.5237	246.2	336.8	246.42	100.0	246.2	0.0012	4.4	126.6	2.7	-3.6
33.0	9216	12.1	0.01595	28.7	0.06	319.0	2.5038	244.3	338.6	244.44	100.0	244.3	0.0011	4.8	132.9	3.3	-3.5
34.0	9535	10.9	0.01636	26.1	0.06	305.0	2.4843	241.4	338.9	241.52	82.2	239.4	0.0007	5.4	137.4	4.0	-3.7
34.4	9651	10.9	0.01650	26.2	0.06	300.0	2.4771	240.4	339.2	240.53	74.7	237.4	0.0005	5.4	133.0	3.7	-3.9
35.0	9817	10.9	0.01670	26.4	0.06	293.0	2.4669	239.1	339.5	239.13	63.9	234.6	0.0005	5.3	126.6	3.2	-4.3
36.0	10059	12.7	0.01703	31.0	0.07	283.0	2.4518	236.8	339.7	236.87	39.5	228.1	0.0002	5.9	104.7	1.5	-5.7
37.0	10333	12.0	0.01741	29.4	0.07	272.0	2.4346	235.4	341.5	235.40	23.5	222.2	0.0001	6.8	88.5	-0.2	-6.8
38.0	10616	13.8	0.01783	34.0	0.09	261.0	2.4166	233.8	343.2	233.81	21.9	220.3	0.0001	6.8	90.9	0.1	-6.8
38.9	10908	10.4	0.01824	25.8	0.07	250.0	2.3979	231.5	343.9	231.46				7.6	102.2	1.6	-7.5
39.0	10936	10.0	0.01827	25.1	0.07	249.0	2.3962	231.2	344.0	231.24				7.7	103.2	1.8	-7.5
40.0	11240	11.1	0.01865	28.0	0.08	238.0	2.3766	228.4	344.2	228.37				8.6	107.7	2.6	-8.2
41.0	11467	11.0	0.01895	28.2	0.08	230.0	2.3617	225.9	343.7	225.86				9.5	112.6	3.6	-8.7
42.0	11729	11.1	0.01930	28.6	0.08	221.0	2.3444	223.7	344.3	223.71				9.4	118.4	4.4	-8.2
43.0	11969	11.8	0.01963	30.8	0.09	213.0	2.3284	221.1	343.9	221.06				7.7	120.7	3.9	-6.6
44.0	12247	9.9	0.02000	26.0	0.08	204.0	2.3096	219.2	345.3	219.23				6.7	118.3	3.2	-5.9
44.4	12373	9.5	0.02015	25.2	0.08	200.0	2.3010	218.6	346.2	218.58				6.4	117.9	3.0	-5.7
45.0	12548	9.1	0.02035	24.2	0.08	194.6	2.2891	217.7	347.5	217.68				6.0	117.3	2.8	-5.4
46.0	12800	8.3	0.02062	22.4	0.07	187.0	2.2718	215.1	347.3	215.11				5.7	126.5	3.4	-4.6
47.0	13039	14.1	0.02096	38.3	0.13	180.0	2.2553	212.9	347.5	212.93				5.6	136.2	4.0	-3.8
48.0	13321	8.9	0.02138	24.4	0.09	172.0	2.2355	211.2	349.2	211.19				3.5	150.4	3.1	-1.7
49.0	13613	7.8	0.02169	21.5	0.08	164.0	2.2148	208.6	349.7	208.64				2.6	160.1	2.5	-0.9
50.0	13879	9.5	0.02199	26.3	0.10	157.0	2.1959	207.9	352.8	207.89				4.4	134.8	3.1	-3.2
50.8	14154	8.9	0.02231	25.1	0.10	150.0	2.1761	205.6	353.5	205.61				7.3	126.2	4.3	-5.9
51.0	14235	8.8	0.02241	24.8	0.10	148.0	2.1703	204.9	353.8	204.94				8.1	124.8	4.6	-6.6
52.0	14781	11.1	0.02313	32.0	0.14	135.0	2.1303	200.6	355.6	200.65				10.7	127.9	6.6	-8.4
53.0	15184	9.9	0.02370	28.7	0.13	126.0	2.1004	198.3	358.4	198.30				10.3	153.4	9.2	-4.6
53.1	15229	9.5	0.02376	27.8	0.13	125.0	2.0969	198.0	358.7	198.00				9.8	155.7	9.0	-4.0
54.0	15611	6.9	0.02419	20.5	0.10	117.0	2.0682	195.5	360.9	195.52				6.9	186.4	6.8	0.8
55.0	15963	7.3	0.02454	21.5	0.11	110.0	2.0414	195.0	366.3	194.98				5.5	191.4	5.4	1.1
56.0	16283	10.0	0.02492	29.7	0.16	104.0	2.0170	195.3	372.8	195.25				6.6	104.0	1.6	-6.4
56.7	16506	12.4	0.02528	36.7	0.21	100.0	2.0000	195.1	376.6	195.05				4.2	52.9	-2.5	-3.3
57.0	16587	13.3	0.02541	39.3	0.22	98.6	1.9939	195.0	378.0	194.98				4.6	29.2	-4.0	-2.2

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	16878	18.6	0.02606	55.2	0.33	93.7	1.9717	195.0	383.5	194.98				3.6	13.9	-3.5	-0.9
59.0	17190	30.2	0.02709	86.0	0.56	88.8	1.9484	202.6	404.7	202.64				12.7	85.0	-1.1	-12.6
60.0	17519	30.6	0.02842	87.2	0.60	84.0	1.9243	202.4	410.8	202.43				14.8	99.5	2.4	-14.6
60.8	17808	31.2	0.02961	88.8	0.65	80.0	1.9031	202.6	416.9	202.60				11.8	115.0	5.0	-10.7
61.0	17883	31.3	0.02992	89.2	0.66	79.0	1.8976	202.6	418.5	202.64				11.2	120.2	5.6	-9.7
62.0	18253	32.8	0.03151	94.4	0.73	74.2	1.8704	200.4	421.4	200.42				13.6	136.3	9.8	-9.4
62.9	18595	35.1	0.03307	100.7	0.83	70.0	1.8451	201.0	429.8	201.04				12.1	123.1	6.6	-10.1
63.0	18629	35.3	0.03322	101.4	0.84	69.6	1.8426	201.1	430.6	201.10				12.0	121.7	6.3	-10.2
64.0	18941	40.1	0.03480	115.1	1.01	66.0	1.8195	201.1	437.2	201.10				9.1	83.4	-1.0	-9.1
65.0	19272	45.9	0.03671	131.0	1.22	62.4	1.7952	202.2	446.7	202.21				13.8	73.5	-3.9	-13.3
65.7	19505	49.0	0.03819	138.3	1.35	60.0	1.7782	204.4	456.7	204.41				16.5	74.6	-4.4	-15.9
66.0	19606	50.3	0.03883	141.5	1.41	59.0	1.7709	205.3	461.0	205.35				17.7	75.0	-4.6	-17.1
67.0	19964	65.0	0.04153	181.1	1.94	55.6	1.7451	207.1	472.9	207.12				19.4	78.4	-3.9	-19.0
68.0	20338	72.2	0.04485	198.2	2.29	52.3	1.7185	210.5	489.0	210.47				22.1	79.8	-3.9	-21.8
68.9	20617	83.1	0.04762	224.6	2.75	50.0	1.6990	213.5	502.5	213.50				24.1	76.1	-5.8	-23.4
69.0	20642	84.0	0.04787	227.0	2.80	49.8	1.6972	213.8	503.7	213.78				24.3	75.8	-6.0	-23.6
70.0	21004	91.7	0.05188	247.0	3.23	47.0	1.6721	214.4	513.7	214.44				24.2	74.0	-6.7	-23.3
71.0	21277	93.5	0.05506	251.8	3.44	45.0	1.6532	214.4	520.1	214.44				27.1	76.9	-6.1	-26.4
72.0	21607	102.1	0.05911	273.1	3.96	42.7	1.6304	215.8	531.2	215.76				33.5	83.2	-3.9	-33.3
73.0	21941	103.6	0.06340	276.8	4.24	40.5	1.6075	216.1	540.1	216.08				25.1	87.3	-1.2	-25.1
73.2	22019	105.0	0.06444	280.1	4.35	40.0	1.6021	216.3	542.6	216.30				23.8	88.2	-0.8	-23.8
74.0	22295	109.8	0.06810	292.0	4.75	38.3	1.5832	217.0	551.3	217.05				19.4	92.0	0.7	-19.4
75.0	22635	110.4	0.07276	294.1	5.04	36.3	1.5599	216.7	558.9	216.73				30.9	92.4	1.3	-30.8
75.6	22865	111.3	0.07596	297.2	5.27	35.0	1.5441	216.3	563.8	216.33				28.2	90.7	0.3	-28.2
76.0	23012	111.9	0.07798	299.1	5.42	34.2	1.5340	216.1	566.9	216.08				26.5	89.4	-0.3	-26.5
77.0	23314	113.4	0.08224	304.8	5.76	32.6	1.5132	214.8	571.2	214.78				22.9	84.7	-2.1	-22.8
78.0	23589	116.1	0.08622	312.5	6.16	31.2	1.4942	214.4	577.5	214.44				30.4	95.1	2.7	-30.3
78.7	23835	120.4	0.08990	322.2	6.65	30.0	1.4771	215.7	587.4	215.67				32.5	99.9	5.6	-32.0
79.0	23920	121.8	0.09116	325.5	6.82	29.6	1.4713	216.1	590.7	216.08				33.2	101.4	6.5	-32.6
80.0	24273	127.1	0.09661	335.8	7.52	28.0	1.4472	218.5	606.8	218.46				30.9	90.9	0.5	-30.9
81.0	24506	127.1	0.10026	334.7	7.80	27.0	1.4314	219.2	615.3	219.23				23.7	79.6	-4.3	-23.4
82.0	24748	127.7	0.10405	336.3	8.14	26.0	1.4150	219.2	622.0	219.23				28.9	83.8	-3.1	-28.7
82.8	25001	135.6	0.10815	353.7	9.00	25.0	1.3979	221.4	635.1	221.37				28.6	85.7	-2.2	-28.5
83.0	25053	137.3	0.10899	357.3	9.17	24.8	1.3945	221.8	637.8	221.80				28.5	86.1	-2.0	-28.4
84.0	25321	142.3	0.11353	368.2	9.91	23.8	1.3766	223.1	649.2	223.13				16.6	77.4	-3.6	-16.2
85.0	25630	142.1	0.11884	366.0	10.37	22.7	1.3560	224.1	661.0	224.14				14.3	61.9	-6.8	-12.7
86.0	25956	141.0	0.12439	362.0	10.81	21.6	1.3345	224.9	672.6	224.86				17.2	54.2	-10.0	-13.9
87.0	26204	139.2	0.12856	357.7	11.09	20.8	1.3181	224.7	679.5	224.72				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***

*** TOTAL INTEGRATED OZONE INVALID ***
*** BALLOON SHORT OF 20 MB HEIGHT ***


072077
0425
3A-073
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
TP
40 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72077   LAUNCH TIME 1030 GMT   ECC SONDE 3A-077X

SURFACE CONDITIONS								
PRESS	1003.2 MB	OO3 = 32.2	TBOX CAL =	30.0 C	AT	74.9 ORD
TEMP	297.8 K	OIZ = 31.6	BASE CAL =	30.0 C	AT	73.4 ORD
HUMY	97.0 %	OZC = 64.6	HUMIDITY =	61.9 %	AT	46.0 ORD
		IO = 0.094				
		PS = 27.5				

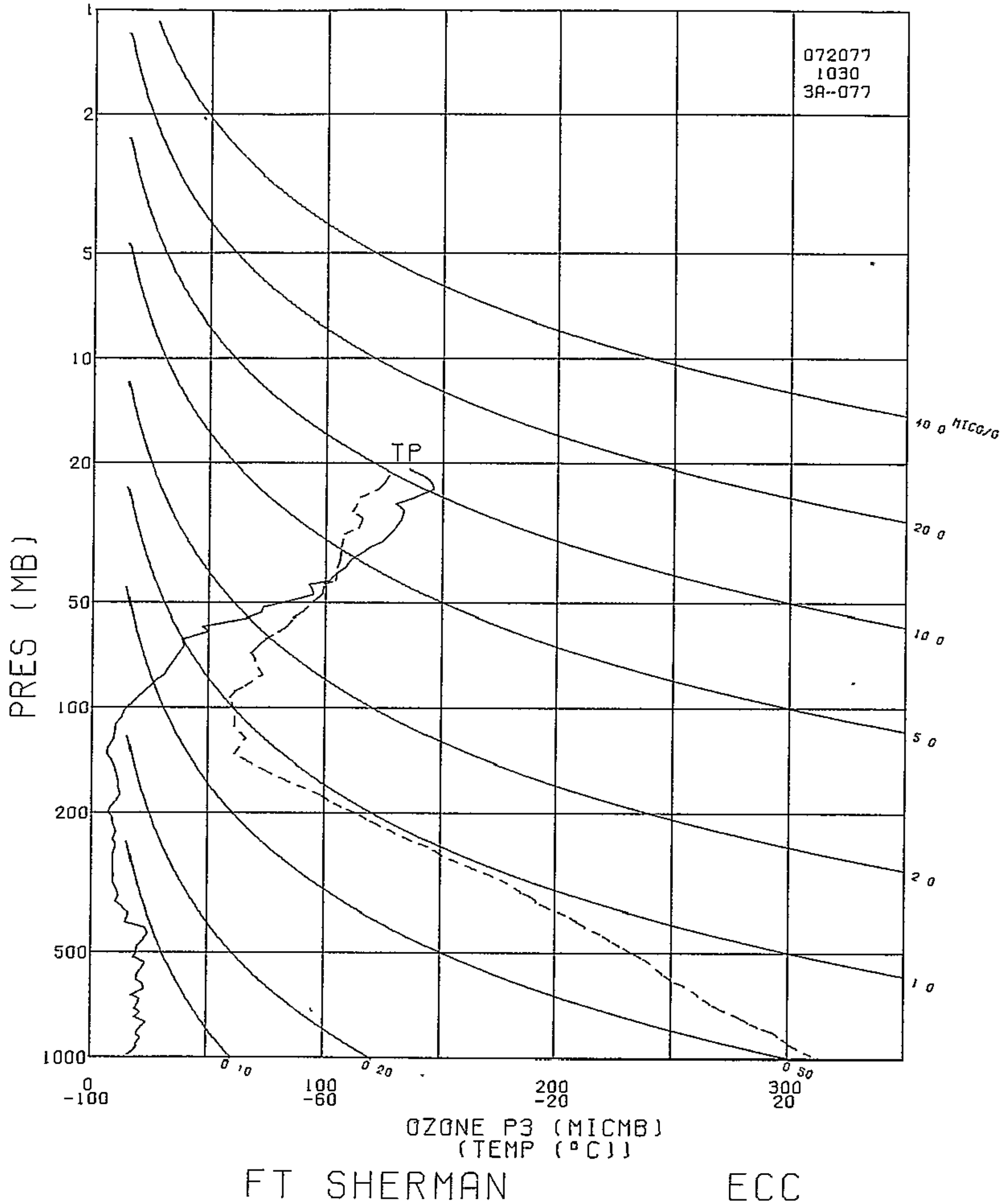
	PROFILE	DOBSON
INTEGRATED OZONE	0.13164	
RESIDUAL OZONE		
TOTAL OZONE		0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	12.1	0.	23.5	0.02	1003.2	3.0014	297.3	297.1	300.68	97.7	296.9	0.0184	1.0	90.0	-0.0	-1.0
0.1	81	12.6	0.00004	24.6	0.02	1000.0	3.0000	297.3	297.3	300.70	98.0	297.0	0.0186	1.5	73.5	-0.4	-1.4
1.0	259	16.1	0.00026	31.3	0.03	980.0	2.9912	297.3	299.1	300.84	99.8	297.3	0.0193	4.9	52.1	-3.0	-3.9
2.0	458	18.0	0.00057	34.9	0.03	958.0	2.9814	296.9	300.5	300.26	97.3	296.4	0.0187	7.1	33.4	-5.9	-3.9
3.0	708	19.5	0.00099	38.2	0.03	931.0	2.9689	294.6	300.7	297.37	89.5	292.8	0.0154	7.2	22.3	-6.7	-2.7
4.0	934	19.3	0.00139	38.1	0.04	907.0	2.9576	293.3	301.6	295.90	89.8	291.5	0.0146	7.2	15.7	-6.9	-1.9
4.2	1000	19.8	0.00151	39.1	0.04	900.0	2.9542	293.1	302.1	295.66	87.4	291.0	0.0139	7.0	18.1	-6.6	-2.2
5.0	1205	21.4	0.00189	42.2	0.04	879.0	2.9440	292.6	303.6	294.95	80.4	289.2	0.0129	6.5	26.2	-5.9	-2.9
6.0	1413	19.5	0.00228	38.6	0.04	858.0	2.9335	291.4	304.4	293.40	75.4	286.9	0.0115	6.1	45.9	-4.3	-4.4
6.3	1493	19.7	0.00243	39.1	0.04	850.0	2.9294	291.0	304.8	293.01	77.0	286.9	0.0116	6.3	49.9	-4.1	-4.8
7.0	1666	20.2	0.00274	40.2	0.04	833.0	2.9206	290.1	305.7	292.17	80.2	286.7	0.0116	6.8	57.8	-3.6	-5.8
8.0	1894	21.8	0.00319	43.6	0.04	811.0	2.9090	287.9	305.6	289.94	90.8	286.4	0.0117	7.6	65.8	-3.1	-6.9
8.5	2009	22.7	0.00343	45.6	0.05	800.0	2.9031	287.1	306.0	289.14	93.4	286.0	0.0116	8.3	68.9	-3.0	-7.8
9.0	2126	23.6	0.00368	47.6	0.05	789.0	2.8971	286.3	306.4	288.32	96.0	285.7	0.0115	9.1	71.6	-2.9	-8.7
10.0	2407	18.5	0.00424	37.5	0.04	763.0	2.8825	284.8	307.7	286.30	78.3	281.1	0.0088	10.9	74.2	-3.0	-10.5
11.0	2652	21.3	0.00470	43.3	0.05	741.0	2.8698	284.0	309.4	285.71	88.6	282.2	0.0097	10.6	72.1	-3.2	-10.1
12.0	2891	18.6	0.00515	38.2	0.04	720.0	2.8573	281.5	309.2	282.91	89.0	279.7	0.0084	8.8	68.1	-3.3	-8.2
12.9	3123	20.1	0.00558	41.4	0.05	700.0	2.8451	280.0	310.0	281.46	96.8	279.5	0.0086	8.1	65.6	-3.3	-7.3
13.0	3147	20.2	0.00562	41.8	0.05	698.0	2.8439	279.9	310.1	281.32	97.6	279.5	0.0086	8.0	65.3	-3.3	-7.3
14.0	3398	20.7	0.00612	42.9	0.05	677.0	2.8306	279.2	312.1	280.60	98.4	278.9	0.0085	6.2	75.9	-1.5	-6.0
15.0	3618	17.4	0.00652	36.2	0.04	659.0	2.8189	277.8	312.9	279.11	98.3	277.5	0.0079	5.0	99.1	0.8	-5.0
16.0	3895	22.0	0.00705	45.8	0.06	637.0	2.8041	277.3	315.4	278.46	88.2	275.5	0.0071	5.2	107.1	1.5	-4.9
17.0	4167	22.0	0.00763	46.2	0.06	616.0	2.7896	275.1	315.9	276.03	78.5	271.7	0.0056	4.2	115.9	1.8	-3.8
17.8	4378	19.9	0.00806	42.0	0.05	600.0	2.7782	273.4	316.4	274.43	95.6	272.7	0.0063	4.6	107.1	1.4	-4.4
18.0	4432	19.4	0.00817	40.9	0.05	596.0	2.7752	273.0	316.5	274.03	100.0	273.0	0.0063	4.7	105.1	1.2	-4.6
19.0	4732	19.7	0.00875	41.9	0.06	574.0	2.7589	271.5	318.2	272.37	84.4	269.3	0.0050	6.5	86.1	-0.4	-6.5
20.0	5028	21.7	0.00936	46.3	0.07	553.0	2.7427	271.2	321.3	271.56	33.0	257.1	0.0020	6.7	65.1	-2.8	-6.1
21.0	5319	23.1	0.01002	49.6	0.07	533.0	2.7267	269.4	322.4	269.37				7.1	53.1	-4.3	-5.7
22.0	5604	18.0	0.01060	38.7	0.06	514.0	2.7110	267.8	323.9	267.87				7.2	57.1	-3.9	-6.1
22.8	5819	19.0	0.01101	41.3	0.06	500.0	2.6990	266.3	324.7	266.34				8.3	60.2	-4.1	-7.2
23.0	5882	19.4	0.01113	42.0	0.06	496.0	2.6955	265.9	324.9	265.90				8.6	61.0	-4.2	-7.5
24.0	6201	19.7	0.01176	43.1	0.07	476.0	2.6776	264.1	326.5	264.13				10.6	60.3	-5.2	-9.2
25.0	6481	22.2	0.01236	48.8	0.08	459.0	2.6618	262.4	327.8	262.41				11.6	57.2	-6.3	-9.8
26.0	6804	23.9	0.01313	53.0	0.09	440.0	2.6435	260.7	329.6	260.69				12.1	53.6	-7.2	-9.8
27.0	7121	22.7	0.01390	50.9	0.09	422.0	2.6253	258.2	330.3	258.18				12.5	51.1	-7.8	-9.7
28.0	7394	14.8	0.01444	33.2	0.06	407.0	2.6096	256.8	332.0	256.97	42.7	247.1	0.0011	13.1	52.8	-7.9	-10.5
28.4	7523	15.2	0.01465	34.3	0.06	400.0	2.6021	256.1	332.7	256.25	38.9	245.4	0.0009	12.5	53.9	-7.4	-10.1
29.0	7752	16.0	0.01502	36.3	0.07	388.0	2.5888	254.9	334.1	255.00	32.2	242.4	0.0007	11.5	56.3	-6.4	-9.5
30.0	8064	13.7	0.01551	31.4	0.06	372.0	2.5705	251.8	334.0	251.97	67.4	247.4	0.0012	7.7	57.8	-4.1	-6.5
31.0	8346	10.4	0.01588	24.0	0.05	358.0	2.5539	249.8	335.0	250.02	95.0	249.2	0.0015	5.1	79.7	-0.9	-5.0
31.6	8510	11.1	0.01607	25.8	0.05	350.0	2.5441	249.2	336.3	249.38	82.7	247.0	0.0012	4.5	111.7	1.7	-4.2
32.0	8637	11.7	0.01622	27.1	0.06	344.0	2.5366	248.7	337.4	248.89	73.4	245.3	0.0011	5.1	135.4	3.6	-3.6
33.0	8807	10.9	0.01643	25.6	0.05	336.0	2.5263	247.1	337.5	247.28	71.3	243.5	0.0010	6.3	144.5	5.1	-3.6
34.0	9249	9.0	0.01692	21.2	0.05	316.0	2.4997	244.8	340.2	244.88	71.1	241.2	0.0008	5.9	142.2	4.7	-3.6
35.0	9595	9.6	0.01727	22.8	0.05	301.0	2.4786	242.0	341.0	242.09	71.0	238.5	0.0007	5.7	167.9	5.6	-1.2
35.1	9618	9.5	0.01730	22.7	0.05	300.0	2.4771	241.8	341.0	241.86	70.8	238.2	0.0006	5.7	168.4	5.6	-1.2
36.0	9930	8.8	0.01762	21.4	0.05	287.0	2.4579	238.7	341.0	238.76	68.0	234.9	0.0005	6.0	173.7	6.0	-0.7
37.0	10227	9.2	0.01792	22.4	0.06	275.0	2.4393	236.0	341.3	236.07	66.6	232.1	0.0004	5.3	161.4	5.1	-1.7
38.0	10559	9.1	0.01827	22.6	0.06	262.0	2.4183	233.0	341.7	233.04				4.6	150.7	4.0	-2.2
38.9	10877	10.2	0.01863	25.4	0.07	250.0	2.3979	231.2	343.5	231.16				4.7	178.5	4.7	-0.1
39.0	10932	10.3	0.01869	25.8	0.07	248.0	2.3945	230.8	343.8	230.84				4.8	182.8	4.8	0.2
40.0	11208	9.0	0.01901	22.7	0.06	238.0	2.3766	227.9	343.4	227.89				5.8	191.4	5.7	1.1
41.0	11522	10.3	0.01937	26.4	0.08	227.0	2.3560	225.3	344.2	225.30				6.9	171.1	6.8	-1.1
42.0	11878	9.0	0.01978	23.4	0.07	215.0	2.3324	222.3	344.9	222.32				9.9	172.9	9.8	-1.2
43.0	12123	9.0	0.02005	23.5	0.07	207.0	2.3160	220.3	345.5	220.32				12.0	166.4	11.7	-2.8
43.8	12343	7.4	0.02027	19.7	0.06	200.0	2.3010	218.7	346.4	218.73				12.9	158.6	12.0	-4.7
44.0	12408	7.0	0.02033	18.5	0.06	198.0	2.2967	218.3	346.7	218.26				13.1	156.5	12.0	-5.2
45.0	12636	8.3	0.02055	22.1	0.07	191.0	2.2810	216.0	346.6	215.96				12.2	151.7	10.7	-5.8
46.0	12905	10.5	0.02086	28.4	0.10	183.0	2.2625	213.7	347.2	213.74				10.4	148.7	8.9	-5.4
47.0	13148	12.3	0.02121	33.4	0.12	176.0	2.2455	212.3	348.8	212.32				9.3	149.3	8.0	-4.7
48.0	13398	11.5	0.02159	31.6	0.11	169.0	2.2279	209.7	348.6	209.74				9.2	146.8	7.7	-5.0
49.0	13693	11.5	0.02203	32.1	0.12	161.0	2.2068	206.6	348.1	206.61				9.9	142.2	7.8	-6.1
50.0	14077	10.3	0.02258	29.2	0.11	151.0	2.1790	203.2	348.8	203.21				9.0	132.9	6.1	-6.6
50.1	14116	10.1	0.02263	28.6	0.11	150.0	2.1761	202.9	348.8	202.86				8.7	132.4	5.8	-6.4
51.0	14439	8.4	0.02304	24.3	0.10	142.0	2.1523	200.0	349.3	199.97				5.9	125.5	3.4	-4.8
52.0	14733	6.5	0.02333	19.0	0.06	135.0	2.1303	197.7	350.4	197.72				3.4	171.0	3.4	-0.5
53.0	14996	7.0	0.02357	20.5	0.09	129.0	2.1106	197.5	354.5	197.47				4.5	219.3	3.5	2.8
53.6	15178	8.3	0.02378	24.3	0.11	125.0	2.0969	198.6	359.8	198.61				3.9	249.2	1.4	3.6
54.0	15320	9.4	0.02394	27.2	0.13	122.0	2.0864	199.5	363.9	199.49				4.2	273.2	-0.2	4.2
55.0	15614	10.0	0.02432	28.8	0.14	116.0	2.0645	199.5	369.2	199.49				6.7	330.6	-5.9	3.3
56.0	15870	10.3	0.02467	30.0	0.15	111.0	2.0453	197.5	370.0	197.47				7.8	3.1	-7.7	-0.4
57.0	16136	12.7	0.02509	37.3	0.20	106.0	2.0253	197.5	375.0	197.47				8.9	28.1	-7.8	-4.2
58.0	16415	14.1	0.02560	41.1	0.23	101.0	2.0043	197.5	380.2	197.47				8.0	45.2	-5.6	-5.7

TIME MIN	ALT GP MT	OZONE MICML	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.2	16472	14.7	0.02572	42.9	0.24	100.0	2.0000	197.3	381.0	197.34				7.6	53.5	-4.5	-6.1
59.0	16648	16.5	0.02609	48.4	0.28	97.0	1.9868	196.9	383.6	196.94				7.5	81.7	-1.1	-7.5
60.0	16890	19.3	0.02668	56.6	0.34	93.0	1.9685	196.7	387.7	196.68				9.6	104.2	2.4	-9.3
61.0	17143	22.2	0.02740	64.9	0.41	89.0	1.9494	197.7	394.7	197.72				9.2	117.6	4.2	-8.1
62.0	17342	24.8	0.02804	71.9	0.48	86.0	1.9345	199.5	402.1	199.49				9.0	110.7	3.2	-8.4
63.0	17620	27.7	0.02903	79.9	0.56	82.0	1.9138	200.2	409.1	200.21				9.0	78.0	-1.9	-8.8
64.0	17765	30.7	0.02960	87.6	0.64	80.0	1.9031	202.3	416.3	202.32				8.9	62.2	-4.2	-7.9
65.0	17990	32.3	0.03055	92.5	0.69	77.0	1.8865	201.4	419.0	201.40				9.4	87.8	-0.4	-9.4
66.0	18304	34.8	0.03196	99.7	0.79	73.0	1.8633	201.2	424.9	201.16				10.3	92.6	0.5	-10.3
66.7	18550	36.6	0.03315	105.4	0.87	70.0	1.8451	200.6	428.9	200.64				10.1	66.0	-4.1	-9.2
67.0	18635	37.3	0.03356	107.3	0.89	69.0	1.8388	200.5	430.3	200.45				10.5	57.4	-5.6	-8.8
68.0	18896	39.4	0.03490	112.9	0.99	66.0	1.8195	201.6	438.4	201.63				15.5	46.3	-10.7	-11.2
69.0	19171	38.6	0.03634	109.8	1.02	63.0	1.7993	203.0	447.2	202.99				19.5	59.3	-10.0	-16.8
70.0	19462	49.3	0.03803	138.9	1.36	60.0	1.7782	205.2	458.3	205.16				19.9	71.1	-6.4	-18.8
71.0	19666	47.1	0.03932	131.8	1.35	58.0	1.7634	206.4	465.6	206.40				21.6	83.4	-2.5	-21.5
72.0	19988	66.2	0.04169	184.2	2.00	55.0	1.7404	207.6	475.5	207.61				23.6	86.0	-1.6	-23.6
73.0	20213	72.5	0.04372	200.3	2.27	53.0	1.7243	209.0	483.7	208.98				23.0	83.0	-2.8	-22.8
74.0	20448	73.6	0.04594	202.7	2.39	51.0	1.7076	209.6	490.4	209.55				24.6	82.9	-3.0	-24.4
74.5	20569	79.1	0.04718	217.2	2.63	50.0	1.6990	210.4	495.2	210.39				24.9	85.4	-2.0	-24.8
75.0	20694	84.8	0.04844	231.9	2.87	49.0	1.6902	211.2	500.0	211.23				25.2	87.9	-0.9	-25.2
76.0	20952	94.6	0.05139	257.0	3.33	47.0	1.6721	212.5	509.1	212.50				29.6	92.3	1.2	-29.6
77.0	21362	92.8	0.05627	251.8	3.50	44.0	1.6435	212.9	519.6	212.86				27.4	96.6	3.2	-27.3
78.0	21505	101.4	0.05803	272.5	3.91	43.0	1.6335	214.8	527.7	214.78				26.0	95.8	2.6	-25.9
79.0	21804	104.5	0.06189	280.4	4.22	41.0	1.6128	215.1	535.8	215.12				27.0	91.7	0.8	-27.0
79.6	21959	106.8	0.06397	286.8	4.43	40.0	1.6021	215.1	539.6	215.12				27.0	92.7	1.3	-27.0
80.0	22054	108.3	0.06524	290.7	4.55	39.4	1.5955	215.1	542.0	215.12				27.0	93.4	1.6	-26.9
81.0	22399	110.9	0.06997	296.9	4.93	37.3	1.5717	215.6	551.8	215.62				31.6	92.9	1.6	-31.5
82.0	22693	115.8	0.07414	309.7	5.39	35.6	1.5515	216.0	560.1	215.96				28.1	94.1	2.0	-28.0
82.5	22800	117.4	0.07572	313.9	5.56	35.0	1.5441	215.9	562.6	215.88				28.2	97.0	3.4	-27.9
83.0	22909	118.9	0.07732	318.2	5.73	34.4	1.5366	215.8	565.1	215.79				28.3	99.9	4.9	-27.9
84.0	23152	124.4	0.08102	332.1	6.23	33.1	1.5198	216.3	572.7	216.29				30.7	103.6	7.2	-29.9
85.0	23445	127.5	0.08563	340.3	6.68	31.6	1.4997	216.3	580.4	216.29				27.6	108.1	8.6	-26.3
86.0	23712	129.9	0.08989	342.8	7.10	30.3	1.4814	218.7	594.0	218.74				26.5	105.3	7.0	-25.5
86.2	23775	130.4	0.09092	343.9	7.20	30.0	1.4771	218.9	596.0	218.86				26.8	102.9	6.0	-26.1
87.0	24060	132.5	0.09551	348.8	7.65	28.7	1.4579	219.4	605.1	219.38				28.7	93.1	1.6	-28.6
88.0	24403	133.6	0.10115	354.1	8.14	27.2	1.4346	217.8	609.9	217.77				29.1	87.3	-1.3	-29.0
89.0	24740	129.8	0.10664	344.2	8.34	25.8	1.4116	217.8	619.2	217.77				25.8	93.8	1.7	-25.7
89.8	24940	136.2	0.10996	359.5	9.03	25.0	1.3979	218.8	627.7	218.80				22.6	100.9	4.3	-22.2
90.0	24992	137.9	0.11081	363.3	9.21	24.8	1.3945	219.1	629.9	219.06				21.9	103.1	5.0	-21.3
91.0	25339	145.7	0.11684	378.7	10.27	23.5	1.3711	222.2	648.8	222.17				17.4	101.5	3.5	-17.1
92.0	25651	144.6	0.12233	374.0	10.70	22.4	1.3502	223.2	660.8	223.23				17.2	110.8	6.1	-16.1
93.0	25949	141.3	0.12748	366.4	10.94	21.4	1.3304	222.6	667.7	222.62				22.8	149.7	19.7	-11.5
94.0	26198	135.7	0.13164	348.9	10.91	20.6	1.3139	224.6	680.9	224.56				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***

*** TOTAL INTEGRATED OZONE INVALID ***
*** BALLOON SHORT OF 20 MB HEIGHT ***



072077
1030
3A--077
TP
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
40 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72077   LAUNCH TIME 2258 GMT   ECC SONDE 3A-079X

SURFACE CONDITIONS
PRESS 1003.4 MB
TEMP 299.0 K
HUMY 89.0 %

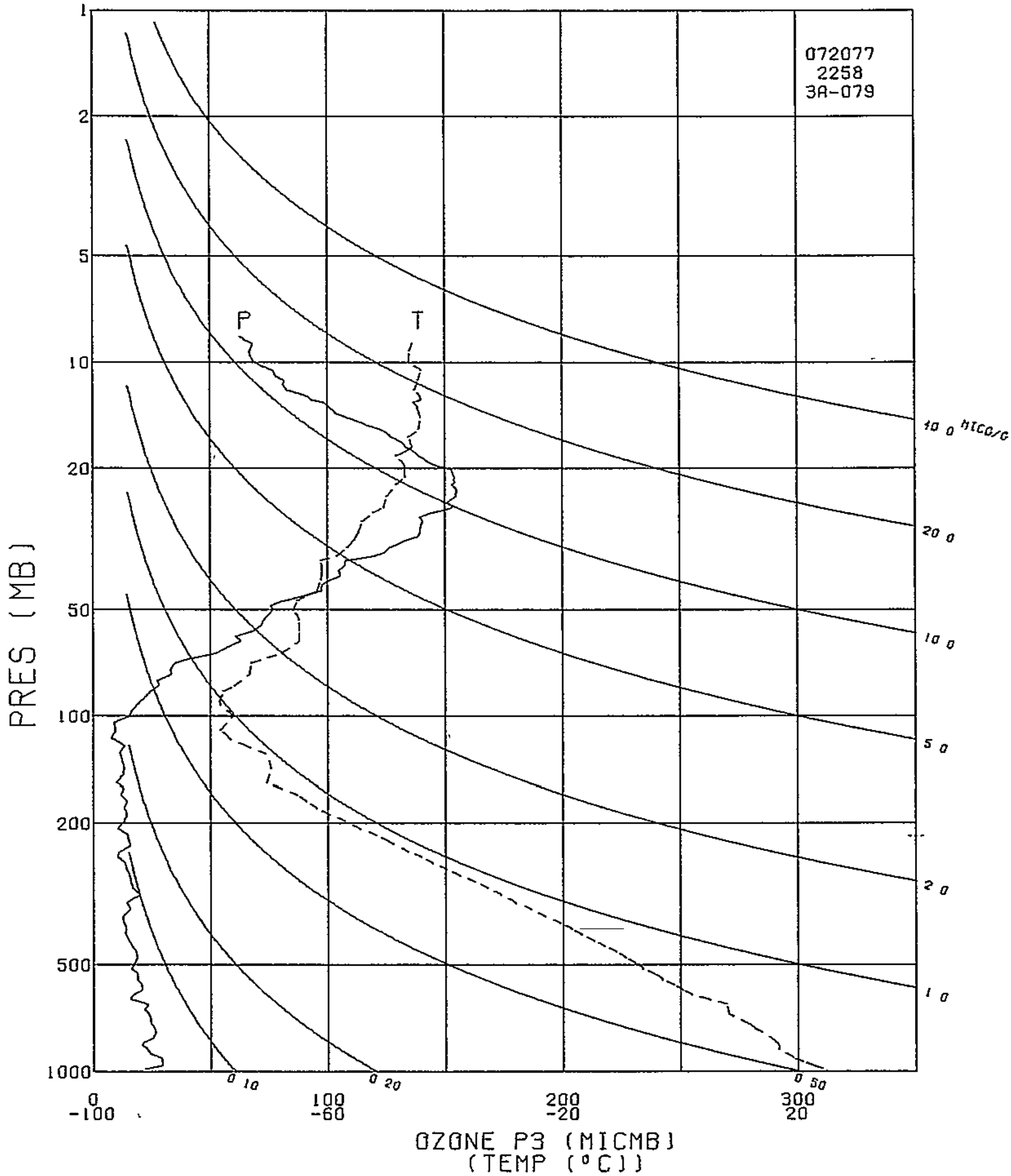
OO3 = 31.0
OIZ = 30.5
OZC = 60.5
IO = 0.086
PS = 30.7

TBOX CAL = 30.0 C AT 73.3 ORD
BASE CAL = 30.0 C AT 73.6 ORD
HUMIDITY = 61.0 % AT 46.0 ORD

	PROFILE	DOBSON
INTEGRATED OZONE	0.21185	
RESIDUAL OZONE	0.04350	
TOTAL OZONE	0.25535	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	24.1	0.	46.7	0.04	1003.4	3.0015	298.0	297.7	301.04	84.9	295.3	0.0167	1.0	30.0	-0.9	-0.5
0.1	82	23.8	0.00006	46.1	0.04	1000.0	3.0000	297.9	297.9	300.97	86.2	295.4	0.0170	1.4	28.5	-1.2	-0.7
1.0	260	22.0	0.00043	42.8	0.04	980.0	2.9912	297.3	299.0	300.58	93.7	296.2	0.0180	3.7	26.2	-3.4	-1.7
2.0	459	29.0	0.00089	56.6	0.05	958.0	2.9814	295.7	299.3	298.72	94.2	294.7	0.0168	4.6	23.4	-4.2	-1.8
3.0	661	29.3	0.00142	57.5	0.05	936.0	2.9713	293.9	299.5	296.46	87.6	291.8	0.0143	3.8	27.0	-3.4	-1.7
4.0	895	28.3	0.00204	55.9	0.05	911.0	2.9595	292.1	300.0	294.52	88.4	290.2	0.0133	3.9	28.1	-3.4	-1.8
4.5	999	26.4	0.00229	52.3	0.05	900.0	2.9542	291.9	300.8	294.27	90.3	290.2	0.0136	3.1	36.3	-2.5	-1.8
5.0	1125	24.2	0.00259	48.0	0.05	887.0	2.9479	291.5	301.7	293.96	92.6	290.3	0.0138	2.3	53.4	-1.4	-1.8
6.0	1340	22.8	0.00305	45.5	0.04	865.0	2.9370	289.8	302.1	292.14	95.1	289.0	0.0131	2.7	99.9	0.5	-2.6
6.6	1489	21.3	0.00335	42.4	0.04	850.0	2.9294	289.4	303.2	291.73	94.6	288.6	0.0128	3.3	97.8	0.4	-3.2
7.0	1580	20.3	0.00353	40.6	0.04	841.0	2.9248	289.2	303.9	291.48	94.3	288.3	0.0128	3.6	96.8	0.4	-3.6
8.0	1774	21.3	0.00391	42.5	0.04	822.0	2.9149	289.2	305.9	291.12	77.7	285.3	0.0108	3.3	106.3	0.9	-3.2
9.0	1983	25.2	0.00436	50.5	0.05	802.0	2.9042	288.6	307.4	290.34	71.9	283.6	0.0098	3.3	116.6	1.5	-3.0
9.1	2004	25.3	0.00441	50.7	0.05	800.0	2.9031	288.5	307.5	290.21	71.8	283.4	0.0097	3.4	118.0	1.6	-3.0
10.0	2273	26.4	0.00506	53.1	0.06	775.0	2.8893	287.0	308.7	288.58	70.3	281.7	0.0090	3.9	133.3	2.7	-2.8
11.0	2493	25.6	0.00560	51.8	0.06	755.0	2.8779	285.6	309.5	287.13	71.2	280.6	0.0085	4.5	149.0	3.9	-2.3
12.0	2764	24.3	0.00623	49.4	0.06	731.0	2.8639	284.5	311.1	285.73	61.7	277.4	0.0071	3.8	160.4	3.6	-1.3
13.0	3007	24.2	0.00679	49.3	0.06	710.0	2.8513	283.4	312.5	284.54	61.7	276.3	0.0067	2.8	176.9	2.8	-0.1
13.4	3124	23.7	0.00705	48.4	0.06	700.0	2.8451	282.4	312.7	283.53	61.4	275.4	0.0062	3.3	165.2	3.2	-0.8
14.0	3280	23.0	0.00740	47.2	0.06	687.0	2.8370	281.2	313.0	282.20	61.1	274.1	0.0059	4.1	154.7	3.7	-1.8
15.0	3511	21.7	0.00790	44.5	0.05	668.0	2.8248	281.5	315.9	282.60	60.3	274.3	0.0062	8.1	149.6	7.0	-4.1
16.0	3800	23.1	0.00852	47.5	0.06	645.0	2.8096	280.8	318.3	281.72	51.8	271.5	0.0052	11.3	160.9	10.7	-3.7
17.0	4084	15.3	0.00904	31.9	0.04	623.0	2.7945	277.7	317.9	278.50	58.6	270.3	0.0049	12.7	160.8	12.0	-4.2
18.0	4308	16.8	0.00939	35.2	0.05	606.0	2.7825	275.0	317.3	275.70	60.6	268.2	0.0043	13.1	146.7	11.0	-7.2
18.3	4387	17.9	0.00954	37.7	0.05	600.0	2.7782	274.5	317.6	275.21	63.5	268.3	0.0045	13.4	143.2	10.8	-8.0
19.0	4542	20.1	0.00982	42.4	0.06	588.6	2.7698	273.5	318.2	274.27	69.0	268.5	0.0046	14.2	137.0	10.4	-9.7
20.0	4813	20.1	0.01036	42.7	0.06	569.0	2.7551	271.9	319.4	272.64	72.7	267.6	0.0044	14.0	134.7	9.9	-10.0
21.0	5068	18.6	0.01085	39.8	0.06	551.0	2.7412	270.0	320.1	270.84	90.7	268.7	0.0050	13.1	132.4	8.9	-9.7
22.0	5375	18.7	0.01142	40.3	0.06	530.0	2.7243	268.6	322.1	269.41	92.4	267.6	0.0047	11.5	129.1	7.3	-8.9
23.0	5631	15.8	0.01186	34.3	0.05	513.0	2.7101	266.7	322.7	267.35	92.3	265.6	0.0042	9.8	127.9	6.0	-7.7
23.6	5831	16.8	0.01220	36.5	0.06	500.0	2.6990	265.8	324.0	266.47	94.2	265.0	0.0041	9.5	127.7	5.8	-7.5
24.0	5941	17.3	0.01238	37.7	0.06	493.0	2.6928	265.3	324.7	265.99	95.2	264.7	0.0041	9.3	127.6	5.7	-7.3
25.0	6197	18.6	0.01285	40.6	0.06	477.0	2.6785	263.7	325.8	264.32	95.3	263.1	0.0037	9.0	126.9	5.4	-7.2
26.0	6493	17.8	0.01340	39.1	0.06	459.0	2.6618	262.1	327.5	262.68	96.1	261.6	0.0034	9.4	129.9	6.0	-7.2
27.0	6782	16.2	0.01391	35.9	0.06	442.0	2.6454	260.1	328.5	260.63	96.0	259.6	0.0030	8.6	122.5	4.6	-7.2
28.0	7044	15.1	0.01433	33.8	0.06	427.0	2.6304	258.3	329.4	258.75	95.1	257.7	0.0027	8.5	109.0	2.8	-8.0
29.0	7350	13.2	0.01479	29.8	0.05	410.0	2.6128	256.3	330.6	256.61	90.0	255.0	0.0022	9.0	106.2	2.5	-8.7
29.7	7534	13.7	0.01505	31.0	0.06	400.0	2.6021	255.0	331.3	255.30	84.5	253.0	0.0018	9.4	107.0	2.7	-9.0
30.0	7610	13.9	0.01516	31.5	0.06	396.0	2.5977	254.5	331.6	254.77	82.3	252.2	0.0018	9.5	107.2	2.8	-9.1
31.0	7916	12.4	0.01559	28.4	0.05	380.0	2.5798	252.6	333.0	252.84	78.4	249.8	0.0015	9.7	111.1	3.5	-9.0
32.0	8204	12.0	0.01597	27.7	0.05	365.4	2.5628	250.1	333.4	250.26	79.0	247.4	0.0013	9.1	111.9	3.4	-8.5
32.9	8517	14.8	0.01643	34.6	0.07	350.0	2.5441	248.0	334.7	248.15	85.2	246.2	0.0012	7.8	104.4	1.9	-7.6
33.0	8559	15.2	0.01649	35.5	0.07	348.0	2.5416	247.7	334.9	247.86	86.0	246.0	0.0012	7.6	103.2	1.7	-7.4
34.0	8877	13.7	0.01699	32.4	0.07	333.0	2.5224	244.9	335.3	245.06	83.5	243.0	0.0009	7.4	97.4	1.0	-7.4
35.0	9228	19.5	0.01764	46.4	0.10	317.0	2.5011	242.6	336.8	242.66	73.4	239.4	0.0007	7.2	103.7	1.7	-7.0
36.0	9547	16.7	0.01828	40.1	0.09	303.0	2.4814	240.2	337.8	240.27	75.9	237.4	0.0006	6.2	106.5	1.8	-5.9
36.2	9616	16.5	0.01841	39.7	0.09	300.0	2.4771	239.7	338.1	239.75	73.6	236.6	0.0005	6.3	105.2	1.6	-6.1
37.0	9830	15.9	0.01880	38.6	0.09	291.0	2.4639	238.1	338.8	238.13	66.7	234.1	0.0004	6.7	101.3	1.3	-6.6
38.0	10097	15.0	0.01927	36.8	0.09	280.0	2.4472	235.5	338.9	235.59	64.3	231.3	0.0003	7.0	103.1	1.6	-6.8
39.0	10397	13.7	0.01977	33.9	0.06	268.0	2.4281	233.2	339.8	233.29	61.8	228.8	0.0003	6.2	110.0	2.1	-5.8
40.0	10655	13.2	0.02017	33.1	0.09	258.0	2.4116	230.9	340.1	230.92				4.8	111.3	1.8	-4.5
40.8	10866	10.6	0.02046	26.7	0.07	250.0	2.3979	229.4	340.8	229.37				4.9	113.2	1.9	-4.5
41.0	10921	10.0	0.02054	25.1	0.07	248.0	2.3945	229.0	341.0	228.98				4.9	113.7	2.0	-4.5
42.0	11159	10.9	0.02083	27.8	0.08	239.3	2.3789	226.7	341.1	226.71				4.7	118.8	2.2	-4.1
43.0	11392	15.3	0.02120	39.2	0.11	231.0	2.3636	225.7	343.1	225.71				4.3	121.6	2.3	-3.7
44.0	11594	14.7	0.02156	38.0	0.11	224.0	2.3502	223.4	342.5	223.36				4.3	115.1	1.8	-3.9
45.0	11861	14.6	0.02203	38.2	0.11	215.0	2.3324	221.2	343.3	221.25				2.5	86.6	-0.1	-2.5
46.0	12136	10.2	0.02245	26.9	0.08	206.0	2.3139	218.4	343.1	218.44				2.1	67.6	-0.8	-2.0
46.6	12323	11.8	0.02272	31.5	0.10	200.0	2.3010	217.0	343.7	216.99				1.1	23.3	-1.0	-0.4
47.0	12452	12.9	0.02291	34.6	0.11	196.0	2.2923	216.0	344.1	216.00				1.3	333.8	-1.2	0.6
48.0	12713	14.1	0.02335	38.2	0.12	188.0	2.2742	213.3	343.8	213.27				3.8	315.4	-2.7	2.6
49.0	12948	12.9	0.02376	35.3	0.12	181.0	2.2577	211.1	344.1	211.13				3.2	327.4	-2.7	1.7
50.0	13226	14.3	0.02424	39.4	0.14	173.0	2.2380	209.5	345.8	209.46				3.3	312.7	-2.2	2.4
51.0	13478	11.5	0.02466	32.0	0.11	166.0	2.2201	207.9	347.3	207.92				4.3	297.1	-2.0	3.8
52.0	13738	12.9	0.02508	36.3	0.13	159.0	2.2014	205.1	346.8	205.09				4.2	287.6	-1.3	4.0
53.0	13967	9.4	0.02542	26.9	0.10	153.0	2.1847	202.7	346.6	202.72				3.7	289.7	-1.2	3.5
53.4	14084	10.7	0.02559	30.5	0.12	150.0	2.1761	202.4	348.1	202.44				4.8	284.7	-1.2	4.7
54.0	14244	12.4	0.02582	35.5	0.14	146.0	2.1644	202.0	350.1	202.05				6.4	280.9	-1.2	6.3
55.0	14493	13.1	0.02624	37.2	0.15	140.0	2.1461	203.4	356.7	203.38				9.4	289.1	-3.1	8.9
56.0	14798	12.4	0.02676	35.1	0.15	133.0	2.1239	203.4	361.9	203.38				9.7	314.4	-6.8	6.9
57.0	15072	11.0	0.02718	31.3	0.14	127.0	2.1038	202.5	365.2	202.50				6.3	340.4	-5.9	2.1
57.3	15165	11.7	0.02733	33.6	0.16	125.0	2.0969	201.4	364.9	201.42				4.4	352.5	-4.3	0.6
58.0	15356	13.2	0.02764	38.1	0.18	121.0	2.0828	199.2	364.3	199.22				2.8	67.5	-1.1	-2.6

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	15650	7.5	0.02806	22.1	0.11	115.0	2.0607	196.2	363.9	196.15				5.6	141.3	4.3	-3.5
60.0	15956	9.4	0.02842	28.0	0.14	109.0	2.0374	194.8	366.9	194.78				7.5	163.9	7.2	-2.1
61.0	16245	8.7	0.02878	25.8	0.14	103.6	2.0154	194.5	371.7	194.50				6.6	137.6	4.9	-4.5
61.9	16447	14.6	0.02911	42.8	0.24	100.0	2.0000	196.7	379.8	196.70				8.2	111.6	3.0	-7.6
62.0	16470	15.3	0.02915	44.7	0.25	99.6	1.9983	196.9	380.7	196.95				8.4	109.4	2.8	-8.0
63.0	16712	16.7	0.02968	49.0	0.29	95.5	1.9800	196.4	384.2	196.42				9.2	109.6	3.1	-8.7
64.0	16963	19.3	0.03030	57.4	0.35	91.4	1.9609	194.5	385.3	194.50				8.9	103.6	2.1	-8.7
65.0	17205	22.3	0.03100	66.0	0.42	87.6	1.9425	195.1	391.1	195.06				9.7	108.6	3.1	-9.2
66.0	17397	24.3	0.03162	71.9	0.48	84.7	1.9279	195.3	395.5	195.34				11.8	110.9	4.2	-11.0
67.0	17597	27.7	0.03234	81.1	0.56	81.8	1.9128	197.2	403.2	197.21				12.2	97.6	1.6	-12.1
67.6	17725	27.3	0.03282	79.8	0.56	80.0	1.9031	197.2	405.8	197.21				13.1	88.6	-0.3	-13.0
68.0	17798	27.0	0.03309	79.1	0.57	79.0	1.8976	197.2	407.3	197.21				13.7	84.0	-1.4	-13.6
69.0	18023	33.1	0.03401	95.8	0.72	76.0	1.8808	199.7	417.0	199.71				16.2	80.0	-2.8	-15.9
70.0	18258	33.1	0.03506	95.8	0.75	73.0	1.8633	199.2	420.8	199.22				15.9	78.7	-3.1	-15.6
71.0	18470	34.9	0.03603	100.7	0.82	70.4	1.8476	200.2	427.3	200.19				16.9	80.4	-2.8	-16.7
71.2	18503	36.1	0.03620	104.1	0.86	70.0	1.8451	200.3	428.2	200.28				17.2	81.1	-2.7	-17.0
72.0	18656	41.5	0.03699	119.4	1.01	68.2	1.8338	200.7	432.2	200.66				18.6	84.3	-1.8	-18.5
73.0	18850	52.5	0.03820	147.7	1.32	66.0	1.8195	205.3	446.3	205.30				19.3	88.2	-0.6	-19.3
74.0	19063	56.7	0.03973	158.6	1.47	63.7	1.8041	206.3	453.1	206.33				20.7	96.0	2.2	-20.6
75.0	19306	62.6	0.04162	173.6	1.70	61.2	1.7868	208.3	462.8	208.31				19.7	107.2	5.8	-18.8
75.6	19426	61.3	0.04258	169.9	1.69	60.0	1.7782	208.3	465.4	208.31				16.6	112.2	6.3	-15.4
76.0	19508	60.4	0.04323	167.4	1.69	59.2	1.7723	208.3	467.2	208.31				14.6	116.7	6.6	-13.1
77.0	19717	68.2	0.04497	189.0	1.97	57.2	1.7574	208.3	471.8	208.31				14.0	119.2	6.9	-12.2
78.0	19934	71.6	0.04694	198.4	2.15	55.2	1.7419	208.3	476.6	208.31				16.1	114.0	6.5	-14.7
79.0	20124	72.5	0.04871	201.0	2.25	53.5	1.7284	208.3	480.9	208.31				14.6	101.3	2.8	-14.3
80.0	20320	74.1	0.05058	205.8	2.37	51.8	1.7143	207.9	484.4	207.92				20.5	97.0	2.5	-20.4
81.0	20535	76.2	0.05268	212.2	2.52	50.0	1.6990	207.3	488.0	207.33				16.8	96.6	1.9	-16.7
82.0	20745	75.8	0.05475	210.6	2.60	48.3	1.6839	207.7	493.7	207.73				13.9	88.7	-0.3	-13.9
83.0	20911	80.4	0.05643	223.2	2.83	47.0	1.6721	207.9	498.1	207.92				19.9	91.1	0.4	-19.9
84.0	21136	90.4	0.05892	249.0	3.31	45.3	1.6561	209.6	507.5	209.65				21.7	94.1	1.5	-21.6
85.0	21315	97.2	0.06107	265.5	3.66	44.0	1.6435	211.3	515.8	211.31				22.0	93.3	1.3	-21.9
86.0	21559	97.5	0.06410	266.0	3.82	42.3	1.6263	211.7	522.6	211.67				20.8	91.5	0.5	-20.8
87.0	21752	100.8	0.06654	274.4	4.07	41.0	1.6128	212.0	528.1	212.03				22.4	91.6	0.6	-22.4
88.0	21905	105.1	0.06855	286.2	4.35	40.0	1.6021	212.0	531.9	212.03				23.4	89.7	-0.1	-23.4
89.0	22126	104.5	0.07149	284.4	4.49	38.6	1.5866	212.2	537.8	212.21				23.6	87.3	-1.1	-23.6
90.0	22355	107.2	0.07458	292.2	4.78	37.2	1.5705	211.9	542.6	211.85				23.9	86.3	-1.6	-23.8
91.0	22558	107.8	0.07736	293.5	4.96	36.0	1.5563	212.0	548.1	212.03				24.0	86.8	-1.4	-23.9
92.0	22734	119.7	0.07989	321.6	5.66	35.0	1.5441	214.8	559.8	214.82				24.4	87.6	-1.0	-24.4
93.0	22879	124.3	0.08211	332.4	6.02	34.2	1.5340	215.8	566.2	215.83				24.4	88.3	-0.7	-24.4
94.0	23066	126.2	0.08505	336.5	6.30	33.2	1.5211	216.5	572.8	216.49				25.1	87.7	-1.0	-25.1
95.0	23201	129.6	0.08720	344.8	6.61	32.5	1.5119	217.0	577.6	216.98				25.6	88.8	-0.5	-25.6
96.0	23379	133.3	0.09011	353.5	6.99	31.6	1.4997	217.6	584.0	217.63				24.0	90.7	0.3	-24.0
97.0	23542	138.6	0.09286	366.3	7.46	30.8	1.4886	218.4	590.4	218.44				25.6	90.8	0.3	-25.6
98.0	23710	139.5	0.09575	368.9	7.71	30.0	1.4771	218.4	594.9	218.44				30.7	85.8	-2.3	-30.6
99.0	23927	139.5	0.09948	368.3	7.97	29.0	1.4624	218.8	601.6	218.76				35.1	82.7	-4.5	-34.8
100.0	24152	140.6	0.10336	370.4	8.32	28.0	1.4472	219.1	608.5	219.07				33.8	86.7	-1.9	-33.8
101.0	24338	138.8	0.10655	365.4	8.46	27.2	1.4346	219.4	614.4	219.39				30.1	89.2	-0.4	-30.1
102.0	24530	144.5	0.10989	377.6	9.07	26.4	1.4216	220.9	624.1	220.94				26.1	85.0	-2.3	-26.0
103.0	24729	152.9	0.11350	396.5	9.90	25.6	1.4082	222.6	634.4	222.61				25.8	79.9	-4.5	-25.4
103.7	24883	151.5	0.11634	393.2	10.04	25.0	1.3979	222.4	638.1	222.41				27.9	79.4	-5.2	-27.4
104.0	24962	150.8	0.11779	391.6	10.11	24.7	1.3927	222.3	640.0	222.31				28.9	79.1	-5.5	-28.4
105.0	25204	154.6	0.12226	400.0	10.77	23.8	1.3766	223.2	649.5	223.21				25.7	78.0	-5.4	-25.1
106.0	25427	154.8	0.12643	398.9	11.15	23.0	1.3617	224.1	658.4	224.10				25.2	76.6	-5.9	-24.5
107.0	25719	152.7	0.13183	392.1	11.50	22.0	1.3424	224.8	669.0	224.83				23.3	79.3	-4.3	-22.9
108.0	25779	153.7	0.13293	392.8	11.69	21.8	1.3385	226.0	674.3	226.00				20.1	90.6	0.2	-20.1
109.0	26026	154.0	0.13747	392.9	12.15	21.0	1.3222	226.3	682.4	226.28				18.0	96.3	2.0	-17.9
110.0	26121	152.7	0.13921	389.7	12.22	20.7	1.3160	226.3	685.2	226.28				14.3	100.5	2.6	-14.1
111.0	26349	152.9	0.14336	390.1	12.67	20.0	1.3010	226.3	691.9	226.28				11.2	112.9	4.3	-10.3
112.0	26482	147.2	0.14575	375.6	12.45	19.6	1.2923	226.3	696.0	226.28				8.2	111.5	3.0	-7.7
113.0	26687	142.4	0.14930	364.2	12.42	19.0	1.2788	225.7	700.4	225.71				10.2	96.6	1.2	-10.1
114.0	26934	138.5	0.15346	355.7	12.54	18.3	1.2625	224.8	705.2	224.83				9.8	90.2	0.0	-9.8
115.0	27117	136.6	0.15647	348.6	12.72	17.8	1.2504	226.3	715.4	226.28				9.0	75.2	-2.3	-8.7
115.6	27229	134.7	0.15828	342.4	12.75	17.5	1.2430	227.1	721.3	227.05				9.9	73.0	-2.9	-9.5
116.0	27306	133.3	0.15950	338.2	12.77	17.3	1.2380	227.6	725.3	227.57				10.5	71.7	-3.3	-10.0
117.0	27541	131.0	0.16318	332.9	13.00	16.7	1.2227	227.1	731.3	227.14				15.6	79.6	-2.8	-15.4
118.0	27743	126.5	0.16627	321.8	12.94	16.2	1.2095	227.0	737.2	227.00				13.5	91.3	0.3	-13.5
119.0	27909	124.8	0.16875	316.0	13.09	15.8	1.1987	228.0	745.8	227.99				7.6	113.2	3.0	-7.0
120.0	28080	122.0	0.17125	308.1	13.13	15.4	1.1875	228.7	753.6	228.70				4.3	127.7	2.6	-3.4
121.0	28256	116.3	0.17372	293.1	12.85	15.0	1.1761	229.1	760.6	229.12				1.6	142.3	1.2	-1.0
122.0	28391	113.6	0.17556	286.9	12.81	14.7	1.1673	228.7	763.6	228.70				2.3	65.9	-0.9	-2.1
123.0	28575	108.3	0.17797	273.1	12.55	14.3	1.1553	229.0	770.6	228.98				5.4	83.9	-0.6	-5.3
124.0	28765	103.4	0.18034	261.3	12.32	13.9	1.1430	228.4	775.0	228.42				3.6	77.4	-0.8	-3.5
125.0	28960	100.9	0.18269	255.0	12.39	13.5	1.1303	228.6	782.0	228.56				2.9	73.0	-0.9	-2.8
126.0	29263	97.7	0.18626	247.6	12.54	12.9	1.1106	227.7	789.3	227.71				1.5	47.8	-1.0	-1.1
127.0	29367	92.6	0.18743	233.4	12.09	12.7	1.1038	229.1	797.7	229.12				6.3	309.2	-3.9	4.8
127.7	29473	91.4	0.18858	230.3	12.11	12.5	1.0969	229.1	801.3	229.12				5.1	330.4	-4.5	2.5
128.0	29527	90.7	0.18916	228.6	12.12	12.4	1.0934	229.1	803.2	229.12				4.9	343.8	-4.7	1.4
129.0	29691	85.8	0.19087	216.1	11.75	12.1	1.0828	229.1	808.8	229.12				5.7	10.6	-5.6	-1.1
130.0	29802	82.2	0.19197	208.2	11.45	11.9	1.0755	228.0	808.7	227.99				7.0	17.8	-6.7	-2.1
131.0	30030	81.0	0.19417	205.1	11.67	11.5	1.0607	228.0	816.6	227.99				8.9	44.2	-6.4	-6.2
132.0	30206	81.3	0.19586	205.4	12.03	11.2	1.0492	228.6	824.8	228.56				9.6	57.7	-5.1	-8.1
133.0	30387	77.6	0.19757	195.8	11.79	10.9	1.0374	228.8	832.3	228.84				8.7	52.6	-5.3	-6.9
134.0	30637	76.9	0.19984	193.7	12.13	10.5	1.0212	229.1	842.2	229.12				7.0	38.7	-5.5	-4.4
135.0	30831	72.0	0.20155	182.1	11.70	10.2	1.0086	228.3	846.1	228.28				4.5	43.4	-3.3	-3.1
135.7	30963	69.6	0.20264	176.8	11.54	10.0	1.0000	227.4	847.8	227.43				7.4	65.6	-3.1	-6.8
136.0	31030	68.4	0.20320	174.1	11.45	9.9	0.9956	227.0	848.6	227.00				9.1	71.0	-3.0	-8.6
137.0	31374	66.9	0.20597	170.3	11.80	9.4	0.9731	226.9	860.7	226.86				10.2	73.4	-2.9	-9.8
138.0	31516	66.8	0.20710	169.8	12.03	9.2	0.9638	227.1	867.1	227.14				5.9	69.8	-2.0	-5.5
139.0	31662	67.4	0.20827	171.4	12.42	9.0	0.9542	227.1	872.6	227.14				6.1	41.9	-4.5	-4.1
140.0	31811	67.9	0.20947	172.7	12.79	8.8	0.9445	227.1	878.2	227.14				9.4	30.2	-8.1	-4.7
141.0	31964	64.7	0.21067	164.0	12.46	8.6	0.9345	227.7	886.2	227.71				12.6	33.7	-10.5	-7.0
142.0	32120	62.6	0.21185	158.6	12.34	8.4	0.9243	227.9	892.7	227.85				999.9	999.9	999.9	999.9



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72077   LAUNCH TIME 1640 GMT   ECC SONDE 3A-085X

SURFACE CONDITIONS
PRESS 1005.5 MB
TEMP   298.2 K
HUMY   97.0 %

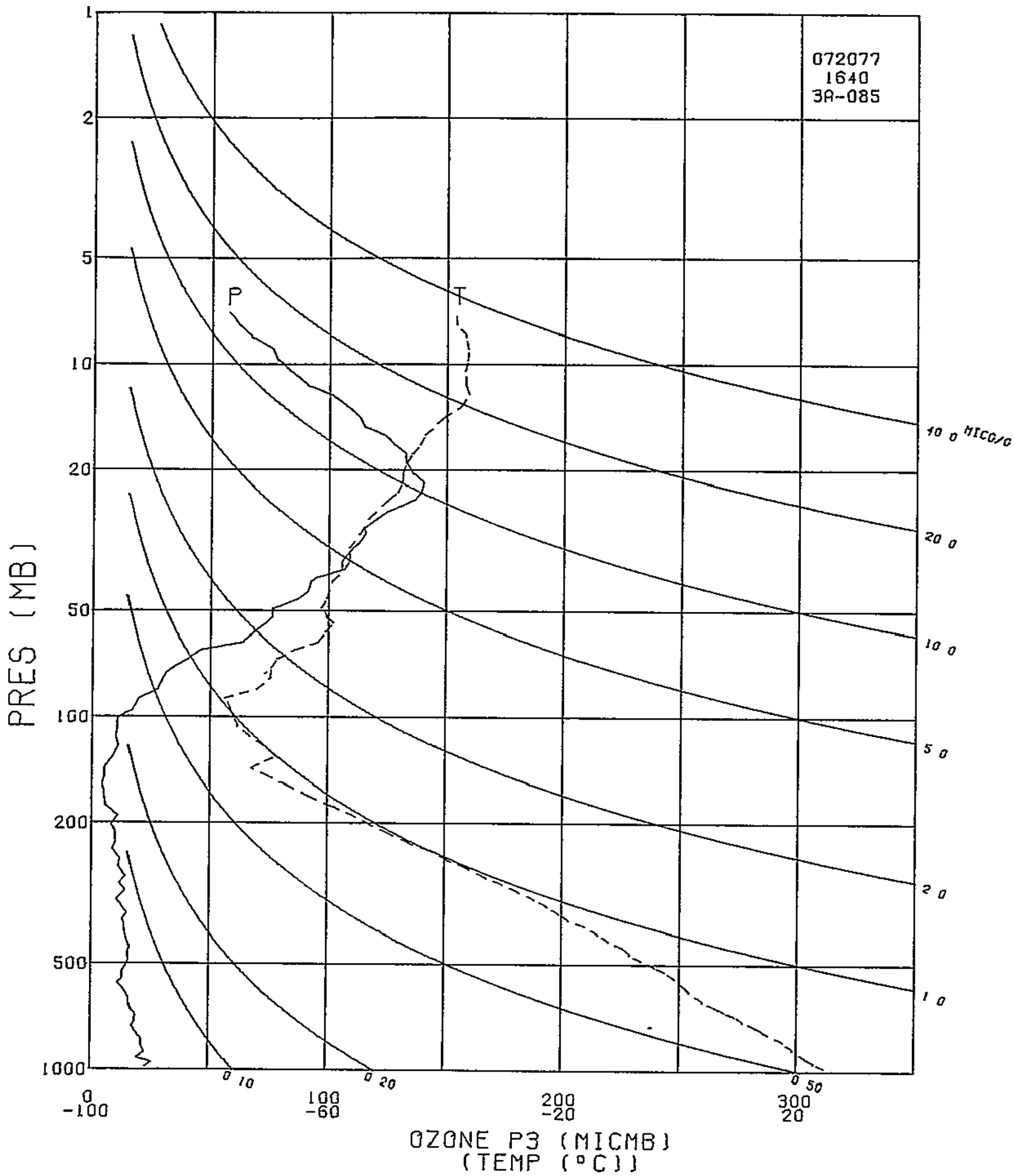
003 = 32.9
OIZ = 32.4
OZC = 63.1
IO = 0.084
PS = 27.0

TBOX CAL = 30.0 C AT 73.5 ORD
BASE CAL = 30.0 C AT 72.8 ORD
HUMIDITY = 57.9 % AT 46.0 ORD

	PROFILE	DOBSON
INTEGRATED OZONE	0.20680	
RESIDUAL OZONE	0.03862	
TOTAL OZONE	0.24542	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRLSS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	5.7	0.	10.9	0.01	1005.5	3.0024	299.5	299.1	301.79	57.5	290.5	0.0123	2.0	70.0	-0.7	-1.9
0.2	101	8.9	0.00006	17.2	0.01	1000.0	3.0000	299.2	299.2	301.71	64.6	291.7	0.0146	2.2	66.6	-0.9	-2.0
1.0	306	22.6	0.00032	43.9	0.04	977.0	2.9899	297.9	299.9	301.37	95.0	297.0	0.0190	3.1	57.3	-1.7	-2.6
2.0	580	25.8	0.00092	50.3	0.05	947.0	2.9763	296.1	300.7	299.38	98.5	295.8	0.0182	3.2	45.1	-2.3	-2.3
3.0	832	19.0	0.00143	37.2	0.03	920.0	2.9638	294.7	301.9	297.72	93.9	293.7	0.0165	2.8	54.2	-1.6	-2.3
3.7	1023	21.4	0.00179	41.9	0.04	900.0	2.9542	294.4	303.4	297.32	91.0	292.9	0.0159	2.3	50.9	-1.5	-1.8
4.0	1101	22.3	0.00193	43.8	0.04	892.0	2.9504	294.3	304.1	297.16	89.9	292.6	0.0158	2.2	49.2	-1.4	-1.6
5.0	1317	21.9	0.00237	43.3	0.04	870.0	2.9395	292.4	304.3	294.57	76.4	288.1	0.0122	3.1	91.2	0.1	-3.1
6.0	1516	21.4	0.00276	42.2	0.04	850.0	2.9294	292.4	306.3	294.65	77.2	288.3	0.0127	6.1	101.9	1.2	-5.9
6.0	1527	21.4	0.00278	42.2	0.04	849.0	2.9289	292.4	306.4	294.65	77.3	288.3	0.0127	6.2	102.1	1.3	-6.1
7.0	1794	21.2	0.00331	42.2	0.04	823.0	2.9154	290.7	307.4	292.76	75.1	286.3	0.0115	7.6	90.1	0.0	-7.6
8.0	2036	20.0	0.00377	39.9	0.04	800.0	2.9031	289.7	308.8	291.69	74.5	285.2	0.0110	9.0	82.1	-1.2	-8.9
8.0	2047	20.0	0.00379	39.8	0.04	799.0	2.9025	289.7	308.9	291.65	74.5	285.2	0.0110	9.0	81.8	-1.3	-8.9
9.0	2328	18.2	0.00429	36.5	0.04	773.0	2.8882	287.3	309.3	288.97	71.6	282.3	0.0093	9.3	81.3	-1.4	-9.2
10.0	2594	17.1	0.00473	34.6	0.04	749.0	2.8745	286.0	310.6	287.70	79.5	282.5	0.0098	8.9	80.2	-1.5	-8.8
11.0	2867	18.3	0.00518	37.3	0.04	725.0	2.8603	283.9	311.2	285.40	76.5	280.0	0.0085	9.0	77.5	-2.0	-8.8
12.0	3159	18.6	0.00569	38.1	0.04	700.0	2.8451	282.5	312.8	284.05	84.7	280.1	0.0089	9.3	77.2	-2.1	-9.1
12.0	3171	18.6	0.00571	38.1	0.04	699.0	2.8445	282.5	312.9	284.00	85.0	280.1	0.0089	9.3	77.2	-2.1	-9.1
13.0	3411	17.4	0.00613	35.8	0.04	679.0	2.8319	280.9	313.7	282.23	83.2	278.2	0.0080	9.9	79.3	-1.8	-9.7
14.0	3657	16.3	0.00652	33.6	0.04	659.0	2.8189	279.3	314.6	280.77	97.6	278.9	0.0087	10.4	83.1	-1.3	-10.4
15.0	3960	16.1	0.00700	33.6	0.04	635.0	2.8028	277.1	315.5	278.35	94.8	276.3	0.0075	11.7	87.1	-0.6	-11.6
16.0	4273	15.0	0.00747	31.3	0.04	611.0	2.7860	276.1	317.8	277.30	94.6	275.3	0.0073	11.8	94.8	1.0	-11.7
16.5	4419	14.3	0.00767	29.9	0.04	600.0	2.7782	275.2	318.5	276.40	94.9	274.5	0.0068	11.7	97.3	1.5	-11.6
17.0	4583	13.5	0.00790	28.4	0.04	588.0	2.7694	274.3	319.2	275.40	95.2	273.6	0.0067	11.6	100.1	2.0	-11.4
18.0	4890	11.1	0.00827	23.5	0.03	566.0	2.7528	273.3	321.6	274.37	92.8	272.3	0.0063	12.1	98.4	1.8	-11.9
19.0	5178	13.5	0.00862	28.6	0.04	546.0	2.7372	272.2	323.6	273.13	86.0	270.2	0.0056	12.5	98.7	1.9	-12.3
20.0	5521	13.4	0.00908	28.6	0.04	523.0	2.7185	270.5	325.5	271.30	83.0	268.0	0.0050	11.0	103.6	2.6	-10.7
21.0	5767	14.7	0.00942	31.5	0.05	507.0	2.7050	268.8	326.4	269.56	85.0	266.7	0.0046	9.4	108.2	2.9	-8.9
21.3	5876	15.1	0.00959	32.6	0.05	500.0	2.6990	268.0	326.7	268.76	87.3	266.2	0.0045	9.1	107.4	2.7	-8.7
22.0	6083	16.0	0.00991	34.6	0.05	487.0	2.6875	266.5	327.4	267.26	91.5	265.4	0.0044	8.6	105.9	2.4	-8.3
23.0	6409	15.7	0.01043	34.2	0.06	467.0	2.6693	264.5	328.8	265.14	94.9	263.8	0.0040	7.6	103.7	1.8	-7.4
24.0	6730	16.3	0.01095	35.7	0.06	448.0	2.6513	263.3	331.2	263.94	94.6	262.6	0.0038	6.9	100.7	1.3	-6.8
25.0	7063	15.1	0.01149	33.4	0.06	429.0	2.6325	260.9	332.3	261.41	91.7	259.8	0.0032	5.8	100.3	1.0	-5.7
26.0	7390	14.4	0.01199	32.2	0.06	411.0	2.6138	259.1	334.0	259.53	90.4	257.9	0.0028	6.0	98.8	0.9	-5.9
26.5	7594	14.1	0.01229	31.6	0.06	400.0	2.6021	257.9	335.1	258.34	87.1	256.3	0.0024	6.1	94.4	0.5	-6.1
27.0	7786	13.9	0.01258	31.2	0.06	390.0	2.5911	256.9	336.2	257.23	84.1	254.8	0.0023	6.3	90.4	0.0	-6.3
28.0	8079	13.0	0.01299	29.4	0.06	375.0	2.5740	254.1	336.3	254.43	83.6	252.1	0.0019	6.8	90.6	0.1	-6.8
29.0	8382	14.9	0.01344	34.0	0.07	360.0	2.5563	252.5	338.1	252.78	83.0	250.4	0.0017	8.8	98.3	1.3	-8.7
29.6	8589	13.5	0.01374	30.9	0.06	350.0	2.5441	251.3	339.3	251.57	77.8	248.5	0.0014	9.8	98.5	1.5	-9.7
30.0	8738	12.4	0.01396	28.7	0.06	343.0	2.5353	250.5	340.1	250.71	74.0	247.2	0.0013	10.6	98.6	1.6	-10.5
31.0	9064	10.5	0.01436	24.3	0.05	328.0	2.5159	248.4	341.5	248.53	69.3	244.4	0.0011	11.7	98.6	1.8	-11.6
32.0	9449	14.2	0.01488	33.3	0.08	311.0	2.4928	245.4	342.7	245.58	68.4	241.4	0.0009	10.7	96.2	1.2	-10.6
32.7	9706	12.3	0.01525	29.3	0.07	300.0	2.4771	243.5	343.5	243.62	66.9	239.4	0.0007	9.4	92.0	0.3	-9.4
33.0	9802	11.7	0.01539	27.8	0.07	296.0	2.4713	242.8	343.8	242.89	66.3	238.6	0.0007	8.9	90.2	0.0	-8.9
34.0	10119	14.2	0.01584	34.1	0.08	283.0	2.4518	239.9	344.0	239.94	65.5	235.6	0.0005	9.9	86.0	-0.7	-9.9
35.0	10551	11.4	0.01647	27.7	0.07	266.0	2.4249	236.8	345.7	236.83	64.4	232.5	0.0004	8.8	80.0	-1.5	-8.6
36.0	10896	12.0	0.01693	29.6	0.08	253.0	2.4031	233.5	345.8	233.54	63.1	229.2	0.0003	7.1	72.0	-2.2	-6.7
36.2	10976	11.4	0.01703	28.3	0.08	250.0	2.3979	232.9	346.1	232.97				6.6	70.5	-2.2	-6.2
37.0	11339	8.9	0.01747	22.3	0.06	237.0	2.3747	230.4	347.7	230.43				4.5	59.4	-2.3	-3.8
38.0	11657	10.2	0.01782	25.8	0.07	226.0	2.3541	227.0	347.2	226.98				3.0	38.4	-2.4	-1.9
39.0	12078	10.1	0.01834	26.2	0.08	212.0	2.3263	223.4	348.0	223.40				3.4	46.1	-2.4	-2.5
40.0	12424	8.1	0.01872	21.3	0.07	201.0	2.3032	220.4	348.6	220.44				2.1	2.8	-2.1	-0.1
40.1	12455	8.4	0.01876	22.0	0.07	200.0	2.3010	220.2	348.8	220.20				2.1	357.5	-2.1	0.1
41.0	12785	11.0	0.01914	29.1	0.10	190.0	2.2788	217.7	349.9	217.68				3.1	318.1	-2.3	2.1
42.0	13197	5.9	0.01958	15.9	0.05	178.0	2.2504	213.7	350.0	213.72				4.3	304.9	-2.5	3.6
43.0	13592	5.2	0.01986	14.4	0.05	167.0	2.2227	209.8	349.9	209.82				5.2	288.2	-1.6	4.9
44.0	14007	4.0	0.02011	11.1	0.04	156.0	2.1931	206.2	350.6	206.18				4.0	286.1	-1.1	3.8
44.7	14241	4.8	0.02025	13.5	0.05	150.0	2.1761	204.2	351.0	204.16				3.3	277.9	-0.5	3.3
45.0	14363	5.2	0.02032	14.8	0.06	147.0	2.1673	203.1	351.3	203.11				3.0	272.2	-0.1	3.0
46.0	14693	5.2	0.02055	15.0	0.06	139.0	2.1430	200.0	351.5	200.02				5.3	267.2	0.3	5.3
47.0	15135	8.9	0.02096	25.0	0.11	129.0	2.1106	204.2	366.6	204.24				7.6	283.4	-1.8	7.4
47.4	15322	9.9	0.02121	28.1	0.13	125.0	2.0969	203.3	368.3	203.34				6.1	289.7	-2.1	5.7
48.0	15565	11.2	0.02154	32.0	0.15	120.0	2.0792	202.2	370.5	202.19				4.2	304.7	-2.4	3.5
49.0	15918	10.3	0.02204	29.7	0.15	113.0	2.0531	199.8	372.5	199.77				5.0	69.6	-1.7	-4.7
50.0	16290	10.9	0.02258	31.7	0.17	106.0	2.0253	197.7	375.4	197.70				7.7	91.7	0.2	-7.7
51.0	16626	10.8	0.02308	31.8	0.18	100.0	2.0000	196.9	380.1	196.89				7.0	114.1	2.8	-6.4
52.0	16921	16.7	0.02363	49.2	0.29	95.0	1.9777	196.3	384.7	196.34				7.1	142.1	5.6	-4.4
53.0	17360	19.5	0.02473	57.7	0.37	88.0	1.9445	195.5	391.5	195.50				9.5	138.1	7.1	-6.4
54.0	17699	27.3	0.02581	78.5	0.55	83.0	1.9191	201.0	409.3	201.00				13.0	93.6	0.8	-13.0
54.5	17916	28.5	0.02664	81.5	0.59	80.0	1.9031	202.1	416.0	202.15				14.4	81.4	-2.2	-14.3
55.0	18143	29.8	0.02750	84.6	0.64	77.0	1.8865	203.3	423.0	203.34				16.5	71.5	-5.2	-15.6
56.0	18379	31.4	0.02846	89.5	0.70	74.0	1.8692	202.9	426.9	202.88				14.4	72.0	-4.4	-13.6
57.0	18542	33.7	0.02917	95.7	0.78	72.0	1.8573	203.6	431.7	203.57				17.0	66.2	-6.9	-15.6

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
57.5	18710	36.9	0.02999	104.4	0.88	70.0	1.8451	204.0	436.1	204.00				19.4	66.0	-7.9	-17.7
58.0	18883	40.2	0.03083	113.4	0.98	68.0	1.8325	204.5	440.7	204.46				21.8	65.8	-8.9	-19.9
59.0	19248	46.0	0.03289	128.1	1.19	64.0	1.8062	207.4	454.9	207.43				23.4	80.9	-3.7	-23.1
60.0	19542	63.4	0.03497	173.1	1.72	61.0	1.7853	211.3	469.9	211.34				23.6	93.6	1.5	-23.5
60.2	19644	64.6	0.03583	176.3	1.79	60.0	1.7782	211.7	472.9	211.66				23.2	94.4	1.8	-23.1
61.0	19963	68.6	0.03850	186.2	1.99	57.0	1.7559	212.6	482.1	212.64				22.0	97.1	2.7	-21.8
62.0	20300	73.2	0.04152	197.7	2.25	54.0	1.7324	213.9	492.5	213.90				19.8	98.2	2.8	-19.6
63.0	20535	75.9	0.04374	205.9	2.42	52.0	1.7160	212.8	495.3	212.82				20.8	98.7	3.1	-20.6
63.7	20778	76.2	0.04610	207.3	2.53	50.0	1.6990	212.2	499.5	212.22				22.1	101.8	4.5	-21.7
64.0	20904	76.4	0.04731	208.0	2.58	49.0	1.6902	211.9	501.6	211.90				22.8	103.3	5.2	-22.2
65.0	21296	86.7	0.05138	235.2	3.12	46.0	1.6628	212.8	513.0	212.82				20.8	110.1	7.1	-19.6
66.0	21573	91.0	0.05449	246.4	3.43	44.0	1.6435	213.4	520.8	213.36				23.4	108.2	7.3	-22.2
67.0	22014	92.4	0.05960	249.5	3.73	41.0	1.6128	213.7	532.4	213.72				23.3	107.1	6.8	-22.3
68.0	22168	94.9	0.06143	255.1	3.93	40.0	1.6021	214.8	538.8	214.78				20.3	106.7	5.8	-19.4
69.0	22491	105.6	0.06549	282.5	4.61	38.0	1.5798	215.8	549.4	215.82				22.6	100.5	4.1	-22.3
70.0	22833	105.5	0.06999	281.2	4.86	36.0	1.5563	216.7	560.1	216.68				29.1	97.0	3.5	-28.9
70.3	23011	107.0	0.07239	285.1	5.07	35.0	1.5441	216.7	564.7	216.68				28.4	97.6	3.8	-28.1
71.0	23385	110.1	0.07739	293.3	5.53	33.0	1.5185	216.7	574.2	216.68				26.8	99.1	4.2	-26.5
72.0	23580	112.7	0.08009	299.4	5.84	32.0	1.5051	217.3	581.1	217.35				23.3	100.9	4.4	-22.9
73.0	23991	115.6	0.08591	305.4	6.38	30.0	1.4771	218.5	595.1	218.51				26.9	94.8	2.3	-26.8
74.0	24208	114.9	0.08899	302.2	6.57	29.0	1.4624	219.5	603.6	219.48				26.1	88.0	-0.9	-26.1
75.0	24668	121.4	0.09565	318.5	7.45	27.0	1.4314	220.1	617.8	220.13				23.6	85.7	-1.8	-23.6
76.0	24911	124.9	0.09932	326.9	7.96	26.0	1.4150	220.6	625.9	220.60				24.8	92.1	0.9	-24.8
76.5	25165	130.8	0.10337	340.1	8.69	25.0	1.3979	222.0	636.9	221.97				23.1	92.0	0.8	-23.1
77.0	25431	136.9	0.10759	353.8	9.45	24.0	1.3802	223.4	648.5	223.40				21.4	91.9	0.7	-21.4
78.0	25710	139.2	0.11222	357.4	10.03	23.0	1.3617	224.9	660.8	224.91				16.9	69.2	-6.0	-15.8
79.0	26124	140.5	0.11915	359.4	10.77	21.6	1.3345	225.7	675.0	225.66				22.7	66.4	-9.1	-20.8
80.0	26534	135.8	0.12592	347.3	11.09	20.3	1.3075	225.8	687.6	225.80				24.4	76.6	-5.7	-23.8
80.2	26632	135.2	0.12750	345.5	11.20	20.0	1.3010	225.9	690.9	225.94				23.3	77.9	-4.9	-22.8
81.0	26972	133.0	0.13294	339.1	11.59	19.0	1.2788	226.4	702.5	226.39				19.5	83.6	-2.2	-19.3
82.0	27368	132.6	0.13919	336.8	12.28	17.9	1.2529	227.4	717.8	227.42				14.2	87.2	-0.7	-14.2
82.4	27518	130.7	0.14151	331.0	12.37	17.5	1.2430	227.9	724.1	227.93				13.9	83.1	-1.7	-13.8
83.0	27752	127.6	0.14509	322.1	12.51	16.9	1.2279	228.7	733.9	228.72				13.6	76.5	-3.2	-13.2
84.0	28203	123.0	0.15174	309.4	12.90	15.8	1.1987	229.6	750.9	229.57				13.9	69.6	-4.8	-13.0
85.0	28552	115.0	0.15662	288.6	12.70	15.0	1.1761	230.0	763.6	230.00				12.7	89.9	-0.0	-12.7
86.0	28971	112.5	0.16217	279.3	13.22	14.1	1.1492	232.5	785.7	232.53				15.8	105.3	4.1	-15.2
87.0	29475	107.2	0.16855	262.7	13.55	13.1	1.1173	235.5	812.8	235.55				14.9	117.1	6.8	-13.3
87.6	29799	102.8	0.17238	251.1	13.61	12.5	1.0969	236.4	826.7	236.35				9.8	134.0	6.8	-7.1
88.0	30024	99.7	0.17503	243.0	13.66	12.1	1.0828	236.9	836.3	236.91				7.3	158.1	6.8	-2.7
89.0	30437	90.2	0.17950	220.4	13.12	11.4	1.0569	236.4	848.7	236.36				1.0	214.3	0.8	0.6
90.0	31072	82.7	0.18576	202.1	13.17	10.4	1.0170	236.2	870.8	236.23				6.4	37.9	-5.1	-4.0
90.6	31343	79.9	0.18824	195.1	13.23	10.0	1.0000	236.5	881.5	236.46				6.5	61.1	-3.1	-5.7
91.0	31554	77.8	0.19017	189.7	13.28	9.7	0.9868	236.6	889.8	236.64				7.2	77.0	-1.6	-7.0
92.0	32073	75.8	0.19471	184.8	13.96	9.0	0.9542	236.8	909.6	236.77				7.6	133.4	5.2	-5.5
93.0	32634	66.4	0.19925	162.3	13.26	8.3	0.9191	236.4	929.2	236.36				6.6	219.3	5.1	4.2
93.5	32887	63.8	0.20110	156.4	13.20	8.0	0.9031	235.6	935.9	235.56				5.6	237.7	3.0	4.7
94.0	33151	61.1	0.20303	150.2	13.14	7.7	0.8865	234.7	942.8	234.73				5.3	261.7	0.8	5.3
95.0	33708	57.0	0.20680	140.3	13.29	7.1	0.8513	234.3	963.2	234.32				999.9	999.9	999.9	999.9



FT SHERMAN ECC

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.2	18596	34.0	0.02742	96.6	0.81	70.0	1.8451	202.9	433.9	202.92				14.0	92.7	0.7	-14.0
59.0	18858	46.4	0.02874	129.8	1.15	67.0	1.8261	206.5	446.9	206.45				13.3	97.3	1.7	-13.1
60.0	19135	45.4	0.03040	126.5	1.17	64.0	1.8062	207.1	454.1	207.05				15.4	86.5	-1.0	-15.4
61.0	19426	56.4	0.03232	156.5	1.53	61.0	1.7853	208.0	462.6	208.03				19.0	79.2	-3.6	-18.6
61.3	19526	56.8	0.03307	157.6	1.57	60.0	1.7782	208.0	464.8	208.03				19.2	79.6	-3.5	-18.9
62.0	19733	57.5	0.03459	159.7	1.64	58.0	1.7634	208.0	469.3	208.03				19.8	80.4	-3.3	-19.5
63.0	20056	62.3	0.03710	172.8	1.88	55.0	1.7404	208.0	476.5	208.03				21.3	91.4	0.5	-21.3
64.0	20398	69.3	0.04001	191.5	2.21	52.0	1.7160	209.0	486.4	208.99				21.0	96.2	2.3	-20.9
65.0	20639	80.1	0.04232	218.4	2.65	50.0	1.6990	211.7	498.3	211.74				21.5	91.6	0.6	-21.5
66.0	21023	89.3	0.04646	242.8	3.15	47.0	1.6721	212.3	508.5	212.28				22.8	91.0	0.4	-22.8
67.0	21293	90.9	0.04955	247.4	3.35	45.0	1.6532	212.3	514.9	212.28				22.0	94.1	1.6	-22.0
68.0	21576	91.7	0.05283	248.4	3.53	43.0	1.6335	213.2	523.8	213.15				25.5	91.6	0.7	-25.5
69.0	21874	100.3	0.05643	270.1	4.05	41.0	1.6128	214.4	533.9	214.35				30.3	89.8	-0.1	-30.3
69.3	22029	101.5	0.05842	273.3	4.21	40.0	1.6021	214.4	537.9	214.41				31.0	89.5	-0.3	-31.0
70.0	22351	104.0	0.06256	279.8	4.53	38.0	1.5798	214.5	546.1	214.52				32.6	88.9	-0.6	-32.6
71.0	22690	108.6	0.06709	292.6	5.00	36.0	1.5563	214.2	553.7	214.18				33.0	89.5	-0.3	-33.0
72.0	22866	109.5	0.06951	296.3	5.19	35.0	1.5441	213.5	556.4	213.50				35.1	89.9	-0.1	-35.1
73.0	23235	113.0	0.07468	302.9	5.67	33.0	1.5185	215.4	570.8	215.36				35.7	91.3	0.8	-35.7
74.0	23429	123.8	0.07755	329.6	6.41	32.0	1.5051	216.8	579.8	216.85				36.0	94.6	2.9	-35.9
75.0	23842	141.4	0.08431	370.9	7.81	30.0	1.4771	220.2	599.6	220.17				36.9	96.3	4.1	-36.7
76.0	24289	146.7	0.09215	380.5	8.68	28.0	1.4472	222.6	618.3	222.60				29.7	97.7	4.0	-29.4
77.0	24527	146.4	0.09636	375.5	8.98	27.0	1.4314	225.1	631.8	225.10				28.5	96.8	3.4	-28.3
78.0	24777	148.0	0.10074	375.9	9.43	26.0	1.4150	227.4	645.1	227.38				29.4	99.8	5.0	-28.9
78.5	25038	148.0	0.10532	375.4	9.82	25.0	1.3979	227.7	653.2	227.66				25.2	100.8	4.7	-24.8
79.0	25310	148.0	0.11009	374.8	10.22	24.0	1.3802	227.9	661.7	227.95				20.9	102.1	4.4	-20.5
80.0	25594	148.7	0.11507	376.2	10.71	23.0	1.3617	228.2	670.6	228.23				13.3	91.1	0.2	-13.3
81.0	25891	151.0	0.12033	379.8	11.37	22.0	1.3424	229.5	682.9	229.49				6.7	71.0	-2.2	-6.3
82.0	26076	151.5	0.12363	382.6	11.73	21.4	1.3304	228.6	685.8	228.65				5.4	27.8	-4.8	-2.5
83.0	26363	146.2	0.12868	370.4	11.82	20.5	1.3118	227.9	692.1	227.95				10.1	40.3	-7.7	-6.5
83.4	26527	142.8	0.13145	361.6	11.83	20.0	1.3010	228.1	697.4	228.07				9.9	41.5	-7.4	-6.6
84.0	26731	138.6	0.13487	350.7	11.84	19.4	1.2878	228.2	704.0	228.23				9.7	43.1	-7.1	-6.7
85.0	27012	134.4	0.13941	340.9	11.97	18.6	1.2695	227.7	710.8	227.67				6.1	60.0	-3.0	-5.2
86.0	27304	127.4	0.14395	323.7	11.86	17.8	1.2504	227.2	718.4	227.24				7.8	281.4	-1.6	7.7
86.3	27416	126.4	0.14564	321.8	11.97	17.5	1.2430	226.9	720.7	226.87				5.0	298.6	-2.4	4.4
87.0	27687	124.1	0.14969	317.2	12.24	16.8	1.2253	226.0	726.3	225.96				5.7	39.1	-4.4	-3.6
88.0	28009	116.4	0.15432	298.2	12.05	16.0	1.2041	225.4	734.6	225.38				20.6	70.5	-6.9	-19.5
89.0	28347	114.9	0.15900	294.9	12.52	15.2	1.1818	225.0	744.0	224.95				9.9	60.6	-4.9	-8.7
89.3	28434	112.5	0.16016	287.8	12.43	15.0	1.1761	225.9	749.9	225.87				8.8	65.6	-3.7	-8.0
90.0	28659	106.5	0.16312	269.5	12.17	14.5	1.1614	228.2	765.1	228.23				6.5	85.5	-0.5	-6.4
91.0	28991	98.3	0.16712	246.5	11.80	13.8	1.1399	230.2	782.6	230.18				6.5	98.3	0.9	-6.4
92.0	29341	98.1	0.17115	246.8	12.41	13.1	1.1173	229.5	791.9	229.49				8.1	112.2	3.1	-7.5
92.9	29656	93.6	0.17468	235.5	12.40	12.5	1.0969	229.4	802.2	229.37				7.5	132.6	5.1	-5.5
93.0	29710	92.8	0.17529	233.5	12.40	12.4	1.0934	229.3	803.9	229.35				7.6	136.3	5.5	-5.2
94.0	30043	85.8	0.17878	215.2	12.05	11.8	1.0719	230.3	818.9	230.32				3.3	148.2	2.8	-1.7
95.0	30335	82.7	0.18166	206.8	12.12	11.3	1.0531	230.7	830.5	230.73				1.6	113.5	0.6	-1.5
96.0	30640	77.5	0.18452	193.9	11.89	10.8	1.0334	230.7	841.4	230.73				4.4	96.0	0.5	-4.4
97.0	30959	71.0	0.18730	178.7	11.43	10.3	1.0128	229.5	848.2	229.49				8.5	86.5	-0.5	-8.4
97.5	31157	69.6	0.18892	175.1	11.53	10.0	1.0000	229.6	855.7	229.55				11.2	90.3	0.1	-11.2
98.0	31362	68.2	0.19059	171.4	11.65	9.7	0.9868	229.6	863.4	229.62				14.1	92.7	0.7	-14.1
99.0	31645	63.2	0.19277	158.6	11.27	9.3	0.9685	230.2	876.0	230.18				18.5	103.6	4.4	-18.0
100.0	32019	59.1	0.19544	147.0	11.13	8.8	0.9445	232.1	897.3	232.09				21.4	101.8	4.4	-21.0
101.0	32418	52.0	0.19800	127.9	10.37	8.3	0.9191	234.5	922.0	234.53				22.1	97.8	3.0	-21.9
102.0	32671	47.4	0.19945	116.1	9.83	8.0	0.9031	236.0	937.6	235.99				22.8	104.5	5.7	-22.1
103.0	33027	40.0	0.20122	97.0	8.72	7.6	0.8808	238.0	959.5	237.98				999.9	999.9	999.9	999.9

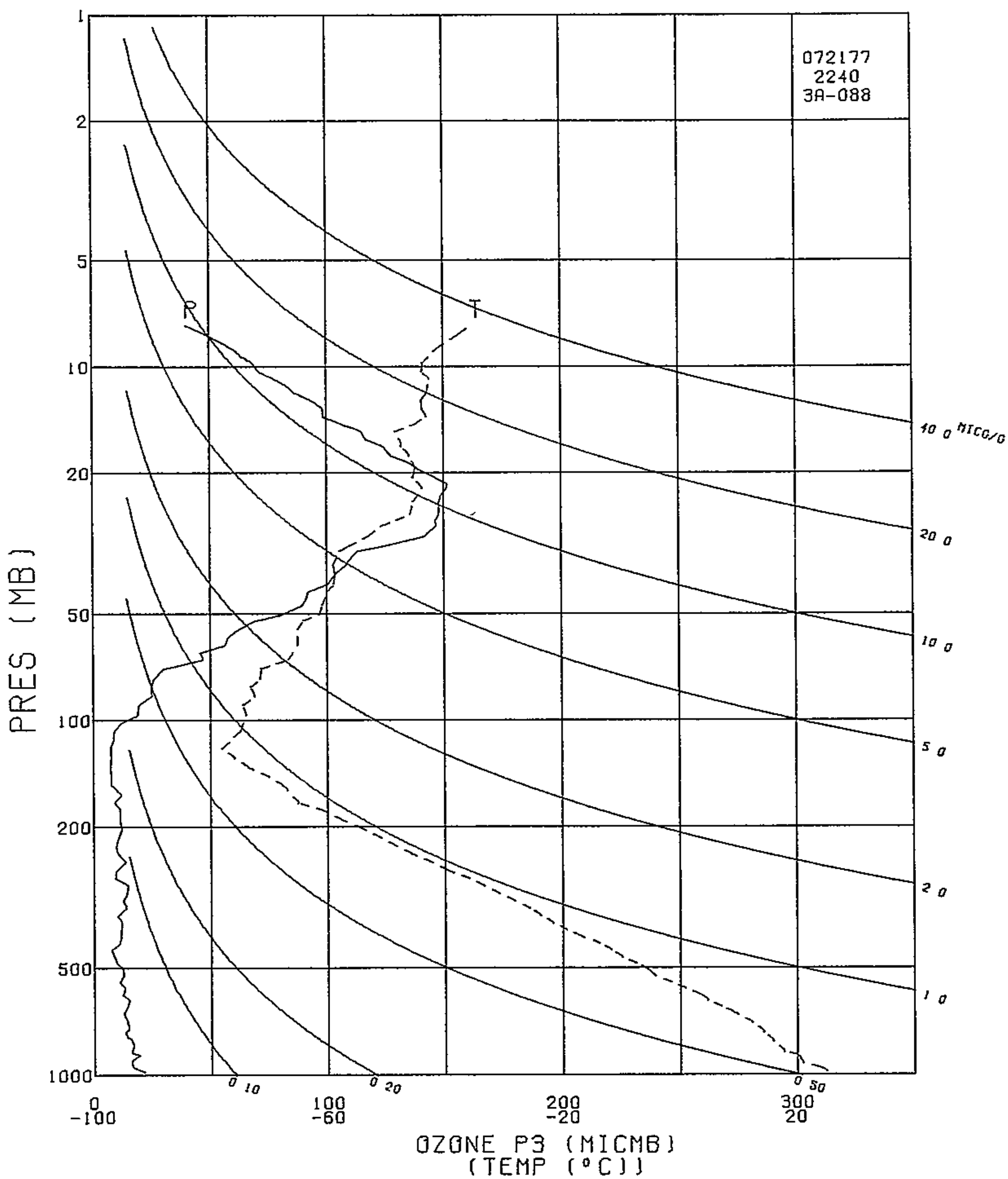
*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***

STATION FT SHERMAN   LAUNCH DATE 72177   LAUNCH TIME 2240 GMT   ECC SONDE 3A-088X

SURFACE CONDITIONS			
PRESS 1003.2 MB	003 = 35.3	TBOX CAL = 30.0 C	AT 74.3 ORD
TEMP 299.9 K	OIZ = 34.8	BASE CAL = 30.0 C	AT 73.8 ORD
HUMY 90.0 %	OZC = 66.7	HUMIDITY = 61.9 %	AT 46.0 ORD
	IO = 0.081		
	PS = 27.3		

	PROFILE	DOBSON
INTEGRATED OZONE	0.20122	
RESIDUAL OZONE	0.02741	
TOTAL OZONE	0.22862	0.

TIME MIN	ALT GP HT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	16.5	0.	31.8	0.03	1003.2	3.0014	299.7	299.4	303.09	86.1	297.2	0.0187	3.0	330.0	-2.6	1.5
0.1	81	17.1	0.00005	32.9	0.03	1000.0	3.0000	299.5	299.5	302.94	87.6	297.2	0.0190	999.9	999.9	999.9	999.9
1.0	287	20.9	0.00039	40.6	0.04	977.0	2.9899	298.2	300.2	301.86	97.9	297.9	0.0200	999.9	999.9	999.9	999.9
2.0	543	16.3	0.00082	31.7	0.03	949.0	2.9773	296.8	301.3	300.23	98.3	296.5	0.0190	999.9	999.9	999.9	999.9
3.0	766	15.8	0.00114	31.1	0.03	925.0	2.9661	293.8	300.4	296.70	96.8	293.3	0.0160	999.9	999.9	999.9	999.9
4.0	994	16.0	0.00147	31.5	0.03	901.0	2.9547	293.4	302.3	296.05	90.1	291.7	0.0148	999.9	999.9	999.9	999.9
4.0	1003	16.1	0.00149	31.7	0.03	900.0	2.9542	293.4	302.3	296.03	90.1	291.7	0.0148	999.9	999.9	999.9	999.9
5.0	1237	19.1	0.00186	37.7	0.04	876.0	2.9425	292.9	304.2	295.59	89.5	291.2	0.0148	999.9	999.9	999.9	999.9
6.0	1385	15.3	0.00210	30.5	0.03	861.0	2.9350	290.8	303.5	293.31	96.1	290.2	0.0141	999.9	999.9	999.9	999.9
6.3	1495	15.8	0.00226	31.3	0.03	850.0	2.9294	290.7	304.5	293.19	96.7	290.1	0.0143	999.9	999.9	999.9	999.9
7.0	1720	16.6	0.00259	33.0	0.03	828.0	2.9180	290.4	306.5	292.96	97.7	290.0	0.0145	999.9	999.9	999.9	999.9
8.0	1960	16.1	0.00295	32.2	0.03	805.0	2.9058	288.9	307.4	290.71	72.2	283.9	0.0100	999.9	999.9	999.9	999.9
8.2	2012	15.8	0.00303	31.5	0.03	800.0	2.9031	289.0	308.1	290.74	69.4	283.4	0.0095	999.9	999.9	999.9	999.9
9.0	2206	14.4	0.00330	28.8	0.03	782.0	2.8932	289.3	310.4	290.89	59.4	281.4	0.0087	999.9	999.9	999.9	999.9
10.0	2459	12.9	0.00362	25.9	0.03	759.0	2.8802	287.3	310.9	288.66	57.5	279.1	0.0076	999.9	999.9	999.9	999.9
11.0	2707	14.6	0.00394	29.3	0.03	737.0	2.8675	286.9	313.1	288.24	56.2	278.4	0.0075	999.9	999.9	999.9	999.9
12.0	2997	14.2	0.00433	28.7	0.03	712.0	2.8525	285.4	314.4	286.55	54.7	276.5	0.0068	999.9	999.9	999.9	999.9
12.5	3139	13.5	0.00452	27.4	0.03	700.0	2.8451	285.2	315.8	286.31	52.1	275.6	0.0063	999.9	999.9	999.9	999.9
13.0	3296	12.8	0.00471	25.9	0.03	687.0	2.8370	285.0	317.2	286.05	49.1	274.7	0.0062	999.9	999.9	999.9	999.9
14.0	3579	12.5	0.00505	25.5	0.03	664.0	2.8222	282.0	317.0	282.98	54.5	273.3	0.0058	999.9	999.9	999.9	999.9
15.0	3870	14.0	0.00542	28.9	0.04	641.0	2.8069	280.0	317.9	280.96	58.6	272.5	0.0056	999.9	999.9	999.9	999.9
16.0	4195	14.9	0.00588	31.0	0.04	616.0	2.7896	277.7	319.0	278.55	56.8	269.9	0.0049	999.9	999.9	999.9	999.9
16.7	4408	12.9	0.00615	26.9	0.04	600.0	2.7782	276.8	320.3	277.59	55.2	268.7	0.0044	999.9	999.9	999.9	999.9
17.0	4518	11.9	0.00630	24.8	0.03	592.0	2.7723	276.4	321.0	277.11	54.4	268.1	0.0044	999.9	999.9	999.9	999.9
18.0	4823	13.0	0.00667	27.4	0.04	570.0	2.7559	273.9	321.6	274.53	56.1	266.1	0.0039	7.9	83.8	-0.8	-7.8
19.0	5167	10.6	0.00707	22.6	0.03	546.0	2.7372	271.5	322.7	272.10	61.9	265.1	0.0038	7.6	89.3	-0.1	-7.6
20.0	5492	12.2	0.00744	26.3	0.04	524.0	2.7193	268.5	323.0	269.02	61.0	262.2	0.0031	8.0	97.6	1.1	-7.9
21.0	5813	12.2	0.00783	26.3	0.04	503.0	2.7016	267.4	325.5	267.94	61.5	261.2	0.0030	7.6	106.3	2.1	-7.3
21.1	5859	11.8	0.00788	25.6	0.04	500.0	2.6990	267.2	325.7	267.64	60.4	260.7	0.0029	7.8	106.8	2.3	-7.5
22.0	6130	9.8	0.00818	21.3	0.03	483.0	2.6839	265.5	326.9	265.88	53.5	257.7	0.0024	9.1	108.8	2.9	-8.6
23.0	6424	8.2	0.00845	18.0	0.03	465.0	2.6675	263.2	327.5	263.44	45.6	253.7	0.0017	6.1	126.4	3.6	-4.9
24.0	6796	7.0	0.00874	15.5	0.03	443.0	2.6464	261.3	329.7	261.53	41.9	251.0	0.0014	9.0	103.6	2.1	-8.8
25.0	7130	10.7	0.00905	23.8	0.04	424.0	2.6274	259.3	331.4	259.46	29.2	245.3	0.0009	3.4	161.0	3.2	-1.1
26.0	7457	11.5	0.00943	26.0	0.05	406.0	2.6085	256.1	331.4	256.35	53.5	249.0	0.0013	7.5	227.7	5.0	5.5
26.3	7568	11.5	0.00957	26.1	0.05	400.0	2.6021	255.3	331.7	255.49	54.1	248.3	0.0012	5.2	199.1	4.9	1.7
27.0	7776	11.5	0.00982	26.2	0.05	389.0	2.5899	253.7	332.3	253.87	55.3	247.0	0.0012	7.2	129.7	4.6	-5.5
28.0	8106	11.9	0.01023	27.2	0.05	372.0	2.5705	251.4	333.5	251.50	30.6	238.8	0.0005	8.1	129.6	5.1	-6.2
29.0	8449	9.7	0.01063	22.5	0.05	355.0	2.5502	249.3	335.1	249.30				6.8	126.9	4.1	-5.5
29.3	8552	10.8	0.01076	25.1	0.05	350.0	2.5441	248.8	335.8	248.77				6.1	126.9	3.7	-4.9
30.0	8806	13.4	0.01108	31.2	0.07	338.0	2.5289	247.4	337.3	247.48				4.4	126.7	2.7	-3.6
31.0	9155	12.3	0.01157	29.0	0.06	322.0	2.5079	244.8	338.4	244.84				3.1	127.4	1.9	-2.5
32.0	9495	13.8	0.01206	33.0	0.07	307.0	2.4871	242.2	339.4	242.21				2.1	141.4	1.6	-1.3
32.4	9657	14.1	0.01232	33.9	0.08	300.0	2.4771	241.1	340.0	241.08				2.1	140.6	1.7	-1.4
33.0	9872	14.5	0.01266	35.0	0.08	291.0	2.4639	239.6	340.9	239.58				2.2	139.6	1.7	-1.4
34.0	10191	9.1	0.01309	22.1	0.05	278.0	2.4440	237.2	341.9	237.19				4.0	118.5	1.9	-3.5
35.0	10547	9.5	0.01347	23.6	0.06	264.0	2.4216	233.4	341.5	233.45				3.6	103.5	0.8	-3.5
36.0	10917	13.3	0.01396	33.2	0.09	250.0	2.3979	230.7	342.9	230.73				3.3	64.7	-1.4	-3.0
37.0	11275	10.0	0.01445	25.4	0.07	237.0	2.3747	227.4	343.1	227.38				2.5	49.9	-1.6	-1.9
38.0	11618	9.5	0.01485	24.3	0.07	225.0	2.3522	224.7	344.0	224.66				0.7	77.7	-0.2	-0.7
39.0	11976	10.5	0.01528	27.2	0.08	213.0	2.3284	222.0	345.3	222.00				2.5	13.9	-2.5	-0.6
40.0	12350	12.0	0.01579	31.6	0.10	201.0	2.3032	218.9	346.2	218.92				8.3	333.9	-7.4	3.6
40.1	12381	11.9	0.01584	31.4	0.10	200.0	2.3010	218.6	346.3	218.62				8.6	332.0	-7.6	4.0
41.0	12708	11.2	0.01630	30.0	0.10	190.0	2.2788	215.5	346.4	215.53				12.7	319.3	-9.6	8.3
42.0	13081	11.3	0.01683	30.7	0.10	179.0	2.2529	212.5	347.3	212.45				13.5	315.6	-9.6	9.4
43.0	13398	8.7	0.01724	24.3	0.09	170.0	2.2304	208.0	345.1	208.03				13.7	313.1	-9.4	10.0
44.0	13691	11.7	0.01763	32.3	0.12	162.0	2.2095	208.4	350.6	208.41				10.5	312.9	-7.2	7.7
45.0	14077	7.5	0.01811	21.1	0.08	152.0	2.1818	205.4	351.9	205.44				5.4	301.6	-2.8	4.6
45.2	14155	7.5	0.01819	21.2	0.08	150.0	2.1761	204.9	352.3	204.89				5.1	292.5	-1.9	4.7
46.0	14441	7.7	0.01848	21.8	0.09	143.0	2.1553	202.9	353.7	202.89				5.3	257.4	1.2	5.2
47.0	14780	7.1	0.01881	20.6	0.09	135.0	2.1303	199.4	353.4	199.45				6.4	250.3	2.2	6.0
48.0	15134	7.7	0.01917	22.4	0.10	127.0	2.1038	197.2	355.6	197.21				6.0	268.3	0.2	6.0
48.2	15224	7.5	0.01926	22.1	0.10	125.0	2.0969	196.7	356.3	196.69				5.3	273.2	-0.3	5.3
49.0	15507	7.1	0.01955	21.0	0.10	119.0	2.0755	195.1	358.4	195.08				3.6	299.2	-1.8	3.1
50.0	15802	8.5	0.01987	25.2	0.12	113.0	2.0531	194.8	363.2	194.81				1.1	294.6	-0.5	1.0
51.0	16170	9.0	0.02031	26.3	0.14	106.0	2.0253	198.2	376.4	198.22				1.7	233.6	1.0	1.4
52.0	16450	11.9	0.02071	34.4	0.19	101.0	2.0043	198.7	382.6	198.72				3.4	94.5	0.3	-3.4
52.2	16507	13.2	0.02083	38.4	0.22	100.0	2.0000	198.8	383.9	198.81				4.4	95.3	0.4	-4.4
53.0	16745	18.9	0.02132	54.8	0.33	96.0	1.9823	199.2	389.1	199.21				8.6	96.7	1.0	-8.5
54.0	17121	19.4	0.02230	56.4	0.36	90.0	1.9542	198.7	395.4	198.72				9.8	90.7	0.1	-9.8
55.0	17455	24.7	0.02329	71.1	0.48	85.0	1.9294	200.6	405.8	200.63				11.4	86.0	-0.8	-11.4
56.0	17810	24.6	0.02447	71.0	0.51	80.0	1.9031	199.9	411.4	199.93				13.7	91.2	0.3	-13.7
57.0	18111	25.8	0.02549	73.8	0.56	76.0	1.8808	201.6	420.9	201.55				14.3	84.8	-1.3	-14.3
58.0	18512	30.0	0.02699	85.8	0.70	71.0	1.8513	201.8	429.6	201.78				14.2	91.4	0.3	-14.2



FT SHERMAN ECC

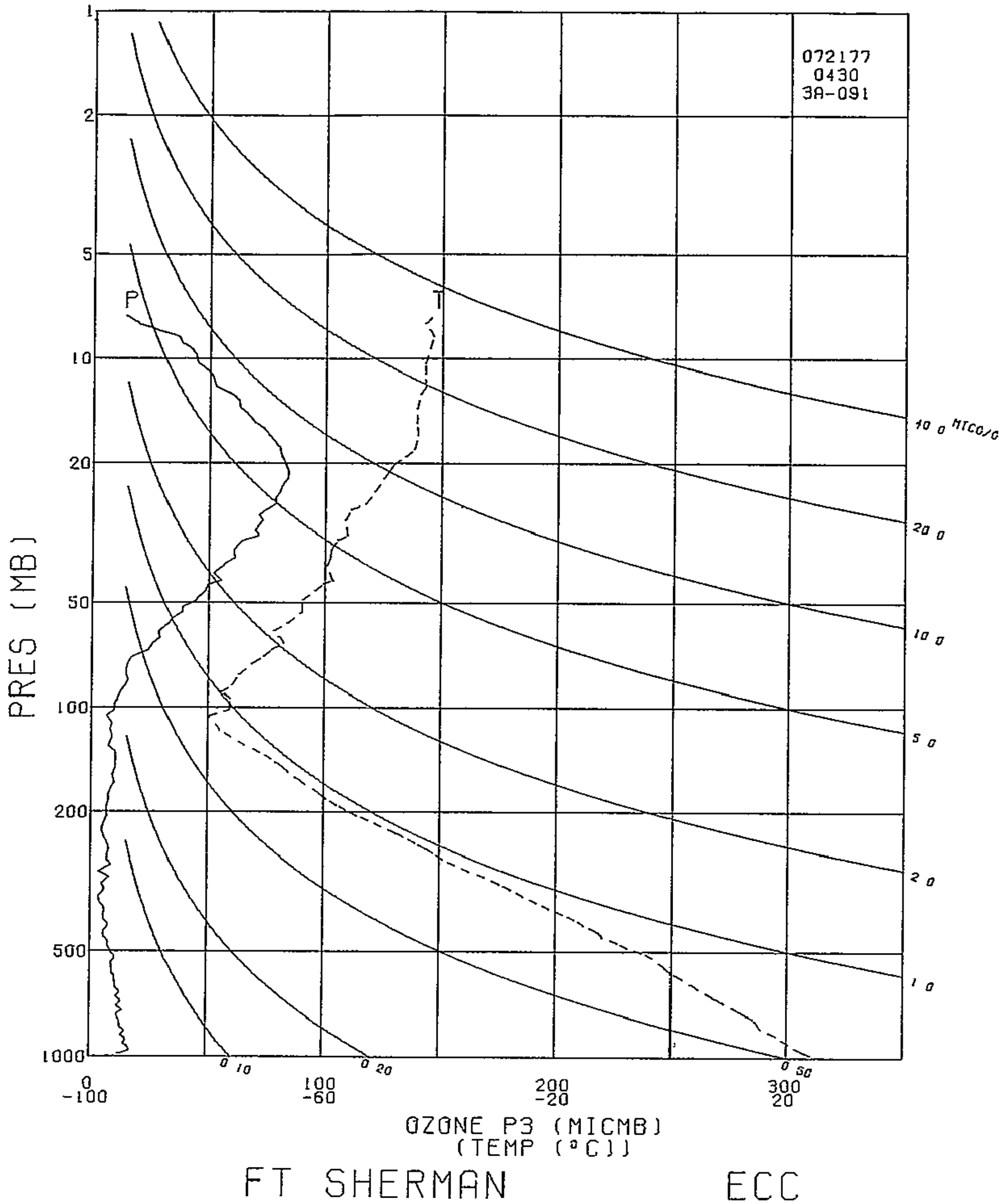
STATION FT SHERMAN   LAUNCH DATE 72177   LAUNCH TIME 0430 GMT   ECC SONDE 3A-091X

SURFACE CONDITIONS				
PRESS	1005.0 MB	OO3 = 35.4	TBOX CAL = 30.0 C	AT 74.0 ORD
TEMP	297.8 K	OIZ = 35.0	BASE CAL = 30.0 C	AT 73.8 ORD
HUMY	95.0 %	OZC = 64.0	HUMIDITY = 60.1 %	AT 46.0 ORD
		IO = 0.072		
		PS = 28.2		

	PROFILE	DOBSON
INTEGRATED OZONE	0.11868	
RESIDUAL OZONE	0.00952	
TOTAL OZONE	0.12820	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	8.6	0.	16.7	0.01	1005.0	3.0022	297.5	297.1	300.75	94.1	296.5	0.0179	1.0	80.0	-0.2	-1.0
0.2	96	9.4	0.00004	18.2	0.02	1000.0	3.0000	297.5	297.5	300.71	94.1	296.4	0.0180	1.3	61.3	-0.6	-1.1
1.0	274	12.4	0.00021	24.1	0.02	980.0	2.9912	297.3	299.0	300.54	93.9	296.2	0.0181	2.9	35.0	-2.4	-1.7
2.0	473	16.7	0.00047	32.6	0.03	958.0	2.9814	295.9	299.5	298.63	84.8	293.2	0.0153	4.2	29.4	-3.6	-2.0
3.0	694	16.2	0.00080	31.8	0.03	934.0	2.9703	295.0	300.8	297.63	84.8	292.3	0.0148	4.4	38.8	-3.4	-2.7
4.0	891	14.4	0.00107	28.3	0.03	913.0	2.9605	293.4	301.1	295.91	86.6	291.1	0.0141	3.6	57.7	-1.9	-3.1
4.6	1014	15.1	0.00124	29.8	0.03	900.0	2.9542	292.8	301.7	295.13	82.8	289.7	0.0127	3.4	72.4	-1.0	-3.2
5.0	1111	15.6	0.00138	30.9	0.03	890.0	2.9494	292.3	302.2	294.51	79.8	288.7	0.0124	3.3	84.9	-0.3	-3.3
6.0	1366	13.3	0.00172	26.4	0.03	864.0	2.9365	291.2	303.6	293.23	75.2	286.8	0.0113	4.5	91.0	0.1	-4.5
6.6	1505	14.4	0.00190	28.5	0.03	850.0	2.9294	290.8	304.7	292.81	74.8	286.3	0.0111	5.5	90.4	0.0	-5.5
7.0	1594	15.0	0.00201	29.9	0.03	841.3	2.9250	290.6	305.3	292.55	74.6	286.0	0.0110	6.0	90.1	0.0	-6.0
8.0	1823	13.0	0.00231	26.0	0.03	819.0	2.9133	288.3	305.3	290.11	77.3	284.4	0.0102	6.6	93.4	0.4	-6.6
8.9	2021	13.0	0.00255	26.1	0.03	800.0	2.9031	287.9	306.9	289.57	70.6	282.6	0.0092	6.5	92.7	0.3	-6.5
9.0	2032	13.0	0.00256	26.2	0.03	799.0	2.9025	287.9	307.0	289.54	70.2	282.6	0.0092	6.5	92.7	0.3	-6.5
10.0	2279	11.8	0.00285	23.8	0.03	776.0	2.8899	287.3	308.9	288.72	61.1	279.9	0.0079	5.7	94.6	0.5	-5.7
11.0	2510	11.2	0.00310	22.7	0.02	755.0	2.8779	285.9	309.9	287.25	61.2	278.7	0.0075	4.0	114.9	1.7	-3.6
12.0	2723	13.8	0.00335	28.0	0.03	736.0	2.8669	284.6	310.6	285.80	60.3	277.2	0.0069	4.2	143.2	3.3	-2.5
13.0	2964	11.3	0.00364	22.9	0.03	715.0	2.8543	283.7	312.2	284.80	59.8	276.2	0.0066	5.0	149.2	4.3	-2.5
13.6	3139	12.7	0.00385	26.1	0.03	700.0	2.8451	282.3	312.6	283.40	60.0	275.0	0.0061	4.5	150.3	3.9	-2.2
14.0	3235	13.5	0.00396	27.8	0.03	692.0	2.8401	281.6	312.9	282.65	60.1	274.3	0.0060	4.3	151.0	3.7	-2.1
15.0	3452	10.9	0.00421	22.5	0.03	674.0	2.8287	280.2	313.6	281.13	59.8	272.9	0.0055	5.4	143.8	4.3	-3.2
16.0	3699	12.8	0.00450	26.5	0.03	654.0	2.8156	279.3	315.3	280.21	59.9	272.1	0.0054	8.3	133.7	5.8	-6.0
17.0	3965	10.9	0.00480	22.7	0.03	633.0	2.8014	277.4	316.1	278.20	59.6	270.2	0.0048	10.3	132.5	7.0	-7.6
18.0	4212	10.9	0.00506	22.7	0.03	614.0	2.7882	276.4	317.7	277.19	62.9	270.0	0.0049	10.7	135.5	7.6	-7.5
18.7	4397	10.6	0.00526	22.3	0.03	600.0	2.7782	275.2	318.4	275.95	60.4	268.4	0.0043	9.3	135.5	6.6	-6.5
19.0	4479	10.5	0.00534	22.1	0.03	594.0	2.7738	274.7	318.8	275.41	59.4	267.6	0.0042	8.7	135.5	6.2	-6.1
20.0	4726	9.3	0.00558	19.7	0.03	576.0	2.7604	273.1	319.7	273.71	59.6	266.1	0.0039	8.4	139.5	6.4	-5.5
21.0	5023	9.4	0.00586	19.9	0.03	555.0	2.7443	271.9	321.8	272.55	59.0	265.0	0.0037	10.0	154.5	9.0	-4.3
22.0	5256	8.7	0.00607	18.5	0.03	539.0	2.7316	271.5	323.9	271.87	39.5	259.5	0.0025	10.8	174.5	10.7	-1.0
23.0	5540	10.7	0.00634	22.9	0.03	520.0	2.7160	269.9	325.3	270.39	52.2	261.5	0.0030	11.4	186.5	11.3	1.3
24.0	5818	8.7	0.00661	18.7	0.03	502.0	2.7007	268.1	326.4	268.54	57.6	261.0	0.0030	11.5	193.2	11.2	2.6
24.1	5849	8.5	0.00664	18.4	0.03	500.0	2.6990	267.7	326.3	268.19	57.7	260.7	0.0029	11.5	192.6	11.3	2.5
25.0	6055	7.3	0.00680	16.0	0.02	487.0	2.6875	265.5	326.1	265.92	58.7	258.8	0.0026	11.8	188.2	11.7	1.7
26.0	6330	7.6	0.00701	16.6	0.03	470.0	2.6721	263.7	327.2	264.12	58.8	257.2	0.0023	12.2	172.0	12.1	-1.7
27.0	6596	5.6	0.00719	12.4	0.02	454.0	2.6571	261.2	327.3	261.59	82.6	258.8	0.0027	11.6	157.9	10.7	-4.4
28.0	6922	5.6	0.00738	12.4	0.02	435.0	2.6385	260.0	329.8	260.48	89.9	258.7	0.0029	9.5	141.9	7.5	-5.9
29.0	7188	7.6	0.00756	17.0	0.03	420.0	2.6232	257.9	330.5	258.31	88.4	256.4	0.0024	9.0	124.5	5.1	-7.4
30.0	7480	5.6	0.00776	12.6	0.02	404.0	2.6064	256.3	332.0	256.57	73.6	252.7	0.0018	10.5	116.1	4.6	-9.4
30.3	7554	5.6	0.00781	12.6	0.02	400.0	2.6021	255.7	332.2	255.98	73.5	252.1	0.0017	10.4	115.6	4.5	-9.4
31.0	7743	5.6	0.00792	12.7	0.02	390.0	2.5911	254.2	332.7	254.48	73.2	250.6	0.0016	10.3	114.3	4.2	-9.4
32.0	8014	5.9	0.00808	13.4	0.03	376.0	2.5752	252.0	333.2	252.16	74.8	248.7	0.0014	8.8	125.0	5.0	-7.2
33.0	8313	3.8	0.00824	8.9	0.02	361.0	2.5575	249.8	334.2	250.02	80.3	247.4	0.0013	8.1	130.2	5.2	-6.2
33.8	8538	3.3	0.00833	7.7	0.02	350.0	2.5441	248.0	334.7	248.13	81.5	245.7	0.0011	7.7	129.6	4.9	-5.9
34.0	8601	3.2	0.00835	7.4	0.02	347.0	2.5403	247.4	334.8	247.61	81.8	245.3	0.0011	7.6	129.5	4.8	-5.8
35.0	8941	5.8	0.00852	13.7	0.03	331.0	2.5198	245.3	336.5	245.47	73.3	242.1	0.0008	6.1	132.6	4.1	-4.5
36.0	9205	4.5	0.00867	10.7	0.02	319.0	2.5038	243.5	337.5	243.61	70.1	239.8	0.0007	4.1	119.5	2.0	-3.6
37.0	9523	7.8	0.00889	18.7	0.04	305.0	2.4843	240.9	338.2	240.96	67.8	237.0	0.0006	3.1	105.9	0.9	-3.0
37.4	9638	5.7	0.00896	13.6	0.03	300.0	2.4771	239.7	338.1	239.77	66.3	235.6	0.0005	3.0	111.9	1.1	-2.8
38.0	9780	3.1	0.00904	7.5	0.02	294.0	2.4683	238.2	338.0	238.31	64.5	233.9	0.0004	2.9	119.7	1.5	-2.5
39.0	10069	8.4	0.00923	20.7	0.05	282.0	2.4502	235.7	338.4	235.78	64.4	231.5	0.0003	2.7	131.0	1.8	-2.1
40.0	10317	6.7	0.00945	16.6	0.04	272.0	2.4346	233.6	338.8	233.62	62.6	229.2	0.0003	3.5	135.1	2.5	-2.5
41.0	10598	7.3	0.00968	18.1	0.05	261.0	2.4166	232.0	340.5	231.96				3.7	122.2	2.0	-3.1
42.0	10808	7.9	0.00986	19.7	0.05	253.0	2.4031	230.6	341.5	230.59				4.0	107.0	1.2	-3.9
42.3	10888	7.4	0.00993	18.7	0.05	250.0	2.3979	230.0	341.8	230.00				4.6	106.5	1.3	-4.4
43.0	11051	6.6	0.01007	16.6	0.04	244.0	2.3874	228.8	342.3	228.79				5.8	105.7	1.6	-5.6
44.0	11301	5.3	0.01024	13.5	0.04	235.0	2.3711	226.8	343.1	226.82				6.3	89.9	-0.0	-6.3
45.0	11501	4.7	0.01036	12.2	0.03	228.0	2.3579	225.4	343.9	225.38				7.0	80.2	-1.2	-6.9
46.0	11765	4.7	0.01052	12.3	0.04	219.0	2.3404	222.9	344.0	222.89				5.9	71.5	-1.9	-5.6
47.0	12037	6.0	0.01069	15.8	0.05	210.0	2.3222	220.6	344.6	220.63				4.9	43.2	-3.6	-3.4
48.0	12223	6.7	0.01084	17.7	0.05	204.0	2.3096	218.8	344.5	218.77				5.7	27.2	-5.1	-2.6
48.6	12348	6.7	0.01094	17.7	0.06	200.0	2.3010	217.7	344.8	217.68				5.7	19.8	-5.4	-1.9
49.0	12445	6.7	0.01102	17.8	0.06	197.0	2.2945	216.8	344.9	216.85				5.8	14.3	-5.6	-1.4
50.0	12673	6.9	0.01122	18.6	0.06	190.0	2.2788	215.2	345.9	215.20				5.7	3.9	-5.7	-0.4
51.0	12908	7.6	0.01143	20.5	0.07	183.0	2.2625	213.5	346.8	213.50				5.5	354.0	-5.5	0.6
52.0	13151	7.6	0.01167	20.5	0.07	176.0	2.2455	212.3	348.7	212.28				6.0	330.0	-5.2	3.0
53.0	13403	8.8	0.01193	24.0	0.09	169.0	2.2279	211.7	351.9	211.74				8.1	315.8	-5.8	5.7
54.0	13625	10.0	0.01219	27.6	0.10	163.0	2.2122	209.2	351.2	209.18				6.7	300.6	-3.4	5.8
55.0	13933	9.2	0.01257	25.4	0.10	155.0	2.1903	208.8	355.7	208.80				5.9	251.2	1.9	5.6
55.7	14131	10.1	0.01283	28.2	0.11	150.0	2.1761	206.7	355.4	206.70				7.7	242.9	3.5	6.9
56.0	14213	10.5	0.01293	29.3	0.12	148.0	2.1703	205.8	355.3	205.85				8.5	240.6	4.2	7.4
57.0	14546	10.5	0.01339	29.7	0.12	140.0	2.1461	204.0	357.7	203.97				8.6	253.3	2.5	8.3
58.0	14806	10.5	0.01375	29.9	0.13	134.0	2.1271	202.0	358.7	202.00				7.3	273.4	-0.4	7.3
59.0	15075	7.2	0.01407	20.9	0.09	128.0	2.1072	199.4	358.8	199.45				6.0	285.3	-1.6	5.8

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRLSS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.4	15212	8.0	0.01423	23.3	0.11	125.0	2.0969	198.4	359.4	198.39				5.6	285.9	-1.5	5.4
60.0	15401	9.0	0.01443	26.4	0.12	121.0	2.0828	196.9	360.1	196.95				5.1	286.8	-1.5	4.9
61.0	15643	7.8	0.01472	23.2	0.11	116.0	2.0645	195.1	361.0	195.08				2.8	336.1	-2.6	1.2
62.0	15894	8.7	0.01500	25.9	0.13	111.0	2.0453	194.8	365.1	194.81				3.8	57.7	-2.0	-3.2
63.0	16209	6.2	0.01533	18.6	0.10	105.0	2.0212	193.1	367.7	193.10				4.1	102.1	0.9	-4.0
64.0	16430	9.9	0.01558	28.9	0.16	101.0	2.0043	196.7	378.7	196.69				6.2	112.4	2.4	-5.8
64.2	16487	9.9	0.01566	29.0	0.16	100.0	2.0000	196.9	380.1	196.88				6.1	111.4	2.2	-5.7
65.0	16663	10.0	0.01589	29.2	0.17	97.0	1.9868	197.5	384.6	197.46				5.8	108.4	1.8	-5.5
66.0	16844	11.2	0.01616	32.7	0.20	94.0	1.9731	196.9	387.0	196.95				4.5	94.9	0.4	-4.5
67.0	17093	12.2	0.01656	36.2	0.23	90.0	1.9542	195.4	388.7	195.36				6.1	80.5	-1.0	-6.0
68.0	17354	14.5	0.01704	42.3	0.28	86.0	1.9345	197.2	397.5	197.21				8.4	66.4	-3.4	-7.7
69.0	17559	15.6	0.01746	45.6	0.31	83.0	1.9191	197.7	402.6	197.72				10.4	66.4	-4.2	-9.6
70.0	17772	15.0	0.01790	43.7	0.31	80.0	1.9031	198.5	408.4	198.47				12.4	79.7	-2.2	-12.2
71.0	17994	15.0	0.01836	43.6	0.32	77.0	1.8865	198.5	412.9	198.47				14.9	94.1	1.1	-14.8
72.0	18226	15.6	0.01883	44.8	0.35	74.0	1.8692	200.9	422.6	200.86				14.1	103.9	3.4	-13.7
73.0	18470	17.3	0.01937	49.4	0.40	71.0	1.8513	202.7	431.5	202.67				12.9	100.5	2.3	-12.7
73.3	18554	19.6	0.01960	55.7	0.47	70.0	1.8451	203.1	434.2	203.10				14.2	101.3	2.8	-14.0
74.0	18727	24.2	0.02008	68.6	0.59	68.0	1.8325	204.0	439.7	203.97				17.0	102.5	3.7	-16.6
75.0	18997	26.2	0.02098	73.4	0.67	65.0	1.8129	206.1	449.9	206.05				18.4	101.9	3.8	-18.0
76.0	19185	28.6	0.02165	80.1	0.75	63.0	1.7993	206.1	454.0	206.05				16.2	99.4	2.7	-16.0
77.0	19478	28.7	0.02276	81.1	0.79	60.0	1.7782	204.4	456.6	204.40				17.6	109.1	5.8	-16.6
78.0	19786	32.9	0.02400	91.8	0.96	57.0	1.7559	206.7	468.5	206.65				14.7	108.5	4.7	-14.0
79.0	20002	34.4	0.02495	95.9	1.04	55.0	1.7404	207.4	475.1	207.45				10.8	100.4	1.9	-10.6
80.0	20227	38.4	0.02602	106.0	1.20	53.0	1.7243	209.2	484.2	209.18				16.5	97.0	2.0	-16.4
81.0	20462	38.9	0.02719	107.3	1.26	51.0	1.7076	209.2	489.5	209.18				19.3	95.3	1.8	-19.2
81.5	20583	41.7	0.02784	115.1	1.38	50.0	1.6990	209.2	492.3	209.18				18.2	95.0	1.6	-18.1
82.0	20707	44.5	0.02851	123.0	1.51	49.0	1.6902	209.2	495.2	209.18				17.0	94.8	1.4	-17.0
83.0	20833	45.2	0.02924	124.4	1.56	48.0	1.6812	209.9	499.9	209.92				18.9	97.6	2.5	-18.7
84.0	21095	48.5	0.03081	132.4	1.75	46.0	1.6628	211.4	509.5	211.38				23.0	102.1	4.8	-22.5
85.0	21371	49.5	0.03253	134.3	1.86	44.0	1.6435	212.8	519.5	212.80				22.2	101.9	4.6	-21.7
86.0	21514	54.8	0.03347	147.7	2.11	43.0	1.6335	214.4	526.7	214.35				24.2	98.5	3.6	-23.9
87.0	21812	51.6	0.03548	139.3	2.09	41.0	1.6128	213.8	532.6	213.84				27.9	94.2	2.0	-27.9
87.5	21966	53.8	0.03652	145.3	2.23	40.0	1.6021	213.7	536.0	213.67				27.4	91.5	0.7	-27.4
88.0	22124	56.0	0.03760	151.5	2.38	39.0	1.5911	213.5	539.4	213.50				27.0	88.7	-0.6	-26.9
89.0	22286	57.6	0.03876	155.7	2.51	38.0	1.5798	213.5	543.5	213.50				26.2	82.6	-3.4	-26.0
90.0	22452	60.9	0.04001	164.4	2.73	37.0	1.5682	214.0	548.9	214.01				29.3	79.6	-5.3	-28.8
91.0	22800	60.7	0.04268	163.6	2.87	35.0	1.5441	214.2	558.2	214.18				33.8	80.1	-5.8	-33.3
92.0	23169	64.1	0.04557	172.0	3.22	33.0	1.5185	215.2	570.3	215.20				29.8	75.2	-7.6	-28.8
93.0	23363	70.9	0.04721	188.7	3.67	32.0	1.5051	216.8	579.8	216.85				29.7	75.0	-7.7	-28.6
94.0	23564	69.5	0.04897	185.0	3.71	31.0	1.4914	216.8	585.0	216.85				32.6	79.2	-6.1	-32.0
94.5	23771	71.0	0.05081	189.2	3.93	30.0	1.4771	216.7	590.1	216.68				31.4	79.9	-5.5	-30.9
95.0	23987	72.6	0.05271	193.5	4.15	29.0	1.4624	216.5	595.4	216.52				30.2	80.7	-4.9	-29.8
96.0	24209	70.9	0.05469	189.4	4.19	28.0	1.4472	216.0	600.0	216.03				31.0	83.5	-3.5	-30.8
97.0	24439	74.4	0.05678	197.5	4.57	27.0	1.4314	217.5	610.4	217.49				31.0	89.0	-0.5	-31.0
98.0	24680	78.2	0.05905	205.3	4.99	26.0	1.4150	220.0	624.2	220.01				29.9	94.9	2.5	-29.8
99.0	24933	78.3	0.06147	204.6	5.19	25.0	1.3979	220.9	633.9	220.94				29.1	94.4	2.2	-29.0
100.0	25197	80.4	0.06403	209.5	5.55	24.0	1.3802	221.5	643.1	221.54				28.5	94.1	2.0	-28.5
101.0	25473	81.1	0.06674	211.3	5.84	23.0	1.3617	221.5	650.9	221.54				24.3	92.9	1.2	-24.2
102.0	25762	83.5	0.06963	216.2	6.29	22.0	1.3424	223.0	663.7	223.04				21.6	96.4	2.4	-21.5
103.0	26066	84.0	0.07270	216.6	6.63	21.0	1.3222	223.9	675.3	223.93				23.3	102.6	5.1	-22.7
104.0	26386	82.6	0.07591	212.2	6.85	20.0	1.3010	224.8	687.4	224.81				18.4	98.5	2.7	-18.2
105.0	26725	81.0	0.07922	206.2	7.06	19.0	1.2788	226.8	703.8	226.82				13.8	83.8	-1.5	-13.7
106.0	27048	80.1	0.08230	202.5	7.33	18.1	1.2577	228.4	718.5	228.37				10.4	73.2	-3.0	-9.9
107.0	27235	78.7	0.08406	199.0	7.41	17.6	1.2455	228.4	724.3	228.37				11.7	84.9	-1.0	-11.6
107.1	27273	78.4	0.08440	198.1	7.42	17.5	1.2430	228.4	725.7	228.42				11.7	86.1	-0.8	-11.7
108.0	27667	75.1	0.08797	189.3	7.54	16.5	1.2175	228.9	739.6	228.93				12.5	98.0	1.7	-12.4
109.0	27915	73.5	0.09014	185.5	7.66	15.9	1.2014	228.8	747.0	228.79				8.4	104.1	2.1	-8.2
110.0	28216	69.0	0.09268	174.1	7.52	15.2	1.1818	228.8	756.7	228.79				4.9	98.0	0.7	-4.8
110.2	28304	68.3	0.09338	172.4	7.55	15.0	1.1761	228.8	759.6	228.79				4.5	98.0	0.6	-4.4
111.0	28578	66.3	0.09556	167.3	7.63	14.4	1.1584	228.8	768.5	228.79				3.3	98.0	0.5	-3.3
112.0	28863	62.8	0.09773	158.4	7.54	13.8	1.1399	228.8	777.9	228.79				7.0	90.3	0.0	-7.0
113.0	29161	62.5	0.09993	157.6	7.85	13.2	1.1206	229.1	788.8	229.07				7.9	91.2	0.2	-7.9
114.0	29473	59.1	0.10216	148.9	7.78	12.6	1.1004	229.3	800.3	229.35				5.4	77.8	-1.2	-5.3
114.2	29526	58.0	0.10251	146.1	7.69	12.5	1.0969	229.5	802.6	229.48				5.3	69.9	-1.8	-5.0
115.0	29801	52.5	0.10431	131.7	7.25	12.0	1.0792	230.2	814.5	230.18				6.1	30.8	-5.2	-3.1
116.0	30087	51.4	0.10605	129.0	7.40	11.5	1.0607	230.0	823.9	230.04				7.8	22.7	-7.2	-3.0
117.0	30386	50.1	0.10783	125.6	7.54	11.0	1.0414	230.2	835.0	230.18				10.5	70.3	-3.5	-9.9
118.0	30829	44.6	0.11029	111.8	7.17	10.3	1.0128	230.2	850.8	230.18				13.6	92.8	0.7	-13.6
118.6	31027	44.2	0.11132	110.7	7.32	10.0	1.0000	230.4	858.9	230.42				12.7	92.5	0.5	-12.7
119.0	31164	43.9	0.11202	109.9	7.42	9.8	0.9912	230.6	864.5	230.59				12.1	92.2	0.5	-12.1
120.0	31518	41.3	0.11378	103.1	7.35	9.3	0.9685	231.0	879.1	231.00				8.5	110.1	2.9	-8.0
121.0	31740	37.6	0.11480	93.7	6.92	9.0	0.9542	231.4	889.0	231.41				8.9	130.2	5.8	-6.8
122.0	32048	36.3	0.11613	90.6	7.00	8.6	0.9345	231.5	901.1	231.55				7.0	97.0	0.9	-6.9
123.0	32288	29.2	0.11705	73.1	5.84	8.3	0.9191	231.0	908.2	231.00				10.2	53.6	-6.0	-8.2
123.7	32536	21.9	0.11775	54.9	4.52	8.0	0.9031	230.4	915.3	230.39				13.4	61.3	-6.4	-11.7
124.0	32621	19.4	0.11799	48.7	4.07	7.9	0.8976	230.2	917.8	230.18				14.5	63.1	-6.6	-12.9
125.0	32972	13.9	0.11868	34.7	3.08	7.5	0.8751	231.5	937.1	231.55				999.9	999.9	999.9	999.9


072177
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PRES (MB)
10 0 MTCO/G
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0 10
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-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

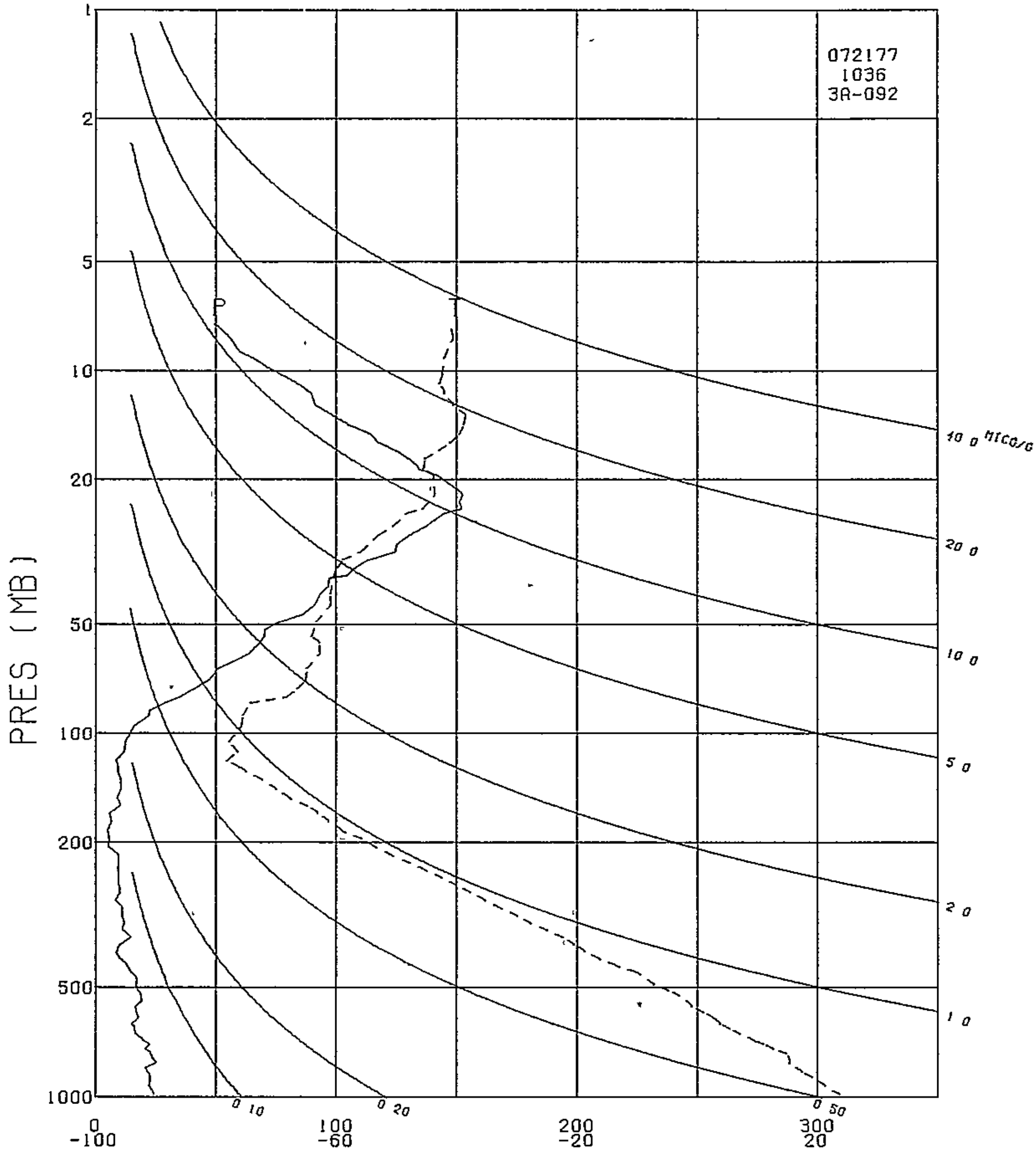
STATION FT SHERMAN   LAUNCH DATE 72177   LAUNCH TIME 1036 GMT   ECC SONDE 3A-092X

SURFACE CONDITIONS			
PRESS 1003.4 MB	0O3 = 32.2	TBOX CAL = 30.0 C	AT 73.8 ORD
TEMP 297.2 K	OIZ = 31.8	BASE CAL = 30.0 C	AT 73.5 ORD
HUMY 97.0 %	OZC = 62.8	HUMIDITY = 62.0 %	AT 46.0 ORD
	IO = 0.067		
	PS = 28.0		

	PROFILE	DOBSON
INTEGRATED OZONE	0.20698	
RESIDUAL OZONE	0.03354	
TOTAL OZONE	0.24052	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	11.8	0.	23.0	0.02	1003.4	3.0015	296.6	296.3	299.82	97.8	296.2	0.0177	0.	0.	0.	0.
0.2	82	13.9	0.00005	27.0	0.02	1000.0	3.0000	296.7	296.7	299.87	97.5	296.2	0.0177	0.4	211.9	0.4	0.2
1.0	233	24.2	0.00029	47.2	0.04	983.0	2.9926	296.9	298.3	300.10	95.9	296.1	0.0179	2.6	211.9	2.2	1.4
2.0	504	23.0	0.00087	44.8	0.04	953.0	2.9791	295.9	300.0	299.07	95.1	295.1	0.0173	0.7	102.0	0.1	-0.6
3.0	726	22.0	0.00132	43.2	0.04	929.0	2.9680	294.4	300.6	297.29	96.0	293.7	0.0163	4.1	38.5	-3.2	-2.6
4.0	982	22.7	0.00184	44.6	0.04	902.0	2.9552	293.3	302.0	296.06	95.9	292.6	0.0157	5.4	73.5	-1.5	-5.1
4.1	1001	22.6	0.00188	44.6	0.04	900.0	2.9542	293.2	302.1	295.93	95.0	292.3	0.0153	5.4	76.5	-1.3	-5.3
5.0	1205	22.6	0.00230	44.6	0.04	879.0	2.9440	292.2	303.1	294.53	84.4	289.5	0.0132	7.0	102.1	1.5	-6.8
6.0	1473	21.4	0.00284	42.5	0.04	852.0	2.9304	290.5	304.1	292.50	78.0	286.6	0.0113	6.4	88.6	-0.2	-6.4
6.1	1493	21.3	0.00288	42.3	0.04	850.0	2.9294	290.4	304.2	292.41	77.5	286.4	0.0111	6.5	88.1	-0.2	-6.5
7.0	1707	20.4	0.00329	40.6	0.04	829.0	2.9186	289.7	305.6	291.45	71.5	284.5	0.0101	7.1	82.8	-0.9	-7.0
8.0	1957	24.7	0.00382	49.5	0.05	805.0	2.9058	288.4	306.9	290.14	71.7	283.4	0.0097	7.9	80.4	-1.3	-7.8
8.2	2009	24.5	0.00394	49.1	0.05	800.0	2.9031	288.4	307.4	290.03	70.1	282.9	0.0093	7.6	79.8	-1.4	-7.5
9.0	2235	23.5	0.00444	47.0	0.05	779.0	2.8915	288.0	309.3	289.56	63.5	281.2	0.0086	6.2	76.6	-1.4	-6.0
10.0	2455	22.9	0.00492	45.9	0.05	759.0	2.8802	287.8	311.4	289.28	59.5	280.0	0.0082	3.2	73.4	-0.9	-3.0
11.0	2726	20.5	0.00547	41.4	0.05	735.0	2.8663	285.7	312.0	286.99	60.7	278.3	0.0075	2.9	89.1	-0.0	-2.9
12.0	2980	22.5	0.00598	45.8	0.05	713.0	2.8531	284.0	312.8	285.21	62.6	277.1	0.0071	3.7	109.3	1.2	-3.5
12.9	3133	19.7	0.00629	40.2	0.05	700.0	2.8451	282.6	312.9	283.75	63.0	275.9	0.0066	6.2	111.2	2.3	-5.8
13.0	3145	19.4	0.00631	39.7	0.05	699.0	2.8445	282.5	312.9	283.64	63.0	275.8	0.0066	6.4	111.3	2.3	-6.0
14.0	3507	16.7	0.00694	34.3	0.04	669.0	2.8254	280.2	314.3	281.17	63.4	273.7	0.0059	8.0	113.9	3.3	-7.3
15.0	3768	16.1	0.00735	33.3	0.04	648.0	2.8116	278.4	315.1	279.44	71.1	273.6	0.0061	7.3	125.0	4.2	-6.0
16.0	4023	14.8	0.00773	30.9	0.04	628.0	2.7980	276.9	316.2	277.93	79.1	273.6	0.0063	7.8	134.2	5.4	-5.6
17.0	4325	17.5	0.00821	36.7	0.05	605.0	2.7818	275.7	318.3	276.49	62.5	269.3	0.0047	8.1	140.0	6.2	-5.2
17.2	4391	17.3	0.00832	36.3	0.05	600.0	2.7782	275.3	318.6	276.08	61.9	268.8	0.0045	7.9	141.4	6.2	-4.9
18.0	4610	16.5	0.00868	34.8	0.05	584.0	2.7664	274.0	319.6	274.75	60.2	267.2	0.0042	7.5	146.5	6.3	-4.1
19.0	4917	16.4	0.00918	34.8	0.05	562.0	2.7497	272.1	320.8	272.73	59.0	265.1	0.0037	7.3	156.1	6.7	-2.9
20.0	5176	18.8	0.00963	40.0	0.06	544.0	2.7356	272.1	323.8	272.56	41.4	260.7	0.0027	7.2	152.2	6.4	-3.4
21.0	5443	18.8	0.01013	40.3	0.06	526.0	2.7210	270.1	324.5	270.37	30.3	255.1	0.0017	7.0	150.8	6.1	-3.4
22.0	5717	17.5	0.01063	37.7	0.06	508.0	2.7059	268.2	325.5	268.63	46.4	258.5	0.0024	7.2	161.1	6.9	-2.3
22.4	5841	17.2	0.01085	37.3	0.06	500.0	2.6990	267.2	325.7	267.54	45.3	257.3	0.0021	7.8	163.7	7.5	-2.2
23.0	5999	16.9	0.01112	36.7	0.06	490.0	2.6902	265.8	325.9	266.15	44.0	255.7	0.0020	8.5	166.6	8.3	-2.0
24.0	6290	17.2	0.01163	37.3	0.06	472.0	2.6739	265.5	329.1	265.69	20.7	246.9	0.0009	9.4	172.3	9.3	-1.3
25.0	6628	14.5	0.01217	31.9	0.05	451.8	2.6549	262.8	329.7	262.95	29.1	248.2	0.0011	9.5	176.6	9.5	-0.6
26.0	6935	13.1	0.01261	29.1	0.05	434.0	2.6375	259.5	329.4	259.74	49.0	251.1	0.0015	10.3	176.2	10.3	-0.7
27.0	7273	9.8	0.01301	22.0	0.04	415.0	2.6180	256.6	329.9	256.87	68.1	252.1	0.0017	10.3	165.3	10.0	-2.6
27.8	7548	8.7	0.01328	19.7	0.04	400.0	2.6021	254.7	330.9	254.92	70.0	250.6	0.0015	8.7	151.1	7.6	-4.2
28.0	7605	8.5	0.01333	19.2	0.04	397.0	2.5988	254.3	331.1	254.52	70.3	250.2	0.0015	8.5	147.6	7.2	-4.5
29.0	7930	9.7	0.01365	22.2	0.04	380.0	2.5798	252.5	332.9	252.71	58.8	246.6	0.0011	7.2	136.6	5.2	-4.9
30.0	8267	14.4	0.01408	33.1	0.07	363.0	2.5599	250.7	334.8	250.80	53.9	243.9	0.0009	7.0	134.5	4.9	-5.0
30.8	8533	11.5	0.01444	26.7	0.05	350.0	2.5441	248.5	335.4	248.63	53.3	241.8	0.0008	6.0	128.7	3.8	-4.7
31.0	8596	10.8	0.01453	25.2	0.05	347.0	2.5403	248.0	335.6	248.12	53.2	241.3	0.0007	5.8	127.0	3.5	-4.6
32.0	8915	11.8	0.01492	27.7	0.06	332.0	2.5211	245.4	336.2	245.47	58.8	239.8	0.0007	4.2	106.3	1.2	-4.0
33.0	9245	11.0	0.01534	26.2	0.06	317.0	2.5011	243.1	337.6	243.22	58.3	237.6	0.0006	3.5	95.2	0.3	-3.5
34.0	9588	11.1	0.01576	26.6	0.06	302.0	2.4800	240.4	338.4	240.43	57.8	234.0	0.0004	2.5	110.8	0.9	-2.3
34.1	9634	10.7	0.01581	25.6	0.06	300.0	2.4771	240.0	338.6	240.08	51.6	233.5	0.0004	2.4	109.5	0.8	-2.3
35.0	9944	8.0	0.01615	19.5	0.05	287.0	2.4579	237.7	339.6	237.76	43.5	229.7	0.0003	2.0	98.6	0.3	-2.0
36.0	10290	10.1	0.01650	24.9	0.06	273.0	2.4362	235.3	341.0	235.34	35.7	225.8	0.0002	3.2	61.8	-1.5	-2.8
37.0	10598	9.5	0.01685	23.5	0.06	261.0	2.4166	233.0	342.0	233.01				5.0	61.5	-2.4	-4.4
37.9	10889	9.5	0.01717	23.6	0.06	250.0	2.3979	230.9	343.1	230.88				5.4	52.5	-3.3	-4.3
38.0	10917	9.4	0.01720	23.6	0.06	249.0	2.3962	230.7	343.2	230.68				5.4	51.7	-3.4	-4.3
39.0	11248	9.4	0.01757	23.9	0.07	237.0	2.3747	227.9	343.8	227.87				4.4	34.8	-3.6	-2.5
40.0	11563	9.4	0.01793	24.2	0.07	226.0	2.3541	225.1	344.3	225.14				4.2	32.1	-3.6	-2.2
41.0	11859	9.5	0.01826	24.6	0.07	216.0	2.3345	222.3	344.5	222.32				5.2	30.8	-4.4	-2.6
42.0	12197	5.1	0.01856	13.3	0.04	205.0	2.3118	219.5	345.3	219.54				4.6	6.7	-4.6	-0.5
42.4	12354	5.3	0.01867	14.1	0.04	200.0	2.3010	218.5	346.1	218.54				5.0	350.7	-5.0	0.8
43.0	12549	5.6	0.01880	15.0	0.05	194.0	2.2878	217.3	347.2	217.30				6.0	335.4	-5.4	2.5
44.0	12849	4.6	0.01899	12.5	0.04	185.0	2.2672	214.1	346.8	214.11				8.2	327.2	-6.9	4.4
45.0	13231	6.5	0.01926	17.6	0.06	174.0	2.2405	211.8	349.1	211.82				10.8	313.1	-7.4	7.9
46.0	13559	5.8	0.01951	15.9	0.06	165.0	2.2175	210.0	351.4	209.98				12.3	299.8	-6.1	10.7
47.0	13836	10.0	0.01979	27.8	0.11	157.7	2.1978	208.3	353.0	208.26				10.3	289.6	-3.4	9.7
48.0	14139	8.7	0.02017	24.6	0.10	150.0	2.1761	205.2	352.9	205.23				6.2	276.4	-0.7	6.2
49.0	14466	10.5	0.02058	29.9	0.12	142.0	2.1523	203.1	354.7	203.08				5.3	265.8	0.4	5.3
50.0	14853	10.5	0.02113	30.3	0.13	133.0	2.1239	200.6	356.9	200.56				7.6	267.7	0.3	7.6
51.0	15122	9.3	0.02149	27.2	0.12	127.0	2.1038	198.1	357.2	198.11				7.9	283.1	-1.8	7.7
51.5	15213	9.3	0.02160	27.2	0.12	125.0	2.0969	197.5	357.7	197.47				5.9	304.2	-3.3	4.9
52.0	15307	9.3	0.02172	27.3	0.13	123.0	2.0899	196.8	358.2	196.81				5.3	337.2	-4.9	2.1
53.0	15525	8.1	0.02198	23.9	0.11	118.4	2.0734	194.9	358.6	194.91				4.2	46.1	-2.9	-3.0
54.0	15843	11.8	0.02242	34.8	0.18	112.0	2.0492	196.5	367.4	196.55				4.9	111.2	1.8	-4.6
55.0	16213	12.4	0.02304	36.7	0.20	105.0	2.0212	195.2	371.6	195.19				6.4	115.4	2.8	-5.8
55.5	16493	14.1	0.02358	41.4	0.23	100.0	2.0000	196.2	378.9	196.24				5.7	105.2	1.5	-5.5
56.0	16788	15.8	0.02415	46.3	0.26	95.0	1.9777	197.3	386.6	197.34				5.3	92.1	0.2	-5.3
57.0	17165	22.1	0.02513	64.6	0.41	89.0	1.9494	197.6	394.4	197.60				7.0	71.5	-2.2	-6.6
58.0	17363	22.5	0.02573	65.9	0.43	86.0	1.9345	197.3	397.8	197.34				11.1	84.3	-1.1	-11.1

TIME MIN	ALT GP HT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	17639	28.5	0.02669	82.8	0.58	82.0	1.9138	198.9	406.3	198.86				13.8	95.7	1.4	-13.8
59.7	17784	32.8	0.02731	93.1	0.68	80.0	1.9031	202.8	417.4	202.80				13.1	94.4	1.0	-13.1
60.0	17859	34.9	0.02762	98.4	0.73	79.0	1.8976	204.8	423.0	204.81				12.7	93.7	0.8	-12.7
61.0	18172	40.8	0.02917	113.9	0.90	75.0	1.8751	206.7	433.2	206.67				14.1	95.1	1.3	-14.0
62.0	18504	46.7	0.03107	129.6	1.09	71.0	1.8513	208.1	443.0	208.06				15.1	101.8	3.1	-14.8
62.5	18590	47.7	0.03160	132.1	1.13	70.0	1.8451	208.4	445.6	208.45				13.7	106.1	3.8	-13.2
63.0	18678	48.7	0.03214	134.6	1.17	69.0	1.8388	208.8	448.3	208.84				12.4	111.5	4.5	-11.6
64.0	18949	50.6	0.03388	140.2	1.27	66.0	1.8195	208.3	452.8	208.26				12.6	113.8	5.1	-11.5
65.0	19233	57.2	0.03586	158.2	1.51	63.0	1.7993	208.8	460.1	208.84				11.3	103.4	2.6	-11.0
66.0	19532	63.6	0.03818	174.4	1.76	60.0	1.7782	210.4	469.9	210.35				11.5	94.4	0.9	-11.5
67.0	19957	68.1	0.04177	186.8	2.01	56.0	1.7482	210.4	479.3	210.35				14.7	85.4	-1.2	-14.7
68.0	20203	70.0	0.04395	193.5	2.16	53.8	1.7308	209.0	481.8	209.03				18.7	83.5	-2.1	-18.6
69.0	20493	70.4	0.04659	195.0	2.27	51.3	1.7101	208.5	487.0	208.45				21.3	87.9	-0.8	-21.3
69.6	20649	73.6	0.04807	203.1	2.44	50.0	1.6990	209.2	492.4	209.20				21.1	86.4	-1.3	-21.0
70.0	20773	76.1	0.04924	209.4	2.57	49.0	1.6902	209.8	496.6	209.79				20.9	85.2	-1.7	-20.8
71.0	21055	85.6	0.05217	234.7	3.03	46.8	1.6702	210.5	505.0	210.54				22.9	85.6	-1.7	-22.8
72.0	21436	91.0	0.05647	247.6	3.43	44.0	1.6435	212.2	517.9	212.18				26.1	89.8	-0.1	-26.1
73.0	21874	93.2	0.06160	253.6	3.77	41.0	1.6128	212.2	528.5	212.18				25.9	87.2	-1.3	-25.8
73.5	22027	95.0	0.06345	258.4	3.94	40.0	1.6021	212.2	532.3	212.18				25.8	85.2	-2.2	-25.7
74.0	22184	96.8	0.06535	263.3	4.11	39.0	1.5911	212.2	536.1	212.18				25.8	83.1	-3.1	-25.7
75.0	22511	97.0	0.06937	263.5	4.34	37.0	1.5682	212.5	545.2	212.54				26.9	83.4	-3.1	-26.7
76.0	22612	104.6	0.07067	282.9	4.76	36.4	1.5611	213.4	550.0	213.42				28.6	84.8	-2.6	-28.4
76.9	22856	107.1	0.07395	290.0	5.07	35.0	1.5441	213.3	555.8	213.26				30.5	84.2	-3.1	-30.4
77.0	22892	107.5	0.07443	291.0	5.12	34.8	1.5416	213.2	556.6	213.24				30.8	84.1	-3.2	-30.7
78.0	23224	112.9	0.07905	304.3	5.67	33.0	1.5185	214.3	567.9	214.28				31.9	85.5	-2.5	-31.8
79.0	23558	124.4	0.08400	330.5	6.58	31.3	1.4955	217.3	584.7	217.30				32.4	85.9	-2.3	-32.3
79.9	23827	125.1	0.08818	332.1	6.91	30.0	1.4771	217.4	592.2	217.44				30.9	86.1	-2.1	-30.8
80.0	23870	125.2	0.08884	332.4	6.96	29.8	1.4742	217.5	593.4	217.46				30.7	86.2	-2.0	-30.6
81.0	24223	130.5	0.09441	342.3	7.67	28.2	1.4502	220.2	610.3	220.17				30.9	91.2	0.6	-30.8
82.0	24601	137.4	0.10058	356.3	8.56	26.6	1.4249	222.6	627.5	222.62				32.7	94.0	2.3	-32.6
82.8	25007	143.2	0.10749	368.3	9.50	25.0	1.3979	224.4	643.9	224.41				25.1	91.6	0.7	-25.1
83.0	25140	145.1	0.10975	372.2	9.81	24.5	1.3892	225.0	649.2	224.99				22.7	90.4	0.2	-22.7
84.0	25304	152.0	0.11265	385.8	10.54	23.9	1.3784	227.4	661.0	227.45				18.4	85.3	-1.5	-18.4
85.0	25588	150.9	0.11776	382.7	10.92	22.9	1.3598	227.7	670.0	227.73				22.6	91.4	0.6	-22.6
86.0	25887	152.7	0.12311	383.9	11.55	21.9	1.3404	229.6	684.0	229.56				17.3	96.5	2.0	-17.2
87.0	26168	149.5	0.12811	376.6	11.80	21.0	1.3222	229.3	691.4	229.28				14.1	97.1	1.7	-14.0
87.6	26495	145.1	0.13373	365.3	12.02	20.0	1.3010	229.3	701.2	229.28				12.4	103.2	2.8	-12.1
88.0	26700	142.3	0.13724	358.3	12.15	19.4	1.2878	229.3	707.3	229.28				11.5	107.8	3.5	-10.9
89.0	26981	134.2	0.14183	340.5	11.96	18.6	1.2695	227.6	710.5	227.59				11.0	119.9	5.5	-9.5
89.9	27386	130.3	0.14818	330.1	12.33	17.5	1.2430	227.8	723.8	227.85				14.2	125.6	8.3	-11.6
90.0	27425	129.9	0.14878	329.1	12.37	17.4	1.2405	227.9	725.1	227.87				14.6	126.0	8.6	-11.8
91.0	27781	124.0	0.15410	311.0	12.46	16.5	1.2175	230.3	743.9	230.26				13.1	130.7	8.5	-9.9
92.0	28117	116.9	0.15882	290.9	12.34	15.7	1.1959	232.1	760.4	232.05				10.2	134.0	7.1	-7.3
92.9	28427	114.5	0.16298	283.3	12.65	15.0	1.1761	233.4	774.7	233.36				8.8	136.5	6.4	-6.1
93.0	28473	114.2	0.16359	282.2	12.70	14.9	1.1732	233.6	776.8	233.55				8.6	136.9	6.3	-5.9
94.0	28899	104.3	0.16896	257.1	12.35	14.0	1.1461	234.4	793.5	234.37				3.1	84.0	-0.3	-3.1
95.0	29303	97.8	0.17366	240.7	12.28	13.2	1.1206	234.6	807.9	234.64				5.0	19.0	-4.8	-1.6
95.9	29675	91.8	0.17771	227.6	12.17	12.5	1.0969	232.9	814.4	232.86				5.1	49.6	-3.3	-3.9
96.0	29730	90.9	0.17831	225.7	12.15	12.4	1.0934	232.6	815.4	232.60				5.2	53.8	-3.1	-4.2
97.0	30241	89.1	0.18367	222.6	12.84	11.5	1.0607	231.1	827.7	231.09				5.6	103.7	1.3	-5.4
98.0	30665	83.3	0.18794	208.9	12.78	10.8	1.0334	230.3	839.6	230.26				4.6	146.8	3.9	-2.5
99.0	31050	76.8	0.19155	192.1	12.47	10.2	1.0086	230.7	855.0	230.68				2.2	169.5	2.2	-0.4
99.4	31183	74.3	0.19270	185.9	12.31	10.0	1.0000	230.8	860.3	230.79				1.6	197.3	1.5	0.5
100.0	31389	70.6	0.19447	176.4	12.06	9.7	0.9868	231.0	868.4	230.95				1.9	254.8	0.5	1.8
101.0	31821	64.0	0.19786	160.0	11.66	9.1	0.9590	231.1	884.9	231.09				3.7	299.5	-1.8	3.2
102.0	32048	59.3	0.19949	148.0	11.16	8.8	0.9445	231.4	894.5	231.37				10.5	47.9	-7.1	-7.8
103.0	32695	54.8	0.20378	136.0	11.35	8.0	0.9031	232.6	924.1	232.60				17.5	63.5	-7.8	-15.7
104.0	33225	49.1	0.20698	122.3	11.00	7.4	0.8692	232.1	942.7	232.05				999.9	999.9	999 9	999.9



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72177   LAUNCH TIME 1623 GMT   ECC SONDE 3A-093X

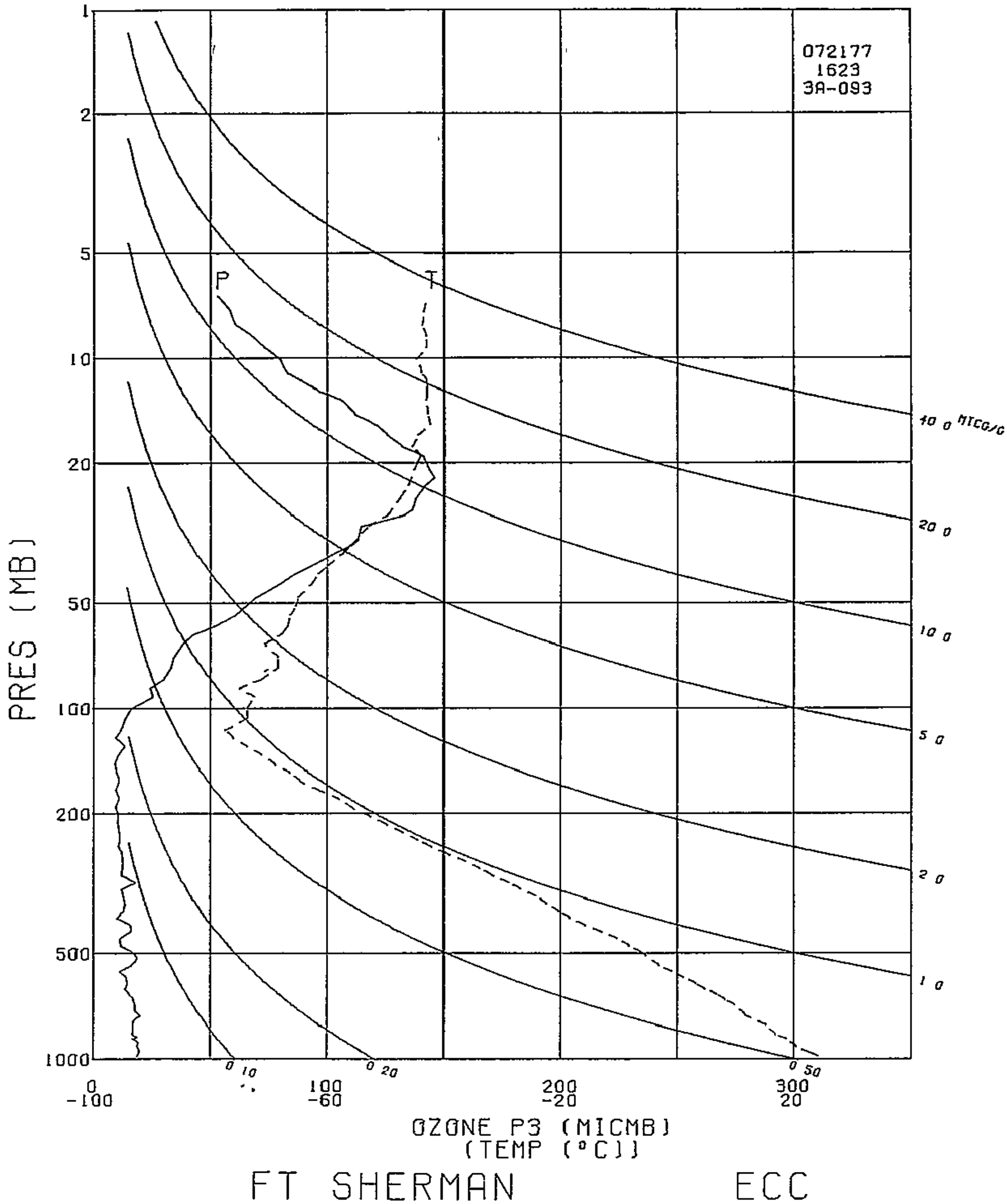
SURFACE CONDITIONS			
PRESS 1004.6 MB	OO3 = 31.1	TBOX CAL = 30.0 C	AT 72.9 ORD
TEMP 298.4 K	OIZ = 30.8	BASE CAL = 30.0 C	AT 73.8 ORD
HUMY 98.0 %	OZC = 62.3	HUMIDITY = 60.8 %	AT 46.0 ORD
	IO = 0.050		
	PS = 28.2		

	PROFILE	DOBSON
INTEGRATED OZONE	0.20621	
RESIDUAL OZONE	0.03543	
TOTAL OZONE	0.24365	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	13.0	0.	25.2	0.02	1004.6	3.0020	298.0	297.6	301.47	98.1	297.7	0.0192	1.0	0.	-1.0	0.0
0.2	93	14.0	0.00006	27.1	0.02	1000.0	3.0000	297.8	297.8	301.30	97.3	297.4	0.0188	1.2	335.4	-1.1	0.5
1.0	280	18.6	0.00032	36.1	0.03	979.0	2.9908	297.3	299.1	300.52	93.3	296.1	0.0179	3.4	301.0	-1.8	2.9
2.0	507	19.7	0.00071	38.5	0.03	954.0	2.9795	295.9	299.9	298.95	94.1	294.9	0.0171	3.7	303.6	-2.0	3.1
3.0	804	18.6	0.00123	36.7	0.03	922.0	2.9647	293.6	300.5	296.38	94.4	292.7	0.0154	2.8	331.9	-2.5	1.3
3.8	1012	19.2	0.00159	37.8	0.04	900.0	2.9542	293.1	302.1	295.35	77.1	288.9	0.0118	2.5	23.2	-2.3	-1.0
4.0	1080	19.4	0.00171	38.2	0.04	893.0	2.9509	292.9	302.6	295.02	71.5	287.7	0.0116	2.8	37.6	-2.2	-1.7
5.0	1295	16.4	0.00206	32.5	0.03	871.0	2.9400	291.9	303.6	293.92	74.3	287.2	0.0115	3.1	83.2	-0.4	-3.1
6.0	1384	19.0	0.00221	37.6	0.04	862.0	2.9355	291.4	304.1	293.60	79.7	287.9	0.0121	3.6	97.6	0.5	-3.6
7.0	1494	16.6	0.00239	33.1	0.03	851.0	2.9299	290.0	303.6	291.73	71.1	284.7	0.0100	4.8	96.3	0.5	-4.8
7.0	1504	16.6	0.00240	33.1	0.03	850.0	2.9294	289.9	303.7	291.71	71.5	284.8	0.0101	4.8	96.4	0.5	-4.8
8.0	1779	17.0	0.00283	33.9	0.03	823.0	2.9154	289.1	305.7	291.15	82.5	286.1	0.0114	5.0	99.4	0.8	-5.0
8.9	2019	17.0	0.00321	34.1	0.04	800.0	2.9031	288.4	307.4	290.39	84.0	285.7	0.0114	4.7	111.0	1.7	-4.4
9.0	2041	17.0	0.00324	34.1	0.04	798.0	2.9020	288.3	307.5	290.33	84.2	285.7	0.0114	4.7	112.1	1.8	-4.3
10.0	2300	17.2	0.00366	34.5	0.04	774.0	2.8887	287.3	309.1	289.29	85.9	285.0	0.0112	4.9	132.1	3.3	-3.6
11.0	2554	19.8	0.00410	40.1	0.04	751.0	2.8756	284.8	309.1	286.31	77.0	280.9	0.0088	5.8	127.3	3.5	-4.6
12.0	2826	17.8	0.00458	36.1	0.04	727.0	2.8615	284.4	311.5	285.62	61.3	277.2	0.0070	7.3	109.6	2.5	-6.9
13.0	3129	17.9	0.00509	36.6	0.04	701.0	2.8457	282.9	313.1	284.03	60.8	275.7	0.0065	8.7	107.4	2.6	-8.3
13.0	3140	17.9	0.00511	36.5	0.04	700.0	2.8451	282.8	313.2	283.96	60.8	275.6	0.0065	8.8	107.5	2.7	-8.4
14.0	3417	17.2	0.00557	35.2	0.04	677.0	2.8306	281.3	314.4	282.30	61.2	274.2	0.0061	10.4	110.8	3.7	-9.7
15.0	3689	15.3	0.00600	31.6	0.04	655.0	2.8162	279.8	315.8	280.78	60.2	272.7	0.0056	12.3	113.3	4.8	-11.3
16.0	3994	13.4	0.00642	27.8	0.04	631.0	2.8000	277.7	316.8	278.58	60.3	270.7	0.0050	12.4	117.1	5.7	-11.1
17.0	4269	14.6	0.00679	30.6	0.04	610.0	2.7853	276.2	318.1	276.95	58.0	268.7	0.0045	9.3	119.3	4.6	-8.1
17.4	4402	14.4	0.00698	30.3	0.04	600.0	2.7782	275.4	318.7	276.12	56.6	267.7	0.0041	8.0	120.3	4.0	-6.9
18.0	4607	14.2	0.00727	29.8	0.04	585.0	2.7672	274.2	319.6	274.84	54.6	266.1	0.0038	5.9	122.6	3.2	-5.0
19.0	4942	10.8	0.00768	23.0	0.03	561.0	2.7490	272.1	321.0	272.70	57.6	264.8	0.0036	4.6	136.7	3.3	-3.2
20.0	5230	16.0	0.00807	34.2	0.05	541.0	2.7332	269.9	321.7	270.37	51.6	261.4	0.0028	6.8	137.4	5.0	-4.6
21.0	5588	18.7	0.00869	40.0	0.06	517.0	2.7135	269.4	325.3	269.77	37.0	256.9	0.0021	9.2	137.0	6.7	-6.2
21.8	5850	17.2	0.00915	37.2	0.06	500.0	2.6990	267.4	326.0	267.82	46.7	257.8	0.0024	9.0	135.1	6.4	-6.4
22.0	5929	16.8	0.00930	36.3	0.06	495.0	2.6946	266.8	326.2	267.23	49.6	258.0	0.0024	9.0	134.5	6.3	-6.4
23.0	6250	11.9	0.00976	25.9	0.04	475.0	2.6767	264.8	327.5	265.11	50.9	256.4	0.0022	9.5	137.2	6.9	-6.4
24.0	6633	11.3	0.01022	24.8	0.04	452.0	2.6551	262.6	329.5	262.83	41.7	252.1	0.0016	8.6	159.4	8.0	-3.0
25.0	6979	15.8	0.01070	35.1	0.06	432.0	2.6355	259.7	330.1	259.79				7.6	180.9	7.6	0.1
26.0	7301	15.7	0.01123	35.2	0.06	414.0	2.6170	257.0	330.6	257.11	35.4	245.2	0.0009	7.1	183.7	7.1	0.5
26.8	7558	11.2	0.01157	25.2	0.05	400.0	2.6021	255.1	331.4	255.25	53.5	247.7	0.0013	6.8	172.7	6.7	-0.9
27.0	7634	9.8	0.01167	22.3	0.04	396.0	2.5977	254.5	331.6	254.71	58.7	248.5	0.0013	6.8	169.4	6.6	-1.2
28.0	7960	12.5	0.01206	28.5	0.05	379.0	2.5786	252.8	333.5	252.93	56.9	246.5	0.0011	6.8	142.3	5.4	-4.1
29.0	8339	13.4	0.01259	31.0	0.06	360.0	2.5563	250.6	335.6	250.71	34.3	239.2	0.0006	7.1	126.7	4.3	-5.7
29.6	8544	13.1	0.01288	30.3	0.06	350.0	2.5441	249.5	336.8	249.62	33.3	237.9	0.0005	6.3	127.3	3.8	-5.0
30.0	8692	12.8	0.01309	29.8	0.06	343.0	2.5353	248.8	337.7	248.84	32.6	237.0	0.0005	5.8	127.8	3.6	-4.6
31.0	9038	12.1	0.01356	28.4	0.06	327.0	2.5145	246.1	338.7	246.19	34.3	235.2	0.0004	2.7	130.8	1.7	-2.0
32.0	9329	17.9	0.01404	42.2	0.09	314.0	2.4969	244.2	339.9	244.20	23.7	229.9	0.0003	2.1	102.7	0.5	-2.0
32.9	9652	12.3	0.01457	29.5	0.07	300.0	2.4771	241.4	340.4	241.38				3.2	109.1	1.1	-3.0
33.0	9676	11.9	0.01461	28.6	0.07	299.0	2.4757	241.1	340.5	241.17				3.3	109.4	1.1	-3.1
34.0	9988	12.5	0.01504	30.3	0.07	286.0	2.4564	239.2	342.0	239.19				4.9	99.4	0.8	-4.9
35.0	10312	12.7	0.01550	30.9	0.08	273.0	2.4362	236.7	342.9	236.67				7.0	79.3	-1.3	-6.9
36.0	10648	11.9	0.01598	29.5	0.08	260.0	2.4150	233.6	343.2	233.60	21.4	219.9	0.0001	7.6	73.7	-2.1	-7.3
36.8	10914	11.0	0.01633	27.4	0.07	250.0	2.3979	231.4	343.9	231.40				7.5	74.1	-2.0	-7.2
37.0	10996	10.7	0.01643	26.7	0.07	247.0	2.3927	230.7	344.0	230.73				7.4	74.3	-2.0	-7.1
38.0	11274	11.3	0.01679	28.6	0.08	237.0	2.3747	228.6	345.0	228.65				6.4	77.9	-1.3	-6.2
39.0	11619	10.7	0.01725	27.3	0.08	225.0	2.3522	226.0	346.0	225.96				4.3	99.1	0.7	-4.2
40.0	11979	10.0	0.01769	26.0	0.08	213.0	2.3284	223.0	347.0	223.04				3.6	83.6	-0.4	-3.6
41.0	12323	10.6	0.01813	27.8	0.09	202.0	2.3054	220.3	348.0	220.32				2.3	42.0	-1.7	-1.6
41.2	12386	10.4	0.01820	27.2	0.09	200.0	2.3010	219.7	348.0	219.74				2.1	26.1	-1.9	-0.9
42.0	12648	9.3	0.01852	24.7	0.08	192.0	2.2833	217.3	348.3	217.33				3.0	325.6	-2.5	1.7
43.0	13021	10.7	0.01899	28.8	0.10	181.0	2.2577	215.2	350.7	215.20				4.8	330.0	-4.1	2.4
44.0	13376	9.5	0.01944	25.9	0.09	171.0	2.2330	211.9	351.0	211.92				6.6	312.8	-4.5	4.9
45.0	13747	10.9	0.01993	30.1	0.11	161.0	2.2068	208.6	351.5	208.61				8.1	307.6	-5.0	6.4
46.0	14096	9.6	0.02039	26.7	0.10	152.0	2.1818	206.9	354.3	206.85				6.2	310.1	-4.0	4.8
46.2	14175	9.4	0.02049	26.4	0.10	150.0	2.1761	206.2	354.6	206.20				5.5	306.1	-3.3	4.5
47.0	14421	8.9	0.02079	25.3	0.10	144.0	2.1584	204.2	355.2	204.19				3.7	284.2	-0.9	3.6
48.0	14804	10.8	0.02129	30.8	0.13	135.0	2.1303	201.8	357.6	201.78				4.4	235.3	2.5	3.6
49.0	15116	13.2	0.02179	38.3	0.17	128.0	2.1072	199.4	358.8	199.45				4.5	231.9	2.8	3.5
49.4	15253	11.6	0.02200	33.7	0.15	125.0	2.0969	198.4	359.4	198.39				2.6	242.6	1.2	2.3
50.0	15442	9.4	0.02229	27.4	0.13	121.0	2.0828	196.9	360.1	196.95				1.1	328.3	-1.0	0.6
51.0	15734	11.8	0.02272	34.7	0.17	115.0	2.0607	195.6	362.9	195.63				4.0	67.1	-1.5	-3.6
52.0	16205	13.7	0.02354	39.8	0.21	106.0	2.0253	199.4	378.7	199.45				5.0	105.3	1.3	-4.9
52.9	16545	15.9	0.02423	46.2	0.26	100.0	2.0000	199.4	385.1	199.45				3.9	86.5	-0.2	-3.9
53.0	16604	16.3	0.02435	47.3	0.27	99.0	1.9956	199.4	386.2	199.45				3.8	82.2	-0.5	-3.7
54.0	17033	25.3	0.02555	72.7	0.46	92.0	1.9638	200.6	396.7	200.63				4.7	63.7	-2.1	-4.2
55.0	17359	24.1	0.02664	70.2	0.46	87.0	1.9395	198.0	397.7	197.97				5.8	90.5	0.0	-5.8
56.0	17705	30.0	0.02790	85.8	0.61	82.0	1.9138	201.8	412.3	201.78				8.5	100.3	1.5	-8.4
56.3	17851	31.0	0.02852	88.4	0.64	80.0	1.9031	202.8	417.3	202.77				8.7	97.6	1.2	-8.6

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
57.0	18157	33.2	0.02980	93.7	0.72	76.0	1.8808	204.8	427.7	204.82				9.2	92.5	0.4	-9.2
58.0	18565	34.3	0.03161	96.8	0.80	71.0	1.8513	204.8	436.1	204.82				12.5	90.5	0.1	-12.5
58.2	18649	35.0	0.03202	98.8	0.83	70.0	1.8451	204.4	437.0	204.40				13.0	92.2	0.5	-13.0
59.0	19091	38.2	0.03414	109.2	0.97	65.0	1.8129	202.2	441.6	202.23				16.0	98.8	2.4	-15.8
60.0	19470	43.2	0.03618	121.3	1.17	61.0	1.7853	205.4	456.8	205.44				13.6	98.8	2.1	-13.4
60.3	19569	45.9	0.03680	128.6	1.27	60.0	1.7782	205.8	459.7	205.77				13.5	95.8	1.4	-13.5
61.0	19774	51.3	0.03806	143.6	1.47	58.0	1.7634	206.5	465.7	206.45				13.6	89.8	-0.1	-13.6
62.0	20206	60.4	0.04121	168.7	1.85	54.0	1.7324	206.9	476.3	206.85				17.8	86.0	-1.2	-17.8
63.0	20553	64.9	0.04404	180.2	2.11	51.0	1.7076	207.8	486.4	207.84				22.7	92.6	1.0	-22.7
63.3	20673	66.4	0.04509	184.2	2.20	50.0	1.6990	208.0	489.5	207.96				23.7	93.2	1.3	-23.7
64.0	20922	69.4	0.04725	192.5	2.40	48.0	1.6812	208.2	495.8	208.22				25.9	94.3	1.9	-25.8
65.0	21455	79.5	0.05236	218.0	2.99	44.0	1.6435	210.5	513.8	210.48				26.7	87.6	-1.1	-26.6
66.0	21891	86.6	0.05699	236.2	3.50	41.0	1.6128	211.7	527.4	211.74				27.2	89.6	-0.2	-27.2
66.5	22044	89.8	0.05874	244.1	3.73	40.0	1.6021	212.4	532.9	212.44				29.0	91.1	0.5	-29.0
67.0	22202	93.1	0.06053	252.2	3.96	39.0	1.5911	213.2	538.6	213.15				30.9	92.4	1.3	-30.9
68.0	22704	102.5	0.06671	274.2	4.72	36.0	1.5563	215.7	557.6	215.70				34.5	90.0	-0.0	-34.5
68.5	22882	106.4	0.06908	283.8	5.04	35.0	1.5441	216.4	564.0	216.42				33.5	87.7	-1.3	-33.5
69.0	23066	110.4	0.07151	293.5	5.38	34.0	1.5315	217.2	570.7	217.17				32.6	85.2	-2.7	-32.5
70.0	23256	113.1	0.07414	300.2	5.68	33.0	1.5185	217.5	576.4	217.49				34.9	84.0	-3.6	-34.7
71.0	23867	114.6	0.08270	300.3	6.33	30.0	1.4771	220.3	600.0	220.32				39.3	87.3	-1.9	-39.3
72.0	24315	132.7	0.08944	342.9	7.86	28.0	1.4472	223.5	620.8	223.49				34.3	92.4	1.4	-34.3
73.0	24553	136.6	0.09336	351.8	8.38	27.0	1.4314	224.1	628.9	224.08				29.7	99.8	5.0	-29.3
74.0	25059	138.1	0.10164	353.3	9.15	25.0	1.3979	225.7	647.5	225.67				30.3	102.0	6.3	-29.6
75.0	25611	142.2	0.11086	361.5	10.24	23.0	1.3617	227.1	667.3	227.10				25.9	105.6	7.0	-25.0
76.0	25906	145.7	0.11591	369.9	10.97	22.0	1.3424	227.4	676.6	227.38				22.8	107.2	6.8	-21.8
77.0	26542	142.7	0.12675	360.5	11.82	20.0	1.3010	228.5	698.8	228.51				16.3	115.9	7.1	-14.6
78.0	26885	141.2	0.13250	355.7	12.31	19.0	1.2788	229.2	711.2	229.21				7.8	144.1	6.3	-4.6
79.0	27321	131.9	0.13953	334.3	12.28	17.8	1.2504	227.8	720.2	227.81				6.0	123.6	3.3	-5.0
79.2	27434	130.5	0.14125	330.4	12.35	17.5	1.2430	228.0	724.4	228.03				6.4	121.0	3.3	-5.5
80.0	27828	125.6	0.14723	316.8	12.61	16.5	1.2175	228.8	739.1	228.79				7.7	113.7	3.1	-7.0
81.0	28292	120.2	0.15392	300.7	12.94	15.4	1.1875	230.9	760.7	230.87				5.0	121.9	2.6	-4.2
81.4	28469	116.8	0.15633	292.3	12.90	15.0	1.1761	230.7	765.9	230.70				4.6	101.7	0.9	-4.5
82.0	28745	111.5	0.16006	279.4	12.83	14.4	1.1584	230.5	774.0	230.45				5.1	70.2	-1.7	-4.8
83.0	29383	105.5	0.16816	264.6	13.34	13.1	1.1173	230.2	794.3	230.18				6.0	87.7	-0.2	-6.0
83.9	29698	98.0	0.17190	245.6	12.98	12.5	1.0969	230.3	805.4	230.29				4.2	137.3	3.1	-2.8
84.0	29753	96.7	0.17254	242.3	12.92	12.4	1.0934	230.3	807.3	230.32				4.3	147.9	3.6	-2.3
85.0	30144	89.9	0.17682	225.3	12.73	11.7	1.0682	230.3	820.9	230.32				1.3	205.5	1.2	0.6
86.0	30559	83.0	0.18103	208.9	12.50	11.0	1.0414	229.3	831.9	229.35				3.3	76.8	-0.7	-3.2
87.0	31198	79.4	0.18713	200.6	13.16	10.0	1.0000	228.5	851.8	228.51				5.8	93.6	0.4	-5.8
88.0	31685	72.9	0.19149	182.9	12.99	9.3	0.9685	230.2	876.0	230.18				4.2	166.5	4.1	-1.0
89.0	32212	67.5	0.19583	169.3	13.01	8.6	0.9345	230.2	895.8	230.18				2.8	144.9	2.3	-1.6
90.0	32698	60.7	0.19949	152.8	12.58	8.0	0.9031	229.5	911.7	229.49				8.2	53.8	-4.8	-6.6
91.0	33313	58.3	0.20379	146.6	13.24	7.3	0.8633	229.8	937.0	229.76				15.9	60.7	-7.8	-13.8
91.4	33595	56.1	0.20563	140.8	13.26	7.0	0.8451	230.0	949.4	229.99				999.9	999.9	999.9	999.9
92.0	33992	52.9	0.20821	132.7	13.29	6.6	0.8195	230.3	966.7	230.32				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



072177
1623
3A-093
P
T
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
40 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72277   LAUNCH TIME 0433 GMT   ECC SONDE 3A-094X

```
SURFACE CONDITIONS          003 = 36.2          TBOX CAL =  30.0 C  AT  73.7 ORD
  PRESS  1004.2 MB          01Z = 35.0          BASE CAL =  30.0 C  AT  73.1 ORD
  TEMP    300.2 K           OZC = 66.4          HUMIDITY =  61.6 %  AT  46.0 ORD
  HUMY     89.0 %            IO = 0.194
                             PS = 27.4

        *****************************************************
        ****                                             ****
        ****                      PROFILE   DOBSON       ****
        ****    INTEGRATED OZONE  0.21241                ****
        ****    RESIDUAL OZONE    0.03083                ****
        ****    TOTAL OZONE       0.24324   0.           ****
        ****                                             ****
        *****************************************************
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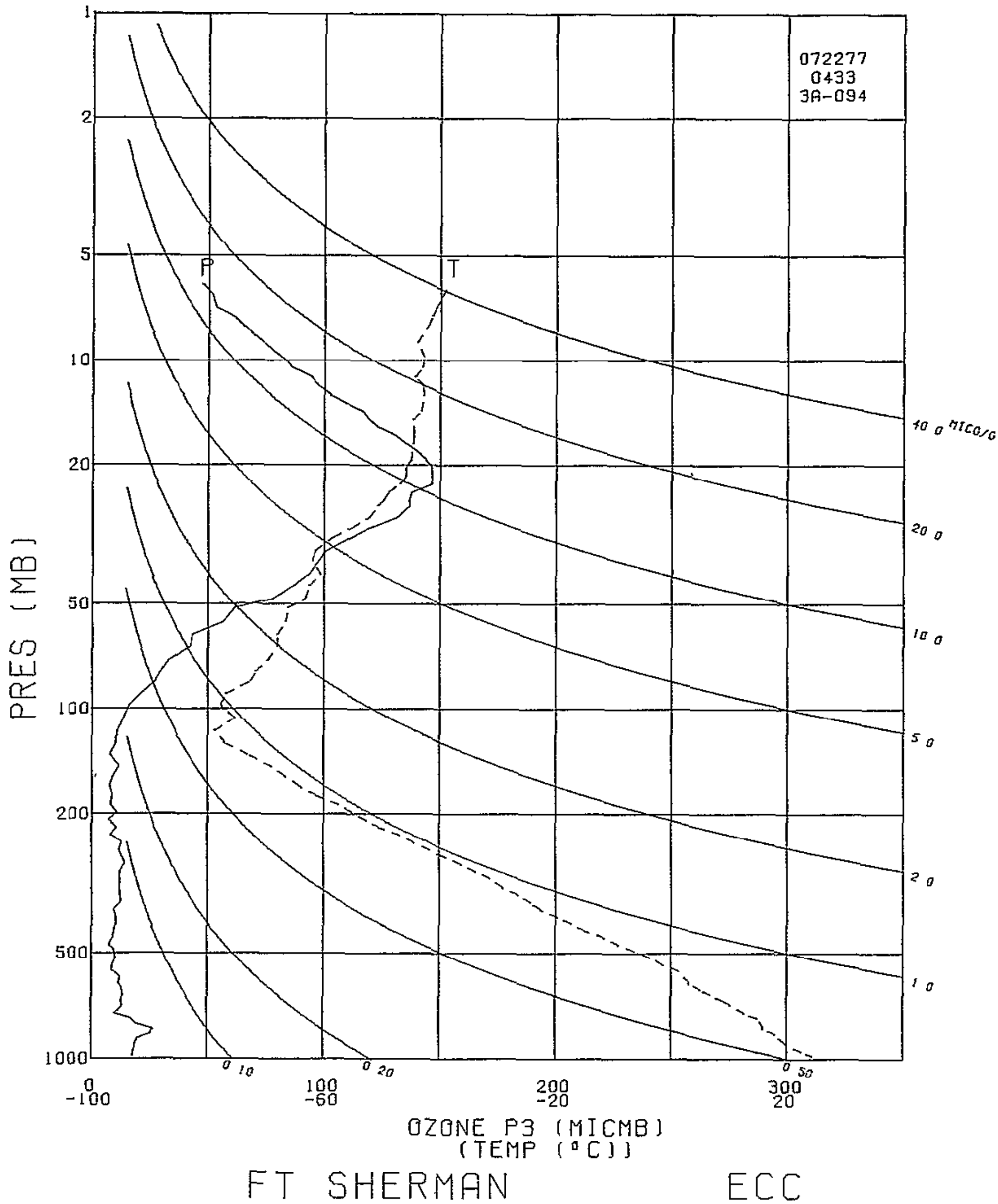
TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	17.9	0.	34.6	0.03	1004.2	3.0018	299.0	298.7	302.26	84.9	296.3	0.0177	3.0	360.0	-3.0	-0.0
0.2	89	17.9	0.00006	34.6	0.03	1000.0	3.0000	298.8	298.8	302.08	87.0	296.5	0.0182	3.4	0.5	-3.4	-0.0
1.0	286	17.6	0.00037	34.1	0.03	978.0	2.9903	297.6	299.5	301.13	98.0	297.3	0.0193	5.7	2.0	-5.6	-0.2
2.0	541	17.6	0.00077	34.5	0.03	950.0	2.9777	295.6	299.9	298.58	93.4	294.4	0.0167	6.1	356.8	-6.1	0.3
3.0	792	18.3	0.00118	35.9	0.03	923.0	2.9652	294.5	301.3	297.37	94.1	293.5	0.0162	5.3	340.0	-4.9	1.8
4.0	991	18.6	0.00152	36.6	0.03	902.0	2.9552	292.7	301.5	295.16	86.5	290.4	0.0137	5.2	334.3	-4.7	2.3
4.1	1010	18.6	0.00155	36.8	0.03	900.0	2.9542	292.7	301.6	295.09	85.8	290.2	0.0134	5.1	335.3	-4.7	2.2
5.0	1302	19.9	0.00207	39.4	0.04	870.0	2.9395	291.9	303.7	293.97	75.7	287.5	0.0117	4.6	352.4	-4.6	0.6
5.8	1501	24.0	0.00248	47.5	0.05	850.0	2.9294	291.2	305.0	293.37	79.8	287.7	0.0122	4.4	12.8	-4.3	-1.0
6.0	1552	25.0	0.00258	49.6	0.05	845.0	2.9269	291.0	305.4	293.22	80.8	287.7	0.0122	4.4	18.1	-4.2	-1.4
7.0	1819	26.1	0.00321	52.1	0.05	819.0	2.9133	289.0	306.0	291.15	89.0	287.2	0.0122	6.0	53.3	-3.6	-4.8
7.7	2018	20.9	0.00363	41.7	0.04	800.0	2.9031	289.1	308.2	291.05	76.5	284.9	0.0104	8.6	70.5	-2.9	-8.1
8.0	2104	18.7	0.00380	37.3	0.04	792.0	2.8987	289.2	309.1	291.00	71.2	284.0	0.0102	9.8	75.0	-2.5	-9.5
9.0	2387	17.0	0.00427	34.0	0.04	766.0	2.8842	288.0	310.8	289.52	62.9	281.0	0.0086	11.2	80.6	-1.8	-11.0
10.0	2667	9.6	0.00462	19.5	0.02	741.0	2.8698	285.9	311.4	287.21	62.7	278.9	0.0077	11.8	86.7	-0.7	-11.8
11.0	2990	12.6	0.00496	25.5	0.03	713.0	2.8531	285.1	314.0	286.34	58.2	277.1	0.0071	12.2	85.6	-0.9	-12.1
11.4	3143	12.6	0.00514	25.7	0.03	700.0	2.8451	283.9	314.3	285.05	59.5	276.3	0.0067	12.2	84.5	-1.2	-12.1
12.0	3336	12.7	0.00537	26.0	0.03	684.0	2.8351	282.3	314.7	283.44	61.1	275.2	0.0065	12.2	83.0	-1.5	-12.1
13.0	3681	13.3	0.00580	27.4	0.03	656.0	2.8169	279.8	315.7	280.82	62.1	273.1	0.0058	12.0	88.5	-0.3	-12.0
14.0	3973	12.9	0.00617	26.8	0.03	633.0	2.8014	278.1	316.9	279.00	62.1	271.4	0.0053	11.2	89.2	-0.2	-11.2
15.0	4301	11.1	0.00655	23.2	0.03	608.0	2.7839	276.2	318.4	277.06	61.6	269.6	0.0048	10.7	83.7	-1.2	-10.6
15.3	4408	11.4	0.00667	23.8	0.03	600.0	2.7782	276.0	319.4	276.80	58.6	268.7	0.0044	10.8	83.7	-1.2	-10.8
16.0	4627	12.0	0.00692	25.0	0.03	584.0	2.7664	275.6	321.4	276.27	52.6	266.9	0.0041	11.1	83.5	-1.3	-11.1
17.0	4980	8.4	0.00727	17.6	0.02	559.0	2.7474	274.3	323.9	274.95	54.6	266.1	0.0040	11.6	87.4	-0.5	-11.6
18.0	5316	8.9	0.00756	18.9	0.03	536.0	2.7292	271.4	324.3	271.96	54.2	263.4	0.0034	11.2	88.3	-0.3	-11.2
19.0	5679	10.1	0.00790	21.7	0.03	512.0	2.7093	269.4	326.2	269.89	54.3	261.5	0.0030	9.8	89.3	-0.1	-9.8
19.6	5865	9.8	0.00808	21.2	0.03	500.0	2.6990	267.8	326.5	268.30	53.6	259.9	0.0026	8.4	93.3	0.5	-8.3
20.0	6008	9.6	0.00823	20.7	0.03	491.0	2.6911	266.7	326.8	267.08	53.1	258.7	0.0025	7.3	97.3	0.9	-7.2
21.0	6331	7.3	0.00850	15.9	0.03	471.0	2.6730	264.0	327.4	264.33	47.2	254.9	0.0019	6.9	96.6	0.8	-6.8
22.0	6716	9.1	0.00883	20.1	0.03	448.0	2.6513	261.7	329.2	262.02	52.8	254.0	0.0019	6.0	93.6	0.4	-6.0
23.0	7028	9.6	0.00913	21.5	0.04	430.0	2.6335	258.4	328.8	258.62	60.1	252.4	0.0017	3.7	94.1	0.3	-3.7
24.0	7405	10.2	0.00952	23.1	0.04	409.0	2.6117	255.9	330.3	256.10	59.9	250.0	0.0014	4.0	112.8	1.6	-3.7
24.5	7570	10.2	0.00970	23.2	0.04	400.0	2.6021	254.6	330.8	254.80	59.7	248.7	0.0013	5.2	119.5	2.6	-4.5
25.0	7721	10.2	0.00986	23.3	0.04	392.0	2.5933	253.4	331.2	253.62	59.6	247.6	0.0012	6.3	123.3	3.5	-5.2
26.0	8087	9.1	0.01024	21.0	0.04	373.0	2.5717	250.3	331.8	250.49	59.2	244.6	0.0010	7.0	133.1	4.8	-5.1
27.0	8428	12.3	0.01064	28.5	0.06	356.0	2.5515	248.8	334.1	248.87	52.6	241.9	0.0008	7.4	143.7	6.0	-4.4
27.3	8551	12.2	0.01080	28.4	0.06	350.0	2.5441	248.0	334.8	248.14	43.1	238.7	0.0005	6.8	144.7	5.6	-3.9
28.0	8800	12.1	0.01113	28.2	0.06	338.2	2.5292	246.6	336.2	246.68	24.0	232.2	0.0003	5.5	147.4	4.6	-3.0
29.0	9130	11.9	0.01156	28.1	0.06	323.0	2.5092	243.9	336.8	243.90	28.2	231.3	0.0003	3.5	148.3	3.0	-1.8
30.0	9561	12.0	0.01213	28.7	0.07	304.0	2.4829	241.7	339.7	241.77	27.5	229.2	0.0002	3.2	170.2	3.2	-0.5
30.3	9654	12.0	0.01226	28.8	0.07	300.0	2.4771	241.0	340.0	241.04	26.2	228.1	0.0002	3.6	164.7	3.4	-0.9
31.0	9868	12.0	0.01255	29.0	0.07	291.0	2.4639	239.3	340.6	239.37	23.3	225.6	0.0002	4.5	155.5	4.1	-1.9
32.0	10211	13.9	0.01305	33.9	0.08	277.0	2.4425	236.8	341.7	236.81				6.3	124.9	3.6	-5.1
33.0	10542	12.8	0.01356	31.6	0.08	264.0	2.4216	234.0	342.3	233.97				5.1	121.3	2.6	-4.3
34.0	10858	11.6	0.01401	29.0	0.08	252.0	2.4014	231.2	342.8	231.20				2.8	135.3	2.0	-1.9
34.2	10911	11.8	0.01409	29.6	0.08	250.0	2.3979	230.7	342.9	230.75				2.2	139.8	1.7	-1.4
35.0	11158	12.8	0.01444	32.3	0.09	241.0	2.3820	228.7	343.4	228.66				1.1	259.4	0.2	1.1
36.0	11509	7.9	0.01487	20.2	0.06	228.6	2.3591	226.2	344.9	226.21				4.4	294.9	-1.9	4.0
37.0	11827	10.4	0.01522	27.1	0.08	217.8	2.3381	222.8	344.4	222.79				7.2	315.4	-5.1	5.1
38.0	12153	6.7	0.01556	17.6	0.05	207.1	2.3162	220.3	345.5	220.31				9.2	321.1	-7.2	5.8
38.7	12376	9.1	0.01579	24.1	0.08	200.0	2.3010	218.6	346.3	218.63				9.5	316.8	-6.9	6.5
39.0	12473	10.2	0.01589	27.0	0.09	197.0	2.2945	217.9	346.6	217.90				9.6	315.1	-6.8	6.8
40.0	12803	7.9	0.01627	21.1	0.07	187.0	2.2718	215.6	348.0	215.56				10.0	314.1	-7.0	7.2
41.0	13182	8.5	0.01666	23.1	0.08	176.0	2.2455	211.7	347.7	211.66				11.4	318.6	-8.6	7.5
42.0	13542	7.2	0.01702	20.0	0.07	166.0	2.2201	208.8	348.8	208.82				11.5	327.8	-9.8	6.1
43.0	13958	9.0	0.01746	25.2	0.10	155.0	2.1903	206.2	351.2	206.19				7.2	326.6	-6.0	4.0
43.5	14154	10.3	0.01772	29.0	0.11	150.0	2.1761	205.0	352.5	205.02				4.8	311.4	-3.2	3.6
44.0	14317	11.3	0.01794	32.1	0.13	146.0	2.1644	204.1	353.6	204.06				3.4	283.7	-0.8	3.3
45.0	14780	7.6	0.01852	21.9	0.09	135.0	2.1303	199.9	354.2	199.88				5.5	250.7	1.8	5.2
46.0	15226	10.3	0.01906	30.3	0.14	125.0	2.0969	196.0	355.0	195.97				5.7	251.6	1.8	5.4
47.0	15702	10.6	0.01975	31.6	0.15	115.0	2.0607	194.3	360.4	194.26				1.1	268.1	0.0	1.1
48.0	16169	13.3	0.02052	38.8	0.21	106.0	2.0253	197.6	375.2	197.59				1.5	47.7	-1.0	-1.1
48.7	16503	15.0	0.02119	44.3	0.25	100.0	2.0000	196.0	378.4	195.97				3.5	71.9	-1.1	-3.3
49.0	16679	15.9	0.02154	47.1	0.27	97.0	1.9868	195.1	380.0	195.13				4.6	75.9	-1.1	-4.5
50.0	17108	20.7	0.02263	60.9	0.38	90.0	1.9542	196.2	390.5	196.24				10.3	80.2	-1.7	-10.1
51.0	17578	26.9	0.02415	77.5	0.54	83.0	1.9191	200.4	408.0	200.37				12.8	88.0	-0.5	-12.8
51.6	17794	28.1	0.02496	80.8	0.58	80.0	1.9031	200.9	413.5	200.93				13.0	90.7	0.2	-13.0
52.0	17943	29.0	0.02552	83.1	0.62	78.0	1.8921	201.3	417.3	201.32				13.2	92.6	0.6	-13.2
53.0	18417	33.2	0.02748	94.1	0.76	72.0	1.8573	203.4	431.3	203.39				12.8	90.2	0.0	-12.8
53.3	18585	36.0	0.02831	102.0	0.86	70.0	1.8451	203.9	435.9	203.89				13.0	88.2	-0.4	-13.0
54.0	18937	42.0	0.03006	118.4	1.06	66.0	1.8195	204.9	445.5	204.93				13.4	84.2	-1.3	-13.3
55.0	19409	43.0	0.03270	121.1	1.17	61.0	1.7853	204.9	455.7	204.93				14.9	81.0	-2.3	-14.7
55.2	19508	45.6	0.03335	128.3	1.27	60.0	1.7782	205.2	458.5	205.21				15.1	83.1	-1.8	-15.0

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRLSS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
56.0	19924	56.5	0.03606	158.0	1.67	56.0	1.7482	206.4	470.3	206.40				16.4	91.2	0.3	-16.4
57.0	20489	61.4	0.04041	171.4	1.99	51.0	1.7076	206.8	484.0	206.81				19.7	91.7	0.6	-19.6
57.3	20609	66.6	0.04149	185.0	2.22	50.0	1.6990	207.8	489.1	207.78				21.3	89.0	-0.4	-21.3
58.0	20858	77.5	0.04373	213.2	2.67	48.0	1.6812	209.8	499.5	209.79				25.0	84.7	-2.3	-24.9
59.0	21393	86.5	0.04936	237.1	3.26	44.0	1.6435	210.5	514.0	210.55				28.3	83.1	-3.4	-28.1
60.0	21830	92.8	0.05435	252.2	3.75	41.0	1.6128	212.4	529.0	212.39				32.5	83.4	-3.8	-32.2
60.2	21982	94.0	0.05621	256.0	3.90	40.0	1.6021	212.0	531.9	212.04				33.0	84.7	-3.1	-32.9
61.0	22466	97.8	0.06207	267.8	4.38	37.0	1.5682	210.9	541.0	210.92				35.0	88.6	-0.9	-35.0
62.0	22809	100.4	0.06642	274.2	4.75	35.0	1.5441	211.5	551.1	211.48				37.8	94.7	3.1	-37.7
63.0	23368	111.6	0.07391	300.1	5.78	32.0	1.5051	214.7	574.0	214.70				39.1	93.1	2.1	-39.0
64.0	23776	119.3	0.07979	316.2	6.59	30.0	1.4771	217.9	593.4	217.90				37.1	93.5	2.3	-37.0
65.0	24219	131.2	0.08661	342.9	7.77	28.0	1.4472	220.9	613.7	220.94				35.1	94.3	2.6	-35.0
66.0	24700	136.5	0.09444	354.6	8.70	26.0	1.4150	222.3	630.8	222.33				30.2	91.4	0.7	-30.2
67.0	24956	136.5	0.09867	352.7	9.04	25.0	1.3979	223.4	640.9	223.39				29.3	90.7	0.3	-29.3
68.0	25306	137.7	0.10444	354.4	9.62	23.7	1.3747	224.3	653.4	224.29				23.7	90.3	0.1	-23.7
69.0	25648	146.3	0.11026	373.3	10.77	22.5	1.3522	226.2	668.8	226.21				17.7	86.0	-1.2	-17.6
70.0	25980	146.1	0.11604	371.4	11.31	21.4	1.3304	227.1	681.1	227.09				18.8	75.6	-4.7	-18.2
71.0	26363	145.8	0.12269	370.8	11.96	20.2	1.3054	227.1	692.4	227.09				16.5	68.0	-6.2	-15.3
71.2	26429	145.3	0.12383	369.3	12.04	20.0	1.3010	227.3	694.9	227.26				16.4	68.5	-6.0	-15.2
72.0	26701	143.3	0.12848	363.0	12.37	19.2	1.2833	227.9	705.2	227.95				15.7	70.6	-5.2	-14.8
73.0	27058	139.8	0.13446	354.2	12.72	18.2	1.2601	227.8	715.6	227.81				15.8	72.4	-4.8	-15.0
73.7	27319	136.0	0.13870	344.2	12.88	17.5	1.2430	228.2	725.0	228.20				14.0	79.5	-2.6	-13.8
74.0	27435	134.4	0.14057	339.7	12.95	17.2	1.2355	228.4	729.1	228.38				13.3	83.2	-1.6	-13.2
75.0	27835	129.1	0.14680	326.2	13.20	16.2	1.2095	228.5	742.2	228.52				10.2	100.9	1.9	-10.0
76.0	28130	123.0	0.15119	310.8	13.15	15.5	1.1903	228.5	751.6	228.52				6.5	112.0	2.4	-6.1
76.6	28349	120.4	0.15432	304.3	13.30	15.0	1.1761	228.4	758.4	228.43				6.7	97.1	0.8	-6.7
77.0	28484	118.8	0.15624	300.3	13.39	14.7	1.1673	228.4	762.6	228.38				7.0	88.7	-0.2	-7.0
78.0	28859	115.9	0.16142	291.1	13.81	13.9	1.1430	229.8	779.7	229.80				7.1	83.7	-0.8	-7.0
79.0	29156	109.6	0.16535	275.1	13.65	13.3	1.1239	229.9	790.0	229.94				4.0	112.2	1.5	-3.7
80.0	29520	102.5	0.16987	256.9	13.47	12.6	1.1004	230.2	803.3	230.22				3.6	105.0	0.9	-3.4
80.1	29573	101.8	0.17050	255.3	13.49	12.5	1.0969	230.2	805.1	230.19				4.0	104.0	1.0	-3.9
81.0	29962	97.0	0.17503	243.4	13.61	11.8	1.0719	229.9	817.5	229.94				7.0	100.2	1.2	-6.9
82.0	30372	93.9	0.17964	237.1	14.02	11.1	1.0453	228.7	827.3	228.66				7.8	108.8	2.5	-7.4
83.0	30809	85.3	0.18424	214.3	13.59	10.4	1.0170	229.9	847.6	229.94				3.4	107.2	1.0	-3.2
83.6	31072	82.9	0.18682	208.1	13.74	10.0	1.0000	230.1	857.8	230.10				1.5	92.2	0.1	-1.5
84.0	31278	81.1	0.18882	203.3	13.85	9.7	0.9868	230.2	865.7	230.22				0.7	10.3	-0.7	-0.1
85.0	31561	77.1	0.19145	194.2	13.74	9.3	0.9685	229.4	872.9	229.37				0.8	202.8	0.7	0.3
86.0	31932	73.1	0.19472	184.2	13.76	8.8	0.9445	229.1	885.7	229.09				3.3	121.9	1.7	-2.8
87.0	32244	69.3	0.19734	174.7	13.68	8.4	0.9243	229.2	898.1	229.23				9.5	109.6	3.2	-9.0
87.8	32572	65.4	0.19991	163.9	13.54	8.0	0.9031	230.5	915.7	230.46				14.8	114.7	6.2	-13.4
88.0	32657	64.4	0.20058	161.1	13.51	7.9	0.8976	230.8	920.2	230.78				16.1	115.5	6.9	-14.6
89.0	33099	59.8	0.20378	149.1	13.40	7.4	0.8692	231.6	940.9	231.62				18.2	115.3	7.8	-16.5
90.0	33476	53.0	0.20625	131.6	12.54	7.0	0.8451	232.3	958.8	232.31				19.5	107.5	5.9	-18.6
91.0	33981	51.5	0.20931	127.4	13.12	6.5	0.8129	233.4	984.0	233.41				21.4	100.4	3.9	-21.1
92.0	34529	46.9	0.21241	115.4	12.95	6.0	0.7782	234.5	1011.5	234.50				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



072277
0433
3A-094
PRES (MB)
P
T
1
2
5
10
20
50
100
200
500
1000
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72277   LAUNCH TIME 1235 GMT   ECC SONDE 3A-096X

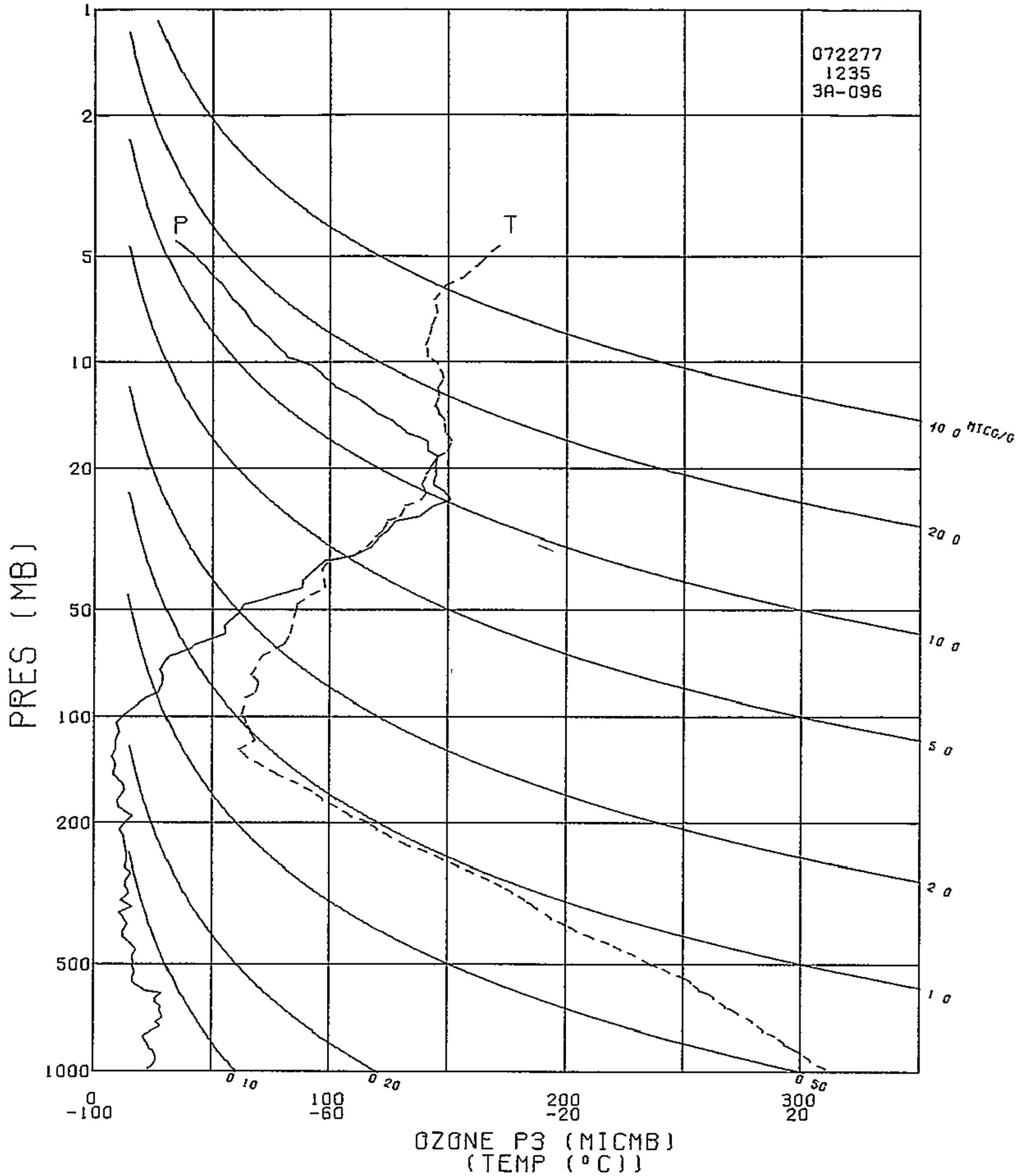
SURFACE CONDITIONS			
PRESS 1003.7 MB	003 = 33.0	TBOX CAL = 30.0 C AT 74.2 ORD	
TEMP 299.9 K	OIZ = 32.8	BASE CAL = 30.0 C AT 74.2 ORD	
HUMY 89.0 %	OZC = 60.2	HUMIDITY = 62.1 % AT 46.0 ORD	
	IO = 0.039		
	PS = 27.8		

	PROFILE	DOBSON
INTEGRATED OZONE	0.23550	
RESIDUAL OZONE	0.02086	
TOTAL OZONE	0.25636	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	26.2	0.	50.7	0.04	1003.7	3.0016	298.9	298.6	302.09	85.1	296.2	0.0176	2.0	35.0	-1.6	-1.1
0.1	85	25.9	0.00007	50.0	0.04	1000.0	3.0000	298.7	298.7	301.90	86.5	296.2	0.0178	2.5	34.2	-2.1	-1.4
1.0	282	23.6	0.00051	45.8	0.04	978.0	2.9903	297.4	299.3	300.77	94.7	296.5	0.0184	5.5	32.5	-4.6	-2.9
2.0	491	25.3	0.00097	49.2	0.04	955.0	2.9800	297.2	301.1	300.19	84.4	294.4	0.0166	7.1	25.2	-6.4	-3.0
3.0	741	26.6	0.00156	52.2	0.05	928.0	2.9675	294.8	301.2	297.21	74.9	290.2	0.0131	6.4	14.0	-6.3	-1.6
4.0	930	26.2	0.00201	51.4	0.05	908.0	2.9581	294.2	302.4	296.47	74.9	289.5	0.0128	5.2	359.5	-5.2	0.0
4.3	1006	26.0	0.00219	51.1	0.05	900.0	2.9542	293.9	302.9	296.20	76.0	289.5	0.0130	4.9	1.2	-4.9	-0.1
5.0	1172	25.7	0.00256	50.6	0.05	883.0	2.9460	293.3	303.9	295.61	78.3	289.4	0.0131	4.3	5.7	-4.3	-0.4
6.0	1389	24.2	0.00308	47.8	0.05	861.0	2.9350	292.0	304.7	294.08	75.8	287.6	0.0119	3.7	30.8	-3.2	-1.9
6.4	1499	23.7	0.00332	47.0	0.05	850.0	2.9294	291.3	305.2	293.37	75.1	286.8	0.0113	3.4	48.2	-2.3	-2.6
7.0	1652	23.2	0.00365	46.0	0.05	835.0	2.9217	290.4	305.8	292.39	74.1	285.8	0.0109	3.6	73.4	-1.0	-3.5
8.0	1869	21.6	0.00410	43.1	0.04	814.0	2.9106	290.0	307.6	291.75	65.8	283.6	0.0097	6.4	101.1	1.2	-6.2
8.6	2016	21.4	0.00439	42.7	0.04	800.0	2.9031	289.3	308.3	290.93	64.2	282.5	0.0090	8.3	100.5	1.5	-8.1
9.0	2124	21.2	0.00461	42.4	0.04	790.0	2.8976	288.8	308.9	290.34	63.1	281.8	0.0088	9.7	100.2	1.7	-9.5
10.0	2363	24.3	0.00511	49.0	0.05	768.0	2.8854	286.8	309.2	288.14	62.6	279.8	0.0079	11.4	96.7	1.3	-11.4
11.0	2608	28.0	0.00571	56.5	0.06	746.0	2.8727	286.4	311.4	287.52	52.4	276.8	0.0066	10.3	92.4	0.4	-10.3
12.0	2859	26.3	0.00636	53.4	0.06	724.0	2.8597	285.0	312.5	285.92	45.1	273.5	0.0054	8.4	93.4	0.5	-8.4
13.0	3104	29.6	0.00701	60.1	0.07	703.0	2.8470	283.8	313.9	284.65	41.4	271.3	0.0047	8.7	97.2	1.1	-8.6
13.1	3139	29.4	0.00710	59.8	0.07	700.0	2.8451	283.6	314.0	284.40	40.2	270.6	0.0044	8.8	97.0	1.1	-8.8
14.0	3404	27.9	0.00783	57.1	0.07	678.0	2.8312	282.0	315.1	282.52	31.1	265.8	0.0032	9.7	95.8	1.0	-9.6
15.0	3651	28.5	0.00849	58.6	0.07	658.0	2.8182	280.3	315.9	280.98	39.9	267.6	0.0038	11.6	91.3	0.3	-11.6
16.0	3917	26.2	0.00919	53.9	0.07	637.0	2.8041	280.0	318.5	280.56	36.2	266.0	0.0035	12.6	87.2	-0.6	-12.6
17.0	4138	26.2	0.00975	54.3	0.07	620.0	2.7924	278.4	319.1	278.98	40.6	266.1	0.0036	12.2	78.9	-2.4	-12.0
18.0	4405	28.9	0.01046	60.2	0.08	600.0	2.7782	277.2	320.7	277.70	38.1	264.2	0.0032	10.2	77.7	-2.2	-9.9
19.0	4527	21.6	0.01076	45.3	0.06	591.0	2.7716	275.8	320.5	276.32	40.2	263.6	0.0031	11.6	79.8	-2.1	-11.5
20.0	4933	16.6	0.01152	35.0	0.05	562.0	2.7497	274.5	323.6	275.07	49.0	264.9	0.0036	12.7	76.0	-3.1	-12.4
21.0	5194	16.4	0.01195	34.7	0.05	544.0	2.7356	273.3	325.2	273.85	46.4	263.2	0.0033	10.2	76.6	-2.4	-9.9
22.0	5477	17.1	0.01242	36.4	0.05	525.0	2.7202	270.9	325.7	271.33	42.5	259.9	0.0026	10.7	79.0	-2.0	-10.5
23.0	5784	16.0	0.01292	34.4	0.05	505.0	2.7033	268.9	326.8	269.23	39.6	257.2	0.0022	7.5	79.0	-1.4	-7.4
23.6	5862	16.4	0.01305	35.4	0.05	500.0	2.6990	268.0	326.7	268.29	30.9	253.2	0.0014	7.5	83.5	-0.9	-7.5
24.0	5925	16.8	0.01316	36.2	0.06	496.0	2.6955	267.3	326.6	267.53	23.8	250.0	0.0012	7.6	87.1	-0.4	-7.5
25.0	6345	16.4	0.01386	35.8	0.06	470.0	2.6721	265.1	328.9	265.27	24.4	248.3	0.0011	7.9	89.5	-0.1	-7.9
26.0	6629	17.7	0.01436	38.9	0.06	453.0	2.6561	262.6	329.3	262.73	20.1	244.1	0.0008	5.2	93.6	0.3	-5.2
27.0	6939	15.2	0.01488	33.7	0.06	435.0	2.6385	260.6	330.6	260.77	29.5	246.5	0.0010	5.7	98.6	0.8	-5.6
28.0	7241	12.2	0.01531	27.4	0.05	418.0	2.6212	257.5	330.4	257.72	43.6	248.0	0.0012	4.3	95.9	0.4	-4.3
29.0	7571	12.2	0.01574	27.6	0.05	400.0	2.6021	254.8	331.0	254.98	53.2	247.7	0.0012	2.9	105.5	0.8	-2.8
30.0	7874	14.1	0.01616	32.1	0.06	384.0	2.5843	252.9	332.5	253.04	41.7	243.3	0.0008	3.0	127.9	1.8	-2.4
31.0	8148	12.3	0.01655	28.4	0.06	370.0	2.5682	250.6	333.0	250.75	42.9	241.5	0.0007	3.5	116.3	1.6	-3.2
32.0	8451	10.4	0.01692	24.1	0.05	355.0	2.5502	250.2	336.4	250.30	23.1	235.0	0.0004	3.1	115.0	1.3	-2.8
32.4	8554	12.6	0.01707	29.2	0.06	350.0	2.5441	249.2	336.4	249.29	22.2	233.7	0.0003	2.5	117.3	1.2	-2.2
33.0	8723	16.1	0.01731	37.6	0.08	342.0	2.5340	247.6	336.4	247.65	20.7	231.7	0.0003	1.7	124.3	1.0	-1.4
34.0	9025	11.1	0.01776	26.1	0.06	328.0	2.5159	246.0	338.3	246.06				1.2	135.7	0.9	-0.8
35.0	9338	14.8	0.01821	35.0	0.08	314.0	2.4969	244.1	339.8	244.11	20.1	228.3	0.0002	2.1	152.1	1.8	-1.0
36.0	9662	13.4	0.01871	32.0	0.07	300.0	2.4771	242.2	341.7	242.27				3.5	146.7	2.9	-1.9
37.0	9950	13.5	0.01915	32.3	0.08	288.0	2.4594	240.2	342.7	240.18				4.3	157.1	4.0	-1.7
38.0	10247	15.5	0.01963	37.8	0.09	276.0	2.4409	237.5	343.1	237.55				4.2	156.1	3.8	-1.7
39.0	10554	13.2	0.02014	32.3	0.08	264.0	2.4216	235.0	343.9	235.04				2.9	140.8	2.2	-1.8
40.0	10872	13.9	0.02063	34.5	0.09	252.0	2.4014	232.2	344.3	232.22				0.9	265.3	0.1	0.9
40.2	10925	13.9	0.02072	34.5	0.09	250.0	2.3979	231.8	344.4	231.79				1.4	282.9	-0.3	1.3
41.0	11207	13.8	0.02117	34.7	0.10	239.8	2.3798	229.5	345.1	229.51				4.1	304.1	-2.3	3.4
42.0	11485	13.0	0.02162	33.3	0.09	230.0	2.3617	226.2	344.2	226.16				5.8	325.9	-4.8	3.2
43.0	11837	12.4	0.02216	32.1	0.09	218.0	2.3385	223.4	345.3	223.43				6.3	340.8	-6.0	2.1
44.0	12142	10.7	0.02258	27.9	0.09	208.0	2.3181	221.2	346.5	221.21				9.1	346.6	-8.8	2.1
44.8	12395	12.6	0.02295	33.2	0.10	200.0	2.3010	219.9	348.3	219.89				8.0	343.1	-7.7	2.3
45.0	12460	13.1	0.02305	34.6	0.11	198.0	2.2967	219.5	348.7	219.54				7.7	342.0	-7.4	2.4
46.0	12723	16.2	0.02352	43.1	0.14	190.0	2.2788	216.6	348.1	216.56				6.2	336.1	-5.7	2.5
47.0	13064	10.5	0.02409	28.2	0.10	180.0	2.2553	214.4	350.0	214.43				8.0	325.5	-6.6	4.5
48.0	13384	9.9	0.02451	27.0	0.10	171.0	2.2330	212.0	351.2	212.04				9.8	318.1	-7.3	6.6
49.0	13718	12.5	0.02498	34.3	0.13	162.0	2.2095	210.3	353.7	210.26				8.3	295.6	-3.6	7.5
50.0	14028	11.8	0.02547	32.9	0.13	154.0	2.1875	207.8	354.7	207.84				7.9	253.7	2.2	7.6
50.4	14186	10.2	0.02568	28.4	0.11	150.0	2.1761	206.3	354.7	206.28				7.7	251.6	2.4	7.3
51.0	14391	8.0	0.02594	22.6	0.09	145.0	2.1614	204.3	354.6	204.26				7.4	248.6	2.7	6.9
52.0	14728	9.2	0.02633	26.3	0.11	137.0	2.1367	201.7	355.9	201.68				5.5	234.5	3.2	4.5
53.0	15080	7.3	0.02672	21.2	0.09	129.0	2.1106	198.9	357.1	198.92				3.1	235.3	1.8	2.6
53.7	15262	8.5	0.02692	24.8	0.11	125.0	2.0969	198.1	358.9	198.11				2.1	265.8	0.2	2.1
54.0	15356	9.1	0.02703	26.7	0.12	123.0	2.0899	197.7	359.8	197.70				2.0	289.5	-0.7	1.9
55.0	15697	9.1	0.02745	26.3	0.13	116.0	2.0645	200.3	370.7	200.33				4.2	350.3	-4.1	0.7
56.0	16008	10.4	0.02786	30.2	0.16	110.0	2.0414	199.6	375.1	199.63				5.0	349.8	-4.9	0.9
57.0	16335	9.2	0.02829	26.8	0.15	104.0	2.0170	198.9	379.8	198.92				5.0	340.1	-4.7	1.7
57.7	16562	11.5	0.02863	33.6	0.19	100.0	2.0000	198.4	383.1	198.44				5.5	359.4	-5.5	0.1
58.0	16680	12.7	0.02881	37.1	0.22	98.0	1.9912	198.2	384.9	198.19				5.9	7.6	-5.9	-0.8
59.0	16983	17.4	0.02943	50.6	0.31	93.0	1.9685	197.9	390.2	197.94				7.2	34.9	-5.9	-4.1
60.0	17304	22.0	0.03029	63.8	0.41	88.0	1.9445	198.9	398.3	198.92				8.7	51.7	-5.4	-6.8

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
61.0	17506	27.2	0.03096	78.4	0.53	85.0	1.9294	200.6	405.6	200.56				11.6	72.1	-3.6	-11.1
62.0	17862	28.9	0.03231	83.1	0.60	80.0	1.9031	201.0	413.6	201.01				11.6	93.2	0.6	-11.6
63.0	18163	29.4	0.03349	84.9	0.64	76.0	1.8808	199.9	417.3	199.86				11.4	112.5	4.4	-10.5
64.0	18398	28.1	0.03440	81.6	0.64	73.0	1.8633	198.9	420.2	198.92				13.3	104.7	3.4	-12.9
64.5	18644	29.9	0.03539	86.2	0.71	70.0	1.8451	200.3	428.2	200.27				13.8	98.8	2.1	-13.6
65.0	18901	31.8	0.03643	91.0	0.79	67.0	1.8261	201.7	436.6	201.68				14.5	93.0	0.8	-14.4
66.0	19173	40.5	0.03773	114.5	1.05	64.0	1.8062	204.1	447.5	204.05				14.6	88.7	-0.3	-14.6
67.0	19363	42.9	0.03878	120.5	1.15	62.0	1.7924	205.5	454.8	205.49				17.6	84.2	-1.8	-17.5
67.5	19560	49.1	0.04005	137.7	1.36	60.0	1.7782	206.0	460.2	205.98				18.7	83.8	-2.0	-18.6
68.0	19765	55.6	0.04137	155.4	1.59	58.0	1.7634	206.5	465.8	206.49				19.9	83.4	-2.3	-19.8
69.0	20086	55.1	0.04369	154.0	1.66	55.0	1.7404	206.5	472.9	206.49				22.9	86.4	-1.4	-22.8
70.0	20543	61.0	0.04714	169.8	1.98	51.0	1.7076	207.3	485.1	207.27				24.8	90.0	0.0	-24.8
70.3	20663	61.8	0.04812	172.0	2.05	50.0	1.6990	207.4	488.1	207.39				24.2	91.4	0.6	-24.1
71.0	20911	63.5	0.05012	176.4	2.19	48.0	1.6812	207.7	494.5	207.65				22.8	94.6	1.8	-22.8
72.0	21039	68.3	0.05121	189.3	2.41	47.0	1.6721	208.4	499.3	208.41				25.0	98.0	3.5	-24.7
73.0	21305	78.0	0.05372	214.3	2.87	45.0	1.6532	210.1	509.5	210.08				28.6	97.6	3.8	-28.4
74.0	21586	88.5	0.05671	240.6	3.41	43.0	1.6335	212.4	521.9	212.39				30.4	94.4	2.3	-30.3
75.0	21882	88.7	0.06004	241.4	3.58	41.0	1.6128	212.0	528.2	212.04				34.9	90.8	0.5	-34.9
75.3	22035	90.4	0.06182	246.2	3.75	40.0	1.6021	212.0	531.8	211.98				35.9	91.4	0.9	-35.9
76.0	22353	94.0	0.06552	256.2	4.10	38.0	1.5798	211.9	539.3	211.86				37.8	92.3	1.6	-37.8
77.0	22689	98.1	0.06961	265.9	4.52	36.0	1.5563	213.1	550.8	213.08				34.1	99.5	5.6	-33.6
78.0	22866	109.0	0.07192	290.0	5.16	35.0	1.5441	217.0	565.6	217.04				36.4	99.7	6.1	-35.9
79.0	23241	117.3	0.07717	308.9	5.89	33.0	1.5185	219.2	581.0	219.24				40.7	94.2	3.0	-40.6
80.0	23643	120.6	0.08304	315.3	6.45	31.0	1.4914	220.9	596.0	220.91				37.5	94.0	2.6	-37.5
80.7	23855	123.5	0.08621	321.5	6.83	30.0	1.4771	221.8	604.0	221.76				37.7	95.4	3.5	-37.6
81.0	23942	124.7	0.08751	324.1	6.98	29.6	1.4713	222.1	607.2	222.11				37.8	96.0	3.9	-37.6
82.0	24327	127.7	0.09340	330.7	7.59	27.9	1.4456	223.0	620.0	222.99				32.8	96.5	3.7	-32.6
83.0	24493	137.8	0.09606	353.5	8.39	27.2	1.4346	225.0	630.2	225.02				27.8	96.9	3.3	-27.6
84.0	24945	143.5	0.10366	366.7	9.36	25.4	1.4048	225.9	645.1	225.88				28.2	97.5	3.7	-28.0
84.4	25050	146.4	0.10551	372.4	9.71	25.0	1.3979	226.9	651.1	226.93				26.2	96.1	2.8	-26.1
85.0	25212	150.9	0.10833	381.2	10.25	24.4	1.3874	228.5	660.3	228.54				23.3	93.5	1.4	-23.2
86.0	25521	148.8	0.11378	374.5	10.58	23.3	1.3674	229.4	671.4	229.37				18.6	75.4	-4.7	-18.0
87.0	25906	143.5	0.12040	362.4	10.81	22.0	1.3424	228.7	680.5	228.68				21.6	70.5	-7.2	-20.3
88.0	26347	144.9	0.12788	364.5	11.65	20.6	1.3139	229.5	695.9	229.51				22.4	78.4	-4.5	-22.0
88.5	26545	144.8	0.13126	363.5	12.00	20.0	1.3010	229.9	703.2	229.95				19.8	78.3	-4.0	-19.4
89.0	26716	144.7	0.13415	362.7	12.29	19.5	1.2900	230.3	709.4	230.33				17.6	78.3	-3.6	-17.2
90.0	27108	145.6	0.14080	363.4	13.11	18.4	1.2648	231.3	724.3	231.28				14.5	76.4	-3.4	-14.1
91.0	27371	141.4	0.14519	350.1	13.24	17.7	1.2480	233.2	738.3	233.17				16.6	80.1	-2.9	-16.4
91.2	27448	141.4	0.14646	349.9	13.39	17.5	1.2430	233.3	741.0	233.26				16.5	81.0	-2.6	-16.3
92.0	27809	141.3	0.15235	349.0	14.10	16.6	1.2201	233.7	753.7	233.70				16.0	85.6	-1.2	-15.9
93.0	28189	131.9	0.15835	327.2	13.92	15.7	1.1959	232.6	762.3	232.63				9.8	100.2	1.7	-9.7
93.6	28499	128.4	0.16300	318.8	14.18	15.0	1.1761	232.5	772.0	232.54				7.2	101.5	1.4	-7.1
94.0	28683	126.4	0.16575	313.8	14.34	14.6	1.1644	232.5	777.8	232.49				5.6	102.9	1.3	-5.5
95.0	29016	120.0	0.17053	299.3	14.31	13.9	1.1430	231.6	785.6	231.55				4.7	85.8	-0.3	-4.7
96.0	29365	115.7	0.17533	289.4	14.53	13.2	1.1206	230.9	795.0	230.87				7.4	92.4	0.3	-7.4
96.9	29733	110.4	0.18018	275.5	14.64	12.5	1.0969	231.5	809.5	231.46				4.1	77.1	-0.9	-4.0
97.0	29788	109.6	0.18089	273.4	14.65	12.4	1.0934	231.6	811.7	231.55				3.7	72.6	-1.1	-3.6
98.0	30181	102.5	0.18576	255.6	14.51	11.7	1.0682	231.4	824.8	231.41				4.6	276.4	-0.5	4.6
99.0	30600	98.1	0.19064	243.7	14.77	11.0	1.0414	232.4	842.9	232.36				3.2	250.5	1.1	3.0
100.0	31179	91.3	0.19702	227.9	14.98	10.1	1.0043	231.4	860.2	231.41				1.8	197.4	1.7	0.5
100.2	31246	89.5	0.19770	223.6	14.82	10.0	1.0000	231.1	861.3	231.07				2.1	204.6	1.9	0.9
101.0	31521	81.9	0.20049	206.0	14.14	9.6	0.9823	229.6	866.1	229.64				3.5	219.9	2.7	2.2
102.0	32029	76.8	0.20523	193.4	14.30	8.9	0.9494	229.2	883.4	229.23				2.5	285.7	-0.7	2.4
103.0	32498	72.5	0.20934	182.0	14.48	8.3	0.9191	230.1	904.4	230.05				3.4	1.7	-3.4	-0.1
103.6	32745	69.6	0.21137	174.5	14.40	8.0	0.9031	230.2	914.7	230.22				5.4	39.9	-4.1	-3.5
104.0	32916	67.5	0.21277	169.3	14.35	7.8	0.8921	230.3	921.7	230.33				7.4	51.1	-4.7	-5.8
105.0	33457	64.3	0.21693	160.5	14.80	7.2	0.8573	231.3	947.0	231.28				13.4	67.0	-5.2	-12.3
105.3	33647	62.4	0.21830	155.8	14.75	7.0	0.8451	231.1	954.1	231.15				14.5	75.2	-3.7	-14.1
106.0	34045	58.4	0.22115	146.0	14.66	6.6	0.8195	230.9	969.1	230.87				17.7	88.2	-0.5	-17.7
107.0	34692	54.3	0.22539	134.8	15.01	6.0	0.7782	232.8	1004.0	232.76				17.1	97.2	2.1	-16.9
108.0	35043	50.2	0.22750	122.9	14.59	5.7	0.7559	235.7	1031.6	235.69				22.4	92.5	1.0	-22.4
109.0	35680	45.1	0.23095	109.2	14.37	5.2	0.7160	238.5	1071.5	238.46				27.9	93.3	1.6	-27.9
109.5	35954	42.4	0.23226	102.1	14.01	5.0	0.6990	239.5	1088.3	239.48				33.7	90.6	0.4	-33.7
110.0	36241	39.5	0.23362	94.8	13.63	4.8	0.6812	240.6	1105.9	240.55				39.7	88.6	-0.9	-39.7
111.0	36697	34.0	0.23550	80.8	12.52	4.5	0.6532	242.8	1136.9	242.77				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72277   LAUNCH TIME 1649 GMT   ECC SONDE 3A-097X

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SURFACE CONDITIONS          003 = 33.0          TBOX CAL =  30.0 C  AT  74.6 ORD
  PRESS  1004.5 MB          OIZ = 32.7          BASE CAL =  30.0 C  AT  73.7 ORD
  TEMP    301.6 K           OZC = 61.5          HUMIDITY =  64.8 %  AT  46.0 ORD
  HUMY     81.0 %            IO = 0.055
                             PS = 29.2

         ****************************************************
         ****                                            ****
         ****                      PROFILE   DOBSON      ****
         ****   INTEGRATED OZONE   0.20875               ****
         ****   RESIDUAL OZONE     0.01435               ****
         ****   TOTAL OZONE        0.22310    0.         ****
         ****                                            ****
         ****************************************************
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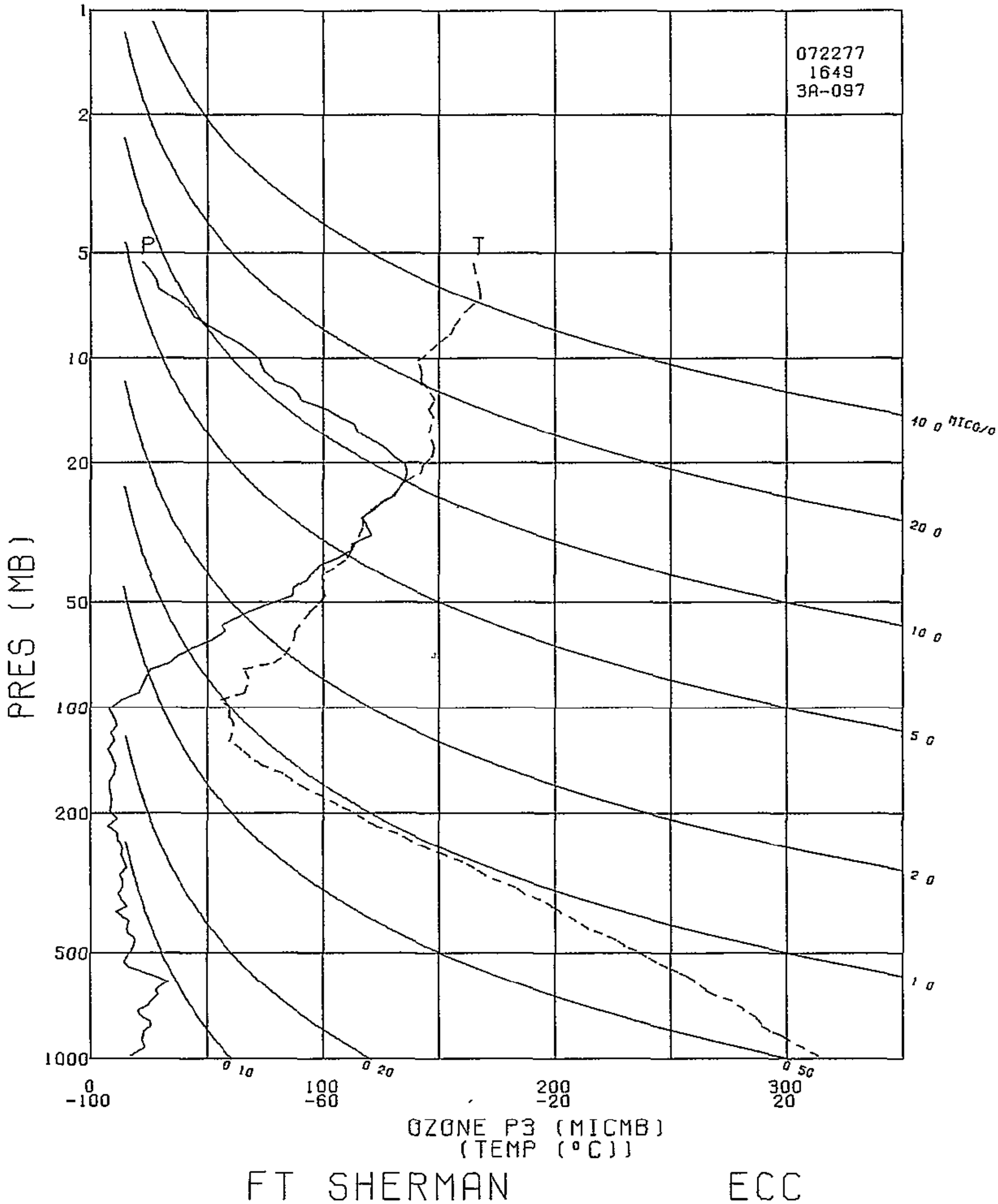
TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRLSS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	14.8	0.	28.4	0.02	1004.5	3.0019	300.9	300.5	304.28	78.4	296.8	0.0183	3.0	255.0	0.8	2.9
0.2	92	15.3	0.00006	29.3	0.03	1000.0	3.0000	300.5	300.5	303.85	80.8	296.8	0.0185	2.3	271.5	-0.1	2.3
1.0	272	17.3	0.00031	33.5	0.03	980.0	2.9912	298.5	300.2	301.92	91.7	297.0	0.0190	3.9	9.0	-3.8	-0.6
2.0	463	19.2	0.00062	37.2	0.03	959.0	2.9818	297.5	301.1	300.31	77.2	293.3	0.0154	4.5	1.6	-4.5	-0.1
3.0	713	22.6	0.00110	44.0	0.04	932.0	2.9694	296.1	302.1	298.69	75.7	291.6	0.0142	4.3	355.7	-4.3	0.3
4.0	950	22.5	0.00158	44.0	0.04	907.0	2.9576	295.4	303.8	297.96	75.6	290.9	0.0140	3.5	9.5	-3.5	-0.6
4.3	1017	22.3	0.00171	43.7	0.04	900.0	2.9542	294.9	303.9	297.33	75.6	290.4	0.0134	3.5	12.4	-3.4	-0.7
5.0	1192	21.9	0.00207	43.1	0.04	882.0	2.9455	293.4	304.1	295.70	75.5	288.9	0.0127	3.4	20.5	-3.2	-1.2
6.0	1450	22.7	0.00260	44.8	0.04	856.0	2.9325	292.1	305.4	294.27	75.6	287.7	0.0121	3.6	45.2	-2.5	-2.6
6.2	1510	22.7	0.00272	44.9	0.04	850.0	2.9294	291.7	305.5	293.77	75.6	287.3	0.0117	3.9	55.0	-2.3	-3.2
7.0	1704	22.8	0.00313	45.3	0.05	831.0	2.9196	290.2	306.0	292.17	75.8	285.9	0.0111	5.5	76.1	-1.3	-5.3
8.0	1943	25.6	0.00366	51.2	0.05	608.0	2.9074	288.8	306.9	290.63	76.9	284.7	0.0105	7.3	89.3	-0.1	-7.2
8.4	2027	25.6	0.00386	51.3	0.05	800.0	2.9031	288.5	307.5	290.30	73.0	283.7	0.0096	7.6	91.8	0.2	-7.6
9.0	2166	25.6	0.00419	51.4	0.05	787.0	2.8960	288.2	308.6	289.75	66.6	282.0	0.0090	8.1	95.5	0.8	-8.1
10.0	2384	23.1	0.00469	46.4	0.05	767.0	2.8848	287.8	310.4	289.37	67.5	281.8	0.0091	7.1	102.0	1.5	-6.9
11.0	2596	21.0	0.00513	42.3	0.05	748.0	2.8739	286.6	311.4	288.07	66.6	280.5	0.0086	6.4	105.2	1.7	-6.2
12.0	2847	20.4	0.00561	41.2	0.05	726.0	2.8609	285.6	313.0	287.05	67.2	279.7	0.0083	6.8	109.0	2.2	-6.4
13.0	3105	24.6	0.00616	49.7	0.06	704.0	2.8476	285.6	315.7	287.05	64.7	279.1	0.0083	7.0	106.1	2.0	-6.8
13.2	3152	24.8	0.00627	50.3	0.06	700.0	2.8451	285.2	315.8	286.56	60.6	277.7	0.0071	7.3	103.8	1.7	-7.1
14.0	3370	26.0	0.00679	53.0	0.06	682.0	2.8338	283.5	316.3	284.34	41.7	271.1	0.0048	8.5	95.2	0.8	-8.5
15.0	3666	28.6	0.00756	58.7	0.07	658.0	2.8182	280.6	316.2	281.31	43.0	268.8	0.0042	10.4	95.3	1.0	-10.4
16.0	3893	27.8	0.00818	57.5	0.07	640.0	2.8062	279.2	317.1	279.75	37.5	265.8	0.0034	11.6	95.3	1.1	-11.6
17.0	4126	29.2	0.00882	60.6	0.08	622.0	2.7938	278.3	318.7	278.68	25.5	260.2	0.0022	12.2	95.7	1.2	-12.1
18.0	4405	33.1	0.00967	68.9	0.09	601.0	2.7789	277.3	320.7	277.61	23.8	258.4	0.0020	12.7	99.0	2.0	-12.6
18.0	4418	32.8	0.00971	68.4	0.09	600.0	2.7782	277.2	320.8	277.55	24.3	258.6	0.0021	12.7	98.9	2.0	-12.6
19.0	4679	27.7	0.01048	57.9	0.08	581.0	2.7642	275.9	322.2	276.38	34.9	261.9	0.0028	12.4	95.5	1.2	-12.3
20.0	4947	21.8	0.01113	45.9	0.06	562.0	2.7497	274.3	323.3	274.75	39.9	262.1	0.0029	10.8	85.8	-0.8	-10.7
21.0	5164	16.4	0.01153	34.7	0.05	547.0	2.7380	272.5	323.7	272.98	46.0	262.3	0.0030	11.0	78.9	-2.1	-10.7
22.0	5460	14.4	0.01199	30.7	0.05	527.0	2.7218	270.6	324.9	271.14	56.4	263.1	0.0034	10.7	77.2	-2.4	-10.5
23.0	5719	15.8	0.01238	33.9	0.05	510.0	2.7076	268.9	325.9	269.34	51.7	260.4	0.0028	9.3	76.6	-2.2	-9.1
23.5	5874	16.5	0.01263	35.5	0.05	500.0	2.6990	267.9	326.6	268.32	46.7	258.3	0.0022	8.4	75.4	-2.1	-8.2
24.0	6017	17.1	0.01287	37.0	0.06	491.0	2.6911	267.1	327.2	267.39	42.2	256.3	0.0021	7.6	74.0	-2.1	-7.4
25.0	6275	18.1	0.01333	39.5	0.06	475.0	2.6767	265.0	327.8	265.18	30.1	250.6	0.0013	6.9	72.0	-2.1	-6.6
26.0	6591	18.9	0.01393	41.5	0.07	456.0	2.6590	263.4	329.6	263.53	26.0	247.5	0.0010	8.0	77.4	-1.7	-7.8
27.0	6900	16.1	0.01448	35.5	0.06	438.0	2.6415	261.1	330.5	261.26	33.4	248.3	0.0011	6.6	82.8	-0.8	-6.5
28.0	7147	15.4	0.01489	34.3	0.06	424.0	2.6274	258.7	330.6	258.86	38.7	247.7	0.0011	6.0	84.5	-0.6	-6.0
29.0	7530	16.2	0.01552	36.4	0.07	403.0	2.6053	256.6	332.7	256.76	35.1	244.8	0.0009	4.2	85.2	-0.4	-4.2
29.3	7585	15.3	0.01561	34.4	0.06	400.0	2.6021	256.2	332.9	256.34	33.3	243.9	0.0008	3.8	88.3	-0.1	-3.7
30.0	7699	13.4	0.01578	30.4	0.06	394.0	2.5955	255.4	333.2	255.49	29.8	242.0	0.0007	2.9	97.2	0.4	-2.9
31.0	7968	10.6	0.01613	24.1	0.05	380.0	2.5798	253.9	334.7	253.98	25.3	239.0	0.0005	2.6	115.9	1.2	-2.4
32.0	8226	15.0	0.01648	34.3	0.07	367.0	2.5647	252.5	336.3	252.61	20.9	236.0	0.0004	1.0	115.4	0.4	-0.9
33.0	8554	12.9	0.01697	29.7	0.06	351.0	2.5453	250.5	337.9	250.60				0.7	83.7	-0.1	-0.6
33.1	8574	12.8	0.01700	29.5	0.06	350.0	2.5441	250.3	337.9	250.37				0.6	81.1	-0.1	-0.6
34.0	8829	11.5	0.01733	26.8	0.06	338.0	2.5289	247.6	337.6	247.67				0.4	12.6	-0.4	-0.1
35.0	9135	13.7	0.01775	32.0	0.07	324.0	2.5105	246.3	339.9	246.36	23.6	231.8	0.0003	0.7	187.7	0.7	0.1
36.0	9405	13.7	0.01816	32.4	0.07	312.0	2.4942	243.7	339.9	243.73	24.9	230.0	0.0003	3.3	164.6	3.2	-0.9
36.9	9683	12.3	0.01856	29.6	0.07	300.0	2.4771	241.1	340.2	241.20	40.3	232.1	0.0003	4.1	142.5	3.2	-2.5
37.0	9707	12.2	0.01860	29.3	0.07	299.0	2.4757	240.9	340.2	240.98	41.6	232.3	0.0003	4.2	141.1	3.2	-2.6
38.0	10019	15.0	0.01907	36.2	0.09	286.0	2.4564	239.1	341.9	239.12	28.0	227.0	0.0002	3.3	136.8	2.4	-2.3
39.0	10317	14.4	0.01957	35.1	0.09	274.0	2.4378	237.1	343.2	237.12	24.6	224.1	0.0002	1.2	151.7	1.1	-0.6
40.0	10626	13.1	0.02006	32.2	0.08	262.0	2.4183	234.2	343.3	234.18	27.7	222.5	0.0001	2.8	312.9	-1.9	2.0
41.0	10945	13.8	0.02055	34.5	0.09	250.0	2.3979	231.0	343.3	231.03				5.1	335.5	-4.6	2.1
42.0	11275	11.7	0.02105	29.6	0.08	238.0	2.3766	228.1	343.8	228.11				4.8	343.0	-4.6	1.4
43.0	11589	11.7	0.02148	29.9	0.09	227.0	2.3560	226.0	345.2	225.98				4.3	325.0	-3.5	2.5
44.0	11899	7.4	0.02184	19.3	0.06	216.5	2.3355	222.3	344.2	222.30				4.6	321.6	-3.6	2.8
45.0	12189	11.0	0.02217	28.8	0.09	207.0	2.3160	220.2	345.3	220.17				4.5	313.2	-3.0	3.2
45.6	12409	9.1	0.02243	24.1	0.08	200.0	2.3010	218.6	346.2	218.58				4.8	308.1	-3.0	3.8
46.0	12539	8.0	0.02258	21.4	0.07	196.0	2.2923	217.6	346.7	217.64				5.1	305.5	-3.0	4.1
47.0	12803	8.9	0.02286	23.8	0.08	188.0	2.2742	215.5	347.4	215.51				5.4	305.1	-3.1	4.4
48.0	13146	8.9	0.02324	24.1	0.08	178.0	2.2504	213.1	349.0	213.12				5.2	300.3	-2.6	4.5
49.0	13467	8.2	0.02359	22.5	0.08	169.0	2.2279	210.1	349.1	210.07				5.1	299.3	-2.5	4.4
50.0	13763	8.1	0.02390	22.6	0.08	161.0	2.2068	207.8	350.1	207.78				5.9	276.3	-0.7	5.9
51.0	14071	10.2	0.02427	28.5	0.11	153.0	2.1847	206.2	352.5	206.19				6.6	247.7	2.5	6.1
51.4	14189	10.4	0.02443	29.4	0.12	150.0	2.1761	204.9	352.2	204.86				6.6	240.1	3.3	5.7
52.0	14392	10.9	0.02472	31.0	0.12	145.0	2.1614	202.6	351.7	202.59				6.8	227.4	4.6	5.0
53.0	14684	9.5	0.02511	27.3	0.11	138.0	2.1399	200.5	353.1	200.53				6.3	229.8	4.1	4.8
54.0	14988	7.4	0.02546	21.5	0.09	131.0	2.1173	199.1	355.8	199.09				5.3	241.1	2.6	4.6
54.9	15259	9.7	0.02578	28.4	0.13	125.0	2.0969	197.4	357.5	197.37				4.1	245.4	1.7	3.7
55.0	15306	10.1	0.02584	29.6	0.14	124.0	2.0934	197.1	357.8	197.08				3.9	246.4	1.6	3.6
56.0	15592	8.7	0.02621	25.3	0.12	118.0	2.0719	197.6	363.9	197.59				1.7	245.0	0.7	1.5
57.0	15894	11.5	0.02662	33.7	0.17	112.0	2.0492	197.8	369.8	197.85				1.2	26.8	-1.1	-0.5
58.0	16212	10.2	0.02709	29.8	0.16	106.0	2.0253	197.1	374.2	197.08				2.8	32.1	-2.4	-1.5
59.0	16548	8.1	0.02752	23.8	0.13	100.0	2.0000	197.1	380.5	197.08				3.6	44.9	-2.5	-2.5

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
60.0	16903	13.5	0.02804	39.9	0.24	94.0	1.9731	195.5	384.2	195.48				6.0	60.3	-3.0	-5.2
61.0	17154	20.7	0.02863	59.8	0.38	90.0	1.9542	199.6	397.1	199.58				8.7	79.6	-1.6	-8.6
62.0	17419	22.1	0.02940	63.9	0.43	86.0	1.9345	199.8	402.8	199.82				11.1	97.7	1.5	-11.0
63.0	17698	23.5	0.03025	67.7	0.47	82.0	1.9138	200.3	409.3	200.30				12.8	110.7	4.5	-11.9
63.4	17842	24.4	0.03073	70.3	0.51	80.0	1.9031	200.0	411.6	200.01				13.1	109.5	4.4	-12.4
64.0	18066	25.7	0.03147	74.4	0.55	77.0	1.8865	199.6	415.2	199.58				13.7	107.7	4.2	-13.1
65.0	18301	33.7	0.03241	95.1	0.76	74.0	1.8692	204.7	430.8	204.75				16.5	98.0	2.3	-16.3
66.0	18601	37.9	0.03381	105.8	0.89	70.4	1.8476	206.6	440.9	206.59				18.9	95.5	1.8	-18.8
66.1	18635	38.5	0.03400	107.6	0.91	70.0	1.8451	206.7	441.8	206.66				18.9	95.2	1.7	-18.8
67.0	18900	43.6	0.03541	121.5	1.08	67.0	1.8261	207.2	448.5	207.19				19.4	93.1	1.1	-19.4
68.0	19207	51.8	0.03731	143.6	1.35	63.7	1.8041	208.2	457.2	208.17				21.3	94.5	1.7	-21.3
69.0	19541	57.6	0.03967	159.6	1.58	60.3	1.7803	208.4	464.8	208.36				21.0	93.7	1.4	-20.9
69.1	19571	57.5	0.03990	159.2	1.59	60.0	1.7782	208.4	465.5	208.36				20.9	93.7	1.3	-20.8
70.0	19799	56.4	0.04158	156.3	1.62	57.8	1.7619	208.4	470.5	208.36				20.0	93.2	1.1	-19.9
71.0	20081	62.7	0.04374	172.4	1.88	55.2	1.7419	210.1	480.6	210.07				21.5	90.1	0.0	-21.5
72.0	20366	68.8	0.04615	188.4	2.16	52.7	1.7218	211.0	489.2	210.99				25.5	89.6	-0.2	-25.5
73.0	20679	77.5	0.04907	210.6	2.56	50.1	1.6998	212.4	499.7	212.42				27.7	91.7	0.8	-27.7
73.0	20691	77.9	0.04920	211.6	2.58	50.0	1.6990	212.5	500.0	212.46				27.6	91.7	0.8	-27.6
74.0	20985	87.1	0.05226	235.7	3.03	47.7	1.6785	213.5	509.2	213.47				26.8	91.9	0.9	-26.8
75.0	21335	87.5	0.05612	237.0	3.21	45.1	1.6542	213.1	516.6	213.12				27.1	90.6	0.3	-27.1
76.0	21633	93.1	0.05951	251.6	3.59	43.0	1.6335	213.6	525.0	213.65				28.8	90.2	0.1	-28.8
77.0	21946	95.4	0.06324	257.9	3.87	40.9	1.6117	213.6	532.5	213.65				30.5	94.5	2.4	-30.4
77.4	22085	96.8	0.06494	260.5	4.01	40.0	1.6021	214.5	538.0	214.46				30.6	94.7	2.5	-30.5
78.0	22293	98.8	0.06748	264.4	4.23	38.7	1.5877	215.7	546.2	215.68				30.8	95.1	2.7	-30.7
79.0	22577	106.0	0.07110	281.7	4.75	37.0	1.5682	217.3	557.4	217.32				32.5	90.2	0.1	-32.5
80.0	22894	111.9	0.07539	296.4	5.27	35.2	1.5465	218.0	567.1	217.97				31.6	87.7	-1.3	-31.5
80.1	22930	112.0	0.07590	296.5	5.30	35.0	1.5441	218.0	568.1	218.00				31.5	88.2	-1.0	-31.5
81.0	23191	112.4	0.07951	297.3	5.54	33.6	1.5263	218.3	575.5	218.28				31.2	91.7	0.9	-31.2
82.0	23523	120.8	0.08429	318.0	6.28	31.9	1.5038	219.4	587.1	219.39				32.5	94.9	2.8	-32.3
83.0	23896	119.0	0.08978	312.2	6.55	30.1	1.4786	220.2	599.0	220.17				31.4	94.6	2.5	-31.3
83.1	23917	118.9	0.09009	311.8	6.57	30.0	1.4771	220.2	599.6	220.17				31.4	94.4	2.4	-31.3
84.0	24270	116.8	0.09519	306.2	6.81	28.4	1.4533	220.2	609.1	220.17				31.3	90.4	0.2	-31.3
85.0	24572	121.8	0.09960	317.6	7.45	27.1	1.4330	221.4	620.7	221.40				28.7	86.7	-1.6	-28.7
86.0	24917	125.7	0.10478	325.1	8.10	25.7	1.4099	223.2	635.3	223.20				22.6	84.1	-2.3	-22.5
86.6	25098	129.2	0.10758	332.3	8.57	25.0	1.3979	224.5	644.1	224.50				23.2	79.5	-4.2	-22.8
87.0	25204	131.3	0.10922	336.5	8.84	24.6	1.3909	225.3	649.2	225.26				23.6	77.0	-5.3	-23.0
88.0	25534	133.2	0.11444	341.2	9.43	23.4	1.3692	225.4	659.0	225.40				28.2	80.0	-4.9	-27.8
89.0	25853	135.1	0.11953	342.8	10.04	22.3	1.3483	227.5	674.5	227.55				22.4	88.5	-0.6	-22.4
90.0	26191	136.1	0.12494	341.7	10.64	21.2	1.3263	229.9	691.5	229.93				16.2	93.8	1.1	-16.2
91.0	26550	135.3	0.13065	339.2	11.16	20.1	1.3032	230.3	703.4	230.34				15.2	100.3	2.7	-15.0
91.1	26583	134.9	0.13117	337.8	11.17	20.0	1.3010	230.5	704.8	230.49				15.3	101.2	3.0	-15.0
92.0	26895	130.5	0.13600	325.1	11.32	19.1	1.2810	231.9	718.4	231.85				16.1	108.7	5.2	-15.2
93.0	27298	126.3	0.14201	313.9	11.62	18.0	1.2553	232.3	731.9	232.26				10.2	139.4	7.8	-6.7
93.6	27480	123.5	0.14477	307.4	11.69	17.5	1.2430	231.9	736.8	231.93				6.9	174.1	6.9	-0.7
94.0	27606	121.8	0.14646	303.5	11.73	17.2	1.2355	231.7	739.8	231.72				7.0	204.8	6.3	2.9
95.0	28012	114.6	0.15205	286.0	11.73	16.2	1.2095	231.4	751.6	231.44				4.3	236.4	2.4	3.6
96.0	28355	113.2	0.15660	282.0	12.18	15.4	1.1875	231.7	763.5	231.72				1.8	164.3	1.7	-0.5
96.6	28533	109.4	0.15888	272.4	12.08	15.0	1.1761	231.9	770.1	231.95				1.1	133.9	0.8	-0.8
97.0	28671	106.6	0.16063	265.1	12.01	14.7	1.1673	232.1	775.1	232.13				1.0	90.2	0.0	-1.0
98.0	29050	100.9	0.16521	251.7	12.03	13.9	1.1430	231.4	785.3	231.44				4.6	316.4	-3.3	3.1
99.0	29452	90.3	0.16969	224.4	11.42	13.1	1.1173	232.4	802.0	232.40				5.7	325.9	-4.7	3.2
99.6	29770	88.0	0.17296	219.4	11.67	12.5	1.0969	231.7	810.3	231.67				5.5	313.3	-3.7	4.0
100.0	29991	86.5	0.17522	216.0	11.84	12.1	1.0828	231.2	816.0	231.17				5.5	304.3	-3.1	4.5
101.0	30276	79.2	0.17798	198.7	11.31	11.6	1.0645	230.1	822.0	230.07				4.4	290.1	-1.5	4.1
102.0	30695	75.0	0.18177	188.1	11.40	10.9	1.0374	230.2	837.2	230.21				3.5	26.5	-3.1	-1.6
103.0	31208	72.8	0.18621	183.0	11.94	10.1	1.0043	229.7	853.6	229.65				9.5	53.9	-5.6	-7.6
103.1	31275	72.0	0.18676	180.8	11.92	10.0	1.0000	229.9	857.2	229.94				9.8	52.8	-5.9	-7.8
104.0	31693	67.1	0.19018	167.1	11.82	9.4	0.9731	231.7	879.2	231.72				12.0	47.6	-8.1	-8.8
105.0	32065	62.1	0.19296	153.6	11.56	8.9	0.9494	233.3	899.3	233.35				10.5	51.2	-6.6	-8.2
106.0	32380	56.2	0.19511	138.0	10.96	8.5	0.9294	235.1	918.0	235.10				12.4	76.7	-2.8	-12.0
107.0	32798	49.7	0.19764	121.7	10.30	8.0	0.9031	235.9	937.2	235.90				15.9	90.9	0.2	-15.9
108.0	33152	44.4	0.19955	108.5	9.67	7.6	0.8806	236.0	951.6	236.04				15.9	103.1	3.6	-15.5
109.0	33527	42.0	0.20139	102.0	9.68	7.2	0.8573	238.0	974.6	238.03				18.2	98.9	2.8	-18.0
109.4	33724	39.3	0.20225	95.1	9.29	7.0	0.8451	238.9	986.2	238.91				18.9	95.5	1.8	-18.8
110.0	34031	35.1	0.20358	84.5	8.69	6.7	0.8261	240.3	1004.2	240.27				20.1	90.8	0.3	-20.1
111.0	34464	29.1	0.20514	69.9	7.65	6.3	0.7993	240.1	1021.5	240.14				20.5	85.9	-1.5	-20.4
112.0	34806	28.3	0.20625	68.3	7.83	6.0	0.7782	239.7	1034.1	239.75				23.2	86.1	-1.6	-23.2
113.0	35290	25.4	0.20771	61.2	7.50	5.6	0.7482	239.3	1053.0	239.35				21.5	90.8	0.3	-21.5
114.0	35675	22.4	0.20875	54.1	7.01	5.3	0.7243	239.1	1068.5	239.09				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



072277
1649
3A-097
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
P
T
40 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72277   LAUNCH TIME 2305 GMT   ECC SONDE 3A-098X

SURFACE CONDITIONS
PRESS 1003.1 MB
TEMP 300.5 K
HUMY 84.0 %

003 = 37.6
OIZ = 37.0
OZC = 66.8
IO = 0.104
PS = 28.3

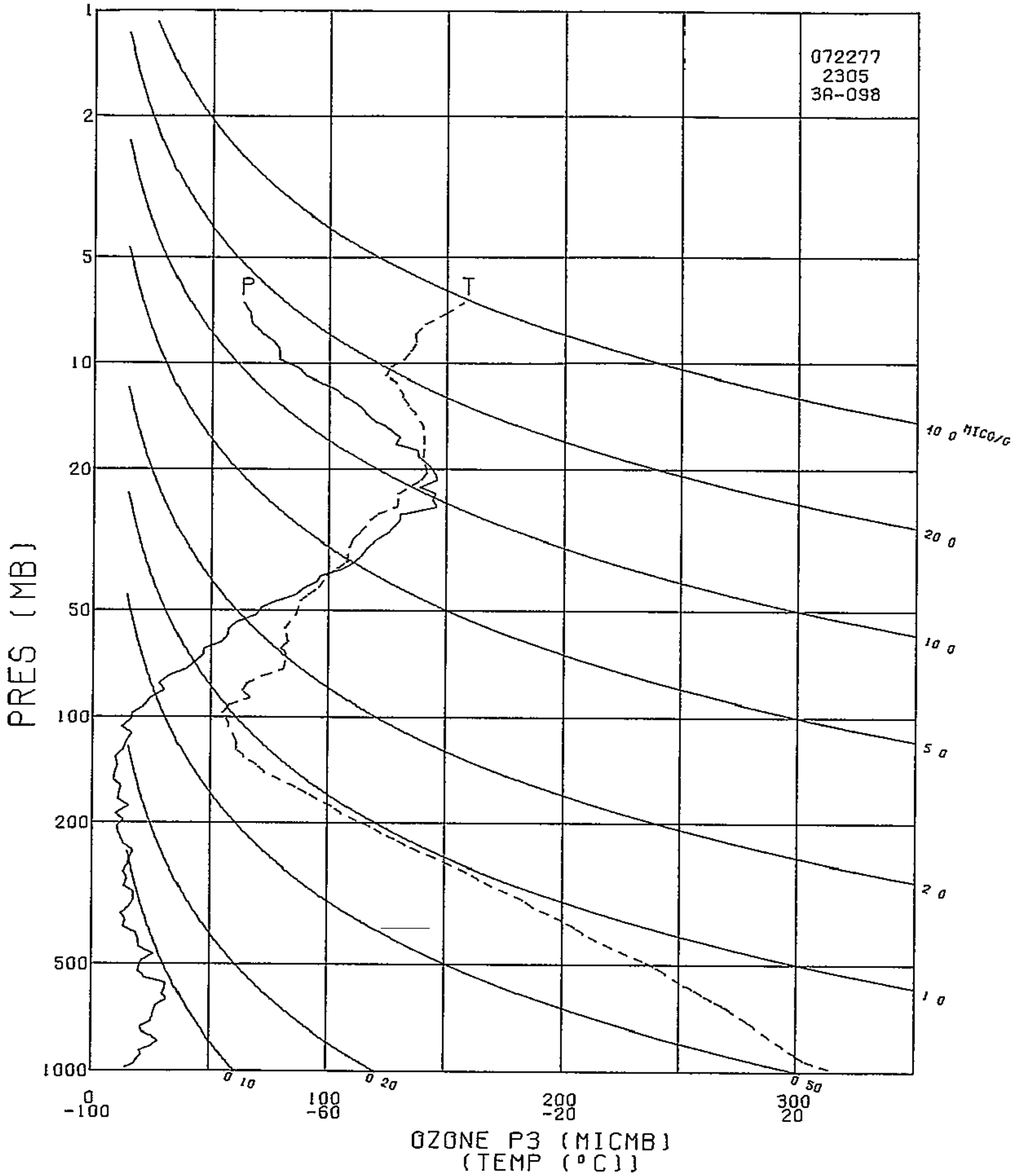
TBOX CAL = 30.0 C AT 74.8 ORD
BASE CAL = 30.0 C AT 73.6 ORD
HUMIDITY = 61.6 % AT 46.0 ORD

	PROFILE	DOBSON
INTEGRATED OZONE	0.22516	
RESIDUAL OZONE	0.04211	
TOTAL OZONE	0.26727	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	14.3	0.	27.5	0.02	1003.1	3.0013	299.9	299.7	303.13	79.2	296.0	0.0174	3.0	360.0	-3.0	-0.0
0.1	80	14.3	0.00004	27.6	0.02	1000.0	3.0000	299.8	299.8	303.01	80.0	296.1	0.0176	3.2	2.8	-3.2	-0.2
1.0	295	14.7	0.00031	28.4	0.02	976.0	2.9894	298.7	300.8	302.04	86.4	296.3	0.0182	4.9	16.5	-4.7	-1.4
2.0	524	18.3	0.00065	35.5	0.03	951.0	2.9782	297.5	301.8	300.66	85.6	295.0	0.0172	6.5	6.6	-6.5	-0.7
3.0	776.	19.5	0.00108	38.2	0.03	924.0	2.9657	294.3	301.1	297.03	88.0	292.3	0.0150	6.2	348.8	-6.1	1.2
3.9	1004	21.0	0.00150	41.4	0.04	900.0	2.9542	293.2	302.1	295.94	95.5	292.4	0.0156	6.0	334.9	-5.4	2.5
4.0	1033	21.2	0.00156	41.8	0.04	897.0	2.9528	293.0	302.3	295.80	96.5	292.4	0.0156	5.9	333.1	-5.3	2.7
5.0	1267	20.2	0.00200	39.9	0.04	873.0	2.9410	291.9	303.5	294.45	90.9	290.4	0.0141	4.3	334.1	-3.8	1.9
5.9	1495	25.0	0.00248	49.7	0.05	850.0	2.9294	291.0	304.8	293.09	80.1	287.5	0.0118	3.4	17.2	-3.2	-1.0
6.0	1516	25.5	0.00252	50.6	0.05	848.0	2.9284	290.9	304.9	292.97	79.1	287.2	0.0118	3.4	21.6	-3.2	-1.2
7.0	1772	28.1	0.00316	55.9	0.06	823.0	2.9154	290.5	307.1	292.45	75.0	286.0	0.0112	4.3	58.1	-2.3	-3.7
7.9	2013	26.1	0.00376	52.2	0.05	800.0	2.9031	288.6	307.6	290.54	78.2	284.8	0.0107	4.2	74.4	-1.1	-4.0
8.0	2045	25.9	0.00384	51.8	0.05	797.0	2.9015	288.4	307.7	290.28	78.6	284.7	0.0107	4.2	76.6	-1.0	-4.1
9.0	2304	21.5	0.00441	43.2	0.05	773.0	2.8882	288.0	310.0	289.84	76.8	284.0	0.0105	4.8	86.4	-0.3	-4.8
10.0	2559	20.7	0.00492	41.8	0.05	750.0	2.8751	286.0	310.5	287.63	74.2	281.6	0.0092	6.5	96.7	0.8	-6.5
11.0	2855	25.1	0.00555	51.0	0.06	724.0	2.8597	284.7	312.2	285.96	62.5	277.8	0.0073	8.4	102.9	1.9	-8.2
12.0	3136	26.1	0.00624	53.0	0.06	700.0	2.8451	283.9	314.4	285.18	62.6	277.1	0.0072	9.2	103.5	2.2	-9.0
13.0	3426	26.6	0.00696	54.5	0.07	676.0	2.8299	281.9	315.3	283.01	62.2	275.1	0.0065	9.5	106.6	2.7	-9.1
14.0	3737	27.6	0.00777	56.8	0.07	651.0	2.8136	280.5	317.1	281.41	56.9	272.5	0.0056	10.8	108.9	3.5	-10.2
15.0	4019	31.7	0.00857	65.7	0.08	629.0	2.7987	278.5	318.0	279.31	52.0	269.5	0.0046	12.1	112.5	4.6	-11.2
16.0	4322	30.0	0.00948	62.6	0.08	606.0	2.7825	276.8	319.4	277.19	27.2	259.7	0.0022	13.0	110.1	4.5	-12.2
16.3	4402	30.4	0.00972	63.4	0.08	600.0	2.7782	276.4	319.8	276.71	24.1	257.6	0.0017	12.8	108.6	4.1	-12.1
17.0	4635	31.3	0.01041	65.7	0.09	583.0	2.7657	275.1	321.0	275.33				12.2	103.9	2.9	-11.8
18.0	4929	31.5	0.01132	66.6	0.09	562.0	2.7497	273.2	322.1	273.35				10.6	97.5	1.4	-10.6
19.0	5219	22.2	0.01209	47.0	0.07	542.0	2.7340	272.9	325.0	273.14	24.8	255.1	0.0017	11.1	83.4	-1.3	-11.0
20.0	5503	19.7	0.01266	42.2	0.06	523.0	2.7185	270.3	325.3	270.65	33.2	256.4	0.0020	10.9	74.8	-2.9	-10.5
21.0	5811	20.4	0.01330	43.7	0.07	503.0	2.7016	268.6	326.9	268.76				8.4	67.7	-3.2	-7.8
21.2	5857	20.5	0.01340	44.1	0.07	500.0	2.6990	268.3	327.1	268.44				8.1	66.5	-3.2	-7.4
22.0	6080	21.3	0.01386	46.0	0.07	486.0	2.6866	266.8	327.9	266.91				6.7	59.5	-3.4	-5.8
23.0	6390	26.3	0.01461	57.4	0.09	467.0	2.6693	264.2	328.4	264.28				7.4	67.7	-2.8	-6.9
24.0	6744	19.9	0.01545	44.0	0.07	446.0	2.6493	261.4	329.3	261.58	29.4	247.2	0.0010	8.0	69.2	-2.9	-7.5
25.0	7093	19.9	0.01617	44.3	0.08	426.0	2.6294	258.9	330.4	259.03	31.2	245.6	0.0009	7.9	65.7	-3.2	-7.2
26.0	7437	18.8	0.01687	42.3	0.08	407.0	2.6096	256.7	331.8	256.76	21.2	239.7	0.0005	5.8	68.1	-2.2	-5.4
26.4	7566	16.3	0.01709	36.9	0.07	400.0	2.6021	256.0	332.6	256.09				4.7	69.9	-1.6	-4.4
27.0	7737	13.1	0.01737	29.7	0.06	391.0	2.5922	255.2	333.7	255.20				3.3	73.9	-0.9	-3.2
28.0	8048	14.1	0.01782	32.1	0.06	375.0	2.5740	253.1	335.0	253.15				1.9	65.5	-0.8	-1.8
29.0	8390	12.1	0.01830	27.8	0.06	358.0	2.5539	250.7	336.3	250.76				1.5	356.8	-1.5	0.1
29.5	8554	14.0	0.01855	32.3	0.07	350.0	2.5441	249.4	336.6	249.39				1.4	22.6	-1.3	-0.6
30.0	8723	15.9	0.01881	37.0	0.08	342.0	2.5340	248.0	336.9	247.99				1.7	46.0	-1.2	-1.2
31.0	9047	17.7	0.01940	41.5	0.09	327.0	2.5145	246.4	339.1	246.39				2.0	51.2	-1.3	-1.6
32.0	9384	17.8	0.02006	42.1	0.09	312.0	2.4942	243.9	340.2	243.89				0.7	17.2	-0.7	-0.2
32.9	9662	13.7	0.02054	32.8	0.08	300.0	2.4771	241.4	340.6	241.48				0.8	177.9	0.8	-0.0
33.0	9686	13.4	0.02058	32.1	0.07	299.0	2.4757	241.2	340.6	241.27	26.2	228.3	0.0002	0.9	179.1	0.9	-0.0
34.0	9998	14.6	0.02107	35.4	0.08	286.0	2.4564	239.0	341.8	239.02				0.6	108.4	0.2	-0.6
35.0	10322	13.2	0.02158	32.1	0.08	273.0	2.4362	236.9	343.3	236.89				1.1	1.6	-1.1	-0.0
36.0	10632	15.0	0.02208	37.0	0.10	261.0	2.4166	234.1	343.6	234.07				2.4	316.9	-1.8	1.7
36.9	10924	16.0	0.02261	40.0	0.11	250.0	2.3979	231.6	344.1	231.57				2.5	318.6	-1.9	1.7
37.0	10952	16.1	0.02266	40.2	0.11	249.0	2.3962	231.3	344.2	231.34				2.6	318.7	-1.9	1.7
38.0	11228	17.4	0.02320	43.9	0.12	239.0	2.3784	228.6	344.0	228.56				3.1	321.9	-2.4	1.9
39.0	11512	13.6	0.02373	34.7	0.10	229.0	2.3598	226.3	344.8	226.28				3.5	322.3	-2.8	2.2
40.0	11752	12.4	0.02410	31.9	0.09	220.8	2.3440	224.4	345.5	224.39				3.4	304.6	-1.9	2.8
41.0	12005	11.1	0.02446	28.8	0.09	212.4	2.3272	222.2	345.9	222.16				2.8	292.0	-1.0	2.6
42.0	12298	10.5	0.02484	27.5	0.09	203.0	2.3075	220.3	347.5	220.32				3.6	293.3	-1.4	3.3
42.4	12393	11.5	0.02498	30.3	0.10	200.0	2.3010	219.4	347.4	219.37				4.4	290.7	-1.6	4.1
43.0	12536	13.0	0.02519	34.4	0.11	195.6	2.2914	218.0	347.4	217.96				5.6	288.1	-1.7	5.3
44.0	12821	9.6	0.02559	25.8	0.09	187.0	2.2718	215.5	347.9	215.50				4.4	273.7	-0.3	4.4
45.0	13131	15.2	0.02607	41.1	0.14	178.0	2.2504	213.8	350.1	213.79				7.0	253.8	2.0	6.8
46.0	13417	10.9	0.02655	29.8	0.11	170.0	2.2304	211.3	350.6	211.31				10.5	255.2	2.7	10.1
47.0	13676	11.4	0.02692	31.3	0.12	163.0	2.2122	209.5	351.7	209.46				11.4	258.4	2.3	11.1
48.0	13905	12.0	0.02726	33.3	0.13	157.0	2.1959	207.5	352.2	207.53				11.2	257.5	2.4	10.9
49.0	14180	8.9	0.02764	25.2	0.10	150.0	2.1761	204.9	352.3	204.88				9.6	256.0	2.3	9.4
50.0	14464	9.4	0.02798	26.9	0.11	143.0	2.1553	202.3	352.6	202.27				7.4	255.3	1.9	7.1
51.0	14760	10.6	0.02838	30.4	0.13	136.0	2.1335	200.9	355.3	200.90				5.0	258.8	1.0	4.9
52.0	15069	9.3	0.02880	27.1	0.12	129.0	2.1106	198.7	356.8	198.73				5.8	262.4	0.8	5.7
52.7	15251	11.7	0.02907	34.2	0.16	125.0	2.0969	197.9	358.5	197.90				5.9	258.1	1.2	5.8
53.0	15345	12.9	0.02921	37.8	0.17	123.0	2.0899	197.5	359.4	197.47				6.0	256.0	1.4	5.8
54.0	15683	14.5	0.02985	42.6	0.21	116.0	2.0645	197.2	364.9	197.21				6.0	257.8	1.3	5.9
55.0	15937	16.7	0.03039	48.8	0.25	111.0	2.0453	197.2	369.6	197.21				5.4	274.2	-0.4	5.4
56.0	16202	12.4	0.03092	36.6	0.19	106.0	2.0253	196.2	372.5	196.15				2.4	305.6	-1.4	2.0
57.0	16479	16.4	0.03147	48.3	0.27	101.0	2.0043	196.4	378.2	196.42				2.6	42.7	-1.9	-1.8
57.2	16535	16.5	0.03160	48.7	0.27	100.0	2.0000	196.1	378.6	196.11				3.2	54.1	-1.9	-2.6
58.0	16728	16.9	0.03204	49.9	0.29	96.7	1.9854	195.1	380.2	195.06				5.4	73.1	-1.6	-5.2
59.0	16994	22.4	0.03276	66.0	0.40	92.3	1.9652	196.2	387.5	196.15				13.0	72.9	-3.8	-12.4

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
60.0	17263	24.5	0.03363	70.9	0.46	88.1	1.9450	199.7	399.8	199.71				9.7	93.2	0.5	-9.7
61.0	17540	30.1	0.03465	87.6	0.59	84.0	1.9243	198.5	402.8	198.48				6.1	136.2	4.4	-4.2
62.0	17816	28.3	0.03575	82.0	0.59	80.1	1.9036	199.2	409.8	199.22				7.5	77.8	-1.6	-7.3
62.0	17823	28.4	0.03578	82.2	0.59	80.0	1.9031	199.3	410.1	199.30				7.6	77.5	-1.7	-7.5
63.0	18109	32.5	0.03695	92.9	0.71	76.2	1.8820	202.0	421.6	202.05				12.6	69.8	-4.4	-11.9
64.0	18381	39.5	0.03824	110.9	0.90	72.8	1.8621	205.5	434.4	205.51				16.3	83.0	-2.0	-16.2
64.8	18616	42.7	0.03952	119.6	1.01	70.0	1.8451	206.0	440.5	206.03				15.4	91.5	0.4	-15.4
65.0	18660	43.2	0.03976	121.1	1.03	69.5	1.8420	206.1	441.6	206.13				15.3	93.1	0.8	-15.3
66.0	18944	46.6	0.04143	130.6	1.16	66.3	1.8215	205.9	447.1	205.92				15.9	92.1	0.6	-15.9
67.0	19184	47.0	0.04291	132.5	1.22	63.7	1.8041	204.9	450.0	204.88				18.9	94.3	1.4	-18.9
68.0	19434	54.4	0.04457	152.4	1.48	61.1	1.7860	206.1	458.1	206.13				19.0	73.0	-5.5	-18.2
68.4	19543	55.4	0.04537	155.4	1.53	60.0	1.7782	205.9	460.0	205.88				18.8	81.7	-2.7	-18.7
69.0	19706	56.9	0.04656	160.0	1.62	58.4	1.7664	205.5	462.7	205.51				19.4	94.5	1.5	-19.4
70.0	19969	57.5	0.04854	161.5	1.71	55.9	1.7474	205.7	469.0	205.72				21.5	112.6	8.3	-19.9
71.0	20233	61.0	0.05059	171.3	1.89	53.5	1.7284	205.7	474.9	205.72				17.9	91.1	0.3	-17.9
72.0	20510	69.0	0.05294	192.1	2.24	51.1	1.7084	207.5	485.4	207.53				19.9	90.7	0.2	-19.9
72.5	20641	70.1	0.05415	195.0	2.32	50.0	1.6990	207.5	488.4	207.53				21.1	92.3	0.9	-21.0
73.0	20789	71.3	0.05549	198.3	2.42	48.8	1.6884	207.5	491.8	207.53				22.3	94.0	1.5	-22.3
74.0	21043	77.2	0.05795	214.0	2.73	46.8	1.6702	208.3	499.6	208.31				24.9	93.5	1.5	-24.9
75.0	21310	85.7	0.06075	236.1	3.17	44.8	1.6513	209.6	509.1	209.65				26.5	92.8	1.3	-26.4
76.0	21591	89.7	0.06391	244.8	3.47	42.8	1.6314	211.5	520.4	211.49				27.1	89.4	-0.3	-27.1
77.0	21826	94.9	0.06669	259.5	3.82	41.2	1.6149	211.1	525.2	211.13				28.3	86.8	-1.6	-28.2
77.7	22009	96.1	0.06892	261.5	3.98	40.0	1.6021	212.3	532.5	212.26				30.0	90.4	0.2	-30.0
78.0	22087	96.7	0.06987	262.4	4.06	39.5	1.5966	212.7	535.6	212.74				30.8	91.8	1.0	-30.8
79.0	22345	105.9	0.07318	284.8	4.63	37.9	1.5786	214.7	546.8	214.65				33.7	92.8	1.7	-33.7
80.0	22634	110.9	0.07710	296.3	5.08	36.2	1.5587	216.2	557.9	216.16				26.3	95.1	2.3	-26.2
80.7	22847	113.2	0.08010	302.7	5.36	35.0	1.5441	216.0	563.0	216.04				34.2	95.1	3.0	-34.0
81.0	22920	114.0	0.08112	304.8	5.46	34.6	1.5391	216.0	564.7	216.00				36.8	95.1	3.3	-36.7
82.0	23219	116.2	0.08542	309.9	5.83	33.0	1.5185	216.5	573.8	216.49				44.5	95.8	4.5	-44.3
83.0	23554	120.4	0.09035	320.2	6.38	31.3	1.4955	217.1	584.3	217.15				34.3	99.1	5.4	-33.9
84.0	23803	124.9	0.09414	330.4	6.88	30.1	1.4786	218.3	593.9	218.28				34.0	96.6	3.9	-33.8
84.1	23824	125.1	0.09447	330.9	6.91	30.0	1.4771	218.3	594.6	218.31				34.0	96.5	3.8	-33.7
85.0	24085	127.6	0.09854	336.8	7.34	28.8	1.4594	218.8	602.7	218.76				33.1	94.8	2.8	-33.0
86.0	24335	130.1	0.10250	341.1	7.78	27.7	1.4425	220.2	613.4	220.17				32.4	93.3	1.8	-32.3
87.0	24597	130.2	0.10666	339.6	8.11	26.6	1.4249	221.4	624.0	221.40				32.6	93.7	2.1	-32.5
88.0	24898	145.2	0.11168	373.2	9.48	25.4	1.4048	224.7	641.7	224.69				26.9	95.0	2.3	-26.8
88.4	25002	144.7	0.11348	371.7	9.59	25.0	1.3979	224.7	644.8	224.74				23.7	91.1	0.4	-23.7
89.0	25189	143.7	0.11672	369.1	9.80	24.3	1.3856	224.8	650.3	224.83				18.5	80.9	-2.9	-18.2
90.0	25465	145.1	0.12151	372.6	10.32	23.3	1.3674	224.8	658.2	224.83				20.5	77.5	-4.4	-20.0
91.0	25753	138.4	0.12642	355.5	10.29	22.3	1.3483	224.8	666.5	224.83				24.1	92.6	1.1	-24.1
92.0	26057	145.7	0.13156	367.7	11.33	21.3	1.3284	228.7	686.9	228.70				20.1	97.6	2.6	-19.9
93.0	26379	144.4	0.13706	362.9	11.78	20.3	1.3075	229.7	699.3	229.68				15.2	80.7	-2.5	-15.0
93.3	26479	143.7	0.13875	361.0	11.90	20.0	1.3010	229.8	702.7	229.80				15.6	78.3	-3.2	-15.3
94.0	26719	142.0	0.14277	356.3	12.19	19.3	1.2856	230.1	710.8	230.09				16.7	73.3	-4.8	-16.0
95.0	27076	137.7	0.14864	347.1	12.47	18.3	1.2625	229.1	718.6	229.12				14.6	79.7	-2.6	-14.4
96.0	27375	137.5	0.15350	346.6	13.02	17.5	1.2430	229.1	727.9	229.12				10.9	88.8	-0.2	-10.8
97.0	27649	127.9	0.15777	322.2	12.62	16.8	1.2253	229.3	736.9	229.26				7.4	82.5	-1.0	-7.3
98.0	27934	129.5	0.16209	326.1	13.33	16.1	1.2068	229.3	745.9	229.26				6.9	20.9	-6.4	-2.5
99.0	28320	124.9	0.16787	314.8	13.62	15.2	1.1818	229.1	757.8	229.12				10.6	8.3	-10.5	-1.5
99.3	28408	123.3	0.16914	310.9	13.62	15.0	1.1761	229.0	760.4	229.04				11.5	12.2	-11.2	-2.4
100.0	28636	119.2	0.17241	300.8	13.62	14.5	1.1614	228.8	767.1	228.84				13.9	20.0	-13.1	-4.8
101.0	28966	115.3	0.17699	292.4	13.85	13.8	1.1399	227.7	774.2	227.71				8.2	57.6	-4.4	-6.9
102.0	29312	112.2	0.18166	286.0	14.19	13.1	1.1173	226.4	781.4	226.43				6.6	124.3	3.7	-5.5
102.9	29621	107.4	0.18571	274.6	14.23	12.5	1.0969	225.7	789.3	225.69				3.5	121.0	1.8	-3.0
103.0	29675	106.5	0.18640	272.7	14.24	12.4	1.0934	225.6	790.7	225.56				3.0	119.7	1.5	-2.6
104.0	30002	103.3	0.19050	264.3	14.50	11.8	1.0719	225.6	802.0	225.56				3.8	26.0	-3.4	-1.6
105.0	30287	96.5	0.19392	248.4	14.16	11.3	1.0531	224.4	807.7	224.39				9.2	22.7	-8.4	-3.5
106.0	30583	89.9	0.19725	233.1	13.79	10.8	1.0334	222.6	811.8	222.61				10.3	39.7	-7.9	-6.6
107.0	30956	85.7	0.20121	221.5	13.92	10.2	1.0086	223.4	827.9	223.36				7.5	43.9	-5.4	-5.2
107.4	31086	82.8	0.20249	213.3	13.72	10.0	1.0000	224.3	836.1	224.28				7.0	39.8	-5.4	-4.5
108.0	31286	78.4	0.20446	200.6	13.40	9.7	0.9868	225.7	848.7	225.71				6.3	32.3	-5.3	-3.4
109.0	31636	78.3	0.20773	199.3	14.11	9.2	0.9638	226.9	866.0	226.86				11.1	41.9	-8.3	-7.4
110.0	32008	76.3	0.21114	193.4	14.54	8.7	0.9395	227.9	883.8	227.85				14.3	52.3	-8.8	-11.3
111.0	32402	70.9	0.21458	179.8	14.33	8.2	0.9138	227.7	898.3	227.71				16.6	66.0	-6.7	-15.1
111.4	32567	69.3	0.21592	175.2	14.34	8.0	0.9031	228.4	907.4	228.37				18.3	74.3	-5.0	-17.6
112.0	32823	66.8	0.21800	168.0	14.37	7.7	0.8865	229.4	921.4	229.40				21.6	84.1	-2.2	-21.4
113.0	33277	65.9	0.22151	163.4	15.16	7.2	0.8573	232.8	953.3	232.84				24.2	94.8	2.0	-24.1
113.4	33470	64.6	0.22294	159.5	15.30	7.0	0.8451	234.1	966.2	234.05				999.9	999.9	999.9	999.9
114.0	33771	62.7	0.22516	153.5	15.51	6.7	0.8261	235.9	986.1	235.94				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72377   LAUNCH TIME 0425 GMT   ECC SONDE 3A-099X

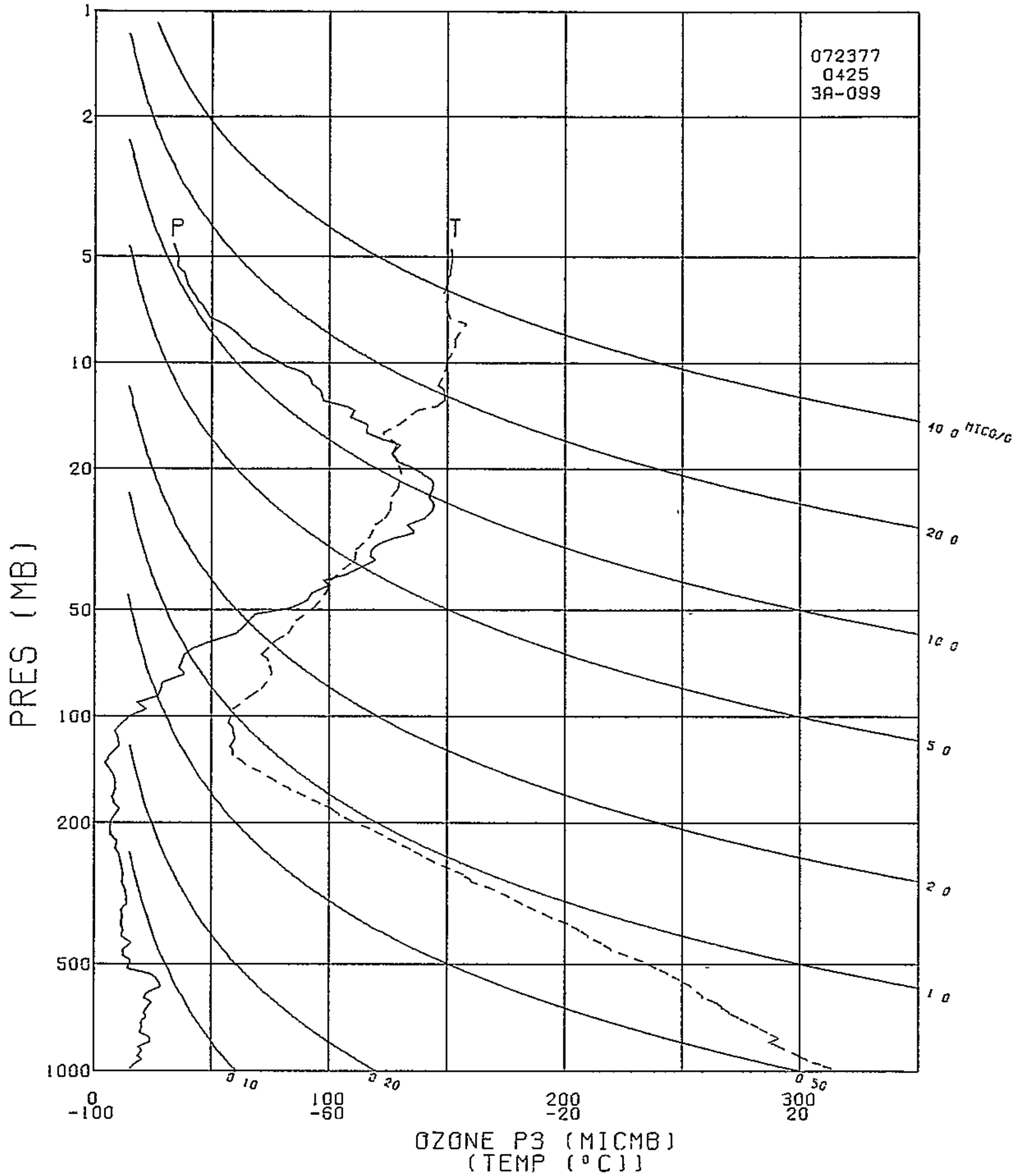
SURFACE CONDITIONS				
PRESS 1004.7 MB	OO3 = 35.6	TBOX CAL = 30.0 C	AT	74.3 ORD
TEMP 299.7 K	OIZ = 34.9	BASE CAL = 30.0 C	AT	73.7 ORD
HUMY 91.0 %	OZC = 64.0	HUMIDITY = 61.4 %	AT	46.0 ORD
	IO = 0.124			
	PS = 28.4			

	PROFILE	DOBSON
INTEGRATED OZONE	0.22528	
RESIDUAL OZONE	0.02048	
TOTAL OZONE	0.24576	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	11.0	0.	21.3	0.02	1004.7	3.0020	299.2	298.8	302.57	87.7	297.0	0.0185	2.0	300.0	-1.0	1.7
0.2	94	11.9	0.00005	22.9	0.02	1000.0	3.0000	299.1	299.1	302.49	89.6	297.2	0.0191	2.1	332.7	-1.8	1.0
1.0	273	15.6	0.00026	30.1	0.03	980.0	2.9912	298.5	300.2	302.16	97.8	298.1	0.0202	6.0	23.9	-5.5	-2.4
2.0	519	17.2	0.00062	33.5	0.03	953.0	2.9791	296.6	300.7	299.86	95.6	295.8	0.0181	6.5	14.8	-6.3	-1.7
3.0	760	20.2	0.00103	39.7	0.04	927.0	2.9671	294.3	300.7	297.23	95.9	293.6	0.0163	4.5	5.1	-4.5	-0.4
4.0	978	18.4	0.00141	36.2	0.03	904.0	2.9562	293.0	301.5	295.78	97.6	292.6	0.0156	4.1	358.5	-4.1	0.1
4.1	1016	18.7	0.00148	36.8	0.03	900.0	2.9542	292.8	301.8	295.58	96.6	292.3	0.0152	4.1	359.7	-4.1	0.0
5.0	1249	20.4	0.00190	40.3	0.04	876.0	2.9425	291.9	303.2	294.39	90.6	290.3	0.0140	4.2	7.1	-4.1	-0.5
6.0	1497	18.5	0.00234	36.8	0.04	851.0	2.9299	289.6	303.2	291.94	96.9	289.1	0.0133	4.4	41.5	-3.3	-2.9
6.0	1506	18.7	0.00236	37.2	0.04	850.0	2.9294	289.5	303.3	291.85	96.1	288.9	0.0130	4.4	42.1	-3.3	-2.9
7.0	1740	23.7	0.00281	47.5	0.05	827.0	2.9175	288.0	304.0	289.68	76.6	283.9	0.0097	4.2	58.4	-2.2	-3.5
8.0	1990	23.9	0.00337	47.7	0.05	803.0	2.9047	289.4	308.1	291.17	70.6	284.0	0.0101	2.9	76.9	-0.7	-2.8
8.1	2021	23.4	0.00343	46.7	0.05	800.0	2.9031	289.2	308.2	290.96	70.6	283.8	0.0100	3.1	79.9	-0.5	-3.0
9.0	2280	19.3	0.00395	38.8	0.04	776.0	2.8899	287.6	309.2	289.20	70.5	282.3	0.0093	4.8	95.1	0.4	-4.7
10.0	2545	20.5	0.00444	41.3	0.05	752.0	2.8762	286.0	310.3	287.33	62.4	279.0	0.0077	6.9	96.6	0.8	-6.8
11.0	2817	19.8	0.00496	40.3	0.05	728.0	2.8621	284.3	311.3	285.48	62.0	277.3	0.0070	7.6	95.3	0.7	-7.5
12.0	3084	21.6	0.00548	44.1	0.05	705.0	2.8482	282.6	312.3	283.53	52.3	273.3	0.0055	8.6	98.5	1.3	-8.5
12.2	3142	21.5	0.00560	44.0	0.05	700.0	2.8451	282.2	312.5	283.18	53.1	273.2	0.0054	9.2	99.8	1.6	-9.1
13.0	3334	21.2	0.00599	43.6	0.05	684.0	2.8351	281.1	313.3	282.06	55.7	272.8	0.0054	11.1	103.0	2.5	-10.8
14.0	3590	22.3	0.00653	46.1	0.06	663.0	2.8215	279.9	314.7	280.16				12.9	100.6	2.4	-12.6
15.0	3891	24.3	0.00721	50.3	0.06	639.0	2.8055	278.8	316.9	279.04				11.0	103.8	2.6	-10.6
16.0	4163	21.1	0.00781	44.0	0.06	618.0	2.7910	276.6	317.4	277.04	33.8	262.2	0.0027	8.5	116.9	3.8	-7.6
16.9	4402	22.7	0.00832	47.6	0.06	600.0	2.7782	275.8	319.2	276.00				8.8	108.3	2.8	-8.3
17.0	4429	22.9	0.00838	48.0	0.06	598.0	2.7767	275.7	319.4	275.89				8.8	107.3	2.6	-8.4
18.0	4731	28.1	0.00913	59.0	0.08	576.0	2.7604	274.6	321.5	274.59				10.1	97.6	1.3	-10.0
19.0	5057	26.9	0.01002	56.9	0.08	553.0	2.7427	272.6	322.9	272.64				10.4	89.5	-0.1	-10.4
20.0	5394	23.7	0.01086	50.6	0.07	530.0	2.7243	270.6	324.4	270.58				10.5	76.7	-2.4	-10.2
21.0	5682	14.1	0.01141	30.2	0.05	511.0	2.7084	268.6	325.4	268.67				9.3	73.1	-2.7	-8.9
21.5	5852	14.8	0.01166	31.9	0.05	500.0	2.6990	267.5	326.0	267.52				8.8	73.0	-2.6	-8.4
22.0	6026	15.5	0.01192	33.5	0.05	489.0	2.6893	266.3	326.7	266.34				8.2	73.0	-2.4	-7.8
23.0	6333	12.3	0.01235	26.9	0.04	470.0	2.6721	263.7	327.1	263.75				7.4	65.8	-3.0	-6.8
24.0	6616	12.2	0.01271	27.1	0.04	453.0	2.6561	260.9	327.2	261.04	20.1	242.7	0.0007	7.4	66.6	-2.9	-6.7
25.0	6942	15.7	0.01318	34.9	0.06	434.0	2.6375	259.2	329.1	259.26				6.9	70.4	-2.3	-6.5
26.0	7280	11.4	0.01366	25.7	0.05	415.0	2.6180	257.0	330.4	257.03				5.2	68.1	-1.9	-4.8
26.9	7556	12.0	0.01400	27.2	0.05	400.0	2.6021	255.6	332.1	255.62				4.0	64.0	-1.8	-3.6
27.0	7575	12.1	0.01403	27.3	0.05	399.0	2.6010	255.5	332.2	255.52				3.9	63.6	-1.8	-3.5
28.0	7899	11.4	0.01443	26.0	0.05	382.0	2.5821	253.5	333.7	253.49				2.8	42.6	-2.1	-1.9
29.0	8214	11.9	0.01482	27.4	0.05	366.0	2.5635	250.5	333.9	250.54				3.2	12.9	-3.1	-0.7
30.0	8540	11.3	0.01523	26.2	0.05	350.0	2.5441	248.0	334.8	248.03				3.7	11.5	-3.7	-0.7
31.0	8813	13.4	0.01560	31.4	0.07	337.0	2.5276	245.8	335.4	245.79				4.0	11.9	-3.9	-0.8
32.0	9161	13.7	0.01612	32.5	0.07	321.0	2.5065	243.6	337.0	243.56				3.4	13.6	-3.3	-0.8
33.0	9523	13.0	0.01666	31.3	0.07	305.0	2.4843	240.8	338.1	240.81				0.7	29.4	-0.6	-0.3
33.4	9638	12.6	0.01682	30.4	0.07	300.0	2.4771	239.5	337.9	239.56				0.5	56.3	-0.3	-0.4
34.0	9851	11.8	0.01712	28.7	0.07	291.0	2.4639	237.2	337.6	237.27	38.7	228.2	0.0002	0.6	127.0	0.4	-0.5
35.0	10167	12.3	0.01755	30.1	0.07	278.0	2.4440	235.8	339.9	235.79	25.7	223.3	0.0001	1.4	54.1	-0.8	-1.1
36.0	10444	11.6	0.01793	28.7	0.07	267.0	2.4265	233.5	340.5	233.50				1.5	357.1	-1.5	0.1
37.0	10730	11.0	0.01831	27.5	0.07	256.0	2.4082	230.9	340.8	230.90				1.8	316.3	-1.3	1.2
37.6	10889	10.6	0.01851	26.7	0.07	250.0	2.3979	229.7	341.3	229.66				2.0	300.6	-1.0	1.7
38.0	10998	10.4	0.01864	26.2	0.07	246.0	2.3909	228.8	341.6	228.81				2.2	292.1	-0.8	2.1
39.0	11274	8.8	0.01896	22.4	0.06	236.0	2.3729	226.8	342.7	226.84				3.3	280.8	-0.6	3.2
40.0	11589	9.5	0.01930	24.3	0.07	225.0	2.3522	224.4	343.6	224.38				4.7	274.6	-0.4	4.7
41.0	11886	6.8	0.01959	17.7	0.05	215.0	2.3324	222.2	344.7	222.15				6.7	261.4	1.0	6.7
42.0	12162	6.8	0.01982	17.9	0.05	206.0	2.3139	220.0	345.5	220.01				6.8	266.3	0.4	6.8
42.7	12350	6.8	0.01998	18.1	0.06	200.0	2.3010	218.0	345.3	218.02				6.6	273.4	-0.4	6.6
43.0	12447	6.9	0.02006	18.3	0.06	197.0	2.2945	217.0	345.2	217.00				6.6	277.1	-0.8	6.5
44.0	12709	8.5	0.02032	22.7	0.07	189.0	2.2765	214.8	345.8	214.84				7.5	261.2	1.2	7.4
45.0	12945	10.3	0.02060	28.0	0.09	182.0	2.2601	213.6	347.6	213.65				9.2	253.8	2.6	8.8
46.0	13189	8.4	0.02088	22.8	0.08	175.0	2.2430	211.5	348.1	211.53				9.0	260.4	1.5	8.9
47.0	13477	7.7	0.02118	21.2	0.08	167.0	2.2227	208.9	348.4	208.94				8.7	273.3	-0.5	8.6
48.0	13737	8.9	0.02146	24.8	0.09	160.0	2.2041	206.6	348.7	206.59				9.8	279.2	-1.6	9.7
49.0	14085	8.9	0.02187	25.2	0.10	151.0	2.1790	203.9	349.9	203.90				10.9	271.1	-0.2	10.9
49.1	14124	8.7	0.02191	24.6	0.10	150.0	2.1761	203.6	350.1	203.60				10.9	270.4	-0.1	10.9
50.0	14408	7.0	0.02221	20.2	0.08	143.0	2.1553	201.5	351.2	201.46				11.2	265.6	0.9	11.1
51.0	14745	4.4	0.02247	12.8	0.05	135.0	2.1303	198.6	351.9	198.60				9.5	268.8	0.2	9.5
52.0	15053	6.4	0.02270	18.8	0.08	128.0	2.1072	196.8	354.1	196.82				7.1	273.1	-0.4	7.1
52.4	15189	8.0	0.02285	23.6	0.11	125.0	2.0969	196.6	356.1	196.60				6.7	277.7	-0.9	6.6
53.0	15376	10.3	0.02307	30.2	0.14	121.0	2.0828	196.3	358.9	196.29				6.2	285.0	-1.6	6.0
54.0	15668	10.2	0.02348	29.8	0.15	115.0	2.0607	197.1	365.6	197.08				4.6	306.7	-2.8	3.7
55.0	15977	8.6	0.02387	25.2	0.13	109.0	2.0374	196.8	370.8	196.82				3.2	357.9	-3.2	0.1
56.0	16247	11.7	0.02425	34.5	0.19	104.0	2.0170	196.0	374.2	196.02				3.3	44.9	-2.4	-2.3
56.8	16472	14.5	0.02466	42.5	0.24	100.0	2.0000	196.4	379.3	196.45				3.7	101.4	0.7	-3.7
57.0	16530	15.2	0.02477	44.6	0.25	99.0	1.9956	196.6	380.6	196.56				4.3	110.9	1.5	-4.0
58.0	16767	21.7	0.02537	63.7	0.38	95.0	1.9777	196.8	385.6	196.82				5.1	118.1	2.4	-4.5

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRLSS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	17034	18.1	0.02610	53.1	0.33	90.7	1.9576	197.1	391.3	197.08				3.2	115.0	1.3	-2.9
60.0	17276	27.0	0.02684	77.9	0.51	87.0	1.9395	199.8	401.5	199.82				3.8	64.1	-1.7	-3.4
61.0	17538	28.2	0.02781	80.7	0.56	83.2	1.9201	201.7	410.4	201.69				11.0	53.7	-6.5	-8.8
61.9	17769	28.8	0.02870	82.5	0.60	80.0	1.9031	201.9	415.4	201.88				15.2	69.4	-5.4	-14.2
62.0	17806	28.9	0.02884	82.7	0.60	79.5	1.9004	201.9	416.2	201.91				15.9	71.1	-5.2	-15.1
63.0	18104	38.2	0.03017	108.4	0.84	75.6	1.8785	203.5	425.5	203.46				18.3	82.3	-2.4	-18.2
64.0	18353	35.9	0.03139	102.1	0.82	72.5	1.8603	203.2	430.2	203.25				16.4	90.2	0.1	-16.4
64.8	18561	37.1	0.03241	105.6	0.88	70.0	1.8451	202.9	433.7	202.88				15.8	93.6	1.0	-15.7
65.0	18604	37.3	0.03261	106.3	0.89	69.5	1.8420	202.8	434.5	202.81				15.6	94.4	1.2	-15.6
66.0	18865	38.2	0.03393	109.3	0.95	66.5	1.8228	201.7	437.5	201.69				16.6	91.1	0.3	-16.6
67.0	19137	42.7	0.03540	122.2	1.11	63.5	1.8028	201.9	443.8	201.91				18.2	97.5	2.4	-18.0
68.0	19414	50.9	0.03713	144.0	1.39	60.6	1.7825	204.1	454.7	204.11				18.1	98.5	2.7	-17.9
68.2	19473	53.1	0.03757	149.7	1.47	60.0	1.7782	204.6	457.1	204.58				17.7	96.4	2.0	-17.6
69.0	19677	60.4	0.03906	169.1	1.73	58.0	1.7634	206.2	465.1	206.19				16.5	88.6	-0.4	-16.5
70.0	19921	63.4	0.04103	177.3	1.89	55.7	1.7459	206.6	471.5	206.59				19.1	82.5	-2.5	-18.9
71.0	20188	66.0	0.04328	183.5	2.05	53.3	1.7267	207.6	479.7	207.59				23.4	83.4	-2.7	-23.2
72.0	20456	69.0	0.04563	191.3	2.24	51.0	1.7076	208.2	487.2	208.17				25.9	82.8	-3.2	-25.7
72.5	20577	76.5	0.04683	210.8	2.54	50.0	1.6990	209.4	492.8	209.38				27.0	81.5	-4.0	-26.7
73.0	20701	84.1	0.04805	230.6	2.85	49.0	1.6902	210.6	498.6	210.62				28.2	80.3	-4.7	-27.8
74.0	20997	90.8	0.05136	248.9	3.22	46.7	1.6693	210.6	505.5	210.62				31.2	83.1	-3.7	-31.0
75.0	21296	92.6	0.05486	251.5	3.45	44.5	1.6484	212.6	517.3	212.60				32.1	87.7	-1.3	-32.1
76.0	21582	99.4	0.05834	269.2	3.87	42.5	1.6284	213.1	525.4	213.12				32.2	90.2	0.1	-32.2
77.0	21806	97.3	0.06113	263.2	3.93	41.0	1.6128	213.5	531.7	213.47				33.3	89.0	-0.6	-33.3
77.6	21960	103.4	0.06312	279.1	4.29	40.0	1.6021	213.9	536.6	213.90				33.7	89.5	-0.3	-33.7
78.0	22055	107.1	0.06434	288.8	4.51	39.4	1.5955	214.2	539.5	214.16				34.0	89.8	-0.1	-34.0
79.0	22282	112.1	0.06747	300.1	4.89	38.0	1.5798	215.7	549.0	215.68				35.5	96.1	3.8	-35.3
80.0	22624	119.5	0.07241	317.3	5.50	36.0	1.5563	217.5	562.2	217.48				34.9	102.5	7.6	-34.1
81.0	22803	117.3	0.07504	311.0	5.55	35.0	1.5441	217.8	567.6	217.80				32.7	103.9	7.8	-31.7
82.0	23082	118.1	0.07911	313.2	5.84	33.5	1.5250	217.8	574.8	217.80				32.5	101.5	6.5	-31.9
83.0	23315	121.1	0.08255	319.9	6.21	32.3	1.5092	218.6	582.9	218.60				33.8	99.8	5.7	-33.3
84.0	23578	127.7	0.08659	335.2	6.83	31.0	1.4914	220.0	593.6	220.01				30.9	98.3	4.5	-30.5
85.0	23789	135.9	0.09000	355.0	7.51	30.0	1.4771	221.1	602.1	221.09				26.8	99.0	4.2	-26.4
86.0	24121	133.0	0.09544	347.3	7.73	28.5	1.4548	221.1	611.0	221.09				29.3	95.0	2.5	-29.1
87.0	24376	140.3	0.09968	363.9	8.48	27.4	1.4378	222.6	622.1	222.60				26.6	92.3	1.1	-26.6
88.0	24718	143.8	0.10556	371.4	9.16	26.0	1.4150	223.5	634.1	223.50				19.6	80.8	-3.1	-19.4
89.0	24974	144.4	0.11002	372.3	9.57	25.0	1.3979	223.9	642.5	223.94				22.9	69.1	-8.2	-21.4
90.0	25324	142.3	0.11606	367.1	9.95	23.7	1.3747	223.8	651.9	223.79				26.2	76.9	-5.9	-25.6
91.0	25636	143.9	0.12143	369.6	10.55	22.6	1.3541	224.8	663.9	224.82				18.1	83.7	-2.0	-18.0
92.0	25934	144.0	0.12657	369.0	11.05	21.6	1.3345	225.4	674.3	225.40				11.4	62.8	-5.2	-10.1
93.0	26279	139.3	0.13241	356.9	11.26	20.5	1.3118	225.4	684.4	225.40				12.6	44.9	-8.9	-8.9
93.7	26441	136.7	0.13509	350.9	11.33	20.0	1.3010	225.0	688.0	224.99				10.6	53.4	-6.3	-8.5
94.0	26508	135.7	0.13618	348.4	11.35	19.8	1.2967	224.8	689.4	224.82				9.9	57.8	-5.3	-8.3
95.0	26814	128.9	0.14104	331.3	11.30	18.9	1.2765	224.7	698.2	224.67				11.3	77.0	-2.5	-11.0
96.0	27134	126.5	0.14595	326.2	11.64	18.0	1.2553	223.8	705.2	223.79				11.8	80.9	-1.9	-11.6
96.5	27318	128.2	0.14880	330.1	12.15	17.5	1.2430	224.2	712.1	224.16				7.6	81.7	-1.1	-7.5
97.0	27509	130.0	0.15174	334.2	12.67	17.0	1.2304	224.5	719.2	224.53				3.3	84.6	-0.3	-3.3
98.0	27744	122.8	0.15532	316.7	12.40	16.4	1.2148	223.8	724.3	223.79				2.4	339.3	-2.3	0.9
99.0	28028	115.8	0.15942	300.9	12.22	15.7	1.1959	222.2	728.0	222.15				7.0	42.1	-5.2	-4.7
99.9	28326	116.2	0.16360	298.8	12.84	15.0	1.1761	224.6	745.7	224.61				8.8	66.5	-3.5	-8.0
100.0	28370	116.3	0.16421	298.5	12.93	14.9	1.1732	225.0	748.3	224.97				9.1	69.2	-3.2	-8.5
101.0	28686	108.8	0.16849	279.6	12.70	14.2	1.1523	224.7	757.7	224.67				9.4	84.0	-1.0	-9.4
102.0	28972	110.7	0.17222	280.2	13.48	13.6	1.1335	228.0	778.3	227.97				7.7	90.0	0.0	-7.7
103.0	29172	106.7	0.17478	266.4	13.40	13.2	1.1206	231.3	796.5	231.31				3.3	162.8	3.1	-1.0
104.0	29434	97.3	0.17789	241.4	12.69	12.7	1.1038	232.7	810.1	232.67				4.9	209.8	4.3	2.5
104.3	29542	97.0	0.17911	240.8	12.87	12.5	1.0969	232.7	813.8	232.67				4.2	205.6	3.8	1.8
105.0	29820	96.4	0.18222	239.3	13.32	12.0	1.0792	232.7	823.3	232.67				2.4	182.9	2.4	0.1
106.0	30109	92.8	0.18540	231.4	13.37	11.5	1.0607	231.6	829.4	231.58				5.8	128.8	3.6	-4.5
107.0	30410	91.6	0.18864	228.3	13.80	11.0	1.0414	231.7	840.5	231.72				10.6	117.5	4.9	-9.4
108.0	30726	87.2	0.19192	216.4	13.77	10.5	1.0212	232.8	855.8	232.81				9.2	117.7	4.3	-8.1
109.0	30923	81.7	0.19385	202.3	13.27	10.2	1.0086	233.1	863.9	233.08				9.1	118.5	4.4	-8.0
109.5	31058	79.5	0.19509	196.9	13.17	10.0	1.0000	233.1	868.8	233.08				10.1	115.3	4.3	-9.2
110.0	31196	77.3	0.19636	191.4	13.06	9.8	0.9912	233.1	873.9	233.08				11.2	112.6	4.3	-10.3
111.0	31480	71.8	0.19881	177.5	12.66	9.4	0.9731	233.6	886.4	233.62				12.2	119.8	6.1	-10.6
112.0	31778	66.8	0.20119	164.5	12.30	9.0	0.9542	234.4	900.6	234.43				12.4	115.4	5.3	-11.2
113.0	32170	62.8	0.20411	154.8	12.25	8.5	0.9294	234.4	915.4	234.43				10.9	86.8	-0.6	-10.9
114.0	32501	59.4	0.20644	146.1	12.16	8.1	0.9085	234.8	929.7	234.83				10.9	68.1	-4.0	-10.1
114.2	32586	58.2	0.20700	142.9	12.05	8.0	0.9031	235.2	934.4	235.19				10.7	66.6	-4.3	-9.8
115.0	32850	54.4	0.20871	133.0	11.72	7.7	0.8865	236.3	949.1	236.30				10.4	61.6	-4.9	-9.1
116.0	33123	49.0	0.21034	121.4	10.98	7.4	0.8692	233.3	948.0	233.35				11.6	54.1	-6.8	-9.4
117.0	33502	46.9	0.21244	116.1	11.10	7.0	0.8451	233.1	962.0	233.08				13.9	59.1	-7.1	-11.9
118.0	33801	44.4	0.21402	110.1	10.99	6.7	0.8261	233.1	974.1	233.08				16.9	73.3	-4.9	-16.2
119.0	34220	41.6	0.21610	103.2	10.93	6.3	0.7993	232.5	989.1	232.54				20.3	80.3	-3.4	-20.0
120.0	34552	39.8	0.21767	98.8	10.98	6.0	0.7782	232.4	1002.4	232.40				24.6	81.0	-3.9	-24.3
121.0	35022	38.4	0.21980	94.9	11.35	5.6	0.7482	233.5	1027.1	233.49				26.8	79.0	-5.1	-26.3
122.0	35398	35.2	0.22139	86.8	10.99	5.3	0.7243	233.8	1044.6	233.76				25.0	78.3	-5.1	-24.5
123.0	35797	35.5	0.22302	87.7	11.77	5.0	0.6990	234.0	1063.4	234.02				25.8	80.5	-4.3	-25.4
124.0	36368	33.2	0.22528	81.9	11.94	4.6	0.6628	233.6	1087.2	233.62				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72377   LAUNCH TIME 1038 GMT   ECC SONDE 3A-100X

SURFACE CONDITIONS
PRESS 1003.0 MB
TEMP 299.4 K
HUMY 89.0 %

003 = 33.8
OIZ = 33.2
OZC = 59.4
IO = 0.118
PS = 29.4

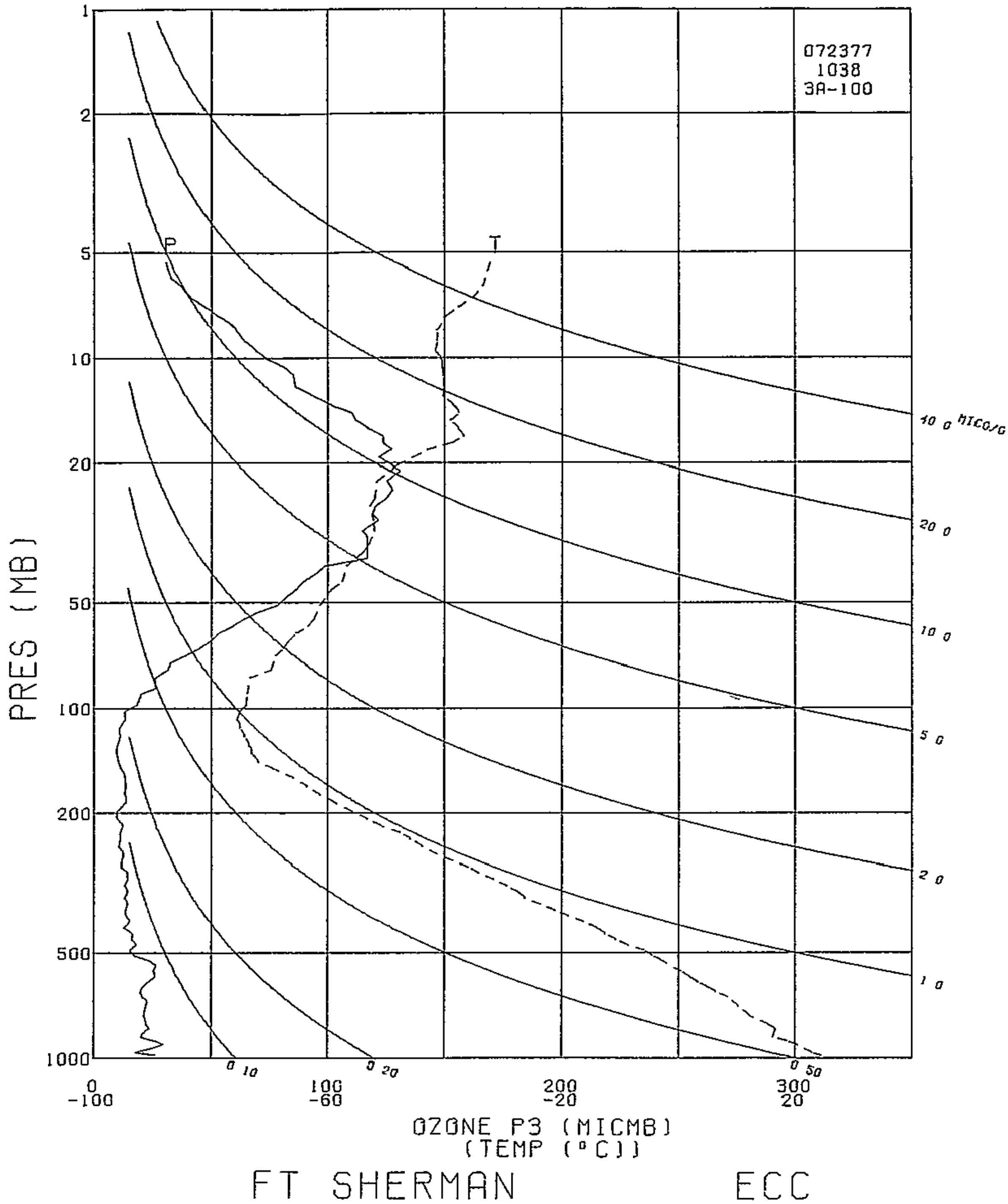
TBOX CAL = 30.0 C AT 73.7 ORD
BASE CAL = 30.0 C AT 73.0 ORD
HUMIDITY = 60.8 % AT 46.0 ORD

	PROFILE	DOBSON
INTEGRATED OZONE	0.21435	
RESIDUAL OZONE	0.01935	
TOTAL OZONE	0.23370	0.

TIME MIN	ALT GP M	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	13.9	0.	26.7	0.02	1003.0	3.0013	299.0	298.8	302.28	84.8	296.3	0.0177	2.0	45.0	-1.4	-1.4
0.1	79	15.3	0.00005	29.6	0.03	1000.0	3.0000	298.9	298.9	302.07	84.2	296.0	0.0173	2.3	39.9	-1.8	-1.5
1.0	275	26.1	0.00040	50.7	0.04	978.0	2.9903	297.6	299.5	300.49	79.8	293.9	0.0157	5.1	24.9	-4.7	-2.2
2.0	446	17.8	0.00074	34.7	0.03	959.0	2.9818	296.0	299.6	297.79	53.2	286.0	0.0097	6.4	18.3	-6.1	-2.0
3.0	685	24.7	0.00120	48.3	0.04	933.0	2.9699	295.1	301.0	297.39	70.5	289.5	0.0125	6.5	11.5	-6.4	-1.3
4.0	892	29.6	0.00171	58.2	0.05	911.0	2.9595	293.4	301.3	295.48	71.4	288.0	0.0116	5.6	14.9	-5.4	-1.5
4.5	996	27.8	0.00197	54.9	0.05	900.0	2.9542	292.6	301.6	294.68	73.5	287.7	0.0115	5.6	22.7	-5.2	-2.2
5.0	1122	25.7	0.00229	51.0	0.05	887.0	2.9479	291.7	301.9	293.73	76.1	287.4	0.0114	5.7	31.9	-4.8	-3.0
6.0	1327	20.2	0.00273	40.2	0.04	866.0	2.9375	289.4	301.6	291.39	82.9	286.5	0.0111	6.9	38.9	-5.3	-4.3
6.8	1485	20.7	0.00303	41.3	0.04	850.0	2.9294	288.9	302.7	290.60	71.9	283.8	0.0092	6.9	39.0	-5.4	-4.3
7.0	1516	20.8	0.00308	41.6	0.04	847.0	2.9279	288.8	302.9	290.45	69.8	283.3	0.0092	6.9	39.0	-5.4	-4.3
8.0	1781	23.2	0.00363	46.1	0.05	821.0	2.9143	289.8	306.6	291.42	61.8	282.5	0.0089	4.9	44.8	-3.5	-3.5
8.9	2000	22.6	0.00409	45.2	0.05	800.0	2.9031	288.7	307.7	290.23	61.4	281.3	0.0084	4.7	55.0	-2.7	-3.9
9.0	2022	22.6	0.00414	45.1	0.05	798.0	2.9020	288.6	307.9	290.12	61.4	281.2	0.0084	4.7	56.1	-2.6	-3.9
10.0	2269	21.9	0.00465	44.0	0.05	775.0	2.8893	287.4	309.2	288.87	61.7	280.2	0.0081	5.8	65.1	-2.4	-5.2
11.0	2489	21.4	0.00510	43.3	0.05	755.0	2.8779	285.5	309.4	286.79	61.5	278.3	0.0073	6.4	81.3	-1.0	-6.3
12.0	2736	21.4	0.00560	43.5	0.05	733.0	2.8651	284.6	311.0	285.80	61.4	277.4	0.0070	7.3	95.1	0.6	-7.2
13.0	3013	22.1	0.00617	44.9	0.05	709.0	2.8506	283.5	312.7	284.34	46.2	272.4	0.0051	8.0	99.1	1.3	-7.9
13.4	3119	22.3	0.00639	45.5	0.05	700.0	2.8451	283.2	313.6	284.07	43.8	271.5	0.0046	8.3	100.2	1.5	-8.2
14.0	3275	22.7	0.00673	46.4	0.05	687.0	2.8370	282.9	314.9	283.68	40.3	270.1	0.0044	8.8	101.7	1.8	-8.6
15.0	3532	20.7	0.00726	42.5	0.05	666.0	2.8235	281.6	316.3	282.52	48.8	271.5	0.0051	8.8	101.3	1.7	-8.7
16.0	3808	20.0	0.00780	41.3	0.05	644.0	2.8089	279.5	317.0	280.39	54.1	270.9	0.0050	8.7	98.9	1.3	-8.6
17.0	4066	20.7	0.00830	42.9	0.05	624.0	2.7952	278.2	318.3	278.65	33.3	263.4	0.0029	9.8	101.5	2.0	-9.6
18.0	4317	22.7	0.00883	47.4	0.06	605.0	2.7818	276.5	319.2	276.94	35.3	262.6	0.0028	11.9	99.6	2.0	-11.8
18.2	4383	23.4	0.00899	49.0	0.06	600.0	2.7782	276.1	319.5	276.50				12.2	99.7	2.0	-12.0
19.0	4616	25.9	0.00954	54.3	0.07	583.0	2.7657	275.0	320.8	274.98				12.9	99.9	2.2	-12.7
20.0	4910	25.2	0.01028	53.2	0.07	562.0	2.7497	273.5	322.5	273.60				11.4	100.0	2.0	-11.3
21.0	5214	26.5	0.01106	56.1	0.08	541.0	2.7332	272.6	324.9	272.56				9.8	91.5	0.3	-9.8
22.0	5482	23.2	0.01172	49.7	0.07	523.0	2.7185	270.1	325.0	270.06				8.0	78.1	-1.7	-7.9
23.0	5742	17.3	0.01225	37.2	0.06	506.0	2.7042	268.5	326.2	268.60				6.8	65.5	-2.8	-6.1
23.3	5835	16.6	0.01241	35.8	0.05	500.0	2.6990	268.0	326.7	268.06				6.9	62.0	-3.2	-6.1
24.0	6010	15.3	0.01269	33.1	0.05	489.0	2.6893	267.0	327.6	267.05				7.3	56.1	-4.1	-6.0
25.0	6301	17.9	0.01318	39.1	0.06	471.0	2.6730	264.1	327.5	264.11				7.3	56.0	-4.1	-6.0
26.0	6550	15.9	0.01362	35.1	0.06	456.0	2.6590	262.2	328.2	262.23				7.3	72.7	-2.2	-7.0
27.0	6858	16.6	0.01413	36.7	0.06	438.0	2.6415	260.4	329.6	260.40				7.9	84.2	-0.8	-7.9
28.0	7141	12.5	0.01456	27.8	0.05	422.0	2.6253	259.0	331.4	258.97				7.0	89.1	-0.1	-7.0
29.0	7470	15.2	0.01504	34.2	0.06	404.0	2.6064	256.8	332.6	256.75				4.8	88.8	-0.1	-4.8
29.3	7544	14.7	0.01515	33.1	0.06	400.0	2.6021	256.1	332.7	256.07				4.0	87.2	-0.2	-4.0
30.0	7753	13.2	0.01546	30.0	0.06	389.0	2.5899	254.2	332.9	254.16				1.7	74.9	-0.4	-1.7
31.0	8024	13.7	0.01585	31.3	0.06	375.0	2.5740	251.9	333.3	251.87				1.5	8.9	-1.5	-0.2
32.0	8323	14.2	0.01630	32.9	0.07	360.0	2.5563	249.3	333.9	249.35				3.1	27.6	-2.7	-1.4
32.7	8527	13.3	0.01660	31.0	0.06	350.0	2.5441	247.4	334.0	247.47				3.0	21.5	-2.8	-1.1
33.0	8611	12.9	0.01672	30.3	0.06	346.0	2.5391	246.7	334.1	246.70				3.0	18.9	-2.8	-1.0
34.0	8865	14.4	0.01710	33.9	0.07	334.0	2.5237	245.6	336.0	245.64				1.7	26.8	-1.5	-0.8
35.0	9171	13.0	0.01757	30.8	0.07	320.0	2.5051	243.6	337.4	243.65				2.0	83.2	-0.2	-2.0
36.0	9488	14.4	0.01805	34.4	0.08	306.0	2.4857	241.4	338.6	241.41	25.7	228.3	0.0002	1.1	103.4	0.2	-1.0
36.5	9627	14.4	0.01827	34.5	0.08	300.0	2.4771	240.1	338.7	240.16	25.8	227.2	0.0002	0.1	160.1	0.1	-0.0
37.0	9769	14.4	0.01850	34.7	0.08	294.0	2.4683	238.8	338.9	238.88	25.9	226.1	0.0002	1.0	274.2	-0.1	1.0
38.0	10034	11.6	0.01889	28.4	0.07	283.0	2.4518	237.1	340.1	237.12	20.8	222.7	0.0001	1.4	316.9	-1.0	0.9
39.0	10333	12.0	0.01930	29.5	0.07	271.0	2.4330	234.4	340.4	234.41				2.0	312.6	-1.4	1.5
40.0	10615	12.6	0.01970	31.3	0.08	260.0	2.4150	231.8	340.6	231.78				3.8	276.2	-0.4	3.8
40.8	10879	11.0	0.02006	27.5	0.07	250.0	2.3979	229.8	341.5	229.85				4.5	261.5	0.7	4.5
41.0	10961	10.5	0.02017	26.3	0.07	247.0	2.3927	229.3	341.8	229.25				4.8	257.9	1.0	4.7
42.0	11265	11.2	0.02056	28.5	0.08	236.0	2.3729	227.2	343.3	227.25				4.4	247.4	1.7	4.1
43.0	11581	11.2	0.02098	28.7	0.08	225.0	2.3522	225.5	345.3	225.49				4.9	246.0	2.0	4.4
44.0	11848	12.4	0.02136	32.3	0.10	216.0	2.3345	222.3	344.5	227.33				6.3	263.0	0.8	6.2
45.0	12155	9.8	0.02178	25.7	0.08	206.0	2.3139	220.0	345.5	219.98				5.7	264.0	0.6	5.7
45.6	12343	9.8	0.02200	25.9	0.08	200.0	2.3010	218.3	345.8	218.34				4.5	267.7	0.2	4.5
46.0	12473	9.8	0.02216	26.1	0.08	196.0	2.2923	217.2	346.0	217.22				3.7	271.7	-0.1	3.7
47.0	12838	13.6	0.02269	36.7	0.12	185.0	2.2672	214.3	347.1	214.32				4.1	292.2	-1.6	3.8
48.0	13149	13.0	0.02322	35.3	0.12	176.0	2.2455	211.8	347.9	211.81				5.9	282.7	-1.3	5.7
49.0	13472	13.6	0.02377	37.4	0.13	167.0	2.2227	209.5	349.4	209.54				8.0	294.8	-3.4	7.3
50.0	13848	13.4	0.02442	37.4	0.14	157.0	2.1959	207.2	351.6	207.16				8.5	302.3	-4.5	7.2
50.8	14122	11.7	0.02487	33.1	0.13	150.0	2.1761	204.5	351.7	204.52				8.3	293.7	-3.3	7.6
51.0	14203	11.2	0.02500	31.8	0.13	148.0	2.1703	203.7	351.7	203.75				8.3	291.2	-3.0	7.7
52.0	14490	10.5	0.02542	30.2	0.12	141.0	2.1492	201.0	351.7	200.98				9.7	285.4	-2.6	9.4
53.0	14789	9.3	0.02581	26.8	0.11	134.0	2.1271	200.0	355.2	200.01				9.8	286.9	-2.8	9.4
54.0	15102	9.9	0.02622	28.8	0.13	127.0	2.1038	199.5	359.8	199.51				8.5	278.0	-1.2	8.4
54.3	15194	10.3	0.02635	29.8	0.14	125.0	2.0969	199.3	361.0	199.30				8.0	277.1	-1.0	8.0
55.0	15432	11.2	0.02669	32.6	0.15	120.0	2.0792	198.8	364.3	198.75				6.9	274.4	-0.5	6.9
56.0	15781	10.9	0.02722	31.8	0.16	113.0	2.0531	198.0	369.1	197.98				3.4	281.3	-0.7	3.3
57.0	16096	13.4	0.02774	39.2	0.21	107.0	2.0294	197.4	373.9	197.45				1.2	75.0	-0.3	-1.2
58.0	16430	13.4	0.02835	39.1	0.22	101.0	2.0043	198.0	381.1	197.98				3.9	111.5	1.4	-3.6

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.2	16487	14.7	0.02848	42.7	0.24	100.0	2.0000	198.2	382.7	198.23				4.3	108.7	1.4	-4.0
59.0	16664	18.5	0.02886	53.8	0.32	97.0	1.9868	199.0	387.6	199.01				5.5	102.6	1.2	-5.4
60.0	17100	20.3	0.03001	58.9	0.37	90.0	1.9542	199.3	396.5	199.26				8.4	72.6	-2.5	-8.0
61.0	17297	26.4	0.03064	76.5	0.50	87.0	1.9395	199.0	399.8	199.01				12.2	64.6	-5.2	-11.0
62.0	17714	26.3	0.03212	76.0	0.54	81.0	1.9085	199.8	409.6	199.76				15.2	66.5	-6.0	-13.9
62.2	17787	27.6	0.03240	79.4	0.57	80.0	1.9031	200.6	412.9	200.63				15.7	69.5	-5.5	-14.7
63.0	18012	31.6	0.03328	89.9	0.68	77.0	1.8865	203.3	422.9	203.30				17.5	77.4	-3.8	-17.1
64.0	18281	32.8	0.03443	93.0	0.74	73.6	1.8669	203.7	429.4	203.75				21.0	82.3	-2.8	-20.9
65.0	18555	39.2	0.03573	110.8	0.92	70.3	1.8470	204.2	436.0	204.19				17.9	86.2	-1.2	-17.8
65.1	18580	39.7	0.03587	112.2	0.94	70.0	1.8451	204.3	436.8	204.31				17.2	87.9	-0.6	-17.2
66.0	18843	45.3	0.03733	127.2	1.12	67.0	1.8261	205.5	444.8	205.49				12.3	114.3	5.1	-11.2
67.0	19138	49.7	0.03916	139.1	1.29	63.8	1.8048	206.3	452.9	206.33				13.7	113.8	5.6	-12.6
68.0	19450	53.3	0.04126	148.1	1.46	60.6	1.7825	207.8	462.8	207.76				16.9	91.0	0.3	-16.9
68.2	19510	54.6	0.04170	151.3	1.51	60.0	1.7782	208.2	465.2	208.21				17.4	90.2	0.1	-17.4
69.0	19718	58.9	0.04320	162.1	1.68	58.0	1.7634	209.7	473.1	209.73				19.1	87.9	-0.7	-19.0
70.0	20000	63.8	0.04542	174.8	1.91	55.4	1.7435	210.7	481.5	210.69				22.2	93.2	1.2	-22.2
71.0	20273	69.4	0.04774	189.6	2.17	53.0	1.7243	211.2	489.0	211.25				26.1	94.9	2.2	-26.0
72.0	20572	78.3	0.05056	213.4	2.57	50.5	1.7033	211.8	497.1	211.81				28.7	93.3	1.7	-28.7
72.2	20633	79.0	0.05119	215.4	2.62	50.0	1.6990	211.8	498.4	211.77				29.1	93.2	1.6	-29.0
73.0	20886	82.0	0.05377	223.8	2.83	48.0	1.6812	211.6	503.9	211.62				30.6	92.9	1.6	-30.5
74.0	21219	86.4	0.05732	233.2	3.14	45.5	1.6580	213.8	516.9	213.79				31.7	90.4	0.2	-31.7
75.0	21545	89.5	0.06092	239.5	3.43	43.2	1.6355	215.7	529.3	215.70				31.8	89.2	-0.4	-31.8
76.0	21875	95.1	0.06473	254.9	3.84	41.0	1.6128	215.5	536.9	215.53				32.8	92.6	1.5	-32.8
76.5	22031	97.0	0.06662	259.3	4.02	40.0	1.6021	216.0	541.7	215.95				33.1	93.8	2.2	-33.0
77.0	22191	98.9	0.06856	263.8	4.20	39.0	1.5911	216.4	546.7	216.38				33.3	95.0	2.9	-33.2
78.0	22508	117.1	0.07281	310.2	5.23	37.1	1.5694	218.0	558.9	218.05				30.4	96.6	3.5	-30.2
79.0	22772	117.2	0.07663	308.4	5.45	35.6	1.5515	219.3	568.9	219.34				30.1	93.9	2.1	-30.1
79.4	22881	117.2	0.07820	308.0	5.55	35.0	1.5441	219.6	572.4	219.64				30.3	91.4	0.8	-30.3
80.0	23067	117.1	0.08088	307.2	5.71	34.0	1.5315	220.1	578.5	220.14				30.7	87.3	-1.5	-30.7
81.0	23397	117.2	0.08562	306.9	6.01	32.3	1.5092	220.5	587.9	220.46				28.5	81.8	-4.1	-28.2
82.0	23662	114.9	0.08938	299.8	6.14	31.0	1.4914	221.2	596.9	221.24				29.3	80.7	-4.8	-28.9
82.5	23874	118.1	0.09244	308.4	6.53	30.0	1.4771	221.2	602.3	221.17				30.1	82.3	-4.0	-29.8
83.0	24094	121.5	0.09560	317.2	6.94	29.0	1.4624	221.1	608.0	221.09				30.9	83.9	-3.3	-30.7
84.0	24390	119.2	0.09996	311.5	7.13	27.7	1.4425	220.9	615.6	220.93				28.8	86.4	-1.8	-28.7
85.0	24725	120.6	0.10486	315.9	7.60	26.3	1.4200	220.5	623.4	220.46				27.4	88.3	-0.8	-27.4
86.0	25052	125.3	0.10978	326.9	8.30	25.0	1.3979	221.2	634.8	221.24				26.2	87.4	-1.2	-26.1
87.0	25398	127.9	0.11512	333.8	8.94	23.7	1.3747	221.2	644.5	221.24				26.9	83.3	-3.1	-26.8
88.0	25792	125.7	0.12121	327.3	9.34	22.3	1.3483	221.7	657.2	221.71				28.7	80.4	-4.8	-28.3
89.0	26183	130.6	0.12728	336.9	10.31	21.0	1.3222	223.9	675.0	223.85				21.7	81.4	-3.3	-21.5
90.0	26470	127.5	0.13174	327.1	10.51	20.1	1.3032	225.0	687.2	225.05				18.2	87.8	-0.7	-18.1
90.1	26503	127.0	0.13223	325.4	10.52	20.0	1.3010	225.3	689.0	225.32				18.0	88.8	-0.4	-18.0
91.0	26808	122.0	0.13676	309.1	10.58	19.1	1.2810	227.8	705.9	227.82				17.0	98.8	2.6	-16.8
92.0	27131	127.1	0.14151	318.7	11.57	18.2	1.2601	230.2	723.3	230.24				12.9	111.7	4.8	-12.0
92.9	27397	124.2	0.14539	306.7	11.76	17.5	1.2430	233.9	743.0	233.87				10.1	131.7	6.7	-7.5
93.0	27436	123.8	0.14596	304.9	11.79	17.4	1.2405	234.4	745.8	234.40				9.8	135.5	7.0	-6.9
94.0	27719	123.9	0.14997	302.6	12.30	16.7	1.2227	236.4	761.2	236.43				10.8	182.8	10.8	0.5
95.0	28058	117.7	0.15465	288.5	12.26	15.9	1.2014	235.5	768.9	235.48				12.2	210.7	10.5	6.2
96.0	28458	111.9	0.15993	275.8	12.36	15.0	1.1761	234.3	777.7	234.26				10.5	213.4	8.8	5.8
97.0	28786	110.3	0.16411	270.2	12.78	14.3	1.1553	235.6	793.0	235.62				9.1	218.2	7.1	5.6
98.0	29131	101.5	0.16831	249.6	12.36	13.6	1.1335	234.7	801.2	234.67				10.0	245.0	4.2	9.1
99.0	29546	93.8	0.17298	232.6	12.14	12.8	1.1072	232.9	809.0	232.89				9.3	280.7	-1.7	9.1
99.4	29707	90.9	0.17466	225.3	12.04	12.5	1.0969	232.9	814.7	232.94				8.2	296.8	-3.7	7.3
100.0	29986	85.8	0.17755	212.7	11.85	12.0	1.0792	233.0	824.5	233.02				8.3	329.2	-7.1	4.2
101.0	30456	85.1	0.18220	211.0	12.59	11.2	1.0492	232.9	840.4	232.89				6.6	2.3	-6.6	-0.3
102.0	30831	81.2	0.18582	201.4	12.69	10.6	1.0253	232.7	853.3	232.75				5.1	39.7	-3.9	-3.3
103.0	31227	73.9	0.18938	183.5	12.25	10.0	1.0000	232.5	866.6	232.47				7.4	74.1	-2.0	-7.1
104.0	31575	69.2	0.19228	172.6	12.07	9.5	0.9777	231.5	875.7	231.50				10.3	81.4	-1.5	-10.2
105.0	32017	64.2	0.19571	159.7	11.94	8.9	0.9494	231.9	893.8	231.92				12.8	64.5	-5.5	-11.5
106.0	32491	60.8	0.19915	151.4	12.14	8.3	0.9191	231.9	911.8	231.92				12.6	43.3	-9.2	-8.7
106.7	32740	58.5	0.20087	145.4	12.10	8.0	0.9031	232.1	922.3	232.13				11.1	35.0	-9.1	-6.4
107.0	32826	57.6	0.20146	143.3	12.09	7.9	0.8976	232.2	925.8	232.20				10.7	31.7	-9.1	-5.6
108.0	33180	52.3	0.20372	129.2	11.55	7.5	0.8751	233.6	945.3	233.57				12.6	50.0	-8.1	-9.6
109.0	33556	47.4	0.20587	116.2	11.07	7.1	0.8513	235.6	968.6	235.62				19.5	67.0	-7.6	-18.0
109.2	33654	45.9	0.20637	112.4	10.86	7.0	0.8451	236.2	974.9	236.18				20.7	70.7	-6.8	-19.5
110.0	33958	41.4	0.20790	100.5	10.24	6.7	0.8261	237.9	994.3	237.91				24.6	79.6	-4.4	-24.2
111.0	34500	37.1	0.21030	89.3	9.90	6.2	0.7924	239.7	1024.1	239.65				21.5	96.9	2.6	-21.3
111.7	34730	34.4	0.21121	82.8	9.49	6.0	0.7782	239.8	1034.5	239.83				21.6	101.9	4.4	-21.1
112.0	34848	33.0	0.21168	79.4	9.27	5.9	0.7709	239.9	1039.8	239.92				21.7	104.4	5.4	-21.0
113.0	35603	30.2	0.21435	72.4	9.45	5.3	0.7243	241.0	1076.9	240.98				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



072377
1038
3A-100
P
T
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
40 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72377   LAUNCH TIME 1620 GMT   ECC SONDE 3A-101X

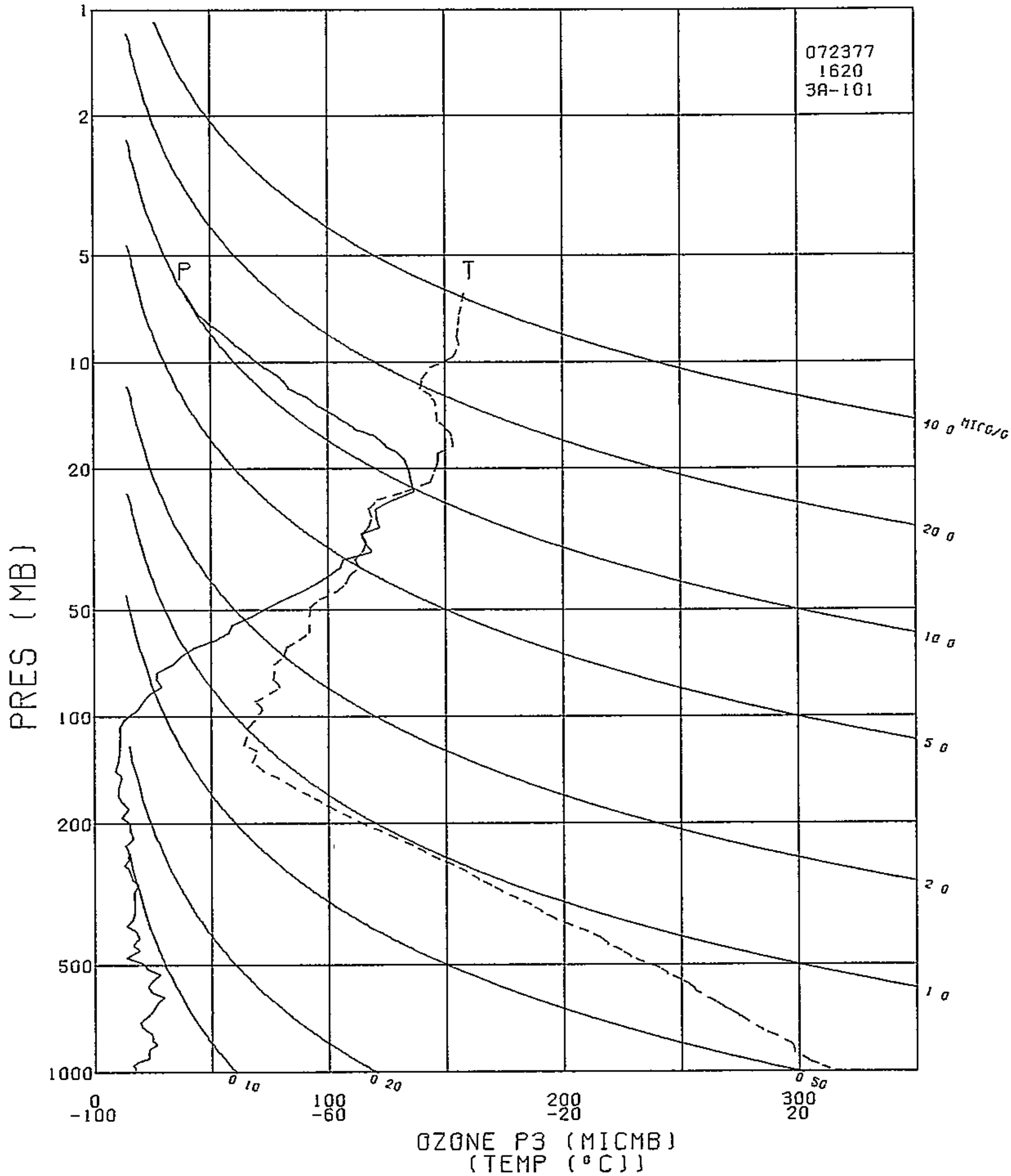
SURFACE CONDITIONS			
PRESS 1005.1 MB	OO3 = 34.0	TBOX CAL = 30.0 C AT 73.4 ORD	
TEMP 302.1 K	OIZ = 33.7	BASE CAL = 30.0 C AT 73.8 ORD	
HUMY 80.0 %	OZC = 60.9	HUMIDITY = 62.4 % AT 46.0 ORD	
	IO = 0.058		
	PS = 29.2		

	PROFILE	DOBSON
INTEGRATED OZONE	0.20949	
RESIDUAL OZONE	0.02440	
TOTAL OZONE	0.23390	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	17.3	0.	33.1	0.03	1005.1	3.0022	301.7	301.2	305.09	76.1	297.1	0.0185	3.0	355.0	-3.0	0.3
0.2	98	17.3	0.00007	33.1	0.03	1000.0	3.0000	301.0	301.0	304.38	78.1	296.8	0.0182	3.4	3.9	-3.4	-0.2
1.0	286	17.3	0.00036	33.4	0.03	979.0	2.9908	298.2	300.0	301.42	86.5	295.8	0.0176	5.5	24.3	-5.0	-2.3
2.0	531	16.0	0.00073	31.2	0.03	952.0	2.9786	296.3	300.5	298.98	78.4	292.4	0.0146	7.1	20.6	-6.6	-2.5
3.0	735	18.4	0.00104	36.0	0.03	930.0	2.9685	294.7	300.9	296.99	72.5	289.6	0.0126	4.7	8.6	-4.6	-0.7
4.0	952	23.1	0.00145	45.2	0.04	907.0	2.9576	294.7	303.1	296.81	65.1	287.9	0.0116	4.7	20.0	-4.4	-1.6
4.2	1018	23.1	0.00159	45.3	0.04	900.0	2.9542	294.1	303.1	296.27	69.7	288.3	0.0123	5.0	25.5	-4.5	-2.1
5.0	1223	23.1	0.00202	45.6	0.04	879.0	2.9440	292.3	303.3	294.65	83.6	289.5	0.0132	6.2	38.3	-4.8	-3.8
6.0	1461	23.1	0.00253	45.8	0.04	855.0	2.9320	291.4	304.8	293.82	87.2	289.3	0.0134	6.7	49.8	-4.4	-5.1
6.2	1511	23.8	0.00264	47.2	0.05	850.0	2.9294	291.5	305.4	293.79	81.8	288.2	0.0121	6.5	52.6	-4.0	-5.2
7.0	1685	26.3	0.00304	52.1	0.05	833.0	2.9206	291.9	307.5	293.69	63.2	284.7	0.0102	6.0	63.8	-2.7	-5.4
8.0	1914	24.6	0.00357	48.9	0.05	811.0	2.9090	290.8	308.7	292.57	64.0	283.9	0.0099	6.3	72.9	-1.9	-6.0
8.4	2030	24.7	0.00384	49.1	0.05	800.0	2.9031	290.0	309.1	291.68	64.0	283.1	0.0094	6.6	76.8	-1.5	-6.4
9.0	2181	24.7	0.00418	49.3	0.05	786.0	2.8954	288.9	309.5	290.54	64.0	282.1	0.0091	7.1	81.3	-1.1	-7.0
10.0	2432	22.6	0.00474	45.6	0.05	763.0	2.8825	286.9	310.0	288.55	72.2	282.0	0.0093	7.1	99.5	1.2	-7.0
11.0	2678	20.1	0.00523	40.6	0.04	741.0	2.8698	285.7	311.3	287.12	63.9	279.1	0.0078	7.5	102.5	1.6	-7.3
12.0	2954	19.5	0.00575	39.7	0.05	717.0	2.8555	284.2	312.6	285.48	63.7	277.6	0.0073	7.8	91.8	0.2	-7.8
12.7	3153	21.7	0.00614	44.2	0.05	700.0	2.6451	283.3	313.6	284.46	63.6	276.7	0.0069	7.5	89.5	-0.1	-7.5
13.0	3225	22.4	0.00629	45.8	0.05	694.0	2.8414	282.9	314.0	284.09	63.5	276.3	0.0069	7.3	88.7	-0.2	-7.3
14.0	3467	24.4	0.00683	50.0	0.06	674.0	2.8287	281.6	315.2	282.72	62.8	274.9	0.0064	6.7	87.6	-0.3	-6.7
15.0	3703	25.7	0.00739	52.9	0.06	655.0	2.8162	280.2	316.2	281.12	58.0	272.5	0.0055	7.2	78.8	-1.4	-7.0
16.0	3996	27.1	0.00814	56.0	0.07	632.0	2.8007	278.8	317.8	279.36	38.7	265.8	0.0035	8.1	91.1	0.2	-8.1
17.0	4258	29.4	0.00885	61.2	0.08	612.0	2.7868	277.7	319.6	278.02	20.0	256.8	0.0017	10.8	98.7	1.6	-10.7
17.6	4418	26.5	0.00927	55.2	0.07	600.0	2.7782	276.5	319.9	276.72				11.6	93.7	0.7	-11.6
18.0	4541	24.2	0.00959	50.7	0.07	591.0	2.7716	275.5	320.2	275.73				12.3	90.3	0.1	-12.3
19.0	4846	22.8	0.01029	47.9	0.07	569.0	2.7551	274.5	322.5	274.76				10.4	84.6	-1.0	-10.4
20.0	5147	24.8	0.01100	52.4	0.07	548.0	2.7388	272.9	324.1	272.99				8.8	86.1	-0.6	-8.8
21.0	5443	27.9	0.01177	59.6	0.09	528.0	2.7226	270.7	324.9	270.71				8.5	88.0	-0.3	-8.5
22.0	5764	21.9	0.01257	47.1	0.07	507.0	2.7050	269.3	327.0	269.41				7.7	77.2	-1.7	-7.5
22.4	5872	21.2	0.01280	45.5	0.07	500.0	2.6990	268.2	327.0	268.37				7.5	69.7	-2.6	-7.0
23.0	6047	19.9	0.01317	43.1	0.07	489.0	2.6893	266.5	327.0	266.72	23.5	249.1	0.0011	7.4	57.2	-4.0	-6.3
24.0	6322	13.4	0.01363	29.3	0.05	472.0	2.6739	264.5	327.7	264.61	20.2	245.7	0.0008	7.9	57.0	-4.3	-6.6
25.0	6639	18.8	0.01415	41.2	0.07	453.0	2.6561	262.7	329.4	262.82				8.0	64.2	-3.5	-7.2
26.0	6949	16.2	0.01471	35.9	0.06	435.0	2.6385	260.6	330.6	260.66				7.7	66.6	-3.1	-7.1
27.0	7252	18.9	0.01527	42.1	0.07	418.0	2.6212	259.3	332.7	259.34				7.1	74.5	-1.9	-6.8
28.0	7584	17.5	0.01590	39.4	0.07	400.0	2.6021	257.1	334.0	257.11				4.7	62.9	-2.2	-4.2
29.0	7870	13.4	0.01637	30.5	0.06	385.0	2.5855	254.4	334.1	254.40				4.3	24.3	-3.9	-1.8
30.0	8204	16.4	0.01690	37.7	0.07	368.0	2.5658	251.4	334.5	251.47				5.2	19.6	-4.9	-1.7
31.0	8509	17.1	0.01745	39.7	0.08	353.0	2.5478	249.3	335.7	249.34				4.4	340.6	-4.2	1.5
31.2	8571	17.1	0.01756	39.7	0.08	350.0	2.5441	249.0	336.0	248.99				4.5	343.8	-4.3	1.3
32.0	8846	17.1	0.01808	40.0	0.08	337.0	2.5276	247.4	337.6	247.47				5.0	356.8	-4.9	0.3
33.0	9152	17.0	0.01865	40.1	0.09	323.0	2.5092	245.2	338.7	245.24				5.1	19.1	-4.8	-1.7
34.0	9468	16.9	0.01924	40.2	0.09	309.0	2.4900	242.6	339.3	242.65	43.0	234.1	0.0004	3.3	310.9	-2.2	2.5
34.7	9676	18.3	0.01966	43.8	0.10	300.0	2.4771	241.2	340.3	241.27	39.6	232.1	0.0003	3.3	310.8	-2.1	2.5
35.0	9748	18.8	0.01980	45.1	0.10	297.0	2.4728	240.8	340.6	240.80	38.5	231.4	0.0003	3.3	310.8	-2.1	2.5
36.0	10013	16.2	0.02032	39.2	0.09	286.0	2.4564	238.6	341.3	238.68	34.1	228.4	0.0002	3.1	315.4	-2.2	2.2
37.0	10362	15.2	0.02094	37.0	0.09	272.0	2.4346	236.5	343.1	236.56	34.4	226.5	0.0002	4.6	275.6	-0.4	4.6
38.0	10673	12.6	0.02143	31.1	0.08	260.0	2.4150	234.3	344.2	234.28	33.1	224.2	0.0002	6.1	251.6	1.9	5.8
39.0	10913	14.5	0.02181	36.2	0.10	251.0	2.3997	232.0	344.3	231.96				7.3	239.9	3.7	6.3
39.1	10939	14.5	0.02186	36.2	0.10	250.0	2.3979	231.8	344.4	231.75				7.3	239.4	3.7	6.3
40.0	11215	14.5	0.02233	36.6	0.10	240.0	2.3802	229.6	345.2	229.62				7.4	234.3	4.3	6.0
41.0	11529	13.2	0.02284	33.4	0.10	229.0	2.3598	227.4	346.5	227.38				6.9	239.0	3.5	5.9
42.0	11824	16.5	0.02336	42.4	0.12	219.0	2.3404	224.7	346.7	224.66				5.6	250.1	1.9	5.3
43.0	12129	15.2	0.02395	39.6	0.12	209.0	2.3201	222.1	347.4	222.15				4.7	254.0	1.3	4.5
44.0	12413	15.2	0.02447	40.1	0.13	200.0	2.3010	219.2	347.2	219.24				5.8	255.6	1.4	5.6
45.0	12707	11.7	0.02496	31.1	0.10	191.0	2.2810	216.8	348.0	216.85				4.5	251.7	1.4	4.3
46.0	13046	14.5	0.02552	39.1	0.13	181.0	2.2577	214.0	348.8	214.01				4.5	241.5	2.1	3.9
47.0	13327	11.7	0.02598	31.9	0.11	173.0	2.2380	211.9	349.8	211.92				8.4	244.6	3.6	7.6
48.0	13582	10.3	0.02634	28.3	0.10	166.0	2.2201	209.9	350.7	209.92				9.6	246.9	3.8	8.8
49.0	13922	10.3	0.02680	28.8	0.11	157.0	2.1959	207.1	351.4	207.05				8.5	254.0	2.3	8.2
49.8	14196	11.3	0.02719	31.9	0.13	150.0	2.1761	205.2	352.8	205.16				8.4	252.4	2.5	8.0
50.0	14277	11.6	0.02731	32.8	0.13	148.0	2.1703	204.6	353.2	204.61				8.4	251.9	2.6	7.9
51.0	14565	9.0	0.02770	25.7	0.11	141.0	2.1492	201.8	353.1	201.78				7.1	241.2	3.4	6.2
52.0	14908	10.3	0.02815	29.7	0.13	133.0	2.1239	200.2	356.2	200.16				5.4	252.3	1.6	5.2
52.9	15271	10.8	0.02867	31.2	0.14	125.0	2.0969	200.8	363.7	200.78				6.0	269.4	0.1	6.0
53.0	15319	10.9	0.02873	31.4	0.15	124.0	2.0934	200.9	364.7	200.86				6.2	271.3	-0.1	6.2
54.0	15559	10.9	0.02909	31.7	0.15	119.0	2.0755	198.7	365.1	198.72				5.8	286.6	-1.6	5.5
55.0	15859	11.1	0.02954	32.3	0.16	113.0	2.0531	198.5	370.0	198.47				2.3	343.8	-2.2	0.6
56.0	16231	11.0	0.03009	32.0	0.17	106.0	2.0253	199.4	378.7	199.45				3.4	68.9	-1.2	-3.2
57.0	16513	12.9	0.03055	37.3	0.21	101.0	2.0043	199.4	384.0	199.45				6.2	73.8	-1.7	-6.0
57.2	16571	13.8	0.03067	39.9	0.23	100.0	2.0000	199.8	385.8	199.83				7.2	74.4	-1.9	-6.9
58.0	16872	18.6	0.03131	53.1	0.32	95.0	1.9777	201.8	395.3	201.78				12.0	76.1	-2.9	-11.7
59.0	17190	21.1	0.03216	60.6	0.39	90.0	1.9542	200.6	399.2	200.63				12.9	79.8	-2.3	-12.7

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
60.0	17457	23.5	0.03296	67.6	0.45	86.0	1.9345	201.1	405.4	201.10				10.5	81.0	-1.6	-10.4
61.0	17740	28.4	0.03393	80.2	0.57	82.0	1.9138	204.8	418.5	204.82				11.9	89.8	-0.0	-11.9
61.5	17887	27.5	0.03447	77.8	0.57	80.0	1.9031	204.3	420.4	204.29				13.7	98.5	2.0	-13.5
62.0	18039	26.6	0.03502	75.4	0.57	78.0	1.8921	203.8	422.3	203.76				15.8	105.3	4.2	-15.2
63.0	18320	27.0	0.03602	76.6	0.60	74.4	1.8716	203.1	426.7	203.11				17.4	113.5	7.0	-16.0
64.0	18624	33.7	0.03724	95.5	0.79	70.7	1.8494	204.0	434.8	203.97				13.5	115.1	5.8	-12.3
64.2	18683	34.4	0.03752	97.2	0.81	70.0	1.8451	204.2	436.7	204.24				13.0	114.9	5.5	-11.8
65.0	18946	37.2	0.03874	104.6	0.92	67.0	1.8261	205.4	444.7	205.44				10.6	113.8	4.3	-9.7
66.0	19297	43.2	0.04060	121.2	1.13	63.2	1.8007	206.1	453.6	206.05				11.6	101.5	2.3	-11.4
67.0	19581	52.1	0.04236	144.4	1.43	60.3	1.7803	208.2	464.5	208.22				16.4	90.8	0.2	-16.4
67.1	19611	52.6	0.04258	145.8	1.45	60.0	1.7782	208.4	465.6	208.40				16.7	91.6	0.5	-16.7
68.0	19872	57.4	0.04442	158.0	1.66	57.5	1.7597	209.9	474.7	209.92				20.1	97.6	2.6	-19.9
69.0	20189	58.9	0.04679	162.4	1.79	54.6	1.7372	209.6	480.9	209.55				22.8	99.8	3.9	-22.5
70.0	20536	67.7	0.04962	186.1	2.17	51.6	1.7126	209.9	489.6	209.92				25.2	95.7	2.5	-25.1
70.5	20729	71.4	0.05138	196.4	2.37	50.0	1.6990	210.0	494.3	210.02				29.2	94.5	2.3	-29.1
71.0	20891	74.6	0.05286	205.0	2.54	48.7	1.6875	210.1	498.2	210.11				32.5	93.8	2.2	-32.4
72.0	21216	81.3	0.05610	221.8	2.92	46.2	1.6646	211.7	509.7	211.74				28.9	93.7	1.9	-28.9
73.0	21520	88.6	0.05938	238.4	3.34	44.0	1.6435	214.7	524.1	214.69				24.7	92.6	1.1	-24.7
74.0	21843	95.1	0.06310	254.0	3.77	41.8	1.6212	216.2	535.5	216.19				32.2	92.6	1.4	-32.2
74.8	22121	99.7	0.06650	265.6	4.13	40.0	1.6021	216.7	543.7	216.72				31.8	93.4	1.9	-31.8
75.0	22185	100.7	0.06727	268.2	4.22	39.6	1.5977	216.8	545.5	216.85				31.8	93.5	2.0	-31.7
76.0	22515	105.3	0.07149	278.3	4.64	37.6	1.5752	218.4	557.8	218.45				29.9	91.9	1.0	-29.9
77.0	22846	106.6	0.07582	282.7	4.95	35.7	1.5527	217.8	564.4	217.81				30.8	88.4	-0.9	-30.8
77.4	22972	111.5	0.07758	294.7	5.29	35.0	1.5441	218.3	569.0	218.33				31.9	86.4	-2.0	-31.9
78.0	23158	118.5	0.08016	312.4	5.78	34.0	1.5315	219.1	575.7	219.08				33.6	83.8	-3.6	-33.4
79.0	23547	115.9	0.08576	304.5	6.00	32.0	1.5051	219.7	587.4	219.70				36.1	82.9	-4.4	-35.8
80.0	23897	114.2	0.09072	301.1	6.24	30.3	1.4814	218.9	594.5	218.92				33.8	88.2	-1.1	-33.8
80.2	23960	115.9	0.09165	305.3	6.41	30.0	1.4771	219.2	597.0	219.21				34.0	89.9	-0.1	-34.0
81.0	24178	122.0	0.09480	319.9	6.97	29.0	1.4624	220.2	605.4	220.17				34.7	95.5	3.3	-34.5
82.0	24591	120.7	0.10094	316.0	7.36	27.2	1.4346	220.6	617.9	220.63				34.5	96.2	3.7	-34.3
83.0	24957	120.4	0.10634	315.8	7.77	25.7	1.4099	220.2	626.7	220.17				33.0	96.6	3.8	-32.8
83.5	25135	124.1	0.10904	324.2	8.23	25.0	1.3979	220.9	633.9	220.92				31.6	97.3	4.0	-31.4
84.0	25319	127.8	0.11182	332.8	8.71	24.3	1.3856	221.7	641.2	221.70				30.2	98.0	4.2	-29.9
85.0	25679	136.8	0.11756	348.6	9.85	23.0	1.3617	226.5	665.6	226.53				20.8	99.6	3.5	-20.5
86.0	26068	135.6	0.12382	339.6	10.36	21.7	1.3365	230.6	688.9	230.59				16.8	107.6	5.1	-16.0
87.0	26552	134.7	0.13146	336.0	11.05	20.2	1.3054	231.4	705.6	231.41				13.7	122.2	7.3	-11.6
87.2	26619	134.4	0.13251	335.3	11.14	20.0	1.3010	231.5	707.9	231.50				12.2	124.3	6.9	-10.1
88.0	26967	133.2	0.13793	331.4	11.61	19.0	1.2788	232.0	719.8	231.96				5.2	153.6	4.7	-2.3
89.0	27334	130.1	0.14354	323.7	11.97	18.0	1.2553	232.0	731.0	231.96				2.6	220.1	2.0	1.7
89.6	27526	126.8	0.14637	313.4	12.00	17.5	1.2430	233.5	742.0	233.55				2.9	188.8	2.8	0.4
90.0	27644	124.8	0.14811	307.1	12.02	17.2	1.2355	234.5	748.7	234.53				3.4	174.5	3.4	-0.3
91.0	28097	120.5	0.15451	297.1	12.41	16.1	1.2068	234.3	762.1	234.26				6.5	215.4	5.3	3.7
92.0	28445	111.3	0.15917	275.6	12.05	15.3	1.1847	233.2	769.8	233.18				11.1	243.1	5.0	9.9
92.4	28579	109.4	0.16087	271.4	12.08	15.0	1.1761	232.6	772.2	232.61				11.5	250.5	3.9	10.9
93.0	28763	106.7	0.16320	265.7	12.11	14.6	1.1644	231.8	775.6	231.82				12.3	259.6	2.2	12.1
94.0	29096	101.8	0.16724	253.5	12.14	13.9	1.1430	232.0	787.0	231.96				10.7	258.2	2.2	10.5
95.0	29446	95.5	0.17126	238.1	11.99	13.2	1.1206	231.5	797.3	231.55				5.4	258.5	1.1	5.3
95.9	29814	90.8	0.17526	227.2	12.04	12.5	1.0969	230.8	807.3	230.83				7.2	302.6	-3.9	6.1
96.0	29869	90.1	0.17584	225.6	12.05	12.4	1.0934	230.7	808.8	230.73				7.7	306.7	-4.6	6.2
97.0	30202	83.2	0.17924	209.9	11.69	11.8	1.0719	228.9	813.9	228.93				10.9	331.4	-9.6	5.2
98.0	30612	80.3	0.18318	202.3	11.99	11.1	1.0453	229.2	829.3	229.21				5.2	34.0	-4.3	-2.9
99.0	31115	73.0	0.18771	182.7	11.75	10.3	1.0128	230.7	852.8	230.73				9.4	110.7	3.3	-8.8
99.4	31316	70.5	0.18934	175.4	11.68	10.0	1.0000	232.3	866.1	232.32				11.9	102.5	2.6	-11.6
100.0	31594	67.1	0.19160	165.2	11.58	9.6	0.9823	234.5	884.5	234.53				15.5	95.7	1.6	-15.5
101.0	32115	60.5	0.19541	148.3	11.27	8.9	0.9494	235.6	907.9	235.60				19.7	75.3	-5.0	-19.0
102.0	32513	56.6	0.19808	138.9	11.16	8.4	0.9243	235.2	921.5	235.19				19.0	74.2	-5.2	-18.2
102.7	32848	52.2	0.20013	128.0	10.79	8.0	0.9031	235.4	935.2	235.37				20.3	81.3	-3.1	-20.1
103.0	33023	49.9	0.20120	122.4	10.60	7.8	0.8921	235.5	942.3	235.46				21.1	84.6	-2.0	-21.0
104.0	33480	44.9	0.20367	110.0	10.19	7.3	0.8633	235.6	960.8	235.60				24.4	86.9	-1.3	-24.4
104.5	33769	43.2	0.20510	105.7	10.21	7.0	0.8451	235.9	973.6	235.86				25.2	88.5	-0.7	-25.2
105.0	34072	41.4	0.20659	101.1	10.23	6.7	0.8261	236.1	986.9	236.13				26.1	90.1	0.0	-26.1
106.0	34721	37.0	0.20949	90.3	10.05	6.1	0.7853	236.5	1015.4	236.53				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72377   LAUNCH TIME 2223 GMT   ECC SONDE 3A-102X

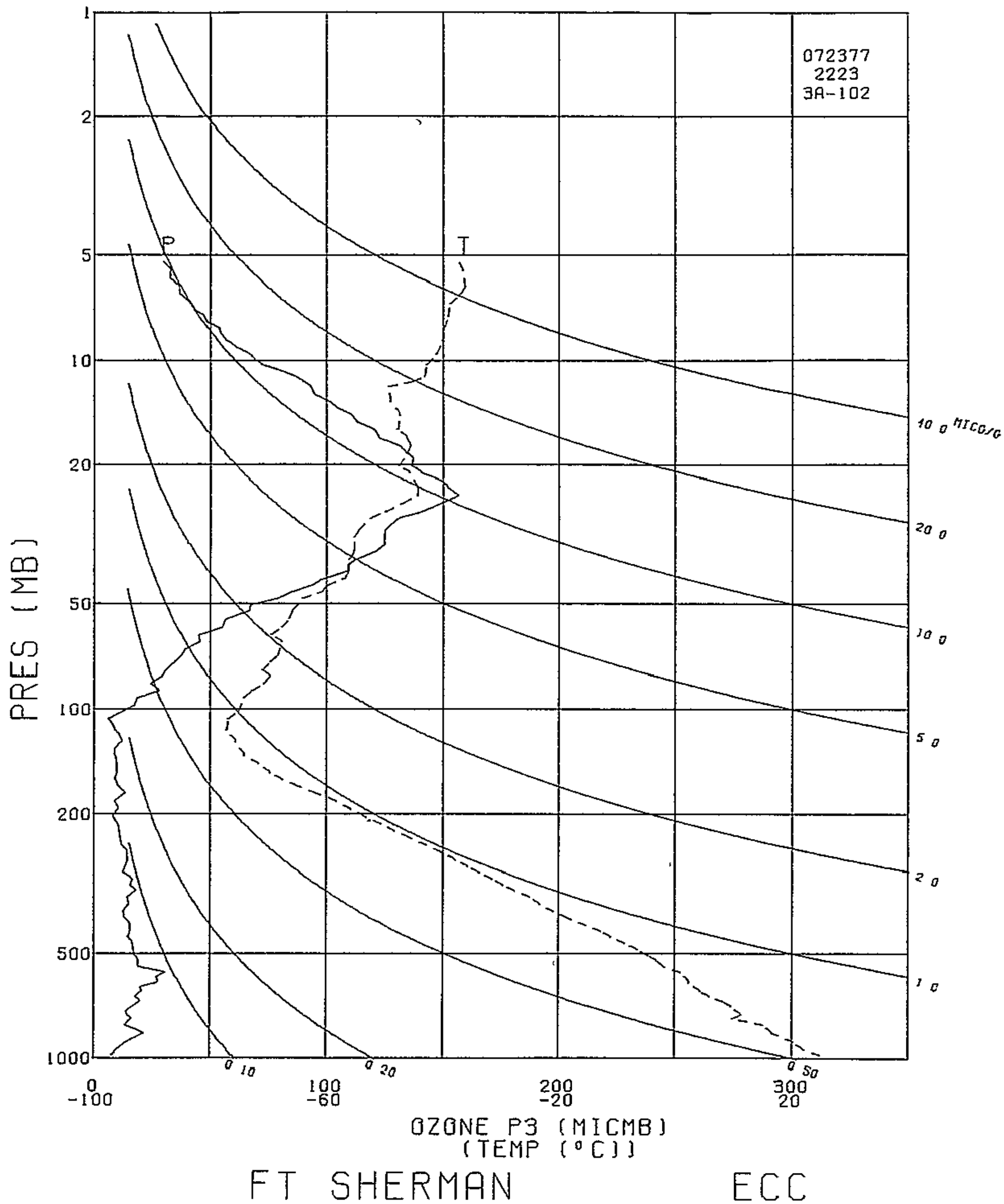
SURFACE CONDITIONS						
PRESS	1003.2 MB	OO3 = 35.0	TBOX CAL =	30.0 C	AT	73.7 ORD
TEMP	300.8 K	OIZ = 34.3	BASE CAL =	30.0 C	AT	74.2 ORD
HUMY	86.0 %	OZC = 61.9	HUMIDITY =	60.9 %	AT	46.0 ORD
		IO = 0.130				
		PS = 27.1				

	PROFILE	DOBSON
INTEGRATED OZONE	0.21804	
RESIDUAL OZONE	0.01895	
TOTAL OZONE	0.23699	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	10.0	0.	19.2	0.02	1003.2	3.0014	300.1	299.8	303.44	81.3	296.6	0.0181	4.0	350.0	-3.9	0.7
0.1	81	9.7	0.00002	18.8	0.02	1000.0	3.0000	299.9	299.9	303.21	82.9	296.7	0.0183	4.1	350.5	-4.1	0.7
1.0	305	8.0	0.00020	15.5	0.01	975.0	2.9890	297.9	300.1	301.39	95.2	297.1	0.0191	5.2	353.2	-5.2	0.6
2.0	663	9.8	0.00049	19.2	0.02	936.0	2.9713	294.8	300.5	297.89	97.1	294.4	0.0169	5.9	354.0	-5.8	0.6
2.8	1003	13.3	0.00086	26.1	0.02	900.0	2.9542	293.6	302.6	296.53	97.7	293.2	0.0162	4.7	349.8	-4.6	0.8
3.0	1091	14.2	0.00095	27.9	0.03	891.0	2.9499	293.3	303.1	296.18	97.9	292.9	0.0162	4.4	348.4	-4.3	0.9
3.9	1496	20.5	0.00162	40.7	0.04	850.0	2.9294	290.3	304.1	292.85	98.2	290.0	0.0139	3.3	355.2	-3.2	0.3
4.0	1568	21.6	0.00174	42.9	0.04	843.0	2.9258	289.8	304.3	292.26	98.2	289.5	0.0138	3.1	356.9	-3.1	0.2
5.0	2014	13.8	0.00246	27.6	0.03	800.0	2.9031	288.2	307.2	290.53	97.0	287.8	0.0130	5.0	62.3	-2.3	-4.4
5.0	2036	13.4	0.00249	26.8	0.03	798.0	2.9020	288.2	307.4	290.44	96.9	287.7	0.0130	5.1	63.8	-2.3	-4.6
6.0	2391	16.1	0.00298	32.8	0.03	765.0	2.8837	282.9	305.4	284.36	86.5	280.7	0.0085	10.3	76.1	-2.5	-10.0
7.0	2612	14.3	0.00330	29.0	0.03	745.0	2.8722	284.4	309.4	285.81	72.3	279.6	0.0081	11.1	69.6	-3.9	-10.4
8.0	2816	13.7	0.00357	27.8	0.03	727.0	2.8615	284.4	311.5	285.61	60.3	277.0	0.0069	8.8	73.0	-2.6	-8.4
9.0	3048	16.5	0.00390	33.8	0.04	707.0	2.8494	282.7	312.1	283.80	60.3	275.4	0.0063	7.3	81.8	-1.0	-7.3
9.3	3130	17.4	0.00404	35.7	0.04	700.0	2.8451	282.3	312.6	283.36	60.6	275.1	0.0062	7.3	82.4	-1.0	-7.3
10.0	3334	19.7	0.00440	40.4	0.05	683.0	2.8344	281.2	313.6	282.26	61.4	274.3	0.0060	7.4	84.0	-0.8	-7.3
11.0	3615	17.8	0.00490	36.8	0.04	660.0	2.8195	278.9	314.1	279.79	60.7	271.9	0.0053	7.5	83.4	-0.9	-7.4
12.0	3891	20.2	0.00541	42.1	0.05	638.0	2.8048	277.3	315.3	278.04	52.6	268.5	0.0042	7.1	86.0	-0.5	-7.1
13.0	4149	20.3	0.00592	42.4	0.05	618.0	2.7910	276.3	317.0	276.72	32.4	261.4	0.0025	8.1	96.2	0.9	-8.1
14.0	4374	27.3	0.00644	57.3	0.08	601.0	2.7789	275.5	318.6	275.46				10.8	94.2	0.8	-10.8
14.0	4387	27.3	0.00648	57.3	0.08	600.0	2.7782	275.4	318.7	275.42				10.9	94.0	0.8	-10.8
15.0	4660	27.0	0.00721	56.7	0.08	580.0	2.7634	274.6	320.9	274.62				11.4	91.0	0.2	-11.4
16.0	4927	30.8	0.00797	65.0	0.09	561.0	2.7490	274.0	323.2	273.96				9.9	88.0	-0.3	-9.9
17.0	5231	19.1	0.00872	40.6	0.06	540.0	2.7324	270.9	323.0	270.90				8.7	76.4	-2.0	-8.4
18.0	5529	19.1	0.00929	40.9	0.06	520.0	2.7160	269.8	325.2	269.80				7.9	58.5	-4.1	-6.7
19.0	5822	17.3	0.00982	37.2	0.06	501.0	2.6998	268.3	326.8	268.26				7.9	48.6	-5.2	-6.0
19.1	5837	17.3	0.00985	37.2	0.06	500.0	2.6990	268.2	326.9	268.16				7.9	49.0	-5.2	-6.0
20.0	6108	17.0	0.01032	36.9	0.06	483.0	2.6839	266.4	328.0	266.44				7.4	57.2	-4.0	-6.2
21.0	6436	16.4	0.01087	35.7	0.06	463.0	2.6656	264.4	329.4	264.36				6.9	71.2	-2.2	-6.5
22.0	6741	14.4	0.01135	31.7	0.05	445.0	2.6484	261.9	330.1	261.89				6.1	81.6	-0.9	-6.1
23.0	7038	15.5	0.01181	34.5	0.06	428.0	2.6314	260.2	331.6	260.19				5.0	75.6	-1.2	-4.9
24.0	7327	15.7	0.01228	35.1	0.06	412.0	2.6149	257.8	332.1	257.81				4.6	54.3	-2.7	-3.8
24.6	7548	14.1	0.01262	31.9	0.06	400.0	2.6021	255.8	332.4	255.84				4.8	44.1	-3.5	-3.4
25.0	7681	13.2	0.01282	29.9	0.06	393.0	2.5944	254.7	332.5	254.66				5.0	38.4	-3.9	-3.1
26.0	8009	12.3	0.01326	28.2	0.05	376.0	2.5752	252.1	333.4	252.11				5.1	27.9	-4.5	-2.4
27.0	8369	15.0	0.01379	34.6	0.07	358.0	2.5539	249.7	334.9	249.72				4.7	32.9	-4.0	-2.6
27.5	8533	14.6	0.01405	33.9	0.07	350.0	2.5441	248.9	335.9	248.87				3.8	26.1	-3.4	-1.7
28.0	8702	14.2	0.01432	33.2	0.07	342.0	2.5340	248.0	337.0	248.00				2.8	14.5	-2.8	-0.7
29.0	9004	18.0	0.01485	42.3	0.09	328.0	2.5159	245.4	337.4	245.38				2.8	309.4	-1.8	2.2
30.0	9270	15.3	0.01534	36.4	0.08	316.0	2.4997	243.3	338.1	243.30				3.3	271.3	-0.1	3.3
31.0	9544	16.6	0.01583	39.7	0.09	304.0	2.4829	241.5	339.3	241.49	21.4	226.7	0.0002	4.1	246.4	1.6	3.8
31.3	9637	15.1	0.01598	36.3	0.08	300.0	2.4771	240.7	339.6	240.75				4.5	247.3	1.7	4.1
32.0	9827	12.1	0.01629	29.2	0.07	292.0	2.4654	239.2	340.1	239.25				5.3	248.8	1.9	4.9
33.0	10094	13.4	0.01667	32.6	0.08	281.0	2.4487	237.3	341.0	237.28				6.6	253.4	1.9	6.3
34.0	10421	14.5	0.01719	35.7	0.09	268.0	2.4281	235.2	342.6	235.18				7.3	248.9	2.6	6.8
35.0	10761	14.3	0.01776	35.6	0.09	255.0	2.4065	232.8	343.9	232.76				8.6	245.8	3.5	7.9
35.4	10894	13.2	0.01796	32.9	0.09	250.0	2.3979	231.6	344.2	231.61				8.6	251.3	2.8	8.2
36.0	11059	11.8	0.01822	29.7	0.08	244.0	2.3874	230.2	344.4	230.19				8.7	258.1	1.8	8.5
37.0	11396	11.3	0.01868	28.8	0.06	232.0	2.3655	227.1	344.8	227.15				8.4	270.7	-0.1	8.4
38.0	11687	10.6	0.01906	27.2	0.08	222.0	2.3464	224.7	345.5	224.74				8.3	272.1	-0.3	8.3
39.0	11988	9.8	0.01943	25.3	0.08	212.0	2.3263	222.4	346.4	222.41				8.9	259.0	1.7	8.7
40.0	12300	7.8	0.01976	20.6	0.06	202.0	2.3054	219.5	346.7	219.54				10.3	246.5	4.1	9.4
40.2	12363	8.3	0.01983	21.9	0.07	200.0	2.3010	219.1	347.0	219.09				10.7	244.9	4.5	9.7
41.0	12624	10.2	0.02012	27.0	0.09	192.0	2.2833	217.2	348.0	217.20				12.4	239.7	6.3	10.7
42.0	12962	8.7	0.02052	23.5	0.08	182.0	2.2601	214.6	349.2	214.60				12.5	232.8	7.6	10.0
43.0	13278	13.1	0.02096	35.7	0.13	173.0	2.2380	211.3	348.9	211.33				11.8	230.8	7.4	9.1
44.0	13568	10.5	0.02140	29.2	0.11	165.0	2.2175	208.2	348.4	208.22				12.9	234.8	7.4	10.5
45.0	13830	8.8	0.02173	24.7	0.09	158.0	2.1987	205.5	348.1	205.49				13.2	234.0	7.7	10.7
46.0	14101	9.9	0.02206	28.2	0.11	151.0	2.1790	203.4	349.1	203.42				12.9	231.4	8.1	10.1
46.1	14140	9.9	0.02212	28.2	0.11	150.0	2.1761	203.2	349.4	203.21				12.9	232.2	7.9	10.2
47.0	14465	9.9	0.02254	28.3	0.12	142.0	2.1523	201.5	351.9	201.46				12.6	238.9	6.5	10.8
48.0	14761	8.6	0.02291	25.1	0.11	135.0	2.1303	198.9	352.5	198.92				7.0	246.8	2.8	6.4
49.0	15071	9.2	0.02329	26.6	0.12	128.0	2.1072	198.7	357.5	198.68				7.0	267.1	0.4	7.0
49.6	15208	10.6	0.02348	30.9	0.14	125.0	2.0969	197.9	358.6	197.94				9.3	267.8	0.4	9.3
50.0	15302	11.6	0.02361	33.8	0.16	123.0	2.0899	197.4	359.3	197.45				10.8	268.1	0.4	10.8
51.0	15492	11.0	0.02391	32.2	0.15	119.0	2.0755	196.4	360.9	196.43				12.0	196.6	11.5	3.4
52.0	15738	9.1	0.02425	26.9	0.13	114.0	2.0569	195.9	364.3	195.91				4.7	270.1	-0.0	4.7
53.0	16155	5.9	0.02468	17.3	0.09	106.0	2.0253	196.2	372.5	196.17				12.1	339.4	-11.3	4.3
54.0	16433	12.0	0.02502	34.9	0.20	101.0	2.0043	197.9	381.1	197.94				4.2	88.7	-0.1	-4.2
54.2	16490	13.3	0.02513	38.8	0.22	100.0	2.0000	197.9	382.2	197.94				5.0	91.5	0.1	-5.0
55.0	16667	17.3	0.02549	50.6	0.30	97.0	1.9868	197.9	385.5	197.94				7.7	96.1	0.8	-7.7
56.0	16974	18.6	0.02624	54.0	0.34	92.0	1.9638	198.9	393.3	198.92				10.3	95.2	0.9	-10.3
57.0	17233	28.1	0.02706	80.9	0.53	88.0	1.9445	200.3	401.2	200.33				10.3	115.6	4.4	-9.3

TIME MIN	ALT GP HT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	17507	24.2	0.02802	68.9	0.48	84.0	1.9243	202.3	410.6	202.35				12.4	128.0	7.7	-9.8
59.0	17796	29.4	0.02905	63.6	0.61	80.0	1.9031	203.4	418.6	203.42				15.2	116.2	6.7	-13.7
60.0	18023	30.9	0.02996	88.1	0.66	77.0	1.8865	202.1	420.5	202.13				16.1	115.7	7.0	-14.5
61.0	18339	34.7	0.03133	98.4	0.79	73.0	1.8633	203.4	429.7	203.42				11.7	115.9	5.1	-10.5
62.0	18589	37.7	0.03253	106.3	0.89	70.0	1.8451	204.7	437.6	204.68				8.5	114.8	3.6	-7.7
63.0	18851	39.5	0.03387	111.2	0.98	67.0	1.8261	204.9	443.5	204.88				8.7	104.5	2.2	-8.4
64.0	19126	45.6	0.03540	128.0	1.18	64.0	1.8062	205.5	450.7	205.49				12.4	83.1	-1.5	-12.3
65.0	19413	45.4	0.03713	128.7	1.23	61.0	1.7853	203.6	452.8	203.63				18.6	76.7	-4.3	-18.1
65.3	19511	48.6	0.03778	137.4	1.35	60.0	1.7782	204.2	456.3	204.24				19.4	78.1	-4.0	-19.0
66.0	19715	55.2	0.03913	155.2	1.58	58.0	1.7634	205.5	463.6	205.49				21.2	80.7	-3.4	-20.9
67.0	20035	56.5	0.04147	157.8	1.70	55.0	1.7404	206.7	473.4	206.68				23.4	87.7	-0.9	-23.4
68.0	20375	67.0	0.04420	186.5	2.13	52.0	1.7160	207.3	482.4	207.27				25.8	88.8	-0.5	-25.8
69.0	20612	67.2	0.04628	187.6	2.23	50.0	1.6990	206.9	486.9	206.88				26.8	90.0	-0.0	-26.8
70.0	20860	79.1	0.04863	218.6	2.73	48.0	1.6812	209.0	497.6	208.97				28.8	93.4	1.7	-28.7
71.0	21122	85.0	0.05139	231.4	3.06	46.0	1.6628	212.2	511.5	212.21				30.9	93.5	1.9	-30.8
72.0	21398	93.6	0.05452	253.3	3.52	44.0	1.6435	213.2	520.6	213.25				31.3	92.7	1.5	-31.3
73.0	21690	98.8	0.05805	263.9	3.90	42.0	1.6232	216.2	534.9	216.24				31.9	90.6	0.3	-31.9
74.0	21999	109.3	0.06206	290.9	4.53	40.0	1.6021	216.9	544.0	216.88				32.5	85.8	-2.4	-32.4
75.0	22258	109.1	0.06558	290.4	4.71	38.4	1.5843	216.9	550.4	216.88				31.8	85.7	-2.4	-31.7
76.0	22494	112.5	0.06882	299.3	5.04	37.0	1.5682	217.0	556.7	217.04				32.8	89.3	-0.4	-32.8
77.0	22847	121.3	0.07395	321.4	5.74	35.0	1.5441	217.8	567.7	217.83				33.6	89.9	-0.0	-33.6
78.0	23107	124.7	0.07791	329.5	6.15	33.6	1.5263	218.5	576.0	218.46				34.8	90.9	0.6	-34.7
79.0	23418	124.9	0.08272	331.0	6.47	32.0	1.5051	217.8	582.4	217.83				34.8	93.5	2.1	-34.7
80.0	23724	125.0	0.08745	330.0	6.79	30.5	1.4843	218.6	592.6	218.62				32.6	94.3	2.4	-32.5
80.4	23829	126.2	0.08910	332.7	6.97	30.0	1.4771	219.0	596.3	218.97				31.7	94.4	2.4	-31.7
81.0	23959	127.7	0.09111	336.0	7.20	29.4	1.4683	219.4	600.9	219.39				30.7	94.5	2.4	-30.6
82.0	24273	131.3	0.09610	343.1	7.77	28.0	1.4472	220.9	613.6	220.91				29.1	94.6	2.3	-29.0
83.0	24509	140.4	0.09999	363.0	8.62	27.0	1.4314	223.3	626.7	223.29				26.1	93.6	1.6	-26.0
84.0	24885	149.3	0.10653	381.1	9.70	25.5	1.4065	226.2	645.2	226.16				21.0	98.4	3.1	-20.8
84.4	25016	152.2	0.10891	386.8	10.10	25.0	1.3979	227.2	651.9	227.20				18.9	103.4	4.4	-18.4
85.0	25206	156.4	0.11234	394.9	10.67	24.3	1.3856	228.7	661.4	228.68				16.3	112.6	6.3	-15.1
86.0	25574	151.7	0.11902	383.1	10.93	23.0	1.3617	228.7	671.9	228.68				10.7	116.9	4.9	-9.6
87.0	25871	148.7	0.12429	376.6	11.20	22.0	1.3424	228.0	678.4	227.99				8.7	82.5	-1.1	-8.6
88.0	26212	140.4	0.13014	356.7	11.13	20.9	1.3201	227.3	686.3	227.29				10.1	76.9	-2.3	-9.9
89.0	26503	136.3	0.13495	349.0	11.29	20.0	1.3010	225.5	689.4	225.45				7.9	85.2	-0.7	-7.9
90.0	26807	136.8	0.13991	349.3	11.87	19.1	1.2810	226.2	700.7	226.16				5.1	47.6	-3.5	-3.8
91.0	27054	134.3	0.14390	341.7	12.09	18.4	1.2648	226.9	710.5	226.87				9.0	28.6	-7.9	-4.3
91.9	27386	130.7	0.14914	331.9	12.37	17.5	1.2430	227.4	722.3	227.37				7.9	45.0	-5.6	-5.6
92.0	27425	130.3	0.14974	330.7	12.41	17.4	1.2405	227.4	723.7	227.43				7.8	47.1	-5.3	-5.7
93.0	27738	122.2	0.15443	311.1	12.20	16.6	1.2201	226.7	731.2	226.73				6.6	98.2	0.9	-6.6
94.0	28107	120.0	0.15975	307.5	12.66	15.7	1.1959	225.3	738.3	225.31				5.0	142.9	4.0	-3.0
95.0	28407	112.9	0.16394	289.3	12.47	15.0	1.1761	225.3	748.0	225.31				8.1	240.0	4.0	7.0
96.0	28722	110.5	0.16815	282.7	12.80	14.3	1.1553	225.6	759.2	225.59				9.7	254.6	2.6	9.4
97.0	29053	103.7	0.17240	265.8	12.64	13.6	1.1335	225.3	769.2	225.31				4.7	258.1	1.0	4.6
98.0	29349	100.3	0.17603	258.4	12.78	13.0	1.1139	224.0	774.7	224.01				3.5	273.7	-0.2	3.5
99.0	29605	94.6	0.17904	244.7	12.54	12.5	1.0969	223.3	780.9	223.29				0.6	354.6	-0.6	0.1
100.0	29982	92.6	0.18330	239.1	13.01	11.8	1.0719	223.7	795.4	223.72				6.1	63.1	-2.8	-5.5
101.0	30210	89.5	0.18578	226.7	13.00	11.4	1.0569	227.8	818.1	227.85				8.4	71.4	-2.7	-7.9
102.0	30449	85.7	0.18825	215.2	12.91	11.0	1.0414	229.9	834.0	229.92				10.5	82.6	-1.3	-10.4
103.0	30698	79.5	0.19066	198.7	12.42	10.6	1.0253	230.9	846.4	230.87				12.5	84.1	-1.3	-12.4
104.0	30957	71.9	0.19296	180.4	11.68	10.2	1.0086	230.2	853.2	230.19				13.6	92.9	0.7	-13.6
104.7	31090	70.0	0.19406	175.2	11.59	10.0	1.0000	230.6	859.8	230.64				14.4	91.0	0.3	-14.4
105.0	31158	69.0	0.19462	172.5	11.55	9.9	0.9956	230.9	863.1	230.87				14.8	90.2	0.0	-14.8
106.0	31437	66.7	0.19682	166.0	11.63	9.5	0.9777	232.0	877.4	231.96				16.8	85.8	-1.2	-16.7
107.0	31729	60.9	0.19899	151.1	11.08	9.1	0.9590	232.6	890.8	232.63				18.6	90.5	0.2	-18.6
108.0	32035	56.6	0.20107	140.1	10.77	8.7	0.9395	233.0	903.9	233.03				18.2	85.7	-1.4	-18.1
109.0	32356	54.3	0.20313	134.2	10.84	8.3	0.9191	233.6	918.2	233.57				15.9	76.5	-3.7	-15.5
110.0	32607	53.5	0.20470	132.5	11.09	8.0	0.9031	233.3	926.9	233.30				15.5	75.3	-3.9	-15.0
111.0	32868	48.5	0.20623	119.9	10.44	7.7	0.8865	233.6	938.1	233.57				16.7	73.2	-4.8	-16.0
112.0	33140	47.3	0.20774	116.7	10.59	7.4	0.8692	234.0	950.5	233.97				17.5	78.8	-3.4	-17.2
113.0	33423	43.2	0.20921	106.4	10.08	7.1	0.8513	234.2	962.9	234.23				18.4	88.8	-0.4	-18.4
113.3	33520	42.6	0.20969	104.9	10.07	7.0	0.8451	234.3	967.0	234.28				19.0	91.3	0.4	-18.9
114.0	33719	41.3	0.21065	101.8	10.07	6.8	0.8325	234.4	975.4	234.37				20.1	95.9	2.1	-20.0
115.0	34136	36.6	0.21252	89.5	9.47	6.4	0.8062	236.1	999.7	236.09				19.4	98.6	2.9	-19.2
116.0	34468	36.8	0.21391	89.6	9.99	6.1	0.7853	236.9	1016.9	236.88				15.7	97.6	2.1	-15.6
116.3	34582	35.4	0.21436	86.2	9.75	6.0	0.7782	236.9	1021.8	236.88				15.3	94.6	1.2	-15.3
117.0	34817	32.5	0.21528	79.1	9.27	5.8	0.7634	236.9	1031.7	236.88				14.6	88.1	-0.5	-14.6
118.0	35185	32.8	0.21665	80.2	9.89	5.5	0.7404	236.5	1045.7	236.49				17.0	79.7	-3.0	-16.7
119.0	35572	29.7	0.21804	72.8	9.47	5.2	0.7160	235.8	1059.6	235.83				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***


072377
2223
3A-102
PRES (MB)
1
2
5
10
20
50
100
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500
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P
T
10 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN ECC

STATION FT SHERMAN LAUNCH DATE 72477 LAUNCH TIME 0443 GMT ECC SONDE 3A-103X

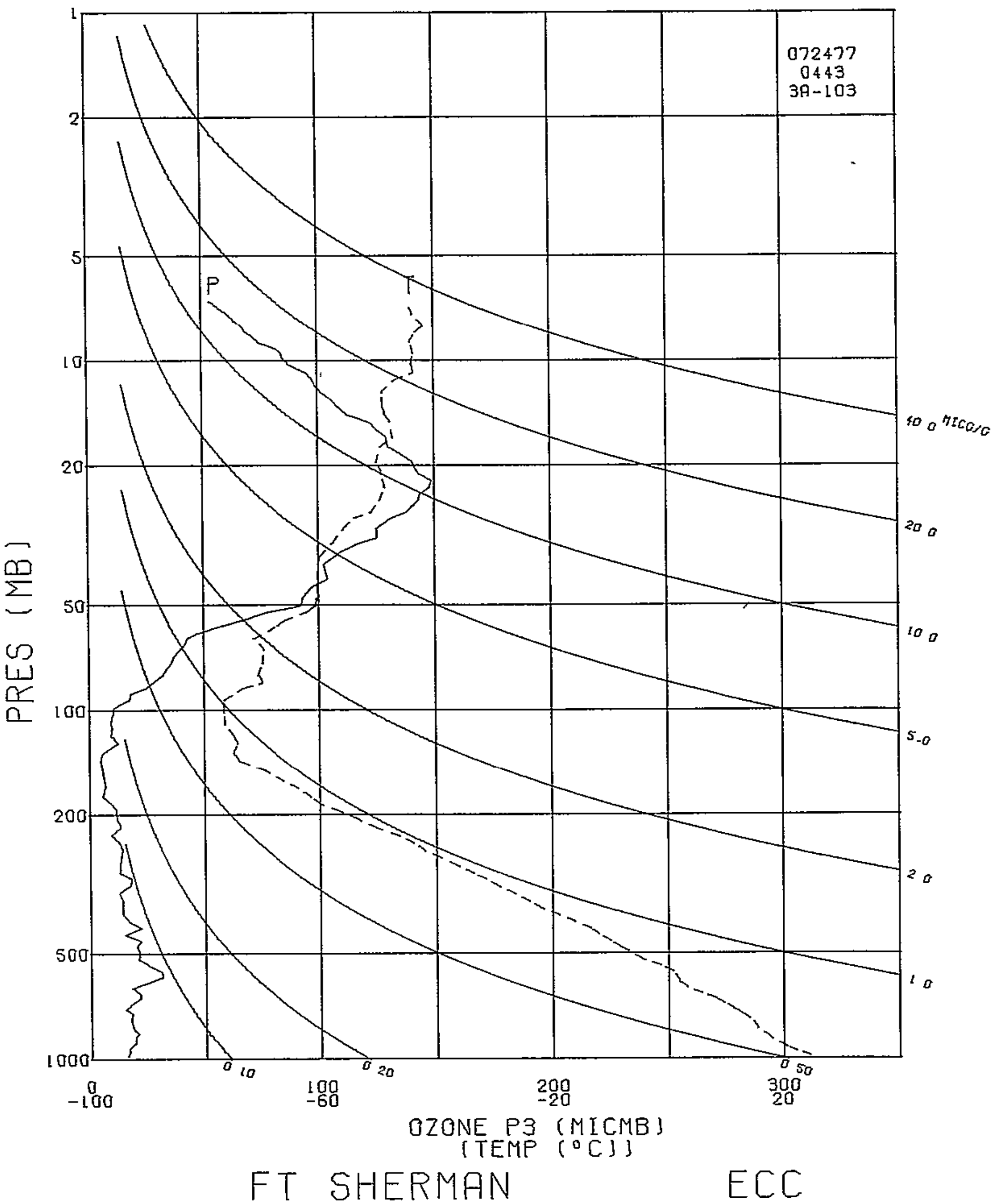
SURFACE CONDITIONS					
PRESS 1004.6 MB	003 = 34.5	TBOX CAL =	30.0 C	AT	74.1 ORD
TEMP 300.1 K	OIZ = 33.8	BASE CAL =	30.0 C	AT	74.2 ORD
HUMY 91.0 %	OZC = 61.3	HUMIDITY =	60.9 %	AT	46.0 ORD
	IO = 0.131				
	PS = 27.3				

	PROFILE	DOBSON
INTEGRATED OZONE	0.22023	
RESIDUAL OZONE	0.03555	
TOTAL OZONE	0.25578	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	18.1	0.	35.0	0.03	1004.6	3.0020	299.4	299.0	302.78	87.6	297.1	0.0186	3.0	30.0	-2.6	-1.5
0.2	93	17.8	0.00006	34.3	0.03	1000.0	3.0000	299.1	299.1	302.51	89.1	297.1	0.0188	3.3	21.0	-3.1	-1.2
1.0	299	15.9	0.00037	30.9	0.03	977.0	2.9899	297.7	299.6	301.14	96.6	297.1	0.0191	5.8	356.7	-5.8	0.3
2.0	554	16.8	0.00075	32.8	0.03	949.0	2.9773	295.3	299.8	298.28	93.3	294.2	0.0164	5.5	355.4	-5.4	0.4
3.0	776	16.8	0.00109	33.0	0.03	925.0	2.9661	293.5	300.1	295.94	84.5	290.8	0.0136	6.1	350.0	-6.1	1.1
3.9	1012	18.9	0.00148	37.3	0.03	900.0	2.9542	292.7	301.7	295.20	87.2	290.5	0.0138	6.3	347.2	-6.2	1.4
4.0	1051	19.2	0.00154	38.0	0.04	896.0	2.9523	292.6	301.9	295.08	87.6	290.5	0.0138	6.4	346.8	-6.2	1.5
5.0	1294	19.0	0.00197	37.7	0.04	871.0	2.9400	290.7	302.4	292.99	91.4	289.2	0.0131	5.4	3.8	-5.4	-0.4
5.7	1503	20.1	0.00235	40.0	0.04	850.0	2.9294	290.0	303.8	292.38	93.8	289.0	0.0133	5.6	29.0	-4.9	-2.7
6.0	1574	20.4	0.00248	40.7	0.04	843.0	2.9258	289.8	304.3	292.17	94.6	288.9	0.0133	5.9	36.6	-4.7	-3.5
7.0	1841	17.8	0.00295	35.6	0.04	817.0	2.9122	288.6	305.7	290.62	86.7	286.4	0.0116	7.0	62.0	-3.3	-6.2
7.6	2019	17.6	0.00324	35.2	0.04	800.0	2.9031	288.1	307.0	289.85	76.6	283.9	0.0096	7.9	72.8	-2.3	-7.5
8.0	2126	17.4	0.00342	35.0	0.04	790.0	2.8976	287.8	307.8	289.39	70.6	282.5	0.0093	8.5	78.2	-1.7	-8.3
9.0	2376	17.4	0.00382	35.0	0.04	767.0	2.8848	287.2	309.8	288.55	61.3	279.8	0.0080	10.0	84.0	-1.1	-9.9
10.0	2632	18.0	0.00425	36.4	0.04	744.0	2.8716	285.8	311.0	287.08	61.7	278.6	0.0075	11.6	83.3	-1.4	-11.5
11.0	2906	14.6	0.00467	29.6	0.03	720.0	2.8573	284.4	312.4	285.49	54.0	275.4	0.0062	12.4	80.3	-2.1	-12.2
11.8	3140	17.0	0.00503	34.7	0.04	700.0	2.8451	283.1	313.5	284.23	59.7	275.6	0.0066	11.0	79.0	-2.1	-10.8
12.0	3212	17.7	0.00514	36.2	0.04	694.0	2.8414	282.7	313.8	283.84	61.5	275.7	0.0066	10.6	78.6	-2.1	-10.4
13.0	3491	21.0	0.00565	43.2	0.05	671.0	2.8267	281.0	315.0	282.03	58.1	273.3	0.0057	8.3	81.7	-1.2	-8.2
14.0	3765	21.0	0.00621	43.5	0.05	649.0	2.8122	278.7	315.4	279.66	63.5	272.3	0.0055	7.4	85.3	-0.6	-7.4
15.0	4072	17.6	0.00678	36.8	0.05	625.0	2.7959	276.1	315.8	277.03	70.2	271.2	0.0053	7.9	90.6	0.1	-7.9
16.0	4375	24.8	0.00741	52.1	0.07	602.0	2.7796	274.8	317.7	275.27	40.7	262.9	0.0029	9.2	97.2	1.2	-9.2
16.1	4401	25.4	0.00748	53.3	0.07	600.0	2.7782	274.8	318.0	275.23				9.2	97.4	1.2	-9.2
17.0	4661	31.0	0.00819	65.2	0.09	581.0	2.7642	274.8	320.9	274.79				9.3	99.6	1.6	-9.2
18.0	4942	30.2	0.00904	63.6	0.09	561.0	2.7490	273.6	322.8	273.63				9.3	90.7	0.1	-9.3
19.0	5261	25.0	0.00991	53.1	0.08	539.0	2.7316	271.5	324.0	271.59				9.8	79.3	-1.8	-9.6
20.0	5575	20.6	0.01062	44.3	0.07	518.0	2.7143	268.4	323.9	268.55				9.3	69.1	-3.3	-8.7
20.9	5852	21.4	0.01121	46.3	0.07	500.0	2.6990	267.5	326.1	267.59				9.3	67.4	-3.6	-8.6
21.0	5868	21.5	0.01124	46.4	0.07	499.0	2.6981	267.5	326.3	267.54				9.3	67.3	-3.6	-8.6
22.0	6203	19.4	0.01194	42.4	0.07	478.0	2.6794	264.7	326.8	264.69				7.7	83.4	-0.9	-7.7
23.0	6516	21.9	0.01260	48.2	0.08	459.0	2.6618	262.9	328.4	262.93				6.4	101.7	1.3	-6.3
24.0	6857	14.5	0.01324	32.1	0.05	439.0	2.6425	260.9	330.1	260.93				5.0	99.0	0.8	-4.9
25.0	7175	21.9	0.01384	48.6	0.09	421.0	2.6243	259.3	332.1	259.34				3.9	98.0	0.5	-3.8
26.0	7505	16.3	0.01450	36.6	0.07	403.0	2.6053	256.7	332.8	256.72				3.3	104.4	0.8	-3.2
26.2	7560	15.9	0.01458	35.7	0.07	400.0	2.6021	256.3	332.9	256.27				3.1	101.6	0.6	-3.1
27.0	7838	13.7	0.01502	31.2	0.06	385.4	2.5859	254.0	333.5	253.99				2.5	82.4	-0.3	-2.4
28.0	8159	14.2	0.01550	32.6	0.06	369.0	2.5670	250.9	333.6	250.95				3.1	69.4	-1.1	-2.9
29.0	8483	14.1	0.01600	32.7	0.07	353.0	2.5478	248.9	335.2	248.96				3.6	97.9	0.5	-3.6
29.2	8544	13.8	0.01609	32.0	0.07	350.0	2.5441	248.5	335.4	248.53				3.4	98.9	0.5	-3.4
30.0	8862	12.2	0.01654	28.5	0.06	335.0	2.5250	246.3	336.6	246.32				2.2	107.2	0.7	-2.1
31.0	9213	16.8	0.01710	39.8	0.09	319.0	2.5038	243.6	337.6	243.60	32.2	232.3	0.0003	1.4	304.2	-0.8	1.2
32.0	9555	17.9	0.01776	42.7	0.10	304.0	2.4829	241.3	339.1	241.38	33.5	230.7	0.0003	4.8	275.3	-0.4	4.7
32.4	9648	16.0	0.01792	38.4	0.09	300.0	2.4771	240.6	339.4	240.62	31.8	229.5	0.0002	5.3	276.2	-0.6	5.3
33.0	9814	12.7	0.01820	30.7	0.07	293.0	2.4669	239.2	339.8	239.27	28.6	227.3	0.0002	6.3	277.3	-0.8	6.2
34.0	10180	13.2	0.01874	32.2	0.08	278.0	2.4440	236.4	340.7	236.38	32.3	225.8	0.0002	5.8	273.4	-0.3	5.8
35.0	10535	13.7	0.01929	34.0	0.09	264.0	2.4216	233.6	341.7	233.59	35.4	224.1	0.0002	6.1	250.5	2.0	5.8
36.0	10824	14.2	0.01976	35.4	0.09	253.0	2.4031	231.0	342.1	231.01				7.0	232.7	4.2	5.5
36.2	10904	13.8	0.01988	34.5	0.09	250.0	2.3979	230.5	342.6	230.54				7.2	227.4	4.9	5.3
37.0	11179	12.5	0.02031	31.4	0.09	240.0	2.3802	229.0	344.2	228.96				8.5	212.3	7.2	4.5
38.0	11520	9.1	0.02075	23.1	0.07	228.0	2.3579	226.3	345.3	226.30				11.0	203.8	10.0	4.4
39.0	11845	13.1	0.02118	34.0	0.10	217.0	2.3365	222.6	344.4	222.55				12.3	203.5	11.3	4.9
40.0	12213	11.1	0.02172	29.2	0.09	205.0	2.3118	219.4	345.0	219.39				11.8	205.0	10.7	5.0
40.5	12370	11.3	0.02194	30.0	0.09	200.0	2.3010	217.9	345.2	217.94				11.8	209.0	10.3	5.7
41.0	12554	11.6	0.02220	31.1	0.10	194.3	2.2885	216.2	345.3	216.24				11.7	213.6	9.8	6.5
42.0	12845	8.7	0.02257	23.6	0.08	185.5	2.2683	212.9	344.5	212.90				12.4	235.2	7.1	10.2
43.0	13136	5.3	0.02283	14.6	0.05	177.0	2.2480	211.3	346.6	211.33				11.8	245.5	4.9	10.8
44.0	13494	6.7	0.02311	18.5	0.07	167.0	2.2227	209.2	348.8	209.16				10.2	234.5	5.9	8.3
45.0	13811	6.0	0.02337	16.8	0.06	158.5	2.2000	206.5	349.5	206.49				10.2	232.1	6.3	8.1
45.8	14141	5.4	0.02362	15.3	0.06	150.0	2.1761	203.9	350.5	203.85				11.0	246.0	4.5	10.1
46.0	14222	5.3	0.02368	14.9	0.06	148.0	2.1703	203.2	350.8	203.21				11.3	249.1	4.0	10.6
47.0	14591	4.5	0.02392	13.2	0.05	139.0	2.1430	198.9	349.6	198.92				14.1	268.1	0.5	14.1
48.0	14891	5.8	0.02413	17.0	0.07	132.0	2.1206	197.9	353.0	197.94				15.3	282.8	-3.4	14.9
48.9	15207	11.4	0.02452	33.3	0.15	125.0	2.0969	198.6	359.7	198.58				12.7	296.4	-5.7	11.4
49.0	15254	12.3	0.02458	35.7	0.16	124.0	2.0934	198.7	360.7	198.68				12.4	298.8	-6.0	10.9
50.0	15542	9.1	0.02499	26.6	0.13	118.0	2.0719	197.9	364.5	197.94				6.0	320.5	-4.6	3.8
51.0	15844	10.1	0.02539	29.5	0.15	112.0	2.0492	197.9	370.0	197.94				2.1	86.0	-0.1	-2.1
52.0	16000	8.9	0.02559	26.2	0.14	109.0	2.0374	196.4	370.0	196.43				5.5	115.9	2.4	-4.9
53.0	16438	10.9	0.02619	32.1	0.18	101.0	2.0043	196.2	377.7	196.17				6.5	114.0	2.6	-5.9
53.3	16495	10.9	0.02627	32.1	0.18	100.0	2.0000	196.2	378.7	196.17				6.9	111.9	2.6	-6.4
54.0	16611	10.9	0.02645	32.0	0.18	98.0	1.9912	196.2	380.9	196.17				7.8	108.3	2.4	-7.4
55.0	16912	17.3	0.02703	50.8	0.31	93.0	1.9685	196.4	387.2	196.43				11.8	109.6	3.9	-11.1
56.0	17165	18.5	0.02765	54.2	0.34	89.0	1.9494	196.9	393.1	196.94				13.4	110.3	4.6	-12.6
57.0	17364	25.0	0.02824	72.2	0.48	86.0	1.9345	199.9	402.9	199.86				10.8	107.6	3.3	-10.3

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	17573	27.8	0.02898	79.0	0.56	83.0	1.9191	203.2	413.8	203.21				10.3	103.8	2.5	-10.0
58.7	17791	31.1	0.02985	88.7	0.65	80.0	1.9031	202.6	416.8	202.57				11.4	106.7	3.3	-10.9
59.0	17866	32.2	0.03015	91.9	0.68	79.0	1.8976	202.3	417.9	202.35				11.8	107.5	3.5	-11.2
60.0	18095	33.8	0.03116	96.2	0.74	76.0	1.8808	202.8	423.4	202.78				11.4	116.8	5.1	-10.1
61.0	18334	36.0	0.03227	102.3	0.82	73.0	1.8633	203.2	429.2	203.21				9.4	108.2	2.9	-9.0
62.0	18583	37.1	0.03348	105.4	0.88	70.0	1.8451	203.4	434.9	203.42				10.4	84.2	-1.0	-10.4
63.0	18843	39.6	0.03480	112.3	0.98	67.0	1.8261	203.4	440.4	203.42				11.0	77.9	-2.3	-10.7
64.0	19023	41.7	0.03577	118.3	1.06	65.0	1.8129	203.4	444.2	203.42				12.5	79.4	-2.3	-12.3
65.0	19303	43.0	0.03735	123.2	1.15	62.0	1.7924	201.7	446.4	201.68				15.7	81.0	-2.5	-15.5
66.0	19496	47.1	0.03852	134.7	1.30	60.0	1.7782	201.7	450.6	201.68				19.5	85.7	-1.5	-19.4
67.0	19802	58.0	0.04064	162.5	1.68	57.0	1.7559	205.9	466.8	205.89				22.6	84.8	-2.1	-22.5
68.0	20018	66.7	0.04240	185.7	2.01	55.0	1.7404	207.3	474.7	207.27				23.2	85.2	-1.9	-23.1
69.0	20361	78.1	0.04560	213.6	2.49	52.0	1.7160	211.2	491.4	211.16				25.8	89.0	-0.5	-25.8
70.0	20604	91.7	0.04823	249.2	3.04	50.0	1.6990	212.6	500.3	212.56				27.6	89.9	-0.0	-27.6
71.0	20858	92.1	0.05119	249.6	3.18	48.0	1.6812	213.1	507.4	213.08				27.5	89.6	-0.2	-27.5
72.0	21123	94.6	0.05433	256.5	3.41	46.0	1.6628	212.9	513.2	212.90				29.3	87.0	-1.6	-29.2
73.0	21399	97.4	0.05770	264.5	3.67	44.0	1.6435	212.6	518.9	212.56				30.7	84.8	-2.8	-30.6
74.0	21688	103.6	0.06138	281.0	4.09	42.0	1.6232	212.9	526.7	212.90				32.0	86.8	-1.8	-31.9
75.0	21992	102.4	0.06535	277.5	4.24	40.0	1.6021	213.1	534.5	213.08				34.4	89.3	-0.4	-34.4
76.0	22312	102.1	0.06949	276.8	4.45	38.0	1.5798	213.1	542.4	213.08				34.9	90.0	0.0	-34.9
77.0	22649	107.2	0.07396	290.1	4.94	36.0	1.5563	213.4	551.7	213.42				33.4	86.2	-2.2	-33.3
78.0	22825	109.5	0.07637	296.2	5.18	35.0	1.5441	213.4	556.2	213.42				35.3	91.5	0.9	-35.3
79.0	23194	118.0	0.08165	316.0	5.93	33.0	1.5185	215.6	571.3	215.59				36.7	97.3	4.7	-36.4
80.0	23388	125.0	0.08460	333.0	6.47	32.0	1.5051	216.7	579.4	216.72				34.7	88.3	-1.0	-34.7
81.0	23798	125.1	0.09096	332.0	6.91	30.0	1.4771	217.5	592.4	217.52				34.2	89.1	-0.5	-34.2
82.0	24014	128.5	0.09436	340.3	7.34	29.0	1.4624	218.0	599.5	217.99				31.3	89.1	-0.5	-31.3
83.0	24238	131.7	0.09796	346.5	7.79	28.0	1.4472	219.4	609.4	219.39				31.1	84.4	-3.1	-31.0
84.0	24473	138.0	0.10183	358.4	8.47	27.0	1.4314	222.3	623.8	222.26				31.7	87.3	-1.5	-31.6
85.0	24975	143.2	0.11036	369.5	9.49	25.0	1.3979	223.7	641.9	223.72				26.8	80.1	-4.6	-26.4
86.0	25242	143.7	0.11498	370.6	9.92	24.0	1.3802	223.9	649.8	223.87				23.4	70.6	-7.8	-22.1
87.0	25521	148.0	0.11988	380.4	10.66	23.0	1.3617	224.6	659.9	224.59				16.8	93.5	1.0	-16.7
88.0	25813	148.8	0.12508	381.5	11.21	22.0	1.3424	225.2	670.0	225.17				11.8	115.8	5.1	-10.7
89.0	26119	142.9	0.13044	368.4	11.28	21.0	1.3222	224.0	675.5	224.01				12.4	87.8	-0.5	-12.4
89.7	26438	141.2	0.13589	365.0	11.71	20.0	1.3010	223.4	683.3	223.44				15.8	88.5	-0.4	-15.8
90.0	26604	140.4	0.13872	363.2	11.93	19.5	1.2900	223.1	687.3	223.14				17.5	88.7	-0.4	-17.5
91.0	26947	135.2	0.14445	350.3	12.11	18.5	1.2672	222.8	696.8	222.85				15.0	91.1	0.3	-15.0
92.0	27273	129.9	0.14966	334.9	12.23	17.6	1.2455	223.9	710.0	223.87				11.1	91.1	0.2	-11.1
92.1	27310	129.8	0.15024	334.4	12.29	17.5	1.2430	224.1	711.9	224.08				10.8	92.7	0.5	-10.8
93.0	27658	129.2	0.15564	330.1	12.90	16.6	1.2201	226.0	728.9	226.02				8.8	111.8	3.3	-8.2
94.0	27984	124.8	0.16059	319.1	13.08	15.8	1.1987	225.7	738.4	225.74				7.0	190.5	6.9	1.3
94.9	28326	121.5	0.16563	311.2	13.42	15.0	1.1761	225.5	748.6	225.48				9.6	231.1	6.0	7.4
95.0	28371	121.1	0.16628	310.2	13.47	14.9	1.1732	225.5	749.9	225.45				10.1	234.5	5.9	8.2
96.0	28688	112.0	0.17070	287.9	13.07	14.2	1.1523	224.6	757.4	224.59				10.9	256.0	2.6	10.6
97.0	29068	107.4	0.17572	276.9	13.28	13.4	1.1271	224.0	768.1	224.01				6.7	285.2	-1.8	6.5
98.0	29317	105.3	0.17892	271.2	13.53	12.9	1.1106	224.2	776.9	224.16				4.3	30.9	-3.7	-2.2
98.7	29523	102.4	0.18148	263.8	13.57	12.5	1.0969	224.1	783.6	224.06				4.2	50.9	-2.7	-3.3
99.0	29629	100.9	0.18279	260.0	13.59	12.3	1.0899	224.0	787.1	224.01				4.4	60.8	-2.1	-3.8
100.0	29901	98.5	0.18606	253.5	13.84	11.8	1.0719	224.4	798.0	224.45				5.1	83.3	-0.6	-5.1
101.0	30186	97.0	0.18939	247.2	14.22	11.3	1.0531	226.4	815.1	226.45				8.7	76.4	-2.0	-8.5
102.0	30488	94.5	0.19281	237.8	14.51	10.8	1.0334	229.5	836.9	229.51				12.2	80.7	-2.0	-12.0
103.0	30871	86.7	0.19690	218.3	14.08	10.2	1.0086	229.2	849.7	229.23				13.4	88.1	-0.4	-13.4
103.5	31003	85.6	0.19824	215.3	14.18	10.0	1.0000	229.5	855.5	229.50				13.2	88.0	-0.5	-13.2
104.0	31139	84.5	0.19960	212.2	14.28	9.8	0.9912	229.8	861.5	229.78				13.0	87.9	-0.5	-13.0
105.0	31348	83.9	0.20167	211.0	14.64	9.5	0.9777	229.6	868.7	229.64				15.4	97.5	2.0	-15.3
106.0	31563	81.9	0.20377	205.9	14.74	9.2	0.9638	229.5	876.1	229.51				17.6	107.9	5.4	-16.8
107.0	31861	73.9	0.20650	186.3	13.91	8.8	0.9445	229.0	885.2	228.96				18.5	113.2	7.3	-17.0
108.0	32093	71.4	0.20849	179.5	13.91	8.5	0.9294	229.6	896.7	229.64				17.9	108.9	5.8	-16.9
109.0	32334	68.2	0.21046	171.1	13.77	8.2	0.9138	230.1	907.6	230.05				16.0	101.9	3.3	-15.7
109.7	32500	66.9	0.21177	167.3	13.85	8.0	0.9031	230.9	917.3	230.87				13.9	103.5	3.3	-13.6
110.0	32585	66.2	0.21244	165.4	13.89	7.9	0.8976	231.3	922.2	231.28				12.9	104.6	3.2	-12.5
111.0	32847	63.3	0.21442	158.2	13.79	7.6	0.8808	230.9	930.8	230.87				12.9	108.9	4.2	-12.2
112.0	33118	60.7	0.21639	152.6	13.77	7.3	0.8633	229.5	936.0	229.51				15.0	107.0	4.4	-14.3
113.0	33400	56.8	0.21833	142.8	13.44	7.0	0.8451	229.5	947.3	229.51				15.6	99.9	2.7	-15.3
114.0	33693	52.9	0.22023	133.9	13.09	6.7	0.8261	228.3	954.0	228.26				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***


072477
0443
3A-103
P
T
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
10 0 MICG/G
20 0
10 0
5.0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72477   LAUNCH TIME 1033 GMT   ECC SONDE 3A-104X

SURFACE CONDITIONS
PRESS 1003.1 MB
TEMP 300.3 K
HUMY 85.0 %

003 = 36.0
OIZ = 35.1
OZC = 55.2
IO = 0.227
PS = 30.0

TBOX CAL = 30.0 C AT 73.9 ORD
BASE CAL = 30.0 C AT 73.3 ORD
HUMIDITY = 59.2 % AT 46.0 ORD

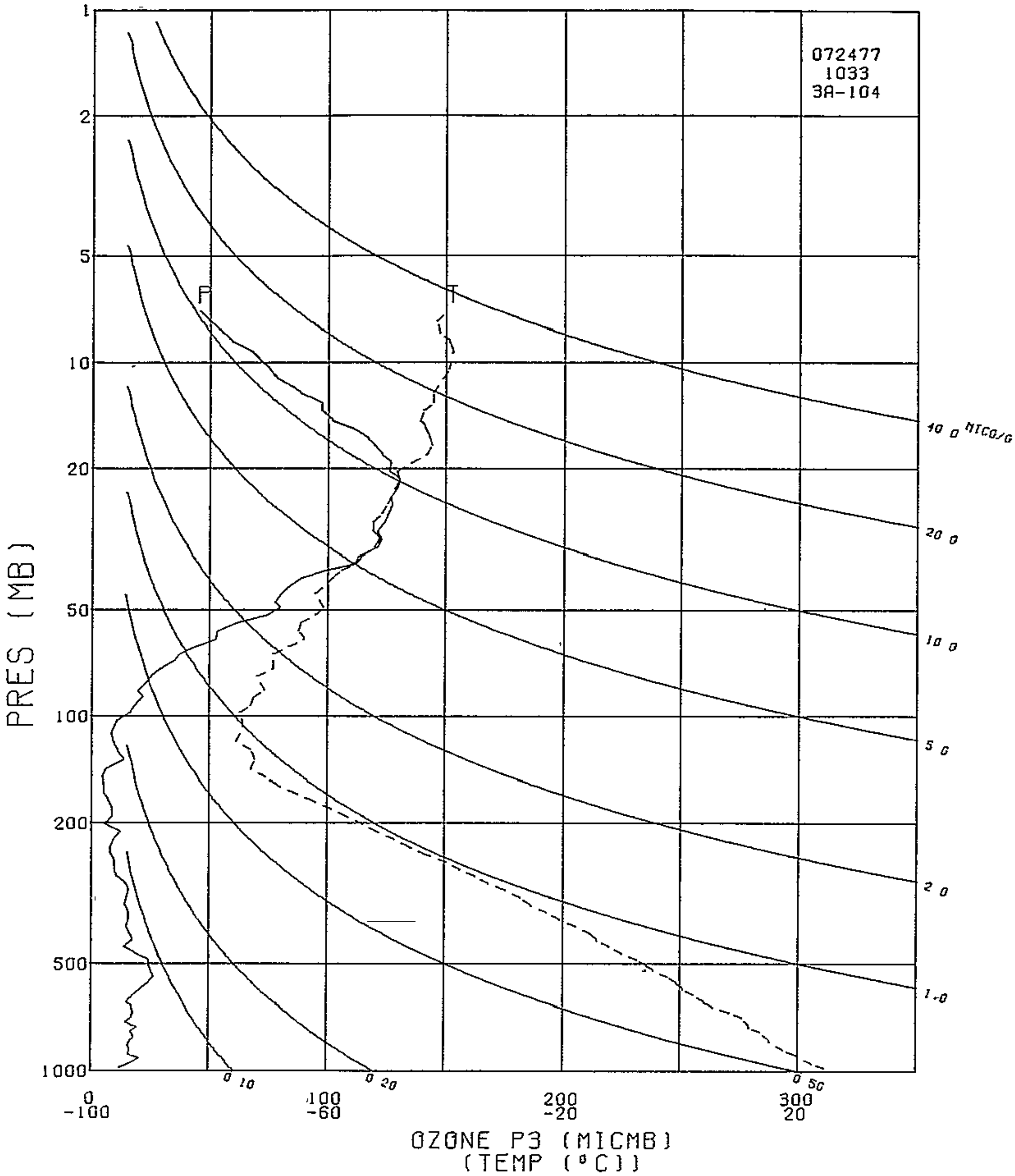
	PROFILE	DOBSON
INTEGRATED OZONE	0.19622	
RESIDUAL OZONE	0.03062	
TOTAL OZONE	0.22684	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	5.7	0.	10.9	0.01	1003.1	3.0013	299.7	299.5	302.90	79.6	295.9	0.0173	2.0	50.0	-1.3	-1.5
0.1	80	6.4	0.00002	12.3	0.01	1000.0	3.0000	299.5	299.5	302.67	81.2	296.0	0.0175	2.3	38.1	-1.8	-1.4
1.0	295	12.3	0.00019	23.8	0.02	976.0	2.9894	297.6	299.7	300.94	93.7	296.5	0.0184	5.7	3.7	-5.7	-0.4
2.0	559	16.4	0.00053	32.0	0.03	947.0	2.9763	295.5	300.2	298.37	88.1	293.4	0.0157	7.6	1.7	-7.6	-0.2
3.0	830	20.4	0.00099	40.0	0.04	918.0	2.9628	294.6	301.9	297.29	84.7	291.9	0.0148	7.5	353.8	-7.4	0.8
3.7	1001	17.1	0.00127	33.6	0.03	900.0	2.9542	293.1	302.1	295.68	87.7	291.0	0.0141	6.5	347.9	-6.4	1.4
4.0	1079	15.6	0.00139	30.8	0.03	892.0	2.9504	292.4	302.2	294.95	89.1	290.6	0.0140	6.1	344.7	-5.9	1.6
5.0	1323	16.4	0.00175	32.6	0.03	867.0	2.9380	290.6	302.6	292.99	95.5	289.8	0.0137	5.5	348.8	-5.4	1.1
5.7	1492	15.9	0.00200	31.5	0.03	850.0	2.9294	290.3	304.1	292.69	94.3	289.4	0.0135	5.5	353.1	-5.5	0.7
6.0	1584	15.6	0.00214	31.0	0.03	841.0	2.9248	290.1	304.9	292.53	93.7	289.1	0.0135	5.6	355.4	-5.5	0.4
7.0	1820	16.5	0.00249	33.0	0.03	818.0	2.9128	288.1	305.1	290.22	91.9	286.8	0.0119	7.0	49.9	-4.5	-5.3
7.8	2008	17.8	0.00279	35.7	0.04	800.0	2.9031	287.5	306.4	289.38	85.3	285.0	0.0107	11.5	76.9	-2.6	-11.2
8.0	2051	18.1	0.00286	36.3	0.04	796.0	2.9009	287.3	306.7	289.19	83.9	284.6	0.0106	12.7	80.2	-2.2	-12.5
9.0	2331	16.6	0.00331	33.4	0.04	770.0	2.8865	286.5	308.8	288.03	68.1	280.8	0.0085	10.6	80.9	-1.7	-10.4
10.0	2563	19.1	0.00370	38.7	0.04	749.0	2.8745	284.6	309.1	285.96	67.4	278.8	0.0076	8.7	68.9	-3.1	-8.1
11.0	2835	14.4	0.00413	29.2	0.03	725.0	2.8603	284.8	312.2	285.74	44.9	273.3	0.0053	10.3	69.9	-3.6	-9.7
12.0	3092	17.1	0.00451	34.7	0.04	703.0	2.8470	283.5	313.5	284.20	35.7	269.0	0.0040	11.0	71.9	-3.4	-10.5
12.1	3127	17.2	0.00457	35.0	0.04	700.0	2.8451	283.2	313.6	283.93	36.1	268.9	0.0039	11.0	72.3	-3.4	-10.5
13.0	3380	17.8	0.00499	36.6	0.04	679.0	2.8319	281.3	314.2	281.99	38.9	268.2	0.0039	11.3	74.4	-3.1	-10.9
14.0	3663	17.1	0.00547	35.5	0.04	656.0	2.8169	278.5	314.2	279.23	49.8	268.9	0.0042	10.3	79.4	-1.9	-10.1
15.0	3902	14.7	0.00583	30.6	0.04	637.0	2.8041	277.1	315.3	277.88	54.2	268.7	0.0043	9.6	83.4	-1.1	-9.5
16.0	4293	18.0	0.00646	37.8	0.05	607.0	2.7832	275.3	317.5	275.99	55.7	267.4	0.0041	8.3	90.1	0.0	-8.3
16.3	4386	18.9	0.00663	39.8	0.05	600.0	2.7782	274.7	317.9	275.25	46.3	263.9	0.0028	7.9	89.8	-0.0	-7.9
17.0	4562	20.6	0.00697	43.4	0.06	587.0	2.7686	273.5	318.5	273.83	28.6	257.4	0.0019	7.2	89.1	-0.1	-7.2
18.0	4896	24.0	0.00770	50.9	0.07	563.0	2.7505	272.4	321.0	272.71	29.9	257.0	0.0019	7.6	77.9	-1.6	-7.5
19.0	5213	26.3	0.00849	56.1	0.08	541.0	2.7332	271.0	323.0	270.98				6.6	77.6	-1.4	-6.4
20.0	5541	25.3	0.00934	54.4	0.08	519.0	2.7152	268.5	323.8	268.55				4.7	98.0	0.7	-4.7
21.0	5802	24.5	0.00999	52.9	0.08	502.0	2.7007	267.3	325.5	267.34				3.5	111.6	1.3	-3.3
21.1	5833	24.5	0.01007	52.9	0.08	500.0	2.6990	267.1	325.6	267.16				3.4	111.5	1.2	-3.2
22.0	6087	24.4	0.01070	53.0	0.08	484.0	2.6848	265.7	326.9	265.70				2.3	110.3	0.8	-2.1
23.0	6397	18.8	0.01136	41.2	0.07	465.0	2.6675	263.0	327.4	263.19	25.3	246.9	0.0010	2.0	116.0	0.9	-1.8
24.0	6751	13.8	0.01197	30.5	0.05	444.0	2.6474	260.9	329.0	261.13	44.1	251.2	0.0015	1.6	71.5	-0.5	-1.5
25.0	7048	17.1	0.01245	38.3	0.07	427.0	2.6304	258.8	330.0	258.85				1.8	5.3	-1.8	-0.2
26.0	7392	16.4	0.01305	36.8	0.07	408.0	2.6107	257.7	332.9	257.68				3.0	17.0	-2.9	-0.9
26.4	7540	15.7	0.01330	35.4	0.07	400.0	2.6021	256.6	333.4	256.60				2.8	18.3	-2.7	-0.9
27.0	7750	14.7	0.01364	33.4	0.06	389.0	2.5899	255.1	334.1	255.08				2.5	20.4	-2.3	-0.9
28.0	8082	15.7	0.01418	35.9	0.07	372.0	2.5705	252.4	334.8	252.39				2.3	313.8	-1.6	1.6
29.0	8405	15.7	0.01472	36.2	0.07	356.0	2.5515	250.2	336.1	250.25				4.3	298.5	-2.0	3.7
29.3	8528	15.1	0.01492	35.0	0.07	350.0	2.5441	249.3	336.5	249.29				4.6	291.6	-1.7	4.3
30.0	8761	14.1	0.01530	32.8	0.07	339.0	2.5302	247.5	337.1	247.48				5.4	281.3	-1.1	5.3
31.0	9110	14.9	0.01585	35.1	0.08	323.0	2.5092	245.7	339.4	245.74				6.4	265.7	0.5	6.4
32.0	9473	15.8	0.01646	37.5	0.09	307.0	2.4871	243.1	340.7	243.10				8.5	245.8	3.5	7.8
32.5	9636	14.9	0.01674	35.5	0.08	300.0	2.4771	241.7	340.9	241.71				9.5	233.8	5.6	7.7
33.0	9779	14.1	0.01697	33.8	0.08	294.0	2.4683	240.5	341.1	240.49	28.7	228.4	0.0002	10.6	225.4	7.5	7.6
34.0	10096	10.6	0.01741	25.8	0.06	281.0	2.4487	238.2	342.3	238.23	37.6	228.9	0.0003	12.0	213.2	10.0	6.6
35.0	10398	9.8	0.01777	24.0	0.06	269.0	2.4298	235.7	342.9	235.68	31.9	225.1	0.0002	12.6	207.6	11.2	5.8
36.0	10738	9.7	0.01815	24.1	0.06	256.0	2.4082	233.3	344.4	233.37	29.0	222.2	0.0001	12.0	204.5	10.9	5.0
36.5	10898	8.8	0.01831	22.0	0.06	250.0	2.3979	231.7	344.3	231.72				12.2	203.9	11.1	4.9
37.0	11063	7.9	0.01848	20.0	0.05	244.0	2.3874	230.0	344.2	230.03				12.4	203.3	11.4	4.9
38.0	11400	7.9	0.01880	20.1	0.06	232.0	2.3655	227.1	344.7	227.05				12.6	201.9	11.7	4.7
39.0	11751	9.4	0.01916	24.3	0.07	220.0	2.3424	224.4	345.9	224.43				12.0	205.3	10.8	5.1
40.0	12054	11.9	0.01955	31.1	0.09	210.0	2.3222	221.6	346.1	221.56				12.8	208.8	11.3	6.2
41.0	12368	5.3	0.01988	13.9	0.04	200.0	2.3010	219.2	347.2	219.21				13.1	212.6	11.1	7.1
42.0	12695	8.8	0.02017	23.4	0.08	190.0	2.2788	216.3	347.6	216.28				12.5	222.4	9.2	8.4
43.0	13000	8.8	0.02050	23.7	0.08	181.0	2.2577	213.7	348.3	213.71				11.6	230.6	7.4	9.0
44.0	13316	7.0	0.02082	19.2	0.07	172.0	2.2355	210.6	348.3	210.64				11.4	235.2	6.5	9.4
45.0	13607	5.3	0.02105	14.6	0.05	164.0	2.2148	207.8	348.2	207.75				11.5	241.3	5.5	10.1
46.0	13909	5.2	0.02126	14.7	0.06	156.0	2.1931	204.7	348.0	204.65				11.9	254.4	3.2	11.5
46.7	14142	4.6	0.02141	12.9	0.05	150.0	2.1761	203.2	349.4	203.18				13.1	269.9	0.0	13.1
47.0	14223	4.3	0.02146	12.3	0.05	148.0	2.1703	202.7	349.8	202.68				13.7	274.4	-1.1	13.7
48.0	14550	6.0	0.02168	17.2	0.07	140.0	2.1461	200.1	350.9	200.10				13.0	287.1	-3.8	12.4
49.0	14895	13.3	0.02213	38.3	0.17	132.0	2.1206	200.8	358.2	200.82				6.0	293.7	-2.4	5.5
49.9	15214	11.2	0.02265	32.3	0.15	125.0	2.0969	200.2	362.7	200.20				1.0	185.2	1.0	0.1
50.0	15262	10.9	0.02273	31.4	0.15	124.0	2.0934	200.1	363.3	200.10				1.7	155.9	1.6	-0.7
51.0	15600	9.2	0.02319	27.0	0.13	117.0	2.0682	197.6	364.8	197.59				6.4	157.6	5.9	-2.4
52.0	15904	8.4	0.02356	24.6	0.13	111.0	2.0453	197.6	370.3	197.59				7.1	159.9	6.7	-2.4
53.0	16117	9.2	0.02381	26.7	0.14	107.0	2.0294	198.9	376.6	198.87				5.0	155.9	4.6	-2.0
54.0	16395	10.8	0.02419	31.3	0.18	102.0	2.0086	198.6	381.3	198.62				4.5	141.7	3.5	-2.8
54.4	16510	13.0	0.02440	37.8	0.22	100.0	2.0000	198.5	383.3	198.52				5.1	132.3	3.4	-3.7
55.0	16687	16.4	0.02473	47.7	0.28	97.0	1.9868	198.4	386.3	198.37				6.2	121.9	3.3	-5.2
56.0	16932	17.9	0.02530	51.8	0.32	93.0	1.9685	200.1	394.4	200.10				8.9	110.3	3.1	-8.4
57.0	17256	21.3	0.02615	61.2	0.40	88.0	1.9445	200.6	401.7	200.59				7.3	101.0	1.4	-7.2
58.0	17544	19.7	0.02694	56.1	0.39	83.8	1.9232	202.4	411.1	202.45				6.7	76.9	-1.5	-6.5

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	17811	22.9	0.02770	65.5	0.47	80.1	1.9036	202.2	416.0	202.22				7.5	86.8	-0.4	-7.5
59.0	17818	23.0	0.02773	65.7	0.48	80.0	1.9031	202.2	416.1	202.20				7.5	86.5	-0.5	-7.5
60.0	18082	25.2	0.02857	72.2	0.55	76.5	1.8837	201.3	419.6	201.30				6.5	73.0	-1.9	-6.2
61.0	18368	29.0	0.02961	82.2	0.66	72.9	1.8627	204.0	431.1	204.01				10.5	50.6	-6.7	-8.1
61.8	18609	33.6	0.03063	95.0	0.80	70.0	1.8451	204.0	436.1	204.01				14.1	58.2	-7.4	-12.0
62.0	18687	35.0	0.03096	99.1	0.84	69.1	1.8395	204.0	437.7	204.01				15.3	59.9	-7.7	-13.3
63.0	18952	37.4	0.03223	105.9	0.94	66.1	1.8202	204.0	443.3	204.01				18.9	74.2	-5.1	-18.2
64.0	19239	44.2	0.03377	124.7	1.16	63.0	1.7993	204.4	450.4	204.44				23.7	88.9	-0.5	-23.7
65.0	19534	52.8	0.03564	145.8	1.46	60.0	1.7782	209.1	467.2	209.12				26.3	93.6	1.6	-26.2
66.0	19858	53.3	0.03786	147.8	1.55	56.9	1.7551	208.1	472.1	208.15				25.9	91.6	0.7	-25.9
67.0	20199	62.1	0.04041	171.9	1.91	53.8	1.7308	208.5	480.6	208.54				27.2	91.9	0.9	-27.2
68.0	20503	74.7	0.04308	204.3	2.42	51.2	1.7093	211.0	493.3	211.01				28.5	92.2	1.1	-28.5
68.5	20649	77.1	0.04452	210.2	2.56	50.0	1.6990	211.7	498.2	211.67				28.4	92.4	1.2	-28.3
69.0	20787	79.3	0.04587	215.7	2.69	48.9	1.6893	212.3	502.8	212.29				28.2	92.5	1.2	-28.2
70.0	21033	77.5	0.04832	211.0	2.73	47.0	1.6721	212.1	508.1	212.11				29.9	92.5	1.3	-29.9
71.0	21357	80.0	0.05158	219.0	2.97	44.6	1.6493	211.0	513.1	211.01				32.3	93.6	2.0	-32.2
72.0	21655	83.5	0.05470	228.4	3.26	42.5	1.6284	211.2	520.7	211.19				33.4	96.9	4.0	-33.1
73.0	21985	88.8	0.05831	239.7	3.65	40.3	1.6053	213.9	535.4	213.88				33.9	95.7	3.3	-33.7
73.1	22031	90.2	0.05886	243.3	3.74	40.0	1.6021	214.1	537.1	214.11				33.4	95.2	3.0	-33.2
74.0	22305	98.6	0.06207	264.2	4.26	38.3	1.5832	215.4	547.2	215.43				30.4	92.5	1.3	-30.4
75.0	22575	111.4	0.06561	295.1	5.03	36.7	1.5647	217.9	560.3	217.92				28.4	89.7	-0.2	-28.4
76.0	22878	112.9	0.06980	297.8	5.34	35.0	1.5441	218.9	570.4	218.89				31.2	85.4	-2.5	-31.1
77.0	23257	121.2	0.07524	316.4	6.08	33.0	1.5185	221.1	586.0	221.10				32.1	80.9	-5.1	-31.7
78.0	23600	122.6	0.08032	319.0	6.49	31.3	1.4955	221.9	596.9	221.87				29.6	77.0	-6.7	-28.9
78.9	23874	121.2	0.08440	316.6	6.69	30.0	1.4771	220.9	601.7	220.93				30.5	79.5	-5.6	-30.0
79.0	23918	120.9	0.08504	316.3	6.72	29.8	1.4742	220.8	602.4	220.79				30.7	79.9	-5.4	-30.2
80.0	24297	124.0	0.09072	324.4	7.31	28.1	1.4487	220.8	612.6	220.79				30.9	87.5	-1.3	-30.9
81.0	24652	125.5	0.09612	326.0	7.82	26.6	1.4249	222.3	626.6	222.32				27.6	94.2	2.0	-27.5
82.0	25056	127.4	0.10231	329.6	8.45	25.0	1.3979	223.2	640.5	223.23				25.1	95.1	2.2	-25.0
83.0	25349	126.7	0.10682	328.5	8.78	23.9	1.3784	222.6	647.0	222.63				22.2	93.7	1.4	-22.1
84.0	25744	129.4	0.11292	332.7	9.53	22.5	1.3522	224.6	664.0	224.57				16.0	95.1	1.4	-15.9
85.0	26105	130.7	0.11855	334.9	10.17	21.3	1.3284	225.3	676.7	225.31				15.2	97.3	1.9	-15.0
86.0	26454	125.8	0.12391	323.1	10.32	20.2	1.3054	224.9	685.7	224.87				14.7	95.1	1.3	-14.7
86.2	26519	126.0	0.12490	322.8	10.44	20.0	1.3010	225.3	689.0	225.31				13.5	94.7	1.1	-13.5
87.0	26824	126.6	0.12949	321.4	10.98	19.1	1.2810	227.3	704.4	227.34				7.9	90.8	0.1	-7.9
88.0	27184	122.8	0.13478	308.4	11.24	18.1	1.2577	229.9	723.3	229.89				3.1	130.8	2.0	-2.4
88.5	27410	121.0	0.13800	303.3	11.46	17.5	1.2430	230.3	731.8	230.34				2.5	215.5	2.0	1.4
89.0	27606	119.5	0.14077	299.0	11.65	17.0	1.2304	230.7	739.1	230.73				5.1	247.1	2.0	4.7
90.0	27973	116.1	0.14583	291.1	11.95	16.1	1.2068	230.3	749.3	230.31				8.5	291.6	-3.1	7.9
91.0	28360	109.4	0.15095	275.1	11.92	15.2	1.1818	229.6	759.4	229.61				9.0	334.0	-8.1	4.0
91.3	28448	107.2	0.15205	269.8	11.83	15.0	1.1761	229.4	761.5	229.37				7.8	345.7	-7.6	1.9
92.0	28676	101.5	0.15487	256.3	11.60	14.5	1.1614	228.8	766.9	228.77				7.1	27.1	-6.3	-3.2
93.0	29105	96.9	0.15989	243.9	11.80	13.6	1.1335	229.3	783.0	229.33				4.8	72.4	-1.5	-4.6
94.0	29461	97.2	0.16393	242.9	12.48	12.9	1.1106	231.0	800.7	231.01				4.0	67.0	-1.6	-3.7
94.5	29674	92.6	0.16623	231.3	12.26	12.5	1.0969	231.0	807.9	231.01				5.8	58.9	-3.0	-5.0
95.0	29894	87.8	0.16860	219.4	12.02	12.1	1.0828	231.0	815.5	231.01				7.7	54.6	-4.5	-6.3
96.0	30179	84.0	0.17146	209.9	12.00	11.6	1.0645	231.1	825.8	231.15				7.3	73.9	-2.0	-7.0
97.0	30539	77.9	0.17486	193.4	11.74	11.0	1.0414	232.7	844.0	232.66				6.3	104.4	1.6	-6.1
98.0	30922	75.1	0.17824	185.6	11.97	10.4	1.0170	233.6	861.1	233.62				7.4	123.7	4.1	-6.2
98.8	31190	72.5	0.18052	179.0	12.01	10.0	1.0000	233.7	871.3	233.73				11.2	131.0	7.3	-8.4
99.0	31259	71.8	0.18110	177.3	12.02	9.9	0.9956	233.8	873.9	233.76				12.2	132.2	8.2	-9.0
100.0	31761	66.8	0.18511	164.6	12.03	9.2	0.9638	234.3	894.4	234.30				11.8	123.2	6.5	-9.9
101.0	32144	59.1	0.18789	146.1	11.26	8.7	0.9395	233.8	906.7	233.76				8.7	98.8	1.3	-8.6
102.0	32547	55.1	0.19055	137.2	11.14	8.2	0.9138	232.0	915.2	231.98				10.0	87.1	-0.5	-10.0
102.3	32714	53.2	0.19157	132.5	11.01	8.0	0.9031	231.8	921.1	231.84				11.2	86.7	-0.6	-11.2
103.0	33062	49.3	0.19368	122.8	10.74	7.6	0.8808	231.6	933.6	231.56				13.7	86.1	-0.9	-13.6
104.0	33525	45.2	0.19622	111.7	10.54	7.1	0.8513	233.3	959.2	233.35				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***

C-4



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72477   LAUNCH TIME 1629 GMT   ECC SONDE 3A-105X

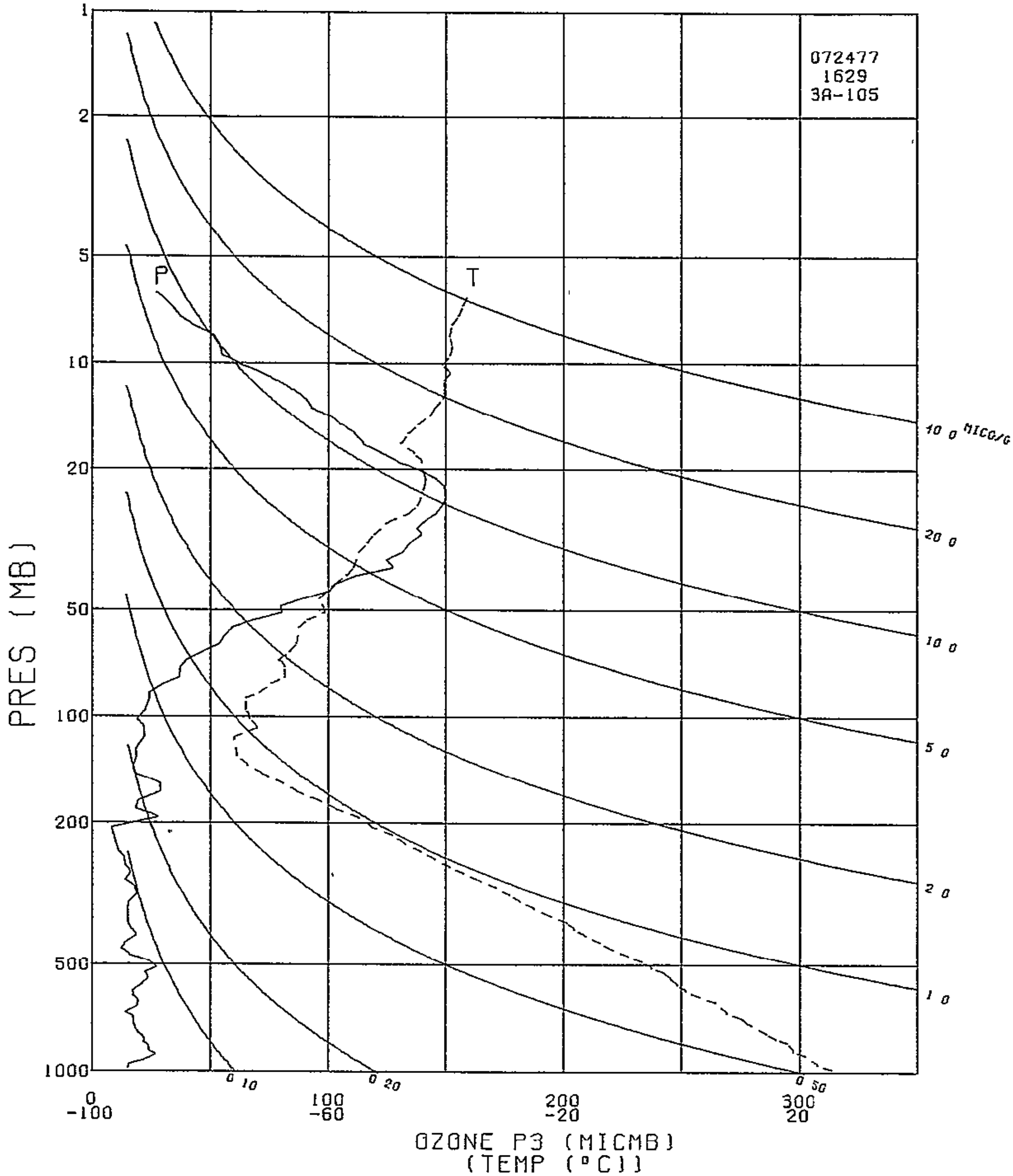
SURFACE CONDITIONS					
PRESS	1005.1 MB	003 = 32.6	TBOX CAL =	30.0 C AT	74.4 ORD
TEMP	301.4 K	OIZ = 32.0	BASE CAL =	30.0 C AT	74.0 ORD
HUMY	85.0 %	OZC = 56.1	HUMIDITY =	61.3 % AT	46.0 ORD
		IO = 0.128			
		PS = 27.3			

	PROFILE	DOBSON
INTEGRATED OZONE	0.21966	
RESIDUAL OZONE	0.01798	
TOTAL OZONE	0.23764	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRLSS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	11.6	0.	22.2	0.02	1005.1	3.0022	300.9	300.5	304.33	80.3	297.2	0.0187	0.	0.	0.	0.
0.2	98	12.3	0.00005	23.6	0.02	1000.0	3.0000	300.5	300.5	303.94	83.1	297.3	0.0191	0.9	357.7	-0.8	0.0
1.0	286	15.1	0.00028	29.2	0.03	979.0	2.9908	298.7	300.5	307.29	95.0	297.8	0.0199	4.4	357.7	-4.4	0.2
2.0	560	15.4	0.00065	30.0	0.03	949.0	2.9773	296.3	300.7	299.24	87.5	294.1	0.0164	5.4	354.6	-5.4	0.5
3.0	793	21.9	0.00104	42.8	0.04	924.0	2.9657	295.4	302.1	297.71	72.0	290.1	0.0130	5.6	346.6	-5.5	1.3
3.8	1021	25.7	0.00155	50.4	0.05	900.0	2.9542	294.2	303.2	296.57	74.8	289.6	0.0130	5.6	346.0	-5.4	1.4
4.0	1070	26.5	0.00165	52.0	0.05	895.0	2.9518	294.0	303.5	296.33	75.4	289.5	0.0130	5.6	345.8	-5.4	1.4
5.0	1305	23.7	0.00219	46.8	0.05	871.0	2.9400	292.0	303.8	294.19	78.1	288.1	0.0122	4.6	1.0	-4.6	-0.1
5.9	1514	23.8	0.00265	47.0	0.05	850.0	2.9294	292.0	305.9	294.07	71.8	286.8	0.0114	4.2	25.4	-3.8	-1.8
6.0	1535	23.8	0.00269	47.1	0.05	848.0	2.9284	292.0	306.1	294.05	71.2	286.7	0.0114	4.2	27.9	-3.7	-2.0
7.0	1771	21.6	0.00319	42.9	0.04	825.0	2.9165	290.9	307.4	292.89	71.0	285.6	0.0110	4.6	67.2	-1.8	-4.2
8.0	1991	21.8	0.00363	43.6	0.04	804.0	2.9053	289.1	307.7	290.87	73.1	284.2	0.0103	7.8	88.7	-0.2	-7.8
8.1	2033	21.5	0.00371	42.9	0.04	800.0	2.9031	288.8	307.8	290.62	73.0	284.0	0.0101	8.1	89.2	-0.1	-8.1
9.0	2281	19.4	0.00418	38.9	0.04	777.0	2.8904	287.4	308.9	289.11	72.7	282.6	0.0095	10.1	91.6	0.3	-10.1
10.0	2557	18.1	0.00467	36.5	0.04	752.0	2.8762	286.6	311.0	288.04	62.3	279.6	0.0080	11.6	89.8	-0.0	-11.6
11.0	2840	17.6	0.00514	35.7	0.04	727.0	2.8615	284.3	311.4	285.52	61.2	277.1	0.0070	13.4	84.4	-1.3	-13.3
12.0	3143	17.4	0.00564	35.5	0.04	701.0	2.8457	283.0	313.2	284.15	62.1	276.1	0.0067	12.0	81.7	-1.7	-11.9
12.0	3154	17.2	0.00566	35.1	0.04	700.0	2.8451	282.9	313.2	284.05	62.4	276.1	0.0067	12.0	81.6	-1.8	-11.9
13.0	3395	13.9	0.00602	28.6	0.03	680.0	2.8325	280.8	313.5	281.94	69.8	275.6	0.0067	11.1	80.2	-1.9	-10.9
14.0	3691	18.9	0.00649	38.9	0.05	656.0	2.8169	279.9	315.7	280.64	46.9	269.3	0.0044	10.1	83.6	-1.1	-10.1
15.0	3970	19.5	0.00700	40.4	0.05	634.0	2.8021	278.8	317.6	279.64	53.0	270.0	0.0048	7.9	100.8	1.5	-7.8
16.0	4257	17.2	0.00751	36.0	0.05	612.0	2.7868	276.1	317.7	276.98	69.3	271.0	0.0053	7.8	116.8	3.5	-6.9
16.5	4416	17.2	0.00778	36.1	0.05	600.0	2.7782	274.9	318.1	275.75	69.3	269.9	0.0048	7.7	117.5	3.5	-6.8
17.0	4552	17.2	0.00801	36.3	0.05	590.0	2.7709	273.9	318.5	274.71	69.3	269.0	0.0047	7.6	118.1	3.6	-6.7
18.0	4856	20.9	0.00858	44.3	0.06	568.0	2.7543	272.5	320.2	273.20	69.7	267.6	0.0044	8.1	110.1	2.8	-7.6
19.0	5171	23.4	0.00927	49.8	0.07	546.0	2.7372	271.3	322.6	271.43				10.8	108.4	3.4	-10.3
20.0	5497	22.3	0.01001	47.6	0.07	524.0	2.7193	270.1	324.9	270.13				11.2	111.2	4.1	-10.5
21.0	5756	27.0	0.01066	58.2	0.09	507.0	2.7050	268.1	325.5	268.08				9.8	109.9	3.3	-9.2
21.3	5864	26.0	0.01094	56.1	0.09	500.0	2.6990	267.5	326.1	267.52				9.5	107.0	2.8	-9.1
22.0	6071	24.0	0.01147	52.0	0.08	487.0	2.6875	266.4	327.2	266.46				9.1	101.1	1.7	-8.9
23.0	6363	16.0	0.01206	34.9	0.06	469.0	2.6712	264.0	327.8	264.26	31.8	250.4	0.0013	8.6	88.8	-0.2	-8.6
24.0	6715	12.2	0.01257	27.0	0.05	448.0	2.6513	261.2	328.5	261.32	28.4	246.6	0.0010	7.9	83.6	-0.9	-7.8
25.0	7027	14.2	0.01300	31.6	0.05	430.0	2.6335	259.2	329.9	259.32	27.0	244.3	0.0008	6.5	79.3	-1.2	-6.4
26.0	7368	18.6	0.01358	41.8	0.08	411.0	2.6138	256.8	331.1	256.84				5.6	66.8	-2.2	-5.1
26.6	7570	17.4	0.01396	39.2	0.07	400.0	2.6021	255.6	332.1	255.61				4.6	67.6	-1.7	-4.2
27.0	7684	16.7	0.01417	37.7	0.07	394.0	2.5955	254.9	332.6	254.92				4.0	68.2	-1.5	-3.7
28.0	8032	15.2	0.01476	34.6	0.07	376.0	2.5752	253.6	335.3	253.57				1.6	72.1	-0.5	-1.5
29.0	8353	15.2	0.01528	35.0	0.07	360.0	2.5563	250.6	335.6	250.63				1.8	343.5	-1.7	0.5
29.6	8558	15.1	0.01561	35.1	0.07	350.0	2.5441	249.1	336.2	249.10				2.7	328.6	-2.3	1.4
30.0	8706	15.1	0.01585	35.2	0.07	343.0	2.5353	248.0	336.7	248.00				3.4	323.1	-2.7	2.0
31.0	9007	15.7	0.01636	36.8	0.08	329.0	2.5172	245.8	337.6	245.76				5.1	305.1	-2.9	4.2
32.0	9318	18.7	0.01695	44.2	0.10	315.0	2.4983	243.9	339.3	243.93				7.5	282.6	-1.6	7.3
33.0	9641	18.2	0.01761	43.4	0.10	301.0	2.4786	241.7	340.6	241.75	36.2	231.7	0.0003	9.9	259.3	1.8	9.7
33.1	9664	17.9	0.01765	42.7	0.10	300.0	2.4771	241.5	340.6	241.54	36.3	231.5	0.0003	9.9	258.8	1.9	9.7
34.0	9976	13.9	0.01821	33.6	0.08	287.0	2.4579	238.7	341.0	238.72	37.0	229.1	0.0003	10.7	252.2	3.3	10.2
35.0	10293	16.3	0.01876	39.8	0.10	274.2	2.4381	236.0	341.6	236.07	37.6	226.9	0.0002	11.4	243.9	5.0	10.3
36.0	10579	14.3	0.01926	35.3	0.09	263.0	2.4200	233.8	342.4	233.80	28.8	222.5	0.0001	11.5	237.3	6.2	9.7
37.0	10924	13.6	0.01982	34.0	0.09	250.0	2.3979	231.2	343.6	231.21				11.6	235.0	6.6	9.5
38.0	11255	11.2	0.02030	28.1	0.08	238.0	2.3766	228.7	344.7	228.74				13.3	227.6	8.9	9.8
39.0	11599	10.0	0.02073	25.4	0.07	226.0	2.3541	225.9	345.5	225.92				13.5	226.8	9.3	9.9
40.0	11958	8.7	0.02113	22.3	0.07	214.0	2.3304	223.9	347.8	223.90				13.3	228.5	8.8	10.0
41.0	12269	8.0	0.02144	20.8	0.06	204.0	2.3096	220.6	347.5	220.62				15.0	226.6	10.3	10.9
41.3	12396	14.0	0.02172	36.8	0.12	200.0	2.3010	219.9	348.2	219.88				15.6	225.8	10.9	11.2
42.0	12692	27.9	0.02238	73.9	0.24	191.0	2.2810	218.1	350.1	218.14				17.0	224.0	12.2	11.8
43.0	13032	18.4	0.02336	49.7	0.17	181.0	2.2577	214.4	349.4	214.39				17.3	223.1	12.7	11.9
44.0	13386	19.7	0.02422	53.7	0.19	171.0	2.2330	211.5	350.2	211.45				16.1	222.2	12.0	10.8
45.0	13718	28.9	0.02525	80.3	0.30	162.0	2.2095	207.9	349.8	207.94				15.8	220.2	12.1	10.2
46.0	14052	28.9	0.02651	81.1	0.31	153.3	2.1855	205.6	351.3	205.57				16.5	221.1	12.4	10.8
46.3	14181	25.2	0.02692	71.2	0.28	150.0	2.1761	204.3	351.3	204.31				17.2	219.5	13.3	10.9
47.0	14425	18.4	0.02768	52.6	0.21	144.0	2.1584	202.0	351.3	201.96				18.6	216.9	14.9	11.2
48.0	14760	17.6	0.02849	50.9	0.21	136.0	2.1335	199.4	352.6	199.42				18.3	214.1	15.2	10.3
49.0	15112	18.7	0.02936	54.7	0.24	128.0	2.1072	197.7	355.7	197.71				12.5	224.2	9.0	8.7
49.5	15249	18.7	0.02971	54.6	0.25	125.0	2.0969	197.7	358.1	197.71				10.2	230.4	6.5	7.9
50.0	15390	18.7	0.03007	54.5	0.25	122.0	2.0864	197.7	360.6	197.71				8.1	240.3	4.0	7.0
51.0	15833	22.1	0.03130	64.8	0.32	113.0	2.0531	197.2	367.7	197.20				2.2	236.6	1.2	1.8
52.0	16151	22.0	0.03225	63.2	0.34	107.0	2.0294	201.1	380.7	201.06				4.8	91.3	0.1	-4.8
53.0	16489	19.0	0.03318	55.0	0.31	101.0	2.0043	199.9	384.8	199.90				10.6	112.6	4.1	-9.8
53.2	16547	19.6	0.03335	56.6	0.33	100.0	2.0000	199.8	385.7	199.78				11.1	113.4	4.4	-10.2
54.0	16846	22.5	0.03419	65.2	0.39	95.0	1.9777	199.2	390.2	199.18				13.7	116.4	6.1	-12.3
55.0	17292	24.3	0.03560	70.4	0.46	88.0	1.9445	199.2	398.9	199.18				12.6	99.3	2.0	-12.5
56.0	17495	24.3	0.03626	69.6	0.47	85.0	1.9294	201.5	407.5	201.51				12.4	84.9	-1.1	-12.3
57.0	17854	30.6	0.03758	86.9	0.63	80.0	1.9031	203.5	418.7	203.48				11.0	81.6	-1.6	-10.9
58.0	18083	36.9	0.03860	103.4	0.79	77.0	1.8865	205.8	428.1	205.77				12.5	84.7	-1.2	-12.4

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTLMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	18487	37.3	0.04056	104.7	0.86	72.0	1.8573	205.8	436.4	205.77				16.2	86.0	-1.1	-16.1
59.6	18655	38.9	0.04142	109.3	0.92	70.0	1.8451	205.2	438.6	205.18				17.2	84.9	-1.5	-17.1
60.0	18777	40.0	0.04203	112.7	0.97	68.6	1.8363	204.7	440.2	204.75				17.9	84.1	-1.8	-17.8
61.0	19083	46.7	0.04377	130.4	1.19	65.2	1.8142	206.6	450.7	206.57				19.5	85.3	-1.6	-19.4
62.0	19388	53.6	0.04576	149.0	1.43	62.0	1.7924	207.7	459.8	207.75				20.7	94.5	1.6	-20.6
62.7	19587	55.0	0.04718	152.8	1.52	60.0	1.7782	208.0	464.7	208.00				20.8	103.4	4.8	-20.2
63.0	19690	55.8	0.04790	154.7	1.57	59.0	1.7709	208.1	467.2	208.13				21.0	107.8	6.4	-20.0
64.0	20040	59.1	0.05051	163.9	1.76	55.7	1.7459	208.1	475.0	208.13				22.7	105.7	6.2	-21.9
65.0	20343	68.4	0.05301	188.3	2.14	53.0	1.7243	209.6	485.2	209.64				25.3	98.7	3.9	-25.0
66.0	20641	80.3	0.05584	218.2	2.63	50.5	1.7033	212.5	498.7	212.51				25.1	100.5	4.6	-24.7
66.2	20702	80.2	0.05647	218.1	2.66	50.0	1.6990	212.4	499.8	212.36				25.3	100.7	4.7	-24.8
67.0	20930	79.9	0.05879	217.9	2.75	48.2	1.6830	211.8	503.7	211.81				25.8	101.1	5.0	-25.4
68.0	21219	89.5	0.06191	244.3	3.23	46.0	1.6628	211.6	510.1	211.63				28.0	99.8	4.8	-27.6
69.0	21523	100.2	0.06558	272.7	3.79	43.8	1.6415	212.2	518.6	212.16				29.4	99.4	4.8	-29.0
70.0	21829	103.0	0.06952	277.7	4.09	41.7	1.6201	214.2	531.0	214.23				30.7	96.7	3.6	-30.5
70.7	22090	109.7	0.07305	293.6	4.55	40.0	1.6021	215.7	541.1	215.69				31.0	91.0	0.6	-31.0
71.0	22186	112.1	0.07434	299.3	4.71	39.4	1.5955	216.2	544.7	216.22				31.2	89.0	-0.5	-31.2
72.0	22499	127.1	0.07900	337.7	5.62	37.5	1.5740	217.3	555.4	217.35				32.6	85.4	-2.6	-32.4
73.0	22812	124.1	0.08388	329.9	5.76	35.7	1.5527	217.2	562.8	217.19				34.4	87.4	-1.6	-34.4
73.4	22938	126.7	0.08587	336.3	6.01	35.0	1.5441	217.6	567.1	217.59				37.8	90.1	0.1	-37.8
74.0	23160	131.4	0.08939	347.5	6.44	33.8	1.5289	218.3	574.6	218.30				43.8	93.9	2.9	-43.7
75.0	23511	134.0	0.09512	352.1	6.94	32.0	1.5051	219.7	587.4	219.70				34.4	90.1	0.1	-34.4
76.0	23863	139.1	0.10100	363.7	7.61	30.3	1.4814	220.8	599.5	220.78				25.5	80.3	-4.3	-25.1
76.2	23927	138.7	0.10209	362.3	7.66	30.0	1.4771	220.9	601.7	220.95				26.9	82.7	-3.4	-26.7
77.0	24147	137.2	0.10578	357.6	7.84	29.0	1.4624	221.5	609.2	221.53				31.9	89.3	-0.4	-31.9
78.0	24422	140.4	0.11041	362.9	8.37	27.8	1.4440	223.3	621.6	223.32				29.4	93.3	1.7	-29.3
79.0	24762	145.7	0.11624	371.1	9.14	26.4	1.4216	226.6	640.2	226.63				26.7	98.0	3.7	-26.4
80.0	25124	148.4	0.12256	375.4	9.83	25.0	1.3979	228.2	654.6	228.18				18.4	100.7	3.4	-18.1
81.0	25452	150.0	0.12835	379.3	10.44	23.8	1.3766	228.3	664.3	228.32				13.2	103.4	3.0	-12.8
82.0	25888	149.5	0.13604	376.4	11.11	22.3	1.3483	229.3	679.7	229.29				12.5	122.9	6.8	-10.5
83.0	26259	145.9	0.14249	366.8	11.45	21.1	1.3243	229.6	691.3	229.57				7.1	131.5	4.7	-5.3
84.0	26619	139.3	0.14851	350.1	11.54	20.0	1.3010	229.7	702.4	229.70				5.5	55.1	-3.1	-4.5
85.0	26998	129.3	0.15450	326.1	11.33	18.9	1.2765	228.9	711.3	228.88				5.5	15.3	-5.3	-1.4
86.0	27361	122.6	0.15990	310.9	11.35	17.9	1.2529	227.6	718.4	227.62				6.2	302.7	-3.4	5.2
86.4	27510	119.6	0.16202	304.5	11.32	17.5	1.2430	226.8	720.5	226.81				5.7	304.2	-3.2	4.7
87.0	27781	114.3	0.16583	292.9	11.28	16.8	1.2253	225.3	724.3	225.35				4.8	307.8	-2.9	3.8
88.0	28229	110.9	0.17185	282.5	11.70	15.7	1.1959	226.6	742.6	226.63				4.8	56.0	-2.7	-4.0
88.8	28532	106.1	0.17573	268.8	11.72	15.0	1.1761	227.9	756.7	227.94				5.3	74.3	-1.4	-5.1
89.0	28622	104.7	0.17687	264.8	11.72	14.8	1.1703	228.3	760.9	228.32				5.5	79.0	-1.1	-5.4
90.0	28995	99.8	0.18135	250.0	11.81	14.0	1.1461	230.4	780.1	230.39				3.4	83.6	-0.4	-3.4
91.0	29341	92.7	0.18525	231.4	11.55	13.3	1.1239	231.2	794.4	231.21				6.9	83.5	-0.8	-6.8
92.0	29762	89.8	0.18971	222.8	11.90	12.5	1.0969	232.7	813.8	232.70				4.7	52.8	-2.9	-3.8
93.0	30154	84.4	0.19368	209.4	11.66	11.8	1.0719	232.8	827.8	232.84				4.5	0.9	-4.5	-0.1
94.0	30571	77.5	0.19758	192.1	11.56	11.1	1.0453	232.8	842.4	232.84				4.9	41.8	-3.7	-3.3
95.0	30885	71.9	0.20030	177.6	11.24	10.6	1.0253	233.8	857.0	233.78				6.4	60.0	-3.2	-5.5
96.0	31282	62.9	0.20340	156.1	10.42	10.0	1.0000	232.6	866.9	232.57				9.2	59.8	-4.6	-8.0
97.0	31704	54.6	0.20626	134.8	9.63	9.4	0.9731	233.9	887.5	233.91				9.7	50.7	-6.1	-7.5
98.0	32078	53.9	0.20860	132.8	10.03	8.9	0.9494	234.2	902.5	234.18				11.3	54.3	-6.6	-9.2
99.0	32556	51.4	0.21150	127.0	10.27	8.3	0.9191	233.8	919.1	233.78				16.0	77.2	-3.5	-15.6
99.5	32808	46.6	0.21285	115.0	9.62	8.0	0.9031	234.0	929.6	233.98				17.1	85.4	-1.4	-17.1
100.0	33070	41.6	0.21426	102.6	8.95	7.7	0.8865	234.2	940.6	234.18				18.6	92.7	0.9	-18.6
101.0	33436	36.8	0.21591	90.3	8.35	7.3	0.8633	235.2	959.4	235.25				20.1	98.8	3.1	-19.9
101.6	33725	34.4	0.21706	84.3	8.13	7.0	0.8451	235.7	973.0	235.72				21.1	97.7	2.8	-20.9
102.0	33925	32.8	0.21785	80.1	7.98	6.8	0.8325	236.0	982.4	236.04				21.9	96.9	2.6	-21.7
103.0	34454	27.1	0.21966	66.0	7.12	6.3	0.7993	237.0	1008.0	236.97				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72477   LAUNCH TIME 2351 GMT   ECC SONDE 3A-106X

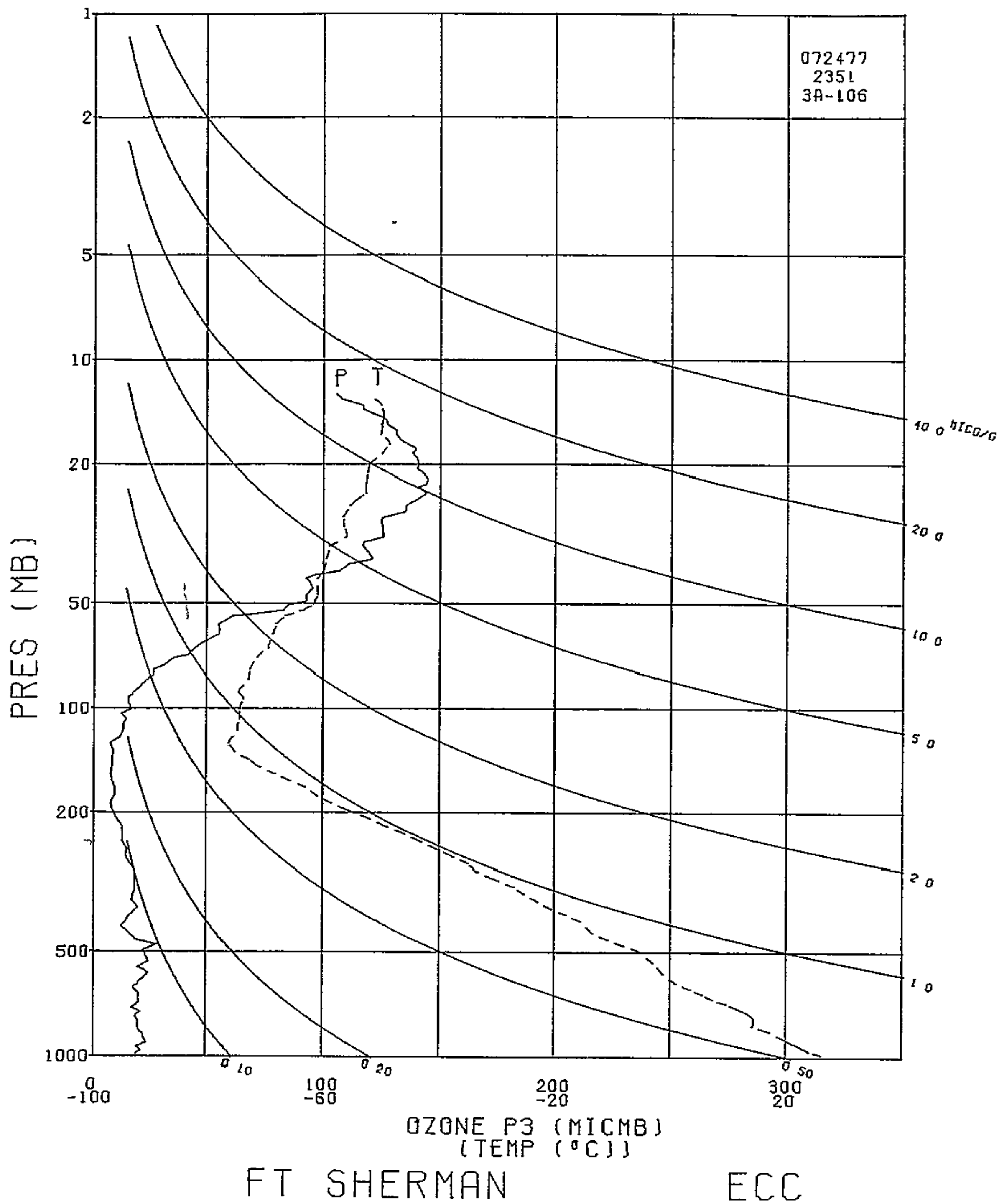
SURFACE CONDITIONS			
PRESS 1003.5 MB	OO3 = 36.7	TBOX CAL = 30.0 C AT 74.2 ORD	
TEMP 301.7 K	OI7 = 36.3	BASE CAL = 30.0 C AT 73.5 ORD	
HUMY 81.0 %	OZC = 64.9	HUMIDITY = 55.0 % AT 46.0 ORD	
	IO = 0.073		
	PS = 27.8		

	PROFILE	DOBSON
INTEGRATED OZONE	0.18528	
RESIDUAL OZONE	0.07574	
TOTAL OZONE	0.26102	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	17.9	0.	34.4	0.03	1003.5	3.0015	301.2	300.9	304.41	73.9	296.1	0.0175	3.0	30.0	-2.6	-1.5
0.1	83	18.1	0.00005	34.7	0.03	1000.0	3.0000	300.9	300.9	304.15	76.9	296.4	0.0182	3.3	26.5	-2.9	-1.5
1.0	263	18.7	0.00034	36.1	0.03	980.0	2.9912	299.0	300.7	302.63	93.9	297.9	0.0200	5.0	14.1	-4.8	-1.2
2.0	481	21.2	0.00073	41.2	0.04	956.0	2.9805	296.9	300.7	300.18	95.4	296.1	0.0183	6.1	14.0	-5.9	-1.5
3.0	703	19.0	0.00114	37.2	0.03	932.0	2.9694	295.5	301.5	298.50	92.5	294.2	0.0168	5.6	12.6	-5.5	-1.2
4.0	930	23.6	0.00157	46.2	0.04	908.0	2.9581	294.1	302.4	296.94	91.2	292.6	0.0156	4.9	357.4	-4.9	0.2
4.3	1006	23.1	0.00173	45.3	0.04	900.0	2.9542	293.7	302.7	296.47	92.4	292.4	0.0155	4.6	354.0	-4.6	0.5
5.0	1191	21.9	0.00211	43.1	0.04	881.0	2.9450	292.6	303.4	295.34	95.1	291.8	0.0153	3.9	343.4	-3.7	1.1
6.0	1419	21.9	0.00257	43.3	0.04	858.0	2.9335	291.5	304.6	294.01	91.2	290.1	0.0141	2.7	1.9	-2.7	-0.1
6.3	1499	21.2	0.00272	42.0	0.04	850.0	2.9294	290.9	304.8	293.39	92.6	289.7	0.0137	2.5	13.8	-2.4	-0.6
7.0	1693	19.6	0.00309	39.0	0.04	831.0	2.9196	289.5	305.2	291.82	96.0	288.8	0.0134	2.6	44.4	-1.9	-1.8
8.0	1931	19.2	0.00352	38.7	0.04	808.0	2.9074	287.1	305.1	289.06	93.4	286.0	0.0115	4.5	75.7	-1.1	-4.4
8.3	2014	19.3	0.00368	38.9	0.04	800.0	2.9031	286.8	305.7	288.60	84.5	284.1	0.0095	5.7	80.4	-1.0	-5.6
9.0	2185	19.5	0.00398	39.2	0.04	784.0	2.8943	286.3	306.9	287.66	66.4	280.2	0.0080	8.2	85.6	-0.6	-8.2
10.0	2436	18.2	0.00443	36.6	0.04	761.0	2.8814	287.1	310.3	288.27	53.5	277.8	0.0069	12.2	83.1	-1.5	-12.2
11.0	2705	20.7	0.00492	41.8	0.05	737.0	2.8675	285.9	311.9	287.01	52.0	276.3	0.0065	14.7	81.1	-2.3	-14.6
12.0	2912	16.8	0.00528	34.2	0.04	719.0	2.8567	284.4	312.5	285.36	50.1	274.3	0.0058	13.9	79.6	-2.5	-13.6
12.9	3134	19.9	0.00568	40.7	0.05	700.0	2.8451	282.6	312.9	283.55	52.8	273.4	0.0055	11.6	76.4	-2.7	-11.2
13.0	3170	20.4	0.00574	41.7	0.05	697.0	2.8432	282.3	313.0	283.27	53.2	273.3	0.0055	11.2	75.7	-2.8	-10.8
14.0	3422	19.4	0.00622	40.0	0.05	676.0	2.8299	280.0	313.1	280.81	53.1	271.1	0.0048	9.3	75.0	-2.4	-9.0
15.0	3680	20.0	0.00671	41.5	0.05	655.0	2.8162	278.2	314.0	279.21	68.7	273.0	0.0057	9.3	74.2	-2.5	-8.9
16.0	3971	17.5	0.00724	36.5	0.05	632.0	2.8007	276.2	314.9	277.07	68.9	271.0	0.0052	8.2	77.2	-1.8	-8.0
17.0	4257	20.0	0.00776	42.2	0.05	610.0	2.7853	273.7	315.2	274.64	84.1	271.3	0.0055	5.2	97.5	0.7	-5.2
17.6	4389	21.0	0.00803	44.3	0.06	600.0	2.7782	273.3	316.3	274.14	74.0	269.2	0.0045	4.7	113.0	1.8	-4.3
18.0	4484	21.6	0.00823	45.7	0.06	593.0	2.7731	273.1	317.1	273.79	66.9	267.7	0.0043	4.5	125.7	2.6	-3.6
19.0	4786	24.3	0.00891	51.6	0.07	571.0	2.7566	271.5	318.6	272.16	68.6	266.5	0.0040	5.2	125.1	3.0	-4.3
20.0	5084	19.7	0.00956	42.0	0.06	550.0	2.7404	270.7	321.1	271.50	83.8	268.3	0.0048	5.6	120.0	2.8	-4.8
21.0	5362	24.1	0.01017	51.6	0.08	531.0	2.7251	269.8	323.2	270.24	51.8	261.3	0.0029	6.7	108.9	2.2	-6.4
22.0	5681	22.9	0.01092	49.2	0.07	510.0	2.7076	269.3	326.4	269.63	35.7	256.4	0.0020	8.0	97.1	1.0	-7.9
22.6	5836	22.3	0.01127	47.9	0.07	500.0	2.6990	268.2	327.0	268.36				8.3	94.8	0.7	-8.3
23.0	5963	21.7	0.01155	47.0	0.07	492.0	2.6920	267.3	327.4	267.33				8.6	93.1	0.5	-8.6
24.0	6269	28.1	0.01233	61.4	0.10	473.0	2.6749	264.5	327.6	264.63				9.5	96.0	1.0	-9.4
25.0	6551	18.1	0.01299	39.9	0.07	456.0	2.6590	261.9	327.8	261.98				10.8	99.2	1.7	-10.6
26.0	6893	15.0	0.01358	33.4	0.06	436.0	2.6395	259.2	328.6	259.53	64.2	254.0	0.0019	9.8	103.2	2.2	-9.6
27.0	7194	12.4	0.01401	27.7	0.05	419.0	2.6222	258.5	331.5	258.73	43.3	248.8	0.0013	7.9	99.6	1.3	-7.8
28.0	7488	14.3	0.01442	32.0	0.06	403.0	2.6053	257.1	333.4	257.33	42.5	247.4	0.0011	8.7	89.7	-0.0	-8.7
28.2	7543	14.6	0.01451	32.9	0.06	400.0	2.6021	256.7	333.5	256.86	38.8	245.7	0.0009	8.6	87.5	-0.4	-8.6
29.0	7791	16.1	0.01490	36.5	0.07	387.0	2.5877	254.7	334.0	254.77	22.2	238.4	0.0005	8.1	76.9	-1.8	-7.8
30.0	8084	19.6	0.01546	44.9	0.09	372.0	2.5705	252.1	334.4	252.26	43.8	243.1	0.0008	6.9	59.8	-3.5	-5.9
31.0	8427	17.1	0.01614	39.5	0.08	355.0	2.5502	249.7	335.7	249.84	45.3	241.2	0.0007	5.8	64.1	-2.6	-5.3
31.3	8530	17.3	0.01633	40.0	0.08	350.0	2.5441	249.1	336.2	249.18	41.2	239.5	0.0006	5.3	64.4	-2.3	-4.8
32.0	8805	17.7	0.01685	41.4	0.09	337.0	2.5276	247.3	337.5	247.41	30.4	235.1	0.0004	3.9	65.9	-1.6	-3.6
33.0	9133	17.7	0.01749	41.7	0.09	322.0	2.5079	245.5	339.4	245.61	58.5	239.9	0.0007	3.3	27.5	-2.9	-1.5
34.0	9520	18.3	0.01826	43.6	0.10	305.0	2.4843	241.9	339.7	242.03	60.7	236.9	0.0006	3.2	23.5	-2.9	-1.3
34.4	9636	18.2	0.01850	43.6	0.10	300.0	2.4771	240.9	339.8	241.00	60.7	235.9	0.0005	2.3	18.0	-2.2	-0.7
35.0	9851	18.1	0.01893	43.7	0.10	291.0	2.4639	239.0	340.1	239.11	60.6	234.1	0.0004	0.9	340.2	-0.9	0.3
36.0	10195	15.6	0.01959	38.0	0.09	277.0	2.4425	237.6	342.9	237.64	60.3	232.7	0.0004	4.2	255.1	1.1	4.1
37.0	10553	13.7	0.02019	33.7	0.09	263.0	2.4200	234.8	343.9	234.81	57.4	229.5	0.0003	5.0	237.0	2.7	4.2
38.0	10872	14.3	0.02071	35.7	0.09	251.0	2.3997	232.1	344.4	232.05				5.6	217.4	4.4	3.4
38.1	10898	14.2	0.02075	35.3	0.09	250.0	2.3979	231.8	344.5	231.83				5.7	217.7	4.5	3.5
39.0	11202	12.4	0.02122	31.2	0.09	239.0	2.3784	229.3	345.1	229.28				7.5	220.2	5.7	4.8
40.0	11575	12.3	0.02177	31.4	0.09	226.0	2.3541	226.4	346.3	226.44				10.4	213.8	8.6	5.8
41.0	11873	12.3	0.02221	31.8	0.09	216.0	2.3345	223.4	346.1	223.37				10.6	202.4	9.8	4.0
42.0	12209	9.8	0.02266	25.6	0.08	205.1	2.3120	220.5	346.7	220.48				8.7	193.8	8.4	2.1
42.5	12370	8.9	0.02283	23.5	0.07	200.0	2.3010	218.7	346.4	218.74				8.9	197.5	8.5	2.7
43.0	12565	7.8	0.02305	20.9	0.07	194.0	2.2878	216.6	346.1	216.64				9.3	201.6	8.6	3.4
44.0	12864	7.4	0.02333	19.9	0.07	185.0	2.2672	213.9	346.5	213.94				9.9	219.0	7.7	6.2
45.0	13139	9.2	0.02362	25.1	0.09	177.0	2.2480	211.6	347.1	211.64				9.4	232.0	5.8	7.4
46.0	13497	9.2	0.02404	25.3	0.09	167.0	2.2227	209.6	349.5	209.60				8.5	247.6	3.3	7.9
47.0	13758	7.9	0.02433	22.1	0.08	160.0	2.2041	206.9	349.2	206.87				12.3	239.1	6.3	10.6
48.0	14027	7.3	0.02460	20.7	0.08	153.0	2.1847	204.4	349.5	204.38				14.3	236.3	8.0	11.9
48.4	14144	7.6	0.02472	21.5	0.08	150.0	2.1761	203.2	349.4	203.23				13.8	239.4	7.0	11.8
49.0	14346	7.9	0.02492	22.8	0.09	145.0	2.1614	201.3	349.4	201.26				12.9	245.4	5.4	11.7
50.0	14594	7.9	0.02519	22.9	0.09	139.0	2.1430	199.8	351.2	199.84				13.1	245.1	5.5	11.9
51.0	14894	8.5	0.02552	24.9	0.11	132.0	2.1206	197.3	351.9	197.34				11.4	245.8	4.7	10.4
52.0	15208	7.2	0.02586	21.3	0.10	125.0	2.0969	196.3	355.6	196.28				9.9	261.3	1.5	9.8
53.0	15394	11.0	0.02610	32.4	0.15	121.0	2.0828	196.3	358.9	196.28				6.4	274.0	-0.4	6.3
54.0	15687	13.0	0.02658	37.9	0.19	115.0	2.0607	197.9	367.0	197.85				5.4	123.9	3.0	-4.5
55.0	15892	13.0	0.02694	38.0	0.19	111.0	2.0453	198.4	371.7	198.36				12.5	113.1	4.9	-11.5
56.0	16105	14.7	0.02734	42.8	0.23	107.0	2.0294	198.4	375.6	198.36				12.7	113.2	5.0	-11.7
57.0	16325	12.2	0.02775	35.7	0.20	103.0	2.0128	197.3	377.8	197.34				11.8	119.5	5.8	-10.3
58.0	16496	16.5	0.02808	48.0	0.27	100.0	2.0000	198.4	383.0	198.36				11.5	123.1	6.3	-9.6
59.0	16733	15.4	0.02860	44.8	0.27	96.0	1.9823	198.6	388.0	198.61				12.0	119.8	5.9	-10.4

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
60.0	16917	15.4	0.02898	44.6	0.27	93.0	1.9685	199.1	392.5	199.11				12.5	104.1	3.0	-12.1
61.0	17172	18.4	0.02957	53.6	0.34	89.0	1.9494	198.1	395.4	198.11				8.2	79.6	-1.5	-8.0
62.0	17371	20.7	0.03010	60.3	0.40	86.0	1.9345	198.4	399.8	198.36				15.5	100.0	2.7	-15.3
63.0	17648	24.1	0.03094	69.7	0.49	82.0	1.9138	199.8	408.3	199.84				21.1	104.3	5.2	-20.5
64.0	17792	26.3	0.03143	76.0	0.54	80.0	1.9031	199.6	410.7	199.60				13.3	95.1	1.2	-13.2
65.0	18015	26.6	0.03223	76.6	0.57	77.0	1.8865	200.3	416.8	200.32				14.1	99.5	2.3	-13.9
66.0	18169	31.2	0.03283	89.9	0.69	75.0	1.8751	200.3	419.9	200.32				11.5	95.4	1.1	-11.5
67.0	18491	36.1	0.03428	103.6	0.84	71.0	1.8513	201.5	429.0	201.50				11.0	89.0	-0.2	-11.0
68.0	18574	41.9	0.03472	119.7	0.99	70.0	1.8451	202.2	432.2	202.18				15.8	93.4	0.9	-15.7
69.0	18834	44.5	0.03621	126.3	1.10	67.0	1.8261	203.3	440.1	203.30				19.2	91.5	0.5	-19.2
70.0	19106	49.1	0.03791	139.3	1.27	64.0	1.8062	203.5	446.4	203.52				20.4	88.7	-0.5	-20.3
71.0	19392	55.4	0.03989	156.6	1.51	61.0	1.7853	204.4	454.5	204.38				20.7	91.7	0.6	-20.7
71.5	19490	55.5	0.04061	156.8	1.53	60.0	1.7782	204.5	456.9	204.49				17.4	91.9	0.6	-17.4
72.0	19591	55.7	0.04135	157.1	1.56	59.0	1.7709	204.6	459.3	204.60				14.0	92.1	0.5	-14.0
73.0	19797	55.3	0.04286	155.6	1.61	57.0	1.7559	205.0	464.8	205.02				19.2	101.6	3.9	-18.8
74.0	20122	61.0	0.04534	170.6	1.87	54.0	1.7324	206.5	475.4	206.47				27.8	102.4	6.0	-27.1
75.0	20351	82.1	0.04747	226.2	2.62	52.0	1.7160	209.6	487.8	209.60				24.7	96.4	2.8	-24.5
76.0	20592	85.1	0.05006	232.5	2.82	50.0	1.6990	211.5	497.7	211.46				22.5	92.5	1.0	-22.5
77.0	20717	92.5	0.05147	251.7	3.13	49.0	1.6902	212.2	502.3	212.18				21.4	87.0	-1.1	-21.4
78.0	20975	92.4	0.05451	251.5	3.26	47.0	1.6721	212.2	508.3	212.18				25.9	83.6	-2.9	-25.7
79.0	21244	95.3	0.05773	260.1	3.51	45.0	1.6532	211.5	512.9	211.46				30.1	86.4	-1.9	-30.1
80.0	21672	92.1	0.06283	250.6	3.63	42.0	1.6232	212.2	524.9	212.18				28.3	92.3	1.2	-28.3
81.0	21821	96.9	0.06463	263.6	3.92	41.0	1.6128	212.2	528.5	212.18				25.7	97.0	3.1	-25.6
82.0	21974	107.0	0.06661	289.6	4.43	40.0	1.6021	213.2	534.9	213.24				30.4	96.1	3.2	-30.2
83.0	22294	111.8	0.07104	302.4	4.87	38.0	1.5798	213.4	543.3	213.42				29.9	93.6	1.9	-29.8
84.0	22460	120.8	0.07349	326.2	5.41	37.0	1.5682	213.8	548.3	213.77				29.5	93.8	2.0	-29.4
85.0	22631	119.4	0.07608	322.2	5.49	36.0	1.5563	213.9	553.1	213.94				34.1	95.2	3.1	-34.0
85.5	22807	118.2	0.07871	318.6	5.59	35.0	1.5441	214.1	558.0	214.11				32.9	94.2	2.4	-32.8
86.0	22989	116.9	0.08141	315.0	5.70	34.0	1.5315	214.3	563.1	214.28				31.7	93.1	1.7	-31.6
87.0	23176	117.1	0.08417	314.1	5.88	33.0	1.5185	215.3	570.6	215.31				30.5	92.3	1.2	-30.5
88.0	23370	125.6	0.08712	334.1	6.51	32.0	1.5051	217.1	580.5	217.13				34.9	92.6	1.6	-34.9
89.0	23779	125.6	0.09351	334.8	6.94	30.0	1.4771	216.6	590.0	216.64				35.5	89.8	-0.1	-35.5
90.0	23994	124.6	0.09686	331.1	7.12	29.0	1.4624	217.3	597.5	217.30				31.4	86.3	-2.0	-31.3
91.0	24217	125.5	0.10032	334.6	7.43	28.0	1.4472	216.6	601.7	216.64				29.3	83.0	-3.6	-29.1
92.0	24448	135.0	0.10406	358.6	8.28	27.0	1.4314	217.3	609.9	217.30				31.7	86.2	-2.1	-31.7
93.0	24688	135.3	0.10809	358.6	8.62	26.0	1.4150	217.8	617.9	217.79				34.4	90.5	0.3	-34.4
94.0	24938	139.6	0.11234	368.3	9.26	25.0	1.3979	218.9	628.0	218.91				30.6	87.5	-1.4	-30.6
95.0	25200	143.6	0.11690	376.1	9.91	24.0	1.3802	220.5	640.0	220.48				25.4	82.9	-3.2	-25.2
96.0	25474	139.8	0.12166	366.1	10.07	23.0	1.3617	220.5	647.8	220.48				21.9	87.1	-1.1	-21.9
97.0	25615	144.1	0.12412	377.4	10.61	22.5	1.3522	220.5	651.9	220.48				18.3	93.4	1.1	-18.3
98.0	25760	144.3	0.12668	376.0	10.87	22.0	1.3424	221.6	659.3	221.56				14.9	96.2	1.6	-14.8
99.0	26061	142.2	0.13194	371.9	11.22	21.0	1.3222	220.8	665.8	220.79				12.0	91.7	0.4	-12.0
100.0	26248	139.7	0.13516	366.4	11.35	20.4	1.3096	220.2	669.4	220.17				13.8	84.3	-1.4	-13.8
100.7	26375	140.2	0.13735	366.6	11.62	20.0	1.3010	220.8	675.1	220.78				11.4	84.9	-1.0	-11.4
101.0	26440	140.5	0.13846	366.8	11.75	19.8	1.2967	221.1	678.0	221.10				10.2	85.3	-0.8	-10.2
102.0	26639	139.3	0.14186	362.5	12.02	19.2	1.2833	221.9	686.4	221.86				6.8	79.4	-1.2	-6.7
103.0	26881	137.6	0.14592	356.0	12.33	18.5	1.2672	223.2	698.0	223.22				10.7	62.8	-4.9	-9.5
104.0	27096	139.2	0.14952	359.5	12.88	17.9	1.2529	223.5	705.5	223.52				6.9	15.7	-6.6	-1.9
104.8	27243	136.4	0.15197	351.1	12.92	17.5	1.2430	224.3	712.7	224.34				7.4	340.5	-7.0	2.5
105.0	27281	135.7	0.15259	349.0	12.93	17.4	1.2405	224.6	714.5	224.55				8.0	333.3	-7.1	3.6
106.0	27472	132.3	0.15567	340.3	12.97	16.9	1.2279	224.4	720.0	224.41				8.2	344.4	-7.9	2.2
107.0	27708	130.4	0.15942	337.6	13.26	16.3	1.2122	223.1	723.2	223.07				9.9	350.5	-9.8	1.6
108.0	27911	130.2	0.16262	337.4	13.65	15.8	1.1987	222.8	728.7	222.77				12.5	7.5	-12.4	-1.6
109.0	28121	126.7	0.16588	327.7	13.72	15.3	1.1847	223.2	736.9	223.22				13.2	21.8	-12.3	-4.9
109.6	28250	126.3	0.16786	326.4	13.95	15.0	1.1761	223.4	741.7	223.40				13.4	23.5	-12.3	-5.4
110.0	28338	126.0	0.16919	325.4	14.11	14.8	1.1703	223.5	744.9	223.52				13.6	24.6	-12.4	-5.7
111.0	28472	124.2	0.17121	320.8	14.19	14.5	1.1614	223.5	749.3	223.52				14.3	36.9	-11.4	-8.6
112.0	28655	119.4	0.17390	308.3	14.03	14.1	1.1492	223.5	755.3	223.52				13.0	59.5	-6.6	-11.2
113.0	28795	116.5	0.17590	301.0	13.99	13.8	1.1399	223.5	759.9	223.52				13.6	73.9	-3.8	-13.1
114.0	28987	116.3	0.17861	301.2	14.38	13.4	1.1271	222.9	764.3	222.92				11.4	75.5	-2.9	-11.1
115.0	29134	111.5	0.18064	288.8	14.10	13.1	1.1173	222.9	769.3	222.92				7.5	58.1	-4.0	-6.4
116.0	29284	106.6	0.18264	278.1	13.80	12.8	1.1072	221.4	769.1	221.40				11.0	62.8	-5.0	-9.8
116.7	29437	105.0	0.18461	273.6	13.91	12.5	1.0969	221.5	774.7	221.52				999.9	999.9	999.9	999.9
117.0	29489	104.4	0.18528	272.1	13.95	12.4	1.0934	221.6	776.6	221.56				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***


072477
2351
3A-106
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
P T
40 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72577   LAUNCH TIME 0441 GMT   ECC SONDE 3A-107X

SURFACE CONDITIONS			
PRESS 1004.6 MB	003 = 37.0	TBOX CAL = 30.0 C	AT 73.7 ORD
TEMP 299.5 K	01Z = 36.5	BASE CAL = 30.0 C	AT 73.7 ORD
HUMY 94.0 %	02C = 67.5	HUMIDITY = 63.4 %	AT 46.0 ORD
	IO = 0.084		
	PS = 30.1		

	PROFILE	DOBSON
INTEGRATED OZONE	0.16315	
RESIDUAL OZONE	0.08722	
TOTAL OZONE	0.25037	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	14.4	0.	27.8	0.02	1004.6	3.0020	299.0	298.6	302.49	93.3	297.8	0.0194	3.0	45.0	-2.1	-2.1
0.2	93	14.8	0.00006	28.7	0.02	1000.0	3.0000	298.9	298.9	302.45	94.5	297.9	0.0198	3.3	40.6	-2.5	-2.2
1.0	281	16.8	0.00032	32.6	0.03	979.0	2.9908	298.5	300.3	302.24	100.0	298.5	0.0207	4.9	28.0	-4.4	-2.3
2.0	517	17.5	0.00068	34.2	0.03	953.0	2.9791	295.7	299.8	298.90	100.0	295.7	0.0179	6.2	18.6	-5.9	-2.0
3.0	739	17.9	0.00104	35.1	0.03	929.0	2.9680	293.6	299.9	296.55	100.0	293.6	0.0162	6.4	2.8	-6.4	-0.3
4.0	976	21.1	0.00146	41.4	0.04	904.0	2.9562	294.1	302.7	296.97	93.8	293.0	0.0161	6.3	348.6	-6.2	1.2
4.2	1014	20.5	0.00153	40.3	0.04	900.0	2.9542	293.7	302.7	296.56	94.0	292.7	0.0156	6.1	349.1	-6.0	1.2
5.0	1209	17.4	0.00187	34.4	0.03	880.0	2.9445	291.9	302.8	294.51	95.1	291.1	0.0146	5.3	352.3	-5.3	0.7
6.0	1446	20.6	0.00228	41.0	0.04	856.0	2.9325	290.4	303.6	292.90	97.0	289.9	0.0140	4.6	24.8	-4.2	-1.9
6.3	1506	20.3	0.00239	40.4	0.04	850.0	2.9294	290.0	303.8	292.46	97.8	289.6	0.0137	4.8	33.4	-4.0	-2.6
7.0	1658	19.5	0.00267	38.9	0.04	835.0	2.9217	289.0	304.3	291.34	99.7	288.9	0.0134	5.7	51.3	-3.5	-4.4
8.0	1874	18.5	0.00306	37.0	0.04	814.0	2.9106	288.0	305.4	290.09	93.4	286.9	0.0121	7.3	63.7	-3.2	-6.5
8.7	2020	19.3	0.00332	38.9	0.04	800.0	2.9031	287.1	306.0	288.91	83.4	284.3	0.0099	8.3	64.8	-3.5	-7.5
9.0	2074	19.7	0.00341	39.6	0.04	795.0	2.9004	286.8	306.2	288.48	79.8	283.3	0.0098	8.7	65.1	-3.7	-7.9
10.0	2234	18.5	0.00370	37.4	0.04	780.0	2.8921	286.0	307.0	287.50	73.3	281.3	0.0087	10.6	62.7	-4.8	-9.4
11.0	2419	18.0	0.00402	36.2	0.04	763.0	2.8825	287.4	310.5	288.82	62.8	280.4	0.0083	13.0	69.3	-4.6	-12.1
12.0	2642	17.4	0.00439	35.2	0.04	743.0	2.8710	285.6	310.9	286.87	60.2	278.1	0.0073	12.9	80.0	-2.2	-12.7
13.0	2847	17.5	0.00473	35.6	0.04	725.0	2.8603	284.8	312.2	286.05	59.2	277.1	0.0070	11.3	87.6	-0.5	-11.2
14.0	3140	17.8	0.00522	36.3	0.04	700.0	2.8451	283.2	313.6	284.36	61.0	276.0	0.0067	9.9	87.4	-0.4	-9.9
14.0	3152	17.8	0.00524	36.3	0.04	699.0	2.8445	283.1	313.6	284.29	61.1	276.0	0.0067	9.8	87.4	-0.4	-9.8
15.0	3429	20.3	0.00574	41.8	0.05	676.0	2.8299	280.9	314.2	281.99	62.6	274.3	0.0061	9.6	86.7	-0.6	-9.5
16.0	3713	19.1	0.00628	39.6	0.05	653.0	2.8149	278.8	314.9	279.78	64.6	272.7	0.0056	9.5	100.1	1.7	-9.4
17.0	3966	19.8	0.00676	41.2	0.05	633.0	2.8014	276.8	315.4	277.71	72.2	272.2	0.0056	9.0	127.7	5.5	-7.1
18.0	4200	22.5	0.00724	47.2	0.06	615.0	2.7889	275.6	316.6	276.50	73.8	271.4	0.0054	9.8	122.8	5.3	-8.2
18.7	4399	22.2	0.00767	46.7	0.06	600.0	2.7782	274.2	317.3	275.11	81.1	271.3	0.0056	7.8	130.4	5.1	-6.0
19.0	4480	22.0	0.00785	46.5	0.06	594.0	2.7738	273.6	317.5	274.54	84.1	271.2	0.0056	7.1	134.6	5.0	-5.1
20.0	4726	24.0	0.00841	50.9	0.07	576.0	2.7604	271.7	318.1	272.67	100.0	271.7	0.0059	6.1	149.5	5.2	-3.1
21.0	4993	21.4	0.00901	45.7	0.06	557.0	2.7459	270.4	319.6	271.33	98.0	270.1	0.0055	9.4	124.3	5.3	-7.8
22.0	5297	15.0	0.00956	32.2	0.05	536.0	2.7292	268.6	321.0	269.27	84.8	266.4	0.0043	12.0	125.3	6.9	-9.8
23.0	5641	21.7	0.01019	47.1	0.07	513.0	2.7101	266.6	322.6	267.34	100.0	266.6	0.0045	12.2	125.7	7.1	-9.9
23.6	5840	21.7	0.01063	47.3	0.07	500.0	2.6990	265.6	323.7	266.22	94.0	264.7	0.0038	10.5	124.2	5.9	-8.7
24.0	5982	21.7	0.01095	47.4	0.07	491.0	2.6911	264.8	324.5	265.43	89.7	263.4	0.0037	9.3	122.9	5.1	-7.8
25.0	6287	21.9	0.01163	48.2	0.08	472.0	2.6739	262.6	325.5	263.23	100.0	262.6	0.0036	7.8	117.4	3.6	-6.9
26.0	6585	18.7	0.01225	41.4	0.07	454.0	2.6571	261.1	327.2	261.51	81.9	258.6	0.0027	7.7	115.4	3.3	-6.9
27.0	6858	21.2	0.01281	47.3	0.08	438.0	2.6415	258.5	327.3	258.99	100.0	258.5	0.0028	7.8	109.9	2.7	-7.3
28.0	7193	17.4	0.01349	39.0	0.07	419.0	2.6222	257.9	330.6	258.27	96.4	257.4	0.0027	7.6	108.3	2.4	-7.2
29.0	7467	19.9	0.01403	45.0	0.08	404.0	2.6064	255.4	330.9	255.67	80.4	252.8	0.0019	7.9	105.4	2.1	-7.6
29.2	7541	19.8	0.01418	44.8	0.08	400.0	2.6021	254.9	331.2	255.16	78.2	252.0	0.0017	8.0	105.8	2.2	-7.7
30.0	7806	19.4	0.01473	44.2	0.08	386.0	2.5866	253.1	332.2	253.30	70.3	249.1	0.0014	8.4	106.8	2.4	-8.1
31.0	8098	19.0	0.01533	43.9	0.09	371.0	2.5694	250.8	333.0	250.95	55.8	244.4	0.0009	7.2	115.5	3.1	-6.5
32.0	8441	19.7	0.01605	45.7	0.09	354.0	2.5490	249.0	334.9	249.09	58.9	243.2	0.0009	6.7	132.5	4.5	-4.9
32.3	8523	19.6	0.01622	45.5	0.09	350.0	2.5441	248.5	335.4	248.60	59.3	242.8	0.0008	6.8	133.6	4.7	-5.0
33.0	8755	19.2	0.01671	44.8	0.09	339.0	2.5302	247.1	336.6	247.23	60.3	241.7	0.0008	7.3	136.2	5.3	-5.1
34.0	9103	19.1	0.01744	45.2	0.10	323.0	2.5092	244.2	337.3	244.32	67.8	240.2	0.0007	7.8	139.9	5.9	-5.0
35.0	9418	11.8	0.01798	28.2	0.06	309.0	2.4900	241.1	337.2	241.15	70.4	237.5	0.0006	9.0	145.8	7.5	-5.1
35.6	9625	9.6	0.01822	23.2	0.05	300.0	2.4771	239.5	337.8	239.54	70.8	236.0	0.0005	9.9	144.5	8.1	-5.7
36.0	9743	8.4	0.01835	20.4	0.05	295.0	2.4698	238.6	338.1	238.63	71.0	235.2	0.0005	10.4	143.9	8.4	-6.1
37.0	10056	12.5	0.01873	30.6	0.07	282.0	2.4502	236.2	339.1	236.22	66.0	232.2	0.0004	10.1	149.0	8.7	-5.2
38.0	10355	14.2	0.01918	34.9	0.09	270.0	2.4314	233.9	340.0	233.93	57.6	228.7	0.0003	8.6	160.4	8.1	-2.9
39.0	10664	12.8	0.01967	31.9	0.08	258.0	2.4116	231.4	340.8	231.44				7.9	163.9	7.6	-2.2
39.6	10876	12.8	0.01999	32.1	0.08	250.0	2.3979	230.0	341.7	229.96				7.8	163.0	7.4	-2.3
40.0	11040	12.8	0.02023	32.2	0.09	244.0	2.3874	228.8	342.4	228.81				7.7	162.3	7.4	-2.4
41.0	11375	12.7	0.02074	32.4	0.09	232.0	2.3655	225.5	342.4	225.55				6.7	182.4	6.7	0.3
42.0	11634	13.1	0.02114	33.9	0.10	223.0	2.3483	222.9	342.2	222.90				6.1	199.1	5.8	2.0
43.0	11931	9.1	0.02154	23.8	0.07	213.0	2.3284	220.0	342.2	220.01				5.5	192.3	5.4	1.2
44.0	12238	11.6	0.02193	31.0	0.10	203.0	2.3075	216.8	342.0	216.83				5.4	197.1	5.2	1.6
44.2	12331	11.3	0.02206	30.3	0.09	200.0	2.3010	216.0	342.1	216.01				5.5	202.3	5.1	2.1
45.0	12621	10.4	0.02246	28.0	0.09	191.0	2.2810	213.5	342.6	213.47				6.1	216.9	4.9	3.6
46.0	12886	10.1	0.02281	27.6	0.09	183.0	2.2625	211.0	342.8	210.99				7.9	238.8	4.1	6.8
47.0	13196	10.0	0.02321	27.7	0.10	174.0	2.2405	208.9	344.4	208.94				11.5	260.9	1.8	11.4
48.0	13482	12.6	0.02363	35.2	0.13	166.0	2.2201	206.6	345.1	206.59				15.2	270.0	-0.0	15.2
49.0	13741	8.7	0.02399	24.7	0.09	159.0	2.2014	204.1	345.2	204.11				15.5	272.8	-0.8	15.5
50.0	14048	6.8	0.02430	19.4	0.07	151.0	2.1790	202.1	346.9	202.14				14.3	275.0	-1.3	14.3
50.2	14087	6.9	0.02434	19.8	0.08	150.0	2.1761	202.1	347.5	202.10				14.2	276.5	-1.6	14.1
51.0	14287	7.5	0.02453	21.5	0.09	145.0	2.1614	201.9	350.6	201.91				13.6	284.3	-3.4	13.2
52.0	14411	11.4	0.02469	32.5	0.13	142.0	2.1523	203.5	355.4	203.46				5.6	289.9	-1.9	5.3
53.0	14844	11.4	0.02535	32.7	0.14	132.0	2.1206	202.1	360.5	202.14				3.1	134.5	2.2	-2.2
54.0	15118	11.8	0.02578	34.2	0.16	126.0	2.1004	200.1	361.6	200.06				6.8	137.3	5.0	-4.6
54.2	15164	11.9	0.02585	34.5	0.16	125.0	2.0969	199.7	361.8	199.72				7.9	135.7	5.7	-5.5
55.0	15354	12.4	0.02616	36.0	0.17	121.0	2.0828	198.4	362.7	198.35				12.6	132.1	8.5	-9.4
56.0	15598	10.4	0.02654	30.5	0.15	116.0	2.0645	197.1	364.7	197.08				14.5	138.5	10.9	-9.6
57.0	15800	12.0	0.02685	35.2	0.18	112.0	2.0492	197.6	369.3	197.59				13.3	149.8	11.5	-6.7
58.0	16063	10.8	0.02726	31.8	0.17	107.0	2.0294	196.6	372.2	196.56				10.4	146.0	8.6	-5.8

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	16227	14.5	0.02755	42.3	0.23	104.0	2.0170	198.1	378.2	198.10				8.0	141.0	6.3	-5.1
60.0	16397	18.7	0.02793	54.2	0.31	101.0	2.0043	199.6	384.2	199.58				8.2	135.0	5.8	-5.8
60.3	16454	19.1	0.02809	55.5	0.32	100.0	2.0000	199.2	384.5	199.17				8.9	132.1	6.0	-6.6
61.0	16572	20.0	0.02839	58.1	0.34	98.0	1.9912	198.4	385.2	198.35				10.4	127.5	6.3	-8.2
62.0	16814	19.3	0.02904	56.3	0.34	94.0	1.9731	198.4	389.8	198.35				11.6	128.7	7.2	-9.0
63.0	17002	19.3	0.02954	56.4	0.35	91.0	1.9590	198.1	392.9	198.10				10.7	113.5	4.3	-9.8
64.0	17176	21.7	0.03002	63.3	0.41	88.3	1.9460	198.1	396.3	198.10				11.5	95.3	1.1	-11.5
65.0	17350	24.4	0.03057	70.6	0.47	85.7	1.9330	200.1	403.7	200.06				11.0	89.7	-0.1	-11.0
66.0	17538	29.0	0.03124	83.0	0.58	83.0	1.9191	201.9	411.1	201.91				9.5	86.9	-0.5	-9.5
67.0	17740	34.9	0.03211	99.8	0.72	80.2	1.9042	201.9	415.2	201.91				7.5	86.5	-0.5	-7.5
67.1	17754	34.3	0.03217	98.0	0.71	80.0	1.9031	201.9	415.5	201.91				7.4	85.2	-0.6	-7.4
68.0	17934	26.4	0.03291	75.6	0.56	77.6	1.8899	201.9	419.1	201.91				7.0	68.0	-2.6	-6.5
69.0	18135	33.7	0.03371	96.3	0.74	75.0	1.8751	201.9	423.2	201.91				9.9	62.9	-4.5	-8.8
70.0	18352	36.4	0.03473	103.8	0.83	72.3	1.8591	202.6	429.1	202.59				12.9	71.5	-4.1	-12.2
71.0	18543	43.9	0.03575	125.6	1.04	70.0	1.8451	201.9	431.7	201.91				15.4	79.5	-2.8	-15.2
72.0	18732	45.1	0.03687	128.1	1.10	67.8	1.8312	203.2	438.5	203.25				16.8	83.3	-2.0	-16.7
73.0	18946	46.4	0.03817	131.7	1.17	65.4	1.8156	203.2	443.0	203.25				16.1	80.6	-2.6	-15.9
74.0	19169	54.6	0.03966	154.1	1.44	63.0	1.7993	204.5	450.6	204.53				16.1	82.2	-2.2	-15.9
75.0	19342	54.5	0.04091	153.3	1.47	61.2	1.7868	205.2	455.8	205.16				17.1	88.1	-0.6	-17.1
75.6	19460	56.6	0.04179	159.0	1.56	60.0	1.7782	205.4	458.9	205.42				16.8	90.7	0.2	-16.8
76.0	19531	57.8	0.04231	162.4	1.62	59.3	1.7731	205.6	460.8	205.58				16.6	92.2	0.6	-16.6
77.0	19716	58.1	0.04372	162.7	1.67	57.5	1.7597	206.2	466.3	206.19				18.2	97.7	2.4	-18.0
78.0	19919	68.7	0.04540	190.6	2.05	55.6	1.7451	208.2	475.3	208.17				21.9	94.5	1.7	-21.8
79.0	20142	79.4	0.04754	219.1	2.46	53.6	1.7292	209.3	482.9	209.32				24.0	93.0	1.2	-24.0
80.0	20375	81.7	0.04996	224.8	2.62	51.6	1.7126	209.9	489.5	209.88				24.7	94.7	2.0	-24.6
81.0	20569	84.3	0.05202	230.4	2.79	50.0	1.6990	211.2	497.0	211.17				25.2	88.5	-0.7	-25.2
82.0	20821	84.2	0.05473	230.3	2.91	48.0	1.6812	211.0	502.4	210.99				26.0	82.6	-3.4	-25.8
83.0	21017	94.4	0.05697	258.1	3.36	46.5	1.6675	211.2	507.4	211.17				28.8	84.7	-2.7	-28.7
84.0	21219	88.8	0.05934	243.3	3.27	45.0	1.6532	210.8	511.3	210.80				29.5	88.6	-0.7	-29.4
85.0	21499	87.7	0.06251	239.9	3.38	43.0	1.6335	211.2	518.9	211.17				28.1	90.3	0.2	-28.1
86.0	21644	90.7	0.06416	248.4	3.58	42.0	1.6232	210.8	521.5	210.80				28.6	92.0	1.0	-28.6
87.0	21868	98.0	0.06687	267.9	4.01	40.5	1.6075	211.2	527.8	211.17				29.4	90.6	0.3	-29.4
87.3	21944	99.8	0.06786	272.5	4.14	40.0	1.6021	211.4	530.3	211.41				29.7	89.1	-0.5	-29.7
88.0	22101	103.4	0.06987	281.8	4.39	39.0	1.5911	211.9	535.4	211.89				30.3	86.0	-2.1	-30.2
89.0	22262	104.7	0.07200	285.4	4.57	38.0	1.5798	211.9	539.4	211.89				33.0	85.3	-2.7	-32.9
90.0	22649	108.0	0.07724	294.4	5.01	35.7	1.5527	211.9	549.1	211.89				33.4	86.7	-1.9	-33.4
91.0	22736	113.9	0.07848	308.5	5.36	35.2	1.5465	213.1	554.5	213.12				30.8	86.7	-1.8	-30.8
91.2	22771	114.9	0.07901	311.0	5.44	35.0	1.5441	213.4	556.0	213.35				30.8	86.9	-1.7	-30.8
92.0	22953	120.3	0.08168	323.8	5.86	34.0	1.5315	214.5	563.7	214.50				30.8	88.0	-1.1	-30.7
93.0	23140	125.2	0.08458	336.8	6.29	33.0	1.5185	214.7	568.9	214.67				30.7	89.4	-0.3	-30.7
94.0	23333	122.4	0.08758	327.7	6.34	32.0	1.5051	215.7	576.6	215.68				34.2	87.9	-1.2	-34.2
95.0	23533	123.2	0.09066	329.4	6.59	31.0	1.4914	216.0	582.8	216.01				34.5	86.9	-1.9	-34.5
96.0	23740	123.7	0.09385	330.0	6.83	30.0	1.4771	216.3	589.2	216.34				30.5	87.4	-1.4	-30.4
97.0	23998	116.9	0.09773	313.1	6.73	28.8	1.4594	215.7	594.3	215.68				31.9	88.8	-0.7	-31.9
98.0	24244	119.0	0.10135	318.2	7.12	27.7	1.4425	215.8	601.4	215.85				31.2	88.0	-1.1	-31.2
99.0	24453	127.6	0.10457	339.8	7.89	26.8	1.4281	216.8	609.9	216.83				29.3	92.3	1.2	-29.2
100.0	24645	130.4	0.10765	346.3	8.31	26.0	1.4150	217.3	616.5	217.32				28.1	95.6	2.8	-28.0
101.0	24895	130.3	0.11168	345.1	8.64	25.0	1.3979	218.0	625.3	217.97				26.1	88.9	-0.5	-26.1
102.0	25102	133.8	0.11507	353.5	9.16	24.2	1.3838	218.6	633.0	218.60				26.4	84.2	-2.7	-26.3
103.0	25263	134.9	0.11773	353.7	9.47	23.6	1.3729	220.2	642.2	220.17				22.7	86.7	-1.3	-22.6
104.0	25513	138.3	0.12193	362.3	10.10	22.7	1.3560	220.5	650.2	220.48				15.3	85.2	-1.3	-15.3
105.0	25715	141.2	0.12538	368.7	10.63	22.0	1.3424	221.1	657.9	221.09				12.8	72.5	-3.8	-12.2
106.0	25955	143.4	0.12954	372.3	11.21	21.2	1.3263	222.5	669.0	222.46				12.9	72.4	-3.9	-12.3
107.0	26205	143.4	0.13389	372.4	11.65	20.4	1.3096	222.3	675.9	222.30				11.3	61.8	-5.3	-10.0
107.8	26333	142.1	0.13612	368.9	11.77	20.0	1.3010	222.4	680.2	222.42				11.9	47.2	-8.1	-8.8
108.0	26366	141.8	0.13668	368.0	11.81	19.9	1.2989	222.5	681.2	222.46				12.2	43.8	-8.8	-8.4
109.0	26565	137.7	0.14006	358.6	11.82	19.3	1.2856	221.7	684.9	221.70				11.7	39.6	-9.0	-7.5
110.0	26700	135.2	0.14232	352.6	11.85	18.9	1.2765	221.4	688.0	221.40				10.5	56.8	-5.8	-8.8
111.0	26944	133.0	0.14631	346.8	12.11	18.2	1.2601	221.4	695.5	221.40				8.9	80.6	-1.5	-8.8
112.0	27051	131.5	0.14804	342.6	12.17	17.9	1.2529	221.5	699.3	221.55				10.2	88.4	-0.3	-10.2
112.5	27197	130.2	0.15036	339.2	12.33	17.5	1.2430	221.6	704.1	221.62				10.4	88.5	-0.3	-10.4
113.0	27347	128.9	0.15274	335.7	12.49	17.1	1.2330	221.7	709.0	221.70				10.6	88.6	-0.3	-10.6
114.0	27500	128.2	0.15514	334.2	12.72	16.7	1.2227	221.5	713.3	221.55				9.8	94.5	0.8	-9.8
115.0	27777	127.0	0.15945	331.4	13.15	16.0	1.2041	221.2	721.1	221.25				12.0	99.9	2.1	-11.8
116.0	28024	118.2	0.16315	310.0	12.72	15.4	1.1875	220.2	725.5	220.17				999.9	999.9	999.9	999.9

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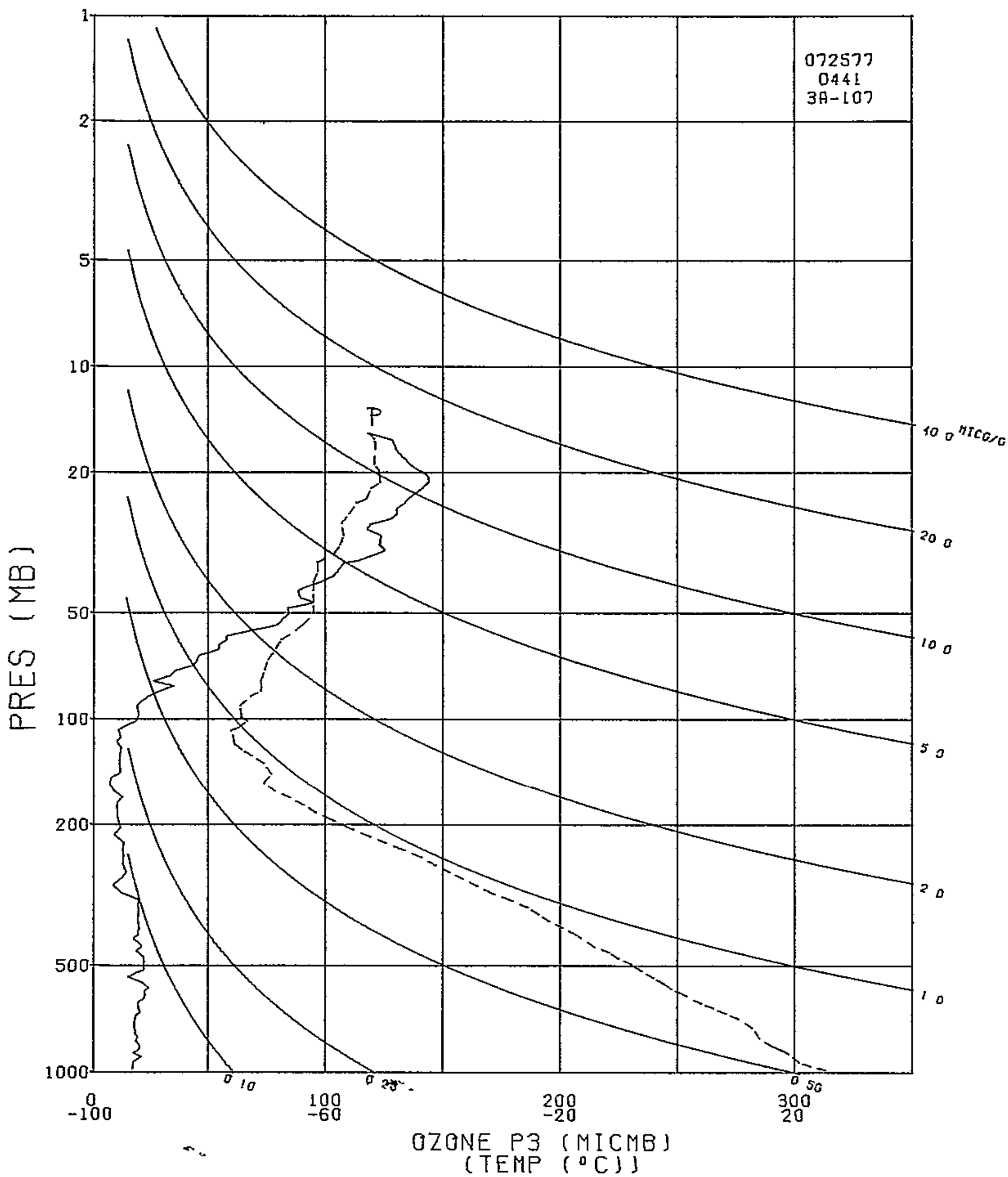


FT SHERMAN ECC

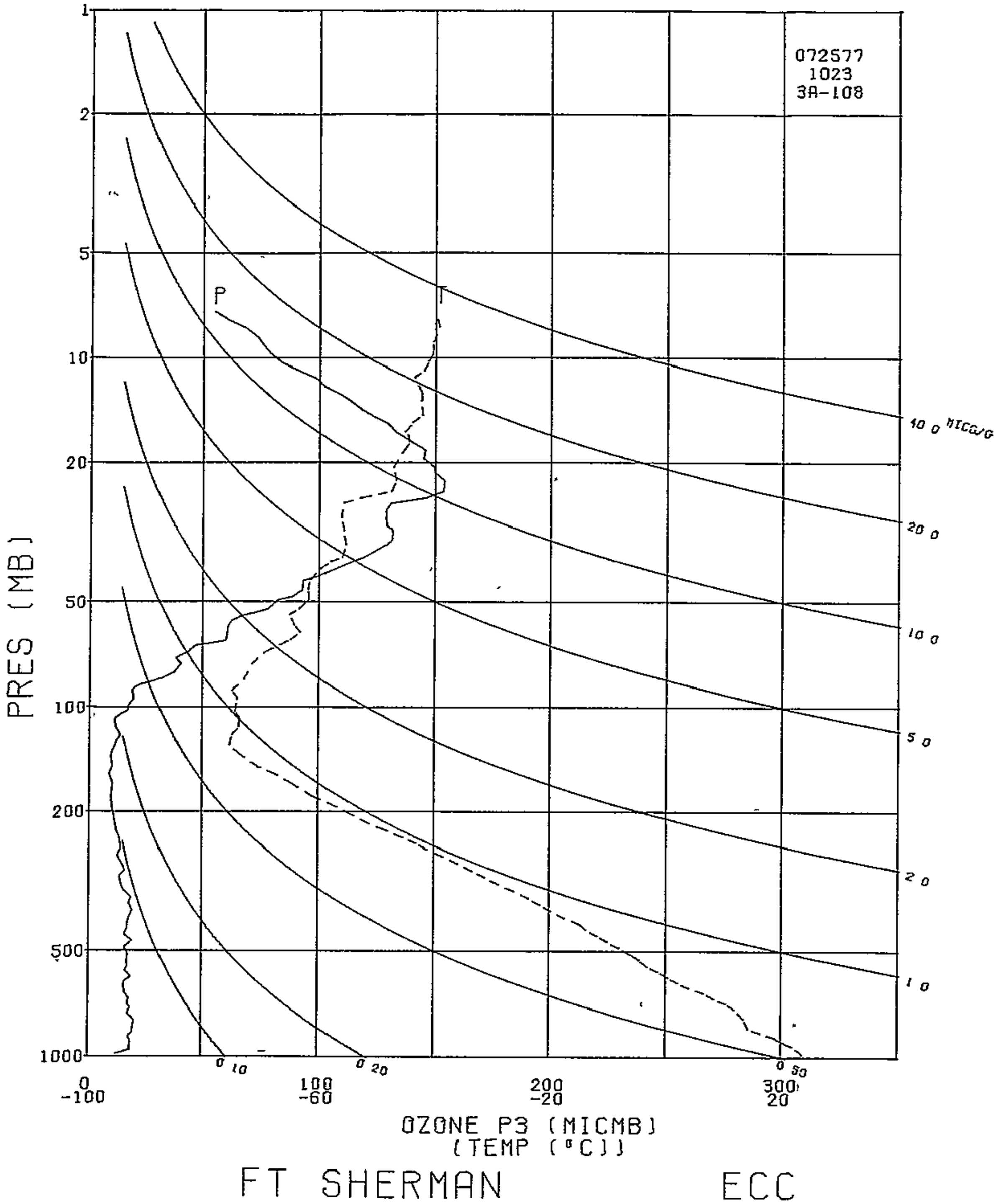
STATION FT SHERMAN   LAUNCH DATE 72577   LAUNCH TIME 1023 GMT   ECC SONDE 3A-108X

SURFACE CONDITIONS	003 = 33.2	TBOX CAL = 30.0 C	AT 73.9 ORD
PRESS 1003.2 MB	0IZ = 32.8	BASE CAL = 30.0 C	AT 73.9 ORD
TEMP 299.3 K	0ZC = 56.5	HUMIDITY = 63.0 %	AT 46.0 ORD
HUMY 91.0 %	IO = 0.087		
	PS = 28.9		

	PROFILE	DOBSON
INTEGRATED OZONE	0.22287	
RESIDUAL OZONE	0.03637	
TOTAL OZONE	0.25924	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDCN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	12.9	0.	24.9	0.02	1003.2	3.0014	298.9	298.6	302.25	87.9	296.8	0.0182	2.0	30.0	-1.7	-1.0
0.1	81	12.8	0.00003	24.8	0.02	1000.0	3.0000	298.7	298.7	302.01	89.3	296.8	0.0183	2.5	32.4	-2.1	-1.3
1.0	295	12.3	0.00027	24.0	0.02	976.0	2.9894	296.8	298.8	300.16	99.7	296.7	0.0187	6.3	38.1	-4.9	-3.9
2.0	541	18.4	0.00061	36.0	0.03	949.0	2.9773	296.1	300.5	299.33	97.5	295.7	0.0180	6.4	32.1	-5.4	-3.4
3.0	755	18.2	0.00097	35.7	0.03	926.0	2.9666	294.9	301.5	297.68	86.8	292.6	0.0153	4.7	16.8	-4.5	-1.4
4.0	983	19.0	0.00135	37.3	0.03	902.0	2.9552	293.4	302.1	296.10	93.0	292.2	0.0153	3.8	8.2	-3.8	-0.5
4.1	1002	18.9	0.00139	37.2	0.03	900.0	2.9542	293.2	302.2	295.99	93.5	292.2	0.0153	3.8	9.2	-3.8	-0.6
5.0	1245	17.8	0.00180	35.2	0.03	875.0	2.9420	291.8	303.2	294.58	100.0	291.8	0.0154	3.7	23.6	-3.4	-1.5
5.9	1493	19.4	0.00222	38.7	0.04	850.0	2.9294	289.6	303.3	291.91	95.6	288.9	0.0129	4.2	23.4	-3.8	-1.7
6.0	1524	19.6	0.00228	39.2	0.04	847.0	2.9279	289.3	303.4	291.58	95.1	288.5	0.0129	4.2	23.3	-3.9	-1.7
7.0	1778	20.0	0.00274	40.3	0.04	822.0	2.9149	287.1	303.6	289.20	100.0	287.1	0.0121	5.8	23.8	-5.3	-2.4
7.8	2007	20.6	0.00318	41.6	0.04	800.0	2.9031	286.6	305.5	288.71	100.0	286.6	0.0120	6.6	40.6	-5.0	-4.3
8.0	2060	20.8	0.00328	41.9	0.04	795.0	2.9004	286.5	305.9	288.59	100.0	286.5	0.0120	6.9	43.9	-5.0	-4.8
9.0	2307	19.7	0.00375	39.7	0.04	772.0	2.8876	286.3	308.3	287.66	63.9	279.6	0.0078	6.9	68.9	-2.5	-6.5
10.0	2572	17.4	0.00421	35.2	0.04	748.0	2.8739	285.7	310.4	287.07	64.6	279.2	0.0078	7.3	79.8	-1.3	-7.2
11.0	2845	18.7	0.00468	37.8	0.04	724.0	2.8597	284.7	312.3	285.97	60.4	277.3	0.0071	7.9	81.5	-1.2	-7.8
11.9	3126	17.3	0.00515	35.3	0.04	700.0	2.8451	283.3	313.7	284.56	63.6	276.7	0.0070	7.4	87.4	-0.3	-7.4
12.0	3150	17.2	0.00519	35.1	0.04	698.0	2.8439	283.2	313.9	284.44	63.8	276.7	0.0070	7.4	87.9	-0.3	-7.4
13.0	3415	17.8	0.00564	36.6	0.04	676.0	2.8299	281.2	314.5	282.44	72.4	276.5	0.0072	7.0	102.6	1.5	-6.8
14.0	3725	16.0	0.00614	33.1	0.04	651.0	2.8136	279.4	315.9	280.54	72.2	274.8	0.0066	7.0	109.1	2.3	-6.6
15.0	3993	15.5	0.00655	32.3	0.04	630.0	2.7993	276.8	315.9	277.80	74.0	272.6	0.0058	6.9	104.4	1.7	-6.7
16.0	4254	15.5	0.00694	32.5	0.04	610.0	2.7853	275.0	316.7	275.90	78.0	271.6	0.0055	7.8	102.0	1.6	-7.6
16.4	4386	17.0	0.00717	35.9	0.05	600.0	2.7782	274.2	317.2	275.10	82.9	271.5	0.0057	8.2	105.7	2.2	-7.9
17.0	4549	18.9	0.00744	39.9	0.05	588.0	2.7694	273.2	317.9	274.12	88.9	271.5	0.0057	8.8	109.6	3.0	-8.3
18.0	4840	16.5	0.00795	35.1	0.05	567.0	2.7536	271.6	319.4	272.48	92.7	270.5	0.0055	9.0	113.6	3.6	-8.3
19.0	5125	17.2	0.00843	36.8	0.05	547.0	2.7380	269.7	320.4	270.55	98.2	269.4	0.0053	10.2	109.4	3.4	-9.6
20.0	5464	16.6	0.00900	35.8	0.05	524.0	2.7193	268.3	322.7	268.89	72.3	264.1	0.0037	10.3	113.3	4.1	-9.5
21.0	5769	17.2	0.00952	37.2	0.06	504.0	2.7024	266.8	324.5	267.26	62.8	260.9	0.0029	8.8	123.5	4.8	-7.3
21.2	5830	16.9	0.00962	36.7	0.06	500.0	2.6990	266.4	324.7	266.88	65.2	260.9	0.0030	8.8	124.1	4.9	-7.3
22.0	6084	15.7	0.01004	34.2	0.05	484.0	2.6848	264.8	325.9	265.35	74.8	261.2	0.0031	8.9	126.5	5.3	-7.2
23.0	6410	19.5	0.01063	42.9	0.07	464.0	2.6665	262.8	327.3	263.23	71.3	258.6	0.0027	8.5	126.8	5.1	-6.8
24.0	6696	15.9	0.01115	35.1	0.06	447.0	2.6503	261.1	328.6	261.47	70.6	256.9	0.0024	8.2	127.3	5.0	-6.6
25.0	7009	17.3	0.01169	38.5	0.07	429.0	2.6325	259.1	330.0	259.41	61.7	253.4	0.0018	8.0	131.2	5.3	-6.1
26.0	7297	16.8	0.01220	37.5	0.07	413.0	2.6160	258.0	332.2	258.28	62.0	252.4	0.0018	7.2	140.3	5.5	-4.6
26.8	7537	17.8	0.01264	40.1	0.07	400.0	2.6021	255.9	332.5	256.16	69.5	251.6	0.0017	7.2	142.1	5.7	-4.4
27.0	7594	18.0	0.01274	40.7	0.06	397.0	2.5988	255.4	332.5	255.66	71.3	251.5	0.0017	7.3	142.5	5.8	-4.4
28.0	7920	19.3	0.01339	44.0	0.08	380.0	2.5798	253.0	333.5	253.19	73.3	249.4	0.0015	8.2	138.0	6.1	-5.5
29.0	8237	17.8	0.01402	40.9	0.08	364.0	2.5611	251.1	335.1	251.28	69.0	247.0	0.0012	8.3	137.0	6.1	-5.7
29.9	8524	19.0	0.01459	43.9	0.09	350.0	2.5441	249.2	336.4	249.38	61.3	243.9	0.0009	7.8	145.4	6.4	-4.4
30.0	8545	19.0	0.01463	44.1	0.09	349.0	2.5428	249.1	336.5	249.24	60.7	243.7	0.0009	7.7	146.1	6.4	-4.3
31.0	8907	15.3	0.01530	35.8	0.08	332.0	2.5211	246.3	337.6	246.45	60.0	240.9	0.0008	8.6	161.5	8.2	-2.7
32.0	9216	13.9	0.01580	33.0	0.07	318.0	2.5024	243.8	338.3	243.95	70.4	240.2	0.0007	10.5	168.3	10.3	-2.1
33.0	9536	13.3	0.01628	31.8	0.07	304.0	2.4829	241.6	339.5	241.70	60.2	236.5	0.0005	12.2	170.0	12.0	-2.1
33.3	9629	14.2	0.01644	33.9	0.08	300.0	2.4771	240.9	339.8	240.96	59.8	235.7	0.0005	11.9	173.5	11.8	-1.3
34.0	9819	15.9	0.01675	38.4	0.09	292.0	2.4654	239.4	340.3	239.45	58.9	234.2	0.0004	11.3	181.4	11.3	0.3
35.0	10161	14.3	0.01733	34.9	0.09	278.0	2.4440	236.9	341.5	236.92	38.0	227.8	0.0002	11.0	201.2	10.3	4.0
36.0	10517	12.4	0.01788	30.5	0.08	264.0	2.4216	234.1	342.5	234.10	26.6	222.1	0.0001	11.2	207.6	9.9	5.2
37.0	10807	13.6	0.01831	33.9	0.09	253.0	2.4031	231.4	342.7	231.38				11.1	205.4	10.1	4.8
37.3	10887	13.6	0.01844	34.0	0.09	250.0	2.3979	230.9	343.0	230.85				11.3	203.5	10.3	4.5
38.0	11079	13.5	0.01874	34.0	0.09	243.0	2.3856	229.6	344.0	229.60				11.6	199.2	11.0	3.8
39.0	11331	13.0	0.01914	32.9	0.09	234.0	2.3692	227.2	344.1	227.22				9.7	191.3	9.5	1.9
40.0	11678	11.7	0.01965	30.1	0.09	222.0	2.3464	224.1	344.4	224.06				7.5	190.9	7.4	1.4
41.0	11947	11.1	0.02002	29.0	0.09	213.0	2.3284	221.2	344.1	221.24				7.1	197.5	6.8	2.1
42.0	12320	10.5	0.02051	27.7	0.09	201.0	2.3032	218.3	345.2	218.30				6.3	206.6	5.6	2.8
42.1	12351	10.4	0.02055	27.6	0.09	200.0	2.3010	218.0	345.3	218.03				6.1	207.7	5.4	2.9
43.0	12644	9.8	0.02092	26.3	0.09	191.0	2.2810	215.5	345.9	215.55				5.0	221.3	3.7	3.3
44.0	13084	9.4	0.02146	25.7	0.09	178.0	2.2504	211.6	346.5	211.60				5.4	199.7	5.1	1.8
45.0	13587	10.0	0.02209	27.7	0.10	164.0	2.2148	208.1	348.8	208.08				10.1	170.4	10.0	-1.7
46.0	13967	8.6	0.02255	24.1	0.09	154.0	2.1875	205.3	350.4	205.30				14.5	165.7	14.1	-3.6
46.6	14123	9.3	0.02274	26.3	0.10	150.0	2.1761	203.6	350.1	203.61				14.4	166.0	14.0	-3.5
47.0	14244	9.8	0.02288	28.0	0.11	147.0	2.1673	202.3	349.9	202.31				14.3	166.2	13.9	-3.4
48.0	14701	9.2	0.02347	26.6	0.11	136.0	2.1335	199.3	352.5	199.31				9.3	164.6	9.0	-2.5
49.0	15098	11.1	0.02401	32.5	0.14	127.0	2.1038	197.3	355.8	197.33				6.0	157.1	5.6	-2.4
49.2	15189	11.7	0.02417	34.3	0.16	125.0	2.0969	197.5	357.7	197.46				6.2	162.9	6.0	-1.8
50.0	15474	13.7	0.02465	39.9	0.19	119.0	2.0755	197.8	363.4	197.84				7.1	178.6	7.1	-0.2
51.0	15774	11.4	0.02516	33.2	0.17	113.0	2.0531	199.1	371.2	199.07				7.2	184.4	7.2	0.6
52.0	16092	10.8	0.02564	31.2	0.17	107.0	2.0294	199.3	377.4	199.31				6.5	132.8	4.4	-4.8
53.0	16370	16.3	0.02615	47.5	0.27	102.0	2.0086	198.3	380.8	198.34				7.5	102.5	1.6	-7.4
53.5	16484	16.9	0.02642	49.2	0.28	100.0	2.0000	198.1	382.5	198.09				7.5	98.4	1.1	-7.4
54.0	16602	17.5	0.02669	51.0	0.30	98.0	1.9912	197.8	384.2	197.84				7.4	94.1	0.5	-7.4
55.0	16844	20.0	0.02730	58.1	0.35	94.0	1.9731	198.8	390.7	198.83				9.0	90.5	0.1	-9.0
56.0	17161	18.8	0.02814	55.0	0.35	89.0	1.9494	197.8	394.9	197.84				12.0	83.2	-1.4	-11.9
57.0	17359	23.0	0.02871	67.1	0.44	86.0	1.9345	197.6	398.3	197.59				15.0	77.9	-3.1	-14.6

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	17636	33.0	0.02976	95.4	0.67	82.0	1.9138	200.0	408.7	200.03				14.5	74.5	-3.9	-14.0
58.7	17780	36.5	0.03045	105.2	0.76	80.0	1.9031	200.0	411.6	200.03				13.4	77.0	-3.0	-13.0
59.0	17854	38.2	0.03081	110.2	0.80	79.0	1.8976	200.0	413.1	200.03				12.8	78.5	-2.6	-12.5
60.0	18159	40.8	0.03242	117.0	0.90	75.0	1.8751	201.4	422.2	201.42				12.9	75.5	-3.2	-12.5
61.0	18399	38.4	0.03370	109.9	0.88	72.0	1.8573	201.6	427.6	201.64				15.1	73.6	-4.3	-14.5
61.7	18565	42.2	0.03462	119.9	1.00	70.0	1.8451	203.1	434.2	203.09				17.7	80.8	-2.8	-17.5
62.0	18651	44.1	0.03509	125.0	1.06	69.0	1.8388	203.8	437.6	203.84				19.2	83.7	-2.1	-19.1
63.0	18916	47.9	0.03670	135.5	1.20	66.0	1.8195	204.3	444.1	204.26				20.3	88.6	-0.5	-20.3
64.0	19101	60.6	0.03802	168.2	1.57	64.0	1.8062	208.1	456.4	208.08				18.8	87.5	-0.8	-18.8
65.0	19394	61.2	0.04033	168.4	1.66	61.0	1.7853	209.8	466.5	209.78				17.8	91.5	0.5	-17.8
65.3	19495	61.3	0.04113	169.0	1.69	60.0	1.7782	209.4	467.8	209.41				17.3	92.4	0.7	-17.3
66.0	19703	61.6	0.04277	170.4	1.76	58.0	1.7634	208.7	470.7	208.65				16.3	94.4	1.2	-16.2
67.0	19917	63.3	0.04450	175.5	1.87	56.0	1.7482	208.3	474.6	208.27				19.5	93.2	1.1	-19.5
68.0	20138	68.5	0.04639	190.5	2.10	54.0	1.7324	207.7	478.2	207.69				23.5	93.7	1.5	-23.4
69.0	20368	78.6	0.04858	216.4	2.50	52.0	1.7160	209.6	487.8	209.59				26.2	94.8	2.2	-26.1
69.7	20609	81.4	0.05108	223.1	2.70	50.0	1.6990	210.7	495.9	210.68				26.1	91.2	0.6	-26.1
70.0	20734	82.9	0.05236	226.6	2.80	49.0	1.6902	211.2	500.0	211.24				26.2	89.4	-0.3	-26.2
71.0	20861	89.0	0.05376	244.0	3.07	48.0	1.6812	210.7	501.7	210.70				26.5	84.7	-2.4	-26.4
72.0	21123	93.2	0.05682	255.0	3.36	46.0	1.6628	211.1	508.7	211.06				31.5	89.9	-0.0	-31.5
73.0	21540	93.8	0.06180	255.9	3.61	43.0	1.6335	211.6	519.9	211.60				29.3	92.0	1.0	-29.2
74.0	21686	99.4	0.06359	270.5	3.92	42.0	1.6232	212.1	524.8	212.13				27.6	92.0	1.0	-27.6
75.0	21990	106.8	0.06756	289.1	4.43	40.0	1.6021	213.4	535.2	213.35				30.0	89.7	-0.1	-30.0
76.0	22311	114.8	0.07205	308.2	5.01	38.0	1.5798	215.0	547.4	215.05				29.9	86.5	-1.8	-29.8
77.0	22479	119.2	0.07451	317.1	5.34	37.0	1.5682	217.0	556.6	217.02				32.4	87.5	-1.4	-32.3
77.7	22832	125.6	0.07995	333.5	5.96	35.0	1.5441	217.4	566.7	217.44				31.0	86.2	-2.0	-31.0
78.0	23017	128.9	0.08279	342.0	6.28	34.0	1.5315	217.7	571.9	217.66				30.3	85.5	-2.4	-30.2
79.0	23207	131.6	0.08586	348.6	6.61	33.0	1.5185	218.0	577.7	217.98				30.4	86.3	-1.9	-30.4
80.0	23605	131.8	0.09235	350.3	7.04	31.0	1.4914	217.2	585.9	217.18				29.6	88.4	-0.8	-29.6
81.0	23771	129.3	0.09504	342.4	7.09	30.2	1.4800	218.0	592.5	217.98				27.1	88.5	-0.7	-27.1
81.1	23813	129.2	0.09572	342.4	7.14	30.0	1.4771	217.8	593.2	217.82				27.4	89.1	-0.4	-27.4
82.0	24117	128.7	0.10058	342.9	7.46	28.6	1.4564	216.7	598.3	216.69				29.2	93.1	1.6	-29.1
83.0	24388	128.3	0.10493	342.3	7.76	27.4	1.4378	216.4	604.7	216.37				29.6	96.8	3.5	-29.4
84.0	24745	130.9	0.11069	347.8	8.38	25.9	1.4133	217.3	617.3	217.34				28.3	92.7	1.4	-28.3
85.0	24971	146.0	0.11455	382.3	9.67	25.0	1.3979	220.5	632.5	220.47				21.4	90.7	0.3	-21.4
86.0	25237	153.8	0.11938	393.8	10.62	24.0	1.3802	225.5	654.6	225.51				16.8	97.7	2.3	-16.7
87.0	25693	154.4	0.12777	393.8	11.42	22.4	1.3502	226.4	670.2	226.37				13.8	96.3	1.5	-13.7
88.0	25995	150.3	0.13326	382.9	11.64	21.4	1.3304	226.7	679.8	226.65				11.3	94.6	0.9	-11.3
89.0	26312	149.3	0.13892	381.6	12.12	20.4	1.3096	225.8	686.6	225.80				11.6	94.6	0.9	-11.6
89.4	26442	147.4	0.14121	377.0	12.21	20.0	1.3010	225.8	690.5	225.80				12.1	98.1	1.7	-12.0
90.0	26644	144.6	0.14474	369.9	12.35	19.4	1.2878	225.8	696.5	225.80				13.0	102.9	2.9	-12.6
91.0	27031	145.5	0.15143	369.0	13.17	18.3	1.2625	227.6	714.0	227.64				14.0	102.8	3.1	-13.6
91.8	27329	140.5	0.15645	355.1	13.30	17.5	1.2430	228.4	725.7	228.42				14.6	97.3	1.9	-14.5
92.0	27406	139.2	0.15774	351.5	13.33	17.3	1.2380	228.6	728.7	228.62				14.8	96.0	1.5	-14.7
93.0	27845	131.8	0.16476	334.0	13.48	16.2	1.2095	227.9	740.2	227.92				14.2	99.2	2.3	-14.0
94.0	28271	127.7	0.17129	321.8	13.92	15.2	1.1818	229.2	758.0	229.18				7.5	123.8	4.2	-6.2
94.3	28360	126.0	0.17259	316.8	13.91	15.0	1.1761	229.6	762.4	229.64				6.3	130.5	4.1	-4.8
95.0	28588	121.5	0.17592	303.9	13.88	14.5	1.1614	230.8	773.8	230.83				4.1	163.1	4.0	-1.2
96.0	28873	116.7	0.17989	292.7	13.91	13.9	1.1430	230.1	780.9	230.15				1.9	73.9	-0.5	-1.8
97.0	29221	112.2	0.18456	280.9	14.08	13.2	1.1206	230.6	793.9	230.56				3.7	55.8	-2.1	-3.1
98.0	29588	106.4	0.18926	266.4	14.10	12.5	1.0969	230.6	806.4	230.56				2.3	51.0	-1.4	-1.8
99.0	29863	100.8	0.19259	252.7	13.92	12.0	1.0792	230.3	814.8	230.29				2.1	42.8	-1.5	-1.4
100.0	30267	96.8	0.19728	243.9	14.20	11.3	1.0531	229.2	825.0	229.18				4.5	65.2	-1.9	-4.1
101.0	30572	89.7	0.20061	224.1	13.76	10.8	1.0334	231.1	842.7	231.11				6.2	66.4	-2.5	-5.7
102.0	30959	82.1	0.20449	204.4	13.34	10.2	1.0086	231.9	859.6	231.93				6.7	86.5	-0.4	-6.7
102.3	31093	80.5	0.20573	200.2	13.33	10.0	1.0000	232.2	865.6	232.19				7.2	94.8	0.6	-7.2
103.0	31371	77.2	0.20830	191.4	13.32	9.6	0.9823	232.7	877.7	232.74				8.5	108.5	2.7	-8.0
104.0	31810	73.8	0.21214	183.0	13.58	9.0	0.9542	232.7	894.1	232.74				10.1	102.2	2.1	-9.9
105.0	32120	71.5	0.21474	177.0	13.77	8.6	0.9345	233.1	907.3	233.14				10.4	91.8	0.3	-10.4
106.0	32529	66.2	0.21800	163.5	13.54	8.1	0.9085	233.8	925.7	233.82				11.0	92.2	0.4	-11.0
106.2	32614	64.5	0.21861	159.1	13.34	8.0	0.9031	233.9	929.2	233.88				11.2	93.5	0.7	-11.2
107.0	32876	59.1	0.22050	145.8	12.72	7.7	0.8865	234.1	940.2	234.08				11.8	97.4	1.5	-11.7
108.0	33241	53.4	0.22287	132.3	12.12	7.3	0.8633	233.1	950.8	233.14				999.9	999.9	999.9	999.9


072577
1023
3A-108
P
T
PRES (MB)
1
2
5
10
20
50
100
500
200
1000
40 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 50
0 20
0 10
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72577   LAUNCH TIME 1605 GMT   ECC SONDE 3A-130X

SURFACE CONDITIONS
PRESS 1006.0 MB
TEMP 301.6 K
HUMY 83.0 %

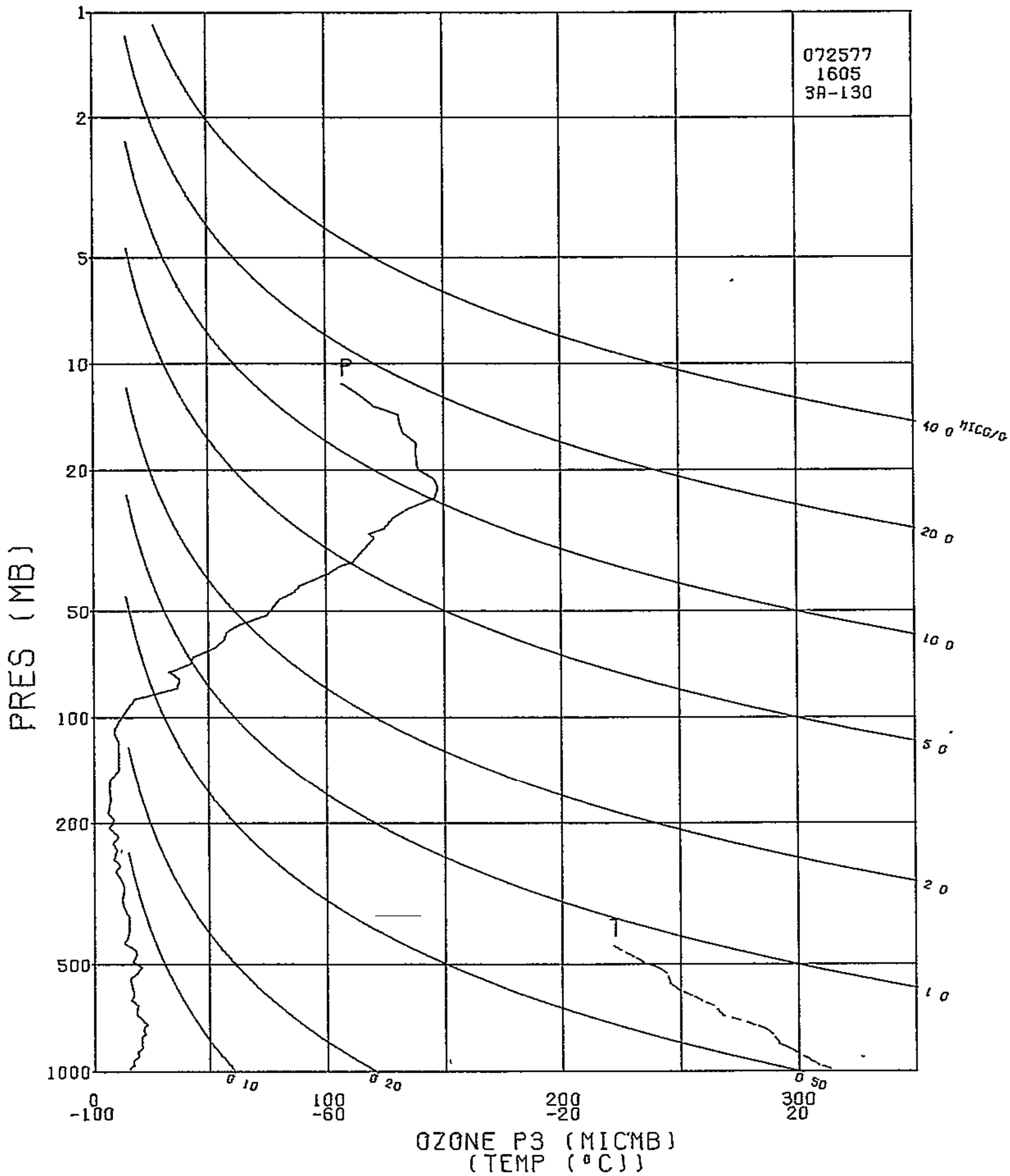
003 = 37.1
OIZ = 36.7
OZC = 63.0
IO = 0.079
PS = 27.5

TBOX CAL = 30.0 C AT 73.3 ORD
BASE CAL = 30.0 C AT 73.0 ORD
HUMIDITY = 62.2 % AT 46.0 ORD

	PROFILE	DOBSON
INTEGRATED OZONE	0.18885	
RESIDUAL OZONE	0.07627	
TOTAL OZONE	0.26512	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	13.5	0.	25.8	0.02	1006.0	3.0026	301.0	300.5	304.34	78.3	296.8	0.0183	3.0	25.0	-2.7	-1.3
0.2	106	13.9	0.00007	26.7	0.02	1000.0	3.0000	300.4	300.4	303.75	80.5	296.7	0.0182	3.8	29.7	-3.3	-1.9
1.0	276	15.2	0.00026	29.3	0.03	981.0	2.9917	298.6	300.2	301.88	87.4	296.3	0.0182	6.5	36.6	-5.2	-3.9
2.0	503	17.0	0.00061	33.0	0.03	956.0	2.9805	296.5	300.3	299.71	94.5	295.5	0.0178	7.2	30.5	-6.2	-3.6
3.0	753	16.7	0.00099	32.7	0.03	929.0	2.9680	295.1	301.4	298.08	91.4	293.7	0.0163	5.9	31.1	-5.1	-3.1
4.0	990	19.2	0.00138	37.7	0.04	904.0	2.9562	294.0	302.6	296.60	83.2	291.1	0.0142	4.9	34.8	-4.0	-2.8
4.2	1028	19.1	0.00144	37.6	0.04	900.0	2.9542	293.8	302.8	296.35	83.4	290.9	0.0141	4.9	36.2	-4.0	-2.9
5.0	1242	18.6	0.00181	36.8	0.04	878.0	2.9435	292.5	303.6	294.97	84.8	289.9	0.0136	5.3	43.4	-3.9	-3.6
6.0	1460	20.9	0.00221	41.5	0.04	856.0	2.9325	291.3	304.5	293.50	82.4	288.2	0.0125	5.7	63.4	-2.6	-5.1
6.3	1520	20.8	0.00233	41.3	0.04	850.0	2.9294	290.8	304.7	292.97	80.6	287.4	0.0116	6.0	67.1	-2.3	-5.5
7.0	1683	20.4	0.00264	40.8	0.04	834.0	2.9212	289.6	305.1	291.52	75.7	285.3	0.0106	6.9	75.4	-1.7	-6.6
8.0	1963	20.3	0.00317	40.6	0.04	807.0	2.9069	288.8	307.1	290.38	63.8	282.0	0.0088	9.0	77.3	-2.0	-8.8
8.3	2036	20.8	0.00331	41.7	0.04	800.0	2.9031	288.7	307.7	290.13	58.2	280.4	0.0075	9.9	78.0	-2.1	-9.7
9.0	2230	22.2	0.00369	44.4	0.05	782.0	2.8932	288.4	309.4	289.49	43.4	276.1	0.0060	12.1	79.4	-2.2	-11.9
10.0	2515	21.2	0.00427	42.6	0.05	756.0	2.8785	287.3	311.1	288.01	32.8	271.2	0.0043	12.8	79.8	-2.3	-12.6
11.0	2751	23.0	0.00476	46.5	0.05	735.0	2.8663	285.3	311.6	286.07	35.4	270.5	0.0043	11.2	79.5	-2.0	-11.0
12.0	2992	20.7	0.00526	42.2	0.05	714.0	2.8537	282.9	311.5	283.80	48.9	272.7	0.0051	9.8	80.0	-1.7	-9.7
12.6	3155	19.3	0.00557	39.7	0.05	700.0	2.8451	281.0	311.1	282.03	64.8	274.5	0.0064	9.4	80.0	-1.6	-9.2
13.0	3250	18.6	0.00575	38.3	0.04	692.0	2.8401	279.9	310.9	281.00	74.1	275.6	0.0066	9.1	80.1	-1.6	-9.0
14.0	3490	18.6	0.00618	38.4	0.05	672.0	2.8274	279.2	312.8	280.12	63.1	272.7	0.0055	9.3	82.5	-1.2	-9.3
15.0	3775	18.6	0.00669	38.5	0.05	649.0	2.8122	278.3	314.9	279.20	60.5	271.3	0.0051	8.6	90.5	0.1	-8.6
16.0	4030	16.2	0.00711	33.8	0.04	629.0	2.7987	276.5	315.6	277.45	75.5	272.6	0.0058	7.0	101.5	1.4	-6.9
17.0	4310	17.3	0.00757	36.3	0.05	607.6	2.7836	274.7	316.7	275.76	94.0	273.8	0.0066	6.8	112.9	2.6	-6.2
17.4	4411	16.9	0.00774	35.7	0.05	600.0	2.7782	273.9	316.9	274.97	96.2	273.3	0.0063	7.3	115.1	3.1	-6.6
18.0	4587	16.4	0.00803	34.6	0.05	587.0	2.7686	272.6	317.4	273.60	100.0	272.6	0.0062	8.2	118.2	3.9	-7.2
19.0	4892	15.7	0.00851	33.4	0.05	565.0	2.7520	271.1	319.2	272.11	100.0	271.1	0.0058	12.3	137.1	9.0	-8.4
20.0	5149	15.2	0.00891	32.5	0.05	547.0	2.7380	270.1	320.9	270.63	62.2	263.9	0.0034	14.3	136.5	10.4	-9.9
21.0	5459	18.8	0.00943	40.0	0.06	526.0	2.7210	270.4	324.8	270.91	55.6	262.7	0.0033	12.3	118.2	5.8	-10.9
22.0	5750	20.4	0.01000	43.8	0.07	507.0	2.7050	269.0	326.6	269.46	52.6	260.8	0.0029	10.5	120.3	5.3	-9.1
22.4	5859	18.9	0.01020	40.7	0.06	500.0	2.6990	268.0	326.7	268.51	60.4	261.4	0.0032	9.1	122.3	4.9	-7.7
23.0	6018	16.8	0.01050	36.3	0.06	490.0	2.6902	266.6	326.8	267.13	71.6	262.3	0.0034	7.1	126.4	4.2	-5.7
24.0	6326	18.1	0.01104	39.5	0.06	471.0	2.6730	264.8	328.4	265.37	79.9	262.0	0.0034	6.7	152.2	5.9	-3.1
25.0	6644	17.5	0.01162	38.5	0.06	452.0	2.6551	262.6	329.5	263.16	85.0	260.6	0.0032	8.5	163.3	8.2	-2.5
26.0	6938	13.0	0.01208	28.7	0.05	435.0	2.6385	260.9	331.0	261.42	89.5	259.6	0.0031	8.2	226.8	5.6	6.0
27.0	0	14.3	0.01249		0.06	419.0	2.6222							26.0	267.2	1.3	26.0
28.0	0	14.9	0.01302		0.06	400.0	2.6021							34.9	273.9	-2.3	34.8
29.0	0	15.4	0.01351		0.07	384.0	2.5843							33.4	276.8	-4.0	33.2
30.0	0	15.1	0.01405		0.07	367.0	2.5647							29.9	279.0	-4.7	29.5
31.0	0	13.8	0.01443		0.06	355.0	2.5502							28.3	279.6	-4.7	27.9
31.3	0	13.4	0.01458		0.06	350.0	2.5441							22.5	279.5	-3.7	22.2
32.0	0	12.5	0.01488		0.06	340.0	2.5315							10.5	278.8	-1.6	10.4
33.0	0	11.8	0.01526		0.06	327.0	2.5145							19.1	101.4	3.8	-18.7
34.0	0	12.5	0.01565		0.07	314.0	2.4969							30.5	102.8	6.8	-29.8
34.9	0	12.6	0.01610		0.07	300.0	2.4771							31.2	105.3	8.2	-30.1
35.0	0	12.6	0.01613		0.07	299.0	2.4757							31.2	105.5	8.3	-30.1
36.0	0	11.5	0.01655		0.07	286.0	2.4564							29.5	109.0	9.6	-27.9
37.0	0	9.3	0.01694		0.06	273.0	2.4362							27.4	114.7	11.4	-24.9
38.0	0	11.3	0.01727		0.07	262.0	2.4183							24.8	123.0	13.5	-20.8
39.0	0	8.9	0.01761		0.06	251.0	2.3997							26.1	126.5	15.5	-21.0
39.1	0	9.0	0.01764		0.06	250.0	2.3979							26.2	126.5	15.6	-21.0
40.0	0	10.2	0.01796		0.07	239.0	2.3784							27.6	127.4	16.8	-21.9
41.0	0	8.2	0.01835		0.06	227.0	2.3560							26.4	132.3	17.7	-19.5
42.0	0	10.6	0.01869		0.08	217.0	2.3365							27.9	135.8	20.0	-19.4
43.0	0	6.9	0.01906		0.06	205.0	2.3118							29.6	138.6	22.2	-19.6
43.5	0	7.8	0.01923		0.06	200.0	2.3010							28.1	141.9	22.1	-17.4
44.0	0	8.7	0.01939		0.07	195.0	2.2900							26.8	145.7	22.1	-15.1
45.0	0	6.5	0.01964		0.06	187.0	2.2718							28.8	146.7	24.0	-15.8
46.0	0	7.1	0.01993		0.07	177.0	2.2480							31.3	141.6	24.6	-19.4
47.0	0	7.1	0.02023		0.07	168.0	2.2253							33.1	137.3	24.3	-22.4
48.0	0	6.5	0.02056		0.07	158.0	2.1987							35.9	135.7	25.6	-25.1
49.0	0	7.1	0.02083		0.08	150.0	2.1761							32.9	129.8	21.1	-25.3
50.0	0	10.7	0.02127		0.13	141.0	2.1492							23.1	122.2	12.3	-19.6
51.0	0	10.6	0.02176		0.13	133.0	2.1239							17.4	110.9	6.2	-16.2
52.0	0	11.7	0.02209		0.14	128.0	2.1072							31.6	122.6	17.0	-26.6
52.3	0	11.2	0.02230		0.15	125.0	2.0969							33.7	127.8	20.6	-26.6
53.0	0	11.1	0.02281		0.16	118.0	2.0719							39.7	137.9	29.5	-26.6
54.0	0	8.9	0.02336		0.13	110.0	2.0414							33.8	135.5	24.1	-23.7
55.0	0	10.6	0.02387		0.17	103.0	2.0128							27.9	123.5	15.4	-23.3
56.0	0	11.8	0.02404		0.19	101.0	2.0043							41.5	124.3	23.4	-34.3
56.1	0	12.2	0.02415		0.20	100.0	2.0000							42.8	123.5	23.7	-35.7
57.0	0	15.4	0.02493		0.27	93.0	1.9685							52.5	119.4	25.8	-45.8
58.0	0	18.4	0.02566		0.35	88.0	1.9445							51.9	105.4	13.8	-50.1
59.0	0	36.3	0.02719		0.73	82.0	1.9138							57.3	102.1	12.0	-56.0

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.5	0	37.0	0.02791		0.77	80.0	1.9031							53.4	103.0	12.0	-52.0
60.0	0	37.8	0.02865		0.80	78.0	1.8921							49.4	104.0	11.9	-47.9
61.0	0	32.9	0.03012		0.74	74.0	1.8692							48.9	99.3	7.9	-48.2
62.0	0	42.4	0.03177		1.00	70.0	1.8451							51.6	94.4	3.9	-51.5
63.0	0	43.7	0.03325		1.08	67.0	1.8261							61.6	97.0	7.5	-61.2
64.0	0	53.0	0.03560		1.40	63.0	1.7993							65.7	98.9	10.1	-64.9
65.0	0	56.8	0.03772		1.57	60.0	1.7782							52.6	99.6	8.8	-51.9
66.0	0	57.8	0.04004		1.68	57.0	1.7559							60.4	101.1	11.7	-59.3
67.0	0	64.0	0.04264		1.96	54.0	1.7324							79.3	102.7	17.4	-77.4
68.0	0	74.9	0.04577		2.43	51.0	1.7076							77.7	100.8	14.5	-76.4
68.5	0	75.9	0.04696		2.52	50.0	1.6990							80.1	98.5	11.8	-79.2
69.0	0	77.0	0.04817		2.60	49.0	1.6902							82.5	96.3	9.0	-82.1
70.0	0	80.4	0.05209		2.90	46.0	1.6628							87.8	96.5	10.0	-87.3
71.0	0	86.4	0.05502		3.26	44.0	1.6435							80.4	95.0	7.0	-80.1
72.0	0	89.1	0.05824		3.52	42.0	1.6232							92.9	93.7	6.0	-92.7
72.7	0	96.7	0.06189		4.02	40.0	1.6021							94.6	92.2	3.6	-94.5
73.0	0	100.6	0.06378		4.27	39.0	1.5911							95.4	91.4	2.4	-95.4
74.0	0	106.2	0.06806		4.76	37.0	1.5682							79.9	89.3	-0.9	-79.9
75.0	0	111.5	0.07043		5.13	36.0	1.5563							88.5	93.0	4.6	-88.3
75.5	0	113.0	0.07295		5.36	35.0	1.5441							102.4	93.8	6.8	-102.1
76.0	0	114.6	0.07553		5.59	34.0	1.5315							116.7	94.5	9.1	-116.3
77.0	0	120.3	0.08409		6.43	31.0	1.4914							107.6	92.0	3.8	-107.5
78.0	0	117.8	0.08717		6.51	30.0	1.4771							93.0	90.4	0.7	-93.0
79.0	0	124.5	0.09042		7.11	29.0	1.4624							110.0	95.0	9.6	-109.6
80.0	0	128.5	0.09755		7.88	27.0	1.4314							117.4	99.0	18.3	-116.0
81.0	0	135.6	0.10432		8.86	25.3	1.4031							109.8	102.7	24.1	-107.1
81.2	0	137.5	0.10565		9.13	25.0	1.3979							105.4	103.7	25.0	-102.4
82.0	0	146.1	0.11158		10.21	23.7	1.3747							86.5	109.6	29.0	-81.5
83.0	0	147.4	0.11863		10.95	22.3	1.3483							64.1	113.6	25.6	-58.7
84.0	0	145.5	0.12557		11.48	21.0	1.3222							54.8	102.6	12.0	-53.5
84.9	0	139.8	0.13105		11.58	20.0	1.3010							54.3	97.8	7.4	-53.8
85.0	0	139.2	0.13162		11.59	19.9	1.2989							54.2	97.3	6.9	-53.8
86.0	0	137.8	0.13783		12.14	18.8	1.2742							60.2	95.3	5.5	-59.9
87.0	0	137.2	0.14437		12.85	17.7	1.2480							64.7	93.3	3.7	-64.6
87.2	0	137.2	0.14560		13.00	17.5	1.2430							63.7	93.9	4.3	-63.6
88.0	0	137.3	0.15132		13.71	16.6	1.2201							59.2	96.9	7.1	-58.8
89.0	0	132.4	0.15725		13.98	15.7	1.1959							50.5	98.3	7.3	-50.0
89.8	0	130.8	0.16198		14.45	15.0	1.1761							41.9	102.7	9.2	-40.9
90.0	0	130.4	0.16338		14.59	14.8	1.1703							39.4	104.4	9.8	-38.2
91.0	0	129.6	0.17055		15.56	13.8	1.1399							14.7	152.1	13.0	-6.9
92.0	0	118.7	0.17640		15.14	13.0	1.1139							14.8	152.6	13.1	-6.8
92.5	0	115.4	0.17998		15.29	12.5	1.0969							22.2	109.7	7.5	-20.9
93.0	0	112.6	0.18295		15.42	12.1	1.0828							32.7	94.9	2.8	-32.6
94.0	0	106.0	0.18885		15.55	11.3	1.0531							999.9	999.9	999.9	999.9



FT SHERMAN ECC

STATION FT SHERMAN LAUNCH DATE 72577 LAUNCH TIME 2224 GMT ECC SONDE 3A-132X

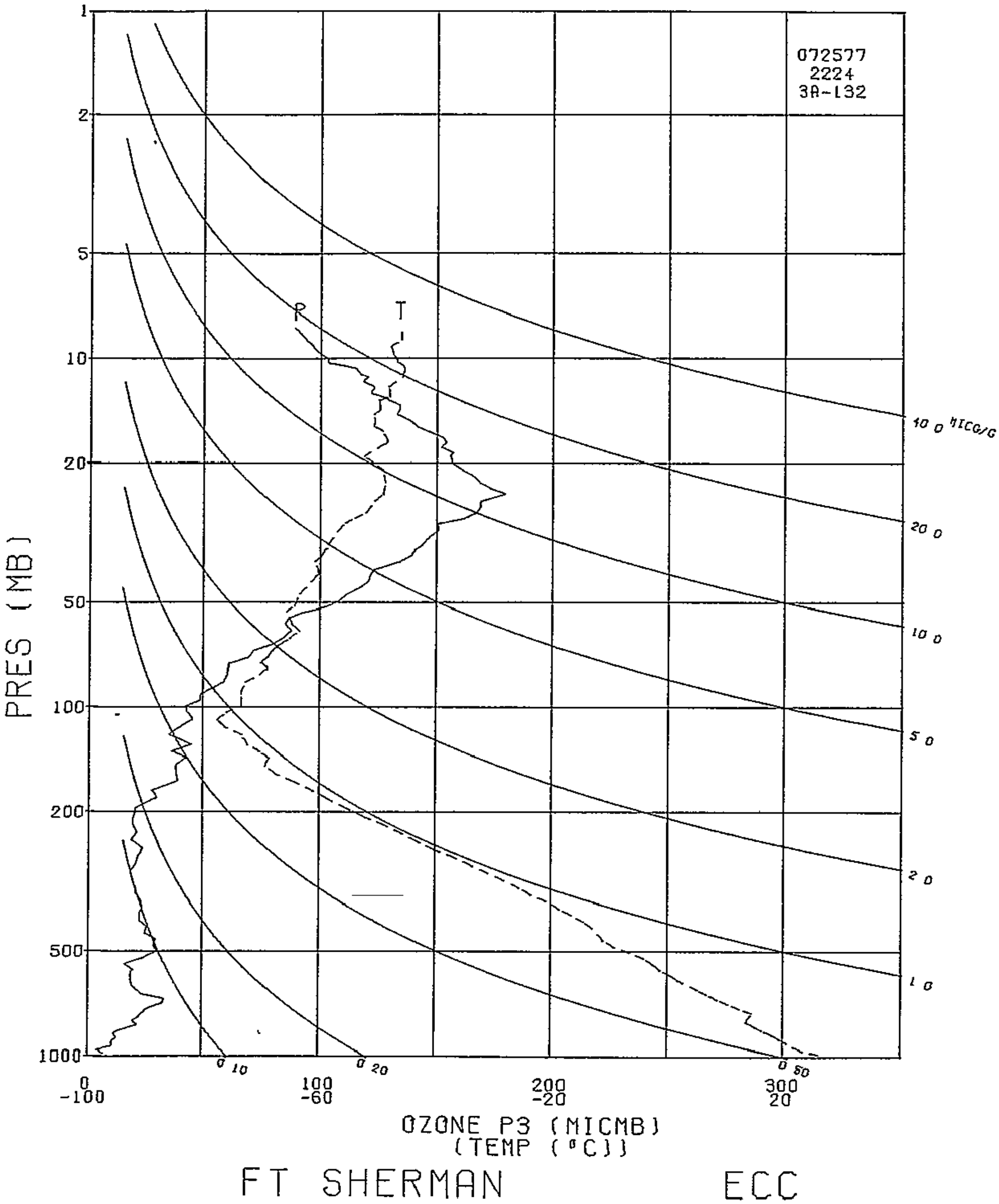
SURFACE CONDITIONS			
PRESS 1004.2 MB	OO3 = 37.5	TBOX CAL = 30.0 C	AT 73.5 ORD
TEMP 300.5 K	OIZ = 34.8	BASE CAL = 30.0 C	AT 73.1 ORD
HUMY 82.0 %	OZC = 64.1	HUMIDITY = 64.0 %	AT 46.0 ORD
	IO = 0.458		
	PS = 29.0		

	PROFILE	DOBSON
INTEGRATED OZONE	0.27940	
RESIDUAL OZONE	0.06042	
TOTAL OZONE	0.33981	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	9.1	0.	17.5	0.02	1004.2	3.0018	300.0	299.6	303.19	79.1	296.1	0.0174	1.0	30.0	-0.9	-0.5
0.2	90	8.7	0.00003	16.8	0.01	1000.0	3.0000	299.9	299.9	303.14	80.9	296.3	0.0181	1.8	17.9	-1.7	-0.5
1.0	296	6.6	0.00017	12.8	0.01	977.0	2.9899	299.3	301.3	302.87	90.6	297.6	0.0197	6.2	7.0	-6.1	-0.8
2.0	506	4.2	0.00027	8.2	0.01	954.0	2.9795	296.0	300.0	299.22	96.8	295.5	0.0177	6.0	8.0	-6.0	-0.8
3.0	719	10.6	0.00042	20.7	0.02	931.0	2.9689	294.9	301.0	297.50	82.5	291.8	0.0144	5.6	3.2	-5.5	-0.3
4.0	955	10.6	0.00064	20.8	0.02	906.0	2.9571	293.6	302.0	296.16	86.5	291.3	0.0144	4.7	340.1	-4.4	1.6
4.3	1012	11.2	0.00070	22.0	0.02	900.0	2.9542	293.3	302.2	295.82	87.8	291.2	0.0144	4.4	334.3	-4.0	1.9
5.0	1177	13.0	0.00088	25.7	0.02	883.0	2.9460	292.3	302.9	294.86	91.4	290.9	0.0144	4.1	314.9	-2.9	2.9
6.0	1404	11.2	0.00113	22.3	0.02	860.0	2.9345	291.0	303.9	293.35	87.4	288.9	0.0130	3.3	311.9	-2.2	2.5
6.4	1503	12.8	0.00126	25.5	0.02	850.0	2.9294	290.3	304.1	292.57	88.7	288.4	0.0126	2.6	321.1	-2.0	1.6
7.0	1656	15.2	0.00144	30.3	0.03	835.0	2.9217	289.2	304.5	291.38	90.6	287.6	0.0124	1.7	349.1	-1.7	0.3
8.0	1893	21.8	0.00185	43.7	0.04	812.0	2.9096	287.8	305.4	289.98	96.6	287.3	0.0124	2.4	63.7	-1.0	-2.1
8.5	2018	20.5	0.00209	41.2	0.04	800.0	2.9031	287.1	306.0	289.18	97.5	286.7	0.0120	3.1	80.3	-0.5	-3.1
9.0	2125	19.4	0.00229	39.1	0.04	790.0	2.8976	286.4	306.4	288.51	98.3	286.2	0.0119	3.9	88.8	-0.1	-3.8
10.0	2374	22.7	0.00279	45.7	0.05	767.0	2.8848	287.2	309.8	288.71	65.5	280.8	0.0085	5.2	82.0	-0.7	-5.1
11.0	2619	24.4	0.00333	49.0	0.05	745.0	2.8722	287.4	312.6	287.89	20.2	264.9	0.0027	5.6	70.8	-1.9	-5.3
12.0	2859	26.7	0.00390	54.1	0.06	724.0	2.8597	285.3	312.9	285.70				7.0	65.3	-2.9	-6.3
13.0	3116	32.7	0.00463	66.6	0.08	702.0	2.8463	283.2	313.4	283.66	22.3	262.7	0.0024	7.4	69.9	-2.5	-6.9
13.1	3139	32.8	0.00470	66.8	0.08	700.0	2.8451	283.1	313.4	283.53	24.9	263.5	0.0029	7.3	71.0	-2.4	-6.9
14.0	3367	33.7	0.00542	69.2	0.08	681.0	2.8331	281.4	314.1	282.28	49.7	271.5	0.0050	6.8	82.0	-0.9	-6.7
15.0	3650	22.9	0.00619	47.2	0.06	658.0	2.8182	279.7	315.2	280.68	65.6	273.7	0.0060	7.3	80.8	-1.2	-7.2
16.0	3877	20.6	0.00667	42.9	0.05	640.0	2.8062	278.1	315.9	279.02	63.6	271.8	0.0054	6.9	85.0	-0.6	-6.9
17.0	4136	18.7	0.00716	39.0	0.05	620.0	2.7924	277.1	317.6	278.11	74.6	273.0	0.0061	5.8	104.0	1.4	-5.6
18.0	4401	18.1	0.00763	38.0	0.05	600.0	2.7782	274.6	317.8	275.68	91.7	273.4	0.0065	6.1	116.8	2.8	-5.5
19.0	4660	18.0	0.00809	38.0	0.05	581.0	2.7642	273.3	319.2	274.20	81.2	270.5	0.0054	7.6	118.7	3.6	-6.7
20.0	4926	19.4	0.00858	41.2	0.06	562.0	2.7497	271.6	320.2	272.56	100.0	271.6	0.0060	9.1	124.8	5.2	-7.5
21.0	5229	15.7	0.00911	33.4	0.05	541.0	2.7332	270.3	322.2	270.91	63.1	264.3	0.0036	10.2	122.1	5.4	-8.6
22.0	5557	24.3	0.00976	52.2	0.08	519.0	2.7152	268.6	324.0	269.16	62.8	262.6	0.0033	10.7	117.7	5.0	-9.5
22.9	5849	29.8	0.01056	64.6	0.10	500.0	2.6990	266.3	324.7	266.75	55.0	258.8	0.0025	10.5	114.5	4.4	-9.6
23.0	5865	30.1	0.01061	65.2	0.10	499.0	2.6981	266.2	324.7	266.63	54.5	258.6	0.0025	10.5	114.4	4.3	-9.6
24.0	6150	28.6	0.01146	62.7	0.10	481.0	2.6821	263.4	324.7	263.83	63.3	257.8	0.0024	11.1	104.0	2.7	-10.7
25.0	6476	29.9	0.01244	66.0	0.11	461.0	2.6637	261.6	326.4	261.93	63.3	256.0	0.0021	11.6	97.2	1.4	-11.5
26.0	6781	24.8	0.01330	54.8	0.09	443.0	2.6464	261.4	329.9	261.85	72.6	257.5	0.0025	11.7	101.1	2.3	-11.5
27.0	7097	25.4	0.01412	56.6	0.10	425.0	2.6284	259.6	331.5	259.96	71.2	255.5	0.0022	9.3	113.7	3.8	-8.6
28.0	7406	22.4	0.01489	50.1	0.09	408.0	2.6107	258.2	333.6	258.56	75.4	254.9	0.0022	5.5	132.7	3.7	-4.0
28.4	7555	22.3	0.01524	50.1	0.09	400.0	2.6021	257.2	334.2	257.58	75.8	254.0	0.0020	5.2	136.1	3.7	-3.6
29.0	7746	22.2	0.01568	50.2	0.09	390.0	2.5911	256.0	335.0	256.31	76.4	252.9	0.0019	4.8	141.0	3.7	-3.0
30.0	8039	23.1	0.01639	52.4	0.10	375.0	2.5740	254.1	336.3	254.40	83.4	252.0	0.0019	6.3	138.4	4.7	-4.2
31.0	8424	22.5	0.01732	51.6	0.10	356.0	2.5515	251.8	338.3	252.06	80.7	249.4	0.0016	6.4	147.7	5.4	-3.4
31.4	8548	21.8	0.01761	50.2	0.10	350.0	2.5441	250.7	338.4	250.93	81.4	248.4	0.0014	6.5	154.5	5.9	-2.8
32.0	8740	20.6	0.01805	47.9	0.10	341.0	2.5328	249.0	338.6	249.21	82.5	246.9	0.0013	6.8	164.4	6.5	-1.8
33.0	9067	19.9	0.01877	46.6	0.10	326.0	2.5132	247.0	340.3	247.18	74.0	243.8	0.0010	7.8	157.8	7.2	-2.9
34.0	9406	18.6	0.01949	44.0	0.10	311.0	2.4928	244.4	341.2	244.50	70.6	240.7	0.0008	9.1	155.4	8.3	-3.8
34.7	9662	18.0	0.02001	42.9	0.10	300.0	2.4771	242.5	342.0	242.55	69.3	238.7	0.0006	9.7	157.9	8.9	-3.6
35.0	9758	17.8	0.02020	42.5	0.10	296.0	2.4713	241.7	342.3	241.83	68.8	237.9	0.0006	9.9	158.8	9.2	-3.6
36.0	10099	20.3	0.02093	49.0	0.12	282.0	2.4502	238.9	343.1	239.02	67.8	235.1	0.0005	8.8	160.3	8.3	-3.0
37.0	10453	21.3	0.02176	52.2	0.13	268.0	2.4281	236.1	344.0	236.18	59.2	231.1	0.0003	8.9	165.9	8.6	-2.2
38.0	10821	23.8	0.02272	59.2	0.16	254.0	2.4048	232.6	344.1	232.58				9.7	170.6	9.6	-1.6
38.3	10928	22.4	0.02299	55.8	0.15	250.0	2.3979	231.8	344.4	231.76				9.7	171.4	9.6	-1.4
39.0	11204	18.7	0.02367	47.0	0.13	240.0	2.3802	229.7	345.3	229.66				9.7	173.6	9.6	-1.1
40.0	11547	20.7	0.02447	52.6	0.15	228.0	2.3579	227.1	346.4	227.09				10.5	176.8	10.5	-0.6
41.0	11904	18.8	0.02531	48.5	0.14	216.0	2.3345	224.1	347.3	224.14				10.2	182.4	10.2	0.4
42.0	12276	19.3	0.02617	50.6	0.16	204.0	2.3096	220.5	347.2	220.47				10.8	172.3	10.7	-1.5
42.4	12402	19.8	0.02649	52.1	0.16	200.0	2.3010	219.4	347.4	219.37				10.4	177.7	10.3	-0.4
43.0	12631	20.6	0.02705	54.8	0.18	193.0	2.2856	217.4	347.9	217.40				9.8	188.6	9.7	1.5
44.0	13036	29.5	0.02832	79.6	0.27	181.0	2.2577	214.0	348.7	214.00				10.3	205.8	9.3	4.5
45.0	13353	27.6	0.02946	75.2	0.27	172.0	2.2355	211.7	350.0	211.66				11.8	188.8	11.6	1.8
46.0	13721	38.6	0.03103	107.0	0.39	162.0	2.2095	208.2	350.3	208.23				10.6	190.4	10.4	1.9
47.0	14027	38.6	0.03257	108.5	0.41	154.0	2.1875	205.1	350.1	205.14				11.0	178.9	11.0	-0.2
47.5	14184	38.4	0.03337	108.4	0.42	150.0	2.1761	204.3	351.3	204.28				11.1	166.6	10.8	-2.6
48.0	14346	38.1	0.03418	108.3	0.43	146.0	2.1644	203.4	352.4	203.39				11.8	155.0	10.7	-5.0
49.0	14639	42.4	0.03575	120.1	0.51	139.0	2.1430	204.1	358.6	204.06				10.5	128.8	6.6	-8.2
50.0	14901	36.2	0.03711	103.1	0.45	133.0	2.1239	202.5	360.3	202.49				11.8	121.2	6.1	-10.1
51.0	15173	44.6	0.03858	128.4	0.58	127.0	2.1038	200.4	361.3	200.37				13.4	131.3	8.9	-10.1
51.2	15265	42.2	0.03908	121.8	0.56	125.0	2.0969	200.1	362.5	200.13				12.8	136.6	9.3	-8.8
52.0	15553	35.0	0.04063	101.4	0.49	119.0	2.0755	199.4	366.3	199.38				11.6	156.1	10.6	-4.7
53.0	15852	40.1	0.04216	117.7	0.59	113.0	2.0531	196.5	366.4	196.52				9.5	171.5	9.4	-1.4
54.0	16111	45.2	0.04368	133.8	0.69	108.0	2.0334	195.1	368.5	195.13				8.8	142.8	7.0	-5.3
55.0	16383	42.6	0.04532	124.9	0.68	103.0	2.0128	196.8	376.7	196.79				9.2	127.7	5.6	-7.3
55.7	16554	42.6	0.04632	123.9	0.71	100.0	2.0000	198.7	383.6	198.67				8.6	121.5	4.5	-7.3
56.0	16642	42.7	0.04683	123.5	0.72	98.5	1.9934	199.6	387.1	199.63				8.3	118.0	3.9	-7.3
57.0	16853	48.6	0.04813	139.9	0.85	95.0	1.9777	200.4	392.6	200.37				9.1	102.8	2.0	-8.9
58.0	17104	49.0	0.04979	142.0	0.89	91.0	1.9590	199.4	395.5	199.38				11.4	85.4	-0.9	-11.3

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	17366	54.6	0.05162	158.5	1.04	87.0	1.9395	199.1	400.1	199.13				14.4	75.8	-3.5	-13.9
60.0	17571	58.8	0.05320	169.5	1.16	84.0	1.9243	200.4	406.6	200.37				16.9	87.6	-0.7	-16.9
61.0	17859	60.5	0.05549	172.2	1.25	80.0	1.9031	202.7	417.1	202.71				13.3	94.3	1.0	-13.3
62.0	18086	60.9	0.05732	172.4	1.31	77.0	1.8865	204.1	424.5	204.06				7.5	68.1	-2.8	-7.0
63.0	18322	61.1	0.05924	173.8	1.37	74.0	1.8692	202.9	427.0	202.94				9.7	68.6	-3.6	-9.1
64.0	18568	69.7	0.06137	197.1	1.63	71.0	1.8513	204.1	434.5	204.06				14.3	84.1	-1.5	-14.3
64.3	18652	70.4	0.06216	198.8	1.67	70.0	1.8451	204.3	436.9	204.34				15.4	84.7	-1.4	-15.3
65.0	18826	71.8	0.06378	202.2	1.75	68.0	1.8325	204.9	441.7	204.93				17.5	85.9	-1.3	-17.5
66.0	19051	79.2	0.06601	221.9	2.00	65.5	1.8162	206.2	449.3	206.19				20.4	90.2	0.1	-20.4
67.0	19286	83.7	0.06851	232.7	2.20	63.0	1.7993	207.8	457.9	207.83				21.5	97.3	2.7	-21.3
68.0	19584	87.3	0.07181	240.8	2.41	60.0	1.7782	209.4	467.8	209.40				19.0	100.8	3.6	-18.7
69.0	19844	84.4	0.07469	234.2	2.43	57.5	1.7597	208.0	470.4	208.03				17.8	100.4	3.2	-17.5
70.0	20114	86.6	0.07769	240.9	2.61	55.0	1.7404	207.6	475.5	207.63				18.3	99.6	3.0	-18.0
71.0	20338	92.7	0.08031	258.6	2.90	53.0	1.7243	207.0	479.2	207.02				21.4	103.6	5.0	-20.8
72.0	20572	102.7	0.08328	284.2	3.34	51.0	1.7076	208.6	488.2	208.62				23.1	103.5	5.4	-22.5
72.5	20692	105.6	0.08493	291.7	3.50	50.0	1.6990	209.0	491.9	209.01				22.5	99.3	3.6	-22.2
73.0	20816	108.6	0.08661	299.3	3.67	49.0	1.6902	209.4	495.7	209.40				22.0	94.8	1.9	-21.9
74.0	21071	111.7	0.09023	307.6	3.94	47.0	1.6721	209.6	502.1	209.59				24.7	94.4	1.9	-24.6
75.0	21337	117.6	0.09416	324.1	4.33	45.0	1.6532	209.4	507.9	209.40				25.6	93.5	1.5	-25.6
76.0	21574	120.8	0.09778	329.4	4.62	43.3	1.6365	211.7	519.1	211.66				23.1	87.7	-0.9	-23.1
77.0	21852	121.8	0.10208	330.5	4.87	41.4	1.6170	212.8	528.5	212.76				23.7	87.9	-0.8	-23.7
78.0	22066	123.5	0.10541	335.5	5.12	40.0	1.6021	212.6	533.2	212.57				26.6	89.1	-0.4	-26.6
79.0	22385	133.9	0.11062	364.4	5.84	38.0	1.5798	212.2	540.2	212.21				26.9	91.9	0.9	-26.9
80.0	22636	139.5	0.11496	377.4	6.33	36.5	1.5623	213.5	549.7	213.47				48.8	52.1	-30.0	-38.5
81.0	22898	141.0	0.11961	380.0	6.67	35.0	1.5441	214.2	558.1	214.18				29.0	84.8	-2.7	-28.9
82.0	23079	143.9	0.12286	387.2	7.01	34.0	1.5315	214.5	563.7	214.52				35.2	149.4	30.3	-17.9
83.0	23362	146.4	0.12803	393.7	7.46	32.5	1.5119	214.7	571.5	214.70				32.0	95.6	3.1	-31.8
84.0	23660	150.6	0.13357	402.0	8.05	31.0	1.4914	216.2	583.4	216.24				33.9	94.2	2.5	-33.9
84.7	23867	150.4	0.13746	400.1	8.31	30.0	1.4771	217.0	591.0	217.01				31.3	91.3	0.7	-31.3
85.0	23974	150.3	0.13945	399.1	8.44	29.5	1.4698	217.4	594.9	217.40				30.0	89.7	-0.2	-30.0
86.0	24194	161.8	0.14370	426.6	9.41	28.5	1.4548	219.0	605.3	219.03				27.1	86.6	-1.6	-27.0
87.0	24424	167.2	0.14834	436.5	10.07	27.5	1.4393	221.1	617.3	221.09				27.9	87.6	-1.1	-27.8
88.0	24664	168.8	0.15325	439.2	10.55	26.5	1.4232	221.9	626.0	221.87				30.5	88.2	-0.9	-30.5
89.0	24939	169.0	0.15890	438.4	11.03	25.4	1.4048	222.6	635.8	222.63				29.5	88.3	-0.9	-29.5
89.4	25042	172.6	0.16108	446.6	11.45	25.0	1.3979	223.1	640.2	223.12				27.1	89.2	-0.4	-27.1
90.0	25228	179.0	0.16497	461.3	12.20	24.3	1.3856	224.0	647.9	224.00				22.8	91.4	0.6	-22.8
91.0	25476	172.5	0.17021	442.8	12.21	23.4	1.3692	224.9	657.5	224.89				18.6	98.8	2.8	-18.4
92.0	25704	167.9	0.17488	431.8	12.31	22.6	1.3541	224.4	662.8	224.44				16.8	91.7	0.5	-16.8
93.0	25970	165.4	0.18022	426.1	12.63	21.7	1.3365	224.1	669.6	224.14				18.3	83.3	-2.1	-18.2
94.0	26247	160.4	0.18567	413.5	12.78	20.8	1.3181	224.0	677.3	224.00				23.8	82.8	-3.0	-23.6
94.9	26502	156.5	0.19056	406.6	12.97	20.0	1.3010	222.2	679.6	222.24				22.8	83.5	-2.6	-22.7
95.0	26535	156.0	0.19119	405.7	12.99	19.9	1.2989	222.0	679.9	222.02				22.7	83.5	-2.6	-22.6
96.0	26834	154.8	0.19687	405.4	13.50	19.0	1.2788	220.5	684.1	220.47				16.9	82.6	-2.2	-16.7
97.0	27006	156.0	0.20014	406.4	13.97	18.5	1.2672	221.6	692.8	221.56				12.4	84.0	-1.3	-12.3
98.0	27220	151.1	0.20413	391.0	13.98	17.9	1.2529	223.1	704.2	223.09				8.3	88.5	-0.2	-8.3
98.7	27367	152.5	0.20684	392.8	14.45	17.5	1.2430	224.2	712.2	224.18				18.2	95.8	1.9	-18.1
99.0	27443	153.3	0.20822	393.7	14.68	17.3	1.2380	224.7	716.3	224.74				23.3	97.2	2.9	-23.2
100.0	27675	151.0	0.21246	387.8	14.98	16.7	1.2227	224.7	723.6	224.74				5.9	71.4	-1.9	-5.6
101.0	27915	145.2	0.21674	374.8	14.95	16.1	1.2068	223.7	727.8	223.69				11.5	307.9	-7.1	9.1
102.0	28120	140.4	0.22029	364.8	14.91	15.6	1.1931	222.2	729.4	222.17				10.8	67.6	-4.1	-10.0
103.0	28374	137.3	0.22459	357.9	15.17	15.0	1.1761	221.6	735.5	221.56				10.6	84.7	-1.0	-10.6
104.0	28639	132.0	0.22893	343.1	15.19	14.4	1.1584	222.2	746.2	222.17				7.6	101.2	1.5	-7.4
105.0	28822	133.0	0.23187	343.7	15.74	14.0	1.1461	223.4	756.4	223.39				6.4	101.2	1.2	-6.3
106.0	29059	132.9	0.23569	343.9	16.31	13.5	1.1303	223.1	763.3	223.09				5.9	111.4	2.1	-5.5
107.0	29255	128.5	0.23879	332.3	16.25	13.1	1.1173	223.2	770.4	223.24				0.0	281.2	-0.0	0.0
108.0	29407	125.9	0.24111	323.0	16.30	12.8	1.1072	225.0	781.7	225.04				1.8	66.0	-0.7	-1.6
109.0	29563	120.7	0.24342	309.6	16.00	12.5	1.0969	225.0	787.0	225.04				8.7	101.2	1.7	-8.5
110.0	29831	122.1	0.24733	313.5	16.86	12.0	1.0792	224.9	795.7	224.89				12.4	101.2	2.4	-12.2
111.0	30054	117.4	0.25053	300.4	16.77	11.6	1.0645	225.6	806.1	225.63				11.5	106.6	3.3	-11.0
112.0	30286	119.4	0.25381	303.2	17.66	11.2	1.0492	227.4	820.6	227.37				7.4	126.9	4.5	-5.9
113.0	30406	115.7	0.25548	292.8	17.43	11.0	1.0414	228.1	827.4	228.09				7.3	118.5	3.5	-6.4
114.0	30653	113.7	0.25883	288.5	17.78	10.6	1.0253	227.7	834.6	227.66				4.5	115.4	1.9	-4.1
115.0	30779	109.2	0.26051	277.6	17.40	10.4	1.0170	227.1	837.1	227.09				2.7	258.3	0.6	2.7
116.0	30907	102.0	0.26213	260.3	16.58	10.2	1.0086	226.4	839.0	226.36				1.4	334.3	-1.2	0.6
116.7	31037	101.7	0.26372	259.6	16.86	10.0	1.0000	226.3	843.4	226.26				1.9	31.4	-1.6	-1.0
117.0	31104	101.5	0.26453	259.2	17.00	9.9	0.9956	226.2	845.7	226.21				2.6	44.4	-1.8	-1.8
118.0	31238	99.4	0.26614	254.7	16.98	9.7	0.9868	225.3	847.3	225.33				4.4	53.1	-2.6	-3.5
119.0	31375	97.4	0.26776	249.4	16.99	9.5	0.9777	225.5	852.9	225.48				8.3	69.7	-2.9	-7.8
120.0	31586	95.4	0.27020	244.9	17.18	9.2	0.9638	224.9	858.5	224.89				11.4	72.2	-3.5	-10.8
121.0	31730	94.5	0.27185	242.4	17.39	9.0	0.9542	225.0	864.5	225.04				14.9	74.3	-4.0	-14.4
122.0	31878	92.4	0.27351	235.0	17.40	8.8	0.9445	227.1	878.0	227.09				14.6	73.2	-4.2	-14.0
123.0	32030	91.2	0.27517	232.0	17.57	8.6	0.9345	226.9	883.2	226.94				14.2	76.7	-3.3	-13.8
124.0	32266	89.1	0.27770	226.6	17.80	8.3	0.9191	227.1	892.8	227.09				13.6	75.1	-3.5	-13.1
125.0	32427	87.3	0.27940	223.1	17.87	8.1	0.9085	226.1	895.0	226.07				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***


072577
2224
3A-L32
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
P
T
10 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

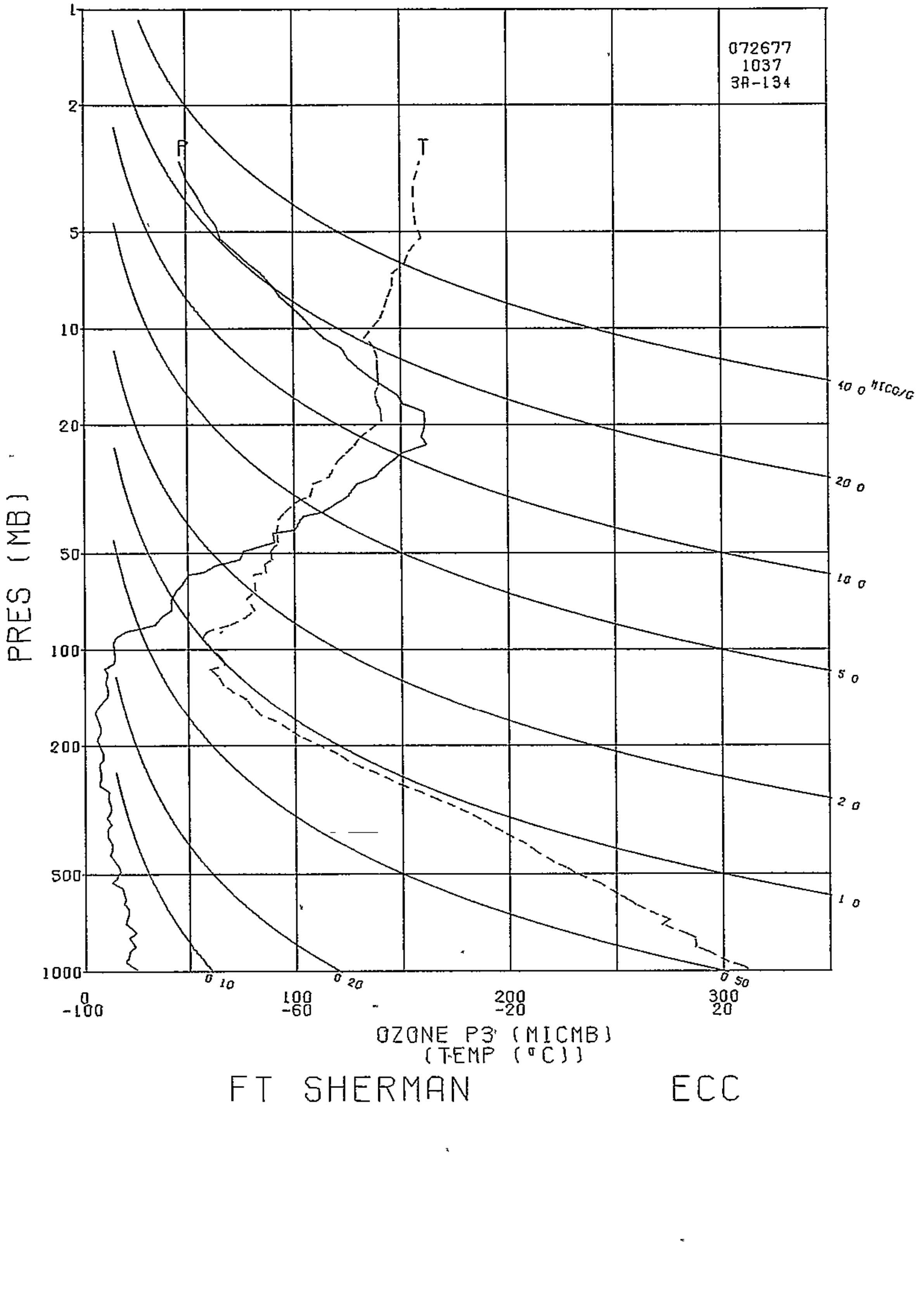
STATION FT SHERMAN   LAUNCH DATE 72677   LAUNCH TIME 1037 GMT   ECC SONDE 3A-134X

SURFACE CONDITIONS			
PRESS 1005.2 MB	003 = 33.5	TBOX CAL = 30.0 C	AT 73.6 ORD
TEMP 299.2 K	OIZ = 32.8	BASE CAL = 30.0 C	AT 72.9 ORD
HUMY 83.0 %	OZC = 67.0	HUMIDITY = 63.5 %	AT 46.0 ORD
	IO = 0.106		
	PS = 27.8		

	PROFILE	DOBSON
INTEGRATED OZONE	0.28012	
RESIDUAL OZONE	0.02359	
TOTAL OZONE	0.30372	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	24.2	0.	46.8	0.04	1005.2	3.0023	298.8	298.4	301.78	78.9	294.9	0.0162	2.0	30.0	-1.7	-1.0
0.2	98	24.2	0.00010	46.9	0.04	1000.0	3.0000	298.6	298.6	301.56	80.5	294.9	0.0165	2.7	22.3	-2.5	-1.0
1.0	268	24.4	0.00047	47.3	0.04	981.0	2.9917	297.7	299.3	300.73	86.1	295.2	0.0169	5.6	12.2	-5.5	-1.2
2.0	485	21.6	0.00092	42.1	0.04	957.0	2.9809	296.3	300.0	299.64	100.0	296.3	0.0186	7.1	11.9	-6.9	-1.5
3.0	716	19.3	0.00134	37.9	0.03	932.0	2.9694	293.9	299.8	296.53	91.0	292.3	0.0149	7.5	20.2	-7.1	-2.6
4.0	942	20.0	0.00175	39.3	0.04	908.0	2.9581	293.0	301.2	295.33	82.1	289.8	0.0131	7.7	23.1	-7.1	-3.0
4.3	1018	20.2	0.00189	39.8	0.04	900.0	2.9542	292.4	301.3	294.67	82.3	289.3	0.0125	7.4	22.3	-6.9	-2.8
5.0	1182	20.6	0.00219	40.9	0.04	883.0	2.9460	291.1	301.6	293.24	82.8	288.1	0.0120	6.9	20.3	-6.5	-2.4
6.0	1408	21.3	0.00263	42.5	0.04	860.0	2.9345	289.7	302.4	291.61	80.4	286.3	0.0110	5.9	15.1	-5.7	-1.6
6.4	1507	22.3	0.00284	44.5	0.04	850.0	2.9294	288.9	302.6	290.73	79.8	285.4	0.0102	5.9	15.0	-5.7	-1.5
7.0	1659	23.7	0.00316	47.5	0.05	835.0	2.9217	287.7	302.9	289.40	78.9	284.1	0.0098	5.9	14.9	-5.7	-1.5
8.0	1906	22.2	0.00368	44.5	0.05	811.0	2.9090	288.3	306.1	289.41	49.0	277.6	0.0065	7.6	25.9	-6.9	-3.3
8.4	2021	21.6	0.00391	43.3	0.04	800.0	2.9031	288.0	306.9	289.13	51.0	277.9	0.0068	7.8	30.6	-6.7	-4.0
9.0	2192	20.6	0.00426	41.4	0.04	784.0	2.8943	287.5	308.2	288.71	53.9	278.3	0.0070	8.2	37.1	-6.5	-4.9
10.0	2454	24.3	0.00481	49.1	0.05	760.0	2.8808	285.9	309.3	287.08	53.8	276.8	0.0065	5.5	57.5	-3.0	-4.6
11.0	2745	22.0	0.00544	44.8	0.05	734.0	2.8657	283.3	309.5	284.67	73.4	278.8	0.0077	3.8	81.5	-0.6	-3.7
12.0	2997	19.7	0.00594	40.3	0.05	712.0	2.8525	281.5	310.2	282.82	78.7	278.0	0.0076	5.1	84.2	-0.5	-5.1
12.5	3137	19.6	0.00620	40.1	0.05	700.0	2.8451	282.1	312.4	283.24	66.0	275.8	0.0061	5.8	83.7	-0.6	-5.7
13.0	3305	19.5	0.00652	39.9	0.05	686.0	2.8363	282.8	314.9	283.73	50.9	273.1	0.0055	6.5	83.3	-0.8	-6.5
14.0	3599	20.2	0.00708	41.6	0.05	662.0	2.8209	280.5	315.5	281.37	55.8	272.2	0.0054	7.6	83.6	-0.8	-7.5
15.0	3927	20.2	0.00771	42.0	0.05	636.0	2.8035	278.0	316.4	279.10	73.7	273.7	0.0062	8.7	90.5	0.1	-8.7
16.0	4200	18.5	0.00823	38.7	0.05	615.0	2.7889	276.4	317.5	277.31	72.9	272.0	0.0057	8.2	91.4	0.2	-8.2
16.7	4399	18.9	0.00859	39.5	0.05	600.0	2.7782	275.3	318.6	276.29	75.6	271.5	0.0056	7.7	90.4	0.1	-7.7
17.0	4495	19.0	0.00877	39.9	0.05	593.0	2.7731	274.9	319.1	275.81	76.9	271.3	0.0056	7.4	89.8	-0.0	-7.4
18.0	4813	18.0	0.00935	38.0	0.05	570.0	2.7559	272.9	320.5	273.90	87.8	271.2	0.0058	7.1	95.8	0.7	-7.0
19.0	5128	17.4	0.00989	36.9	0.05	548.0	2.7388	272.0	323.0	272.75	71.8	267.6	0.0046	7.1	98.1	1.0	-7.0
20.0	5423	12.9	0.01034	27.5	0.04	528.0	2.7226	269.7	323.6	270.41	82.0	267.0	0.0046	6.7	98.5	1.0	-6.6
21.0	5727	15.4	0.01077	33.3	0.05	508.0	2.7059	267.1	324.1	267.83	96.6	266.6	0.0046	7.7	133.2	5.3	-5.6
21.4	5850	15.9	0.01097	34.5	0.05	500.0	2.6990	266.2	324.5	266.86	95.7	265.6	0.0042	7.5	138.8	5.7	-5.0
22.0	6024	16.7	0.01125	36.3	0.06	489.0	2.6893	264.9	324.9	265.50	94.4	264.1	0.0039	7.4	147.1	6.2	-4.0
23.0	6314	15.8	0.01173	34.7	0.06	471.0	2.6730	263.3	326.5	263.81	88.4	261.7	0.0034	4.5	132.6	3.1	-3.3
24.0	6596	14.0	0.01216	30.9	0.05	454.0	2.6571	261.0	327.0	261.50	97.9	260.7	0.0032	5.6	131.4	3.7	-4.2
25.0	6922	12.0	0.01260	26.7	0.05	435.0	2.6385	260.1	330.0	260.63	94.9	259.5	0.0030	5.9	144.5	4.8	-3.4
26.0	7134	12.6	0.01287	28.3	0.05	423.0	2.6263	257.9	329.8	258.32	94.9	257.3	0.0026	7.1	138.5	5.3	-4.7
26.9	7555	12.6	0.01343	28.4	0.05	400.0	2.6021	256.0	332.6	256.38	93.5	255.2	0.0023	8.5	135.0	6.0	-6.0
27.0	7593	12.6	0.01348	28.4	0.05	398.0	2.5999	255.9	332.9	256.21	93.3	255.0	0.0023	8.7	134.7	6.1	-6.2
28.0	7938	10.7	0.01390	24.3	0.05	380.0	2.5798	253.5	334.3	253.84	92.4	252.6	0.0019	8.5	147.0	7.2	-4.6
29.0	8256	10.4	0.01426	24.0	0.05	364.0	2.5611	251.4	335.5	251.65	94.6	250.7	0.0017	8.5	149.7	7.4	-4.3
29.9	8543	12.2	0.01462	28.3	0.06	350.0	2.5441	249.4	336.6	249.59	79.6	246.9	0.0012	9.5	151.3	8.3	-4.6
30.0	8564	12.4	0.01464	28.7	0.06	349.0	2.5428	249.3	336.7	249.44	78.5	246.6	0.0012	9.6	151.4	8.4	-4.6
31.0	8905	10.4	0.01506	24.4	0.05	333.0	2.5224	247.3	338.5	247.41	72.0	243.7	0.0010	8.5	154.6	7.7	-3.7
32.0	9237	12.3	0.01548	29.1	0.06	318.0	2.5024	244.9	339.7	245.00	71.6	241.4	0.0008	5.9	156.4	5.4	-2.4
33.0	9535	12.2	0.01588	29.1	0.07	305.0	2.4843	242.5	340.4	242.59	73.6	239.3	0.0007	6.4	151.9	5.7	-3.0
33.3	9651	11.8	0.01603	28.2	0.07	300.0	2.4771	241.4	340.6	241.53	69.0	237.6	0.0006	6.9	150.6	6.0	-3.4
34.0	9890	11.0	0.01634	26.4	0.06	290.0	2.4624	239.3	340.8	239.35	59.6	234.2	0.0004	7.9	148.5	6.7	-4.1
35.0	10234	11.4	0.01676	27.8	0.07	276.0	2.4409	236.3	341.4	236.38	58.5	231.2	0.0003	9.0	154.5	8.1	-3.9
36.0	10513	7.5	0.01708	18.6	0.05	265.0	2.4232	233.5	341.2	233.50	53.2	227.6	0.0002	9.9	156.5	9.1	-3.9
37.0	10828	7.5	0.01736	18.8	0.05	253.0	2.4031	230.7	341.6	230.69				9.7	147.2	8.2	-5.3
37.2	10908	7.5	0.01743	18.8	0.05	250.0	2.3979	230.0	341.8	230.04				9.7	146.0	8.1	-5.4
38.0	11182	7.5	0.01767	19.0	0.05	240.0	2.3802	227.8	342.5	227.84				9.8	141.8	7.7	-6.0
39.0	11464	6.8	0.01791	17.5	0.05	230.0	2.3617	224.9	342.3	224.91				10.2	137.2	7.5	-7.0
40.0	11784	8.6	0.01821	22.4	0.07	219.0	2.3404	222.3	343.1	222.33				10.9	134.1	7.6	-7.8
41.0	12087	8.6	0.01853	22.5	0.07	209.0	2.3201	220.5	344.8	220.45				9.2	135.4	6.6	-6.5
42.0	12369	7.2	0.01880	19.1	0.06	200.0	2.3010	218.0	345.3	218.03				7.0	134.5	4.9	-5.0
43.0	12661	5.9	0.01904	15.9	0.05	191.0	2.2810	215.5	345.8	215.51				6.5	132.6	4.4	-4.8
44.0	12895	7.0	0.01923	18.9	0.06	184.0	2.2648	213.4	346.1	213.40				6.9	125.8	4.0	-5.6
45.0	13206	7.6	0.01952	20.7	0.07	175.0	2.2430	211.4	347.8	211.39				10.5	119.8	5.2	-9.2
46.0	13568	6.3	0.01984	17.4	0.06	165.0	2.2175	208.9	349.6	208.90				8.7	131.9	5.8	-6.5
47.0	13831	5.0	0.02003	14.1	0.05	158.0	2.1987	206.0	349.1	206.05				8.4	157.4	7.7	-3.2
47.9	14142	6.6	0.02026	18.7	0.07	150.0	2.1761	204.7	352.0	204.71				9.0	169.4	8.9	-1.7
48.0	14183	6.8	0.02031	19.3	0.08	149.0	2.1732	204.5	352.4	204.54				9.2	170.9	9.0	-1.5
49.0	14512	10.4	0.02066	29.6	0.12	141.0	2.1492	203.4	356.0	203.43				6.1	205.4	5.5	2.6
50.0	14813	11.7	0.02113	33.5	0.14	134.0	2.1271	201.1	357.1	201.11				3.0	197.9	2.8	0.9
51.0	15127	10.4	0.02160	30.2	0.14	127.0	2.1038	199.1	359.1	199.13				4.2	131.4	2.8	-3.1
51.2	15219	10.7	0.02173	31.1	0.14	125.0	2.0969	198.9	360.3	198.88				3.5	130.2	2.3	-2.7
52.0	15505	11.5	0.02216	33.7	0.16	119.0	2.0755	198.1	363.9	198.10				1.5	119.0	0.7	-1.3
53.0	15753	9.7	0.02252	28.5	0.14	114.0	2.0569	196.8	365.9	196.77				5.4	103.5	1.3	-5.2
54.0	15960	14.1	0.02286	40.8	0.21	110.0	2.0414	199.6	375.1	199.64				11.2	95.7	1.1	-11.2
55.0	16231	15.2	0.02339	44.2	0.24	105.0	2.0212	198.9	378.7	198.88				10.8	73.8	-3.0	-10.4
55.8	16513	14.7	0.02397	43.1	0.24	100.0	2.0000	197.4	381.0	197.35				10.9	73.4	-3.1	-10.4
56.0	16572	14.6	0.02409	42.9	0.25	99.0	1.9956	197.0	381.5	197.04				10.9	73.3	-3.1	-10.4
57.0	16749	14.1	0.02444	41.3	0.24	96.0	1.9823	196.5	383.8	196.50				12.1	84.2	-1.2	-12.0
58.0	17055	15.8	0.02507	46.6	0.29	91.0	1.9590	195.4	387.5	195.38				13.0	95.3	1.2	-13.0

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	17312	20.9	0.02572	61.6	0.40	87.0	1.9395	196.2	394.2	196.22				10.7	95.8	1.1	-10.6
60.0	17585	34.5	0.02674	99.1	0.69	83.0	1.9191	200.9	409.0	200.87				11.8	87.1	-0.6	-11.8
60.7	17802	36.5	0.02779	103.9	0.76	80.0	1.9031	202.9	417.6	202.95				14.9	83.4	-1.7	-14.8
61.0	17877	37.2	0.02814	105.6	0.78	79.0	1.8976	203.7	420.6	203.66				15.9	82.5	-2.1	-15.8
62.0	18188	42.1	0.02977	118.2	0.93	75.0	1.8751	205.4	430.6	205.41				17.6	91.4	0.4	-17.6
63.0	18433	42.4	0.03113	118.9	0.98	72.0	1.8573	205.8	436.5	205.84				32.2	108.9	10.5	-30.5
63.7	18601	42.4	0.03207	119.6	1.00	70.0	1.8451	204.5	437.3	204.54				22.7	112.1	8.6	-21.1
64.0	18688	42.4	0.03255	120.0	1.02	69.0	1.8388	203.9	437.7	203.88				17.9	115.1	7.6	-16.2
65.0	19046	44.9	0.03461	126.0	1.14	65.0	1.8129	205.6	449.0	205.62				0.1	109.5	0.0	-0.1
66.0	19234	46.8	0.03574	131.8	1.23	63.0	1.7993	205.2	452.1	205.19				14.9	94.8	1.2	-14.8
66.6	19526	48.9	0.03761	137.7	1.35	60.0	1.7782	205.2	458.5	205.19				14.9	90.6	0.2	-14.9
67.0	19730	50.4	0.03891	141.8	1.44	58.0	1.7634	205.2	462.9	205.19				14.9	87.7	-0.6	-14.9
68.0	19835	57.7	0.03965	160.3	1.68	57.0	1.7559	207.7	470.9	207.70				16.4	72.0	-5.1	-15.6
69.0	20163	64.0	0.04225	178.4	1.97	54.0	1.7324	207.3	477.3	207.29				20.2	79.1	-3.8	-19.8
70.0	20393	74.3	0.04431	205.5	2.37	52.0	1.7160	208.9	486.2	208.90				23.4	87.4	-1.1	-23.4
70.7	20632	75.5	0.04664	208.9	2.50	50.0	1.6990	208.8	491.4	208.77				27.5	87.8	-1.0	-27.5
71.0	20756	76.1	0.04784	210.6	2.57	49.0	1.6902	208.7	494.0	208.70				29.6	88.0	-1.0	-29.6
72.0	21143	90.2	0.05199	248.0	3.25	46.0	1.6628	210.1	506.3	210.07				32.6	91.3	0.7	-32.6
73.0	21557	89.4	0.05677	246.0	3.45	43.0	1.6335	209.9	515.7	209.87				30.2	88.7	-0.7	-30.2
74.0	21701	100.3	0.05853	275.7	3.96	42.0	1.6232	210.1	519.7	210.07				41.8	88.9	-0.8	-41.8
74.7	22001	102.1	0.06244	280.5	4.23	40.0	1.6021	210.2	527.3	210.19				34.9	84.1	-3.6	-34.7
75.0	22157	103.1	0.06447	283.0	4.38	39.0	1.5911	210.3	531.3	210.26				31.5	80.8	-5.0	-31.1
76.0	22317	104.5	0.06660	286.8	4.56	38.0	1.5798	210.4	535.7	210.45				19.9	64.2	-8.7	-17.9
77.0	22481	112.9	0.06889	308.4	5.06	37.0	1.5682	211.4	542.2	211.39				35.2	80.3	-5.9	-34.7
77.7	22826	119.0	0.07404	322.4	5.65	35.0	1.5441	213.1	555.3	213.06				36.2	82.5	-4.7	-35.9
78.0	23007	122.2	0.07673	329.7	5.95	34.0	1.5315	213.9	562.2	213.94				36.7	83.6	-4.1	-36.5
79.0	23195	125.0	0.07964	333.8	6.28	33.0	1.5185	216.2	573.0	216.19				37.2	87.7	-1.5	-37.2
80.0	23757	129.5	0.08854	344.8	7.11	30.2	1.4800	216.9	589.5	216.87				34.9	91.9	1.2	-34.9
80.1	23799	130.7	0.08924	347.2	7.22	30.0	1.4771	217.3	591.7	217.26				34.4	92.5	1.5	-34.4
81.0	24060	137.8	0.09355	362.1	7.93	28.8	1.4594	219.7	605.2	219.66				31.2	96.1	3.3	-31.0
82.0	24404	140.9	0.09943	370.0	8.55	27.3	1.4362	219.8	615.0	219.82				30.7	101.8	6.3	-30.0
83.0	24819	146.2	0.10671	381.3	9.46	25.6	1.4082	221.4	630.9	221.40				24.1	110.8	8.5	-22.5
83.4	24972	148.0	0.10949	384.9	9.82	25.0	1.3979	222.0	637.1	222.05				23.7	113.0	9.3	-21.8
84.0	25184	150.5	0.11329	389.8	10.31	24.2	1.3838	222.9	645.6	222.94				23.1	116.2	10.2	-20.8
85.0	25545	161.4	0.12009	415.1	11.68	22.9	1.3598	224.5	660.3	224.46				20.6	119.3	10.1	-18.0
86.0	25899	159.1	0.12690	407.4	12.15	21.7	1.3365	225.5	673.7	225.50				13.8	135.9	9.9	-9.6
87.0	26276	160.8	0.13408	408.0	13.00	20.5	1.3118	227.5	690.9	227.55				9.2	132.4	6.2	-6.8
87.4	26440	160.9	0.13721	406.9	13.34	20.0	1.3010	228.4	698.4	228.37				8.7	116.9	3.9	-7.8
88.0	26679	161.1	0.14174	405.3	13.83	19.3	1.2856	229.6	709.1	229.56				9.2	94.3	0.7	-9.2
89.0	27110	160.7	0.14989	404.4	14.71	18.1	1.2577	229.4	721.8	229.41				7.4	99.6	1.2	-7.3
89.5	27335	155.0	0.15402	390.9	14.67	17.5	1.2430	229.0	727.4	228.95				2.0	143.4	1.6	-1.2
90.0	27530	150.1	0.15758	379.3	14.63	17.0	1.2304	228.6	732.1	228.56				4.5	245.1	1.9	4.1
91.0	27935	146.9	0.16468	371.9	15.22	16.0	1.2041	228.1	743.5	228.13				11.1	266.5	0.7	11.1
92.0	28367	140.5	0.17200	354.3	15.52	15.0	1.1761	229.0	760.2	228.99				7.1	286.5	-2.0	6.8
93.0	28781	134.4	0.17871	339.0	15.79	14.1	1.1492	228.8	773.3	228.84				5.1	335.0	-4.6	2.1
94.0	29222	128.8	0.18556	325.4	16.17	13.2	1.1206	228.6	787.0	228.56				4.2	7.2	-4.1	-0.5
94.8	29586	124.9	0.19099	315.6	16.56	12.5	1.0969	228.6	799.4	228.56				2.7	43.6	-2.0	-1.9
95.0	29694	123.8	0.19260	312.8	16.68	12.3	1.0899	228.6	803.0	228.56				2.6	59.8	-1.3	-2.3
96.0	30202	121.0	0.19994	306.3	17.58	11.4	1.0569	228.0	818.6	227.98				3.8	112.1	1.4	-3.5
97.0	30685	112.7	0.20665	287.6	17.61	10.6	1.0253	226.2	829.4	226.24				7.4	92.6	0.3	-7.4
97.7	31071	108.4	0.21169	275.1	17.96	10.0	1.0000	227.5	848.2	227.53				10.4	80.2	-1.8	-10.3
98.0	31206	106.9	0.21344	270.7	18.07	9.8	0.9912	228.0	854.7	227.98				11.5	77.4	-2.5	-11.3
99.0	31629	103.4	0.21869	260.2	18.62	9.2	0.9638	229.4	875.8	229.41				14.7	85.3	-1.2	-14.6
100.0	32161	97.7	0.22496	244.9	19.04	8.5	0.9294	230.3	899.1	230.26				17.2	89.9	-0.0	-17.2
100.8	32570	93.2	0.22951	233.3	19.30	8.0	0.9031	230.7	916.7	230.73				18.1	92.5	0.8	-18.0
101.0	32655	92.3	0.23045	230.9	19.36	7.9	0.8976	230.8	920.4	230.83				18.2	93.0	1.0	-18.2
102.0	33189	88.4	0.23608	220.2	20.05	7.3	0.8633	231.7	944.8	231.67				18.9	98.5	2.8	-18.7
102.5	33473	86.0	0.23892	214.3	20.35	7.0	0.8451	231.7	956.3	231.67				18.2	98.5	2.7	-18.0
103.0	33770	83.5	0.24189	208.2	20.66	6.7	0.8261	231.7	968.2	231.67				17.5	98.5	2.6	-17.3
104.0	34298	77.0	0.24681	189.9	20.57	6.2	0.7924	234.0	1000.0	234.02				17.4	85.9	-1.2	-17.4
104.4	34523	74.6	0.24872	183.8	20.58	6.0	0.7782	234.3	1010.9	234.34				18.2	81.4	-2.7	-18.0
105.0	34875	70.9	0.25171	174.2	20.60	5.7	0.7559	234.8	1027.9	234.84				19.5	75.2	-5.0	-18.9
106.0	35509	63.9	0.25659	155.6	20.35	5.2	0.7160	237.0	1065.0	237.01				22.0	77.0	-4.9	-21.4
106.4	35780	63.0	0.25853	153.8	20.90	5.0	0.6990	236.6	1075.1	236.59				22.4	79.3	-4.2	-22.0
107.0	36209	61.7	0.26160	151.1	21.77	4.7	0.6721	235.9	1091.2	235.92				23.1	82.6	-3.0	-22.9
108.0	36823	57.0	0.26577	139.8	21.97	4.3	0.6335	235.5	1117.3	235.52				26.4	90.6	0.3	-26.4
108.6	37321	54.5	0.26890	133.6	22.56	4.0	0.6021	235.4	1140.4	235.44				27.7	92.0	0.9	-27.6
109.0	37675	52.7	0.27112	129.3	22.98	3.8	0.5798	235.4	1156.8	235.38				28.5	92.9	1.4	-28.5
109.7	38242	49.3	0.27439	120.6	23.30	3.5	0.5441	235.8	1186.5	235.78				28.6	93.5	1.8	-28.6
110.0	38442	48.0	0.27554	117.6	23.41	3.4	0.5315	235.9	1196.9	235.92				28.6	93.8	1.9	-28.6
111.0	39308	44.8	0.28012	109.3	24.77	3.0	0.4771	236.9	1245.5	236.87				999.9	999.9	999.9	999.9


072677
1037
3A-134
P
T
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
40 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72677   LAUNCH TIME 1613 GMT   ECC SONDE 3A-135X

SURFACE CONDITIONS
PRESS 1007.1 MB
TEMP 298.0 K
HUMY 89.0 %

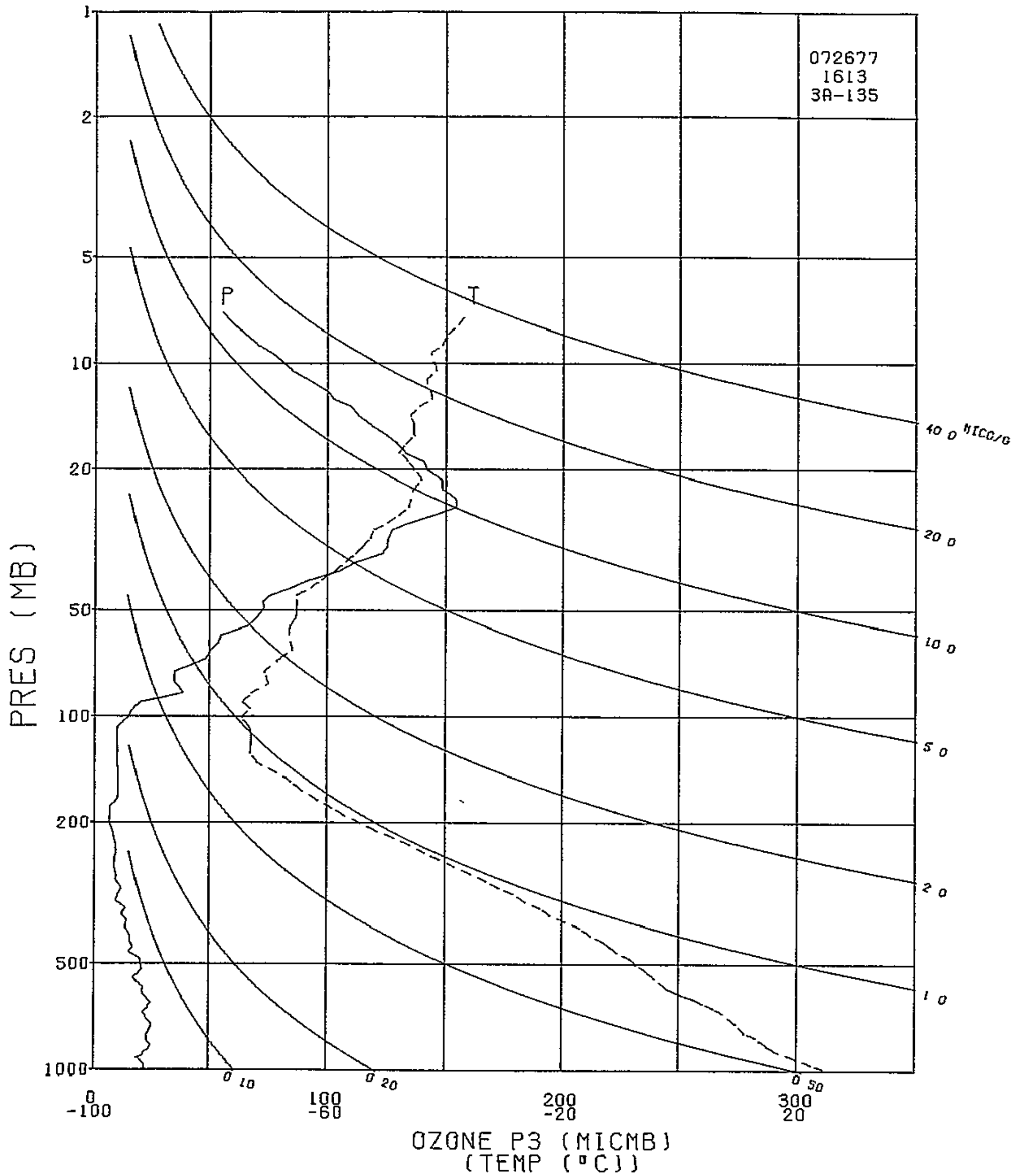
003 = 32.6
OIZ = 32.3
OZC = 59.9
IO = 0.057
PS = 29.2

TBOX CAL = 30.0 C AT 74.3 ORD
BASE CAL = 30.0 C AT 73.6 ORD
HUMIDITY = 62.2 % AT 46.0 ORD

	PROFILE	DOBSON
INTEGRATED OZONE	0.21590	
RESIDUAL OZONE	0.03664	
TOTAL OZONE	0.25254	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	20.5	0.	39.7	0.03	1007.1	3.0031	298.2	297.6	301.32	85.2	295.6	0.0169	2.0	35.0	-1.6	-1.1
0.3	115	20.7	0.00012	40.0	0.03	1000.0	3.0000	298.1	298.1	301.11	85.1	295.4	0.0167	2.8	11.7	-2.7	-0.6
1.0	284	21.1	0.00043	41.0	0.04	981.0	2.9917	297.5	299.2	300.54	85.0	294.8	0.0166	5.7	349.5	-5.6	1.0
2.0	510	21.2	0.00086	41.4	0.04	956.0	2.9805	295.5	299.3	298.36	91.4	294.0	0.0161	6.9	350.9	-6.8	1.1
3.0	881	18.5	0.00153	36.6	0.03	916.0	2.9619	292.6	300.0	295.25	96.9	292.1	0.0149	5.7	352.9	-5.7	0.7
3.9	1032	21.0	0.00181	41.6	0.04	900.0	2.9542	291.6	300.5	294.13	97.6	291.2	0.0143	4.3	357.2	-4.3	0.2
4.0	1042	21.2	0.00183	41.9	0.04	899.0	2.9538	291.5	300.5	294.06	97.7	291.1	0.0143	4.2	357.6	-4.2	0.2
5.0	1303	23.0	0.00236	46.0	0.04	872.0	2.9405	289.0	300.5	291.21	96.6	288.5	0.0125	4.7	358.5	-4.7	0.1
5.9	1519	24.1	0.00283	48.3	0.05	850.0	2.9294	287.9	301.6	290.12	99.6	287.9	0.0123	4.3	359.2	-4.3	0.1
6.0	1550	24.2	0.00290	48.6	0.05	847.0	2.9279	287.8	301.8	289.97	100.0	287.8	0.0123	4.2	359.3	-4.2	0.1
7.0	1803	22.6	0.00345	45.5	0.05	822.0	2.9149	286.6	303.1	288.67	100.0	286.6	0.0117	3.7	5.0	-3.6	-0.3
8.0	2021	22.6	0.00391	45.7	0.05	801.0	2.9036	285.8	304.5	287.84	100.0	285.8	0.0114	3.3	19.2	-3.1	-1.1
8.0	2031	22.6	0.00394	45.8	0.05	800.0	2.9031	285.8	304.6	287.74	99.6	285.7	0.0113	3.3	19.7	-3.1	-1.1
9.0	2276	23.3	0.00447	47.3	0.05	777.0	2.8904	283.9	305.2	285.58	91.4	282.6	0.0095	2.9	31.9	-2.5	-1.5
10.0	2571	24.6	0.00513	50.0	0.05	750.0	2.8751	284.1	308.5	285.29	62.2	277.2	0.0068	3.4	36.1	-2.7	-2.0
11.0	2773	24.1	0.00560	49.3	0.05	732.0	2.8645	282.4	308.8	283.71	73.6	278.0	0.0073	3.0	100.5	0.5	-3.0
12.0	3026	22.6	0.00616	46.2	0.05	710.0	2.8513	282.1	311.1	283.16	62.7	275.4	0.0063	8.2	116.0	3.6	-7.3
12.4	3143	22.0	0.00641	45.0	0.05	700.0	2.8451	281.4	311.6	282.45	62.9	274.7	0.0060	9.0	113.6	3.6	-8.3
13.0	3334	21.0	0.00680	43.2	0.05	684.0	2.8351	280.3	312.4	281.28	63.2	273.8	0.0058	10.4	110.5	3.6	-9.7
14.0	3614	22.9	0.00739	47.4	0.06	661.0	2.8202	278.7	313.7	279.61	63.0	272.2	0.0054	10.4	99.0	1.6	-10.2
15.0	3864	24.3	0.00797	50.6	0.06	641.0	2.8069	276.8	314.3	277.74	70.6	272.0	0.0054	12.9	76.1	-3.1	-12.5
16.0	4108	22.4	0.00852	47.0	0.06	622.0	2.7936	275.3	315.3	276.20	74.8	271.3	0.0053	15.0	64.5	-6.4	-13.5
17.0	4291	21.2	0.00891	44.8	0.06	608.0	2.7839	273.5	315.3	274.33	76.6	269.9	0.0049	13.1	63.0	-5.9	-11.6
17.6	4397	20.7	0.00913	43.8	0.06	600.0	2.7782	272.6	315.5	273.54	91.0	271.2	0.0058	11.2	64.8	-4.8	-10.1
18.0	4464	20.3	0.00927	43.1	0.06	595.0	2.7745	272.1	315.6	273.04	100.0	272.1	0.0059	10.0	66.2	-4.0	-9.1
19.0	4653	21.0	0.00966	44.8	0.06	581.0	2.7642	270.6	316.1	271.27	70.0	265.9	0.0038	9.1	68.1	-3.4	-8.5
20.0	4917	18.9	0.01018	40.4	0.06	562.0	2.7497	270.5	318.9	271.14	71.6	266.1	0.0040	7.9	75.3	-2.0	-7.6
21.0	5174	16.9	0.01064	36.3	0.05	544.0	2.7356	268.6	319.7	269.29	80.8	265.8	0.0040	8.5	71.8	-2.7	-8.1
22.0	5513	20.1	0.01127	43.5	0.06	521.0	2.7168	267.3	322.0	267.78	66.5	262.0	0.0031	9.4	71.4	-3.0	-8.9
22.9	5834	19.7	0.01191	42.8	0.07	500.0	2.6990	265.7	323.9	266.15	62.3	259.8	0.0027	8.7	74.6	-2.3	-8.4
23.0	5881	19.6	0.01201	42.7	0.07	497.0	2.6964	265.5	324.2	265.91	61.7	259.4	0.0026	8.6	75.1	-2.2	-8.3
24.0	6167	19.2	0.01257	42.0	0.07	479.0	2.6803	264.4	326.3	264.86	61.6	258.4	0.0025	7.7	74.2	-2.1	-7.4
25.0	6462	15.3	0.01310	33.7	0.05	461.0	2.6637	262.1	327.0	262.58	78.3	259.1	0.0028	7.4	80.9	-1.2	-7.3
26.0	6750	16.6	0.01357	36.7	0.06	444.0	2.6474	261.0	329.1	261.39	74.3	257.4	0.0025	6.4	86.9	-0.3	-6.4
27.0	6994	15.2	0.01397	33.8	0.06	430.0	2.6335	259.7	330.6	260.04	62.3	254.1	0.0019	5.6	90.1	0.0	-5.6
28.0	7318	15.3	0.01449	34.2	0.06	412.0	2.6149	257.5	331.7	257.80	69.5	253.2	0.0019	6.1	95.9	0.6	-6.0
28.6	7540	14.0	0.01482	31.6	0.06	400.0	2.6021	256.5	333.2	256.75	70.8	252.4	0.0018	6.1	97.9	0.8	-6.1
29.0	7673	13.3	0.01502	30.0	0.06	393.0	2.5944	255.9	334.1	256.13	71.6	252.0	0.0018	6.1	99.1	1.0	-6.1
30.0	7983	14.3	0.01547	32.6	0.06	377.0	2.5763	253.3	334.7	253.51	72.5	249.6	0.0015	5.2	106.9	1.5	-4.9
31.0	8282	11.7	0.01589	27.1	0.05	362.0	2.5587	250.6	335.0	250.79	72.1	247.0	0.0012	4.5	114.0	1.8	-4.1
31.7	8528	13.2	0.01622	30.5	0.06	350.0	2.5441	249.4	336.7	249.58	69.0	245.4	0.0011	4.1	116.6	1.8	-3.7
32.0	8612	13.6	0.01634	31.6	0.07	346.0	2.5391	249.0	337.2	249.17	68.0	244.8	0.0011	4.0	117.6	1.8	-3.5
33.0	8933	9.5	0.01675	22.3	0.05	331.0	2.5198	246.2	337.7	246.39	81.9	244.1	0.0010	4.1	107.9	1.3	-3.9
34.0	9289	10.9	0.01714	25.7	0.06	315.0	2.4983	244.3	339.8	244.36	58.2	238.7	0.0006	4.6	92.9	0.2	-4.6
35.0	9565	11.5	0.01749	27.5	0.06	303.0	2.4814	241.9	340.2	241.97	56.4	236.1	0.0005	13.1	143.8	10.6	-7.7
35.2	9635	11.1	0.01757	26.5	0.06	300.0	2.4771	241.4	340.5	241.46	53.6	235.1	0.0004	11.2	140.3	8.7	-7.2
36.0	9874	9.6	0.01785	23.0	0.05	290.0	2.4624	239.7	341.3	239.71	44.2	231.7	0.0003	5.8	112.4	2.2	-5.3
37.0	10219	9.2	0.01822	22.3	0.05	276.0	2.4409	236.9	342.2	236.91	43.6	229.0	0.0003	7.2	17.3	-6.9	-2.2
38.0	10525	8.4	0.01853	20.8	0.05	264.0	2.4216	234.3	342.8	234.35	29.5	223.2	0.0001	5.3	131.2	3.5	-4.0
39.0	10842	8.5	0.01884	21.1	0.06	252.0	2.4014	231.7	343.6	231.75				6.4	147.9	5.5	-3.4
39.2	10895	8.6	0.01889	21.4	0.06	250.0	2.3979	231.3	343.8	231.33				6.7	147.0	5.6	-3.7
40.0	11143	9.1	0.01915	22.9	0.06	241.0	2.3820	229.4	344.5	229.40				8.0	143.4	6.4	-4.8
41.0	11513	9.0	0.01954	22.9	0.07	228.0	2.3579	226.7	345.9	226.71				7.7	145.4	6.3	-4.4
42.0	11809	8.3	0.01985	21.3	0.06	218.0	2.3385	224.0	346.1	223.95				7.5	165.5	7.3	-1.9
43.0	12114	7.6	0.02014	19.9	0.06	208.0	2.3181	220.9	346.0	220.94				8.6	165.7	8.3	-2.1
43.8	12365	6.5	0.02035	17.2	0.05	200.0	2.3010	218.8	346.6	218.82				11.0	161.4	10.4	-3.5
44.0	12430	6.2	0.02041	16.5	0.05	198.0	2.2967	218.3	346.7	218.28				11.7	160.6	11.0	-3.9
45.0	12759	6.5	0.02067	17.4	0.06	188.0	2.2742	215.5	347.4	215.50				15.3	168.0	15.0	-3.2
46.0	13032	6.5	0.02089	17.5	0.06	180.0	2.2553	213.6	348.7	213.62				15.6	170.9	15.4	-2.5
47.0	13387	9.7	0.02126	26.6	0.09	170.0	2.2304	210.9	350.0	210.95				15.7	167.3	15.3	-3.5
48.0	13759	10.3	0.02174	28.6	0.11	160.0	2.2041	208.3	351.6	208.31				13.2	146.5	11.0	-7.3
49.0	14110	10.4	0.02221	29.0	0.11	151.0	2.1790	206.5	354.5	206.53				11.4	116.7	5.1	-10.2
49.1	14149	10.4	0.02226	29.0	0.11	150.0	2.1761	206.3	354.6	206.25				11.2	117.0	5.1	-10.0
50.0	14437	10.3	0.02265	29.2	0.12	143.0	2.1553	204.2	356.0	204.25				10.2	120.1	5.1	-8.8
51.0	14822	9.7	0.02317	27.8	0.12	134.0	2.1271	200.9	356.8	200.90				6.4	125.9	3.7	-5.2
52.0	15183	10.4	0.02365	30.0	0.14	126.0	2.1004	199.7	360.9	199.71				0.9	153.5	0.8	-0.4
52.1	15229	10.3	0.02372	29.7	0.14	125.0	2.0969	199.7	361.8	199.74				0.9	132.8	0.6	-0.6
53.0	15517	9.6	0.02410	27.8	0.13	119.0	2.0755	200.0	367.3	199.95				2.2	71.1	-0.7	-2.1
54.0	15872	9.8	0.02457	28.4	0.15	112.0	2.0492	200.0	373.7	199.95				6.4	94.4	0.5	-6.3
55.0	16194	10.5	0.02501	30.3	0.16	106.0	2.0253	199.5	378.8	199.47				7.7	104.6	1.9	-7.5
56.0	16533	14.8	0.02559	43.0	0.24	100.0	2.0000	198.2	382.7	198.23				8.0	106.5	2.3	-7.7
57.0	16893	17.3	0.02637	49.9	0.30	94.0	1.9731	199.7	392.5	199.71				7.9	104.7	2.0	-7.6
58.0	17146	20.3	0.02702	59.2	0.37	90.0	1.9542	198.5	394.9	198.48				11.1	107.3	3.3	-10.6

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	17479	38.0	0.02833	109.6	0.74	85.0	1.9294	200.0	404.4	199.95				12.6	117.4	5.8	-11.2
60.0	17836	34.9	0.03008	99.3	0.72	80.0	1.9031	202.9	417.6	202.94				11.9	107.6	3.6	-11.4
61.0	18298	34.3	0.03221	97.9	0.77	74.0	1.8692	202.3	425.6	202.27				10.4	85.3	-0.9	-10.3
62.0	18460	39.0	0.03300	111.1	0.90	72.0	1.8573	202.5	429.4	202.50				12.8	92.1	0.5	-12.8
62.5	18628	43.5	0.03396	123.2	1.03	70.0	1.8451	203.7	435.5	203.67				14.1	101.9	2.9	-13.8
63.0	18801	48.1	0.03496	135.6	1.17	68.0	1.8325	204.9	441.6	204.88				15.8	110.1	5.4	-14.8
64.0	19138	50.4	0.03714	140.5	1.30	64.3	1.8082	206.9	453.3	206.93				13.5	128.3	8.3	-10.6
65.0	19427	53.5	0.03909	149.3	1.45	61.3	1.7875	206.7	459.0	206.73				11.0	110.8	3.9	-10.3
65.4	19556	54.1	0.04001	151.1	1.49	60.0	1.7782	206.6	461.5	206.57				12.0	94.2	0.9	-12.0
66.0	19740	54.9	0.04131	153.6	1.56	58.2	1.7649	206.3	465.0	206.33				14.9	76.8	-3.4	-14.5
67.0	20082	66.1	0.04401	184.6	1.99	55.0	1.7404	206.7	473.5	206.73				21.1	78.0	-4.4	-20.6
68.0	20422	70.4	0.04703	195.7	2.24	52.0	1.7160	207.7	483.4	207.73				26.1	81.6	-3.8	-25.8
68.7	20660	72.2	0.04925	200.5	2.39	50.0	1.6990	207.9	489.2	207.87				26.8	80.6	-4.4	-26.5
69.0	20758	72.9	0.05016	202.5	2.46	49.2	1.6920	207.9	491.6	207.92				27.1	80.3	-4.6	-26.7
70.0	21023	72.4	0.05266	201.0	2.55	47.1	1.6730	207.9	497.8	207.92				27.7	82.2	-3.8	-27.5
71.0	21300	76.0	0.05533	211.1	2.80	45.0	1.6532	207.9	504.3	207.92				29.0	86.9	-1.6	-28.9
72.0	21592	84.6	0.05836	232.4	3.27	42.9	1.6325	210.2	516.9	210.21				31.1	86.2	-2.1	-31.0
73.0	21917	92.4	0.06204	251.7	3.76	40.7	1.6096	212.0	529.3	212.03				32.8	83.8	-3.5	-32.6
73.3	22025	96.1	0.06339	260.7	3.99	40.0	1.6021	212.7	533.7	212.74				33.8	84.3	-3.4	-33.6
74.0	22263	104.1	0.06635	280.4	4.48	38.5	1.5855	214.3	543.5	214.31				36.1	85.3	-3.0	-36.0
75.0	22651	112.1	0.07160	299.4	5.13	36.2	1.5587	216.2	557.9	216.16				38.9	90.2	0.1	-38.9
75.6	22864	118.8	0.07473	315.7	5.63	35.0	1.5441	217.2	566.0	217.18				37.1	93.6	2.3	-37.0
76.0	22993	122.8	0.07660	325.4	5.93	34.3	1.5353	217.8	570.9	217.80				36.1	95.8	3.6	-35.9
77.0	23279	125.0	0.08097	329.6	6.32	32.8	1.5159	219.1	581.6	219.07				36.2	97.8	4.9	-35.8
78.0	23642	125.7	0.08655	329.3	6.72	31.0	1.4914	220.3	594.4	220.32				20.6	105.1	5.4	-19.9
78.6	23853	126.7	0.08983	331.3	7.00	30.0	1.4771	220.8	601.3	220.77				28.3	106.4	8.0	-27.1
79.0	24006	127.4	0.09218	332.7	7.20	29.3	1.4669	221.1	606.2	221.09				33.8	107.0	9.9	-32.3
80.0	24301	134.2	0.09687	346.9	7.94	28.0	1.4472	223.4	620.4	223.36				45.5	105.7	12.3	-43.8
81.0	24613	143.9	0.10208	369.0	8.93	26.7	1.4265	225.1	633.9	225.13				24.2	113.3	9.5	-22.2
82.0	24969	153.8	0.10841	391.4	10.07	25.3	1.4031	226.9	648.6	226.86				16.1	114.0	6.6	-14.7
82.2	25048	153.8	0.10986	391.5	10.20	25.0	1.3979	226.8	650.8	226.82				15.4	113.5	6.2	-14.1
83.0	25319	153.9	0.11481	392.0	10.63	24.0	1.3802	226.7	658.1	226.71				13.1	111.5	4.8	-12.2
84.0	25718	148.2	0.12198	375.8	10.87	22.6	1.3541	227.7	672.4	227.71				11.6	126.4	6.9	-9.3
85.0	26145	147.7	0.12944	372.4	11.54	21.2	1.3263	229.0	688.6	228.98				6.3	181.4	6.3	0.2
85.9	26534	142.0	0.13609	359.8	11.76	20.0	1.3010	227.8	696.6	227.81				5.2	237.7	2.8	4.4
86.0	26568	141.5	0.13666	358.7	11.78	19.9	1.2989	227.7	697.3	227.71				5.3	242.5	2.5	4.7
87.0	26946	139.8	0.14297	356.5	12.32	18.8	1.2742	226.4	704.7	226.43				1.6	250.0	0.6	1.5
88.0	27307	132.0	0.14883	338.6	12.29	17.8	1.2504	225.1	711.7	225.13				2.5	212.2	2.2	1.4
88.3	27419	131.0	0.15058	335.4	12.40	17.5	1.2430	225.5	716.3	225.47				3.4	223.8	2.5	2.4
89.0	27689	128.5	0.15478	327.8	12.67	16.8	1.2253	226.3	727.3	226.28				5.7	236.2	3.2	4.7
90.0	28055	124.1	0.16026	314.6	12.93	15.9	1.2014	227.7	743.5	227.71				6.9	272.9	-0.3	6.9
91.0	28443	118.0	0.16583	299.2	13.04	15.0	1.1761	227.7	756.0	227.71				5.5	336.4	-5.1	2.2
92.0	28902	111.9	0.17209	284.7	13.25	14.0	1.1461	227.0	768.6	227.00				6.6	44.3	-4.7	-4.6
93.0	29345	108.5	0.17787	273.9	13.72	13.1	1.1173	228.7	789.2	228.70				3.1	357.6	-3.1	0.1
94.0	29660	101.2	0.18175	253.0	13.41	12.5	1.0969	230.9	807.6	230.92				5.2	305.0	-3.0	4.3
95.0	29992	98.8	0.18563	247.5	13.76	11.9	1.0755	230.5	817.6	230.51				5.2	35.4	-4.2	-3.0
96.0	30461	91.3	0.19085	229.4	13.62	11.1	1.0453	229.7	831.0	229.68				10.8	57.9	-5.8	-9.2
97.0	30900	83.6	0.19534	208.6	13.33	10.4	1.0170	231.5	853.2	231.47				8.8	65.4	-3.7	-8.0
98.0	31165	81.2	0.19789	202.4	13.45	10.0	1.0000	231.6	863.4	231.61				10.7	75.5	-2.7	-10.3
99.0	31656	75.6	0.20238	189.4	13.47	9.3	0.9685	230.5	877.3	230.51				14.1	73.6	-4.0	-13.5
100.0	32030	69.2	0.20554	172.0	13.04	8.8	0.9445	232.4	898.6	232.43				14.7	66.9	-5.8	-13.5
101.0	32511	63.8	0.20925	157.8	12.90	8.2	0.9138	233.5	921.2	233.52				16.6	66.4	-6.6	-15.2
101.4	32680	61.9	0.21044	152.6	12.81	8.0	0.9031	234.2	930.6	234.21				17.4	67.5	-6.7	-16.1
102.0	32942	58.9	0.21229	144.5	12.67	7.7	0.8865	235.3	945.0	235.27				18.7	69.0	-6.7	-17.4
103.0	33502	54.0	0.21590	131.7	12.61	7.1	0.8513	236.9	973.7	236.88				999.9	999.9	999.9	999.9



FT SHERMAN ECC

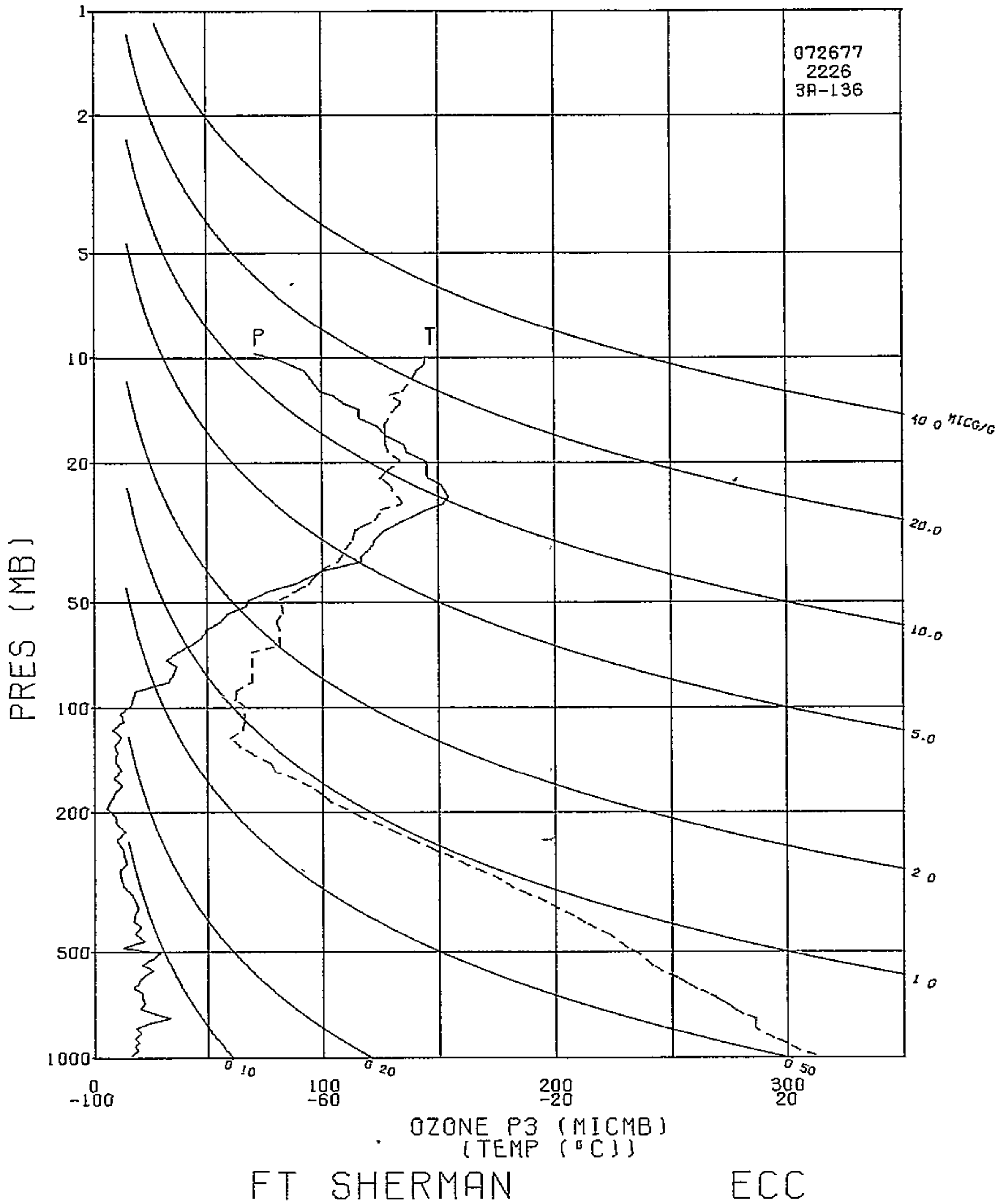
STATION FT SHERMAN LAUNCH DATE 72677 LAUNCH TIME 2226 GMT ECC SONDE 3A-136X

SURFACE CONDITIONS						
PRESS 1004.3 MB	OO3 = 33.4	TBOX CAL =	30.0 C	AT	73.9	ORD
TEMP 300.0 K	OIZ = 32.9	BASE CAL =	30.0 C	AT	73.3	ORD
HUMY 79.0 %	OZC = 62.5	HUMIDITY =	62.8 %	AT	46.0	ORD
	IO = 0.088					
	PS = 27.6					

	PROFILE	DOBSON
INTEGRATED OZONE	0.20199	
RESIDUAL OZONE	0.04906	
TOTAL OZONE	0.25106	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRLSS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	15.7	0.	30.2	0.03	1004.3	3.0019	299.5	299.1	302.45	75.8	294.9	0.0162	3.0	360.0	-3.0	-0.0
0.2	90	15.8	0.00005	30.4	0.03	1000.0	3.0000	299.2	299.2	302.18	77.1	294.9	0.0163	3.5	356.7	-3.5	0.2
1.0	278	16.2	0.00032	31.3	0.03	979.0	2.9908	297.8	299.6	300.84	83.4	294.8	0.0166	6.2	348.7	-6.0	1.2
2.0	541	18.9	0.00074	36.9	0.03	950.0	2.9777	295.1	299.4	298.08	96.1	294.4	0.0167	7.0	348.3	-6.8	1.4
3.0	773	17.6	0.00112	34.6	0.03	925.0	2.9661	294.0	300.6	296.42	82.1	290.8	0.0137	7.2	343.9	-6.9	2.0
4.0	1009	19.4	0.00152	38.2	0.04	900.0	2.9542	292.5	301.4	295.13	94.0	291.5	0.0147	7.2	331.0	-6.3	3.5
4.0	1019	19.4	0.00154	38.4	0.04	899.0	2.9538	292.4	301.5	295.08	94.4	291.5	0.0147	7.2	330.5	-6.3	3.6
5.0	1261	17.9	0.00195	35.5	0.03	874.0	2.9415	290.6	302.0	292.74	86.5	288.3	0.0123	6.4	320.9	-5.0	4.0
5.9	1498	20.3	0.00237	40.6	0.04	850.0	2.9294	289.6	303.4	291.57	80.5	286.2	0.0110	5.8	321.6	-4.5	3.6
6.0	1519	20.6	0.00241	41.0	0.04	848.0	2.9284	289.5	303.5	291.47	80.0	286.1	0.0110	5.7	321.6	-4.5	3.5
7.0	1804	18.1	0.00292	36.4	0.04	820.0	2.9138	287.3	304.1	289.16	84.8	284.8	0.0104	5.6	334.0	-5.0	2.4
7.7	2012	22.9	0.00334	45.9	0.05	600.0	2.9031	287.6	306.5	289.05	64.4	280.7	0.0076	5.3	344.0	-5.1	1.5
8.0	2098	24.8	0.00351	49.7	0.05	792.0	2.8987	287.7	307.5	289.01	56.1	279.1	0.0073	5.3	348.3	-5.2	1.1
9.0	2347	33.0	0.00418	66.4	0.07	769.0	2.8859	287.3	309.7	288.25	40.2	274.0	0.0053	4.2	355.4	-4.2	0.3
10.0	2602	26.0	0.00489	52.7	0.06	746.0	2.8727	285.2	310.1	286.68	72.1	280.3	0.0085	2.9	12.7	-2.8	-0.6
11.0	2864	20.1	0.00546	40.8	0.05	723.0	2.8591	283.7	311.2	285.17	77.3	279.9	0.0085	2.8	35.6	-2.2	-1.6
11.9	3133	21.6	0.00599	44.1	0.05	700.0	2.8451	282.6	312.9	283.88	72.6	277.9	0.0075	3.2	49.5	-2.1	-2.4
12.0	3169	21.8	0.00606	44.5	0.05	697.0	2.8432	282.4	313.1	283.71	72.0	277.6	0.0075	3.2	51.0	-2.0	-2.5
13.0	3422	20.6	0.00658	42.4	0.05	676.0	2.8299	280.8	314.0	281.98	71.7	276.0	0.0069	4.5	59.4	-2.3	-3.9
14.0	3732	20.7	0.00719	42.9	0.05	651.0	2.8136	279.0	315.4	280.12	72.2	274.4	0.0064	5.4	70.4	-1.8	-5.1
15.0	3987	17.1	0.00766	35.6	0.04	631.0	2.8000	277.0	315.9	277.94	71.3	272.3	0.0057	6.2	76.3	-1.5	-6.0
16.0	4288	19.6	0.00819	41.1	0.05	608.0	2.7839	275.3	317.4	276.12	65.5	269.5	0.0048	6.7	74.5	-1.8	-6.5
16.4	4394	20.2	0.00841	42.4	0.06	600.0	2.7782	274.7	317.9	275.52	69.9	269.8	0.0050	7.0	75.7	-1.7	-6.8
17.0	4571	21.2	0.00876	44.6	0.06	587.0	2.7686	273.7	318.7	274.54	77.1	270.1	0.0052	7.5	77.6	-1.6	-7.3
18.0	4919	26.0	0.00957	55.4	0.08	562.0	2.7497	271.1	319.7	271.83	72.2	266.8	0.0042	8.7	81.6	-1.3	-8.6
19.0	5206	20.7	0.01023	44.4	0.06	542.0	2.7340	269.4	321.0	269.97	62.6	263.3	0.0033	9.5	82.9	-1.2	-9.4
20.0	5533	25.6	0.01099	55.0	0.08	520.0	2.7160	268.8	324.0	269.19	43.0	258.1	0.0023	11.5	80.5	-1.9	-11.3
21.0	5825	28.9	0.01179	62.4	0.10	501.0	2.6998	267.1	325.5	267.63	60.6	260.8	0.0029	13.9	80.2	-2.4	-13.7
21.0	5840	28.0	0.01182	60.6	0.09	500.0	2.6990	267.0	325.5	267.53	61.3	260.8	0.0030	13.8	80.1	-2.4	-13.6
22.0	6143	12.3	0.01245	26.8	0.04	481.0	2.6821	265.1	326.7	265.58	73.6	261.2	0.0032	12.9	77.3	-2.8	-12.6
23.0	6439	21.7	0.01296	47.4	0.08	463.0	2.6656	264.2	329.2	264.61	62.5	258.3	0.0026	11.0	64.0	-4.8	-9.9
24.0	6797	17.9	0.01369	39.3	0.07	442.0	2.6454	262.0	330.9	262.38	58.5	255.5	0.0021	10.7	54.1	-6.3	-8.7
25.0	7133	20.3	0.01435	45.2	0.08	423.0	2.6263	259.6	332.0	259.94	61.6	253.8	0.0019	9.2	58.5	-4.8	-7.8
26.0	7406	17.2	0.01489	38.6	0.07	408.0	2.6107	257.8	333.1	258.14	71.4	253.8	0.0020	8.4	61.6	-4.0	-7.4
26.4	7554	17.5	0.01516	39.3	0.07	400.0	2.6021	256.9	333.8	257.21	70.4	252.8	0.0018	8.4	62.5	-3.9	-7.5
27.0	7745	17.9	0.01551	40.3	0.08	390.0	2.5911	255.8	334.7	256.03	69.0	251.4	0.0017	8.4	63.7	-3.7	-7.5
28.0	8077	18.9	0.01616	43.0	0.08	373.0	2.5717	253.3	335.8	253.54	69.0	249.1	0.0015	8.2	72.1	-2.5	-7.8
29.0	8442	17.6	0.01687	40.4	0.08	355.0	2.5502	251.0	337.5	251.23	68.3	246.8	0.0012	8.2	77.9	-1.7	-8.0
29.3	8545	17.0	0.01705	39.2	0.08	350.0	2.5441	250.1	337.6	250.28	68.3	245.9	0.0011	7.8	77.2	-1.7	-7.6
30.0	8779	15.7	0.01747	36.7	0.08	339.0	2.5302	248.0	337.8	248.13	68.2	243.8	0.0010	6.9	75.2	-1.8	-6.7
31.0	9106	12.7	0.01798	29.8	0.06	324.0	2.5105	245.5	338.7	245.58	59.3	240.0	0.0007	6.2	82.7	-0.8	-6.1
32.0	9468	11.4	0.01846	27.0	0.06	308.0	2.4886	243.2	340.5	243.31	54.5	237.0	0.0006	6.7	103.3	1.5	-6.5
32.5	9654	11.0	0.01869	26.4	0.06	300.0	2.4771	241.8	341.0	241.84	53.8	235.5	0.0005	7.0	106.2	2.0	-6.7
33.0	9821	10.8	0.01890	25.6	0.06	293.0	2.4669	240.5	341.5	240.52	53.2	234.2	0.0004	7.3	108.5	2.3	-6.9
34.0	10163	13.9	0.01937	33.9	0.08	279.0	2.4456	237.4	341.9	237.44	52.7	231.2	0.0003	9.5	110.8	3.4	-8.9
35.0	10493	12.9	0.01988	31.7	0.08	266.0	2.4249	235.1	343.2	235.15	47.7	228.2	0.0003	10.8	119.8	5.4	-9.4
36.0	10835	12.2	0.02037	30.3	0.08	253.0	2.4031	231.8	343.3	231.84				10.9	127.2	6.6	-8.7
36.2	10915	11.6	0.02048	29.0	0.08	250.0	2.3979	231.2	343.5	231.16				10.4	131.6	6.9	-7.8
37.0	11218	9.6	0.02086	24.2	0.07	239.0	2.3784	228.6	344.1	228.62				9.4	151.0	8.2	-4.6
38.0	11589	13.5	0.02137	34.6	0.10	226.0	2.3541	225.3	344.6	225.31				9.5	137.7	7.1	-6.4
39.0	11916	9.7	0.02183	25.2	0.07	215.0	2.3324	222.6	345.4	222.63				9.2	119.2	4.5	-8.0
40.0	12255	9.0	0.02222	23.7	0.07	204.0	2.3096	219.2	345.2	219.21				5.7	140.8	4.4	-3.6
40.4	12381	7.7	0.02233	20.4	0.06	200.0	2.3010	218.3	345.7	218.25				5.6	146.8	4.7	-3.1
41.0	12575	5.7	0.02251	15.3	0.05	194.0	2.2878	216.8	346.3	216.78				5.6	156.2	5.1	-2.3
42.0	12874	7.3	0.02275	19.6	0.07	185.0	2.2672	214.1	346.7	214.06				6.4	160.9	6.0	-2.1
43.0	13221	9.2	0.02311	25.0	0.09	175.0	2.2430	212.5	349.6	212.47				8.7	145.6	7.1	-4.9
44.0	13510	12.5	0.02351	34.4	0.12	167.0	2.2227	210.5	350.9	210.45				9.8	139.3	7.5	-6.4
45.0	13810	8.7	0.02393	24.2	0.09	159.0	2.2014	207.9	351.7	207.95				9.3	135.6	6.7	-6.5
46.0	14121	12.0	0.02435	33.8	0.13	151.0	2.1790	204.4	350.9	204.44				9.6	135.0	6.8	-6.8
46.1	14160	11.6	0.02440	32.9	0.13	150.0	2.1761	204.3	351.4	204.33				9.6	135.4	6.8	-6.7
47.0	14446	9.3	0.02480	26.4	0.11	143.0	2.1553	203.6	354.8	203.57				9.1	138.8	6.8	-6.0
48.0	14786	10.0	0.02524	28.9	0.12	135.0	2.1303	200.6	355.4	200.59				7.3	141.9	5.8	-4.5
49.0	15097	8.8	0.02564	25.5	0.11	128.0	2.1072	198.4	356.9	198.37				4.7	116.9	2.1	-4.2
49.4	15234	10.1	0.02583	29.6	0.13	125.0	2.0969	197.7	358.1	197.71				4.7	93.4	0.3	-4.7
50.0	15422	12.0	0.02610	35.1	0.16	121.0	2.0828	196.8	359.8	196.80				5.8	67.4	-2.2	-5.4
51.0	15716	8.1	0.02650	23.4	0.12	115.0	2.0607	198.9	368.9	198.87				9.6	74.7	-2.5	-9.3
52.0	16028	12.9	0.02694	37.3	0.20	109.0	2.0374	199.4	375.6	199.37				9.1	82.1	-1.3	-9.0
53.0	16301	11.5	0.02740	33.4	0.18	104.0	2.0170	198.9	379.7	198.87				4.4	89.5	-0.0	-4.4
53.8	16529	14.9	0.02782	43.3	0.25	100.0	2.0000	199.3	384.7	199.27				2.5	96.5	0.3	-2.4
54.0	16588	15.8	0.02793	45.8	0.26	99.0	1.9956	199.4	386.0	199.37				2.0	100.6	0.4	-1.9
55.0	16889	17.5	0.02861	51.3	0.31	94.0	1.9731	197.6	388.3	197.59				2.7	81.2	-0.4	-2.6
56.0	17205	18.8	0.02939	55.0	0.35	89.0	1.9494	197.6	394.4	197.59				8.2	99.2	1.3	-8.0
57.0	17542	32.9	0.03057	94.6	0.65	84.0	1.9243	200.6	407.1	200.59				11.7	104.8	3.0	-11.4

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	17828	35.4	0.03189	101.9	0.73	80.0	1.9031	200.3	412.3	200.35				10.8	97.4	1.4	-10.7
59.0	18129	36.7	0.03334	105.4	0.80	76.0	1.8808	200.8	419.4	200.82				9.4	96.4	1.0	-9.3
60.0	18366	31.8	0.03443	91.4	0.72	73.0	1.8633	201.1	424.7	201.06				10.8	97.2	1.4	-10.8
60.7	18612	35.7	0.03557	102.8	0.85	70.0	1.8451	200.7	429.1	200.71				12.4	99.8	2.1	-12.2
61.0	18697	37.1	0.03596	106.7	0.89	69.0	1.8388	200.6	430.6	200.59				12.9	100.5	2.4	-12.7
62.0	18961	42.9	0.03737	120.3	1.08	66.0	1.8195	205.7	447.2	205.71				13.3	122.8	7.2	-11.2
63.0	19241	47.5	0.03903	133.6	1.25	63.0	1.7993	205.5	452.8	205.50				11.3	123.7	6.3	-9.4
63.9	19533	49.3	0.04089	138.4	1.36	60.0	1.7782	205.7	459.6	205.70				13.2	84.4	-1.3	-13.1
64.0	19554	49.4	0.04102	138.7	1.37	59.8	1.7767	205.7	460.0	205.71				13.5	82.3	-1.8	-13.4
65.0	19874	55.6	0.04323	156.6	1.63	56.7	1.7536	205.1	465.6	205.08				21.4	75.8	-5.3	-20.7
66.0	20235	59.3	0.04594	166.0	1.84	53.4	1.7275	206.1	476.1	206.13				24.2	84.9	-2.1	-24.1
67.0	20512	66.7	0.04823	187.4	2.17	51.0	1.7076	205.5	480.9	205.50				24.4	95.2	2.2	-24.3
67.5	20630	67.3	0.04928	188.9	2.23	50.0	1.6990	205.6	483.9	205.61				25.3	96.7	2.9	-25.1
68.0	20752	67.8	0.05035	190.4	2.29	49.0	1.6902	205.7	487.0	205.71				26.3	98.0	3.7	-26.0
69.0	21135	77.1	0.05397	213.2	2.78	46.0	1.6628	208.7	503.1	208.73				30.1	95.3	2.8	-30.0
70.0	21408	88.1	0.05686	241.3	3.32	44.0	1.6435	210.8	514.6	210.82				28.9	87.8	-1.1	-28.8
71.0	21696	94.6	0.06022	257.7	3.73	42.0	1.6232	211.9	524.3	211.93				30.4	84.2	-3.1	-30.3
72.0	21999	101.8	0.06400	275.8	4.22	40.0	1.6021	213.2	534.8	213.18				33.1	87.5	-1.4	-33.1
73.0	22321	116.3	0.06841	310.8	5.07	38.0	1.5798	215.9	549.7	215.94				34.8	91.0	0.6	-34.8
74.0	22489	116.0	0.07085	309.7	5.20	37.0	1.5682	216.3	554.7	216.28				37.5	95.5	3.6	-37.3
75.0	22841	120.4	0.07604	320.0	5.70	35.0	1.5441	217.3	566.2	217.27				39.1	98.6	5.8	-38.7
76.0	23216	122.6	0.08168	324.0	6.15	33.0	1.5185	218.4	578.8	218.41				40.0	99.2	6.4	-39.5
77.0	23616	126.5	0.08782	333.6	6.76	31.0	1.4914	218.9	590.6	218.89				35.6	100.1	6.2	-35.0
78.0	23826	130.8	0.09115	342.7	7.22	30.0	1.4771	220.3	600.0	220.32				28.7	104.4	7.2	-27.8
79.0	24045	135.0	0.09470	350.6	7.71	29.0	1.4624	222.3	611.4	222.32				30.2	103.3	6.9	-29.4
80.0	24511	144.9	0.10259	374.4	8.89	27.0	1.4314	223.4	626.9	223.38				27.1	97.2	3.4	-26.9
81.0	24759	151.9	0.10701	386.5	9.68	26.0	1.4150	226.9	643.8	226.91				18.4	95.1	1.6	-18.3
82.0	25019	154.1	0.11175	393.3	10.21	25.0	1.3979	226.2	648.9	226.19				18.0	95.2	1.6	-17.9
83.0	25569	150.9	0.12178	388.0	10.87	23.0	1.3617	224.6	659.8	224.57				10.6	84.2	-1.1	-10.5
84.0	25860	145.4	0.12698	376.4	10.95	22.0	1.3424	223.1	663.8	223.08				2.3	317.0	-1.7	1.5
85.0	26164	144.6	0.13230	372.5	11.41	21.0	1.3222	224.1	675.9	224.13				6.2	311.6	-4.1	4.7
85.8	26485	144.5	0.13787	369.0	11.97	20.0	1.3010	226.0	691.2	226.03				6.6	348.1	-6.4	1.4
86.0	26585	144.4	0.13959	368.0	12.15	19.7	1.2945	226.6	696.0	226.62				7.1	357.4	-7.1	0.3
87.0	27000	135.8	0.14654	349.3	12.16	18.5	1.2672	224.4	701.7	224.43				6.6	35.3	-5.4	-3.8
88.0	27327	134.1	0.15185	345.8	12.62	17.6	1.2455	223.8	709.9	223.83				4.8	50.3	-3.1	-3.7
88.1	27364	133.3	0.15243	343.9	12.62	17.5	1.2430	223.8	711.1	223.83				4.6	48.7	-3.0	-3.4
89.0	27710	126.2	0.15785	325.6	12.60	16.6	1.2201	223.8	721.9	223.83				2.5	18.4	-2.4	-0.8
90.0	28117	122.5	0.16395	316.2	13.01	15.6	1.1931	223.7	734.3	223.68				6.4	4.5	-6.4	-0.5
90.7	28373	116.7	0.16762	301.3	12.89	15.0	1.1761	223.7	742.6	223.68				8.3	25.0	-7.5	-3.5
91.0	28461	114.8	0.16888	296.3	12.85	14.8	1.1703	223.7	745.4	223.68				9.1	29.8	-7.9	-4.5
92.0	28873	114.3	0.17455	292.4	13.63	13.9	1.1430	225.8	765.9	225.75				6.5	60.8	-3.2	-5.7
93.0	29115	107.9	0.17776	274.8	13.35	13.4	1.1271	226.8	777.5	226.77				6.0	90.1	0.0	-6.0
94.0	29469	103.3	0.18223	265.3	13.48	12.7	1.1038	224.9	782.9	224.87				3.7	48.5	-2.4	-2.7
94.7	29573	99.7	0.18349	254.4	13.21	12.5	1.0969	226.3	791.5	226.32				6.5	51.2	-4.1	-5.1
95.0	29627	97.9	0.18413	248.9	13.08	12.4	1.0934	227.1	795.9	227.05				8.0	51.8	-4.9	-6.3
96.0	30188	93.6	0.19048	236.2	13.60	11.4	1.0569	228.8	821.4	228.77				14.1	61.7	-6.7	-12.4
97.0	30550	91.0	0.19442	228.9	13.97	10.8	1.0334	229.6	837.3	229.61				10.0	64.7	-4.3	-9.1
98.0	30804	85.2	0.19705	213.2	13.58	10.4	1.0170	230.9	851.0	230.87				8.0	89.0	-0.1	-8.0
99.0	31069	79.5	0.19960	198.6	13.17	10.0	1.0000	231.0	861.1	231.01				8.3	89.0	-0.1	-8.3
100.0	31345	69.4	0.20199	173.4	11.98	9.6	0.9823	231.1	871.7	231.15				999.9	999.9	999.9	999.9


072677
2226
3A-136
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
P
T
40.0 MICG/G
20.0
10.0
5.0
2.0
1.0
0.10
0.20
0.50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72777   LAUNCH TIME 0438 GMT   ECC SONDE 3A-137X

```
SURFACE CONDITIONS         003 = 33.9          TBOX CAL =   30.0 C  AT   73.7 ORD
   PRESS  1006.0 MB        OIZ = 33.3          BASE CAL =   30.0 C  AT   74.2 ORD
   TEMP    299.2 K         OZC = 65.4          HUMIDITY =   62.8 %  AT   46.0 ORD
   HUMY     84.0 %          IO = 0.097
                            PS = 29.2

          ***********************************************************
          ****                                                  ****
          ****                        PROFILE     DOBSON        ****
          ****      INTEGRATED OZONE  0.26591                   ****
          ****      RESIDUAL OZONE    0.01701                   ****
          ****      TOTAL OZONE       0.28292      0.           ****
          ****                                                  ****
          ***********************************************************
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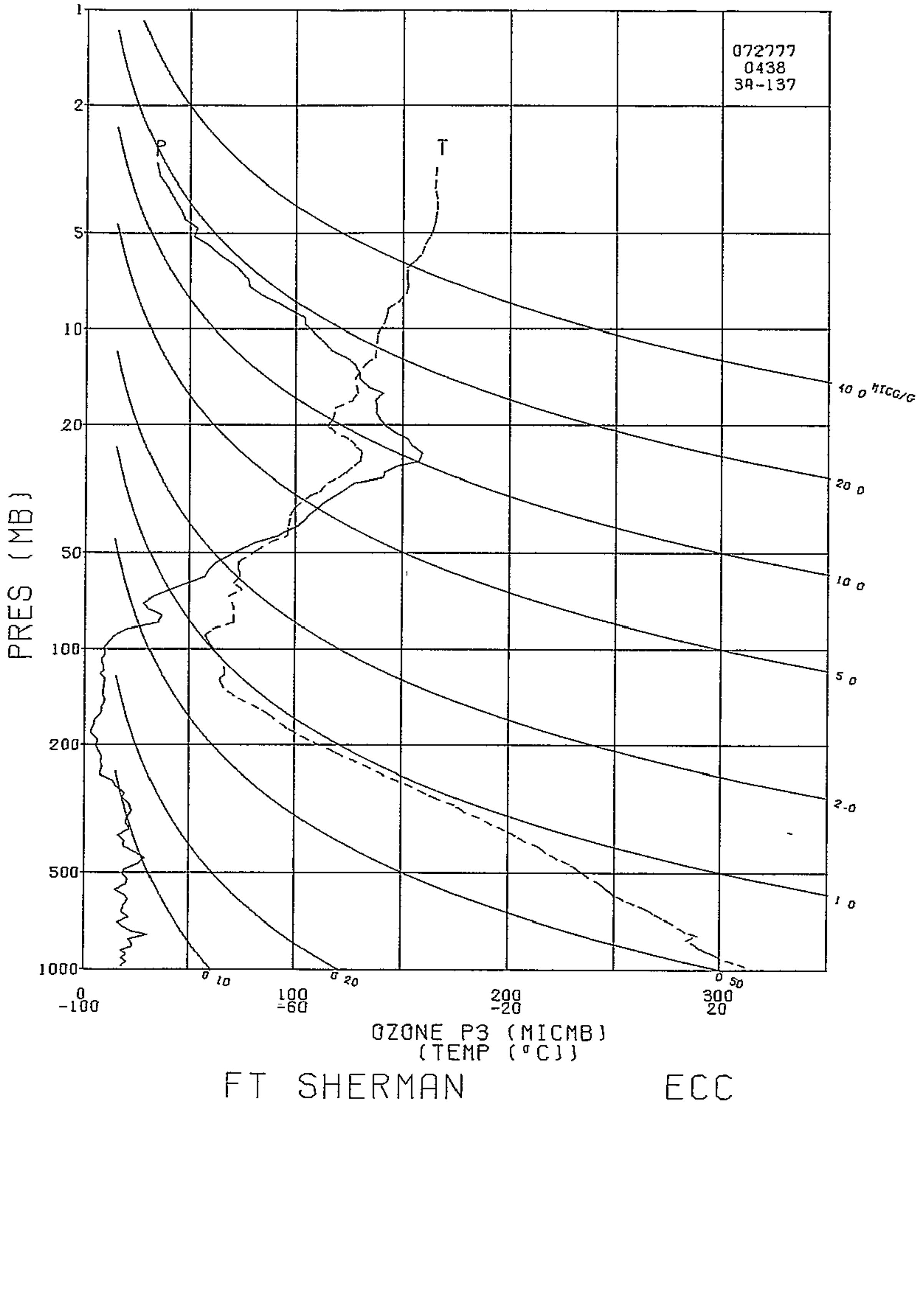
TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDCN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	18.3	0.	35.4	0.03	1006.0	3.0026	298.6	298.1	301.59	79.7	294.9	0.0162	4.0	340.0	-3.8	1.4
0.2	105	18.2	0.00009	35.3	0.03	1000.0	3.0000	298.5	298.5	301.50	80.9	295.0	0.0166	4.4	339.9	-4.1	1.5
1.0	356	17.8	0.00049	34.4	0.03	972.0	2.9877	297.9	300.3	301.09	86.8	295.5	0.0175	6.2	339.7	-5.8	2.2
2.0	631	20.5	0.00096	40.0	0.04	942.0	2.9741	295.5	300.6	298.64	95.4	294.8	0.0172	6.8	344.5	-6.6	1.8
3.0	865	18.1	0.00137	35.7	0.03	917.0	2.9624	293.0	300.4	295.58	89.0	291.2	0.0141	7.3	337.3	-6.7	2.8
3.6	1026	19.5	0.00166	38.6	0.04	900.0	2.9542	292.3	301.2	294.62	86.1	289.9	0.0129	7.1	334.8	-6.4	3.0
4.0	1132	20.4	0.00184	40.4	0.04	889.0	2.9489	291.7	301.7	293.99	84.1	289.0	0.0127	7.0	333.1	-6.3	3.2
5.0	1337	17.6	0.00220	34.9	0.03	868.0	2.9385	290.2	302.2	292.28	82.1	287.2	0.0115	6.3	335.9	-5.8	2.6
5.9	1515	22.0	0.00254	44.0	0.04	850.0	2.9294	289.0	302.7	290.87	80.6	285.7	0.0105	6.6	344.5	-6.4	1.8
6.0	1546	22.8	0.00259	45.6	0.04	847.0	2.9279	288.8	302.8	290.63	80.3	285.4	0.0105	6.7	345.9	-6.5	1.6
7.0	1800	22.6	0.00313	45.3	0.05	822.0	2.9149	287.8	304.3	289.50	78.8	284.1	0.0099	6.9	0.7	-6.9	-0.1
8.0	2029	21.4	0.00360	43.2	0.04	800.0	2.9031	286.8	305.6	288.29	72.2	281.8	0.0088	6.0	11.6	-5.9	-1.2
9.0	2297	30.1	0.00425	60.3	0.06	775.0	2.8893	288.6	310.4	289.36	31.8	271.9	0.0045	4.2	22.0	-3.9	-1.6
10.0	2517	22.6	0.00479	45.5	0.05	755.0	2.8779	286.4	310.3	287.75	63.4	279.6	0.0079	3.8	35.8	-3.1	-2.2
11.0	2777	18.5	0.00529	37.3	0.04	732.0	2.8645	285.4	312.0	286.73	64.4	278.9	0.0078	4.4	53.1	-2.6	-3.5
12.0	3032	16.0	0.00570	32.6	0.04	710.0	2.8513	283.6	312.8	284.88	64.1	277.1	0.0071	4.9	71.3	-1.6	-4.7
12.4	3149	18.3	0.00591	37.3	0.04	700.0	2.8451	282.8	313.2	284.15	71.2	277.8	0.0078	5.0	74.6	-1.3	-4.8
13.0	3305	21.3	0.00619	43.6	0.05	687.0	2.8370	281.8	313.7	283.19	80.5	278.6	0.0082	5.1	78.7	-1.0	-5.0
14.0	3574	18.3	0.00670	37.7	0.05	665.0	2.8228	280.1	314.8	281.32	73.4	275.7	0.0069	5.9	76.8	-1.3	-5.7
15.0	3850	18.3	0.00718	38.0	0.05	643.0	2.8082	278.7	316.2	279.51	53.0	269.9	0.0047	6.4	70.5	-2.1	-6.0
16.0	4120	19.6	0.00768	41.0	0.05	622.0	2.7938	276.6	316.8	277.43	59.4	269.5	0.0047	5.7	69.8	-2.0	-5.4
17.0	4384	20.8	0.00820	43.7	0.06	602.0	2.7796	274.6	317.5	275.49	73.6	270.4	0.0052	5.3	71.6	-1.7	-5.0
17.1	4410	20.7	0.00825	43.4	0.06	600.0	2.7782	274.4	317.5	275.28	73.5	270.2	0.0051	5.3	72.6	-1.6	-5.1
18.0	4628	19.4	0.00868	41.0	0.06	584.0	2.7664	272.8	318.1	273.59	72.9	268.6	0.0046	5.7	79.9	-1.0	-5.6
19.0	4920	14.7	0.00918	31.3	0.04	563.0	2.7505	271.7	320.2	272.28	58.0	264.5	0.0035	4.0	66.9	-1.6	-3.7
20.0	5222	19.6	0.00969	41.8	0.06	542.0	2.7340	270.6	322.3	270.93	36.5	257.8	0.0021	4.6	89.9	-0.0	-4.6
21.0	5504	20.7	0.01026	44.3	0.07	523.0	2.7185	269.8	324.7	270.26	49.0	260.6	0.0028	9.3	107.9	2.8	-8.8
22.0	5795	18.8	0.01084	40.6	0.06	504.0	2.7024	267.3	325.2	267.73	49.0	258.4	0.0024	10.3	106.5	2.9	-9.9
22.2	5857	18.9	0.01096	40.9	0.06	500.0	2.6990	267.0	325.5	267.41	46.6	257.4	0.0021	10.5	104.8	2.7	-10.2
23.0	6079	19.4	0.01138	42.2	0.07	486.0	2.6866	266.0	326.9	266.27	37.9	254.1	0.0017	11.2	99.2	1.8	-11.0
24.0	6405	26.6	0.01215	58.0	0.09	466.0	2.6684	264.4	328.8	264.36				12.9	90.7	0.2	-12.9
25.0	6708	29.2	0.01301	64.3	0.11	448.0	2.6513	262.0	329.6	262.04				13.8	87.8	-0.5	-13.8
26.0	7039	23.9	0.01392	53.1	0.09	429.0	2.6325	259.9	331.0	259.91				12.8	86.8	-0.7	-12.8
27.0	7346	18.9	0.01460	42.2	0.08	412.0	2.6149	258.6	333.2	258.85	42.5	248.7	0.0013	11.6	85.9	-0.8	-11.6
27.7	7568	19.0	0.01505	42.7	0.08	400.0	2.6021	256.7	333.5	256.87	43.4	247.2	0.0011	11.1	86.3	-0.7	-11.1
28.0	7644	19.0	0.01520	42.9	0.08	396.0	2.5977	256.0	333.6	256.19	43.7	246.6	0.0011	10.9	86.5	-0.7	-10.9
29.0	7952	16.1	0.01577	36.6	0.07	380.0	2.5798	254.1	335.0	254.25	36.9	243.1	0.0008	10.0	92.2	0.4	-10.0
30.0	8250	21.4	0.01636	48.9	0.10	365.0	2.5623	252.1	336.2	252.27	56.8	245.8	0.0011	9.2	92.5	0.4	-9.2
31.0	8558	20.0	0.01705	46.3	0.09	350.0	2.5441	249.7	337.1	249.86	60.5	244.2	0.0010	10.0	88.7	-0.2	-10.0
32.0	8898	20.7	0.01780	48.4	0.10	334.0	2.5237	247.3	338.4	247.49	69.4	243.4	0.0010	11.1	88.6	-0.3	-11.1
33.0	9206	22.5	0.01853	53.0	0.12	320.0	2.5051	244.5	338.5	244.58	70.9	240.9	0.0008	10.8	90.0	-0.0	-10.8
34.0	9548	21.4	0.01936	51.0	0.12	305.0	2.4843	242.8	340.8	242.87	70.5	239.2	0.0007	9.6	89.5	-0.1	-9.6
34.4	9664	20.4	0.01962	48.6	0.11	300.0	2.4771	241.6	340.8	241.71	70.4	238.0	0.0006	9.3	90.0	-0.0	-9.3
35.0	9879	18.3	0.02010	44.2	0.10	291.0	2.4639	239.5	340.8	239.58	70.3	236.0	0.0005	8.8	91.0	0.1	-8.8
36.0	10148	18.9	0.02067	46.0	0.11	280.0	2.4472	237.3	341.4	237.34	67.5	233.4	0.0004	8.9	92.3	0.4	-8.9
37.0	10476	15.0	0.02130	36.9	0.09	267.0	2.4265	234.9	342.6	234.95	64.5	230.7	0.0003	8.1	97.9	1.1	-8.0
38.0	10763	13.3	0.02177	33.0	0.09	256.0	2.4082	232.2	342.8	232.22				7.1	115.9	3.1	-6.4
38.6	10923	9.8	0.02197	24.6	0.06	250.0	2.3979	230.6	342.7	230.61				6.9	119.9	3.5	-6.0
39.0	11032	7.5	0.02210	18.9	0.05	246.0	2.3909	229.5	342.6	229.51				6.9	122.7	3.7	-5.8
40.0	11366	8.1	0.02241	20.7	0.06	234.0	2.3692	226.9	343.6	226.87				7.2	119.8	3.6	-6.2
41.0	11654	7.4	0.02268	19.2	0.06	224.0	2.3502	224.3	343.9	224.30				7.7	120.8	3.9	-6.6
42.0	11921	8.0	0.02293	20.9	0.06	215.0	2.3324	221.7	343.9	221.66				8.8	114.7	3.7	-8.0
43.0	12135	6.7	0.02312	17.5	0.05	208.0	2.3181	220.0	344.6	220.00				10.6	108.7	3.4	-10.0
43.9	12385	5.5	0.02330	14.7	0.05	200.0	2.3010	217.8	345.0	217.80				12.1	109.0	3.9	-11.5
44.0	12418	5.4	0.02333	14.3	0.04	199.0	2.2989	217.5	345.0	217.52				12.3	109.0	4.0	-11.6
45.0	12677	6.0	0.02351	16.2	0.05	191.0	2.2810	215.1	345.2	215.09				14.0	107.7	4.3	-13.3
46.0	12979	3.2	0.02369	8.8	0.03	182.0	2.2601	212.9	346.4	212.90				13.3	109.1	4.3	-12.5
47.0	13222	3.9	0.02380	10.7	0.04	175.0	2.2430	211.2	347.4	211.16				10.8	108.4	3.4	-10.3
48.0	13511	4.6	0.02396	12.5	0.05	167.0	2.2227	210.6	351.2	210.62				8.7	104.7	2.2	-8.4
49.0	13811	7.8	0.02420	21.7	0.08	159.0	2.2014	207.8	351.5	207.84				6.7	94.4	0.5	-6.7
50.0	14083	8.3	0.02448	23.4	0.09	152.0	2.1818	205.9	352.7	205.89				7.0	77.9	-1.5	-6.9
50.3	14162	8.9	0.02458	24.9	0.10	150.0	2.1761	205.2	352.8	205.20				7.3	82.1	-1.0	-7.3
51.0	14365	10.2	0.02483	29.0	0.12	145.0	2.1614	203.4	353.2	203.42				8.3	91.2	0.2	-8.3
52.0	14615	9.0	0.02515	25.7	0.11	139.0	2.1430	201.2	353.6	201.24				9.7	107.2	2.9	-9.3
53.0	14962	9.6	0.02558	27.9	0.12	131.0	2.1173	199.2	356.0	199.15				8.8	104.1	2.1	-8.5
53.9	15234	10.2	0.02595	29.7	0.14	125.0	2.0969	198.5	359.6	198.54				7.4	87.0	-0.4	-7.4
54.0	15281	10.3	0.02601	30.0	0.14	124.0	2.0934	198.4	360.3	198.43				7.3	83.5	-0.8	-7.2
55.0	15520	7.7	0.02631	22.4	0.11	119.0	2.0755	199.4	366.3	199.39				8.6	84.0	-0.9	-8.6
56.0	15668	9.7	0.02648	28.1	0.14	116.0	2.0645	198.9	368.1	198.92				11.4	89.3	-0.1	-11.4
57.0	16084	8.1	0.02698	23.4	0.12	108.0	2.0334	199.2	376.1	199.15				6.8	94.7	0.6	-6.8
58.0	16303	9.9	0.02725	28.9	0.16	104.0	2.0170	198.7	379.3	198.68				2.4	132.1	1.6	-1.8
58.8	16529	9.5	0.02755	27.7	0.16	100.0	2.0000	197.7	381.7	197.70				2.1	111.7	0.8	-2.0
59.0	16588	9.4	0.02763	27.4	0.16	99.0	1.9956	197.4	382.3	197.45				2.1	105.8	0.6	-2.0

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
60.0	16825	11.9	0.02797	35.1	0.21	95.0	1.9777	196.4	384.8	196.43				1.7	49.4	-1.1	-1.3
61.0	17135	14.9	0.02854	43.9	0.27	90.0	1.9542	195.6	389.3	195.65				3.4	104.9	0.9	-3.2
62.0	17396	20.8	0.02918	60.9	0.40	86.0	1.9345	197.2	397.5	197.19				5.9	131.9	4.0	-4.4
63.0	17673	34.9	0.03023	100.1	0.71	82.0	1.9138	201.2	411.2	201.24				2.6	120.3	1.3	-2.2
63.5	17818	36.0	0.03093	103.2	0.75	80.0	1.9031	201.2	414.1	201.24				1.6	87.6	-0.1	-1.6
64.0	17967	37.1	0.03165	106.4	0.79	78.0	1.8921	201.2	417.1	201.24				1.8	35.6	-1.5	-1.0
65.0	18198	30.7	0.03270	88.0	0.68	75.0	1.8751	201.5	422.3	201.46				2.3	68.9	-0.8	-2.1
66.0	18438	28.2	0.03365	80.9	0.65	72.0	1.8573	201.0	426.3	201.01				5.4	91.0	0.1	-5.4
66.5	18603	30.6	0.03433	88.0	0.73	70.0	1.8451	200.7	429.0	200.67				6.1	94.0	0.4	-6.1
67.0	18773	33.1	0.03503	95.3	0.81	68.0	1.8325	200.3	431.8	200.33				6.9	96.3	0.8	-6.9
68.0	19039	40.9	0.03634	116.4	1.04	65.0	1.8129	202.8	442.8	202.78				6.2	94.2	0.5	-6.1
69.0	19318	48.6	0.03801	139.3	1.30	62.0	1.7924	201.2	445.4	201.24				8.3	95.4	0.8	-8.3
69.7	19511	54.3	0.03938	155.2	1.50	60.0	1.7782	202.1	451.6	202.11				10.5	93.8	0.7	-10.5
70.0	19611	57.3	0.04008	163.3	1.61	59.0	1.7709	202.6	454.7	202.56				11.6	93.3	0.7	-11.6
71.0	19920	59.3	0.04248	169.3	1.75	56.0	1.7482	202.1	460.6	202.13				17.8	85.0	-1.5	-17.8
72.0	20246	63.3	0.04514	180.5	1.98	53.0	1.7243	202.3	468.4	202.35				22.6	86.6	-1.3	-22.6
73.0	20474	68.1	0.04714	193.8	2.21	51.0	1.7076	202.8	474.6	202.78				25.2	90.6	0.3	-25.2
73.5	20592	70.4	0.04824	198.9	2.33	50.0	1.6990	204.2	480.7	204.22				27.1	91.1	0.5	-27.1
74.0	20713	72.7	0.04936	204.1	2.46	49.0	1.6902	205.7	486.9	205.69				29.1	91.4	0.7	-29.1
75.0	21096	81.7	0.05321	226.2	2.94	46.0	1.6628	208.4	502.3	208.41				30.4	89.7	-0.1	-30.4
76.0	21369	91.8	0.05625	250.5	3.46	44.0	1.6435	211.5	516.3	211.51				29.9	82.8	-3.7	-29.6
77.0	21511	94.3	0.05793	257.6	3.63	43.0	1.6335	211.3	519.3	211.33				35.2	78.7	-6.9	-34.6
78.0	21806	101.1	0.06161	275.5	4.09	41.0	1.6128	211.9	527.7	211.86				38.0	81.1	-5.9	-37.5
78.5	21959	102.8	0.06361	280.1	4.26	40.0	1.6021	211.9	531.5	211.86				37.2	83.5	-4.2	-37.0
79.0	22116	104.5	0.06566	284.8	4.44	39.0	1.5911	211.9	535.3	211.86				36.5	86.0	-2.5	-36.4
80.0	22277	105.6	0.06782	287.4	4.61	38.0	1.5798	212.2	540.2	212.21				37.5	88.8	-0.8	-37.5
81.0	22613	110.1	0.07242	298.5	5.07	36.0	1.5563	212.9	550.4	212.90				37.3	91.2	0.8	-37.2
82.0	22788	112.2	0.07489	303.5	5.31	35.0	1.5441	213.4	556.2	213.42				38.7	94.6	3.1	-38.6
83.0	23157	118.3	0.08024	316.9	5.94	33.0	1.5185	215.6	571.3	215.59				35.8	95.9	3.7	-35.6
84.0	23352	121.5	0.08315	322.4	6.29	32.0	1.5051	217.5	581.6	217.52				39.3	94.7	3.3	-39.2
85.0	23764	127.6	0.08949	336.4	7.05	30.0	1.4771	219.1	596.6	219.08				38.6	94.2	2.8	-38.5
86.0	23982	140.2	0.09307	366.3	8.01	29.0	1.4624	221.1	607.9	221.06				28.0	90.0	0.0	-28.0
87.0	24209	140.7	0.09696	365.2	8.33	28.0	1.4472	222.4	617.8	222.41				27.7	90.3	0.2	-27.7
88.0	24544	147.9	0.10280	381.2	9.21	26.6	1.4249	224.0	631.4	224.01				23.1	95.1	2.0	-23.0
89.0	24770	157.6	0.10695	404.2	10.16	25.7	1.4099	225.2	640.9	225.17				20.4	98.9	3.2	-20.1
89.5	24951	158.2	0.11040	405.5	10.49	25.0	1.3979	225.3	646.4	225.31				20.1	101.9	4.1	-19.6
90.0	25139	158.9	0.11395	406.8	10.83	24.3	1.3856	225.5	652.1	225.45				19.8	105.0	5.1	-19.1
91.0	25472	154.2	0.12020	397.1	11.06	23.1	1.3636	224.2	657.8	224.16				14.7	107.6	4.4	-14.0
92.0	25791	152.1	0.12610	394.2	11.45	22.0	1.3424	222.7	662.7	222.70				13.5	105.6	3.6	-13.0
93.0	26092	145.7	0.13156	382.0	11.49	21.0	1.3222	220.2	663.9	220.16				11.7	99.0	1.8	-11.5
94.0	26405	141.0	0.13708	372.1	11.68	20.0	1.3010	218.8	669.0	218.77				7.9	70.6	-2.6	-7.5
95.0	26700	138.4	0.14216	363.4	12.00	19.1	1.2810	219.9	681.2	219.85				10.3	30.1	-8.9	-5.2
96.0	26975	136.7	0.14680	358.4	12.38	18.3	1.2625	220.3	691.0	220.31				14.9	34.4	-12.3	-8.4
97.0	27263	137.0	0.15163	358.7	12.97	17.5	1.2430	220.5	700.4	220.46				14.6	51.4	-9.1	-11.4
98.0	27567	136.0	0.15667	351.5	13.49	16.7	1.2227	223.4	719.4	223.43				13.8	75.6	-3.4	-13.4
99.0	27930	140.2	0.16270	360.4	14.70	15.8	1.1987	224.6	734.6	224.59				8.3	83.7	-0.9	-8.2
100.0	28228	132.8	0.16758	341.5	14.58	15.1	1.1790	224.6	744.2	224.59				6.2	77.5	-1.3	-6.0
100.1	28271	132.4	0.16827	340.4	14.62	15.0	1.1761	224.5	745.4	224.52				6.8	79.0	-1.3	-6.7
101.0	28585	128.9	0.17320	332.2	14.94	14.3	1.1553	224.0	753.9	224.01				11.7	84.8	-1.1	-11.7
102.0	28914	128.2	0.17830	330.9	15.62	13.6	1.1335	223.7	763.8	223.72				14.5	90.6	0.2	-14.5
103.0	29313	126.1	0.18438	322.1	16.32	12.8	1.1072	226.0	785.1	226.02				14.2	95.8	1.4	-14.1
103.5	29470	124.2	0.18670	315.9	16.46	12.5	1.0969	226.9	793.7	226.92				12.6	98.6	1.9	-12.4
104.0	29632	122.2	0.18908	309.7	16.60	12.2	1.0864	227.8	802.4	227.85				11.0	102.3	2.3	-10.8
105.0	29968	115.1	0.19380	292.0	16.44	11.6	1.0645	227.6	813.1	227.57				8.5	99.4	1.4	-8.4
106.0	30322	112.2	0.19856	283.7	16.90	11.0	1.0414	228.3	828.0	228.26				12.4	87.1	-0.6	-12.4
107.0	30761	107.5	0.20426	271.8	17.30	10.3	1.0128	228.4	844.2	228.40				16.4	89.6	-0.1	-16.4
107.4	30958	105.5	0.20672	266.2	17.48	10.0	1.0000	228.9	853.2	228.87				16.0	94.3	1.2	-15.9
108.0	31232	102.8	0.21010	258.5	17.74	9.6	0.9823	229.5	865.5	229.51				15.5	101.2	3.0	-15.2
109.0	31591	102.1	0.21443	256.2	18.59	9.1	0.9590	230.1	881.0	230.05				18.8	113.9	7.6	-17.2
110.0	31972	95.2	0.21883	238.7	18.35	8.6	0.9345	230.3	896.4	230.33				19.7	124.6	11.2	-16.2
111.0	32294	89.9	0.22230	223.6	18.17	8.2	0.9138	232.2	916.1	232.22				18.8	127.6	11.5	-14.9
111.4	32462	86.7	0.22398	215.0	17.93	8.0	0.9031	232.8	925.0	232.80				18.9	126.4	11.2	-15.2
112.0	32723	81.6	0.22656	201.6	17.56	7.7	0.8865	233.7	938.7	233.70				19.0	124.4	10.7	-15.7
113.0	33088	76.7	0.22989	189.1	17.40	7.3	0.8633	234.1	954.7	234.10				18.0	124.9	10.3	-14.7
113.7	33375	76.0	0.23242	187.7	18.00	7.0	0.8451	233.9	965.4	233.90				19.4	119.5	9.5	-16.9
114.0	33474	75.8	0.23328	187.2	18.20	6.9	0.8388	233.8	969.1	233.83				19.9	117.8	9.3	-17.6
115.0	33989	71.2	0.23765	175.6	18.43	6.4	0.8062	234.0	990.7	233.97				18.0	113.9	7.3	-16.5
116.0	34318	67.2	0.24027	164.9	18.26	6.1	0.7853	235.3	1010.1	235.30				13.9	107.9	4.3	-13.2
116.3	34432	65.5	0.24111	160.4	18.08	6.0	0.7782	235.7	1016.8	235.73				16.1	104.4	4.0	-15.6
117.0	34666	62.0	0.24284	151.2	17.70	5.8	0.7634	236.6	1030.5	236.62				20.9	99.5	3.5	-20.6
118.0	35161	56.7	0.24618	138.0	17.40	5.4	0.7324	237.3	1054.7	237.28				24.2	101.6	4.9	-23.7
119.0	35559	50.5	0.24860	122.4	16.41	5.1	0.7076	238.2	1076.3	238.20				20.5	107.1	6.0	-19.6
119.3	35697	51.0	0.24940	123.4	16.90	5.0	0.6990	238.4	1083.4	238.41				20.0	106.1	5.5	-19.2
120.0	35982	51.9	0.25105	125.5	17.93	4.8	0.6812	238.9	1098.1	238.85				19.1	103.8	4.6	-18.6
121.0	36433	45.9	0.25354	110.8	16.91	4.5	0.6532	239.2	1120.3	239.24				18.5	94.9	1.6	-18.5
122.0	36916	44.0	0.25599	106.0	17.34	4.2	0.6232	239.5	1143.9	239.51				19.8	91.7	0.6	-19.8
122.7	37257	42.0	0.25762	101.2	17.37	4.0	0.6021	239.5	1160.0	239.51				20.9	89.6	-0.2	-20.9
123.0	37435	40.9	0.25847	98.6	17.39	3.9	0.5911	239.5	1168.4	239.51				21.4	88.5	-0.5	-21.4
124.0	37996	37.9	0.26096	91.6	17.46	3.6	0.5563	239.1	1193.4	239.11				23.2	87.7	-0.9	-23.2
124.3	38193	36.6	0.26176	88.4	17.30	3.5	0.5441	239.2	1203.4	239.16				24.0	88.7	-0.6	-24.0
125.0	38605	33.8	0.26342	81.6	16.97	3.3	0.5185	239.2	1224.2	239.24				25.6	90.5	0.2	-25.6
126.0	39273	32.3	0.26591	77.9	17.85	3.0	0.4771	239.5	1259.3	239.51				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***


072777
0438
3A-137
P
T
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
40 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72777   LAUNCH TIME 1028 GMT   ECC SONDE 3A-138X

SURFACE CONDITIONS
PRESS 1004.8 MB
TEMP 299.2 K
HUMY 85.0 %

OO3 = 34.6
OIZ = 34.2
OZC = 60.7
IO = 0.078
PS = 27.5

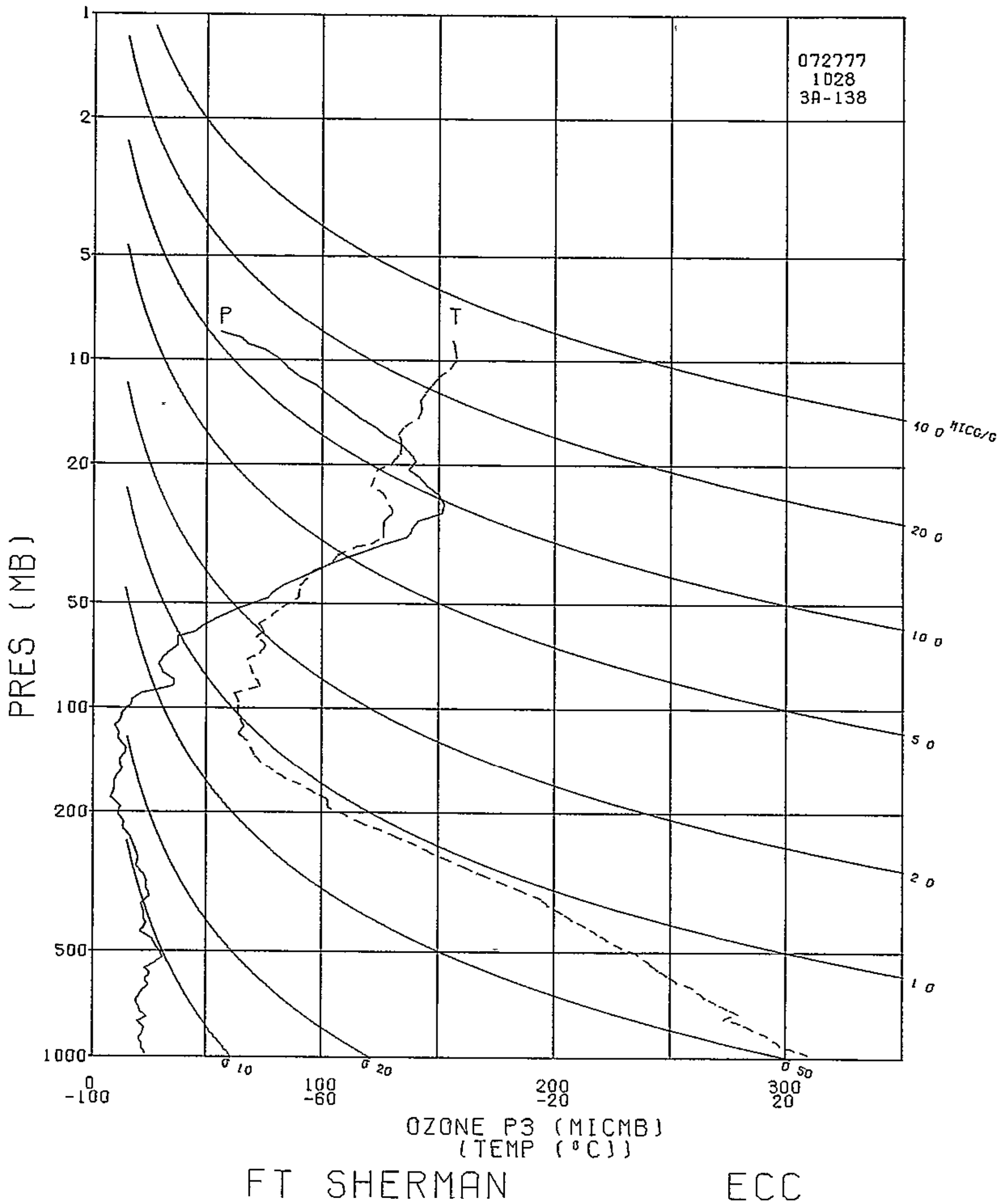
TBOX CAL = 30.0 C AT 75.0 ORD
BASE CAL = 30.0 C AT 73.6 ORD
HUMIDITY = 62.0 % AT 46.0 ORD

		PROFILE	DOBSON
	INTEGRATED OZONE	0.21429	
	RESIDUAL OZONE	0.03793	
	TOTAL OZONE	0.25223	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	20.8	0.	40.2	0.03	1004.8	3.0021	298.5	298.1	301.44	80.4	294.9	0.0162	4.0	20.0	-3.8	-1.4
0.2	95	21.1	0.00008	40.8	0.03	1000.0	3.0000	298.2	298.2	301.21	82.4	295.0	0.0166	4.3	12.6	-4.2	-0.9
1.0	318	22.7	0.00052	44.1	0.04	975.0	2.9890	296.8	299.0	300.00	92.7	295.6	0.0174	6.7	348.8	-6.6	1.3
2.0	591	21.5	0.00106	42.1	0.04	945.0	2.9754	294.6	299.4	297.59	100.0	294.6	0.0169	8.0	350.0	-7.9	1.4
3.0	842	21.6	0.00155	42.8	0.04	918.0	2.9628	291.9	299.2	294.48	96.9	291.4	0.0143	9.1	347.8	-8.9	1.9
3.6	1012	20.6	0.00188	40.8	0.04	900.0	2.9542	291.5	300.4	293.88	90.0	289.8	0.0128	9.5	346.0	-9.2	2.3
4.0	1108	20.0	0.00206	39.7	0.04	890.0	2.9494	291.3	301.2	293.53	86.1	288.9	0.0126	9.7	345.0	-9.4	2.5
5.0	1372	21.4	0.00257	42.6	0.04	863.0	2.9360	289.8	302.3	292.27	100.0	289.8	0.0138	8.8	348.5	-8.6	1.8
5.3	1500	21.7	0.00283	43.4	0.04	850.0	2.9294	288.9	302.6	291.23	100.0	288.9	0.0128	7.9	353.1	-7.9	1.0
6.0	1765	22.4	0.00336	45.0	0.04	824.0	2.9159	287.0	303.3	289.11	100.0	287.0	0.0120	6.4	6.1	-6.4	-0.7
6.7	2013	20.4	0.00385	41.3	0.04	800.0	2.9031	285.5	304.3	287.42	100.0	285.5	0.0110	5.4	8.1	-5.4	-0.8
7.0	2109	19.7	0.00404	39.8	0.04	791.0	2.8982	284.9	304.6	286.77	100.0	284.9	0.0109	5.0	9.1	-5.0	-0.8
8.0	2344	23.6	0.00452	48.3	0.05	769.0	2.8859	282.1	304.1	282.18				4.9	352.5	-4.9	0.6
9.0	2607	21.3	0.00509	43.2	0.05	745.0	2.8722	284.7	309.7	285.40	35.9	270.1	0.0041	4.6	1.4	-4.6	-0.1
10.0	2891	20.1	0.00564	41.1	0.05	720.0	2.8573	282.8	310.6	283.67	47.9	272.3	0.0050	4.4	19.0	-4.1	-1.4
10.8	3123	18.9	0.00607	38.8	0.04	700.0	2.8451	281.3	311.5	282.11	49.8	271.4	0.0048	3.7	37.3	-2.9	-2.2
11.0	3195	18.5	0.00620	38.1	0.04	694.0	2.8414	280.8	311.7	281.63	50.4	271.2	0.0047	3.6	44.1	-2.6	-2.5
12.0	3484	20.3	0.00674	42.0	0.05	670.0	2.8261	278.7	312.5	279.73	71.6	274.0	0.0060	3.2	52.6	-2.0	-2.6
13.0	3769	21.4	0.00732	44.5	0.05	647.0	2.8109	278.0	314.8	278.32	22.4	258.3	0.0019	3.9	50.2	-2.5	-3.0
14.0	4037	24.5	0.00792	51.1	0.06	626.0	2.7966	276.6	316.3	277.35	53.6	268.1	0.0042	4.5	50.8	-2.8	-3.5
15.0	4339	22.7	0.00861	48.0	0.06	603.0	2.7803	273.8	316.4	274.47	57.9	266.5	0.0038	4.2	61.5	-2.0	-3.7
15.1	4378	23.1	0.00871	48.7	0.06	600.0	2.7782	273.6	316.6	274.23	54.8	265.4	0.0034	4.2	65.8	-1.7	-3.8
16.0	4664	25.5	0.00939	54.2	0.07	579.0	2.7627	272.2	318.2	272.55	32.5	257.8	0.0020	4.4	96.6	0.5	-4.4
17.0	4958	22.6	0.01009	48.2	0.07	558.0	2.7466	270.6	319.7	271.31	71.2	266.2	0.0040	6.3	109.3	2.1	-5.9
18.0	5247	27.5	0.01081	58.8	0.08	538.0	2.7308	269.4	321.6	269.94	61.9	263.2	0.0033	8.0	108.1	2.5	-7.6
19.0	5530	30.4	0.01163	65.4	0.10	519.0	2.7152	268.6	324.0	268.79				8.4	107.3	2.5	-8.0
20.0	5822	29.2	0.01251	63.2	0.10	500.0	2.6990	267.0	325.4	267.45	61.6	260.8	0.0029	8.2	107.8	2.5	-7.8
21.0	6123	27.3	0.01337	59.5	0.09	481.0	2.6821	264.4	326.0	264.53				8.6	108.6	2.7	-8.1
22.0	6501	25.5	0.01439	56.3	0.09	458.0	2.6609	262.0	327.5	262.33	60.5	255.9	0.0021	9.5	109.3	3.1	-8.9
23.0	6842	20.7	0.01520	45.9	0.08	438.0	2.6415	260.1	329.3	260.20				9.9	107.3	2.9	-9.4
24.0	7196	23.2	0.01601	51.9	0.09	418.0	2.6212	258.1	331.1	258.23	39.3	247.3	0.0011	9.1	94.0	0.6	-9.1
25.0	7508	22.0	0.01675	49.7	0.09	401.0	2.6031	255.9	332.2	255.85				9.2	87.0	-0.5	-9.2
25.1	7526	22.0	0.01680	49.7	0.09	400.0	2.6021	255.8	332.3	255.76				9.2	86.9	-0.5	-9.2
26.0	7850	22.0	0.01755	49.9	0.10	383.0	2.5832	254.1	334.2	254.09				9.6	86.2	-0.6	-9.6
27.0	8186	20.9	0.01832	47.9	0.09	366.0	2.5635	251.8	335.6	251.80				10.2	79.5	-1.9	-10.0
27.9	8514	24.3	0.01912	56.1	0.12	350.0	2.5441	250.5	338.2	250.56				11.2	79.0	-2.1	-11.0
28.0	8535	24.6	0.01917	56.6	0.12	349.0	2.5428	250.5	338.4	250.48				11.3	79.0	-2.2	-11.1
29.0	8920	23.5	0.02017	54.8	0.12	331.0	2.5198	247.2	339.0	247.18				12.5	78.2	-2.6	-12.3
30.0	9231	23.4	0.02097	55.4	0.12	317.0	2.5011	244.3	339.2	244.36	56.0	238.3	0.0006	10.8	77.9	-2.3	-10.6
31.0	9575	22.1	0.02184	52.9	0.12	302.0	2.4800	241.1	339.5	241.19	68.8	237.3	0.0006	8.7	77.3	-1.9	-8.5
31.1	9621	21.7	0.02195	52.1	0.12	300.0	2.4771	240.7	339.5	240.78	69.2	237.0	0.0006	8.8	79.0	-1.7	-8.6
32.0	9981	19.0	0.02278	46.1	0.11	285.0	2.4548	237.5	340.0	237.61	72.3	234.4	0.0005	9.7	90.4	0.1	-9.7
33.0	10329	19.8	0.02355	48.7	0.12	271.0	2.4330	234.6	340.7	234.64	56.3	229.2	0.0003	9.6	100.4	1.7	-9.4
34.0	10664	18.5	0.02429	46.2	0.12	258.0	2.4116	231.5	340.9	231.47				9.6	99.7	1.6	-9.5
34.6	10876	17.7	0.02474	44.5	0.12	250.0	2.3979	230.0	341.7	229.95				11.0	103.6	2.6	-10.7
35.0	11012	17.2	0.02502	43.4	0.12	245.0	2.3892	229.0	342.2	228.98				11.9	105.7	3.2	-11.4
36.0	11346	15.9	0.02568	40.7	0.11	233.0	2.3674	225.6	342.0	225.56				13.4	106.9	3.9	-12.8
37.0	11651	13.4	0.02622	34.8	0.10	222.4	2.3471	223.1	342.7	223.06				14.3	113.3	5.7	-13.1
38.0	11931	13.5	0.02668	35.4	0.10	213.0	2.3284	219.7	341.8	219.70				16.1	116.6	7.2	-14.4
39.0	12270	11.0	0.02719	29.3	0.09	202.0	2.3054	217.0	342.7	216.98				16.5	115.4	7.1	-14.9
39.2	12332	11.2	0.02728	30.0	0.09	200.0	2.3010	216.4	342.7	216.39				16.5	114.4	6.8	-15.0
40.0	12590	12.1	0.02765	32.8	0.10	192.0	2.2833	214.0	342.9	213.97				16.3	110.2	5.6	-15.3
41.0	12959	8.0	0.02812	21.5	0.07	181.0	2.2577	213.6	348.1	213.62				12.3	101.8	2.5	-12.0
42.0	13204	9.2	0.02839	25.1	0.09	174.0	2.2405	211.5	348.6	211.49				7.3	90.3	0.0	-7.3
43.0	13531	9.2	0.02877	25.4	0.09	165.0	2.2175	209.1	349.9	209.08				6.2	89.9	-0.0	-6.2
44.0	13794	10.5	0.02911	29.3	0.11	158.0	2.1987	206.3	349.6	206.33				6.4	106.9	1.8	-6.1
45.0	14106	12.9	0.02959	36.5	0.14	150.0	2.1761	204.2	351.2	204.25				6.7	119.3	3.3	-5.8
46.0	14432	11.7	0.03012	33.3	0.14	142.0	2.1523	202.0	352.9	202.05				5.8	120.6	3.0	-5.0
47.0	14730	14.2	0.03063	40.8	0.17	135.0	2.1303	200.9	356.0	200.90				6.4	104.6	1.6	-6.2
48.0	14997	14.2	0.03114	41.0	0.18	129.0	2.1106	200.2	359.4	200.19				9.9	85.2	-0.8	-9.8
48.6	15181	12.5	0.03146	36.0	0.16	125.0	2.0969	199.8	361.9	199.78				10.4	83.6	-1.2	-10.4
49.0	15323	11.1	0.03170	32.1	0.15	122.0	2.0864	199.5	363.8	199.47				10.8	82.4	-1.4	-10.8
50.0	15517	11.7	0.03200	34.0	0.16	118.0	2.0719	198.2	365.0	198.23				9.4	90.7	0.1	-9.4
51.0	15820	9.4	0.03244	27.4	0.14	112.0	2.0492	199.2	372.4	199.22				6.4	90.7	0.1	-6.4
52.0	16032	12.5	0.03275	36.1	0.19	108.0	2.0334	199.5	376.7	199.47				0.4	85.5	-0.0	-0.4
53.0	16307	13.0	0.03323	38.0	0.21	103.0	2.0128	198.0	379.0	197.98				0.9	7.2	-0.9	-0.1
53.6	16478	15.2	0.03357	44.4	0.25	100.0	2.0000	198.0	382.2	197.98				1.8	1.3	-1.8	-0.0
54.0	16595	16.7	0.03381	48.7	0.28	98.0	1.9912	198.0	384.4	197.98				2.4	359.7	-2.4	0.0
55.0	16775	16.8	0.03422	48.8	0.29	95.0	1.9777	198.2	388.4	198.23				3.5	338.2	-3.2	1.3
56.0	17088	22.1	0.03505	64.7	0.41	90.0	1.9542	197.5	392.9	197.47				2.3	242.3	1.1	2.1
57.0	17353	34.9	0.03608	99.8	0.67	86.0	1.9345	202.0	407.3	202.05				4.5	223.5	3.3	3.1
58.0	17562	36.0	0.03707	103.3	0.72	83.0	1.9191	201.4	410.0	201.36				1.7	40.6	-1.3	-1.1
58.7	17778	32.0	0.03804	92.1	0.66	80.0	1.9031	200.8	413.3	200.84				5.1	60.5	-2.5	-4.5

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMAR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	17852	30.7	0.03837	88.2	0.64	79.0	1.8976	200.7	414.4	200.66				6.3	62.3	-2.9	-5.6
60.0	18157	28.7	0.03958	82.5	0.63	75.0	1.8751	200.4	420.1	200.43				6.3	87.4	-0.3	-6.3
61.0	18396	30.3	0.04053	87.5	0.70	72.0	1.8573	199.7	423.5	199.71				8.1	117.6	3.8	-7.2
61.7	18561	32.1	0.04124	92.2	0.76	70.0	1.8451	201.3	430.3	201.26				8.5	111.5	3.1	-7.9
62.0	18646	33.1	0.04160	94.6	0.79	69.0	1.8388	202.0	433.7	202.05				8.8	108.7	2.8	-8.3
63.0	18909	37.5	0.04284	106.5	0.94	66.0	1.8195	203.2	441.7	203.16				9.0	81.5	-1.3	-8.9
64.0	19279	37.6	0.04469	107.6	1.00	62.0	1.7924	201.6	446.2	201.59				9.8	77.8	-2.1	-9.6
65.0	19473	45.2	0.04576	128.6	1.25	60.0	1.7782	202.7	452.9	202.72				15.0	85.5	-1.2	-14.9
66.0	19776	49.9	0.04768	142.6	1.45	57.0	1.7559	201.8	457.5	201.82				21.9	87.4	-1.0	-21.9
67.0	20097	56.6	0.04995	160.1	1.74	54.0	1.7324	204.2	470.2	204.25				26.8	89.8	-0.1	-26.8
68.0	20440	64.6	0.05269	181.0	2.10	51.0	1.7076	206.1	482.4	206.13				31.4	88.0	-1.1	-31.4
68.3	20560	68.4	0.05379	190.5	2.27	50.0	1.6990	207.0	487.3	207.03				31.5	87.1	-1.6	-31.5
69.0	20808	76.0	0.05605	210.1	2.62	48.0	1.6812	208.9	497.4	208.89				31.8	85.2	-2.7	-31.7
70.0	21068	79.2	0.05866	219.6	2.85	46.0	1.6628	208.3	502.1	208.31				32.7	84.2	-3.3	-32.5
71.0	21339	83.5	0.06151	230.1	3.14	44.0	1.6435	209.5	511.3	209.46				34.2	84.2	-3.5	-34.0
72.0	21624	90.3	0.06470	248.3	3.56	42.0	1.6232	209.8	519.1	209.84				34.2	85.7	-2.6	-34.1
73.0	21925	97.5	0.06832	266.1	4.04	40.0	1.6021	211.7	531.0	211.67				36.4	87.5	-1.6	-36.4
74.0	22245	103.8	0.07239	279.0	4.53	38.0	1.5798	214.8	546.8	214.82				37.2	89.5	-0.3	-37.2
75.0	22585	113.5	0.07703	303.5	5.22	36.0	1.5563	215.8	558.0	215.83				39.4	92.6	1.8	-39.3
75.5	22764	118.6	0.07966	314.9	5.62	35.0	1.5441	217.4	566.7	217.43				37.0	94.2	2.7	-36.9
76.0	22949	123.9	0.08238	326.5	6.04	34.0	1.5315	219.1	575.7	219.07				34.7	96.2	3.7	-34.5
77.0	23063	127.0	0.08414	331.1	6.30	33.4	1.5237	221.6	585.1	221.55				25.8	95.9	2.7	-25.6
78.0	23362	136.5	0.08892	352.5	7.09	31.9	1.5038	223.7	598.5	223.66				27.0	87.0	-1.4	-27.0
79.0	23720	138.6	0.09486	357.7	7.60	30.2	1.4800	223.7	607.9	223.66				29.4	84.3	-2.9	-29.2
79.1	23763	138.9	0.09560	358.6	7.67	30.0	1.4771	223.7	609.2	223.67				28.7	85.1	-2.4	-28.6
80.0	24076	141.3	0.10087	364.6	8.19	28.6	1.4564	223.8	617.9	223.80				24.5	92.4	1.0	-24.5
81.0	24381	151.1	0.10624	387.6	9.17	27.3	1.4362	225.1	629.8	225.13				20.7	97.9	2.9	-20.5
82.0	24702	152.2	0.11208	390.9	9.70	26.0	1.4150	224.8	637.9	224.83				20.3	105.7	5.5	-19.5
82.5	24959	150.9	0.11675	388.6	10.00	25.0	1.3979	224.1	643.0	224.11				17.3	109.2	5.7	-16.4
83.0	25173	149.7	0.12063	386.7	10.25	24.2	1.3838	223.5	647.2	223.51				15.0	113.1	5.9	-13.8
84.0	25561	144.2	0.12754	376.0	10.48	22.8	1.3579	221.4	652.1	221.40				7.8	100.1	1.4	-7.7
85.0	25881	141.5	0.13311	369.1	10.81	21.7	1.3365	221.4	661.4	221.40				9.7	57.6	-5.2	-8.2
86.0	26219	136.5	0.13882	354.3	10.98	20.6	1.3139	222.5	674.5	222.46				15.1	65.4	-6.3	-13.7
86.5	26412	138.1	0.14204	356.0	11.45	20.0	1.3010	224.0	684.9	223.98				14.2	78.9	-2.7	-13.9
87.0	26578	139.5	0.14479	357.4	11.85	19.5	1.2900	225.3	693.9	225.27				14.1	91.1	0.3	-14.1
88.0	26926	137.0	0.15054	349.3	12.27	18.5	1.2672	226.4	708.0	226.43				9.7	87.6	-0.4	-9.6
88.9	27294	133.5	0.15646	340.1	12.64	17.5	1.2430	226.7	720.2	226.69				8.1	76.7	-1.9	-7.9
89.0	27332	133.2	0.15707	339.1	12.68	17.4	1.2405	226.7	721.4	226.71				7.9	75.3	-2.0	-7.7
90.0	27765	125.6	0.16374	320.6	12.76	16.3	1.2122	226.1	733.1	226.14				10.3	92.5	0.4	-10.3
91.0	28142	121.0	0.16926	307.3	13.02	15.4	1.1875	227.3	748.9	227.29				11.9	109.4	3.9	-11.2
91.5	28317	117.9	0.17171	298.1	13.02	15.0	1.1761	228.4	758.3	228.40				10.6	120.4	5.3	-9.1
92.0	28498	114.8	0.17422	288.7	13.03	14.6	1.1644	229.5	767.9	229.54				9.7	134.3	6.8	-7.0
93.0	28877	110.0	0.17922	275.8	13.21	13.8	1.1399	230.2	782.8	230.23				8.5	135.1	6.0	-6.0
94.0	29279	104.6	0.18428	262.6	13.33	13.0	1.1139	230.0	795.3	229.96				8.3	129.0	5.2	-6.4
94.7	29543	101.0	0.18744	252.9	13.39	12.5	1.0969	230.6	806.7	230.64				7.9	125.9	4.6	-6.4
95.0	29652	99.6	0.18873	249.0	13.41	12.3	1.0899	230.9	811.4	230.92				7.7	124.6	4.4	-6.3
96.0	29991	95.8	0.19259	238.4	13.57	11.7	1.0682	232.0	826.9	232.02				11.2	118.3	5.3	-9.9
97.0	30349	88.9	0.19643	220.2	13.27	11.1	1.0453	233.1	843.4	233.11				10.5	126.8	6.3	-8.4
98.0	30730	84.0	0.20022	206.2	13.25	10.5	1.0212	235.1	864.4	235.14				9.6	118.4	4.6	-8.5
98.7	31066	81.0	0.20337	198.2	13.41	10.0	1.0000	235.9	879.4	235.89				9.9	105.6	2.7	-9.5
99.0	31206	79.7	0.20467	194.9	13.48	9.8	0.9912	236.2	885.6	236.21				10.1	100.6	1.9	-10.0
100.0	31642	72.9	0.20848	178.3	13.12	9.2	0.9638	235.9	900.7	235.94				4.8	126.1	2.8	-3.9
101.0	31870	66.0	0.21029	161.7	12.28	8.9	0.9494	235.5	907.7	235.54				4.0	160.6	3.7	-1.3
102.0	32186	62.8	0.21263	154.1	12.23	8.5	0.9294	235.1	918.2	235.14				3.1	154.2	2.8	-1.4
103.0	32433	54.7	0.21429	134.4	11.06	8.2	0.9138	235.1	927.6	235.14				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



072777
1028
3A-138
P
T
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
10 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

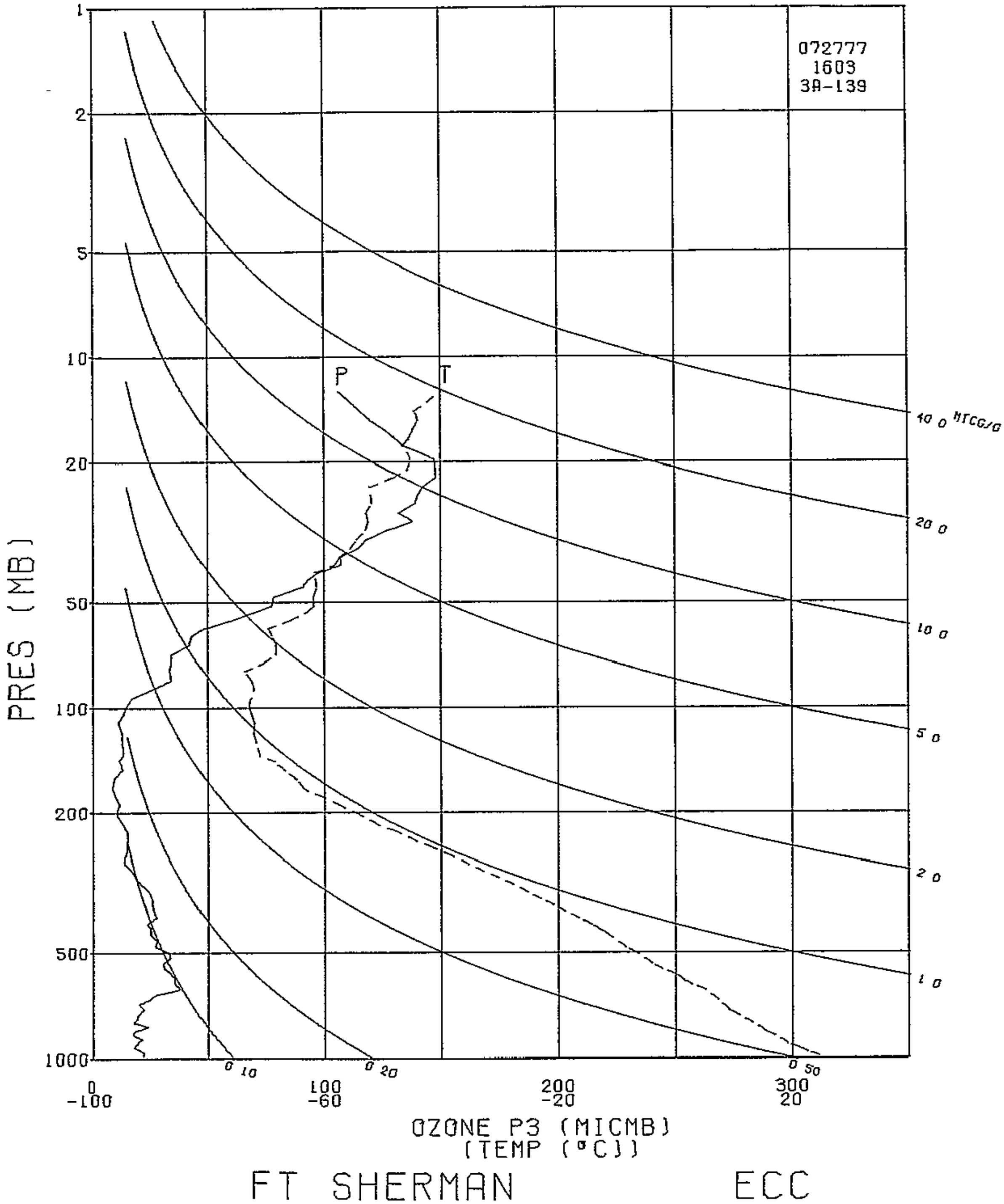
STATION FT SHERMAN   LAUNCH DATE 72777   LAUNCH TIME 1603 GMT   ECC SONDE 3A-139X

SURFACE CONDITIONS			
PRESS 1007.0 MB	003 = 34.1	TBOX CAL = 30.0 C	AT 74.3 ORD
TEMP 298.2 K	01Z = 33.8	BASE CAL = 30.0 C	AT 73.6 ORD
HUMY 90.0 %	0ZC = 63.1	HUMIDITY = 62.0 %	AT 46.0 ORD
	IO = 0.054		
	PS = 27.2		

	PROFILE	DOBSON
INTEGRATED OZONE	0.19022	
RESIDUAL OZONE	0.07644	
TOTAL OZONE	0.26665	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	20.5	0.	39.8	0.03	1007.0	3.0030	297.8	297.2	300.79	86.3	295.3	0.0166	7.0	30.0	-6.1	-3.5
0.3	114	20.9	0.00012	40.5	0.03	1000.0	3.0000	297.8	297.8	300.85	87.2	295.5	0.0172	7.4	34.2	-6.1	-4.1
1.0	283	21.8	0.00044	42.2	0.04	981.0	2.9917	297.8	299.4	301.00	89.8	296.0	0.0178	8.5	43.8	-6.1	-5.9
2.0	509	21.8	0.00088	42.5	0.04	956.0	2.9805	295.7	299.5	298.72	94.0	294.7	0.0168	9.0	36.5	-7.3	-5.4
3.0	749	17.9	0.00131	35.1	0.03	930.0	2.9685	294.1	300.3	297.10	99.6	294.0	0.0166	7.9	24.5	-7.2	-3.3
4.0	975	19.3	0.00169	38.1	0.04	906.0	2.9571	292.1	300.5	294.85	100.0	292.1	0.0152	7.3	17.2	-6.9	-2.2
4.2	1032	19.7	0.00180	39.0	0.04	900.0	2.9542	291.9	300.9	294.63	99.6	291.9	0.0149	7.1	16.3	-6.8	-2.0
5.0	1226	21.2	0.00216	42.0	0.04	880.0	2.9445	291.3	302.1	293.88	98.3	291.0	0.0145	6.4	12.8	-6.2	-1.4
6.0	1453	17.5	0.00256	34.9	0.03	857.0	2.9330	290.0	303.1	292.52	99.9	290.0	0.0140	5.3	6.7	-5.3	-0.6
6.3	1522	17.7	0.00268	35.3	0.03	850.0	2.9294	289.5	303.3	291.97	99.8	289.5	0.0135	5.1	11.6	-5.0	-1.0
7.0	1685	18.2	0.00295	36.4	0.04	834.0	2.9212	288.4	303.8	290.68	99.6	288.3	0.0129	4.8	24.4	-4.3	-2.0
8.0	1912	24.1	0.00339	48.3	0.05	812.0	2.9096	288.0	305.7	289.95	85.3	285.6	0.0111	5.7	52.6	-3.5	-4.5
8.5	2037	20.9	0.00364	41.9	0.04	800.0	2.9031	287.1	306.0	289.09	92.5	285.8	0.0116	6.0	57.2	-3.2	-5.0
9.0	2155	17.8	0.00387	36.0	0.04	789.0	2.8971	286.2	306.3	288.29	99.1	286.1	0.0118	6.2	61.1	-3.0	-5.5
10.0	2382	19.1	0.00426	38.6	0.04	768.0	2.8854	285.3	307.6	287.23	98.5	285.0	0.0113	6.2	58.9	-3.2	-5.3
11.0	2625	20.2	0.00471	41.1	0.04	746.0	2.8727	283.6	308.3	285.24	92.2	282.3	0.0097	6.4	54.6	-3.7	-5.2
12.0	2885	22.0	0.00523	45.1	0.05	723.0	2.8591	282.1	309.5	283.71	95.9	281.5	0.0095	6.4	56.8	-3.5	-5.4
13.0	3153	20.0	0.00577	41.1	0.05	700.0	2.8451	281.4	311.6	283.04	98.9	281.2	0.0096	5.5	69.8	-1.9	-5.2
13.0	3165	19.9	0.00579	40.9	0.05	699.0	2.8445	281.4	311.7	283.01	99.0	281.2	0.0096	5.5	70.4	-1.8	-5.2
14.0	3416	24.5	0.00633	50.6	0.06	678.0	2.8312	280.3	313.2	280.65	23.5	260.8	0.0022	5.5	75.8	-1.3	-5.3
15.0	3712	28.1	0.00708	58.1	0.07	654.0	2.8156	279.8	315.8	280.44	43.7	268.3	0.0041	7.1	75.1	-1.8	-6.8
16.0	3992	37.7	0.00797	78.3	0.10	632.0	2.8007	277.8	316.8	278.70	60.2	270.8	0.0051	8.2	78.8	-1.6	-8.0
17.0	4240	35.9	0.00885	75.2	0.10	613.0	2.7875	275.8	317.2	276.60	62.5	269.4	0.0047	8.5	78.0	-1.8	-8.3
17.7	4412	35.9	0.00946	75.4	0.10	600.0	2.7782	274.7	317.9	275.51	64.9	268.8	0.0046	9.7	75.0	-2.5	-9.4
18.0	4480	35.8	0.00970	75.4	0.10	595.0	2.7745	274.3	318.2	275.08	65.8	268.6	0.0046	10.2	74.0	-2.8	-9.8
19.0	4796	33.9	0.01078	71.6	0.10	572.0	2.7574	272.9	320.1	273.65	72.6	268.5	0.0047	10.6	72.8	-3.1	-10.2
20.0	5065	30.7	0.01164	65.5	0.09	553.0	2.7427	270.6	320.6	271.38	78.3	267.4	0.0045	9.0	77.4	-1.9	-8.7
21.0	5356	30.8	0.01253	66.2	0.10	533.0	2.7267	268.8	321.7	269.54	89.5	267.3	0.0046	7.8	73.2	-2.2	-7.5
22.0	5611	33.4	0.01336	71.9	0.11	516.0	2.7126	267.7	323.4	268.20	60.2	261.2	0.0030	6.2	59.1	-3.2	-5.3
22.8	5856	33.0	0.01418	71.4	0.11	500.0	2.6990	266.5	324.8	266.92	61.3	260.3	0.0028	5.3	52.7	-3.2	-4.2
23.0	5904	32.9	0.01434	71.3	0.11	497.0	2.6964	266.2	325.1	266.67	61.5	260.1	0.0028	5.1	51.3	-3.2	-4.0
24.0	6191	27.1	0.01521	59.2	0.09	479.0	2.6803	264.3	326.2	264.89	89.5	262.9	0.0036	6.2	62.4	-2.9	-5.5
25.0	6470	27.7	0.01599	60.8	0.10	462.0	2.6646	263.3	328.3	263.83	87.5	261.6	0.0034	8.0	67.6	-3.0	-7.4
26.0	6775	25.1	0.01682	55.5	0.09	444.0	2.6474	261.4	329.7	261.87	81.1	258.8	0.0028	8.7	64.6	-3.7	-7.9
27.0	7073	25.1	0.01759	55.8	0.10	427.0	2.6304	260.0	331.6	260.41	79.4	257.2	0.0026	8.7	68.8	-3.1	-8.1
28.0	7344	23.2	0.01828	51.9	0.09	412.0	2.6149	258.3	332.8	258.67	74.0	254.7	0.0022	9.7	72.7	-2.9	-9.3
28.7	7566	26.4	0.01887	59.4	0.11	400.0	2.6021	256.9	333.8	257.19	72.8	253.2	0.0019	10.9	69.9	-3.7	-10.3
29.0	7642	27.5	0.01907	61.9	0.12	396.0	2.5977	256.4	334.1	256.69	72.4	252.6	0.0019	11.3	69.1	-4.0	-10.6
30.0	7990	26.0	0.02005	59.1	0.11	378.0	2.5775	254.0	335.3	254.19	71.0	250.0	0.0016	11.1	66.6	-4.4	-10.2
31.0	8310	25.4	0.02093	58.1	0.12	362.0	2.5587	252.1	337.0	252.27	67.5	247.7	0.0013	9.8	66.2	-3.9	-8.9
31.9	8557	25.3	0.02160	58.4	0.12	350.0	2.5441	250.1	337.6	250.31	68.1	245.9	0.0011	10.1	66.4	-4.0	-9.3
32.0	8600	25.3	0.02171	58.4	0.12	348.0	2.5416	249.8	337.7	249.98	68.2	245.6	0.0011	10.2	66.5	-4.1	-9.3
33.0	8921	24.1	0.02257	56.2	0.12	333.0	2.5224	247.6	338.9	247.70	67.0	243.3	0.0009	10.9	68.9	-3.9	-10.2
34.0	9276	20.5	0.02344	48.2	0.11	317.0	2.5011	245.2	340.4	245.30	66.4	240.9	0.0008	10.2	71.6	-3.2	-9.7
35.0	9598	18.0	0.02413	43.0	0.10	303.0	2.4814	242.6	341.2	242.64	58.3	237.1	0.0006	9.0	74.1	-2.5	-8.6
35.2	9668	17.7	0.02426	42.3	0.10	300.0	2.4771	241.9	341.3	242.02	58.2	236.5	0.0005	8.8	75.0	-2.3	-8.5
36.0	9883	16.7	0.02468	40.2	0.10	291.0	2.4639	240.1	341.6	240.12	57.9	234.6	0.0005	8.2	78.2	-1.7	-8.0
37.0	10202	13.6	0.02523	33.0	0.08	278.0	2.4440	237.5	342.4	237.59	57.3	232.2	0.0004	8.4	86.0	-0.6	-8.4
38.0	10585	14.1	0.02583	34.7	0.09	263.0	2.4200	234.6	343.6	234.64	56.6	229.2	0.0003	8.1	103.2	1.8	-7.9
38.9	10930	14.7	0.02641	36.6	0.10	250.0	2.3979	231.4	343.9	231.45				8.0	115.9	3.5	-7.2
39.0	10958	14.7	0.02645	36.7	0.10	249.0	2.3962	231.2	344.0	231.20				8.0	116.9	3.6	-7.1
40.0	11262	15.2	0.02699	38.4	0.11	238.0	2.3766	228.4	344.2	228.42				8.5	112.5	3.2	-7.8
41.0	11664	14.6	0.02770	37.5	0.11	224.0	2.3502	225.0	345.0	224.98				8.7	110.4	3.0	-8.2
42.0	11962	12.7	0.02819	33.0	0.10	214.0	2.3304	221.9	344.7	221.86				10.4	110.0	3.6	-9.8
43.0	12366	10.1	0.02876	26.6	0.08	201.0	2.3032	218.9	346.2	218.91				12.4	107.7	3.8	-11.8
43.1	12397	10.2	0.02880	27.0	0.08	200.0	2.3010	218.6	346.3	218.64				12.4	107.4	3.7	-11.9
44.0	12757	11.5	0.02928	30.9	0.10	189.0	2.2765	215.5	346.9	215.50				12.3	104.2	3.0	-11.9
45.0	13097	9.6	0.02973	26.1	0.09	179.0	2.2529	212.6	347.5	212.57				12.6	97.7	1.7	-12.5
46.0	13451	8.3	0.03014	22.9	0.08	169.0	2.2279	209.1	347.5	209.08				13.1	86.8	-0.7	-13.1
47.0	13823	9.0	0.03056	25.0	0.09	159.0	2.2014	207.9	351.6	207.92				9.8	74.1	-2.7	-9.4
48.0	14176	12.9	0.03106	36.1	0.14	150.0	2.1761	205.9	354.1	205.92				3.9	62.9	-1.8	-3.5
49.0	14547	11.6	0.03166	32.8	0.14	141.0	2.1492	204.2	357.5	204.25				0.4	193.0	0.4	0.1
50.0	14757	13.4	0.03201	38.5	0.16	136.1	2.1339	201.6	356.4	201.59				4.8	80.1	-0.8	-4.7
50.9	15257	12.7	0.03288	36.5	0.17	125.0	2.0969	201.0	364.0	200.96				5.1	73.0	-1.5	-4.9
51.0	15305	12.6	0.03296	36.3	0.17	124.0	2.0934	200.9	364.8	200.90				5.1	72.4	-1.5	-4.9
52.0	15646	12.6	0.03354	36.3	0.18	117.0	2.0682	200.4	370.0	200.43				1.5	98.9	0.2	-1.5
53.0	16008	11.0	0.03412	31.5	0.17	110.0	2.0414	200.7	377.0	200.66				4.2	63.1	-1.9	-3.7
54.0	16337	13.5	0.03466	39.0	0.22	104.0	2.0170	200.2	382.2	200.19				4.2	53.4	-2.5	-3.3
54.7	16566	14.7	0.03510	42.5	0.24	100.0	2.0000	199.9	385.9	199.87				4.1	42.4	-3.0	-2.8
55.0	16685	15.3	0.03533	44.2	0.26	98.0	1.9912	199.7	387.8	199.71				4.2	36.8	-3.3	-2.5
56.0	16991	17.7	0.03601	51.1	0.31	93.0	1.9685	199.7	393.7	199.71				2.5	29.2	-2.2	-1.2
57.0	17315	25.9	0.03696	74.6	0.49	88.0	1.9445	200.7	401.8	200.66				1.9	118.4	0.9	-1.7
58.0	17658	34.2	0.03835	98.6	0.68	83.0	1.9191	200.2	407.6	200.19				5.5	90.5	0.0	-5.5

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.6	17873	33.9	0.03934	98.2	0.70	80.0	1.9031	199.5	410.5	199.47				8.4	98.2	1.2	-8.3
59.0	18021	33.7	0.04002	97.8	0.72	78.0	1.8921	199.0	412.4	198.98				10.5	101.0	2.0	-10.3
60.0	18330	34.6	0.04144	98.6	0.77	74.0	1.8692	202.5	426.1	202.50				12.0	119.5	5.9	-10.5
61.0	18661	34.8	0.04296	98.1	0.82	70.0	1.8451	204.7	437.6	204.67				9.8	117.0	4.4	-8.7
62.0	19013	42.3	0.04475	119.3	1.06	66.0	1.8195	204.7	445.0	204.67				9.6	86.2	-0.6	-9.6
63.0	19387	43.5	0.04686	123.3	1.16	62.0	1.7924	203.8	451.1	203.82				11.1	79.2	-2.1	-10.9
63.7	19582	46.8	0.04805	133.0	1.30	60.0	1.7782	203.4	454.4	203.38				13.8	85.3	-1.1	-13.8
64.0	19682	48.5	0.04866	138.0	1.36	59.0	1.7709	203.2	456.1	203.16				15.2	87.6	-0.6	-15.2
65.0	19995	59.8	0.05090	166.8	1.77	56.0	1.7482	207.1	472.0	207.13				23.3	87.2	-1.1	-23.2
66.0	20331	70.2	0.05372	192.8	2.20	53.0	1.7243	210.2	486.6	210.21				26.2	88.0	-0.9	-26.1
67.0	20568	77.2	0.05596	211.0	2.51	51.0	1.7076	211.3	494.5	211.31				28.6	94.1	2.0	-28.6
67.3	20690	77.5	0.05717	211.9	2.57	50.0	1.6990	211.3	497.4	211.31				29.4	96.2	3.2	-29.2
68.0	20943	78.2	0.05968	213.6	2.70	48.0	1.6812	211.3	503.2	211.31				31.0	100.2	5.5	-30.5
69.0	21342	90.5	0.06397	246.7	3.33	45.0	1.6532	211.9	513.8	211.85				30.0	102.3	6.4	-29.3
70.0	21624	92.8	0.06726	253.0	3.58	43.0	1.6335	211.9	520.6	211.85				28.4	97.7	3.8	-28.2
71.0	21919	97.5	0.07084	266.3	3.94	41.0	1.6128	211.5	526.8	211.49				28.7	94.5	2.3	-28.6
71.5	22073	102.2	0.07283	276.6	4.24	40.0	1.6021	213.2	534.9	213.22				30.0	93.9	2.1	-30.0
72.0	22231	106.9	0.07487	287.1	4.54	39.0	1.5911	215.0	543.2	214.99				31.4	93.4	1.9	-31.3
73.0	22563	107.0	0.07931	286.2	4.79	37.0	1.5682	215.8	553.6	215.83				31.4	93.4	1.8	-31.3
74.0	22915	114.6	0.08417	304.0	5.42	35.0	1.5441	217.6	567.2	217.63				34.0	93.5	2.1	-34.0
75.0	23291	118.3	0.08958	312.3	5.94	33.0	1.5185	218.8	579.7	218.76				33.4	93.4	2.0	-33.3
76.0	23693	127.4	0.09564	333.7	6.81	31.0	1.4914	220.3	594.4	220.32				26.5	90.9	0.4	-26.5
76.6	23904	133.7	0.09907	349.9	7.39	30.0	1.4771	220.6	600.8	220.61				25.8	86.5	-1.6	-25.7
77.0	24035	137.6	0.10118	359.8	7.75	29.4	1.4683	220.8	604.8	220.79				25.4	83.6	-2.8	-25.3
78.0	24396	131.4	0.10712	344.4	7.83	27.8	1.4440	220.3	613.2	220.32				28.9	91.3	0.6	-28.9
79.0	24829	139.2	0.11426	363.1	8.87	26.0	1.4150	221.4	628.1	221.40				25.4	97.8	3.4	-25.2
79.8	25082	140.1	0.11859	365.1	9.29	25.0	1.3979	221.5	635.5	221.52				22.0	95.9	2.3	-21.9
80.0	25161	140.3	0.11992	365.7	9.41	24.7	1.3927	221.6	637.8	221.55				21.0	95.2	1.9	-20.9
81.0	25511	142.5	0.12596	372.2	10.09	23.4	1.3692	221.1	646.4	221.09				17.6	92.3	0.7	-17.6
82.0	25884	147.6	0.13250	379.1	11.07	22.1	1.3444	224.8	668.2	224.83				17.1	73.5	-4.8	-16.4
83.0	26253	147.8	0.13901	375.3	11.72	20.9	1.3201	227.4	686.8	227.43				21.6	82.4	-2.8	-21.4
83.7	26546	147.6	0.14413	374.0	12.23	20.0	1.3010	227.8	696.7	227.82				16.7	103.9	4.0	-16.3
84.0	26681	147.4	0.14649	373.4	12.46	19.6	1.2923	228.0	701.2	227.99				15.6	117.2	7.1	-13.9
85.0	26994	140.5	0.15183	356.6	12.45	18.7	1.2718	227.4	708.9	227.43				9.4	167.5	9.2	-2.0
86.0	27284	133.0	0.15654	338.9	12.31	17.9	1.2529	226.6	715.1	226.57				6.6	150.5	5.7	-3.2
86.4	27434	131.5	0.15889	334.4	12.45	17.5	1.2430	227.1	721.4	227.07				7.2	136.5	5.3	-5.0
87.0	27627	129.6	0.16189	328.5	12.63	17.0	1.2304	227.7	729.4	227.71				8.6	122.8	4.6	-7.2
88.0	27990	125.1	0.16735	316.3	12.88	16.1	1.2068	228.4	743.1	228.42				9.5	132.5	6.5	-7.0
89.0	28375	119.2	0.17290	300.3	13.00	15.2	1.1818	229.3	758.2	229.26				10.5	151.8	9.3	-5.0
89.2	28463	118.3	0.17412	298.0	13.06	15.0	1.1761	229.1	760.6	229.11				10.2	153.3	9.1	-4.6
90.0	28784	114.8	0.17854	289.9	13.30	14.3	1.1553	228.6	769.2	228.56				9.1	159.5	8.5	-3.2
91.0	29221	110.2	0.18430	275.6	13.63	13.4	1.1271	230.9	791.7	230.92				8.1	128.2	5.0	-6.3
92.0	29693	105.3	0.19022	260.6	13.96	12.5	1.0969	233.2	815.8	233.25				999.9	999.9	999.9	999.9


072777
1603
3A-139
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
P
T
40 0 MTCG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72777   LAUNCH TIME 2240 GMT   ECC SONDE 3A-141X

SURFACE CONDITIONS
PRESS 1003.8 MB
TEMP 300.3 K
HUMY 83.0 %

003 = 37.6
OIZ = 36.6
OZC = 68.5
IO = 0.160
PS = 27.4

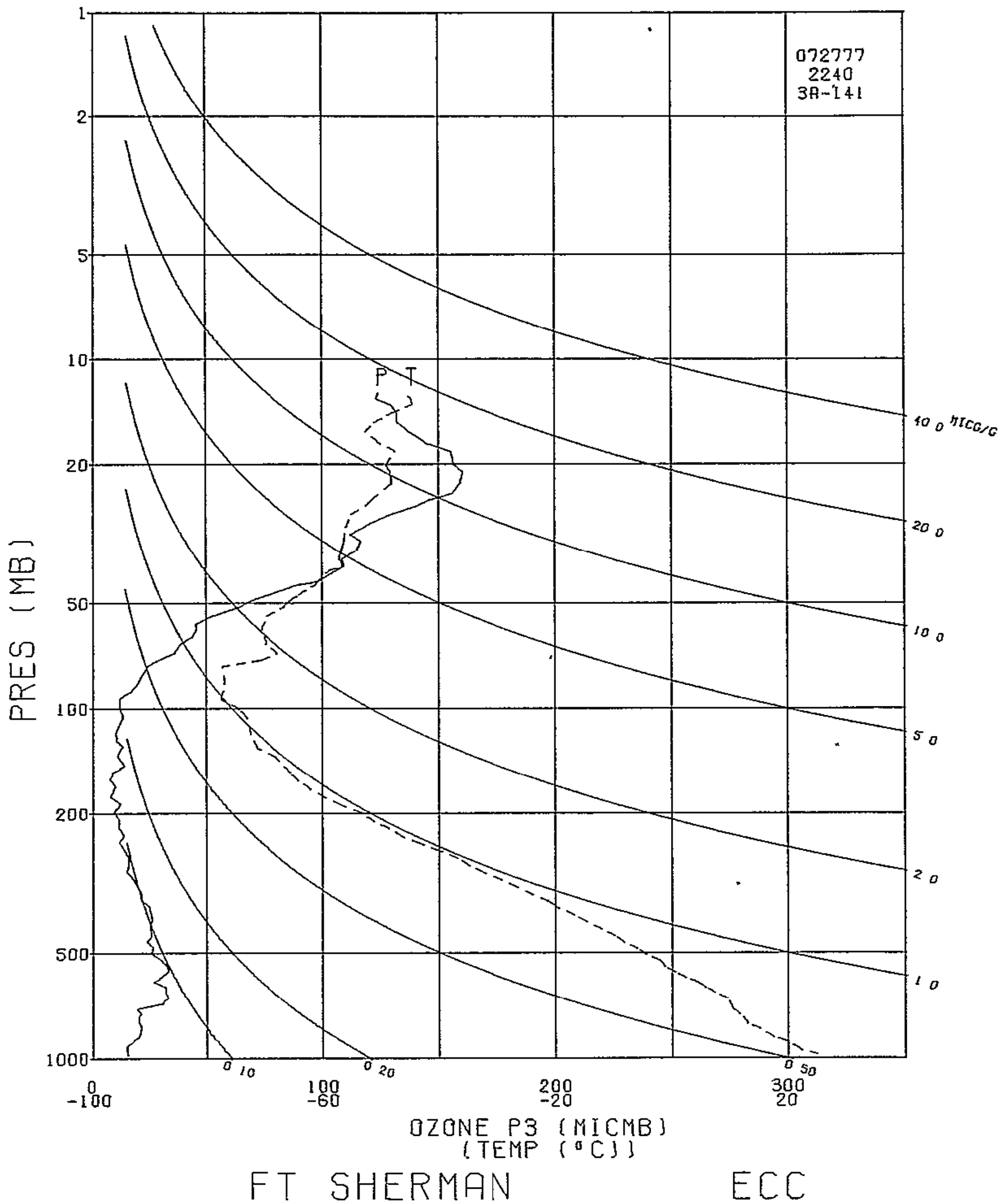
TBOX CAL = 30.0 C AT 73.9 ORD
BASE CAL = 30.0 C AT 74.1 ORD
HUMIDITY = 62.5 % AT 46.0 ORD

	PROFILE	DOBSON
INTEGRATED OZONE	0.19100	
RESIDUAL OZONE	0.08929	
TOTAL OZONE	0.28028	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	14.0	0.	27.0	0.02	1003.8	3.0016	299.6	299.3	302.74	78.5	295.6	0.0169	2.0	10.0	-2.0	-0.3
0.1	86	14.1	0.00004	27.2	0.02	1000.0	3.0000	299.5	299.5	302.60	79.6	295.6	0.0172	2.5	9.7	-2.5	-0.4
1.0	358	15.1	0.00040	29.3	0.03	969.7	2.9866	298.2	300.8	301.48	88.9	296.2	0.0182	6.6	8.8	-6.5	-1.0
2.0	631	14.6	0.00076	28.5	0.03	940.0	2.9731	295.1	300.4	298.27	100.0	295.1	0.0176	6.4	9.1	-6.3	-1.0
3.0	856	15.2	0.00107	30.0	0.03	916.0	2.9619	294.0	301.4	296.99	100.0	294.0	0.0168	5.7	11.6	-5.6	-1.1
3.5	1008	16.9	0.00130	33.3	0.03	900.0	2.9542	293.2	302.2	296.17	100.0	293.2	0.0162	5.0	12.6	-4.9	-1.1
4.0	1135	18.2	0.00149	36.0	0.03	887.0	2.9479	292.6	302.8	295.50	100.0	292.6	0.0160	4.5	13.6	-4.4	-1.1
5.0	1331	19.9	0.00184	39.6	0.04	867.0	2.9380	290.5	302.6	292.89	94.9	289.7	0.0136	3.6	10.5	-3.6	-0.7
5.7	1500	20.7	0.00216	41.3	0.04	850.0	2.9294	289.9	303.7	292.06	87.2	287.7	0.0118	4.0	13.6	-3.9	-1.0
6.0	1571	21.1	0.00229	42.0	0.04	843.0	2.9258	289.6	304.1	291.71	84.0	286.9	0.0117	4.2	14.7	-4.1	-1.1
7.0	1837	21.6	0.00282	43.3	0.04	817.0	2.9122	288.0	305.1	290.00	87.9	286.0	0.0114	3.7	36.3	-3.0	-2.2
7.7	2014	21.0	0.00317	42.3	0.04	800.0	2.9031	286.7	305.6	288.62	90.2	285.1	0.0108	3.4	53.1	-2.1	-2.7
8.0	2110	20.7	0.00336	41.8	0.04	791.0	2.8982	286.0	305.8	287.88	91.4	284.6	0.0107	3.4	63.0	-1.5	-3.0
9.0	2380	20.5	0.00388	41.3	0.04	766.0	2.8842	286.0	308.6	287.65	77.7	282.2	0.0094	3.4	74.1	-0.9	-3.2
10.0	2613	21.2	0.00434	43.0	0.05	745.0	2.8722	284.6	309.6	285.90	63.3	277.9	0.0072	3.1	55.9	-1.7	-2.5
11.0	2932	19.8	0.00496	40.3	0.05	717.0	2.8555	283.3	311.6	284.24	49.7	273.3	0.0054	3.3	42.3	-2.5	-2.2
11.7	3131	27.6	0.00544	56.2	0.07	700.0	2.8451	283.4	313.9	283.85	21.0	258.3	0.0014	3.6	46.1	-2.5	-2.6
12.0	3215	30.9	0.00564	62.9	0.07	693.0	2.8407	283.5	314.8	283.68				3.8	47.5	-2.6	-2.8
13.0	3494	32.9	0.00648	67.2	0.08	670.0	2.8261	282.4	316.6	282.48				3.7	63.6	-1.7	-3.3
14.0	3820	32.3	0.00750	66.6	0.08	644.0	2.8089	280.2	317.7	280.27				3.3	77.8	-0.7	-3.3
15.0	4091	32.2	0.00835	66.8	0.09	623.0	2.7945	278.6	318.9	278.69				4.3	74.9	-1.1	-4.1
16.0	4356	26.8	0.00911	55.8	0.07	603.0	2.7803	277.2	320.3	277.48				6.1	73.7	-1.7	-5.8
16.1	4396	27.3	0.00922	57.0	0.08	600.0	2.7782	276.9	320.4	277.24				6.2	73.6	-1.8	-6.0
17.0	4629	30.3	0.00987	63.6	0.09	583.0	2.7657	275.2	321.1	275.84	52.0	266.4	0.0039	7.1	73.5	-2.0	-6.8
18.0	4924	33.3	0.01079	70.2	0.10	562.0	2.7497	273.4	322.3	273.74	32.6	258.9	0.0022	7.7	79.9	-1.4	-7.6
19.0	5213	32.8	0.01173	69.7	0.10	542.0	2.7340	271.6	323.5	271.71				9.2	84.1	-1.0	-9.2
20.0	5542	29.7	0.01275	63.3	0.09	520.0	2.7160	270.6	326.2	270.65				8.9	82.6	-1.1	-8.8
21.0	5835	25.9	0.01357	55.7	0.09	501.0	2.6998	268.5	327.1	268.47				11.4	79.3	-2.1	-11.2
21.0	5850	25.9	0.01361	55.8	0.09	500.0	2.6990	268.4	327.2	268.39				11.6	79.2	-2.2	-11.4
22.0	6154	26.6	0.01441	57.5	0.09	481.0	2.6821	266.8	328.9	266.80				14.3	76.9	-3.2	-13.9
23.0	6467	23.6	0.01521	51.4	0.08	462.0	2.6646	264.6	329.9	264.57				13.7	73.5	-3.9	-13.1
24.0	6808	26.0	0.01607	57.0	0.10	442.0	2.6454	263.0	332.1	262.97				13.5	73.9	-3.8	-13.0
25.0	7145	25.0	0.01696	55.4	0.10	423.0	2.6263	260.7	333.3	261.01	61.3	254.8	0.0021	13.8	80.8	-2.2	-13.6
26.0	7532	26.2	0.01799	58.6	0.11	402.0	2.6042	258.0	334.8	258.08				12.4	84.6	-1.2	-12.3
26.1	7569	26.1	0.01809	58.5	0.11	400.0	2.6021	257.8	334.9	257.84				12.2	84.4	-1.2	-12.2
27.0	7857	25.6	0.01887	57.6	0.11	385.0	2.5855	256.0	336.2	256.01				10.9	82.9	-1.4	-10.8
28.0	8234	24.8	0.01987	56.6	0.11	366.0	2.5635	253.0	337.1	253.02				11.1	83.9	-1.2	-11.0
29.0	8522	21.0	0.02058	48.3	0.10	352.0	2.5465	251.5	338.9	251.51				11.4	79.2	-2.1	-11.2
29.1	8563	21.1	0.02067	48.4	0.10	350.0	2.5441	251.2	339.0	251.17				11.5	78.8	-2.2	-11.3
30.0	8841	21.2	0.02131	49.3	0.10	337.0	2.5276	248.9	339.5	248.86				12.1	75.8	-3.0	-11.7
31.0	9193	19.3	0.02208	45.3	0.10	321.0	2.5065	246.1	340.5	246.11				12.7	72.6	-3.8	-12.1
32.0	9559	17.4	0.02282	41.4	0.09	305.0	2.4843	243.3	341.6	243.36				13.5	67.8	-5.1	-12.5
32.4	9675	16.5	0.02304	39.3	0.09	300.0	2.4771	242.2	341.6	242.23				13.7	67.8	-5.2	-12.7
33.0	9867	15.0	0.02338	36.0	0.08	292.0	2.4654	240.3	341.6	240.37	21.6	225.8	0.0002	14.1	67.8	-5.3	-13.0
34.0	10185	15.6	0.02393	37.8	0.09	279.0	2.4456	237.8	342.5	237.90	55.1	232.1	0.0004	14.6	68.7	-5.3	-13.6
35.0	10542	15.5	0.02456	38.0	0.10	265.0	2.4232	235.9	344.7	235.92	57.3	230.6	0.0003	13.1	83.1	-1.6	-13.0
36.0	10860	13.6	0.02510	33.8	0.09	253.0	2.4031	232.8	344.8	232.80				12.4	103.1	2.8	-12.0
36.2	10940	13.1	0.02521	32.7	0.09	250.0	2.3979	232.0	344.7	231.97				12.2	103.6	2.9	-11.8
37.0	11188	11.6	0.02558	29.3	0.08	241.0	2.3820	229.4	344.5	229.40				11.6	105.3	3.1	-11.2
38.0	11499	13.5	0.02604	34.4	0.10	230.0	2.3617	226.3	344.4	226.33				12.2	97.3	1.6	-12.1
39.0	11852	11.3	0.02657	29.2	0.09	218.0	2.3385	224.2	346.4	224.18				11.4	95.1	1.0	-11.3
40.0	12127	11.8	0.02695	30.6	0.09	209.0	2.3201	221.7	346.7	221.67				10.5	99.0	1.6	-10.3
40.7	12410	9.9	0.02732	25.9	0.08	200.0	2.3010	220.0	348.4	219.98				10.4	98.8	1.6	-10.3
41.0	12508	9.2	0.02744	24.3	0.08	197.0	2.2945	219.4	349.0	219.39				10.4	98.8	1.6	-10.3
42.0	12840	12.3	0.02788	33.0	0.11	187.0	2.2718	215.9	348.6	215.90				9.1	93.9	0.6	-9.1
43.0	13149	7.9	0.02828	21.4	0.07	178.0	2.2504	213.2	349.1	213.23				9.4	92.4	0.4	-9.4
44.0	13507	10.4	0.02869	28.4	0.10	168.0	2.2253	210.6	350.6	210.59				9.6	90.8	0.1	-9.6
45.0	13844	7.8	0.02909	21.6	0.06	159.0	2.2014	208.6	352.7	208.56				9.0	73.7	-2.5	-8.6
46.0	14158	9.0	0.02943	25.1	0.10	151.0	2.1790	207.2	355.6	207.22				5.7	44.5	-4.0	-4.0
46.2	14198	9.8	0.02949	27.4	0.11	150.0	2.1761	207.2	356.3	207.18				5.4	43.7	-3.9	-3.7
47.0	14403	14.0	0.02980	39.0	0.16	145.0	2.1614	207.0	359.4	207.02				3.8	37.6	-3.0	-2.3
48.0	14789	10.9	0.03043	30.8	0.13	136.0	2.1335	204.6	361.8	204.61				5.9	65.2	-2.5	-5.3
49.0	15149	13.4	0.03101	38.4	0.17	128.0	2.1072	201.4	362.3	201.37				6.1	81.5	-0.9	-6.1
49.6	15288	11.8	0.03124	33.9	0.16	125.0	2.0969	201.4	364.8	201.37				6.2	85.2	-0.5	-6.2
50.0	15384	10.7	0.03139	30.8	0.14	123.0	2.0899	201.4	366.5	201.37				6.3	87.7	-0.3	-6.3
51.0	15678	10.0	0.03180	28.9	0.14	117.0	2.0682	200.2	369.6	200.23				5.3	94.7	0.4	-5.3
52.0	15986	11.7	0.03225	33.9	0.18	111.0	2.0453	200.0	374.8	200.00				5.8	109.0	1.9	-5.5
53.0	16311	13.6	0.03281	39.2	0.21	105.0	2.0212	199.5	379.9	199.53				5.6	94.7	0.5	-5.6
53.8	16594	12.1	0.03330	35.2	0.20	100.0	2.0000	198.5	383.3	198.53				5.2	96.7	0.6	-5.2
54.0	16653	11.8	0.03340	34.4	0.20	99.0	1.9956	198.3	384.0	198.32				5.2	97.1	0.6	-5.1
55.0	17013	11.8	0.03398	34.9	0.21	93.0	1.9685	195.2	384.8	195.24				5.4	96.2	0.6	-5.4
56.0	17264	17.1	0.03448	50.4	0.32	89.0	1.9494	195.5	390.2	195.51				6.6	83.3	-0.8	-6.5
57.0	17595	20.7	0.03534	60.9	0.41	84.0	1.9243	195.8	397.3	195.78				6.6	93.5	0.4	-6.6

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDCN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	17875	22.3	0.03617	65.6	0.46	80.0	1.9031	196.3	403.9	196.30				7.3	80.0	-1.3	-7.2
59.0	18245	24.9	0.03737	73.7	0.55	75.0	1.8751	195.2	409.2	195.24				9.5	69.9	-3.3	-8.9
60.0	18482	29.8	0.03825	84.8	0.68	72.0	1.8573	202.5	429.4	202.48				9.4	74.5	-2.5	-9.0
60.7	18650	34.1	0.03898	96.4	0.81	70.0	1.8451	204.3	436.8	204.30				12.0	76.3	-2.8	-11.6
61.0	18736	36.4	0.03936	102.3	0.87	69.0	1.8388	205.2	440.5	205.23				13.3	76.9	-3.0	-13.0
62.0	19093	39.0	0.04113	110.7	0.99	65.0	1.8129	203.1	443.6	203.13				15.2	81.8	-2.2	-15.0
63.0	19374	44.1	0.04268	125.0	1.18	62.0	1.7924	203.6	450.5	203.56				11.6	85.7	-0.9	-11.6
63.7	19568	45.3	0.04385	128.9	1.25	60.0	1.7782	202.7	452.9	202.70				11.0	88.1	-0.4	-11.0
64.0	19668	45.9	0.04444	130.9	1.29	59.0	1.7709	202.3	454.0	202.26				10.7	89.4	-0.1	-10.7
65.0	19872	45.8	0.04569	130.8	1.33	57.0	1.7559	202.0	458.0	202.04				16.4	95.7	1.6	-16.3
66.0	20192	52.9	0.04779	150.2	1.62	54.0	1.7324	203.3	468.2	203.35				22.9	96.4	2.6	-22.8
67.0	20534	64.0	0.05043	179.2	2.08	51.0	1.7076	206.2	482.6	206.23				25.7	94.6	2.1	-25.6
67.5	20653	66.4	0.05147	185.4	2.20	50.0	1.6990	206.8	486.8	206.82				25.8	95.3	2.4	-25.7
68.0	20776	68.8	0.05253	191.6	2.33	49.0	1.6902	207.4	491.0	207.41				26.0	96.0	2.7	-25.8
69.0	21030	76.5	0.05492	211.5	2.70	47.0	1.6721	208.9	500.5	208.93				29.8	98.5	4.4	-29.5
70.0	21436	89.4	0.05924	243.8	3.37	44.0	1.6435	211.8	517.1	211.84				29.2	100.5	5.3	-28.7
71.0	21579	97.8	0.06093	265.1	3.77	43.0	1.6335	213.1	523.5	213.05				31.1	96.4	3.5	-30.9
72.0	22031	105.9	0.06675	285.3	4.39	40.0	1.6021	214.2	537.4	214.24				33.7	94.4	2.6	-33.6
73.0	22190	108.8	0.06889	290.2	4.62	39.0	1.5911	216.6	547.2	216.55				32.7	95.8	3.3	-32.5
74.0	22523	108.1	0.07340	289.2	4.84	37.0	1.5682	215.9	553.8	215.90				38.2	96.2	4.1	-38.0
75.0	22874	114.7	0.07828	306.0	5.43	35.0	1.5441	216.4	563.9	216.39				37.9	98.5	5.6	-37.5
76.0	23247	116.6	0.08365	310.3	5.85	33.0	1.5185	216.9	574.8	216.87				33.9	100.3	6.0	-33.3
77.0	23542	111.6	0.08784	297.8	5.87	31.5	1.4983	216.4	581.2	216.39				34.7	98.4	5.1	-34.4
78.0	23851	117.5	0.09225	312.5	6.49	30.0	1.4771	217.2	591.5	217.19				36.7	94.9	3.1	-36.6
79.0	24066	121.3	0.09544	323.0	6.93	29.0	1.4624	216.9	596.4	216.87				33.1	93.6	2.1	-33.0
80.0	24404	129.7	0.10070	343.2	7.81	27.5	1.4393	218.1	609.0	218.15				29.5	89.9	-0.0	-29.5
81.0	24764	140.8	0.10669	368.5	8.97	26.0	1.4150	220.6	625.9	220.62				24.9	82.6	-3.2	-24.7
82.0	25018	146.1	0.11113	380.6	9.69	25.0	1.3979	221.7	636.0	221.67				17.4	71.6	-5.5	-16.5
83.0	25283	155.7	0.11599	404.0	10.75	24.0	1.3802	222.6	646.0	222.57				16.9	60.6	-8.3	-14.7
84.0	25706	159.1	0.12401	408.1	11.71	22.5	1.3522	225.0	665.4	225.04				20.2	55.6	-11.4	-16.7
85.0	26160	160.4	0.13270	412.1	12.66	21.0	1.3222	224.8	677.8	224.76				19.9	50.8	-12.6	-15.5
86.0	26480	156.5	0.13881	403.4	12.97	20.0	1.3010	224.0	685.1	224.03				22.6	72.6	-6.7	-21.6
87.0	27101	154.3	0.15037	394.8	14.05	18.2	1.2601	225.6	708.7	225.62				21.7	100.3	3.9	-21.4
87.7	27357	146.9	0.15498	379.4	13.90	17.5	1.2430	223.5	710.0	223.50				14.0	119.3	6.9	-12.2
88.0	27471	143.6	0.15701	372.5	13.84	17.2	1.2355	222.6	710.5	222.57				11.6	134.9	8.2	-8.2
89.0	27940	136.2	0.16500	356.6	14.10	16.0	1.2041	220.5	718.5	220.47				7.1	162.6	6.8	-2.1
90.0	28315	131.5	0.17111	342.0	14.43	15.1	1.1790	222.0	735.5	221.97				6.9	120.8	3.5	-5.9
90.1	28358	131.4	0.17180	341.4	14.52	15.0	1.1761	222.3	738.0	222.29				7.4	118.4	3.5	-6.5
91.0	28717	130.9	0.17747	336.2	15.28	14.2	1.1523	224.9	758.4	224.90				11.5	106.4	3.2	-11.0
92.0	29102	128.5	0.18341	324.7	15.89	13.4	1.1271	228.6	783.7	228.57				8.7	113.5	3.5	-8.0
93.0	29356	122.2	0.18717	307.7	15.70	12.9	1.1106	229.3	794.6	229.26				5.2	97.6	0.7	-5.1
93.8	29566	122.9	0.19022	311.1	16.29	12.5	1.0969	228.0	797.6	228.04				999.9	999.9	999.9	999.9
94.0	29620	123.1	0.19100	312.0	16.45	12.4	1.0934	227.7	798.3	227.73				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



072777
2240
3A-141
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
P T
40 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 72877   LAUNCH TIME 1213 GMT   ECC SONDE 3A-084X

SURFACE CONDITIONS			
PRESS 1004.5 MB	003 = 32.2	TBOX CAL = 30.0 C AT 73.5 ORD	
TEMP 296.8 K	0IZ = 31.6	BASE CAL = 30.0 C AT 73.6 ORD	
HUMY 96.0 %	0ZC = 62.1	HUMIDITY = 62.2 % AT 46.0 ORD	
	I0 = 0.102		
	PS = 27.0		

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****                                             ****
****                     PROFILE   DOBSON        ****
****   INTEGRATED OZONE  0.19483                 ****
****   RESIDUAL OZONE    0.05562                 ****
****   TOTAL OZONE       0.25045   0.            ****
****                                             ****
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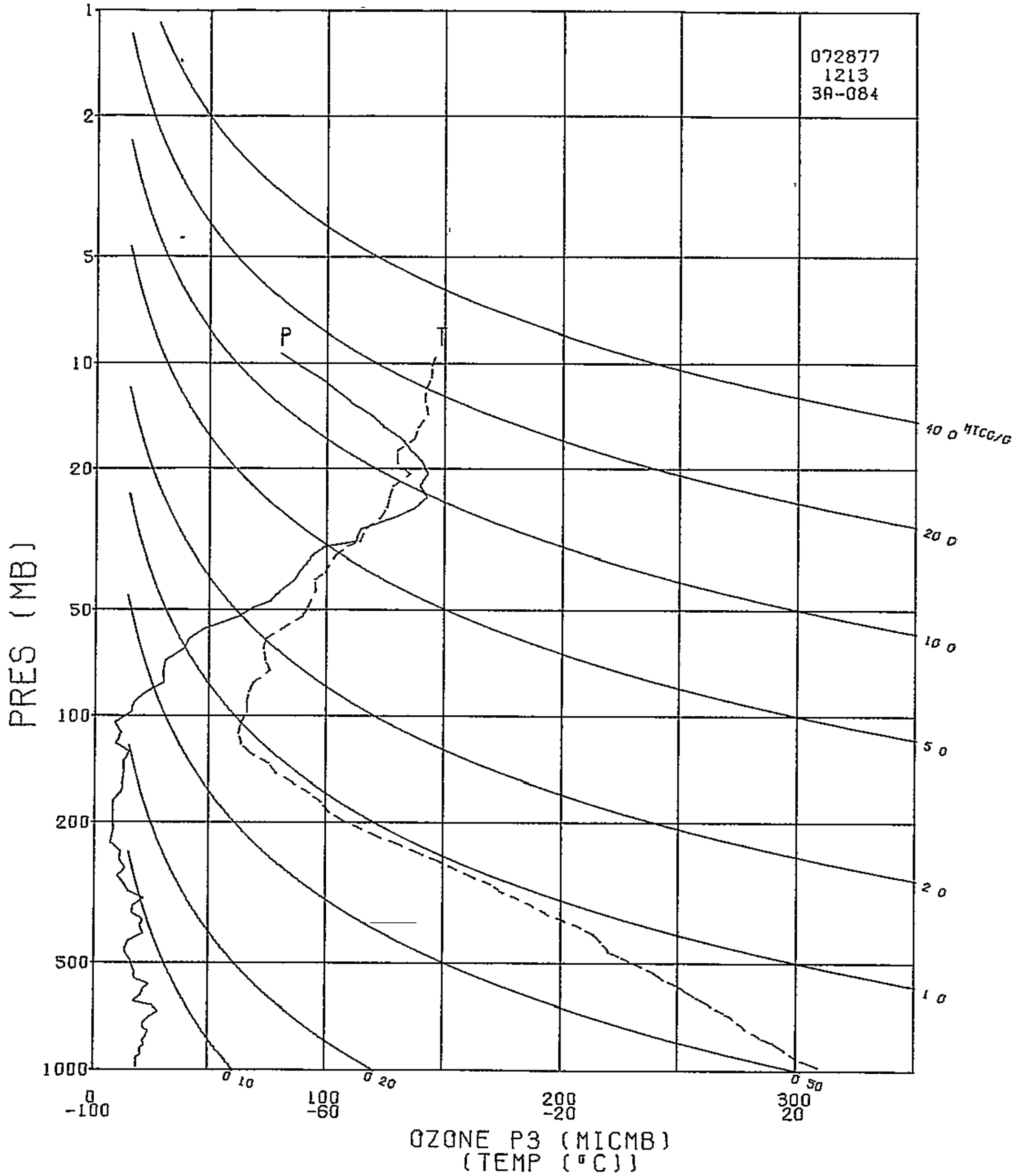
TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	7.8	0.	15.2	0.01	1004.5	3.0019	296.1	295.8	296.14				1.0	340.0	-0.9	0.3
0.2	91	9.5	0.00005	18.4	0.02	1000.0	3.0000	296.2	296.2	296.24				1.4	355.8	-1.4	0.1
1.0	311	18.7	0.00031	36.3	0.03	975.0	2.9890	296.8	299.0	296.83				3.9	19.0	-3.7	-1.3
2.0	536	19.1	0.00070	37.4	0.03	950.0	2.9777	295.2	299.6	295.23				7.1	37.1	-5.7	-4.3
3.0	775	18.6	0.00111	36.7	0.03	924.0	2.9657	293.0	299.7	293.01				7.4	36.7	-6.0	-4.4
4.0	991	20.7	0.00150	40.7	0.04	901.0	2.9547	292.8	301.6	292.79				6.5	36.5	-5.3	-3.9
4.0	1000	20.7	0.00152	40.7	0.04	900.0	2.9542	292.7	301.7	292.73				6.5	36.7	-5.2	-3.9
5.0	1251	20.4	0.00200	40.5	0.04	874.0	2.9415	291.1	302.5	291.08				5.8	42.9	-4.3	-4.0
6.0	1487	22.1	0.00246	44.0	0.04	850.0	2.9294	289.9	303.7	289.88				5.8	59.2	-3.0	-5.0
6.0	1497	22.2	0.00248	44.1	0.04	849.0	2.9289	289.8	303.7	289.83				5.8	59.8	-2.9	-5.0
7.0	1739	21.8	0.00298	43.6	0.04	825.0	2.9165	288.6	304.9	288.61				6.7	76.7	-1.5	-6.5
8.0	1977	23.0	0.00348	46.3	0.05	802.0	2.9042	286.8	305.5	286.81				7.4	84.3	-0.7	-7.4
8.1	1997	23.1	0.00353	46.6	0.05	800.0	2.9031	286.8	305.6	286.75				7.4	84.3	-0.7	-7.4
9.0	2242	24.3	0.00407	49.0	0.05	777.0	2.8904	286.0	307.4	286.03				7.8	84.0	-0.8	-7.8
10.0	2481	21.4	0.00459	43.4	0.05	755.0	2.8779	284.1	307.9	284.12				8.7	81.1	-1.3	-8.6
11.0	2737	22.0	0.00512	44.8	0.05	732.0	2.8645	283.0	309.4	283.00				9.9	81.3	-1.5	-9.8
12.0	3001	24.0	0.00570	49.2	0.06	709.0	2.8506	282.3	311.4	282.26				9.8	84.5	-0.9	-9.7
12.3	3105	25.4	0.00596	52.1	0.06	700.0	2.8451	281.7	311.9	281.71				9.6	86.8	-0.5	-9.6
13.0	3308	28.1	0.00646	57.7	0.07	683.0	2.8344	280.6	312.9	280.64				9.3	91.4	0.2	-9.3
14.0	3638	25.5	0.00732	52.9	0.06	656.0	2.8169	278.5	314.2	278.53				7.7	106.1	2.1	-7.4
15.0	3877	17.5	0.00782	36.4	0.05	637.0	2.8041	277.3	315.5	277.32				6.5	123.0	3.6	-5.5
16.0	4135	20.5	0.00829	43.0	0.06	617.0	2.7903	275.6	316.4	275.64				6.8	117.2	3.1	-6.0
16.8	4359	21.2	0.00876	44.5	0.06	600.0	2.7782	274.5	317.6	274.50				7.5	107.0	2.2	-7.1
17.0	4427	21.4	0.00889	45.0	0.06	595.0	2.7745	274.2	318.0	274.16				7.7	104.3	1.9	-7.5
18.0	4742	24.3	0.00960	51.5	0.07	572.0	2.7574	272.5	319.7	272.54				7.2	106.4	2.0	-6.9
19.0	5039	17.8	0.01023	38.1	0.05	551.0	2.7412	270.3	320.5	270.33				5.4	114.7	2.2	-4.9
20.0	5345	17.7	0.01077	38.1	0.06	530.0	2.7243	268.9	322.4	268.94				4.1	123.2	2.3	-3.4
21.0	5677	16.4	0.01134	35.5	0.05	508.0	2.7059	266.7	323.6	266.67				4.3	142.1	3.4	-2.6
21.4	5800	16.1	0.01154	35.0	0.05	500.0	2.6990	265.7	323.9	265.74				4.5	150.5	3.9	-2.2
22.0	5973	15.7	0.01183	34.3	0.05	489.0	2.6893	264.4	324.4	264.45				4.9	160.9	4.6	-1.6
23.0	6213	14.2	0.01219	31.3	0.05	474.0	2.6758	262.7	325.2	262.71				4.8	171.5	4.8	-0.7
24.0	6426	13.2	0.01249	29.2	0.05	461.0	2.6637	261.0	325.6	261.00				4.8	143.4	3.9	-2.9
25.0	6956	15.0	0.01327	33.3	0.06	430.0	2.6335	259.6	330.4	259.59				5.5	118.5	2.6	-4.9
26.0	7298	21.4	0.01392	47.8	0.09	411.0	2.6138	258.3	333.0	258.33				5.6	112.3	2.1	-5.2
26.6	7502	20.4	0.01436	45.9	0.08	400.0	2.6021	257.0	333.9	257.00				5.7	107.9	1.8	-5.4
27.0	7635	19.8	0.01464	44.7	0.08	393.0	2.5944	256.1	334.5	256.13				5.8	105.1	1.5	-5.6
28.0	7964	21.7	0.01537	49.4	0.10	376.0	2.5752	253.3	334.9	253.28				5.8	80.9	-0.9	-5.7
29.0	8264	16.8	0.01599	38.8	0.08	361.0	2.5575	250.5	335.1	250.47				7.6	57.9	-4.0	-6.4
29.6	8489	16.9	0.01640	39.3	0.08	350.0	2.5441	249.0	336.1	249.03				8.0	50.8	-5.1	-6.2
30.0	8637	17.0	0.01667	39.6	0.08	343.0	2.5353	248.1	336.8	248.08				8.4	46.6	-5.8	-6.1
31.0	8982	21.8	0.01740	51.2	0.11	327.0	2.5145	245.6	338.0	245.58				8.2	38.3	-6.4	-5.1
32.0	9340	14.5	0.01812	34.4	0.08	311.0	2.4928	242.6	338.6	242.56				8.6	41.4	-6.4	-5.7
32.7	9594	13.1	0.01850	31.4	0.07	300.0	2.4771	241.3	340.4	241.31				8.7	45.4	-6.1	-6.2
33.0	9689	12.6	0.01865	30.2	0.07	296.0	2.4713	240.8	341.0	240.85				8.8	46.8	-6.0	-6.4
34.0	10021	10.1	0.01907	24.6	0.06	282.3	2.4507	237.7	341.1	237.67				8.3	45.3	-5.8	-5.9
35.0	10355	13.5	0.01952	33.2	0.08	269.0	2.4298	235.0	342.0	235.00				8.8	40.3	-6.7	-5.7
36.0	10747	11.0	0.02008	27.4	0.07	254.0	2.4048	231.9	343.0	231.89				8.3	45.5	-5.8	-5.9
36.3	10853	11.2	0.02022	28.0	0.07	250.0	2.3979	230.8	343.0	230.84				8.2	49.5	-5.3	-6.2
37.0	11101	11.6	0.02054	29.3	0.08	241.0	2.3820	228.4	343.0	228.42				8.1	59.0	-4.2	-6.9
38.0	11504	7.2	0.02099	18.6	0.05	226.8	2.3556	224.8	343.5	224.83				7.8	63.0	-3.6	-7.0
39.0	11816	7.8	0.02128	20.3	0.06	216.2	2.3349	221.4	342.9	221.40				8.5	57.3	-4.6	-7.2
40.0	12140	8.4	0.02160	22.1	0.07	205.6	2.3130	218.8	343.7	218.76				9.8	60.1	-4.9	-8.5
40.5	12315	8.0	0.02178	21.4	0.07	200.0	2.3010	217.1	343.8	217.05				9.7	65.3	-4.1	-8.8
41.0	12476	7.7	0.02194	20.7	0.07	195.0	2.2900	215.5	343.8	215.50				9.7	70.1	-3.3	-9.1
42.0	12806	8.0	0.02226	21.7	0.07	185.0	2.2672	213.3	345.4	213.27				9.8	73.7	-2.8	-9.4
43.0	13223	8.0	0.02269	21.8	0.08	173.0	2.2380	211.9	349.7	211.85				11.6	59.3	-5.9	-10.0
44.0	13590	11.5	0.02315	31.7	0.12	163.0	2.2122	209.8	352.3	209.84				7.4	9.5	-7.3	-1.2
45.0	14016	12.6	0.02381	35.3	0.14	152.0	2.1818	206.7	354.1	206.73				7.6	327.7	-6.4	4.1
45.2	14095	12.7	0.02395	35.6	0.14	150.0	2.1761	206.1	354.5	206.15				7.1	333.5	-6.3	3.2
46.0	14383	13.1	0.02443	37.0	0.15	143.0	2.1553	204.0	355.7	204.03				6.0	1.0	-6.0	-0.1
47.0	14726	12.5	0.02501	35.5	0.15	135.0	2.1303	202.9	359.6	202.94				3.5	356.5	-3.5	0.2
48.0	15132	15.4	0.02577	44.4	0.20	126.0	2.1004	199.7	360.9	199.71				2.2	325.5	-1.8	1.2
48.1	15178	14.6	0.02585	42.1	0.19	125.0	2.0969	199.5	361.4	199.50				2.5	322.5	-2.0	1.5
49.0	15465	9.5	0.02633	27.8	0.13	119.0	2.0755	198.2	364.2	198.23				4.4	313.2	-3.0	3.2
50.0	15868	11.7	0.02691	34.0	0.17	111.0	2.0453	197.7	370.5	197.72				4.3	343.0	-4.1	1.3
51.0	16245	8.7	0.02744	25.4	0.14	104.0	2.0170	198.2	378.5	198.23				4.6	70.4	-1.5	-4.4
51.6	16472	13.0	0.02782	37.7	0.22	100.0	2.0000	198.8	383.8	198.79				5.4	95.9	0.6	-5.4
52.0	16650	16.3	0.02813	47.2	0.28	97.0	1.9868	199.2	388.0	199.22				6.5	109.6	2.2	-6.1
53.0	17022	17.4	0.02897	50.4	0.32	91.0	1.9590	199.2	395.1	199.22				6.0	123.3	3.3	-5.0
54.0	17420	23.1	0.03006	66.7	0.45	85.0	1.9294	199.7	403.9	199.71				8.0	106.3	2.2	-7.7
55.0	17775	30.4	0.03134	87.6	0.63	80.0	1.9031	200.4	412.4	200.43				12.1	94.3	0.9	-12.1
56.0	18236	30.5	0.03322	86.6	0.68	74.0	1.8692	203.4	427.9	203.38				13.2	91.6	0.4	-13.2
56.8	18565	31.2	0.03457	88.8	0.74	70.0	1.8451	202.7	433.3	202.68				13.7	95.2	1.2	-13.7

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMYR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
57.0	18651	31.4	0.03492	89.4	0.75	69.0	1.8388	202.5	434.7	202.50				13.8	96.1	1.5	-13.8
58.0	19096	39.3	0.03702	112.4	1.02	64.0	1.8062	202.0	443.1	202.05				15.4	91.9	0.5	-15.4
59.0	19478	41.4	0.03908	117.8	1.14	60.0	1.7782	202.7	452.9	207.72				17.6	84.9	-1.6	-17.6
60.0	19890	48.5	0.04152	136.2	1.43	56.0	1.7482	205.5	468.3	205.51				23.0	86.0	-1.6	-23.0
61.0	20339	62.4	0.04477	172.6	1.99	52.0	1.7160	208.9	486.2	208.89				27.9	88.2	-0.9	-27.8
61.7	20579	66.9	0.04680	184.3	2.22	50.0	1.6990	209.5	493.1	209.51				28.6	89.6	-0.2	-28.6
62.0	20703	69.2	0.04785	190.4	2.34	49.0	1.6902	209.8	496.7	209.84				29.0	90.3	0.2	-29.0
63.0	20959	76.1	0.05024	209.5	2.68	47.0	1.6721	209.6	502.2	209.65				33.0	92.7	1.5	-33.0
64.0	21365	80.1	0.05431	219.0	3.02	44.0	1.6435	211.3	515.8	211.31				35.1	94.5	2.8	-35.0
65.0	21801	86.2	0.05894	235.8	3.48	41.0	1.6128	211.1	525.9	211.13				33.4	95.2	3.0	-33.3
65.5	21954	87.3	0.06064	237.7	3.62	40.0	1.6021	211.9	531.6	211.93				35.6	93.2	2.0	-35.6
66.0	22111	88.3	0.06238	239.7	3.75	39.0	1.5911	212.7	537.5	212.74				37.9	91.4	0.9	-37.9
67.0	22788	93.9	0.07016	252.5	4.44	35.0	1.5441	214.7	559.4	214.65				37.3	91.4	0.9	-37.3
68.0	23159	99.3	0.07465	264.7	4.99	33.0	1.5185	216.7	574.2	216.66				32.2	92.3	1.3	-32.2
69.0	23355	111.8	0.07721	295.2	5.79	32.0	1.5051	218.8	584.9	218.76				35.9	90.5	0.3	-35.9
69.8	23769	114.0	0.08298	299.7	6.30	30.0	1.4771	219.6	598.1	219.59				36.0	93.4	2.2	-36.0
70.0	23899	114.6	0.08478	301.0	6.46	29.4	1.4683	219.9	602.2	219.86				36.1	94.3	2.7	-36.0
71.0	24355	127.8	0.09152	332.0	7.73	27.4	1.4378	222.3	621.3	222.31				27.7	96.3	3.0	-27.6
72.0	24773	137.3	0.09822	354.9	8.85	25.7	1.4099	223.4	635.8	223.36				22.9	90.1	0.1	-22.9
72.4	24953	139.2	0.10127	359.6	9.24	25.0	1.3979	223.5	641.4	223.54				21.9	84.8	-2.0	-21.8
73.0	25221	142.1	0.10577	366.6	9.81	24.0	1.3802	223.8	649.6	223.80				20.8	76.1	-5.0	-20.2
74.0	25703	139.2	0.11392	358.1	10.34	22.3	1.3483	224.4	665.2	224.39				22.8	69.3	-8.0	-21.3
75.0	26227	142.5	0.12273	362.2	11.46	20.6	1.3139	227.1	688.7	227.14				23.0	83.3	-2.7	-22.8
75.4	26422	141.6	0.12602	361.1	11.73	20.0	1.3010	226.3	692.0	226.30				19.8	87.1	-1.0	-19.8
76.0	26762	139.9	0.13174	359.4	12.20	19.0	1.2788	224.8	697.7	224.83				14.6	97.6	1.9	-14.5
77.0	27228	135.1	0.13943	347.1	12.65	17.7	1.2480	224.8	711.9	224.83				11.7	98.1	1.7	-11.6
77.1	27303	134.5	0.14062	344.8	12.74	17.5	1.2430	225.3	715.7	225.27				12.2	99.0	1.9	-12.1
78.0	27774	130.6	0.14807	330.6	13.27	16.3	1.2122	228.0	739.1	227.99				15.7	103.4	3.6	-15.2
79.0	28285	123.2	0.15573	311.1	13.52	15.1	1.1790	228.7	757.8	228.70				16.5	111.7	6.1	-15.3
79.1	28329	122.8	0.15636	309.7	13.56	15.0	1.1761	228.8	759.7	228.82				16.2	112.5	6.2	-15.0
80.0	28841	117.5	0.16359	294.7	14.01	13.9	1.1430	230.2	781.2	230.23				13.2	124.8	7.5	-10.8
81.0	29396	109.1	0.17096	274.3	14.12	12.8	1.1072	229.7	797.8	229.68				8.7	138.9	6.5	-5.7
81.3	29555	107.1	0.17293	269.1	14.19	12.5	1.0969	229.8	803.6	229.75				8.2	134.6	5.7	-5.8
82.0	30000	101.4	0.17842	254.6	14.36	11.7	1.0682	230.0	819.6	229.96				7.0	119.6	3.5	-6.1
83.0	30478	95.5	0.18393	238.8	14.52	10.9	1.0374	230.9	839.9	230.92				8.7	96.2	0.9	-8.6
84.0	30993	87.1	0.18942	217.8	14.29	10.1	1.0043	230.9	858.3	230.92				12.6	89.5	-0.1	-12.6
84.1	31060	86.1	0.19007	215.3	14.27	10.0	1.0000	231.0	861.2	231.02				999.9	999.9	999.9	999.9
85.0	31552	79.0	0.19483	196.8	14.07	9.3	0.9685	231.7	882.0	231.75				999.9	999.9	999.9	999.9



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72877   LAUNCH TIME 0443 GMT   ECC SONDE 3A-142X

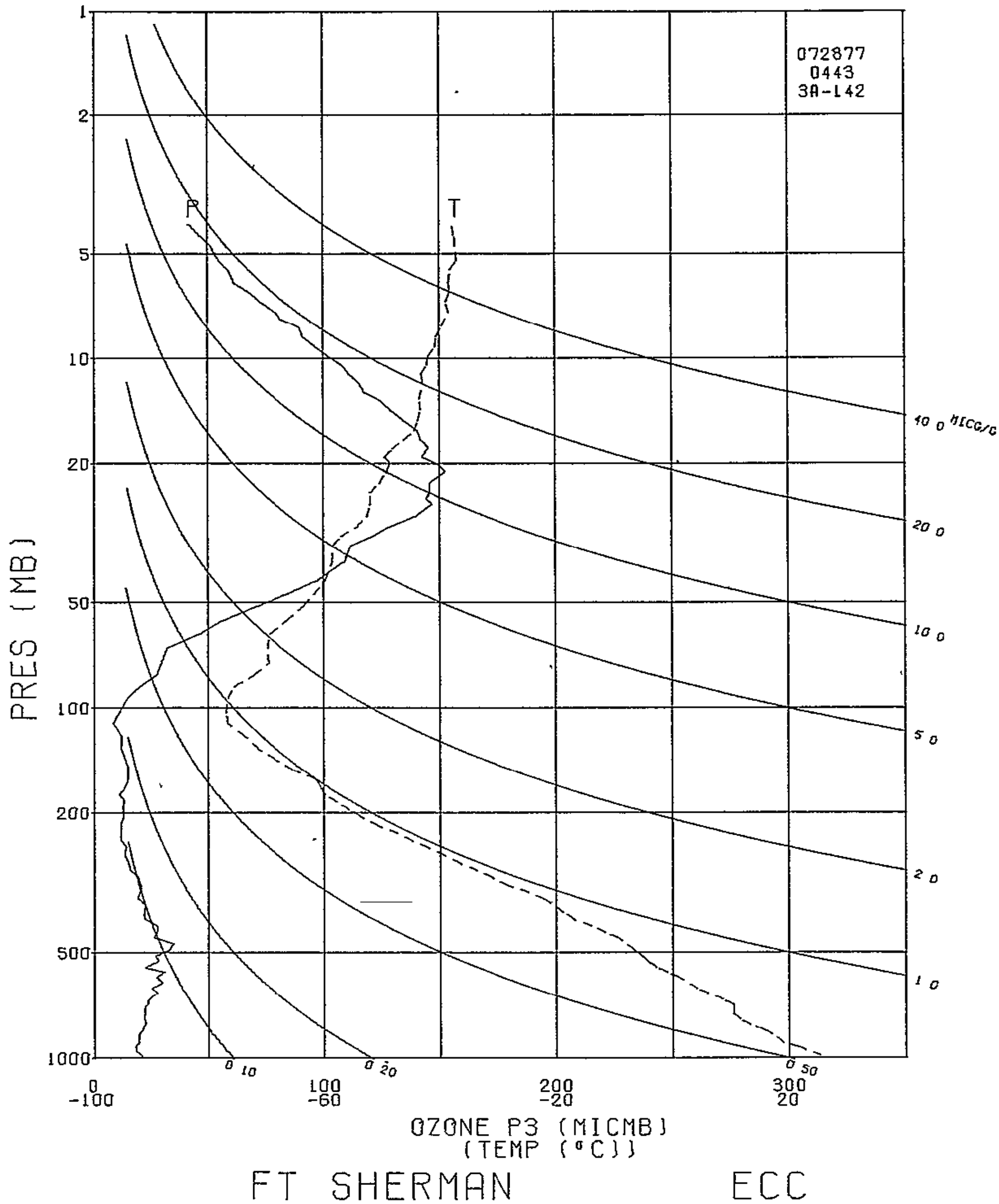
SURFACE CONDITIONS						
PRESS	1005.7 MB	OO3 = 36.6	TBOX CAL =	30.0 C	AT	73.7 ORD
TEMP	299.0 K	OIZ = 35.9	BASE CAL =	30.0 C	AT	73.5 ORD
HUMY	86.0 %	OZC = 70.1	HUMIDITY =	61.9 %	AT	46.0 ORD
		IO = 0.106				
		PS = 27.7				

	PROFILE	DOBSON
INTEGRATED OZONE	0.26008	
PESIDUAL OZONE	0.02437	
TOTAL OZONE	0.28445	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	19.7	0.	38.1	0.03	1005.7	3.0025	298.5	298.0	301.50	81.7	295.1	0.0165	2.0	35.0	-1.6	-1.1
0.2	103	19.9	0.00009	38.5	0.03	1000.0	3.0000	298.5	298.5	301.60	83.8	295.5	0.0174	3.4	31.8	-2.9	-1.8
1.0	281	20.7	0.00041	40.0	0.03	980.0	2.9912	298.5	300.2	301.94	91.2	297.0	0.0189	8.2	29.0	-7.2	-4.0
2.0	525	18.5	0.00084	35.8	0.03	953.2	2.9792	297.6	301.7	300.81	89.2	295.7	0.0179	10.3	27.1	-9.2	-4.7
3.0	778	17.7	0.00125	34.7	0.03	926.0	2.9666	294.6	301.1	297.36	89.5	292.8	0.0155	10.0	21.9	-9.3	-3.7
4.0	1015	19.3	0.00165	38.2	0.04	901.0	2.9547	292.0	300.8	294.61	98.6	291.7	0.0149	8.8	15.5	-8.5	-2.4
4.0	1024	19.3	0.00167	38.2	0.04	900.0	2.9542	291.9	300.9	294.58	98.2	291.6	0.0148	8.8	15.3	-8.5	-2.3
5.0	1267	19.2	0.00210	38.1	0.04	875.0	2.9420	291.3	302.7	293.70	89.4	289.5	0.0133	7.5	10.7	-7.4	-1.4
6.0	1515	19.8	0.00255	39.5	0.04	850.0	2.9294	290.1	303.9	292.24	86.1	287.7	0.0122	6.2	6.2	-6.2	-0.7
7.0	1769	21.3	0.00303	42.6	0.04	825.0	2.9165	288.6	305.0	290.73	88.6	286.8	0.0118	5.9	12.4	-5.8	-1.3
8.0	2029	22.4	0.00356	45.2	0.05	800.0	2.9031	286.4	305.2	288.43	99.6	286.3	0.0118	6.1	32.0	-5.1	-3.2
8.0	2040	22.5	0.00358	45.3	0.05	799.0	2.9025	286.3	305.2	288.33	100.0	286.3	0.0118	6.1	32.8	-5.1	-3.3
9.0	2340	21.9	0.00421	44.4	0.05	771.0	2.8871	284.5	306.5	286.22	88.4	282.7	0.0096	5.3	59.9	-2.7	-4.6
10.0	2626	22.4	0.00481	45.7	0.05	745.0	2.8722	283.4	308.3	285.04	89.4	281.7	0.0094	6.4	92.1	0.2	-6.4
11.0	2864	21.8	0.00531	44.5	0.05	724.0	2.8597	283.0	310.4	284.19	62.9	276.3	0.0066	7.2	99.1	1.1	-7.1
12.0	3132	23.2	0.00588	47.3	0.05	701.0	2.8457	283.4	313.7	284.52	57.2	275.3	0.0064	5.6	94.2	0.4	-5.5
12.0	3143	23.3	0.00591	47.4	0.06	700.0	2.8451	283.3	313.7	284.44	57.3	275.3	0.0063	5.5	94.1	0.4	-5.5
13.0	3433	24.1	0.00656	49.5	0.06	676.0	2.8299	281.6	314.9	282.62	59.0	274.1	0.0060	4.6	91.3	0.1	-4.6
14.0	3756	27.7	0.00736	57.4	0.07	650.0	2.8129	278.9	315.5	279.85	61.3	272.1	0.0054	4.8	92.5	0.2	-4.8
15.0	4010	25.1	0.00801	52.4	0.07	630.0	2.7993	277.0	316.1	277.18				5.3	89.9	-0.0	-5.3
16.0	4284	29.8	0.00875	62.3	0.08	609.0	2.7846	276.2	318.2	276.20				6.1	81.0	-1.0	-6.1
16.4	4403	28.8	0.00908	60.4	0.08	600.0	2.7782	275.3	318.6	275.34				6.8	81.5	-1.0	-6.7
17.0	4607	27.1	0.00965	57.2	0.08	585.0	2.7672	273.9	319.2	273.89				7.8	82.1	-1.1	-7.8
18.0	4875	30.8	0.01042	65.3	0.09	565.7	2.7526	272.0	320.0	272.68	70.2	267.2	0.0043	6.4	109.8	2.2	-6.1
19.0	5142	22.6	0.01113	48.4	0.07	547.0	2.7380	270.1	320.9	270.98	98.5	269.9	0.0055	6.4	135.5	4.6	-4.5
20.0	5421	27.9	0.01183	59.9	0.09	528.0	2.7226	268.7	322.5	269.08	45.9	258.8	0.0024	7.6	118.5	3.6	-6.7
21.0	5724	27.1	0.01267	58.6	0.09	508.0	2.7059	267.6	324.8	267.77				7.7	112.5	2.9	-7.1
21.4	5848	29.5	0.01304	63.9	0.10	500.0	2.6990	267.0	325.5	267.12				7.7	110.6	2.7	-7.3
22.0	6006	32.6	0.01352	70.7	0.11	490.0	2.6902	266.3	326.5	266.28				7.8	108.2	2.4	-7.4
23.0	6347	34.8	0.01468	75.6	0.12	469.0	2.6712	266.0	330.2	265.98				9.6	96.7	1.1	-9.5
24.0	6667	26.5	0.01568	58.1	0.10	450.0	2.6532	263.5	331.0	263.49				9.9	93.0	0.5	-9.9
25.0	6962	27.7	0.01651	61.3	0.11	433.0	2.6365	261.2	331.8	261.20				9.8	98.9	1.5	-9.7
26.0	7285	27.1	0.01743	60.5	0.11	415.0	2.6180	258.8	332.7	258.98	36.7	247.3	0.0011	10.2	100.5	1.8	-10.0
26.9	7562	22.6	0.01815	50.9	0.09	400.0	2.6021	256.1	332.7	256.35	66.0	251.2	0.0017	10.3	94.7	0.8	-10.3
27.0	7581	22.3	0.01819	50.3	0.09	399.0	2.6010	255.9	332.7	256.17	68.0	251.4	0.0017	10.3	94.3	0.8	-10.3
28.0	7945	21.7	0.01904	49.4	0.09	380.0	2.5798	254.0	334.9	254.21	59.7	248.2	0.0013	9.3	89.5	-0.1	-9.3
29.0	8224	22.4	0.01970	51.2	0.10	366.0	2.5635	253.3	337.6	253.34				9.0	81.5	-1.3	-8.9
29.9	8553	19.4	0.02043	44.6	0.09	350.0	2.5441	251.0	338.7	250.96				10.1	75.6	-2.5	-9.8
30.0	8596	19.0	0.02052	43.8	0.09	348.0	2.5416	250.7	338.9	250.66				10.2	74.9	-2.7	-9.9
31.0	8917	20.2	0.02120	47.0	0.10	333.0	2.5224	248.0	339.6	248.01				10.4	69.0	-3.7	-9.7
32.0	9226	20.1	0.02188	47.4	0.10	319.0	2.5038	244.4	338.8	244.46				12.6	63.4	-5.6	-11.2
33.0	9615	19.0	0.02273	45.4	0.10	302.0	2.4800	241.6	340.1	241.57				12.5	62.2	-5.8	-11.0
33.2	9661	18.5	0.02282	44.2	0.10	300.0	2.4771	241.2	340.2	241.21				12.2	62.6	-5.6	-10.9
34.0	9924	15.5	0.02333	37.5	0.09	289.0	2.4609	239.2	341.0	239.19				10.9	65.5	-4.5	-9.9
35.0	10244	14.8	0.02388	36.2	0.09	276.0	2.4409	236.2	341.3	236.26				11.5	66.1	-4.7	-10.5
36.0	10602	13.1	0.02445	32.4	0.08	262.0	2.4183	233.6	342.4	233.57	26.5	221.6	0.0001	11.2	59.4	-5.7	-9.7
36.9	10920	14.1	0.02496	35.3	0.09	250.0	2.3979	230.9	343.1	230.90				9.7	60.1	-4.8	-8.4
37.0	10948	14.2	0.02500	35.5	0.09	249.0	2.3962	230.7	343.2	230.68				9.5	60.2	-4.7	-8.3
38.0	11251	11.8	0.02546	29.9	0.08	238.0	2.3766	228.0	343.6	228.02				8.0	77.6	-1.7	-7.8
39.0	11594	11.2	0.02593	28.8	0.08	226.0	2.3541	225.4	344.8	225.43				8.1	99.7	1.4	-8.0
40.0	11890	11.8	0.02634	30.7	0.09	216.0	2.3345	222.2	344.2	222.17				10.8	103.1	2.4	-10.5
41.0	12291	12.9	0.02695	33.9	0.10	203.0	2.3075	219.2	345.7	219.23				13.8	101.9	2.8	-13.5
41.3	12385	12.8	0.02710	33.8	0.11	200.0	2.3010	218.5	346.1	218.54				13.5	101.0	2.6	-13.3
42.0	12580	12.7	0.02741	33.8	0.11	194.0	2.2878	217.1	346.9	217.13				13.1	98.9	2.0	-12.9
43.0	12914	13.2	0.02795	35.5	0.12	184.0	2.2648	215.0	348.7	214.97				11.6	89.2	-0.2	-11.6
44.0	13192	11.0	0.02837	29.7	0.10	176.0	2.2455	213.1	350.0	213.07				10.8	78.3	-2.2	-10.5
45.0	13518	13.9	0.02889	37.9	0.14	167.0	2.2227	212.2	353.8	212.18				8.4	51.2	-5.3	-6.5
46.0	13861	15.3	0.02953	41.8	0.16	158.0	2.1987	211.3	357.9	211.27				6.1	28.3	-5.4	-2.9
46.9	14179	15.3	0.03015	42.4	0.17	150.0	2.1761	207.9	357.5	207.91				5.4	45.3	-3.8	-3.8
47.0	14220	15.3	0.03023	42.5	0.17	149.0	2.1732	207.5	357.4	207.47				5.3	47.8	-3.6	-3.9
48.0	14639	13.5	0.03102	38.2	0.16	139.0	2.1430	204.4	359.2	204.38				5.2	75.3	-1.3	-5.0
49.0	15036	11.8	0.03169	33.7	0.15	130.0	2.1139	201.5	360.9	201.50				5.9	120.3	2.9	-5.1
49.4	15265	11.7	0.03205	33.8	0.16	125.0	2.0969	200.4	363.1	200.44				5.5	134.3	3.8	-3.9
50.0	15554	11.7	0.03251	34.0	0.16	119.0	2.0755	199.1	365.8	199.11				5.5	153.0	4.9	-2.5
51.0	16009	8.5	0.03314	25.0	0.13	110.0	2.0414	196.3	368.8	196.28				4.7	195.9	4.5	1.3
52.0	16442	11.3	0.03373	33.3	0.18	102.0	2.0086	195.7	375.8	195.74				1.6	165.1	1.5	-0.4
52.2	16555	12.1	0.03393	35.5	0.20	100.0	2.0000	195.9	378.2	195.85				1.5	144.2	1.2	-0.9
53.0	16972	14.9	0.03468	43.8	0.27	93.0	1.9685	196.3	386.9	196.28				2.6	91.7	0.1	-2.6
54.0	17423	20.9	0.03578	61.1	0.40	86.0	1.9345	197.3	397.8	197.34				3.6	123.1	2.0	-3.0
55.0	17844	27.9	0.03718	80.2	0.58	80.0	1.9031	200.8	413.2	200.80				6.7	92.2	0.3	-6.7
56.0	18305	29.9	0.03895	84.8	0.67	74.0	1.8692	203.3	427.8	203.30				11.2	81.8	-1.6	-11.1
56.6	18635	31.3	0.04032	88.9	0.74	70.0	1.8451	203.2	434.4	203.17				12.7	84.2	-1.3	-12.6
57.0	18896	32.4	0.04139	92.1	0.80	67.0	1.8261	203.1	439.6	203.08				13.9	85.7	-1.1	-13.8

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	19454	46.5	0.04431	131.7	1.26	61.0	1.7853	203.7	453.0	203.74				17.4	89.6	-0.1	-17.4
58.2	19553	48.3	0.04498	136.5	1.34	60.0	1.7782	204.3	456.5	204.30				18.3	89.5	-0.2	-18.3
59.0	19968	56.0	0.04777	156.4	1.66	56.0	1.7482	206.7	470.9	206.67				22.2	89.0	-0.4	-22.2
60.0	20538	70.8	0.05245	194.9	2.30	51.0	1.7076	209.6	490.5	209.60				26.6	87.5	-1.1	-26.6
60.2	20659	73.9	0.05365	203.1	2.46	50.0	1.6990	210.1	494.4	210.05				27.3	87.8	-1.1	-27.2
61.0	21041	83.7	0.05742	228.6	2.95	47.0	1.6721	211.5	506.5	211.46				29.4	88.5	-0.8	-29.3
62.0	21594	97.0	0.06377	262.3	3.74	43.0	1.6335	213.4	524.4	213.42				36.0	90.3	0.2	-36.0
62.6	22046	103.7	0.06963	279.6	4.32	40.0	1.6021	214.1	537.2	214.13				38.1	91.8	1.2	-38.1
63.0	22368	108.5	0.07379	291.8	4.73	38.0	1.5798	214.6	546.3	214.63				39.7	92.7	1.9	-39.7
63.7	22884	111.0	0.08093	298.3	5.26	35.0	1.5441	214.8	559.7	214.75				37.2	94.7	3.0	-37.1
64.0	23067	111.8	0.08345	300.6	5.45	34.0	1.5315	214.8	564.4	214.80				36.3	95.4	3.4	-36.1
65.0	23449	121.1	0.08902	323.4	6.27	32.0	1.5051	216.1	577.9	216.15				31.2	95.0	2.7	-31.1
66.0	23860	128.3	0.09537	338.5	7.09	30.0	1.4771	218.9	596.2	218.91				32.5	87.4	-1.5	-32.5
67.0	24304	139.5	0.10266	365.1	8.26	28.0	1.4472	220.6	612.8	220.63				30.1	88.3	-0.9	-30.1
68.0	24783	146.3	0.11102	381.8	9.33	26.0	1.4150	221.2	627.7	221.25				19.2	93.1	1.0	-19.2
69.0	25036	143.9	0.11551	376.4	9.54	25.0	1.3979	220.8	633.4	220.79				14.6	89.1	-0.2	-14.6
70.0	25300	145.5	0.12018	379.8	10.05	24.0	1.3802	221.2	642.2	221.25				14.5	84.1	-1.5	-14.4
71.0	25719	145.7	0.12759	377.5	10.73	22.5	1.3522	222.8	658.7	222.77				19.1	82.2	-2.6	-18.9
72.0	26170	152.2	0.13570	392.3	12.01	21.0	1.3222	224.0	675.4	223.96				17.3	97.8	2.4	-17.2
73.0	26490	149.3	0.14150	383.8	12.37	20.0	1.3010	224.6	686.7	224.55				10.5	120.4	5.3	-9.1
74.0	26826	142.0	0.14740	366.7	12.39	19.0	1.2788	223.7	694.0	223.67				5.5	114.7	2.3	-5.0
75.0	27181	144.6	0.15351	371.1	13.31	18.0	1.2553	225.0	709.0	224.99				6.2	85.0	-0.5	-6.1
75.5	27367	143.0	0.15669	365.4	13.54	17.5	1.2430	226.0	718.0	225.99				8.2	87.5	-0.4	-8.2
76.0	27559	141.4	0.15996	359.5	13.78	17.0	1.2304	227.0	727.2	227.02				10.4	89.0	-0.2	-10.4
77.0	27963	139.3	0.16667	351.7	14.43	16.0	1.2041	228.7	745.4	228.72				12.4	98.5	1.8	-12.3
78.0	28396	133.5	0.17362	336.1	14.75	15.0	1.1761	229.4	761.7	229.42				10.5	101.3	2.1	-10.3
79.0	28860	127.9	0.18074	321.2	15.13	14.0	1.1461	229.8	778.2	229.84				10.0	98.2	1.4	-9.9
80.0	29358	122.6	0.18806	308.1	15.62	13.0	1.1139	229.7	794.4	229.70				9.2	90.3	0.0	-9.2
80.8	29621	117.3	0.19175	294.5	15.55	12.5	1.0969	229.9	804.2	229.93				7.7	86.6	-0.5	-7.7
81.0	29676	116.2	0.19251	291.8	15.53	12.4	1.0934	230.0	806.2	229.98				7.4	85.7	-0.6	-7.4
82.0	30067	114.3	0.19780	286.6	16.19	11.7	1.0682	230.3	820.7	230.26				9.7	85.7	-0.7	-9.7
83.0	30482	109.9	0.20325	275.9	16.56	11.0	1.0414	230.0	834.3	229.98				10.8	89.8	-0.0	-10.8
84.0	30860	107.0	0.20805	267.5	17.05	10.4	1.0170	231.0	851.3	230.95				11.2	93.7	0.7	-11.2
84.7	31125	103.1	0.21127	257.5	17.08	10.0	1.0000	231.1	861.6	231.14				11.7	90.9	0.2	-11.7
85.0	31262	101.1	0.21293	252.4	17.09	9.8	0.9912	231.2	866.9	231.23				12.0	89.6	-0.1	-12.0
86.0	31690	95.8	0.21784	238.0	17.25	9.2	0.9638	232.3	886.9	232.33				11.6	77.9	-2.4	-11.3
87.0	32149	90.1	0.22278	223.7	17.37	8.6	0.9345	232.6	905.2	232.60				12.4	82.1	-1.7	-12.3
88.0	32642	88.3	0.22788	218.2	18.29	8.0	0.9031	233.6	927.9	233.55				12.3	89.5	-0.1	-12.3
89.0	32993	80.2	0.23129	198.0	17.49	7.6	0.8808	234.0	943.2	233.96				13.7	78.8	-2.7	-13.5
90.0	33269	78.4	0.23381	192.7	17.79	7.3	0.8633	234.8	957.5	234.77				19.0	80.6	-3.1	-18.8
90.6	33557	74.3	0.23629	183.0	17.57	7.0	0.8451	234.5	967.7	234.45				21.4	85.2	-1.8	-21.3
91.0	33756	71.5	0.23800	176.3	17.42	6.8	0.8325	234.2	974.8	234.23				23.1	87.8	-0.9	-23.1
92.0	34172	66.8	0.24131	164.3	17.30	6.4	0.8062	234.9	994.7	234.91				25.9	91.6	0.7	-25.9
93.0	34615	60.3	0.24455	148.2	16.64	6.0	0.7782	234.8	1012.6	234.77				27.5	93.4	1.7	-27.5
94.0	35213	57.6	0.24859	141.5	17.35	5.5	0.7404	235.0	1039.3	235.04				25.9	96.4	2.9	-25.7
95.0	35600	53.8	0.25106	131.5	17.13	5.2	0.7160	236.1	1060.9	236.11				24.7	102.0	5.1	-24.2
95.4	35870	52.3	0.25266	128.0	17.34	5.0	0.6990	236.0	1072.5	236.01				24.7	103.2	5.6	-24.0
96.0	36298	50.1	0.25520	122.6	17.66	4.7	0.6721	235.8	1090.8	235.85				24.6	105.1	6.4	-23.7
97.0	36753	45.3	0.25768	111.1	17.06	4.4	0.6435	235.4	1109.6	235.44				23.8	106.6	6.8	-22.8
98.0	37239	40.8	0.26008	100.3	16.50	4.1	0.6128	235.0	1130.3	235.04				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***


072877
0443
3A-142
PRES (MB)
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC
P
T
40 0 MICG/G
20 0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
1
2
5
10
20
50
100
200
500
1000
0
-100
100
-60
200
-20
300
20

STATION FT SHERMAN   LAUNCH DATE 72877   LAUNCH TIME 2237 GMT   ECC SONDE 3A-146X

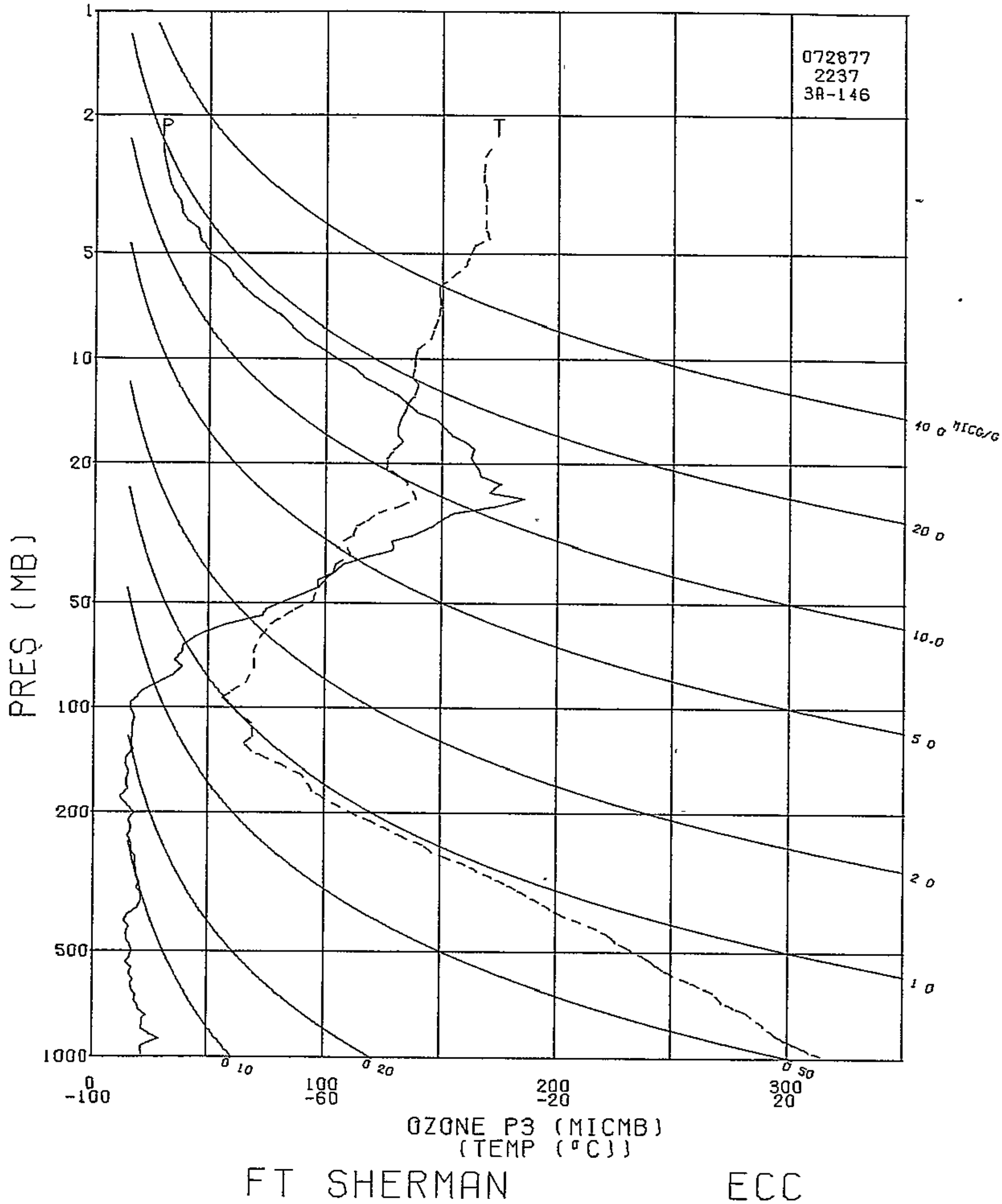
SURFACE CONDITIONS								
PRESS	1003.2 MB	003 = 36.0	TBOX CAL =	30.0 C	AT	73.7 ORD		
TEMP	301.1 K	01Z = 35.5	BASE CAL =	30.0 C	AT	73.2 ORD		
HUMY	85.0 %	0ZC = 68.9	HUMIDITY =	61.9 %	AT	46.0 ORD		
		I0 = 0.078						
		PS = 30.3						

	PROFILE	DOBSON
INTEGRATED OZONE	0.28972	
RESIDUAL OZONE	0.01298	
TOTAL OZONE	0.30270	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	19.8	0.	38.0	0.03	1003.2	3.0014	300.5	300.2	303.85	81.0	296.9	0.0184	2.0	330.0	-1.7	1.0
0.1	81	19.9	0.00005	38.3	0.03	1000.0	3.0000	300.3	300.3	303.68	82.9	297.1	0.0188	2.3	339.8	-2.1	0.8
1.0	287	21.1	0.00043	40.7	0.04	977.0	2.9899	298.8	300.8	302.49	96.2	298.1	0.0203	5.0	9.6	-4.9	-0.8
2.0	503	20.7	0.00083	40.3	0.04	953.3	2.9792	296.7	300.8	300.05	97.3	296.2	0.0186	6.8	14.8	-6.6	-1.7
3.0	757	21.2	0.00131	41.5	0.04	926.0	2.9666	295.1	301.7	298.02	91.1	293.6	0.0162	7.4	18.0	-7.1	-2.3
4.0	956	24.4	0.00173	47.9	0.04	905.0	2.9566	293.8	302.3	296.29	83.4	290.8	0.0140	7.4	19.1	-7.0	-2.4
4.2	1003	25.3	0.00184	49.8	0.05	900.0	2.9542	293.4	302.4	295.87	81.3	290.1	0.0131	7.6	20.7	-7.1	-2.7
5.0	1178	28.7	0.00226	56.7	0.05	882.0	2.9455	292.3	302.9	294.34	73.9	287.5	0.0116	8.2	25.9	-7.3	-3.6
6.0	1435	24.6	0.00289	48.7	0.05	856.0	2.9325	290.8	304.0	293.08	87.3	288.6	0.0129	8.7	39.5	-6.7	-5.5
6.2	1495	23.8	0.00302	47.3	0.05	850.0	2.9294	290.6	304.4	292.87	88.4	288.6	0.0130	8.3	42.9	-6.1	-5.6
7.0	1709	21.1	0.00347	42.1	0.04	829.0	2.9186	289.8	305.7	292.10	92.5	288.5	0.0132	7.1	57.3	-3.8	-6.0
8.0	1970	21.4	0.00398	42.8	0.04	804.0	2.9053	288.8	307.3	290.66	78.6	285.0	0.0108	6.5	64.7	-2.8	-5.9
8.2	2012	21.3	0.00407	42.6	0.04	800.0	2.9031	288.7	307.7	290.55	76.2	284.5	0.0102	6.5	64.7	-2.8	-5.9
9.0	2249	21.0	0.00453	42.1	0.04	778.0	2.8910	288.4	309.8	289.89	62.8	281.3	0.0087	6.5	64.3	-2.8	-5.9
10.0	2502	23.1	0.00506	46.5	0.05	755.0	2.8779	286.6	310.5	288.00	63.2	279.7	0.0080	6.6	83.5	-0.7	-6.5
11.0	2773	20.0	0.00561	40.5	0.05	731.0	2.8639	285.4	312.2	286.78	63.1	278.6	0.0077	9.3	103.6	2.2	-9.0
12.0	2993	19.2	0.00601	39.1	0.04	712.0	2.6525	283.6	312.5	284.75	62.4	276.7	0.0069	12.0	109.8	4.1	-11.3
12.5	3133	18.5	0.00626	37.9	0.04	700.0	2.8451	282.6	312.9	283.74	62.3	275.8	0.0064	12.8	112.5	4.9	-11.8
13.0	3289	17.8	0.00654	36.6	0.04	687.0	2.8370	281.6	313.4	282.62	62.2	274.8	0.0062	13.6	115.2	5.8	-12.3
14.0	3558	18.4	0.00700	37.9	0.05	665.0	2.8228	281.4	316.2	282.43	60.1	274.1	0.0061	13.5	123.3	7.4	-11.3
15.0	3848	16.5	0.00749	34.1	0.04	642.0	2.8075	280.0	317.7	280.98	62.6	273.3	0.0060	11.9	123.7	6.6	-9.9
16.0	4107	15.9	0.00789	33.0	0.04	622.0	2.7938	277.7	318.1	278.60	62.1	271.1	0.0053	10.4	120.7	5.3	-9.0
17.0	4386	17.2	0.00834	35.9	0.05	601.0	2.7789	275.9	319.1	276.77	70.4	271.0	0.0054	9.3	119.8	4.6	-8.0
17.0	4399	17.1	0.00836	35.8	0.05	600.0	2.7782	275.7	319.1	276.65	70.8	271.0	0.0054	9.2	120.2	4.7	-8.0
18.0	4700	15.3	0.00884	32.5	0.04	578.0	2.7619	273.1	319.4	273.97	80.8	270.2	0.0053	8.7	129.7	5.5	-6.7
19.0	4995	16.7	0.00931	35.6	0.05	557.0	2.7459	271.3	320.7	272.11	77.2	267.9	0.0046	8.4	136.6	6.1	-5.8
20.0	5285	14.1	0.00975	30.2	0.04	537.0	2.7300	269.8	322.2	270.66	95.4	269.1	0.0053	8.0	134.6	5.6	-5.7
21.0	5585	16.2	0.01021	34.8	0.05	517.0	2.7135	268.6	324.3	269.22	76.3	265.0	0.0040	6.1	130.9	4.0	-4.6
22.0	5848	16.9	0.01064	36.6	0.06	500.0	2.6990	267.5	326.1	268.08	70.5	263.0	0.0035	4.1	120.0	2.1	-3.6
23.0	6134	15.9	0.01112	34.7	0.05	482.0	2.6830	265.1	326.6	265.65	73.6	261.3	0.0032	3.9	109.7	1.3	-3.7
24.0	6429	14.6	0.01158	32.1	0.05	464.0	2.6665	263.2	327.8	263.68	70.7	258.9	0.0027	3.9	133.9	2.7	-2.8
25.0	6733	14.0	0.01203	30.8	0.05	446.0	2.6493	262.1	330.1	262.40	52.1	254.2	0.0019	6.0	174.0	5.9	-0.6
26.0	7102	15.3	0.01258	34.1	0.06	425.0	2.6284	259.8	331.8	260.08	48.6	251.3	0.0016	6.8	183.3	6.8	0.4
27.0	7411	13.2	0.01304	29.7	0.05	408.0	2.6107	257.2	332.3	257.44	60.2	251.3	0.0016	5.0	183.7	5.0	0.3
27.4	7559	14.1	0.01327	31.9	0.06	400.0	2.6021	255.8	332.3	256.00	66.6	251.0	0.0016	4.2	174.7	4.2	-0.4
28.0	7749	15.3	0.01355	34.7	0.06	390.0	2.5911	253.9	332.3	254.16	74.6	250.6	0.0016	3.3	157.1	3.1	-1.3
29.0	8059	19.5	0.01413	44.7	0.09	374.0	2.5729	251.9	333.6	252.11	75.3	248.7	0.0014	3.6	102.2	0.8	-3.5
30.0	8401	21.0	0.01487	48.5	0.10	357.0	2.5527	249.9	335.4	250.06	68.8	245.8	0.0011	4.7	99.4	0.8	-4.6
30.4	8545	21.0	0.01520	48.7	0.10	350.0	2.5441	248.9	336.0	249.07	63.1	243.9	0.0009	4.8	107.3	1.4	-4.6
31.0	8735	21.1	0.01563	49.1	0.10	341.0	2.5328	247.6	336.8	247.75	55.6	241.4	0.0008	5.1	116.9	2.3	-4.5
32.0	9015	19.1	0.01624	44.8	0.10	328.0	2.5159	245.8	338.0	245.88	50.7	238.7	0.0006	4.4	120.1	2.2	-3.8
33.0	9282	20.1	0.01682	47.6	0.11	316.0	2.4997	243.9	339.0	243.99	33.0	232.8	0.0004	4.3	115.4	1.8	-3.9
34.0	9580	18.2	0.01745	43.4	0.10	303.0	2.4814	241.8	340.1	241.85	20.6	226.7	0.0002	5.0	103.5	1.2	-4.9
34.2	9649	18.2	0.01760	43.6	0.10	300.0	2.4771	241.2	340.2	241.23				5.3	99.7	0.9	-5.2
35.0	9864	18.3	0.01804	44.1	0.10	291.0	2.4639	239.3	340.5	239.32				6.4	90.5	0.1	-6.4
36.0	10157	17.7	0.01863	43.0	0.10	279.0	2.4456	237.3	341.7	237.32				6.9	77.8	-1.5	-6.8
37.0	10460	18.0	0.01925	44.4	0.11	267.0	2.4265	234.1	341.3	234.07				7.3	61.4	-3.5	-6.4
38.0	10746	15.9	0.01981	39.8	0.10	256.0	2.4082	231.2	341.2	231.17				7.9	52.2	-4.8	-6.2
38.5	10905	15.9	0.02011	40.0	0.11	250.0	2.3979	230.4	342.4	230.41				7.1	48.3	-4.7	-5.3
39.0	11069	15.9	0.02042	40.1	0.11	244.0	2.3874	229.6	343.6	229.63				6.4	43.4	-4.7	-4.4
40.0	11377	14.6	0.02097	37.3	0.10	233.0	2.3674	226.5	343.4	226.49				4.4	33.8	-3.6	-2.4
41.0	11696	16.6	0.02157	42.7	0.12	222.0	2.3464	224.0	344.3	223.99				4.1	23.5	-3.8	-1.6
42.0	12058	15.0	0.02226	39.3	0.12	210.0	2.3222	220.9	345.1	220.94				4.9	1.5	-4.9	-0.1
43.0	12371	17.6	0.02289	46.7	0.15	200.0	2.3010	218.1	345.4	218.07				4.9	3.5	-4.9	-0.3
44.0	12696	14.5	0.02354	38.9	0.13	190.0	2.2788	215.4	346.2	215.41				5.9	24.3	-5.4	-2.4
45.0	13034	11.2	0.02409	30.4	0.10	180.0	2.2553	212.6	347.0	212.61				7.1	18.9	-6.7	-2.3
46.0	13351	14.6	0.02461	40.1	0.14	171.0	2.2330	210.6	348.8	210.59				6.5	5.4	-6.5	-0.6
47.0	13646	13.9	0.02515	38.2	0.14	163.0	2.2122	210.8	353.9	210.78				3.3	1.3	-3.3	-0.1
48.0	13995	15.4	0.02581	42.5	0.17	154.0	2.1875	208.9	356.5	208.87				1.2	36.7	-1.0	-0.7
48.5	14154	14.7	0.02612	41.0	0.16	150.0	2.1761	207.3	356.5	207.34				1.1	36.4	-0.9	-0.6
49.0	14310	14.1	0.02641	39.5	0.16	146.2	2.1649	205.8	356.6	205.85				1.0	36.1	-0.8	-0.6
50.0	14655	14.6	0.02707	41.5	0.18	138.0	2.1399	202.6	356.7	202.58				1.0	289.0	-0.3	0.9
51.0	14917	17.0	0.02762	49.1	0.21	132.0	2.1206	200.2	357.1	200.24				2.1	266.2	0.1	2.1
52.0	15188	16.4	0.02823	47.5	0.22	126.0	2.1004	199.0	359.7	199.00				2.3	325.4	-1.9	1.3
52.2	15234	16.5	0.02834	47.8	0.22	125.0	2.0969	199.2	360.9	199.24				2.7	346.9	-2.6	0.6
53.0	15473	17.1	0.02888	49.3	0.24	120.0	2.0792	200.5	367.4	200.48				6.8	27.0	-6.1	-3.1
54.0	15983	17.4	0.03006	50.2	0.26	110.0	2.0414	200.2	376.2	200.24				7.6	42.2	-5.6	-5.1
55.0	16144	18.0	0.03045	52.0	0.28	107.0	2.0294	199.7	378.3	199.75				3.8	107.5	1.1	-3.6
56.0	16422	16.6	0.03110	48.5	0.27	102.0	2.0086	197.7	379.6	197.72				4.9	149.6	4.2	-2.5
56.4	16536	16.3	0.03135	47.7	0.27	100.0	2.0000	197.2	380.7	197.20				4.1	152.3	3.6	-1.9
57.0	16712	15.8	0.03174	46.4	0.27	97.0	1.9868	196.4	382.5	196.39				2.8	159.7	2.7	-1.0
58.0	16953	18.9	0.03232	55.9	0.34	93.0	1.9685	195.3	384.9	195.29				2.2	132.1	1.4	-1.6
59.0	17205	21.3	0.03302	62.3	0.40	89.0	1.9494	196.9	393.1	196.93				4.1	102.5	0.9	-4.0

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
60.0	17540	28.7	0.03415	82.9	0.57	84.0	1.9243	199.5	404.8	199.50				7.2	104.2	1.8	-7.0
61.0	17825	34.8	0.03538	100.6	0.72	80.0	1.9031	200.0	411.5	199.99				13.9	107.8	4.2	-13.2
62.0	18126	38.7	0.03686	111.1	0.84	76.0	1.8808	201.0	419.6	200.96				17.7	110.5	6.2	-16.6
63.0	18363	35.1	0.03804	100.7	0.80	73.0	1.8633	201.2	425.0	201.19				15.5	111.9	5.8	-14.4
63.7	18609	37.4	0.03925	107.6	0.89	70.0	1.8451	200.8	429.4	200.84				14.4	109.2	4.7	-13.6
64.0	18694	38.2	0.03967	110.0	0.92	69.0	1.8388	200.7	430.9	200.72				14.0	108.1	4.4	-13.3
65.0	18955	38.8	0.04102	111.5	0.98	66.0	1.8195	201.2	437.4	201.19				18.6	97.7	2.5	-18.5
66.0	19324	44.7	0.04308	127.8	1.20	62.0	1.7924	202.1	447.4	202.12				21.4	94.5	1.7	-21.4
67.0	19517	49.1	0.04429	140.6	1.36	60.0	1.7782	201.7	450.5	201.66				22.3	99.0	3.5	-22.0
68.0	19821	58.3	0.04647	165.0	1.69	57.0	1.7559	203.9	462.3	203.92				27.0	97.6	3.6	-26.8
69.0	20145	72.6	0.04926	203.3	2.23	54.0	1.7324	206.1	474.4	206.06				26.7	94.8	2.2	-26.6
70.0	20408	74.9	0.05179	208.0	2.40	51.7	1.7135	207.9	484.6	207.89				26.1	95.9	2.7	-25.9
70.6	20612	79.8	0.05387	219.7	2.65	50.0	1.6990	209.7	493.6	209.69				27.9	95.4	2.7	-27.8
71.0	20736	82.8	0.05513	226.8	2.80	49.0	1.6902	210.8	499.0	210.78				29.1	95.2	2.6	-28.9
72.0	20993	89.4	0.05796	244.7	3.15	47.0	1.6721	211.0	505.4	210.97				30.8	93.7	2.0	-30.7
73.0	21276	96.7	0.06131	263.4	3.57	44.9	1.6522	211.9	514.3	211.89				30.4	93.9	2.1	-30.3
74.0	21588	96.5	0.06514	261.6	3.74	42.7	1.6304	213.0	524.4	212.97				33.3	93.0	1.7	-33.2
75.0	21903	103.8	0.06913	279.5	4.24	40.6	1.6085	214.4	535.5	214.38				37.3	91.5	0.9	-37.3
75.3	21996	104.9	0.07037	282.3	4.35	40.0	1.6021	214.5	538.1	214.52				37.2	91.2	0.8	-37.2
76.0	22253	107.9	0.07378	290.0	4.66	38.4	1.5843	214.9	545.4	214.90				36.9	90.4	0.2	-36.9
77.0	22591	119.0	0.07857	316.2	5.42	36.4	1.5611	217.3	559.9	217.26				37.4	84.6	-3.5	-37.2
78.0	22840	128.8	0.08240	342.3	6.10	35.0	1.5441	217.3	566.2	217.26				39.7	81.6	-5.8	-39.3
79.0	23175	127.6	0.08774	341.0	6.37	33.2	1.5211	216.1	571.7	216.09				38.4	86.0	-2.7	-38.3
80.0	23408	136.7	0.09158	362.6	7.08	32.0	1.5051	217.7	582.2	217.75				36.4	89.3	-0.4	-36.4
81.0	23820	146.0	0.09878	385.7	8.06	30.0	1.4771	218.6	595.2	218.56				33.9	87.7	-1.4	-33.9
82.0	24037	149.0	0.10273	390.8	8.52	29.0	1.4624	220.2	605.4	220.16				32.7	86.0	-2.3	-32.6
83.0	24381	155.4	0.10911	403.8	9.36	27.5	1.4393	222.2	620.3	222.17				27.2	86.2	-1.8	-27.2
84.0	24673	172.7	0.11489	441.5	10.88	26.3	1.4200	225.9	638.8	225.91				19.8	90.9	0.3	-19.8
85.0	25010	185.1	0.12204	467.8	12.27	25.0	1.3979	228.5	655.6	228.50				18.6	93.3	1.1	-18.6
86.0	25283	170.5	0.12777	430.2	11.77	24.0	1.3802	228.8	664.1	228.79				17.6	101.6	3.6	-17.3
87.0	25654	174.8	0.13536	444.6	12.76	22.7	1.3560	227.1	669.7	227.07				16.7	117.6	7.7	-14.8
88.0	26013	166.4	0.14267	426.6	12.82	21.5	1.3324	225.2	674.5	225.18				12.7	118.9	6.1	-11.1
89.0	26325	164.6	0.14889	425.4	13.30	20.5	1.3118	223.4	678.3	223.39				7.2	112.5	2.7	-6.6
89.4	26486	163.5	0.15207	422.6	13.55	20.0	1.3010	223.4	683.3	223.45				6.2	103.5	1.5	-6.1
90.0	26753	161.8	0.15732	418.0	13.97	19.2	1.2833	223.5	691.6	223.54				5.2	82.5	-0.7	-5.1
91.0	27140	163.2	0.16489	419.4	14.94	18.1	1.2577	224.7	707.1	224.73				8.4	74.2	-2.3	-8.1
91.7	27362	160.7	0.16918	411.1	15.22	17.5	1.2430	225.7	717.0	225.70				9.4	83.1	-1.1	-9.3
92.0	27476	159.4	0.17138	406.9	15.36	17.2	1.2355	226.2	722.2	226.20				9.9	86.9	-0.5	-9.9
93.0	27750	153.5	0.17651	393.3	15.41	16.5	1.2175	225.3	727.9	225.32				11.1	82.7	-1.4	-11.0
94.0	28120	149.7	0.18322	383.4	15.90	15.6	1.1931	225.5	740.2	225.47				11.3	68.7	-4.1	-10.5
94.7	28378	147.2	0.18780	376.4	16.26	15.0	1.1761	225.8	749.6	225.80				9.8	60.1	-4.9	-8.5
95.0	28467	146.3	0.18937	374.0	16.38	14.8	1.1703	225.9	752.9	225.91				9.3	56.5	-5.1	-7.8
96.0	28788	138.2	0.19481	352.0	16.24	14.1	1.1492	226.6	765.8	226.64				10.6	48.5	-7.0	-7.9
97.0	29176	133.5	0.20107	339.2	16.63	13.3	1.1239	227.2	780.7	227.21				12.8	45.9	-8.9	-9.2
98.0	29536	129.5	0.20668	327.4	17.03	12.6	1.1004	228.4	796.8	228.36				13.9	54.1	-8.2	-11.3
98.1	29589	128.6	0.20747	325.0	17.04	12.5	1.0969	228.4	799.0	228.44				14.3	54.3	-8.3	-11.6
99.0	29918	122.8	0.21237	309.7	17.10	11.9	1.0755	228.9	812.0	228.93				16.5	55.6	-9.3	-13.6
100.0	30323	115.1	0.21806	291.8	17.03	11.2	1.0492	227.8	822.1	227.79				17.2	56.4	-9.5	-14.4
101.0	30754	110.4	0.22380	279.2	17.43	10.5	1.0212	228.4	839.5	228.36				18.1	70.5	-6.1	-17.1
101.8	31079	104.5	0.22792	264.2	17.31	10.0	1.0000	228.4	851.3	228.36				20.4	81.3	-3.1	-20.1
102.0	31147	103.3	0.22876	261.1	17.28	9.9	0.9956	228.4	853.7	228.36				20.9	83.2	-2.5	-20.8
103.0	31565	97.3	0.23371	245.6	17.34	9.3	0.9685	228.8	870.7	228.79				23.3	85.9	-1.7	-23.3
104.0	32014	89.8	0.23863	224.4	17.10	8.7	0.9395	231.0	896.2	231.03				26.9	86.2	-1.8	-26.9
105.0	32498	84.4	0.24355	210.2	17.26	8.1	0.9085	231.7	917.4	231.73				29.2	88.3	-0.9	-29.1
105.2	32582	83.6	0.24435	208.1	17.31	8.0	0.9031	231.9	921.2	231.86				28.9	88.3	-0.9	-28.9
106.0	33021	79.4	0.24852	197.2	17.55	7.5	0.8751	232.6	941.1	232.55				27.7	88.3	-0.8	-27.7
107.0	33491	73.1	0.25267	181.2	17.29	7.0	0.8451	232.8	961.0	232.83				25.5	93.2	1.4	-25.4
108.0	33892	67.5	0.25593	167.6	16.95	6.6	0.8195	232.6	976.1	232.55				24.9	101.3	4.9	-24.4
109.0	34317	63.2	0.25916	156.8	16.88	6.2	0.7924	232.6	993.7	232.55				26.8	105.8	7.3	-25.8
109.5	34541	61.1	0.26074	151.0	16.86	6.0	0.7782	233.6	1007.8	233.63				26.7	104.9	6.9	-25.8
110.0	34773	58.9	0.26237	145.0	16.84	5.8	0.7634	234.7	1022.4	234.74				26.6	104.0	6.4	-25.8
111.0	35266	56.2	0.26561	136.8	17.24	5.4	0.7324	237.0	1053.6	237.03				25.1	100.1	4.4	-24.7
112.0	35801	49.1	0.26881	119.0	16.26	5.0	0.6990	238.0	1081.3	237.97				27.5	97.0	3.3	-27.3
113.0	36232	46.8	0.27115	113.2	16.50	4.7	0.6721	238.8	1104.3	238.77				24.9	95.3	2.3	-24.8
114.0	36537	44.5	0.27272	106.5	16.37	4.5	0.6532	241.0	1128.7	241.03				26.9	97.8	3.6	-26.7
115.0	37023	43.5	0.27511	104.4	17.16	4.2	0.6232	240.5	1148.6	240.50				27.9	97.7	3.7	-27.7
116.0	37366	39.0	0.27670	93.5	16.14	4.0	0.6021	240.6	1165.4	240.63				26.2	92.9	1.3	-26.1
117.0	37727	36.7	0.27823	88.2	16.00	3.8	0.5798	240.4	1181.3	240.36				31.8	87.7	-1.3	-31.8
118.0	38306	35.8	0.28058	85.9	16.95	3.5	0.5441	240.6	1210.7	240.63				31.9	80.3	-5.4	-31.5
119.0	38720	33.0	0.28218	79.1	16.55	3.3	0.5185	240.6	1231.2	240.63				30.7	77.0	-6.9	-29.9
120.0	39160	31.3	0.28376	75.2	16.72	3.1	0.4914	240.1	1250.7	240.10				32.6	82.2	-4.4	-32.3
120.5	39390	30.8	0.28456	74.0	17.01	3.0	0.4771	240.2	1262.9	240.16				36.8	84.0	-3.8	-36.6
121.0	39629	30.3	0.28538	72.8	17.31	2.9	0.4624	240.2	1275.4	240.23				41.2	85.4	-3.3	-41.0
122.0	40397	28.7	0.28792	68.8	18.27	2.6	0.4150	240.5	1317.3	240.50				49.0	84.1	-5.0	-48.7
123.0	40962	28.2	0.28972	67.3	19.47	2.4	0.3802	242.0	1356.0	241.95				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***


072877
2237
3A-146
P
T
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
40 0 MICG/G
20 0
10.0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN LAUNCH DATE 72977 LAUNCH TIME 0426 GMT ECC SONDE 3A-147X

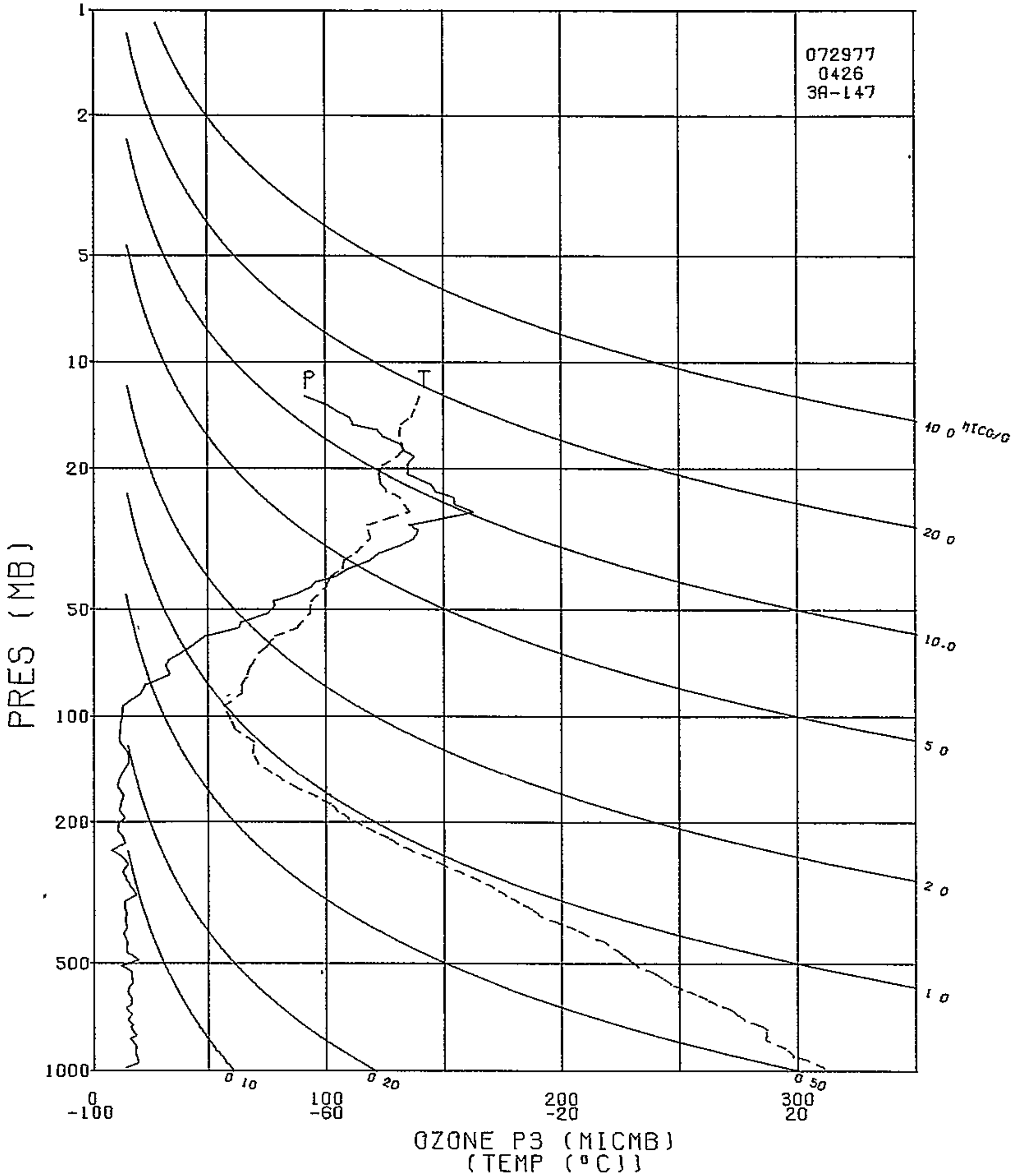
SURFACE CONDITIONS			
PRESS 1004.5 MB	003 = 34.0	TBOX CAL = 30.0 C	AT 73.2 ORD
TEMP 299.8 K	0IZ = 33.4	BASE CAL = 30.0 C	AT 73.6 ORD
HUMY 89.0 %	0ZC = 63.1	HUMIDITY = 61.0 %	AT 46.0 ORD
	IO = 0.104		
	PS = 28.3		

	PROFILE	DOBSON
INTEGRATED OZONE	0.18124	
RESIDUAL OZONE	0.06538	
TOTAL OZONE	0.24661	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRLSS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	9.4	0.	18.0	0.02	1004.5	3.0019	299.2	298.8	302.46	84.6	296.4	0.0178	3.0	20.0	-2.8	-1.0
0.2	92	10.2	0.00004	19.7	0.02	1000.0	3.0000	298.9	298.9	302.23	87.1	296.6	0.0183	3.4	19.3	-3.2	-1.1
1.0	289	14.4	0.00025	27.9	0.02	978.0	2.9903	297.5	299.4	301.07	99.4	297.4	0.0195	5.6	17.4	-5.3	-1.7
2.0	526	19.4	0.00061	37.7	0.03	952.0	2.9786	296.6	300.8	300.05	100.0	296.6	0.0190	8.1	19.7	-7.6	-2.7
3.0	749	19.2	0.00100	37.7	0.03	928.0	2.9675	294.6	300.9	297.63	99.3	294.4	0.0171	7.3	17.8	-6.9	-2.2
4.0	957	18.8	0.00136	37.1	0.03	906.0	2.9571	292.4	300.7	295.03	97.2	291.9	0.0149	5.8	11.8	-5.7	-1.2
4.3	1014	18.8	0.00146	37.2	0.03	900.0	2.9542	292.1	301.0	294.73	97.4	291.7	0.0147	5.9	13.0	-5.7	-1.3
5.0	1178	18.9	0.00174	37.5	0.04	883.0	2.9460	291.3	301.8	293.87	98.2	291.0	0.0145	6.1	16.0	-5.9	-1.7
6.0	1394	18.9	0.00212	37.6	0.04	861.0	2.9350	290.9	303.6	293.14	86.7	288.6	0.0128	6.7	28.9	-5.9	-3.3
6.5	1504	18.4	0.00230	36.5	0.04	850.0	2.9294	290.5	304.3	292.78	89.4	288.7	0.0131	6.5	35.7	-5.3	-3.8
7.0	1626	17.7	0.00251	35.3	0.04	838.0	2.9232	290.0	305.1	292.39	92.4	288.8	0.0133	6.4	43.7	-4.6	-4.4
8.0	1852	16.1	0.00287	32.4	0.03	816.0	2.9117	287.6	304.8	289.79	98.7	287.4	0.0124	6.6	60.6	-3.2	-5.7
8.6	2019	17.8	0.00314	35.7	0.04	800.0	2.9031	287.7	306.7	289.60	82.6	284.7	0.0100	7.9	66.8	-3.1	-7.3
9.0	2115	18.7	0.00329	37.5	0.04	791.0	2.8982	287.8	307.7	289.50	73.4	283.1	0.0096	8.7	69.4	-3.0	-8.1
10.0	2409	16.2	0.00377	32.6	0.04	764.0	2.8831	287.8	310.8	289.26	60.8	280.3	0.0083	10.8	81.4	-1.6	-10.7
11.0	2667	17.0	0.00417	34.3	0.04	741.0	2.8698	286.4	312.0	287.72	57.7	278.3	0.0074	12.7	92.1	0.5	-12.7
12.0	2943	15.1	0.00459	30.7	0.03	717.0	2.8555	283.9	312.2	285.12	60.7	276.7	0.0068	15.1	96.6	1.7	-15.0
12.7	3142	16.2	0.00489	33.0	0.04	700.0	2.8451	283.0	313.4	284.11	58.3	275.2	0.0062	15.5	99.8	2.6	-15.3
13.0	3226	16.6	0.00502	34.0	0.04	693.0	2.8407	282.6	313.9	283.69	57.4	274.6	0.0061	15.8	101.0	3.0	-15.5
14.0	3505	14.1	0.00542	28.9	0.03	670.0	2.8261	281.5	315.7	282.47	52.8	272.5	0.0054	15.0	107.7	4.5	-14.3
15.0	3780	16.7	0.00583	34.5	0.04	648.0	2.8116	279.2	316.1	280.11	57.4	271.5	0.0052	15.2	110.8	5.4	-14.2
16.0	4062	16.6	0.00628	34.6	0.04	626.0	2.7966	277.5	317.2	278.33	59.7	270.4	0.0049	14.7	113.5	5.9	-13.5
17.0	4325	15.3	0.00669	32.0	0.04	606.0	2.7825	275.6	318.0	276.41	60.9	268.9	0.0046	12.7	115.0	5.4	-11.5
17.3	4405	15.4	0.00681	32.3	0.04	600.0	2.7782	275.0	318.2	275.73	63.7	268.8	0.0046	12.3	114.9	5.2	-11.1
18.0	4595	15.7	0.00710	33.2	0.04	586.0	2.7679	273.3	318.4	274.11	70.3	268.6	0.0046	11.4	114.7	4.8	-10.4
19.0	4858	17.1	0.00753	36.4	0.05	567.0	2.7536	271.4	319.2	272.21	79.7	268.4	0.0047	11.6	116.4	5.2	-10.4
20.0	5172	16.6	0.00806	35.4	0.05	545.0	2.7364	269.9	321.0	270.57	78.5	266.7	0.0043	9.9	127.9	6.1	-7.8
21.0	5437	16.6	0.00850	35.8	0.05	527.0	2.7218	268.5	322.4	269.05	68.7	263.6	0.0035	8.2	144.3	6.6	-4.8
22.0	5755	12.0	0.00896	26.2	0.04	506.0	2.7042	265.8	322.9	266.28	72.3	261.6	0.0031	7.8	153.8	7.0	-3.4
22.3	5847	14.5	0.00911	31.5	0.05	500.0	2.6990	265.4	323.5	265.83	68.1	260.5	0.0027	8.0	156.2	7.4	-3.2
23.0	6052	19.9	0.00944	43.4	0.07	487.0	2.6875	264.4	324.8	264.83	59.0	257.9	0.0024	8.7	161.0	8.2	-2.8
24.0	6376	15.1	0.01002	33.1	0.05	467.0	2.6693	263.0	326.9	263.41	67.7	258.2	0.0025	7.4	166.1	7.2	-1.8
25.0	6678	14.4	0.01047	31.8	0.05	449.0	2.6522	262.3	329.7	262.51	38.4	250.9	0.0014	5.6	168.1	5.4	-1.1
26.0	6991	14.3	0.01094	31.7	0.05	431.0	2.6345	260.0	330.7	260.19	36.4	248.3	0.0012	6.0	164.4	5.8	-1.6
27.0	7295	13.0	0.01137	29.2	0.05	414.0	2.6170	257.1	330.8	257.31	55.2	250.2	0.0014	6.0	160.5	5.7	-2.0
27.8	7552	14.1	0.01174	31.9	0.06	400.0	2.6021	255.5	332.0	255.71	51.3	247.9	0.0012	5.1	153.7	4.6	-2.3
28.0	7609	14.4	0.01182	32.5	0.06	397.0	2.5988	255.2	332.2	255.35	50.5	247.4	0.0012	5.0	151.9	4.4	-2.3
29.0	7914	13.6	0.01228	31.1	0.06	381.0	2.5809	252.2	332.3	252.40	68.4	247.9	0.0013	4.4	146.0	3.7	-2.5
30.0	8249	14.5	0.01278	33.7	0.07	364.0	2.5611	249.1	332.5	249.35	91.4	248.1	0.0014	5.9	146.0	4.9	-3.3
30.9	8534	13.5	0.01321	31.3	0.06	350.0	2.5441	247.9	334.6	248.00	63.1	242.8	0.0008	6.7	135.2	4.8	-4.7
31.0	8576	13.3	0.01328	31.0	0.06	348.0	2.5416	247.7	334.9	247.81	58.9	242.0	0.0008	6.9	133.9	4.8	-5.0
32.0	8894	13.4	0.01374	31.5	0.07	333.0	2.5224	245.6	336.2	245.67	52.3	238.8	0.0006	7.4	127.6	4.5	-5.9
33.0	9201	18.7	0.01428	44.4	0.10	319.0	2.5038	243.3	337.3	243.39	31.8	231.9	0.0003	8.4	130.3	5.4	-6.4
34.0	9566	16.1	0.01499	38.6	0.09	303.0	2.4814	241.2	339.3	241.26				8.6	124.5	4.9	-7.1
34.2	9635	15.7	0.01511	37.6	0.09	300.0	2.4771	240.7	339.5	240.71				8.3	122.4	4.5	-7.0
35.0	9898	14.1	0.01556	34.2	0.08	289.0	2.4609	238.6	340.2	238.62				7.6	113.7	3.0	-6.9
36.0	10217	12.5	0.01604	30.6	0.08	276.0	2.4409	235.9	340.8	235.95				6.8	106.1	1.9	-6.5
37.0	10548	15.2	0.01657	37.6	0.10	263.0	2.4200	232.8	341.0	232.84				6.5	98.1	0.9	-6.4
38.0	10891	12.5	0.01712	31.4	0.08	250.0	2.3979	230.4	342.3	230.37				5.8	70.2	-2.0	-5.5
39.0	11192	7.9	0.01748	20.0	0.05	239.0	2.3784	227.3	342.1	227.29				5.8	45.1	-4.1	-4.1
40.0	11503	13.7	0.01788	35.2	0.10	228.0	2.3579	224.8	343.0	224.83				5.8	35.8	-4.7	-3.4
41.0	11767	12.5	0.01830	32.3	0.09	219.0	2.3404	223.2	344.5	223.21				5.2	14.4	-5.0	-1.3
42.0	12009	10.5	0.01864	27.4	0.08	211.0	2.3243	220.9	344.6	220.94				5.2	354.9	-5.2	0.5
43.0	12289	10.4	0.01900	27.6	0.09	202.0	2.3054	218.8	345.5	218.76				5.2	340.0	-4.9	1.8
43.2	12352	11.2	0.01909	29.7	0.09	200.0	2.3010	218.2	345.6	218.24				5.3	338.5	-4.9	1.9
44.0	12546	13.6	0.01938	36.2	0.12	194.0	2.2878	216.7	346.1	216.66				5.5	334.1	-4.9	2.4
45.0	12846	11.2	0.01984	30.2	0.10	185.0	2.2672	214.8	347.9	214.82				5.2	348.1	-5.1	1.1
46.0	13158	12.5	0.02031	33.8	0.12	176.0	2.2455	213.4	350.6	213.45				2.8	349.0	-2.7	0.5
47.0	13447	13.4	0.02078	36.5	0.13	168.0	2.2253	211.1	351.5	211.13				2.2	261.7	0.3	2.2
48.0	13784	10.7	0.02131	29.9	0.11	159.0	2.2014	207.9	351.6	207.92				3.5	225.5	2.4	2.5
49.0	14096	11.4	0.02176	32.1	0.13	151.0	2.1790	205.5	352.7	205.51				3.8	191.8	3.8	0.8
49.1	14135	11.7	0.02182	32.8	0.13	150.0	2.1761	205.2	352.9	205.25				3.7	189.6	3.6	0.6
50.0	14421	13.3	0.02229	37.7	0.15	143.0	2.1553	203.4	354.5	203.38				2.6	165.4	2.5	-0.7
51.0	14762	15.8	0.02295	45.3	0.19	135.0	2.1303	201.1	356.4	201.13				1.5	75.8	-0.4	-1.5
52.0	15167	15.1	0.02379	43.6	0.20	126.0	2.1004	200.2	361.8	200.19				3.5	34.2	-2.9	-2.0
52.1	15213	14.7	0.02387	42.4	0.19	125.0	2.0969	200.2	362.7	200.22				3.5	38.1	-2.7	-2.1
53.0	15601	11.3	0.02456	32.5	0.16	117.0	2.0682	200.4	370.0	200.43				3.4	73.5	-1.0	-3.3
54.0	16067	11.6	0.02529	34.1	0.18	108.0	2.0334	197.2	372.5	197.21				4.4	129.6	2.8	-3.4
55.0	16453	12.7	0.02593	37.4	0.21	101.0	2.0043	196.4	378.2	196.42				3.3	141.8	2.6	-2.1
55.1	16510	12.8	0.02603	37.7	0.21	100.0	2.0000	196.3	379.0	196.29				3.6	134.5	2.5	-2.6
56.0	16926	13.3	0.02678	39.2	0.24	93.0	1.9685	195.3	385.0	195.34				6.6	106.5	1.9	-6.3
57.0	17377	21.2	0.02784	61.6	0.41	86.0	1.9345	198.5	400.1	198.48				12.0	102.9	2.7	-11.7
58.0	17725	23.4	0.02890	67.9	0.48	81.0	1.9085	198.7	407.5	198.73				12.6	107.6	3.8	-12.0

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	UZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.2	17797	25.3	0.02917	73.4	0.53	80.0	1.9031	198.9	409.4	198.92				12.3	107.4	3.7	-11.7
59.0	18096	33.2	0.03032	96.0	0.72	76.0	1.8808	199.7	417.0	199.71				11.1	106.3	3.1	-10.6
60.0	18412	31.7	0.03170	91.5	0.73	72.0	1.8573	200.2	424.5	200.19				9.5	102.9	2.1	-9.2
60.7	18576	32.7	0.03243	94.5	0.78	70.0	1.8451	200.0	427.6	200.03				10.8	97.7	1.4	-10.7
61.0	18661	33.2	0.03279	96.0	0.80	69.0	1.8388	200.0	429.2	199.95				11.5	95.5	1.1	-11.4
62.0	18922	38.5	0.03405	110.2	0.97	66.0	1.8195	201.8	438.8	201.82				17.3	92.2	0.7	-17.2
63.0	19197	43.2	0.03555	122.8	1.14	63.0	1.7993	203.2	447.6	203.16				20.8	94.6	1.7	-20.8
63.7	19487	47.6	0.03733	134.7	1.32	60.0	1.7782	204.1	456.1	204.13				23.4	90.9	0.4	-23.4
64.0	19588	49.2	0.03794	138.8	1.38	59.0	1.7709	204.5	459.0	204.46				24.3	89.8	-0.1	-24.3
65.0	19903	62.8	0.04025	174.1	1.86	56.0	1.7482	208.3	474.7	208.31				27.2	89.2	-0.4	-27.2
66.0	20124	63.8	0.04207	177.0	1.96	54.0	1.7324	208.1	479.2	208.12				29.1	89.7	-0.1	-29.1
67.0	20474	75.3	0.04520	206.5	2.45	51.0	1.7076	210.4	492.4	210.40				29.2	88.8	-0.6	-29.2
67.5	20595	76.6	0.04640	210.2	2.54	50.0	1.6990	210.3	495.0	210.30				29.9	87.9	-1.1	-29.9
68.0	20720	77.9	0.04762	213.9	2.63	49.0	1.6902	210.2	497.6	210.21				30.7	87.0	-1.6	-30.6
69.0	20976	77.6	0.05017	212.5	2.73	47.0	1.6721	210.8	504.9	210.76				34.3	86.3	-2.2	-34.2
70.0	21244	87.0	0.05300	237.9	3.20	45.0	1.6532	211.1	512.1	211.13				33.4	87.0	-1.7	-33.3
71.0	21526	93.9	0.05624	254.4	3.62	43.0	1.6335	213.1	523.6	213.10				36.6	85.0	-3.2	-36.5
72.0	21747	95.5	0.05889	257.8	3.81	41.5	1.6180	213.8	530.7	213.79				37.2	85.8	-2.7	-37.1
73.0	21977	104.3	0.06180	281.3	4.32	40.0	1.6021	214.1	537.2	214.14				37.5	87.4	-1.7	-37.5
74.0	22300	109.8	0.06613	293.4	4.79	38.0	1.5798	216.0	549.8	216.00				40.3	88.9	-0.7	-40.3
75.0	22642	118.7	0.07100	316.7	5.46	36.0	1.5563	216.3	559.2	216.33				37.6	92.0	1.3	-37.6
75.6	22820	121.1	0.07369	321.5	5.74	35.0	1.5441	217.5	566.7	217.46				36.6	93.6	2.3	-36.5
76.0	22949	122.8	0.07561	324.9	5.93	34.3	1.5353	218.3	572.1	218.28				35.8	94.9	3.1	-35.7
77.0	23254	131.6	0.08041	347.2	6.67	32.7	1.5145	218.8	581.3	218.76				36.7	97.2	4.6	-36.4
78.0	23535	137.4	0.08505	359.6	7.27	31.3	1.4955	220.6	593.6	220.63				33.6	97.8	4.6	-33.3
78.9	23808	139.0	0.08968	364.3	7.68	30.0	1.4771	220.4	600.1	220.37				29.9	96.0	3.1	-29.7
79.0	23852	139.3	0.09041	365.0	7.75	29.8	1.4742	220.3	601.2	220.32				29.3	95.6	2.9	-29.2
80.0	24117	135.4	0.09486	354.7	7.84	28.6	1.4564	220.3	608.3	220.32				24.3	98.0	3.4	-24.1
81.0	24419	150.5	0.10011	387.8	9.13	27.3	1.4362	224.1	627.0	224.10				16.3	102.8	3.6	-15.9
82.0	24665	162.3	0.10472	412.4	10.23	26.3	1.4200	227.3	642.7	227.29				15.2	103.8	3.6	-14.8
83.0	24975	154.5	0.11056	393.2	10.20	25.1	1.3997	226.9	650.1	226.86				16.8	109.0	5.5	-15.9
83.1	25001	154.5	0.11104	393.3	10.24	25.0	1.3979	226.8	650.6	226.75				16.6	108.9	5.4	-15.7
84.0	25272	154.3	0.11602	394.7	10.65	24.0	1.3802	225.7	655.2	225.71				14.7	108.2	4.6	-13.9
85.0	25551	146.0	0.12106	377.3	10.52	23.0	1.3617	223.4	656.3	223.36				12.7	98.9	2.0	-12.6
86.0	25870	143.1	0.12665	372.0	10.83	21.9	1.3404	222.2	662.0	222.16				12.0	73.7	-3.4	-11.5
87.0	26267	134.3	0.13334	349.5	10.80	20.6	1.3139	221.9	672.7	221.86				15.9	38.9	-12.4	-10.0
87.5	26459	133.9	0.13647	347.8	11.10	20.0	1.3010	222.3	679.9	222.34				16.4	40.7	-12.4	-10.7
88.0	26624	133.6	0.13914	346.3	11.35	19.5	1.2900	222.8	686.1	222.76				16.9	42.2	-12.5	-11.4
89.0	27004	137.1	0.14535	351.3	12.34	18.4	1.2648	225.3	705.5	225.27				13.4	61.2	-6.5	-11.8
90.0	27260	132.4	0.14947	337.9	12.40	17.7	1.2480	226.3	716.5	226.28				11.2	69.1	-4.0	-10.5
90.2	27335	131.9	0.15065	336.4	12.49	17.5	1.2430	226.4	719.2	226.39				10.6	68.9	-3.8	-9.9
91.0	27566	130.2	0.15426	331.5	12.76	16.9	1.2279	226.7	727.4	226.71				8.8	68.3	-3.3	-8.2
92.0	27887	122.9	0.15910	314.6	12.65	16.1	1.2068	225.6	733.8	225.56				6.8	60.1	-3.4	-5.9
93.0	28181	120.5	0.16337	307.7	12.97	15.4	1.1875	226.1	745.1	226.14				7.8	71.4	-2.5	-7.4
93.8	28354	112.6	0.16577	287.6	12.43	15.0	1.1761	226.0	750.4	226.02				9.6	79.8	-1.7	-9.4
94.0	28399	110.6	0.16638	282.4	12.29	14.9	1.1732	226.0	751.7	226.00				10.1	81.5	-1.5	-10.0
95.0	28718	108.6	0.17054	275.3	12.67	14.2	1.1523	227.7	767.9	227.71				10.3	92.1	0.4	-10.3
96.0	28957	103.8	0.17354	262.5	12.55	13.7	1.1367	228.3	777.7	228.28				11.5	96.8	1.4	-11.4
97.0	29256	99.3	0.17713	250.7	12.56	13.1	1.1173	228.7	789.2	228.70				18.3	98.2	2.6	-18.2
97.9	29570	91.5	0.18064	230.5	12.12	12.5	1.0969	229.1	801.1	229.06				999.9	999.9	999.9	999.9
98.0	29624	90.1	0.18124	227.1	12.04	12.4	1.0934	229.1	803.2	229.12				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72977   LAUNCH TIME 1040 GMT   ECC SONDE 3A-148X

SURFACE CONDITIONS
PRESS 1003.1 MB
TEMP 299.2 K
HUMY 94.0 %

003 = 35.3
OIZ = 34.0
OZC = 59.0
IO = 0.262
PS = 28.4

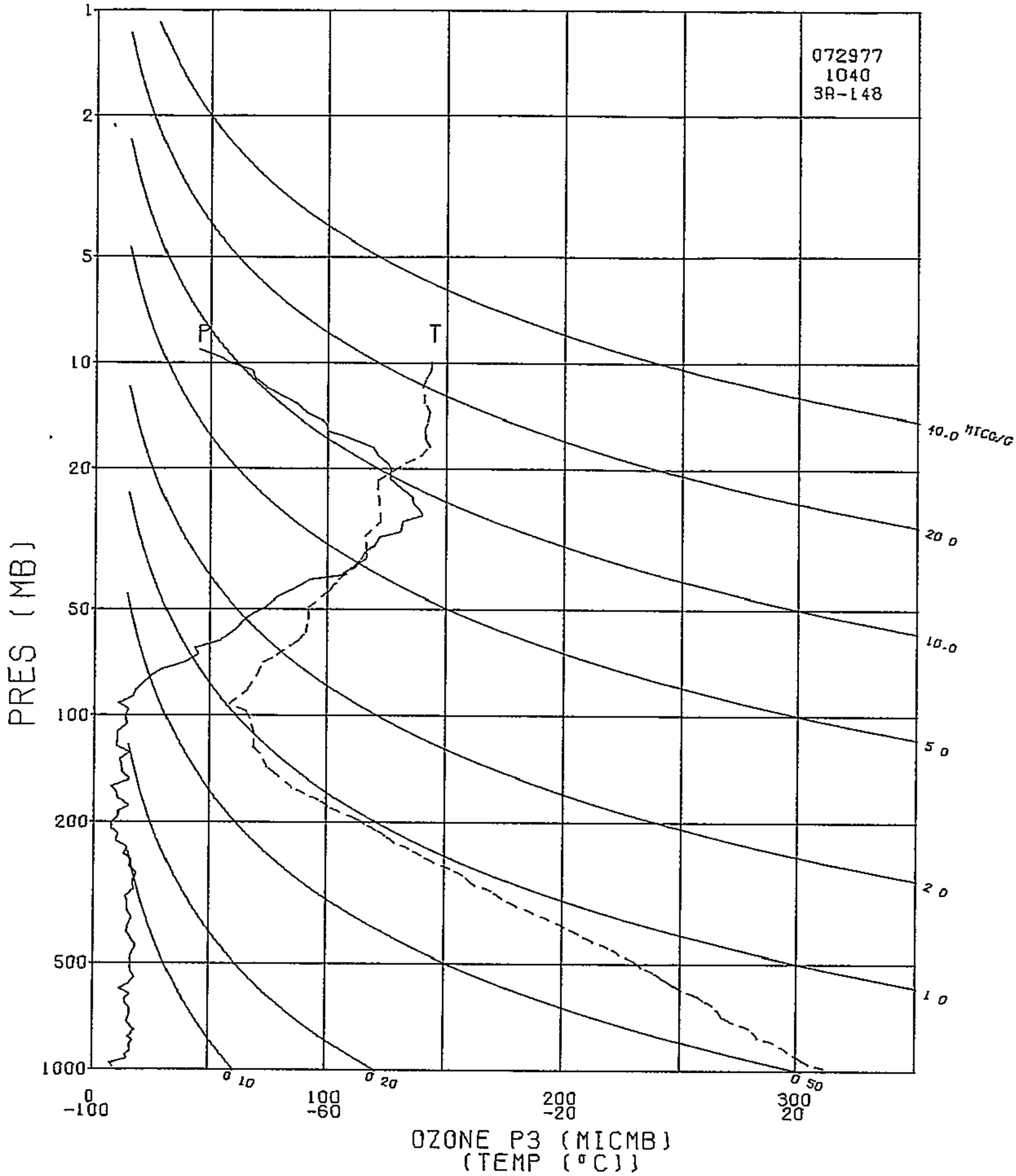
TBOX CAL = 30.0 C AT 74.6 ORD
BASE CAL = 30.0 C AT 73.8 ORD
HUMIDITY = 62.4 % AT 46.0 ORD

	PROFILE	DOBSON
INTEGRATED OZONE	0.18512	
RESIDUAL OZONE	0.03091	
TOTAL OZONE	0.21603	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	3.8	0.	7.3	0.01	1003.1	3.0013	298.7	298.4	302.17	93.0	297.5	0.0190	2.0	30.0	-1.7	-1.0
0.1	80	4.5	0.00002	8.7	0.01	1000.0	3.0000	298.6	298.6	302.05	93.8	297.5	0.0192	2.7	30.9	-2.4	-1.4
1.0	258	9.1	0.00012	17.6	0.02	980.0	2.9912	297.7	299.5	301.30	98.9	297.5	0.0196	7.6	32.5	-6.4	-4.1
2.0	492	7.9	0.00030	15.4	0.01	954.2	2.9796	295.2	299.2	298.32	100.0	295.2	0.0174	9.4	35.1	-7.7	-5.4
3.0	734	15.1	0.00055	29.6	0.03	928.0	2.9675	293.8	300.2	296.79	100.0	293.8	0.0165	9.0	29.9	-7.8	-4.5
4.0	951	14.8	0.00084	29.1	0.03	905.0	2.9566	292.7	301.2	295.55	100.0	292.7	0.0158	9.2	23.3	-8.5	-3.6
4.2	998	15.2	0.00091	30.0	0.03	900.0	2.9542	292.5	301.4	295.30	100.0	292.5	0.0155	9.2	25.1	-8.3	-3.9
5.0	1222	17.2	0.00124	34.1	0.03	877.0	2.9430	291.4	302.6	294.11	100.0	291.4	0.0150	9.0	33.9	-7.5	-5.0
6.0	1480	16.8	0.00164	33.4	0.03	851.0	2.9299	290.4	304.1	292.94	99.7	290.3	0.0144	8.0	52.1	-4.9	-6.3
6.0	1490	16.8	0.00166	33.5	0.03	850.0	2.9294	290.3	304.1	292.88	99.7	290.3	0.0143	8.0	52.7	-4.8	-6.3
7.0	1740	17.9	0.00206	35.7	0.04	825.5	2.9167	288.9	305.2	291.33	99.7	288.9	0.0135	7.9	67.9	-3.0	-7.3
8.0	1953	16.1	0.00240	32.5	0.03	805.0	2.9058	286.3	304.6	288.32	96.3	285.8	0.0113	7.3	83.1	-0.9	-7.3
8.3	2005	16.5	0.00248	33.2	0.03	800.0	2.9031	286.0	304.8	287.83	90.6	284.4	0.0099	6.9	86.7	-0.4	-6.9
9.0	2132	17.3	0.00268	35.1	0.04	788.0	2.8965	285.2	305.3	286.65	76.5	281.2	0.0085	6.1	97.2	0.8	-6.0
10.0	2315	18.7	0.00299	37.8	0.04	771.0	2.8871	285.6	307.6	287.23	82.4	282.6	0.0096	4.6	102.5	1.0	-4.5
11.0	2513	16.8	0.00332	34.0	0.04	753.0	2.8768	284.8	308.8	286.76	100.0	284.8	0.0114	6.9	92.5	0.3	-6.9
12.0	2681	15.5	0.00358	31.5	0.03	738.0	2.8681	284.2	310.0	286.14	99.5	284.1	0.0111	10.9	87.1	-0.6	-10.8
13.0	2863	15.5	0.00384	31.8	0.04	722.0	2.8585	281.6	309.1	283.02	85.5	279.3	0.0082	12.0	83.2	-1.4	-11.9
13.9	3118	16.4	0.00423	33.7	0.04	700.0	2.8451	280.1	310.2	281.12	64.7	273.9	0.0056	11.5	85.6	-0.9	-11.5
14.0	3142	16.4	0.00427	33.9	0.04	698.0	2.8439	280.0	310.3	280.95	62.8	273.4	0.0056	11.5	85.9	-0.8	-11.4
15.0	3417	16.5	0.00471	34.1	0.04	675.0	2.8293	279.8	313.1	280.80	63.3	273.3	0.0057	10.8	95.6	1.0	-10.8
16.0	3714	14.8	0.00515	30.7	0.04	651.0	2.8136	278.6	314.9	279.52	63.3	272.2	0.0054	11.2	104.6	2.8	-10.9
17.0	3981	14.3	0.00553	29.7	0.04	630.0	2.7993	276.9	315.9	277.71	62.9	270.5	0.0050	11.8	104.6	3.0	-11.4
18.0	4256	16.5	0.00594	34.5	0.04	609.0	2.7846	275.5	317.5	276.30	61.9	269.0	0.0046	12.0	104.5	3.0	-11.7
18.4	4375	14.2	0.00610	30.0	0.04	600.0	2.7782	274.4	317.5	275.14	61.2	267.8	0.0041	12.2	107.0	3.6	-11.7
19.0	4524	11.5	0.00631	24.2	0.03	589.0	2.7701	273.1	317.6	273.71	60.5	266.3	0.0039	12.4	110.0	4.2	-11.7
20.0	4828	16.5	0.00673	35.0	0.05	567.0	2.7536	271.5	319.2	272.01	56.1	263.9	0.0033	12.4	111.8	4.6	-11.5
21.0	5127	18.3	0.00725	39.2	0.06	546.0	2.7372	269.9	320.8	270.43	59.3	263.1	0.0032	11.5	112.5	4.4	-10.6
22.0	5451	17.1	0.00782	36.7	0.05	524.0	2.7193	268.4	322.8	268.87	61.8	262.2	0.0031	9.8	115.2	4.2	-8.9
23.0	5694	16.9	0.00824	36.7	0.06	508.0	2.7059	266.4	323.3	266.85	61.8	260.3	0.0028	9.7	122.1	5.1	-8.2
23.4	5817	16.7	0.00844	36.3	0.06	500.0	2.6990	265.9	324.1	266.31	61.7	259.8	0.0027	9.7	125.0	5.6	-8.0
24.0	6007	16.4	0.00876	35.6	0.06	488.0	2.6884	265.1	325.4	265.48	61.4	259.0	0.0026	9.9	129.5	6.3	-7.6
25.0	6347	17.5	0.00935	38.6	0.06	467.0	2.6693	262.6	326.4	262.62				7.9	138.8	6.0	-5.2
26.0	6665	19.1	0.00995	42.3	0.07	448.0	2.6513	260.7	328.0	260.76				5.9	154.7	5.4	-2.5
27.0	6994	16.9	0.01057	38.0	0.07	429.0	2.6325	257.8	328.3	257.90	25.9	242.7	0.0007	5.5	158.7	5.1	-2.0
28.0	7353	15.2	0.01117	34.2	0.06	409.0	2.6117	255.5	329.8	255.68	60.7	249.7	0.0014	6.0	147.9	5.1	-3.2
28.5	7518	15.5	0.01144	35.1	0.06	400.0	2.6021	254.3	330.4	254.54	67.1	249.7	0.0014	5.8	144.4	4.7	-3.4
29.0	7688	15.8	0.01172	36.0	0.07	391.0	2.5922	253.2	331.1	253.38	73.6	249.7	0.0015	5.6	140.5	4.3	-3.6
30.0	8035	17.1	0.01233	39.5	0.08	373.0	2.5717	250.5	332.0	250.66	68.4	246.3	0.0011	5.6	129.6	3.6	-4.3
31.0	8375	15.2	0.01293	35.4	0.07	356.0	2.5515	247.7	332.7	247.85	70.3	243.9	0.0009	6.5	123.9	3.6	-5.4
31.4	8497	15.2	0.01313	35.7	0.07	350.0	2.5441	246.6	332.8	246.73	73.3	243.2	0.0009	6.8	125.3	3.9	-5.6
32.0	8706	15.3	0.01348	36.1	0.07	340.0	2.5315	244.7	333.0	244.81	78.5	242.1	0.0008	7.3	127.4	4.5	-5.8
33.0	9028	14.2	0.01401	33.8	0.07	325.0	2.5119	242.5	334.3	242.55	72.9	239.2	0.0007	6.9	115.6	3.0	-6.2
34.0	9385	17.9	0.01465	43.0	0.10	309.0	2.4900	240.8	336.7	240.77				7.7	127.5	4.7	-6.1
34.6	9591	17.5	0.01506	42.4	0.10	300.0	2.4771	238.6	336.6	238.66				8.4	134.8	5.9	-6.0
35.0	9709	17.3	0.01529	42.0	0.10	295.0	2.4698	237.5	336.6	237.46				8.8	138.4	6.6	-5.9
36.0	10095	19.2	0.01609	47.0	0.11	279.0	2.4456	235.9	339.7	235.87				5.1	134.1	3.5	-3.7
37.0	10397	15.9	0.01670	39.3	0.10	267.0	2.4265	233.6	340.6	233.59				2.1	148.8	1.8	-1.1
38.0	10683	17.2	0.01725	43.1	0.11	256.0	2.4082	230.7	340.5	230.73				2.1	133.4	1.4	-1.5
38.6	10842	15.0	0.01754	37.7	0.10	250.0	2.3979	229.6	341.1	229.57				2.0	118.1	0.9	-1.7
39.0	10951	13.5	0.01774	34.0	0.09	246.0	2.3909	228.8	341.6	228.79				1.9	107.1	0.6	-1.9
40.0	11256	15.3	0.01826	39.0	0.11	235.0	2.3711	226.7	342.8	226.68				2.5	347.2	-2.4	0.5
41.0	11513	10.2	0.01865	26.2	0.07	226.0	2.3541	224.2	342.9	224.22				5.2	327.9	-4.4	2.7
42.0	11809	11.3	0.01903	29.2	0.09	216.0	2.3345	222.6	344.9	222.60				6.7	328.6	-5.7	3.5
43.0	12054	7.9	0.01932	20.7	0.06	208.0	2.3181	220.9	346.0	220.94				6.8	325.9	-5.6	3.8
44.0	12306	8.4	0.01957	22.0	0.07	200.0	2.3010	219.1	347.0	219.08				5.8	335.1	-5.3	2.5
45.0	12533	10.6	0.01983	28.1	0.09	193.0	2.2856	217.5	348.0	217.49				5.1	351.8	-5.0	0.7
46.0	12801	11.3	0.02020	30.4	0.10	185.0	2.2672	214.9	348.0	214.86				2.6	2.0	-2.6	-0.1
47.0	13007	15.7	0.02055	42.7	0.15	179.0	2.2529	213.0	348.2	212.98				2.4	48.9	-1.6	-1.8
48.0	13291	11.2	0.02104	30.5	0.11	171.0	2.2330	211.4	350.1	211.38				1.8	56.5	-1.0	-1.5
49.0	13537	10.0	0.02137	27.7	0.10	164.3	2.2156	209.0	350.1	208.99				0.4	309.7	-0.2	0.3
50.0	13775	7.7	0.02165	21.6	0.08	158.0	2.1987	206.9	350.4	206.85				0.5	64.9	-0.2	-0.4
51.0	14049	15.9	0.02207	44.4	0.17	151.0	2.1790	206.3	354.0	206.25				1.7	125.0	1.0	-1.4
51.2	14088	15.4	0.02214	43.2	0.17	150.0	2.1761	205.9	354.0	205.88				1.9	121.5	1.0	-1.6
52.0	14292	13.0	0.02253	36.8	0.15	145.0	2.1614	204.0	354.1	203.97				3.4	112.6	1.3	-3.1
53.0	14543	12.5	0.02295	35.5	0.15	139.0	2.1430	202.5	355.8	202.45				4.4	99.5	0.7	-4.3
54.0	14804	11.3	0.02337	32.4	0.14	133.0	2.1239	201.8	359.1	201.78				2.5	104.1	0.6	-2.4
55.0	15076	16.0	0.02387	45.8	0.21	127.0	2.1038	201.3	363.0	201.32				2.1	52.7	-1.3	-1.7
55.4	15169	13.7	0.02403	39.2	0.18	125.0	2.0969	200.9	363.9	200.87				3.0	66.5	-1.2	-2.8
56.0	15312	10.1	0.02428	29.2	0.14	122.0	2.0864	200.2	365.1	200.16				4.6	76.1	-1.1	-4.5
57.0	15607	10.7	0.02469	30.9	0.15	116.0	2.0645	199.9	370.0	199.93				6.3	113.1	2.5	-5.8
58.0	15865	10.5	0.02506	30.3	0.16	111.0	2.0453	200.2	375.1	200.16				5.1	139.0	3.8	-3.3
59.0	16134	14.6	0.02552	42.3	0.23	106.0	2.0253	199.4	378.7	199.45				3.1	132.7	2.1	-2.3

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
60.0	16416	14.0	0.02607	40.6	0.23	101.0	2.0043	199.4	384.0	199.45				5.1	114.7	2.1	-4.7
60.2	16474	14.3	0.02618	41.5	0.24	100.0	2.0000	199.3	384.8	199.30				5.5	117.2	2.5	-4.9
61.0	16712	15.6	0.02666	45.4	0.27	96.0	1.9823	198.7	388.2	198.72				7.2	124.7	4.1	-5.9
62.0	16958	10.9	0.02711	32.2	0.20	92.0	1.9638	196.2	387.9	196.16				7.1	119.2	3.5	-6.2
63.0	17213	17.6	0.02761	52.0	0.33	88.0	1.9445	195.6	391.7	195.63				7.5	90.2	0.0	-7.5
64.0	17482	19.1	0.02828	55.3	0.38	84.0	1.9243	199.4	404.7	199.45				8.7	80.0	-1.5	-8.6
65.0	17767	22.4	0.02908	64.9	0.46	80.0	1.9031	199.4	410.4	199.45				11.5	85.9	-0.8	-11.4
66.0	18067	26.3	0.03006	75.5	0.57	76.0	1.8808	201.1	419.9	201.10				13.5	79.0	-2.6	-13.3
67.0	18304	30.8	0.03097	88.1	0.70	73.0	1.8633	201.8	426.2	201.78				14.8	74.4	-4.0	-14.3
68.0	18552	39.5	0.03214	112.8	0.94	70.0	1.8451	202.2	432.3	202.23				17.4	76.8	-4.0	-16.9
69.0	18812	44.7	0.03359	126.4	1.11	67.0	1.8261	204.4	442.5	204.40				21.9	82.6	-2.8	-21.7
70.0	19086	43.1	0.03518	121.8	1.12	64.0	1.8062	204.4	448.3	204.40				26.5	92.0	0.9	-26.5
71.0	19375	53.9	0.03702	149.5	1.46	61.0	1.7853	208.0	462.6	208.03				26.7	93.3	1.5	-26.7
71.3	19475	55.5	0.03775	153.8	1.54	60.0	1.7782	208.5	465.8	208.47				27.0	91.6	0.8	-27.0
72.0	19683	59.0	0.03926	162.6	1.68	58.0	1.7634	209.4	472.3	209.36				27.8	88.3	-0.8	-27.8
73.0	19898	61.8	0.04093	170.5	1.83	56.0	1.7482	209.2	476.6	209.18				29.1	87.2	-1.4	-29.1
74.0	20235	65.0	0.04369	178.8	2.03	53.0	1.7243	209.9	485.9	209.92				28.6	88.4	-0.8	-28.6
75.0	20472	68.6	0.04572	187.8	2.23	51.0	1.7076	210.8	493.4	210.84				29.9	93.8	2.0	-29.8
75.5	20593	71.2	0.04683	195.3	2.36	50.0	1.6990	210.4	495.2	210.39				31.3	94.7	2.6	-31.2
76.0	20718	73.8	0.04796	202.9	2.50	49.0	1.6902	209.9	496.9	209.92				32.8	95.5	3.1	-32.7
77.0	21108	78.7	0.05176	214.3	2.84	46.0	1.6628	212.1	511.2	212.10				32.7	93.1	1.8	-32.7
78.0	21385	84.6	0.05463	228.7	3.18	44.0	1.6435	213.5	521.2	213.50				35.8	91.3	0.8	-35.8
79.0	21827	92.9	0.05957	249.6	3.75	41.0	1.6128	214.9	535.2	214.86				35.7	92.2	1.4	-35.6
80.0	21982	105.3	0.06150	281.8	4.36	40.0	1.6021	215.7	541.1	215.70				32.9	94.4	2.5	-32.8
81.0	22307	110.0	0.06586	292.1	4.80	38.0	1.5798	217.5	553.6	217.49				34.4	95.6	3.4	-34.3
82.0	22652	115.6	0.07067	305.2	5.32	36.0	1.5563	218.6	565.1	218.61				38.2	97.7	5.1	-37.9
82.5	22832	115.6	0.07324	304.8	5.48	35.0	1.5441	219.1	570.9	219.07				36.5	98.1	5.1	-36.1
83.0	23018	115.7	0.07589	304.3	5.64	34.0	1.5315	219.5	576.9	219.55				34.8	98.6	5.2	-34.4
84.0	23209	119.5	0.07866	314.8	6.00	33.0	1.5185	219.1	580.6	219.08				30.4	97.1	3.8	-30.2
85.0	23610	121.8	0.08461	320.7	6.51	31.0	1.4914	219.2	591.5	219.24				25.4	93.0	1.3	-25.3
86.0	23821	130.5	0.08787	342.0	7.21	30.0	1.4771	220.3	600.0	220.32				21.5	91.0	0.4	-21.5
87.0	24267	131.4	0.09500	341.8	7.78	28.0	1.4472	222.0	616.6	222.00				19.4	85.7	-1.4	-19.3
88.0	24503	139.5	0.09889	362.2	8.56	27.0	1.4314	222.3	623.9	222.30				16.6	75.5	-4.2	-16.1
89.0	25003	135.6	0.10724	353.3	8.99	25.0	1.3979	221.5	635.6	221.54				15.6	70.4	-5.2	-14.7
90.0	25268	134.7	0.11160	350.6	9.30	24.0	1.3802	221.8	643.9	221.85				12.3	76.2	-2.9	-11.9
91.0	25629	130.0	0.11741	339.2	9.49	22.7	1.3560	221.2	652.5	221.24				12.6	95.9	1.3	-12.6
92.0	26011	125.4	0.12335	326.9	9.71	21.4	1.3304	221.5	664.5	221.54				12.8	80.1	-2.2	-12.6
93.0	26419	125.9	0.12957	324.5	10.38	20.1	1.3032	224.1	684.2	224.08				13.7	73.3	-4.0	-13.2
93.1	26451	125.7	0.13006	323.6	10.41	20.0	1.3010	224.3	685.9	224.29				13.5	74.9	-3.5	-13.1
94.0	26755	123.7	0.13460	315.7	10.73	19.1	1.2810	226.2	701.0	226.25				12.3	91.7	0.4	-12.3
95.0	27076	119.8	0.13923	302.3	10.91	18.2	1.2601	228.8	718.7	228.79				10.4	101.7	2.1	-10.1
95.7	27339	118.2	0.14290	297.1	11.20	17.5	1.2430	229.8	729.9	229.75				8.5	99.6	1.4	-8.4
96.0	27455	117.5	0.14452	294.8	11.32	17.2	1.2355	230.2	734.8	230.18				7.8	98.4	1.1	-7.7
97.0	27775	109.5	0.14879	275.6	11.06	16.4	1.2148	229.3	742.2	229.35				10.3	91.8	0.3	-10.3
98.0	28154	99.3	0.15344	250.0	10.61	15.5	1.1903	229.2	753.8	229.21				13.0	87.7	-0.5	-13.0
98.5	28374	98.2	0.15598	247.0	10.85	15.0	1.1761	229.6	762.2	229.59				11.3	92.3	0.4	-11.3
99.0	28556	97.4	0.15808	244.6	11.05	14.6	1.1644	229.9	769.2	229.90				10.0	97.2	1.3	-9.9
100.0	28935	89.8	0.16224	225.2	10.78	13.8	1.1399	230.2	782.6	230.18				11.2	111.6	4.1	-10.4
101.0	29388	84.8	0.16689	213.7	10.90	12.9	1.1106	229.2	794.4	229.21				13.2	108.8	4.3	-12.5
101.7	29599	81.0	0.16892	203.7	10.73	12.5	1.0969	229.6	802.9	229.57				12.8	109.7	4.3	-12.0
102.0	29708	79.0	0.16996	198.6	10.65	12.3	1.0899	229.8	807.3	229.76				12.6	110.1	4.3	-11.8
103.0	30043	72.8	0.17296	183.6	10.30	11.7	1.0682	228.8	815.4	228.79				13.2	105.2	3.5	-12.8
104.0	30457	67.8	0.17638	170.4	10.21	11.0	1.0414	229.6	833.0	229.62				13.3	101.1	2.6	-13.0
105.0	30834	66.2	0.17935	165.9	10.55	10.4	1.0170	230.5	849.5	230.45				12.8	106.3	3.6	-12.2
105.8	31098	58.7	0.18125	146.9	9.71	10.0	1.0000	230.6	859.5	230.56				11.6	103.8	2.8	-11.3
106.0	31166	56.7	0.18174	142.0	9.50	9.9	0.9956	230.6	862.0	230.59				11.3	103.1	2.6	-11.0
107.0	31444	51.5	0.18350	128.8	8.98	9.5	0.9777	230.6	872.2	230.59				10.3	92.9	0.5	-10.3
108.0	31734	44.0	0.18512	110.4	8.01	9.1	0.9590	230.2	881.4	230.18				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72977   LAUNCH TIME 1602 GMT   ECC SONDE 3A-149X

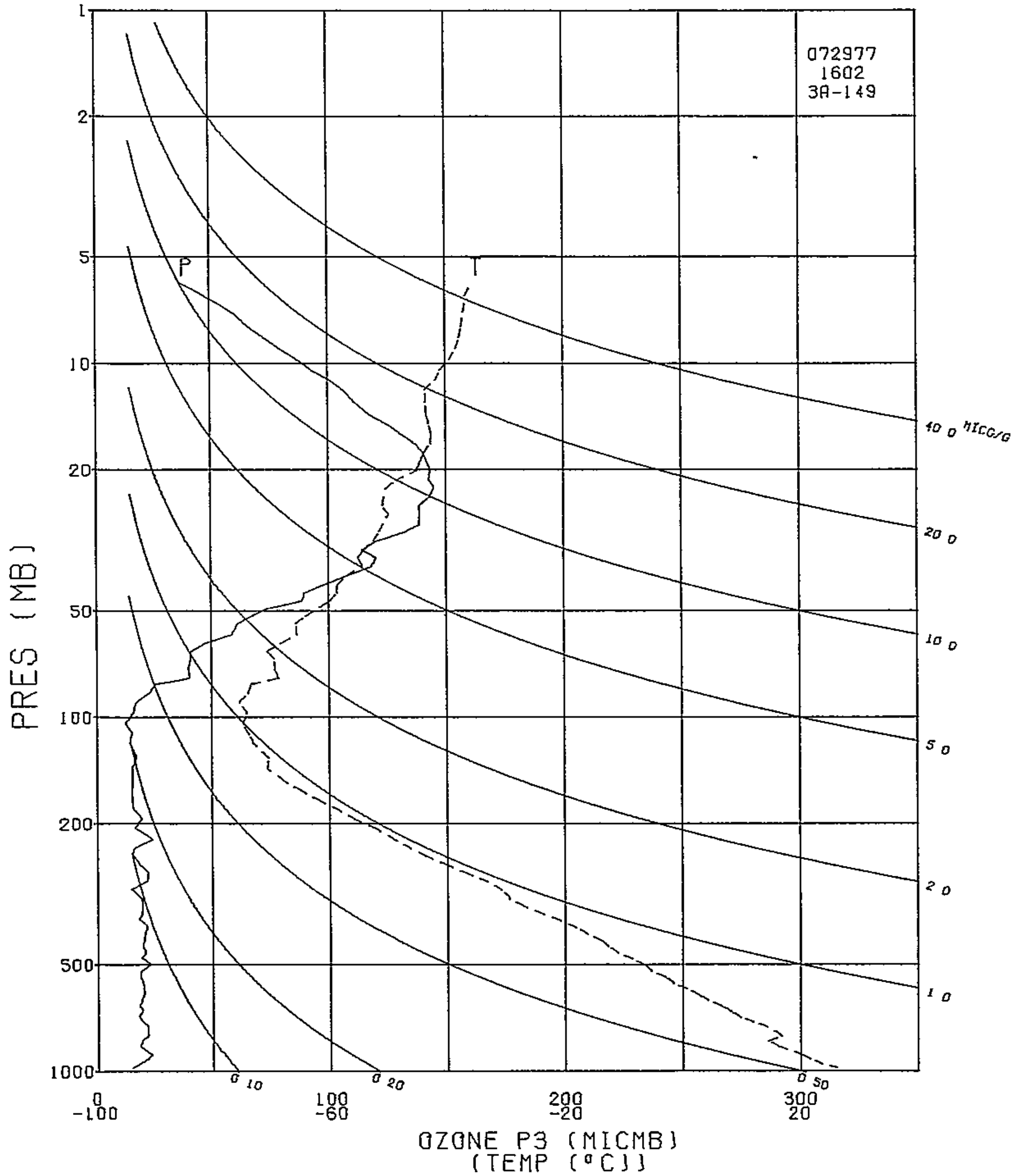
SURFACE CONDITIONS			
PRESS 1004.8 MB	003 = 34.6	TBOX CAL = 30.0 C	AT 74.5 ORD
TEMP 302.5 K	01Z = 34.2	BASE CAL = 30.0 C	AT 73.4 ORD
HUMY 82.0 %	0ZC = 60.4	HUMIDITY = 62.4 %	AT 46.0 ORD
	IO = 0.079		
	PS = 27.6		

	PROFILE	DOBSON
INTEGRATED OZONE	0.23391	
RESIDUAL OZONE	0.02423	
TOTAL OZONE	0.25813	0.

TIME MIN	ALT GP HT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	14.4	0.	27.5	0.02	1004.8	3.0021	302.0	301.5	305.49	77.6	297.6	0.0192	4.0	30.0	-3.5	-2.0
0.2	95	14.5	0.00006	27.7	0.02	1000.0	3.0000	301.5	301.5	305.08	79.6	297.6	0.0193	4.3	29.8	-3.7	-2.1
1.0	328	14.9	0.00036	28.8	0.03	974.2	2.9886	299.2	301.5	302.83	90.4	297.5	0.0197	5.9	29.2	-5.1	-2.9
2.0	540	17.8	0.00067	34.7	0.03	951.0	2.9782	296.6	300.9	299.88	93.8	295.6	0.0179	8.0	34.3	-6.6	-4.5
3.0	820	21.6	0.00117	42.4	0.04	921.0	2.9643	294.6	301.6	297.33	87.1	292.4	0.0151	8.2	38.1	-6.4	-5.0
3.9	1020	23.2	0.00158	45.7	0.04	900.0	2.9542	293.4	302.4	295.88	81.7	290.2	0.0133	6.9	42.7	-5.0	-4.7
4.0	1049	23.4	0.00164	46.1	0.04	897.0	2.9528	293.3	302.5	295.67	81.0	289.9	0.0133	6.7	43.6	-4.8	-4.6
5.0	1293	20.7	0.00213	40.9	0.04	872.0	2.9405	292.2	303.9	294.52	82.1	289.1	0.0130	6.1	58.1	-3.2	-5.1
5.9	1511	18.6	0.00252	37.1	0.04	850.0	2.9294	289.5	303.3	291.70	89.3	287.8	0.0122	6.1	66.1	-2.5	-5.6
6.0	1532	18.4	0.00256	36.8	0.04	848.0	2.9284	289.3	303.2	291.44	90.0	287.6	0.0122	6.1	66.8	-2.4	-5.6
7.0	1828	19.2	0.00308	38.6	0.04	819.0	2.9133	287.5	304.4	289.51	92.6	286.3	0.0115	6.4	67.7	-2.4	-5.9
7.7	2027	20.9	0.00346	41.7	0.04	800.0	2.9031	289.1	308.1	290.84	70.7	283.5	0.0094	6.1	75.3	-1.5	-5.9
8.0	2102	21.5	0.00360	42.8	0.04	793.0	2.8993	289.7	309.5	291.33	62.5	282.5	0.0093	6.0	78.3	-1.2	-5.9
9.0	2374	21.5	0.00414	43.0	0.05	768.0	2.8854	288.7	311.3	290.23	61.3	281.3	0.0088	7.9	88.9	-0.2	-7.9
10.0	2631	22.0	0.00466	44.2	0.05	745.0	2.8722	287.3	312.5	288.78	62.8	280.3	0.0085	10.3	87.1	-0.5	-10.3
11.0	2883	19.2	0.00515	38.9	0.04	723.0	2.8591	285.0	312.6	286.15	56.9	276.7	0.0068	10.8	91.3	0.2	-10.8
12.0	3140	17.8	0.00560	36.4	0.04	701.0	2.8457	282.7	312.9	283.83	60.2	275.4	0.0064	11.1	94.5	0.9	-11.0
12.0	3151	17.9	0.00562	36.5	0.04	700.0	2.8451	282.7	313.0	283.77	60.3	275.4	0.0064	11.1	94.4	0.8	-11.0
13.0	3453	19.5	0.00616	40.1	0.05	675.0	2.8293	281.1	314.5	282.16	63.0	274.5	0.0062	10.5	92.1	0.4	-10.5
14.0	3738	18.3	0.00667	37.7	0.05	652.0	2.8142	279.5	315.8	280.49	63.3	273.0	0.0058	9.7	99.2	1.5	-9.5
15.0	4057	19.3	0.00725	40.3	0.05	627.0	2.7973	277.3	316.8	278.11	61.5	270.5	0.0050	10.7	114.7	4.5	-9.7
16.0	4346	20.3	0.00781	42.5	0.06	605.0	2.7818	275.6	318.1	276.20	48.8	265.9	0.0036	12.1	117.8	5.6	-10.7
16.2	4412	20.3	0.00794	42.5	0.06	600.0	2.7782	275.2	318.4	275.82	53.7	266.6	0.0041	11.9	116.8	5.4	-10.6
17.0	4658	20.1	0.00843	42.4	0.06	582.0	2.7649	273.6	319.4	274.43	71.8	269.1	0.0048	11.2	112.7	4.3	-10.3
18.0	4952	19.6	0.00901	41.8	0.06	561.0	2.7490	271.4	320.1	272.09	70.9	266.8	0.0042	10.3	106.5	2.9	-9.9
19.0	5284	18.6	0.00964	39.7	0.06	538.0	2.7308	269.8	322.1	270.40	62.5	263.7	0.0034	10.4	110.8	3.7	-9.7
20.0	5582	19.2	0.01020	41.5	0.06	518.0	2.7143	267.5	322.9	268.02	60.9	261.2	0.0029	10.4	116.6	4.7	-9.3
20.9	5858	22.6	0.01079	48.9	0.07	500.0	2.6990	266.5	324.9	266.96	59.3	259.9	0.0027	9.5	109.1	3.1	-9.0
21.0	5906	23.2	0.01089	50.2	0.08	497.0	2.6964	266.3	325.2	266.78	59.0	259.7	0.0027	9.4	107.7	2.9	-9.0
22.0	6209	19.2	0.01155	42.0	0.07	478.0	2.6794	264.3	326.3	264.68	61.6	258.3	0.0025	7.5	104.3	1.9	-7.3
23.0	6521	20.9	0.01219	46.2	0.08	459.0	2.6618	261.8	327.1	262.17	61.2	255.9	0.0021	6.3	121.8	3.3	-5.3
24.0	6827	19.4	0.01283	43.0	0.07	441.0	2.6444	260.1	328.7	260.42	58.3	253.7	0.0018	8.2	147.3	6.9	-4.4
25.0	7126	20.7	0.01345	46.1	0.08	424.0	2.6274	259.0	331.0	259.27	54.3	251.8	0.0016	9.3	133.3	6.4	-6.8
26.0	7453	20.8	0.01416	46.8	0.08	406.0	2.6085	256.7	332.1	256.84	44.0	247.3	0.0011	9.4	116.6	4.2	-8.4
26.3	7564	21.2	0.01441	47.8	0.09	400.0	2.6021	256.0	332.6	256.17	45.0	246.9	0.0011	8.9	117.6	4.1	-7.9
27.0	7773	21.9	0.01488	49.6	0.09	389.0	2.5899	254.7	333.6	254.91	46.7	246.2	0.0011	8.0	119.7	3.9	-6.9
28.0	8124	18.0	0.01562	41.3	0.08	371.0	2.5694	251.9	334.4	252.05	45.6	243.3	0.0009	4.1	112.2	1.5	-3.8
29.0	8426	19.7	0.01624	45.8	0.09	356.0	2.5515	249.0	334.5	249.07	37.9	238.7	0.0006	3.0	115.1	1.3	-2.7
29.3	8548	19.7	0.01650	45.9	0.09	350.0	2.5441	247.9	334.6	247.99	39.3	238.1	0.0005	2.9	113.4	1.1	-2.6
30.0	8801	19.7	0.01704	46.3	0.10	338.0	2.5289	245.7	334.9	245.76	42.0	236.8	0.0005	2.6	109.4	0.9	-2.5
31.0	9126	18.8	0.01773	44.7	0.10	323.0	2.5092	243.4	336.2	243.50	37.7	233.7	0.0004	2.5	68.7	-0.9	-2.3
32.0	9533	14.7	0.01849	35.1	0.08	305.0	2.4843	242.0	339.7	242.02	20.4	226.7	0.0002	2.9	35.9	-2.3	-1.7
32.3	9649	16.9	0.01873	40.4	0.09	300.0	2.4771	241.3	340.3	241.29				3.1	22.9	-2.9	-1.2
33.0	9913	21.7	0.01927	52.3	0.12	289.0	2.4609	239.6	341.6	239.62				4.1	1.8	-4.1	-0.1
34.0	10259	22.6	0.02014	55.2	0.14	275.0	2.4393	236.3	341.7	236.29				4.6	16.4	-4.4	-1.3
35.0	10644	18.5	0.02104	45.9	0.12	260.0	2.4150	232.9	342.2	232.91				3.5	42.3	-2.6	-2.4
35.7	10909	16.6	0.02157	41.5	0.11	250.0	2.3979	230.4	342.4	230.44				1.8	80.7	-0.3	-1.8
36.0	11046	15.6	0.02184	39.2	0.11	245.0	2.3892	229.2	342.5	229.17				1.8	120.2	0.9	-1.5
37.0	11381	16.1	0.02247	41.1	0.11	233.0	2.3674	226.6	343.6	226.61				4.4	160.6	4.1	-1.4
38.0	11759	24.1	0.02338	62.2	0.18	220.0	2.3424	223.8	345.0	223.82				5.9	146.8	4.9	-3.2
39.0	12218	16.5	0.02452	43.3	0.13	205.0	2.3118	220.6	347.0	220.63				5.6	136.7	4.1	-3.9
39.4	12376	17.7	0.02487	46.8	0.15	200.0	2.3010	219.2	347.2	219.19				4.7	133.1	3.2	-3.5
40.0	12604	19.5	0.02537	51.8	0.17	193.0	2.2856	217.1	347.4	217.12				3.5	124.7	2.0	-2.9
41.0	12974	16.3	0.02620	43.9	0.15	182.0	2.2601	214.4	348.9	214.43				2.9	92.6	0.1	-2.9
42.0	13362	15.1	0.02697	41.2	0.15	171.0	2.2330	211.2	349.9	211.23				3.8	96.9	0.5	-3.8
43.0	13770	14.9	0.02776	41.4	0.15	160.0	2.2041	208.0	351.1	208.01				3.7	100.2	0.6	-3.6
44.0	14160	15.3	0.02853	43.2	0.17	150.0	2.1761	204.9	352.4	204.94				5.0	78.5	-1.0	-4.9
45.0	14614	15.4	0.02945	43.8	0.18	139.0	2.1430	202.3	355.5	202.32				7.6	118.5	3.6	-6.6
46.0	15056	17.2	0.03041	49.1	0.22	129.0	2.1106	202.3	363.2	202.32				10.1	90.7	0.1	-10.1
46.4	15241	16.2	0.03080	46.4	0.21	125.0	2.0969	201.5	365.0	201.49				10.6	82.3	-1.4	-10.5
47.0	15581	14.4	0.03152	41.5	0.20	118.0	2.0719	200.0	368.3	199.97				12.0	69.3	-4.2	-11.3
48.0	15938	15.4	0.03224	44.7	0.23	111.0	2.0453	199.0	372.9	198.99				12.1	79.4	-2.2	-11.9
49.0	16316	12.4	0.03295	36.3	0.20	104.0	2.0170	198.0	378.0	197.98				17.1	79.6	-3.1	-16.9
49.6	16543	14.4	0.03339	41.9	0.24	100.0	2.0000	198.4	383.1	198.41				19.2	87.2	-0.9	-19.1
50.0	16720	15.9	0.03373	46.2	0.27	97.0	1.9868	198.7	387.1	198.74				20.9	92.0	0.7	-20.9
51.0	17154	17.6	0.03472	51.5	0.32	90.0	1.9542	197.5	392.9	197.47				21.8	95.7	2.2	-21.7
52.0	17485	23.3	0.03565	67.6	0.45	85.0	1.9294	199.0	402.5	198.99				21.6	99.6	3.6	-21.3
53.0	17838	26.2	0.03683	75.7	0.54	80.0	1.9031	199.7	411.0	199.73				21.4	106.6	6.1	-20.5
54.0	18064	40.0	0.03783	112.9	0.86	77.0	1.8865	204.3	425.0	204.30				22.6	102.5	4.9	-22.1
55.0	18382	39.9	0.03951	113.1	0.91	73.0	1.8633	203.7	430.2	203.65				25.5	100.0	4.4	-25.2
55.6	18631	40.5	0.04085	115.0	0.96	70.0	1.8451	203.5	435.1	203.52				26.3	99.5	4.3	-25.9
56.0	18804	41.0	0.04177	116.3	1.00	68.0	1.8325	203.4	438.5	203.43				26.8	99.2	4.3	-26.4
57.0	19072	40.8	0.04323	116.5	1.04	65.0	1.8129	202.3	441.8	202.32				27.3	95.1	2.4	-27.2

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	19451	48.3	0.04546	135.9	1.31	61.0	1.7853	205.2	456.2	205.16				29.2	87.6	-1.2	-29.2
58.3	19550	51.7	0.04616	144.8	1.43	60.0	1.7782	206.0	460.2	205.96				33.8	86.4	-2.1	-33.7
59.0	19755	58.6	0.04759	163.0	1.67	58.0	1.7634	207.6	468.3	207.61				43.3	84.8	-3.9	-43.1
60.0	20189	61.1	0.05096	170.1	1.88	54.0	1.7324	207.4	477.5	207.41				43.3	84.9	-3.9	-43.2
61.0	20490	67.3	0.05346	185.7	2.17	51.4	1.7110	209.2	488.4	209.17				32.0	83.9	-3.4	-31.8
61.6	20658	70.8	0.05499	195.3	2.35	50.0	1.6990	209.2	492.3	209.17				31.7	85.7	-2.4	-31.6
62.0	20782	73.3	0.05612	202.4	2.48	49.0	1.6902	209.2	495.1	209.17				31.4	87.1	-1.6	-31.4
63.0	21079	87.9	0.05917	238.1	3.12	46.7	1.6693	213.2	511.7	213.21				29.6	90.9	0.5	-29.6
64.0	21423	89.3	0.06302	240.5	3.35	44.2	1.6454	214.4	522.8	214.43				25.8	96.0	2.7	-25.6
65.0	21758	97.8	0.06697	263.0	3.87	41.9	1.6222	214.6	531.2	214.60				22.0	101.8	4.5	-21.6
65.8	22050	105.4	0.07073	282.1	4.37	40.0	1.6021	215.8	541.2	215.75				20.4	102.8	4.5	-19.9
66.0	22146	107.9	0.07196	288.3	4.54	39.4	1.5955	216.1	544.5	216.13				19.9	103.2	4.5	-19.4
67.0	22494	117.8	0.07683	310.8	5.23	37.3	1.5717	218.7	559.8	218.74				18.0	98.0	2.5	-17.8
68.0	22846	120.0	0.08200	317.9	5.63	35.3	1.5478	217.9	566.6	217.94				14.9	96.5	1.7	-14.8
68.2	22900	118.9	0.08279	314.8	5.63	35.0	1.5441	218.1	568.4	218.12				14.6	96.6	1.7	-14.5
69.0	23180	113.5	0.08682	299.1	5.61	33.5	1.5250	219.1	578.1	219.06				13.2	96.9	1.6	-13.1
70.0	23576	120.5	0.09251	315.3	6.34	31.5	1.4983	220.6	592.5	220.63				14.7	105.4	3.9	-14.2
70.8	23891	130.4	0.09738	339.7	7.21	30.0	1.4771	221.5	603.3	221.53				13.5	111.9	5.1	-12.6
71.0	23957	132.4	0.09838	344.8	7.39	29.7	1.4728	221.7	605.5	221.71				13.3	113.4	5.3	-12.2
72.0	24248	138.3	0.10316	359.0	8.07	28.4	1.4533	222.5	615.4	222.47				12.3	87.3	-0.6	-12.3
73.0	24650	138.8	0.10991	359.0	8.61	26.7	1.4265	223.2	628.5	223.23				16.0	80.6	-2.6	-15.8
74.0	25079	138.6	0.11711	360.1	9.18	25.0	1.3979	222.2	637.4	222.17				15.0	106.1	4.2	-14.4
75.0	25426	142.9	0.12304	371.0	9.99	23.7	1.3747	222.3	647.6	222.32				11.9	130.6	7.7	-9.0
76.0	25793	144.8	0.12944	374.9	10.71	22.4	1.3502	222.9	660.0	222.93				6.4	132.8	4.3	-4.7
77.0	26122	142.5	0.13514	366.3	11.08	21.3	1.3284	224.6	674.4	224.56				8.0	100.6	1.5	-7.9
78.0	26539	143.1	0.14224	362.4	11.86	20.0	1.3010	228.0	697.3	228.04				13.0	95.0	1.1	-12.9
79.0	26917	141.4	0.14859	357.0	12.40	18.9	1.2765	228.7	710.9	228.74				13.3	91.5	0.3	-13.3
80.0	27319	139.7	0.15524	351.5	13.00	17.8	1.2504	229.4	725.4	229.45				13.3	95.0	1.2	-13.2
80.3	27433	138.6	0.15709	348.4	13.13	17.5	1.2430	229.7	729.9	229.74				13.4	98.2	1.9	-13.3
81.0	27708	136.0	0.16153	340.9	13.42	16.8	1.2253	230.4	740.6	230.43				13.9	105.4	3.7	-13.4
82.0	28122	130.0	0.16797	325.3	13.63	15.8	1.1987	230.7	754.6	230.70				15.2	111.5	5.6	-14.1
82.8	28472	125.1	0.17318	313.7	13.82	15.0	1.1761	230.3	764.4	230.26				14.8	109.5	4.9	-13.9
83.0	28563	123.8	0.17452	310.7	13.87	14.8	1.1703	230.1	767.0	230.15				14.7	108.9	4.8	-13.9
84.0	28985	116.4	0.18047	292.7	13.87	13.9	1.1430	229.6	779.0	229.59				16.2	98.6	2.4	-16.0
85.0	29539	110.0	0.18783	276.7	14.24	12.8	1.1072	229.4	797.0	229.45				18.7	92.8	0.9	-18.7
85.3	29698	108.5	0.18984	273.1	14.38	12.5	1.0969	229.4	802.5	229.45				18.1	91.0	0.3	-18.1
86.0	30085	105.0	0.19473	264.2	14.74	11.8	1.0719	229.4	815.8	229.45				16.5	86.0	-1.1	-16.5
87.0	30497	99.4	0.19966	248.1	14.84	11.1	1.0453	231.4	837.2	231.40				16.7	89.1	-0.3	-16.7
88.0	30939	91.9	0.20458	228.5	14.64	10.4	1.0170	232.2	856.0	232.22				20.6	97.9	2.9	-20.4
88.6	31206	88.4	0.20733	219.1	14.65	10.0	1.0000	233.1	868.8	233.07				20.9	100.9	4.0	-20.6
89.0	31414	85.7	0.20946	211.8	14.65	9.7	0.9868	233.7	878.8	233.72				21.2	103.2	4.8	-20.7
90.0	31928	78.0	0.21430	191.6	14.35	9.0	0.9542	234.9	902.5	234.94				999.9	999.9	999.9	999.9
91.0	32403	71.7	0.21837	175.7	14.14	8.4	0.9243	235.5	922.6	235.48				999.9	999.9	999.9	999.9
91.7	32739	67.1	0.22100	164.3	13.88	8.0	0.9031	235.7	936.7	235.75				999.9	999.9	999.9	999.9
92.0	32914	64.7	0.22236	158.4	13.75	7.8	0.8921	235.9	944.0	235.88				999.9	999.9	999.9	999.9
93.0	33564	58.2	0.22692	142.3	13.59	7.1	0.8513	236.3	971.3	236.29				999.9	999.9	999.9	999.9
93.1	33662	56.7	0.22751	138.5	13.39	7.0	0.8451	236.3	975.5	236.32				999.9	999.9	999.9	999.9
94.0	34282	46.7	0.23122	114.1	12.10	6.4	0.8062	236.6	1001.7	236.55				999.9	999.9	999.9	999.9
94.8	34729	39.0	0.23335	94.8	10.74	6.0	0.7782	237.4	1024.1	237.40				999.9	999.9	999.9	999.9
95.0	34846	37.0	0.23391	89.8	10.38	5.9	0.7709	237.6	1029.9	237.62				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 72977   LAUNCH TIME 2236 GMT   ECC SONDE 3A-151X

SURFACE CONDITIONS
PRESS 1002.4 MB
TEMP 300.9 K
HUMY 86.0 %

003 = 33.4
OIZ = 33.0
OZC = 61.7
IO = 0.073
PS = 29.1

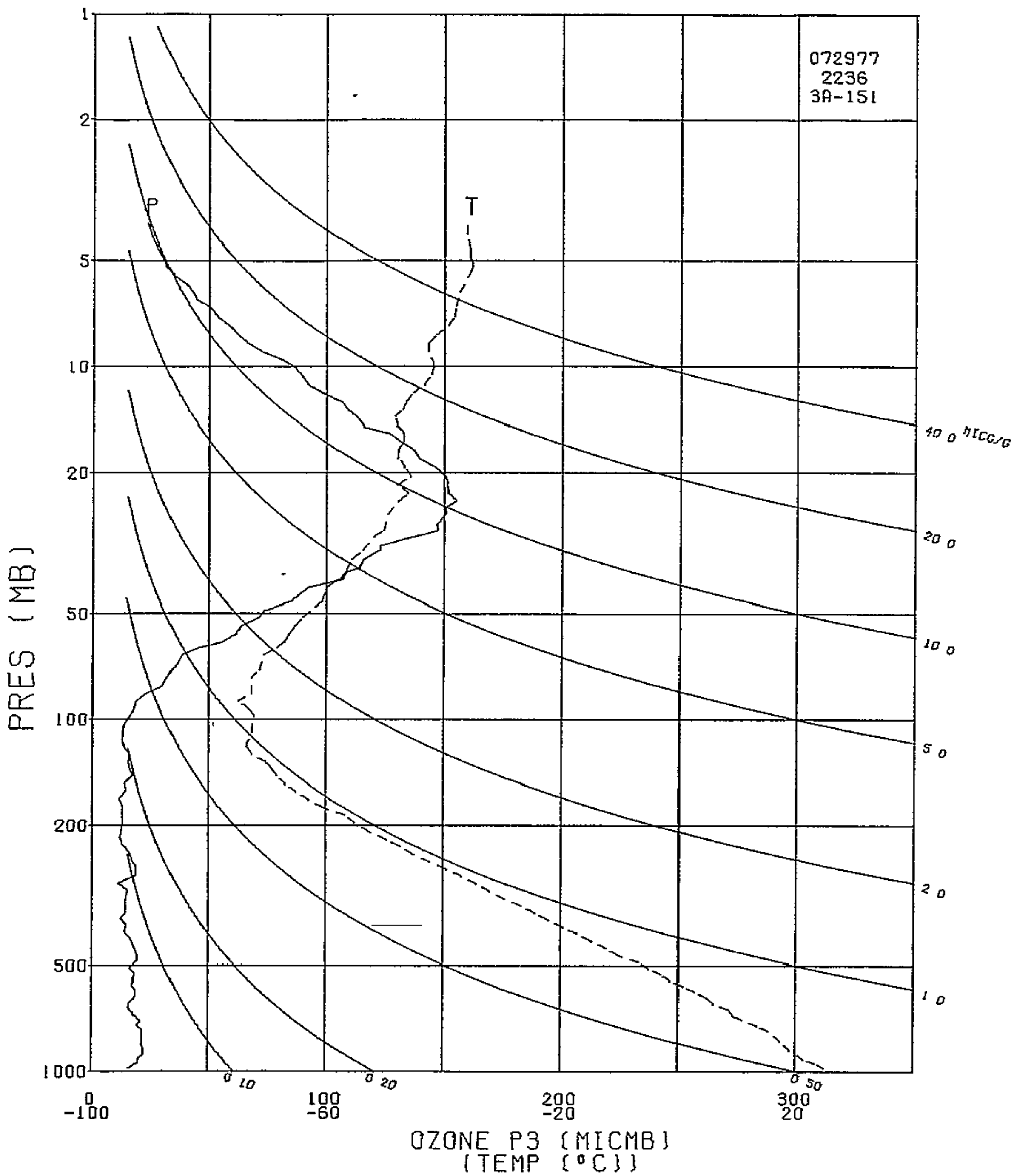
TBOX CAL = 30.0 C AT 73.7 ORD
BASE CAL = 30.0 C AT 73.3 ORD
HUMIDITY = 62.0 % AT 46.0 ORD

	PROFILE	DOBSON
INTEGRATED OZONE	0.23780	
RESIDUAL OZONE	0.01320	
TOTAL OZONE	0.25100	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	17.2	0.	33.0	0.03	1002.4	3.0010	300.2	300.0	303.55	81.3	296.7	0.0182	3.0	360.0	-3.0	-0.0
0.1	74	17.1	0.00003	32.9	0.03	1000.0	3.0000	300.0	300.0	303.40	82.7	296.8	0.0185	3.3	1.2	-3.3	-0.1
1.0	307	16.0	0.00038	30.9	0.03	974.0	2.9886	298.1	300.3	301.70	98.5	297.8	0.0200	6.8	7.1	-6.7	-0.8
2.0	573	19.5	0.00080	38.0	0.03	945.0	2.9754	296.4	301.3	299.79	97.8	296.1	0.0185	7.6	8.9	-7.5	-1.2
3.0	816	20.1	0.00123	39.5	0.04	919.0	2.9633	294.4	301.6	297.33	94.5	293.5	0.0163	5.4	6.6	-5.4	-0.6
3.8	996	21.6	0.00158	42.6	0.04	900.0	2.9542	293.7	302.7	296.34	87.0	291.5	0.0143	4.4	14.5	-4.3	-1.1
4.0	1045	22.1	0.00168	43.4	0.04	895.0	2.9518	293.5	303.0	296.08	85.0	290.9	0.0142	4.2	17.2	-4.0	-1.2
5.0	1310	22.8	0.00222	45.1	0.04	868.0	2.9385	292.0	304.1	294.67	94.4	291.1	0.0148	3.8	44.2	-2.7	-2.7
5.7	1489	22.0	0.00259	43.6	0.04	850.0	2.9294	291.6	305.4	294.14	92.3	290.3	0.0143	3.3	64.2	-1.4	-2.9
6.0	1561	21.7	0.00273	43.0	0.04	843.0	2.9258	291.4	306.0	293.92	91.5	290.0	0.0142	3.2	73.5	-0.9	-3.1
7.0	1829	22.1	0.00327	43.9	0.04	817.0	2.9122	290.3	307.6	292.39	76.8	286.2	0.0115	5.1	88.2	-0.2	-5.1
7.6	2008	21.7	0.00363	43.3	0.05	800.0	2.9031	290.1	309.2	291.88	66.6	283.7	0.0094	7.5	92.4	0.3	-7.5
8.0	2127	21.5	0.00387	42.9	0.05	789.0	2.8971	289.9	310.2	291.54	59.9	282.1	0.0090	9.1	93.9	0.6	-9.1
9.0	2434	22.1	0.00449	44.2	0.05	761.0	2.8814	288.3	311.7	289.73	56.7	279.8	0.0080	10.8	91.7	0.3	-10.8
10.0	2705	19.6	0.00502	39.4	0.04	737.0	2.8675	286.4	312.4	287.75	62.2	279.3	0.0080	9.6	86.7	-0.6	-9.6
11.0	2959	21.0	0.00550	42.4	0.05	715.0	2.8543	285.2	313.9	286.50	60.6	277.8	0.0074	9.5	87.1	-0.5	-9.5
11.6	3135	19.2	0.00583	39.2	0.05	700.0	2.8451	283.4	313.8	284.59	59.9	276.0	0.0064	10.2	87.9	-0.4	-10.2
12.0	3255	18.1	0.00605	37.0	0.04	690.0	2.8388	282.2	313.8	283.30	59.4	274.7	0.0062	10.7	88.4	-0.3	-10.7
13.0	3598	15.9	0.00661	32.7	0.04	662.0	2.8209	281.3	316.5	282.31	56.1	273.1	0.0057	11.9	98.4	1.7	-11.8
14.0	3901	15.9	0.00707	32.9	0.04	638.0	2.8048	278.9	317.1	279.69	54.5	270.4	0.0049	12.9	102.7	2.8	-12.6
15.0	4227	18.5	0.00762	38.5	0.05	613.0	2.7875	277.7	319.3	278.33	46.6	267.2	0.0040	12.8	101.4	2.5	-12.5
15.5	4400	18.7	0.00793	39.1	0.05	600.0	2.7782	276.6	320.0	277.26	50.4	267.2	0.0041	12.2	100.6	2.2	-11.9
16.0	4551	18.9	0.00820	39.5	0.05	589.0	2.7701	275.6	320.6	276.34	53.7	267.2	0.0041	11.6	99.9	2.0	-11.4
17.0	4829	17.5	0.00870	37.0	0.05	569.0	2.7551	273.7	321.5	274.37	60.0	266.8	0.0042	11.3	104.1	2.8	-11.0
18.0	5144	18.3	0.00926	38.9	0.06	547.0	2.7380	271.6	322.7	272.22	59.8	264.8	0.0037	12.2	105.3	3.2	-11.8
19.0	5470	18.4	0.00985	39.3	0.06	525.0	2.7202	270.0	324.6	270.55	53.8	262.0	0.0031	11.4	106.7	3.3	-10.9
20.0	5760	16.4	0.01036	35.3	0.05	506.0	2.7042	267.9	325.5	268.33	52.1	259.6	0.0026	10.4	112.4	4.0	-9.6
20.3	5853	17.2	0.01053	37.1	0.06	500.0	2.6990	267.4	326.0	267.85	53.3	259.5	0.0026	9.8	111.4	3.6	-9.2
21.0	6108	19.3	0.01098	42.0	0.07	484.0	2.6848	266.1	327.4	266.53	56.7	259.0	0.0026	8.3	108.0	2.6	-7.9
22.0	6418	19.4	0.01160	42.7	0.07	465.0	2.6675	262.6	326.8	262.96	61.1	256.6	0.0022	5.7	99.9	1.0	-5.6
23.0	6772	18.2	0.01228	40.2	0.07	444.0	2.6474	260.6	328.7	260.93	60.5	254.6	0.0020	6.2	98.6	0.9	-6.2
24.0	7158	16.6	0.01298	37.2	0.07	422.0	2.6253	257.8	329.9	258.08	59.9	251.8	0.0016	7.4	102.4	1.6	-7.3
25.0	7504	13.9	0.01353	31.5	0.06	403.0	2.6053	255.6	331.4	255.84	59.2	249.6	0.0014	7.1	109.9	2.4	-6.7
25.2	7559	14.0	0.01362	31.8	0.06	400.0	2.6021	255.2	331.5	255.39	59.1	249.2	0.0013	7.4	110.2	2.5	-6.9
26.0	7806	14.6	0.01399	33.3	0.06	387.0	2.5877	253.2	332.1	253.37	58.7	247.2	0.0012	8.6	111.3	3.1	-8.0
27.0	8197	12.1	0.01455	27.9	0.05	367.0	2.5647	250.5	333.6	250.64	54.7	243.9	0.0009	9.7	110.6	3.4	-9.1
28.0	8502	14.8	0.01499	34.5	0.07	352.0	2.5465	248.4	334.7	248.49	49.5	240.9	0.0007	10.0	118.9	4.8	-8.8
28.1	8543	14.7	0.01506	34.3	0.07	350.0	2.5441	248.1	334.9	248.19	48.9	240.5	0.0007	10.1	120.0	5.0	-8.8
29.0	8838	14.2	0.01553	33.4	0.07	336.0	2.5263	246.0	335.9	246.08	44.2	237.5	0.0005	10.8	127.3	6.6	-8.6
30.0	9165	15.0	0.01605	35.6	0.08	321.0	2.5065	243.4	336.7	243.40	28.3	230.9	0.0003	12.0	129.1	7.6	-9.3
31.0	9504	15.8	0.01663	37.9	0.09	306.0	2.4857	240.9	337.8	240.88	24.0	227.2	0.0002	12.0	125.0	6.9	-9.8
31.4	9642	13.9	0.01684	33.5	0.08	300.0	2.4771	240.0	338.5	239.99	22.8	225.9	0.0002	11.1	123.9	6.2	-9.2
32.0	9856	11.1	0.01717	26.8	0.06	291.0	2.4639	238.6	339.5	238.62	21.0	224.0	0.0001	9.7	121.8	5.1	-8.3
33.0	10198	18.9	0.01775	46.1	0.11	277.0	2.4425	236.1	340.6	236.07				6.5	112.6	2.5	-6.0
34.0	10554	19.3	0.01853	47.8	0.12	263.0	2.4200	233.2	341.6	233.22				3.3	90.8	0.0	-3.3
35.0	10871	17.3	0.01921	43.4	0.11	251.0	2.3997	230.5	342.1	230.45				2.0	54.4	-1.2	-1.6
35.1	10897	17.2	0.01926	43.2	0.11	250.0	2.3979	230.2	342.1	230.21				2.0	53.1	-1.2	-1.6
36.0	11199	16.0	0.01985	40.5	0.11	239.0	2.3784	227.5	342.4	227.49				2.5	40.9	-1.9	-1.6
37.0	11540	13.3	0.02044	34.0	0.10	227.0	2.3560	225.3	344.2	225.31				3.0	6.3	-3.0	-0.3
38.0	11835	11.8	0.02089	30.6	0.09	217.0	2.3365	222.9	344.9	222.93				4.2	338.6	-3.9	1.5
39.0	12172	12.6	0.02139	33.0	0.10	206.0	2.3139	220.0	345.5	220.00				3.4	348.8	-3.3	0.7
39.5	12361	12.9	0.02169	34.1	0.11	200.0	2.3010	218.7	346.4	218.71				1.8	333.8	-1.6	0.8
40.0	12523	13.2	0.02195	35.1	0.11	195.0	2.2900	217.6	347.1	217.60				0.9	276.2	-0.1	0.9
41.0	12857	12.9	0.02249	34.4	0.12	185.0	2.2672	215.9	349.7	215.94				2.8	193.6	2.7	0.7
42.0	13169	12.9	0.02300	35.0	0.12	176.0	2.2455	212.3	348.7	212.29				2.9	206.5	2.6	1.3
43.0	13456	11.3	0.02344	31.1	0.11	168.0	2.2253	209.9	349.4	209.89				2.6	200.7	2.4	0.9
44.0	13792	14.6	0.02400	40.5	0.15	159.0	2.2014	207.8	351.3	207.75				2.6	142.0	2.1	-1.6
45.0	14064	13.8	0.02451	38.8	0.15	152.0	2.1818	205.9	352.7	205.92				2.5	138.2	1.9	-1.7
45.2	14143	14.8	0.02467	41.6	0.16	150.0	2.1761	205.6	353.5	205.56				2.1	146.9	1.8	-1.2
46.0	14388	17.7	0.02518	50.1	0.20	144.0	2.1584	204.4	355.7	204.44				1.6	193.3	1.6	0.4
47.0	14642	15.8	0.02574	44.8	0.19	138.0	2.1399	203.6	358.5	203.57				1.0	292.5	-0.4	0.9
48.0	14951	15.2	0.02638	43.3	0.19	131.0	2.1173	202.4	361.8	202.45				3.5	30.2	-3.0	-1.8
49.0	15227	15.9	0.02695	45.7	0.21	125.0	2.0969	200.1	362.5	200.10				4.5	46.8	-3.1	-3.3
50.0	15514	13.2	0.02752	38.2	0.18	119.0	2.0755	199.1	365.8	199.12				2.2	72.0	-0.7	-2.1
51.0	15764	12.4	0.02795	35.8	0.18	114.0	2.0569	199.9	371.7	199.86				2.4	97.0	0.3	-2.4
52.0	16080	13.2	0.02850	38.1	0.20	108.0	2.0334	200.1	377.9	200.10				5.1	99.8	0.9	-5.0
53.0	16357	13.7	0.02900	39.5	0.22	103.0	2.0128	200.3	383.6	200.35				7.9	119.5	3.9	-6.9
53.6	16530	15.3	0.02935	44.1	0.25	100.0	2.0000	200.5	387.1	200.49				11.0	120.6	5.6	-9.5
54.0	16649	16.4	0.02959	47.2	0.28	98.0	1.9912	200.6	389.5	200.59				13.1	121.0	6.8	-11.3
55.0	16955	18.2	0.03031	52.6	0.32	93.0	1.9685	199.6	393.5	199.62				16.6	118.9	8.0	-14.5
56.0	17276	19.4	0.03113	56.6	0.37	88.0	1.9445	197.9	396.2	197.85				13.6	111.5	5.0	-12.7
57.0	17547	23.7	0.03192	68.4	0.47	84.0	1.9243	200.1	406.1	200.10				15.1	89.8	-0.0	-15.1
58.0	17832	30.5	0.03296	88.1	0.63	80.0	1.9031	200.1	411.8	200.10				17.2	85.2	-1.4	-17.1

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.0	18132	32.2	0.03423	93.0	0.70	76.0	1.8808	200.1	417.9	200.10				19.4	85.3	-1.6	-19.3
60.0	18450	34.4	0.03565	98.6	0.79	72.0	1.8573	201.5	427.4	201.53				20.7	90.0	-0.0	-20.7
60.7	18616	36.0	0.03644	103.1	0.85	70.0	1.8451	201.5	430.8	201.53				19.8	98.7	3.0	-19.6
61.0	18701	36.8	0.03685	105.4	0.88	69.0	1.8388	201.5	432.6	201.53				19.5	103.5	4.5	-19.0
62.0	19054	39.0	0.03863	111.2	0.99	65.0	1.8129	202.4	442.1	202.45				19.0	108.4	6.0	-18.0
63.0	19335	46.2	0.04022	130.3	1.23	62.0	1.7924	204.7	453.0	204.65				16.4	95.7	1.6	-16.3
64.0	19532	55.2	0.04153	154.8	1.52	60.0	1.7782	205.9	460.0	205.92				20.7	84.7	-1.9	-20.6
65.0	19841	61.4	0.04389	171.4	1.78	57.0	1.7559	206.7	468.7	206.74				22.1	85.7	-1.7	-22.1
66.0	20169	63.7	0.04656	177.0	1.95	54.0	1.7324	207.8	478.3	207.75				23.8	90.9	0.4	-23.8
67.0	20517	71.5	0.04961	197.5	2.32	51.0	1.7076	209.1	489.4	209.12				24.1	90.3	0.1	-24.1
67.5	20637	72.5	0.05074	200.3	2.40	50.0	1.6990	208.9	491.7	208.93				24.3	91.3	0.6	-24.3
68.0	20761	73.4	0.05190	203.1	2.48	49.0	1.6902	208.7	494.1	208.73				24.6	92.3	1.0	-24.6
69.0	21150	85.0	0.05585	231.0	3.06	46.0	1.6628	212.5	512.1	212.47				30.5	90.6	0.3	-30.5
70.0	21427	88.6	0.05889	240.1	3.34	44.0	1.6435	213.2	520.4	213.18				30.1	85.9	-2.1	-30.1
71.0	21717	92.6	0.06222	250.9	3.66	42.0	1.6232	213.2	527.4	213.18				32.0	89.7	-0.2	-32.0
72.0	22023	106.1	0.06605	284.7	4.40	40.0	1.6021	215.3	540.0	215.26				34.0	89.4	-0.4	-33.9
73.0	22347	108.3	0.07039	289.2	4.72	38.0	1.5798	216.3	550.5	216.28				31.5	89.5	-0.3	-31.5
74.0	22516	113.8	0.07273	303.4	5.10	37.0	1.5682	216.6	555.6	216.61				31.8	92.6	1.4	-31.8
75.0	22869	115.6	0.07776	306.9	5.47	35.0	1.5441	217.4	566.6	217.43				32.3	93.7	2.1	-32.2
76.0	23245	122.5	0.08328	322.5	6.15	33.0	1.5185	219.2	581.0	219.21				29.7	90.6	0.3	-29.7
77.0	23442	122.9	0.08626	322.8	6.37	32.0	1.5051	219.8	587.8	219.85				27.5	87.0	-1.4	-27.4
78.0	23858	137.8	0.09290	359.5	7.61	30.0	1.4771	221.3	602.6	221.25				22.2	86.6	-1.3	-22.2
79.0	24078	146.7	0.09670	380.2	8.38	29.0	1.4624	222.8	612.6	222.78				15.1	88.4	-0.4	-15.1
80.0	24307	146.5	0.10076	378.7	8.67	28.0	1.4472	223.4	620.5	223.38				16.9	96.8	2.0	-16.8
81.0	24792	150.5	0.10945	388.6	9.59	26.0	1.4150	223.5	634.2	223.53				14.7	100.3	2.6	-14.5
82.0	25048	150.1	0.11410	387.6	9.95	25.0	1.3979	223.5	641.3	223.53				9.6	103.9	2.3	-9.3
83.0	25316	154.7	0.11900	396.4	10.68	24.0	1.3802	225.3	654.0	225.31				10.4	107.9	3.2	-9.9
84.0	25655	151.4	0.12520	385.5	11.00	22.8	1.3579	226.8	667.9	226.77				11.3	102.8	2.5	-11.0
85.0	26043	151.1	0.13221	387.5	11.65	21.5	1.3324	225.2	674.4	225.16				12.3	86.7	-0.7	-12.2
86.0	26390	150.0	0.13845	381.2	12.18	20.4	1.3096	227.2	690.8	227.20				13.7	105.3	3.6	-13.2
86.3	26521	148.6	0.14076	378.1	12.31	20.0	1.3010	226.9	693.7	226.87				12.8	115.1	5.4	-11.6
87.0	26792	145.7	0.14552	371.9	12.57	19.2	1.2833	226.2	699.8	226.19				12.4	137.9	9.2	-8.3
88.0	27181	138.2	0.15213	354.4	12.65	18.1	1.2577	225.2	708.4	225.16				6.0	184.6	5.9	0.5
88.6	27402	136.8	0.15577	350.8	12.95	17.5	1.2430	225.2	715.3	225.16				3.1	224.8	2.2	2.2
89.0	27555	135.8	0.15827	348.3	13.16	17.1	1.2330	225.2	720.0	225.16				3.4	275.4	-0.3	3.4
90.0	27912	129.8	0.16394	331.4	13.28	16.2	1.2095	226.2	734.6	226.19				7.7	2.7	-7.7	-0.4
91.0	28290	125.0	0.16969	319.4	13.53	15.3	1.1847	225.9	745.7	225.90				10.7	22.2	-9.9	-4.0
91.5	28420	119.8	0.17156	306.8	13.22	15.0	1.1761	225.4	748.3	225.39				10.5	39.7	-8.1	-6.7
92.0	28554	114.5	0.17346	294.0	12.91	14.7	1.1673	224.9	750.9	224.87				11.3	56.7	-6.2	-9.4
93.0	28969	111.3	0.17909	286.4	13.37	13.8	1.1399	224.4	763.0	224.43				12.7	74.1	-3.5	-12.2
94.0	29262	107.3	0.18293	274.4	13.47	13.2	1.1206	225.9	777.8	225.90				12.7	81.8	-1.8	-12.5
95.0	29623	104.7	0.18749	266.7	13.87	12.5	1.0969	226.6	792.6	226.62				13.9	93.7	0.9	-13.9
96.0	30006	96.8	0.19207	245.4	13.59	11.8	1.0719	227.8	809.8	227.77				12.5	101.9	2.6	-12.3
97.0	30355	90.7	0.19593	228.1	13.42	11.2	1.0492	229.6	828.6	229.61				13.3	97.7	1.8	-13.2
98.0	30790	87.7	0.20047	219.4	13.84	10.5	1.0212	230.9	848.7	230.87				14.1	90.0	0.0	-14.1
98.8	31120	85.1	0.20379	212.5	14.10	10.0	1.0000	231.2	861.9	231.21				13.9	80.1	-2.4	-13.7
99.0	31188	84.5	0.20447	211.1	14.15	9.9	0.9956	231.3	864.6	231.28				13.9	78.0	-2.9	-13.6
100.0	31539	78.7	0.20781	196.4	13.87	9.4	0.9731	231.3	877.5	231.28				15.5	83.0	-1.9	-15.4
101.0	31832	71.1	0.21038	178.5	13.10	9.0	0.9542	230.2	884.2	230.17				23.1	93.4	1.4	-23.1
102.0	32217	64.9	0.21344	162.6	12.65	8.5	0.9294	230.5	899.9	230.45				27.2	99.8	4.6	-26.8
103.0	32543	61.1	0.21584	152.2	12.50	8.1	0.9085	231.7	917.3	231.70				25.9	109.6	8.7	-24.4
103.2	32627	60.3	0.21642	150.0	12.49	8.0	0.9031	232.1	922.2	232.10				25.1	110.7	8.9	-23.5
104.0	32977	57.1	0.21881	141.0	12.44	7.6	0.8808	233.8	942.4	233.76				22.1	115.9	9.6	-19.8
105.0	33348	52.4	0.22115	128.8	12.06	7.2	0.8573	234.8	961.5	234.84				19.8	112.9	7.7	-18.3
105.4	33541	50.9	0.22227	125.0	12.03	7.0	0.8451	234.9	969.8	234.95				18.6	108.9	6.0	-17.6
106.0	33843	48.4	0.22401	119.0	11.98	6.7	0.8261	235.1	982.6	235.11				16.9	101.8	3.5	-16.6
107.0	34158	43.1	0.22566	105.6	11.15	6.4	0.8062	235.4	996.7	235.38				14.4	86.0	-1.0	-14.4
108.0	34489	41.3	0.22726	101.2	11.22	6.1	0.7853	235.8	1012.2	235.79				20.2	78.8	-3.9	-19.8
108.3	34603	40.6	0.22779	99.4	11.20	6.0	0.7782	235.8	1017.0	235.79				21.0	80.3	-3.5	-20.7
109.0	34837	39.1	0.22886	95.6	11.16	5.8	0.7634	235.8	1026.9	235.79				22.7	83.1	-2.7	-22.6
110.0	35204	33.8	0.23039	82.3	10.19	5.5	0.7404	237.3	1049.2	237.26				22.3	88.3	-0.7	-22.3
111.0	35594	31.0	0.23182	75.3	9.89	5.2	0.7160	237.9	1069.1	237.93				22.1	91.1	0.4	-22.1
111.7	35866	29.7	0.23275	72.1	9.83	5.0	0.6990	237.6	1079.6	237.58				23.0	93.0	1.2	-23.0
112.0	36007	28.9	0.23323	70.4	9.79	4.9	0.6902	237.4	1085.0	237.40				23.5	94.0	1.6	-23.4
113.0	36446	26.7	0.23462	65.1	9.64	4.6	0.6628	237.3	1104.1	237.26				30.7	96.3	3.4	-30.5
114.0	37077	24.1	0.23644	58.7	9.50	4.2	0.6232	236.7	1130.6	236.73				36.3	99.9	6.3	-35.7
114.7	37414	23.0	0.23734	56.2	9.54	4.0	0.6021	236.7	1146.6	236.73				999.9	999.9	999.9	999.9
115.0	37590	22.5	0.23780	54.8	9.55	3.9	0.5911	236.7	1154.8	236.73				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 73077   LAUNCH TIME 0426 GMT   ECC SONDE 3A-150X

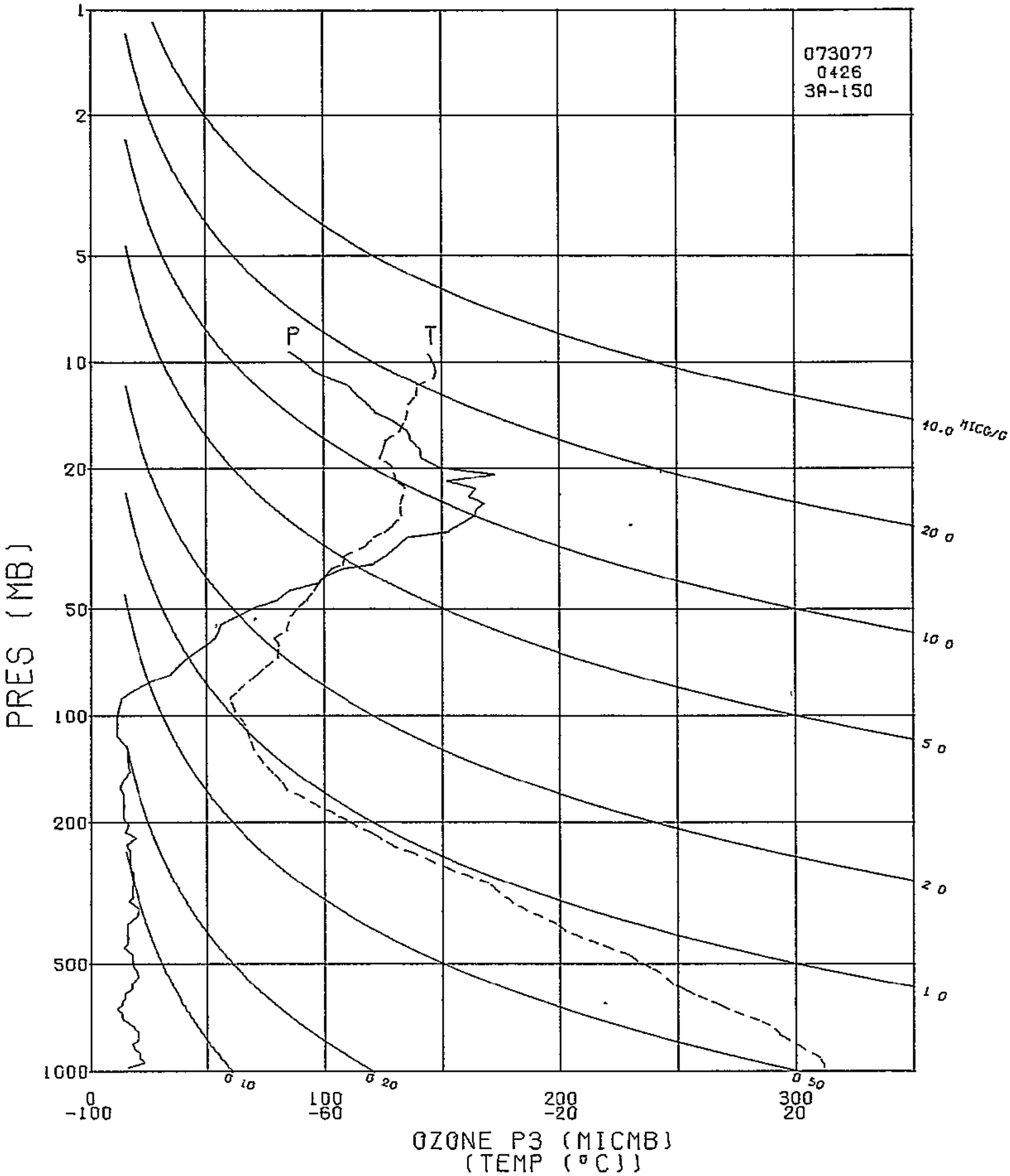
SURFACE CONDITIONS				
PRESS 1004.4 MB	OO3 = 35.0	TBOX CAL = 30.0 C	AT	73.3 ORD
TEMP 299.9 K	OIZ = 34.3	BASE CAL = 30.0 C	AT	72.8 ORD
HUMY 90.0 %	OZC = 60.7	HUMIDITY = 61.7 %	AT	46.0 ORD
	IO = 0.136			
	PS = 27.8			

	PROFILE	DOBSON
INTEGRATED OZONE	0.21722	
RESIDUAL OZONE	0.05942	
TOTAL OZONE	0.27664	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRLSS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	4.8	0.	9.3	0.01	1004.4	3.0019	300.0	299.6	303.51	86.2	297.5	0.0190	2.0	40.0	-1.5	-1.3
0.1	91	6.3	0.00004	12.2	0.01	1000.0	3.0000	299.7	299.7	303.25	88.0	297.6	0.0193	11.1	7.7	-11.0	-1.5
1.0	343	15.9	0.00027	30.8	0.03	972.0	2.9877	297.9	300.3	301.57	100.0	297.9	0.0202	72.5	2.3	-72.5	-2.9
2.0	601	22.9	0.00072	44.4	0.04	944.0	2.9750	297.9	302.8	301.68	100.0	297.9	0.0208	6.5	18.5	-6.1	-2.1
3.0	866	21.1	0.00124	41.0	0.04	916.0	2.9619	297.0	304.5	300.58	97.9	296.6	0.0198	6.1	5.7	-6.1	-0.6
3.5	1020	21.0	0.00153	40.8	0.04	900.0	2.9542	296.5	305.5	300.02	97.5	296.1	0.0194	5.3	352.4	-5.3	0.7
4.0	1148	20.9	0.00177	40.7	0.04	887.0	2.9479	296.1	306.4	299.56	97.3	295.6	0.0192	4.9	339.0	-4.6	1.8
5.0	1377	18.1	0.00217	35.5	0.03	864.0	2.9365	294.3	306.9	297.48	96.8	293.8	0.0176	3.2	337.2	-3.0	1.2
5.6	1518	17.7	0.00240	34.8	0.03	850.0	2.9294	293.7	307.7	296.82	97.0	293.2	0.0172	2.5	1.5	-2.5	-0.1
6.0	1632	17.4	0.00258	34.2	0.03	839.0	2.9238	293.2	308.3	296.29	97.2	292.8	0.0171	2.4	27.4	-2.1	-1.1
7.0	1883	20.5	0.00302	40.6	0.04	815.0	2.9112	291.8	309.3	294.57	95.8	291.1	0.0158	4.0	68.3	-1.5	-3.7
7.6	2042	20.6	0.00332	40.9	0.04	800.0	2.9031	290.9	310.0	293.37	87.3	288.7	0.0132	6.4	76.0	-1.6	-6.2
8.0	2150	20.7	0.00353	41.1	0.04	790.0	2.8976	290.3	310.5	292.56	81.6	287.1	0.0126	8.1	78.5	-1.6	-7.9
9.0	2436	19.3	0.00405	38.3	0.04	764.0	2.8831	290.5	313.7	292.33	63.0	283.4	0.0102	9.9	82.1	-1.4	-9.8
10.0	2708	17.0	0.00451	34.1	0.04	740.0	2.8692	288.5	314.4	290.02	58.6	280.4	0.0086	9.2	86.5	-0.6	-9.2
11.0	2963	13.6	0.00488	27.5	0.03	718.0	2.8561	286.6	315.0	287.56	42.8	274.2	0.0057	9.9	93.4	0.6	-9.9
11.7	3175	13.2	0.00514	26.9	0.03	700.0	2.8451	284.7	315.2	285.58	43.2	272.6	0.0051	9.7	92.3	0.4	-9.7
12.0	3260	13.1	0.00525	26.6	0.03	693.0	2.8407	283.9	315.3	284.79	43.3	272.0	0.0050	9.6	91.8	0.3	-9.6
13.0	3552	11.3	0.00559	23.2	0.03	669.0	2.8254	281.6	315.8	282.47	51.5	272.2	0.0053	8.1	87.7	-0.3	-8.1
14.0	3776	13.3	0.00585	27.3	0.03	651.0	2.8136	280.0	316.5	280.81	51.2	270.6	0.0048	9.9	84.6	-0.9	-9.9
15.0	4083	14.2	0.00626	29.6	0.04	627.0	2.7973	277.7	317.4	278.56	56.8	269.9	0.0048	13.4	91.8	0.4	-13.4
16.0	4359	14.6	0.00665	30.7	0.04	606.0	2.7825	275.6	318.0	276.29	56.1	267.7	0.0042	13.9	98.6	2.1	-13.7
16.3	4438	15.6	0.00678	32.7	0.04	600.0	2.7782	275.1	318.3	275.74	54.4	266.8	0.0038	13.7	98.1	1.9	-13.6
17.0	4615	17.7	0.00705	37.3	0.05	587.0	2.7686	274.0	319.0	274.54	50.7	264.9	0.0035	13.4	97.2	1.7	-13.3
18.0	4892	18.0	0.00754	38.2	0.05	567.0	2.7536	272.0	319.9	272.42	36.3	259.0	0.0022	15.1	98.5	2.2	-15.0
19.0	5221	20.3	0.00817	43.2	0.06	544.0	2.7356	271.3	322.8	271.73	47.2	261.5	0.0029	15.7	102.6	3.4	-15.3
20.0	5472	19.6	0.00867	41.9	0.06	527.0	2.7218	269.9	324.1	270.22	38.1	257.6	0.0022	13.5	104.4	3.4	-13.1
21.0	5777	18.3	0.00925	39.4	0.06	507.0	2.7050	268.0	325.5	268.42	44.6	257.9	0.0023	11.0	99.7	1.8	-10.8
21.3	5885	18.0	0.00944	38.9	0.06	500.0	2.6990	267.3	325.9	267.70	46.9	257.8	0.0023	10.2	99.3	1.7	-10.1
22.0	6092	17.5	0.00981	37.9	0.06	487.0	2.6875	266.0	326.7	266.33	51.3	257.6	0.0023	8.7	98.5	1.3	-8.6
23.0	6401	17.6	0.01036	38.3	0.06	468.0	2.6702	264.5	328.6	264.86	54.8	257.1	0.0023	6.8	107.5	2.0	-6.5
24.0	6703	14.1	0.01085	31.0	0.05	450.0	2.6532	261.6	328.7	261.95	59.4	255.3	0.0021	6.4	105.7	1.7	-6.2
25.0	6979	16.1	0.01128	35.8	0.06	434.0	2.6375	259.2	329.0	259.50	59.1	253.0	0.0018	7.1	100.8	1.3	-7.0
26.0	7280	15.5	0.01178	34.9	0.06	417.0	2.6201	256.3	329.1	256.55	60.1	250.4	0.0015	6.6	91.8	0.2	-6.6
27.0	7572	16.0	0.01227	36.3	0.07	401.0	2.6031	253.9	329.6	254.05	57.6	247.6	0.0012	7.1	99.9	1.2	-7.0
27.1	7590	16.0	0.01230	36.3	0.07	400.0	2.6021	253.8	329.7	253.95	56.8	247.4	0.0011	7.3	101.1	1.4	-7.2
28.0	7893	16.0	0.01281	36.6	0.07	384.0	2.5843	252.2	331.6	252.37	42.5	242.9	0.0008	11.2	113.4	4.4	-10.2
29.0	8246	20.0	0.01349	46.3	0.09	366.0	2.5635	249.7	332.8	249.80	41.8	240.4	0.0007	14.4	112.0	5.4	-13.4
30.0	8571	21.0	0.01422	49.1	0.10	350.0	2.5441	247.0	333.5	247.11	37.2	236.8	0.0005	15.5	115.0	6.5	-14.0
31.0	8908	16.4	0.01491	38.8	0.08	334.0	2.5237	244.8	334.9	244.83	28.5	232.2	0.0003	14.4	120.0	7.2	-12.4
32.0	9192	18.0	0.01545	42.6	0.09	321.0	2.5065	244.3	337.9	244.29	20.6	228.7	0.0002	13.3	121.2	6.9	-11.4
33.0	9486	18.1	0.01604	43.1	0.10	308.0	2.4886	242.0	338.8	242.01				12.6	118.0	5.9	-11.1
33.5	9671	18.4	0.01642	43.9	0.10	300.0	2.4771	241.3	340.4	241.30				11.7	116.0	5.1	-10.5
34.0	9838	18.6	0.01676	44.7	0.11	293.0	2.4669	240.7	341.8	240.66				10.9	114.0	4.4	-9.9
35.0	10130	18.7	0.01738	45.4	0.11	281.0	2.4487	237.6	341.4	237.58				9.5	113.2	3.8	-8.8
36.0	10457	17.1	0.01804	42.1	0.11	268.0	2.4281	234.2	341.1	234.19				8.0	101.7	1.6	-7.9
37.0	10795	16.6	0.01870	41.4	0.11	255.0	2.4065	231.1	341.5	231.13				6.9	86.9	-0.4	-6.9
37.4	10927	16.7	0.01897	41.9	0.11	250.0	2.3979	230.0	341.7	229.98				6.0	82.6	-0.8	-6.0
38.0	11174	16.9	0.01945	42.9	0.12	241.0	2.3820	227.9	342.2	227.85				4.5	70.2	-1.5	-4.2
39.0	11454	15.3	0.01999	39.3	0.11	231.0	2.3636	224.6	341.4	224.61				3.8	31.9	-3.2	-2.0
40.0	11773	19.3	0.02066	50.2	0.15	220.0	2.3424	222.5	342.9	222.48				4.5	22.9	-4.1	-1.7
41.0	12013	14.8	0.02115	38.6	0.12	212.0	2.3263	220.9	344.1	220.92				3.6	34.2	-3.0	-2.0
42.0	12292	16.4	0.02169	43.3	0.13	203.0	2.3075	218.3	344.3	218.34				1.9	93.9	0.1	-1.9
42.4	12386	15.5	0.02187	41.0	0.13	200.0	2.3010	217.7	344.7	217.66				1.7	116.5	0.7	-1.5
43.0	12548	13.9	0.02217	37.1	0.12	195.0	2.2900	216.5	345.4	216.51				1.9	157.3	1.8	-0.7
44.0	12812	13.9	0.02263	37.5	0.12	187.0	2.2718	214.4	346.2	214.43				2.4	150.4	2.1	-1.2
45.0	13119	14.0	0.02317	38.0	0.13	178.0	2.2504	211.7	346.7	211.72				4.0	125.4	2.3	-3.2
46.0	13475	14.0	0.02381	38.6	0.14	168.0	2.2253	209.0	348.0	209.04				4.7	125.3	2.7	-3.8
47.0	13771	12.5	0.02432	34.9	0.13	160.0	2.2041	206.4	348.4	206.39				3.1	117.8	1.4	-2.7
48.0	14120	14.1	0.02492	39.6	0.15	151.0	2.1790	205.3	352.4	205.33				0.3	21.7	-0.3	-0.1
48.1	14159	14.4	0.02500	40.5	0.16	150.0	2.1761	205.2	352.8	205.17				0.7	61.2	-0.3	-0.6
49.0	14446	16.7	0.02558	47.2	0.19	143.0	2.1553	204.0	355.6	204.01				4.0	82.0	-0.6	-3.9
50.0	14832	15.7	0.02641	44.9	0.19	134.0	2.1271	202.4	359.5	202.42				4.7	44.1	-3.3	-3.2
50.8	15241	15.6	0.02727	44.9	0.21	125.0	2.0969	201.1	364.2	201.07				2.6	27.0	-2.3	-1.2
51.0	15337	15.6	0.02747	44.9	0.21	123.0	2.0899	200.8	365.3	200.75				2.2	18.7	-2.1	-0.7
52.0	15782	11.3	0.02828	32.7	0.16	114.0	2.0569	200.0	372.0	200.02				5.7	106.8	1.6	-5.5
53.0	16262	11.1	0.02901	32.3	0.18	105.0	2.0212	199.3	379.4	199.26				9.2	121.3	4.8	-7.8
53.5	16545	11.6	0.02946	33.8	0.19	100.0	2.0000	198.3	382.8	198.27				10.6	125.7	6.2	-8.6
54.0	16782	12.0	0.02983	35.1	0.21	96.0	1.9823	197.4	385.7	197.44				11.8	128.5	7.3	-9.2
55.0	17218	13.4	0.03059	39.4	0.25	89.0	1.9494	196.6	392.5	196.62				8.4	107.1	2.5	-8.0
56.0	17552	19.2	0.03133	55.9	0.38	84.0	1.9243	198.2	402.3	198.23				11.6	79.0	-2.2	-11.4
56.8	17836	25.7	0.03223	74.2	0.53	80.0	1.9031	199.8	411.3	199.85				13.8	84.8	-1.2	-13.8
57.0	17910	27.4	0.03246	78.9	0.57	79.0	1.8976	200.3	413.6	200.26				14.4	86.1	-1.0	-14.4

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRLSS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	18137	34.5	0.03341	99.0	0.75	76.0	1.8808	201.5	420.7	201.48				13.6	95.5	1.3	-13.5
59.0	18457	37.9	0.03495	107.7	0.87	72.0	1.8573	203.1	430.7	203.11				13.8	103.4	3.2	-13.4
59.5	18625	39.9	0.03584	112.9	0.95	70.0	1.8451	204.1	436.4	204.10				15.8	99.7	2.7	-15.5
60.0	18798	42.0	0.03675	118.2	1.02	68.0	1.8325	205.1	442.1	205.11				17.8	96.8	2.1	-17.7
61.0	19257	49.6	0.03951	139.6	1.31	63.0	1.7993	205.3	452.4	205.33				20.8	79.6	-3.8	-20.5
62.0	19549	53.6	0.04150	151.4	1.48	60.0	1.7782	204.5	456.8	204.46				21.4	63.6	-9.5	-19.1
63.0	19857	55.2	0.04370	154.4	1.61	57.0	1.7559	206.6	468.4	206.60				21.2	83.3	-2.5	-21.0
64.0	20073	56.0	0.04527	155.9	1.69	55.0	1.7404	207.4	475.1	207.43				22.5	99.1	3.5	-22.2
65.0	20413	63.1	0.04791	175.7	2.01	52.0	1.7160	207.4	482.8	207.43				999.9	999.9	999.9	999.9
65.7	20651	68.5	0.04999	189.9	2.27	50.0	1.6990	208.2	490.1	208.23				999.9	999.9	999.9	999.9
66.0	20775	71.2	0.05106	197.1	2.41	49.0	1.6902	208.6	493.9	208.64				999.9	999.9	999.9	999.9
67.0	21030	79.9	0.05354	219.5	2.82	47.0	1.6721	210.0	503.1	210.01				999.9	999.9	999.9	999.9
68.0	21437	85.6	0.05785	233.9	3.22	44.0	1.6435	211.3	515.9	211.34				999.9	999.9	999.9	999.9
69.0	21725	97.2	0.06120	264.6	3.84	42.0	1.6232	212.1	524.7	212.09				999.9	999.9	999.9	999.9
70.0	22028	100.6	0.06501	272.6	4.17	40.0	1.6021	213.2	534.8	213.18				999.9	999.9	999.9	999.9
71.0	22349	108.1	0.06924	291.3	4.71	38.0	1.5798	214.3	545.4	214.26				999.9	999.9	999.9	999.9
72.0	22517	120.4	0.07164	321.5	5.39	37.0	1.5682	216.2	554.5	216.17				999.9	999.9	999.9	999.9
73.0	22869	126.4	0.07705	337.0	5.98	35.0	1.5441	216.5	564.2	216.51				38.7	77.0	-8.7	-37.7
74.0	23245	130.9	0.08302	343.5	6.57	33.0	1.5185	220.0	583.0	219.97				38.0	88.8	-0.8	-38.0
75.0	23649	135.6	0.08960	353.4	7.25	31.0	1.4914	221.5	597.7	221.55				28.3	104.4	7.0	-27.4
76.0	23862	151.9	0.09331	392.5	8.39	30.0	1.4771	223.4	608.4	223.40				16.0	99.5	2.6	-15.8
77.0	24084	156.0	0.09743	401.0	8.91	29.0	1.4624	224.6	617.7	224.61				18.5	111.4	6.8	-17.3
78.0	24555	164.0	0.10645	418.8	10.07	27.0	1.4314	226.1	634.6	226.10				15.5	119.6	7.7	-13.5
79.0	24804	164.6	0.11135	421.2	10.49	26.0	1.4150	225.7	640.2	225.66				10.0	127.1	6.0	-8.0
80.0	25063	167.7	0.11649	428.3	11.12	25.0	1.3979	226.1	648.7	226.10				5.1	132.5	3.4	-3.8
81.0	25333	161.3	0.12179	411.9	11.14	24.0	1.3802	226.1	656.3	226.10				2.5	179.6	2.5	-0.0
82.0	25702	164.4	0.12895	418.3	12.00	22.7	1.3560	226.8	669.0	226.83				4.5	114.3	1.8	-4.1
83.0	26030	151.9	0.13514	389.5	11.65	21.6	1.3345	225.2	673.7	225.21				9.0	87.3	-0.4	-9.0
84.0	26342	172.5	0.14121	442.5	13.88	20.6	1.3139	225.1	682.4	225.06				10.5	88.0	-0.4	-10.5
84.6	26536	157.6	0.14494	404.8	13.03	20.0	1.3010	224.7	687.1	224.71				10.6	93.5	0.7	-10.6
85.0	26669	147.4	0.14749	379.0	12.46	19.6	1.2923	224.5	690.4	224.46				10.8	97.2	1.3	-10.7
86.0	27011	140.5	0.15344	364.6	12.52	18.6	1.2695	222.5	694.6	222.48				5.5	83.6	-0.6	-5.5
87.0	27371	139.9	0.15955	362.1	13.17	17.6	1.2455	223.1	707.6	223.10				7.2	45.9	-5.0	-5.1
87.1	27408	139.5	0.16017	361.1	13.21	17.5	1.2430	223.1	708.9	223.14				7.6	47.6	-5.1	-5.6
88.0	27753	136.1	0.16592	351.6	13.59	16.6	1.2201	223.6	721.0	223.55				12.2	57.2	-6.6	-10.2
89.0	28162	134.2	0.17255	343.0	14.26	15.6	1.1931	226.0	741.8	225.95				15.2	71.4	-4.8	-14.4
89.5	28422	130.6	0.17660	332.8	14.42	15.0	1.1761	226.5	752.0	226.50				15.7	81.0	-2.5	-15.5
90.0	28647	127.4	0.18010	324.0	14.56	14.5	1.1614	227.0	760.9	226.98				16.5	88.5	-0.4	-16.5
91.0	28975	120.6	0.18494	306.8	14.48	13.8	1.1399	227.0	771.7	226.98				15.9	101.5	3.2	-15.6
92.0	29321	117.4	0.18983	297.9	14.85	13.1	1.1173	227.6	785.3	227.56				14.8	95.2	1.3	-14.8
92.9	29633	113.6	0.19409	287.0	15.06	12.5	1.0969	228.5	799.3	228.55				15.0	98.5	2.2	-14.8
93.0	29687	112.9	0.19482	285.1	15.09	12.4	1.0934	228.7	801.7	228.72				15.0	99.0	2.4	-14.9
94.0	30134	109.3	0.20066	275.4	15.61	11.6	1.0645	229.0	818.2	229.00				13.3	108.4	4.2	-12.6
95.0	30431	101.5	0.20433	253.0	15.16	11.1	1.0453	231.7	838.3	231.69				11.4	101.8	2.3	-11.1
96.0	30808	94.3	0.20862	234.7	14.89	10.5	1.0212	232.1	853.2	232.11				13.6	100.4	2.5	-13.4
96.8	31138	91.0	0.21218	227.0	15.08	10.0	1.0000	231.5	863.1	231.53				14.4	103.4	3.3	-14.0
97.0	31207	90.4	0.21291	225.4	15.12	9.9	0.9956	231.4	865.1	231.41				14.6	104.0	3.5	-14.2
98.0	31629	84.4	0.21722	211.4	15.03	9.3	0.9685	230.4	876.9	230.43				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 73077   LAUNCH TIME 1020 GMT   ECC SONDE 3A-152X

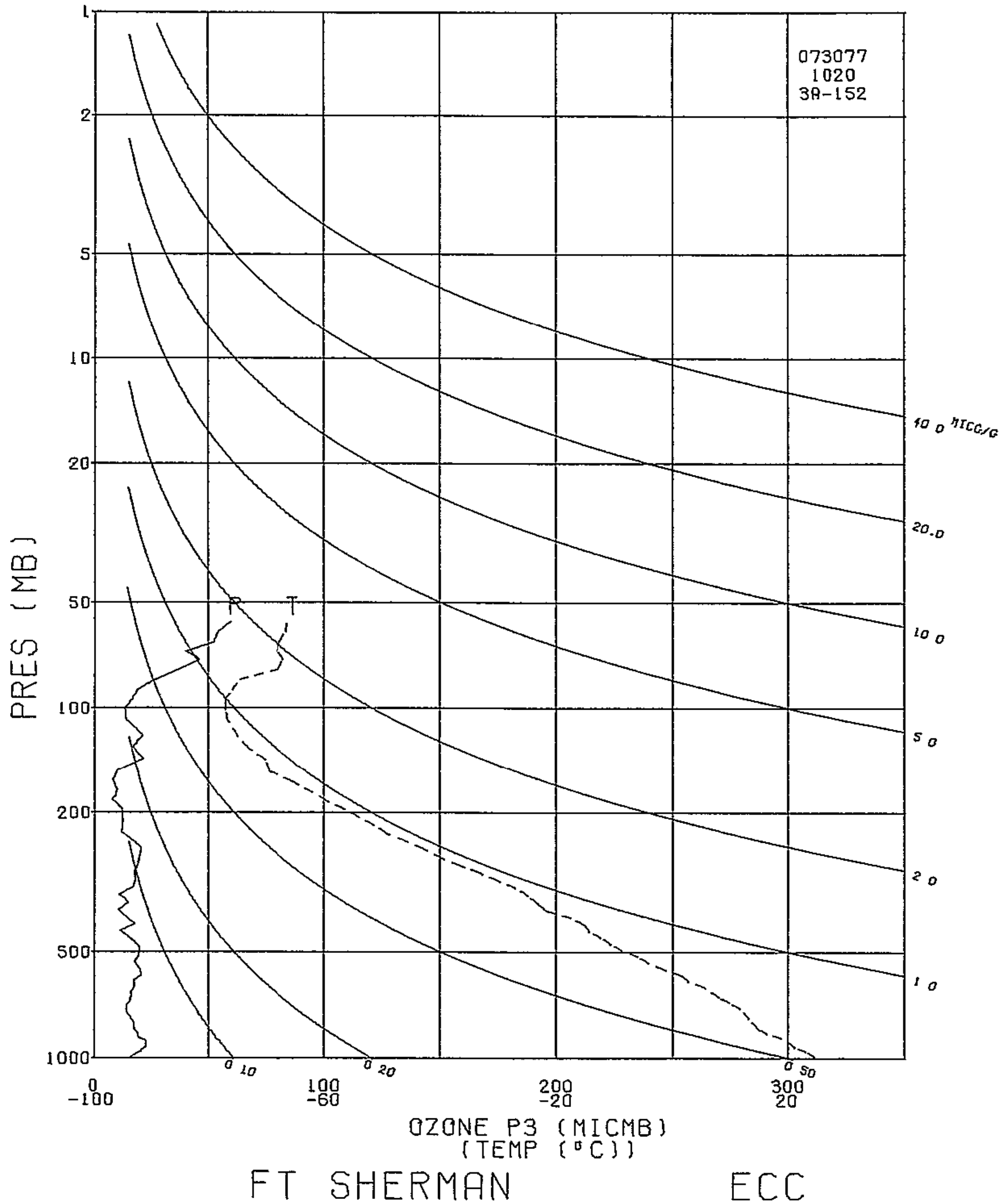
SURFACE CONDITIONS			
PRESS 1002.4 MB	003 = 34.1	TBOX CAL = 30.0 C	AT 74.2 ORD
TEMP 299.3 K	0IZ = 33.8	BASE CAL = 30.0 C	AT 72.8 ORD
HUMY 91.0 %	0ZC = 60.4	HUMIDITY = 61.4 %	AT 46.0 ORD
	I0 = 0.059		
	PS = 28.1		

	PROFILE	DOBSON
INTEGRATED OZONE	0.04547	
RESIDUAL OZONE		
TOTAL OZONE		0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	13.2	0.	25.5	0.02	1002.4	3.0010	298.8	298.6	302.12	87.2	296.5	0.0180	2.0	80.0	-0.3	-2.0
0.1	74	13.6	0.00003	26.4	0.02	1000.0	3.0000	298.7	298.7	301.97	88.3	296.6	0.0182	2.3	66.0	-1.0	-2.1
1.0	198	16.2	0.00019	31.4	0.03	986.0	2.9939	297.7	298.9	301.06	95.1	296.8	0.0186	5.5	34.8	-4.5	-3.1
2.0	497	20.4	0.00068	39.7	0.04	953.0	2.9791	296.1	300.2	298.80	81.8	292.8	0.0150	7.3	29.4	-6.4	-3.6
3.0	747	22.5	0.00117	44.2	0.04	926.0	2.9666	294.1	300.6	296.57	82.2	290.9	0.0138	8.1	29.7	-7.0	-4.0
3.7	993	22.7	0.00168	44.7	0.04	900.0	2.9542	293.5	302.5	295.93	81.1	290.2	0.0134	7.2	35.9	-5.8	-4.2
4.0	1110	22.9	0.00192	45.0	0.04	888.0	2.9484	293.2	303.4	295.62	80.6	289.8	0.0133	6.8	39.4	-5.3	-4.3
5.0	1276	19.4	0.00224	38.4	0.04	871.0	2.9400	291.8	303.5	293.82	75.4	287.3	0.0116	5.5	57.1	-3.0	-4.7
5.9	1484	18.9	0.00261	37.6	0.04	850.0	2.9294	289.6	303.4	291.70	85.8	287.2	0.0118	6.8	64.7	-2.9	-6.2
6.0	1515	18.8	0.00266	37.5	0.04	847.0	2.9279	289.3	303.4	291.39	87.3	287.2	0.0118	7.0	65.6	-2.9	-6.4
7.0	1789	17.3	0.00312	34.6	0.03	820.0	2.9138	287.7	304.5	287.72				8.1	83.3	-0.9	-8.0
7.8	1996	17.3	0.00346	34.8	0.04	800.0	2.9031	287.3	306.2	287.25				9.4	89.9	-0.0	-9.4
8.0	2049	17.3	0.00355	34.8	0.04	795.0	2.9004	287.1	306.6	287.13				9.8	91.3	0.2	-9.8
9.0	2328	16.2	0.00398	32.6	0.03	769.0	2.8859	286.2	308.5	286.17				10.6	85.9	-0.8	-10.5
10.0	2628	14.3	0.00441	28.9	0.03	742.0	2.8704	285.8	311.2	287.05	58.5	277.9	0.0072	11.0	78.8	-2.1	-10.8
11.0	2903	13.7	0.00478	27.8	0.03	718.0	2.8561	284.7	312.9	285.85	58.0	276.7	0.0068	11.6	83.6	-1.3	-11.5
11.7	3114	14.6	0.00507	29.8	0.03	700.0	2.8451	283.4	313.9	284.61	60.2	276.1	0.0067	11.7	92.3	0.5	-11.7
12.0	3222	15.1	0.00521	30.8	0.04	691.0	2.8395	282.8	314.3	283.97	61.3	275.7	0.0066	11.9	96.6	1.4	-11.8
13.0	3502	16.4	0.00563	33.7	0.04	668.0	2.8248	280.9	315.2	281.84	58.8	273.3	0.0058	12.4	103.0	2.8	-12.0
14.0	3790	16.4	0.00609	33.8	0.04	645.0	2.8096	280.2	317.5	281.16	61.0	273.2	0.0059	14.0	105.3	3.7	-13.5
15.0	4087	17.8	0.00658	37.1	0.05	622.0	2.7938	278.1	318.5	278.90	55.0	269.8	0.0048	14.9	101.5	3.0	-14.6
16.0	4366	17.3	0.00705	36.2	0.05	601.0	2.7789	275.6	318.7	276.22	50.1	266.2	0.0038	15.3	95.1	1.4	-15.3
16.0	4379	17.4	0.00708	36.6	0.05	600.0	2.7782	275.5	318.8	276.16	49.8	266.1	0.0037	15.3	95.0	1.3	-15.3
17.0	4653	20.6	0.00759	43.4	0.06	580.0	2.7634	274.4	320.7	274.98	44.9	263.8	0.0032	15.8	92.6	0.7	-15.8
18.0	4991	19.9	0.00826	42.3	0.06	556.0	2.7451	271.4	321.0	271.89	47.1	261.6	0.0028	15.3	94.7	1.3	-15.3
19.0	5340	17.9	0.00892	38.4	0.06	532.0	2.7259	268.6	321.7	269.01	43.0	258.0	0.0022	13.0	97.9	1.8	-12.9
20.0	5671	19.8	0.00955	42.8	0.06	510.0	2.7076	266.8	323.5	267.08	31.3	252.6	0.0015	11.0	93.8	0.7	-11.0
20.5	5824	20.1	0.00986	43.7	0.07	500.0	2.6990	265.5	323.6	265.71	36.2	253.0	0.0016	10.2	91.2	0.2	-10.2
21.0	5982	20.4	0.01018	44.6	0.07	490.0	2.6902	264.1	323.7	264.31	41.2	253.3	0.0016	9.4	88.1	-0.3	-9.4
22.0	6303	18.7	0.01082	41.2	0.07	470.0	2.6721	262.2	325.3	262.52	59.3	255.8	0.0021	6.5	85.5	-0.5	-6.5
23.0	6619	15.2	0.01137	33.6	0.06	451.0	2.6542	260.6	327.2	260.88	50.2	252.4	0.0016	4.7	83.5	-0.5	-4.7
24.0	6946	11.5	0.01183	25.7	0.04	432.0	2.6355	258.5	328.6	258.60				6.1	78.5	-1.2	-6.0
25.0	7286	18.1	0.01235	40.5	0.07	413.0	2.6160	257.6	331.6	257.65	22.0	240.8	0.0006	8.9	81.2	-1.4	-8.8
25.7	7525	15.1	0.01275	34.1	0.06	400.0	2.6021	256.1	332.7	256.17	25.8	241.0	0.0006	9.5	80.3	-1.6	-9.4
26.0	7639	13.7	0.01294	31.1	0.06	394.0	2.5955	255.4	333.2	255.46	27.5	241.2	0.0007	9.8	79.9	-1.7	-9.6
27.0	7966	10.6	0.01337	24.3	0.05	377.0	2.5763	251.0	331.7	251.15	41.1	241.4	0.0007	9.2	88.1	-0.3	-9.2
28.0	8304	15.0	0.01383	34.6	0.07	360.0	2.5563	249.7	334.3	249.80	38.9	239.6	0.0006	10.7	108.1	3.3	-10.2
28.5	8509	12.9	0.01412	29.9	0.06	350.0	2.5441	248.8	335.8	248.89	38.5	238.7	0.0006	10.6	110.9	3.8	-9.9
29.0	8699	11.0	0.01439	25.6	0.05	341.0	2.5328	248.0	337.2	248.06	38.2	237.9	0.0005	10.5	113.5	4.2	-9.7
30.0	9068	17.2	0.01495	40.4	0.09	324.0	2.5105	245.8	339.2	245.85				8.3	113.8	3.4	-7.6
31.0	9407	18.5	0.01562	43.9	0.10	309.0	2.4900	242.8	339.6	242.79				6.8	107.6	2.1	-6.5
31.6	9615	18.1	0.01604	43.3	0.10	300.0	2.4771	241.0	340.0	241.02				6.2	98.8	0.9	-6.1
32.0	9782	17.8	0.01638	42.8	0.10	293.0	2.4669	239.6	340.3	239.60				5.7	90.4	0.0	-5.7
33.0	10098	19.5	0.01705	47.5	0.12	280.0	2.4472	236.2	339.9	236.23				5.5	84.5	-0.5	-5.5
34.0	10424	20.1	0.01779	49.7	0.12	267.0	2.4265	233.2	340.1	233.22				5.7	86.4	-0.4	-5.7
35.0	10843	21.0	0.01879	52.8	0.14	251.0	2.3997	230.0	341.4	230.00				3.8	62.6	-1.8	-3.4
35.1	10869	20.7	0.01885	52.0	0.14	250.0	2.3979	229.8	341.4	229.76				3.7	60.2	-1.9	-3.2
36.0	11198	16.6	0.01958	42.3	0.12	238.0	2.3766	226.8	341.8	226.83				3.4	25.7	-3.0	-1.5
37.0	11510	12.3	0.02012	31.7	0.09	227.0	2.3560	223.6	341.5	223.55				3.6	57.4	-1.9	-3.0
38.0	11863	12.6	0.02065	33.0	0.10	215.0	2.3324	221.4	343.5	221.39				4.8	104.0	1.2	-4.6
39.0	12201	12.6	0.02118	33.2	0.10	204.0	2.3096	218.8	344.6	218.83				6.6	126.9	3.9	-5.3
39.4	12327	12.3	0.02137	32.6	0.10	200.0	2.3010	217.9	345.1	217.88				7.3	132.1	4.9	-5.4
40.0	12554	11.9	0.02171	31.7	0.10	193.0	2.2856	216.2	345.9	216.17				8.7	139.1	6.6	-5.7
41.0	12888	8.0	0.02213	21.7	0.07	183.0	2.2625	213.2	346.3	213.18				12.2	147.5	10.3	-6.5
42.0	13236	10.3	0.02254	28.2	0.10	173.0	2.2380	210.8	348.0	210.78				15.4	145.8	12.7	-8.6
43.0	13676	8.4	0.02307	23.5	0.09	161.0	2.2068	207.2	349.2	207.22				12.9	145.5	10.6	-7.3
44.0	14101	10.6	0.02360	30.2	0.12	150.0	2.1761	203.1	349.3	203.11				7.9	148.6	6.7	-4.1
45.0	14553	21.6	0.02457	61.5	0.26	139.0	2.1430	202.4	355.7	202.42				7.0	123.9	3.9	-5.8
46.0	14992	17.1	0.02570	49.4	0.22	129.0	2.1106	199.5	358.2	199.52				9.9	126.5	5.9	-7.9
46.4	15175	18.7	0.02618	54.5	0.25	125.0	2.0969	198.8	360.1	198.81				11.2	131.3	7.4	-8.4
47.0	15461	21.3	0.02693	62.3	0.30	119.0	2.0755	197.7	363.2	197.70				13.4	137.0	9.8	-9.1
48.0	16020	14.4	0.02830	42.4	0.22	108.0	2.0334	196.1	370.3	196.07				12.5	128.2	7.7	-9.8
49.0	16461	13.4	0.02914	39.5	0.22	100.0	2.0000	195.5	377.5	195.50				7.8	116.2	3.4	-7.0
50.0	16815	16.7	0.02987	49.4	0.29	94.0	1.9731	195.5	384.2	195.50				6.6	64.5	-2.8	-6.0
51.0	17200	19.5	0.03083	57.3	0.37	87.9	1.9440	196.9	394.4	196.89				11.6	50.5	-7.4	-9.0
52.0	17573	27.1	0.03202	78.9	0.54	82.4	1.9159	198.2	404.5	198.23				15.2	66.4	-6.1	-13.9
52.4	17747	31.5	0.03277	90.2	0.66	80.0	1.9031	201.2	414.2	201.23				16.1	69.7	-5.6	-15.1
53.0	17973	37.2	0.03374	104.7	0.80	77.0	1.8865	205.1	426.7	205.11				17.5	73.4	-5.0	-16.7
54.0	18335	45.9	0.03572	128.7	1.05	72.5	1.8603	206.0	435.9	205.97				15.2	69.3	-5.4	-14.2
54.6	18545	42.2	0.03690	118.7	1.00	70.0	1.8451	205.3	438.9	205.31				15.4	75.4	-3.9	-14.9
55.0	18676	39.9	0.03764	112.5	0.97	68.5	1.8357	204.9	440.7	204.90				15.6	79.0	-3.0	-15.3
56.0	19046	52.2	0.03988	146.8	1.34	64.4	1.8089	205.3	449.5	205.33				20.1	90.4	0.1	-20.1
57.0	19442	54.1	0.04264	151.3	1.49	60.3	1.7803	206.4	460.4	206.39				22.8	92.3	0.9	-22.8
57.1	19472	54.5	0.04286	152.4	1.51	60.0	1.7782	206.4	461.2	206.43				999.9	999.9	999.9	999.9
58.0	19825	59.4	0.04547	165.7	1.74	56.6	1.7528	206.8	469.8	206.81				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***

*** TOTAL INTEGRATED OZONE INVALID ***
*** BALLOON SHORT OF 20 MB HEIGHT ***



073077
1020
3A-152
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
P
T
40 0 MICG/G
20.0
10 0
5 0
2 0
1 0
0 10
0 20
0 50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 73077   LAUNCH TIME 1600 GMT   ECC SONDE 3A-154X

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SURFACE CONDITIONS          OO3 = 34.6          TBOX CAL =  30.0 C  AT  74.9 ORD
  PRESS  1004.1 MB          OIZ = 34.4          BASE CAL =  30.0 C  AT  73.9 ORD
  TEMP    301.9 K           OZC = 61.0          HUMIDITY =  61.9 %  AT  46.0 ORD
  HUMY     81.0 %            IO = 0.040
                             PS = 27.3
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****                                              ****
****                        PROFILE   DOBSON      ****
****   INTEGRATED OZONE     0.24010               ****
****   RESIDUAL OZONE       0.02907               ****
****   TOTAL OZONE          0.26917   0.          ****
****                                              ****
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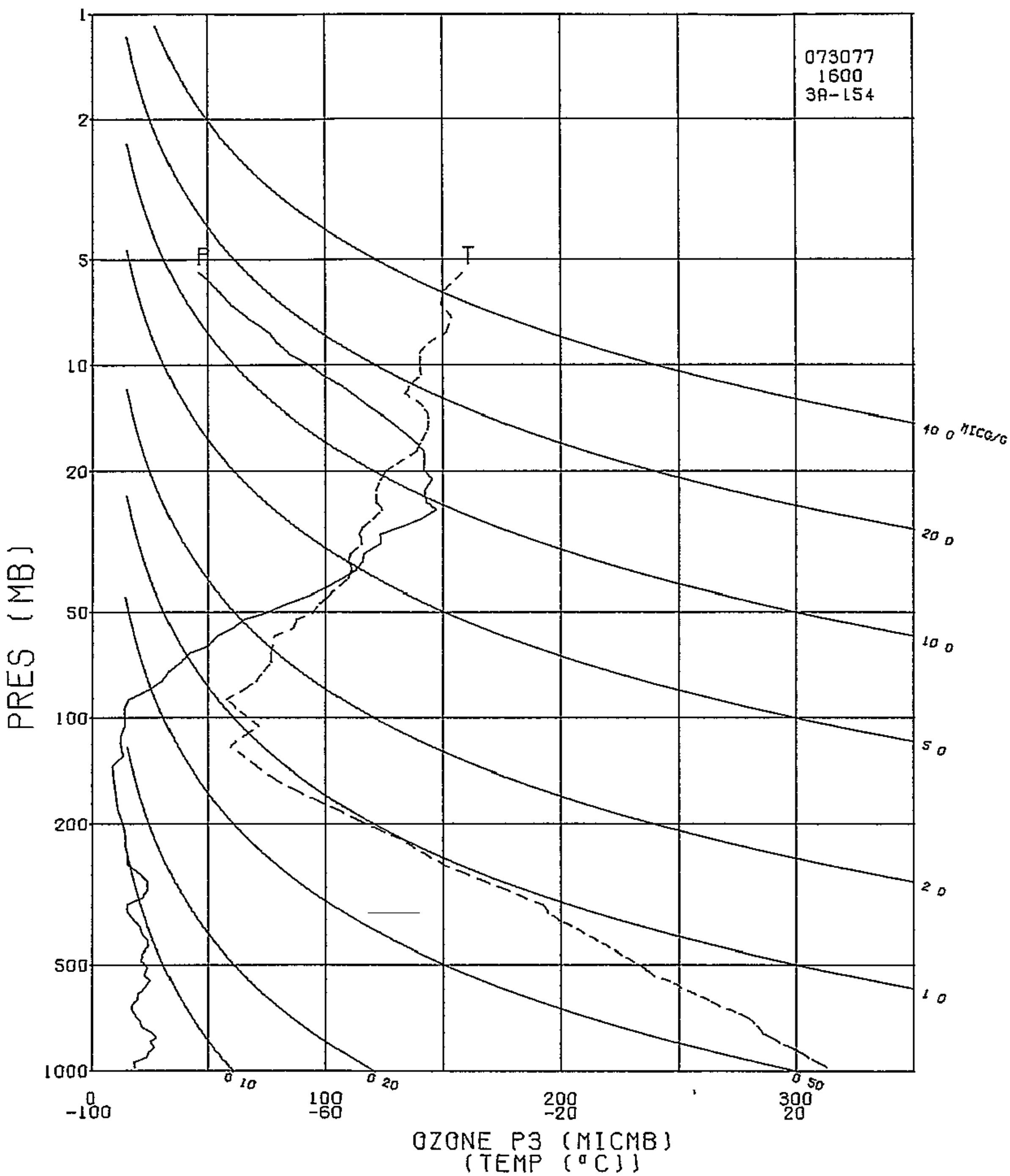
TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	16.3	0.	31.5	0.03	1004.1	3.0018	298.4	298.1	301.25	76.7	294.0	0.0154	3.0	10.0	-3.0	-0.5
0.1	89	16.5	0.00006	32.0	0.03	1000.0	3.0000	298.4	298.4	301.33	78.5	294.4	0.0163	3.3	16.6	-3.2	-0.9
1.0	321	18.4	0.00042	35.5	0.03	974.0	2.9886	298.4	300.7	301.87	90.6	296.8	0.0188	5.8	39.2	-4.5	-3.7
2.0	615	18.0	0.00089	34.9	0.03	942.0	2.9741	297.0	302.1	299.57	72.0	291.7	0.0142	6.7	34.3	-5.5	-3.8
3.0	878	23.4	0.00139	45.8	0.04	914.0	2.9609	295.2	302.8	297.54	73.3	290.1	0.0133	5.9	30.1	-5.1	-3.0
3.4	1011	24.0	0.00168	47.1	0.04	900.0	2.9542	294.5	303.6	296.86	72.6	289.4	0.0126	5.7	36.4	-4.6	-3.4
4.0	1177	24.8	0.00204	48.8	0.05	883.0	2.9460	293.8	304.4	296.02	71.6	288.5	0.0124	5.5	44.8	-3.9	-3.9
5.0	1465	27.0	0.00273	53.4	0.05	854.0	2.9315	292.3	305.7	294.34	71.9	287.1	0.0116	6.2	69.3	-2.2	-5.8
5.1	1505	26.8	0.00282	52.9	0.05	850.0	2.9294	292.0	305.9	294.03	72.1	286.8	0.0114	6.2	71.6	-2.0	-5.9
6.0	1761	25.1	0.00344	50.0	0.05	825.0	2.9165	290.1	306.5	292.04	73.2	285.3	0.0107	6.3	85.8	-0.5	-6.3
7.0	2023	27.8	0.00408	55.6	0.06	800.0	2.9031	288.7	307.8	290.53	72.9	283.9	0.0101	7.2	84.8	-0.7	-7.2
7.0	2034	27.9	0.00411	55.8	0.06	799.0	2.9025	288.7	307.8	290.47	72.9	283.9	0.0101	7.2	84.7	-0.7	-7.2
8.0	2314	25.3	0.00480	50.9	0.05	773.0	2.8882	287.1	309.0	288.68	71.1	281.9	0.0091	9.2	86.6	-0.5	-9.2
9.0	2558	21.9	0.00534	44.0	0.05	751.0	2.8756	287.1	311.6	288.52	62.0	279.9	0.0082	10.5	91.6	0.3	-10.5
10.0	2854	20.8	0.00593	42.0	0.05	725.0	2.8603	285.7	313.2	287.05	61.4	278.5	0.0077	11.1	88.6	-0.3	-11.0
11.0	3148	18.7	0.00648	38.0	0.04	700.0	2.8451	284.5	315.1	285.80	59.8	277.0	0.0072	12.0	82.5	-1.6	-11.9
12.0	3475	17.1	0.00704	35.0	0.04	673.0	2.8280	282.5	316.3	283.55	57.0	274.4	0.0062	12.4	79.6	-2.2	-12.2
13.0	3800	17.1	0.00757	35.3	0.04	647.0	2.8109	279.8	316.8	280.70	58.3	272.2	0.0055	12.6	83.2	-1.5	-12.5
14.0	4083	19.4	0.00807	40.2	0.05	625.0	2.7959	278.0	318.0	278.88	59.4	270.8	0.0051	14.4	85.0	-1.2	-14.3
15.0	4401	20.0	0.00867	41.8	0.06	601.0	2.7789	275.8	319.0	276.56	58.9	268.6	0.0045	14.9	82.6	-1.9	-14.8
15.0	4414	20.1	0.00870	42.0	0.06	600.0	2.7782	275.7	319.0	276.46	58.9	268.5	0.0045	14.9	82.5	-2.0	-14.8
16.0	4743	22.9	0.00939	48.5	0.07	576.0	2.7604	273.3	320.0	273.98	59.0	266.3	0.0039	16.2	81.1	-2.5	-16.0
17.0	5083	25.2	0.01020	53.5	0.08	552.0	2.7419	271.6	321.8	272.06	48.6	262.2	0.0030	16.4	78.8	-3.2	-16.1
18.0	5390	22.5	0.01093	48.4	0.07	531.0	2.7251	268.6	321.8	269.06	54.9	260.9	0.0028	14.3	74.7	-3.8	-13.8
19.0	5737	24.2	0.01175	52.3	0.08	508.0	2.7059	267.1	324.1	267.47	50.1	258.4	0.0024	12.7	72.6	-3.8	-12.1
19.4	5860	23.0	0.01203	49.8	0.08	500.0	2.6990	266.4	324.8	266.72	42.0	255.3	0.0017	12.3	71.0	-4.0	-11.6
20.0	6066	21.0	0.01250	45.6	0.07	487.0	2.6875	265.3	325.8	265.49	28.6	250.3	0.0012	11.6	68.2	-4.3	-10.8
21.0	6407	21.8	0.01324	47.7	0.08	466.0	2.6684	263.2	327.4	263.43	30.0	249.0	0.0012	12.1	65.9	-5.0	-11.0
22.0	6778	24.0	0.01412	53.1	0.09	444.0	2.6474	261.2	329.4	261.29				10.8	69.0	-3.9	-10.0
23.0	7111	24.0	0.01495	53.6	0.09	425.0	2.6284	259.1	330.9	259.14				9.2	69.7	-3.2	-8.6
24.0	7475	21.2	0.01581	47.7	0.09	405.0	2.6075	256.9	332.6	256.99	22.4	240.4	0.0006	10.0	69.8	-3.4	-9.4
24.3	7568	20.9	0.01601	47.1	0.09	400.0	2.6021	256.3	333.0	256.43	24.1	240.6	0.0006	10.2	70.5	-3.4	-9.6
25.0	7835	20.1	0.01659	45.5	0.09	386.0	2.5866	254.7	334.3	254.82	28.9	241.1	0.0007	10.8	72.2	-3.3	-10.3
26.0	8109	17.3	0.01713	39.6	0.08	372.0	2.5705	252.6	335.0	252.63	22.2	236.6	0.0004	11.1	78.2	-2.3	-10.9
27.0	8474	15.0	0.01777	34.5	0.07	354.0	2.5490	250.7	337.3	250.76	23.9	235.7	0.0004	10.8	91.8	0.3	-10.8
27.2	8557	15.0	0.01790	34.5	0.07	350.0	2.5441	250.5	338.1	250.55	21.3	234.1	0.0003	10.0	92.8	0.5	-10.0
28.0	8856	15.0	0.01838	34.6	0.07	336.0	2.5263	249.8	341.1	249.79				7.0	98.1	1.0	-6.9
29.0	9165	22.0	0.01900	51.4	0.11	322.0	2.5079	246.7	341.1	246.75				4.9	66.6	-1.9	-4.5
30.0	9577	24.2	0.02005	57.4	0.13	304.0	2.4829	243.5	342.1	243.47				6.2	45.5	-4.3	-4.4
30.3	9670	24.1	0.02030	57.3	0.13	300.0	2.4771	242.6	342.1	242.58				6.4	43.4	-4.7	-4.4
31.0	9935	23.7	0.02101	57.1	0.14	289.0	2.4609	240.0	342.2	240.06				7.1	38.3	-5.6	-4.4
32.0	10332	19.8	0.02198	48.4	0.12	273.0	2.4362	236.5	342.7	236.50				7.9	34.1	-6.6	-4.5
33.0	10667	15.3	0.02266	37.8	0.10	260.0	2.4150	233.1	342.6	233.14				6.9	33.8	-5.7	-3.8
33.7	10932	15.3	0.02313	38.1	0.10	250.0	2.3979	231.3	343.8	231.35				5.8	37.9	-4.6	-3.6
34.0	11070	15.2	0.02338	38.2	0.10	245.0	2.3892	230.4	344.4	230.42				5.3	40.7	-4.0	-3.4
35.0	11464	14.0	0.02406	35.6	0.10	231.0	2.3636	227.8	346.2	227.78				2.3	93.8	0.2	-2.3
36.0	11848	14.0	0.02470	35.9	0.11	218.0	2.3385	225.4	348.3	225.37				6.7	168.8	6.6	-1.3
37.0	12218	13.5	0.02531	35.0	0.11	206.0	2.3139	222.0	348.6	221.99				11.5	164.1	11.0	-3.2
37.5	12408	12.9	0.02561	33.9	0.11	200.0	2.3010	220.3	348.9	220.31				13.0	163.2	12.5	-3.8
38.0	12638	12.3	0.02597	32.5	0.11	193.0	2.2856	218.3	349.3	218.30				14.9	162.3	14.2	-4.5
39.0	13045	10.6	0.02655	28.5	0.10	181.0	2.2577	215.0	350.4	215.05				17.4	169.1	17.1	-3.3
40.0	13436	9.9	0.02706	27.1	0.10	170.0	2.2304	211.6	351.1	211.60				19.1	170.9	18.9	-3.0
41.0	13846	9.4	0.02757	26.1	0.10	159.0	2.2014	207.9	351.6	207.89				19.6	170.5	19.3	-3.2
41.8	14197	8.9	0.02799	25.1	0.10	150.0	2.1761	204.9	352.4	204.94				19.8	170.3	19.6	-3.3
42.0	14278	8.8	0.02808	24.9	0.10	148.0	2.1703	204.3	352.6	204.26				19.9	170.3	19.6	-3.4
43.0	14736	8.3	0.02860	23.7	0.10	137.0	2.1367	201.2	355.0	201.19				15.5	176.4	15.5	-1.0
44.0	15134	13.5	0.02919	39.2	0.17	128.0	2.1072	199.1	358.2	199.07				7.2	192.8	7.1	1.6
44.4	15271	13.0	0.02943	37.9	0.17	125.0	2.0969	198.1	358.9	198.15				5.2	183.1	5.2	0.3
45.0	15507	12.2	0.02984	35.8	0.17	120.0	2.0792	196.6	360.2	196.56				2.8	134.0	1.9	-2.0
46.0	15958	12.8	0.03061	37.2	0.19	111.0	2.0453	199.3	373.5	199.31				6.9	90.8	0.1	-6.9
47.0	16284	14.5	0.03121	41.6	0.23	105.0	2.0212	201.6	383.9	201.64				9.4	86.3	-0.6	-9.4
47.8	16570	14.5	0.03177	42.0	0.24	100.0	2.0000	199.9	386.0	199.91				12.2	93.0	0.6	-12.2
48.0	16629	14.6	0.03189	42.1	0.24	99.0	1.9956	199.6	386.4	199.55				12.8	94.1	0.9	-12.8
49.0	16992	14.6	0.03261	42.5	0.26	93.0	1.9685	197.6	389.5	197.59				15.2	91.4	0.4	-15.2
50.0	17310	16.3	0.03328	47.9	0.31	88.0	1.9445	196.0	392.6	196.03				16.4	84.4	-1.6	-16.4
51.0	17718	25.8	0.03445	74.7	0.52	82.0	1.9138	199.3	407.3	199.31				18.0	89.1	-0.3	-18.0
51.5	17862	28.2	0.03500	81.3	0.59	80.0	1.9031	200.2	412.1	200.24				18.9	89.0	-0.3	-18.9
52.0	18011	30.7	0.03556	88.0	0.65	78.0	1.8921	201.2	417.0	201.19				19.8	89.0	-0.4	-19.8
53.0	18402	33.8	0.03725	96.3	0.77	73.0	1.8633	202.5	427.8	202.54				19.0	87.2	-0.9	-19.0
53.7	18651	37.2	0.03844	105.5	0.88	70.0	1.8451	203.5	435.1	203.50				16.1	84.3	-1.6	-16.1
54.0	18737	38.3	0.03885	108.6	0.92	69.0	1.8388	203.8	437.6	203.84				15.2	83.1	-1.8	-15.1
55.0	19093	42.2	0.04075	119.6	1.08	65.0	1.8129	203.8	445.1	203.84				13.4	86.6	-0.8	-13.3
56.0	19375	49.9	0.04247	141.5	1.33	62.0	1.7924	203.8	451.1	203.84				19.1	92.0	0.7	-19.1

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
56.5	19570	51.9	0.04381	146.9	1.44	60.0	1.7782	204.1	456.1	204.15				20.7	90.9	0.3	-20.7
57.0	19773	54.0	0.04520	152.5	1.54	58.0	1.7634	204.5	461.2	204.47				22.4	89.9	-0.1	-22.4
58.0	20093	61.0	0.04761	169.5	1.84	55.0	1.7404	207.7	475.7	207.69				19.9	89.1	-0.3	-19.9
59.0	20434	65.7	0.05042	182.3	2.09	52.0	1.7160	208.3	484.7	208.27				22.5	82.9	-2.8	-22.3
60.0	20674	74.1	0.05258	203.0	2.46	50.0	1.6990	210.9	496.3	210.88				27.6	82.0	-3.9	-27.3
61.0	21057	83.5	0.05643	227.2	2.94	47.0	1.6721	212.1	508.2	212.13				27.7	85.5	-2.2	-27.6
62.0	21328	91.8	0.05944	248.2	3.38	45.0	1.6532	213.5	517.9	213.52				30.8	89.7	-0.1	-30.8
63.0	21761	101.4	0.06470	272.0	4.00	42.0	1.6232	215.4	532.8	215.38				31.9	94.9	2.7	-31.7
64.0	22069	107.0	0.06871	285.0	4.43	40.0	1.6021	216.9	544.0	216.86				27.9	100.7	5.2	-27.4
65.0	22395	112.4	0.07315	298.3	4.90	38.0	1.5798	217.5	553.7	217.50				28.8	103.7	6.8	-28.0
66.0	22738	115.3	0.07800	307.0	5.31	36.0	1.5563	216.9	560.6	216.86				29.4	103.0	6.6	-28.6
66.5	22916	115.7	0.08058	307.8	5.48	35.0	1.5441	217.1	565.8	217.09				29.1	101.5	5.8	-28.5
67.0	23101	116.2	0.08322	308.7	5.66	34.0	1.5315	217.3	571.1	217.34				28.8	99.9	4.9	-28.4
68.0	23488	122.9	0.08894	323.8	6.36	32.0	1.5051	219.1	585.7	219.08				29.7	96.0	3.1	-29.6
69.0	23901	122.5	0.09519	323.4	6.77	30.0	1.4771	218.8	595.8	218.77				26.1	96.7	3.0	-25.9
70.0	24207	131.5	0.09998	346.0	7.62	28.6	1.4564	219.4	605.7	219.39				19.9	100.0	3.5	-19.6
71.0	24554	140.4	0.10576	366.7	8.59	27.1	1.4330	221.1	619.8	221.08				16.5	96.3	1.8	-16.4
72.0	24923	146.9	0.11221	381.0	9.51	25.6	1.4082	222.6	634.3	222.59				12.4	90.1	0.0	-12.4
72.5	25077	144.7	0.11492	376.1	9.59	25.0	1.3979	222.1	637.3	222.14				12.4	88.2	-0.4	-12.4
73.0	25235	142.5	0.11769	371.1	9.68	24.4	1.3874	221.7	640.5	221.69				12.4	86.3	-0.8	-12.4
74.0	25761	142.0	0.12679	370.1	10.46	22.5	1.3522	221.5	655.0	221.54				15.0	74.7	-4.0	-14.5
75.0	26209	145.2	0.13461	376.8	11.45	21.0	1.3222	222.4	670.8	222.44				14.8	74.0	-4.1	-14.2
75.8	26527	142.1	0.14013	367.8	11.78	20.0	1.3010	223.2	682.5	223.18				14.0	89.6	-0.1	-14.0
76.0	26593	141.5	0.14127	365.9	11.84	19.8	1.2967	223.3	684.9	223.33				14.0	93.0	0.7	-14.0
77.0	26898	141.9	0.14647	363.8	12.44	18.9	1.2765	225.2	699.9	225.22				17.0	87.1	-0.8	-17.0
77.9	27408	141.4	0.15507	357.4	13.39	17.5	1.2430	228.4	725.6	228.39				18.0	87.5	-0.8	-18.0
78.0	27447	141.3	0.15571	356.9	13.46	17.4	1.2405	228.6	727.5	228.62				18.1	87.5	-0.8	-18.1
79.0	27926	136.6	0.16355	343.6	13.98	16.2	1.2095	229.6	745.6	229.60				16.5	95.8	1.7	-16.4
80.0	28399	130.9	0.17097	327.8	14.36	15.1	1.1790	230.6	764.0	230.56				14.0	107.5	4.2	-13.4
80.1	28443	130.3	0.17164	326.3	14.39	15.0	1.1761	230.6	765.5	230.57				13.8	109.8	4.7	-12.9
81.0	28909	124.4	0.17858	311.2	14.72	14.0	1.1461	230.7	781.1	230.70				12.7	137.5	9.4	-8.6
82.0	29408	117.2	0.18565	294.6	14.93	13.0	1.1139	229.6	794.0	229.60				11.5	152.7	10.2	-5.3
82.5	29669	113.7	0.18916	287.9	15.07	12.5	1.0969	228.1	797.7	228.08				10.0	144.0	8.1	-5.9
83.0	29942	110.2	0.19283	280.9	15.22	12.0	1.0792	226.5	801.5	226.51				8.8	132.2	5.9	-6.5
84.0	30401	103.9	0.19865	263.3	15.37	11.2	1.0492	227.8	822.0	227.78				6.5	86.3	-0.4	-6.5
85.0	30769	97.4	0.20303	245.3	15.23	10.6	1.0253	229.3	840.7	229.32				8.3	61.0	-4.0	-7.3
85.9	31159	92.7	0.20738	233.5	15.35	10.0	1.0000	229.1	853.9	229.08				11.7	62.2	-5.5	-10.4
86.0	31227	91.8	0.20813	231.5	15.37	9.9	0.9956	229.0	856.2	229.04				12.3	62.4	-5.7	-10.9
87.0	31718	83.7	0.21320	210.9	15.07	9.2	0.9638	229.0	874.4	229.04				13.7	73.8	-3.8	-13.2
88.0	32172	78.5	0.21752	196.4	15.12	8.6	0.9345	230.7	897.8	230.70				15.9	90.1	0.0	-15.9
89.0	32663	74.8	0.22189	184.7	15.49	8.0	0.9031	233.8	928.9	233.82				21.2	80.1	-3.7	-20.9
90.0	33291	66.3	0.22699	163.1	15.04	7.3	0.8633	234.6	956.9	234.62				23.8	71.2	-7.6	-22.5
90.5	33578	62.6	0.22906	154.6	14.79	7.0	0.8451	233.7	964.6	233.70				22.2	76.0	-5.4	-21.5
91.0	33878	58.7	0.23122	145.7	14.52	6.7	0.8261	232.7	972.7	232.74				20.7	81.6	-3.0	-20.5
92.0	34518	53.3	0.23536	131.7	14.47	6.1	0.7853	233.4	1002.0	233.41				33.3	97.9	4.6	-32.9
92.1	34631	52.2	0.23600	128.8	14.39	6.0	0.7782	233.9	1008.9	233.87				999.9	999.9	999.9	999.9
93.0	35357	45.2	0.24010	110.2	13.87	5.4	0.7324	236.7	1052.4	236.75				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

STATION FT SHERMAN   LAUNCH DATE 73077   LAUNCH TIME 2329 GMT   ECC SONDE 3A-157X

SURFACE CONDITIONS
PRESS 1002.5 MB
TEMP 300.9 K
HUMY 79.0 %

OO3 = 34.8
OIZ = 35.1
OZC = 61.3
IO =-0.057
PS = 28.0

TBOX CAL = 30.0 C AT 74.7 ORD
BASE CAL = 30.0 C AT 73.2 ORD
HUMIDITY = 61.1 % AT 46.0 ORD

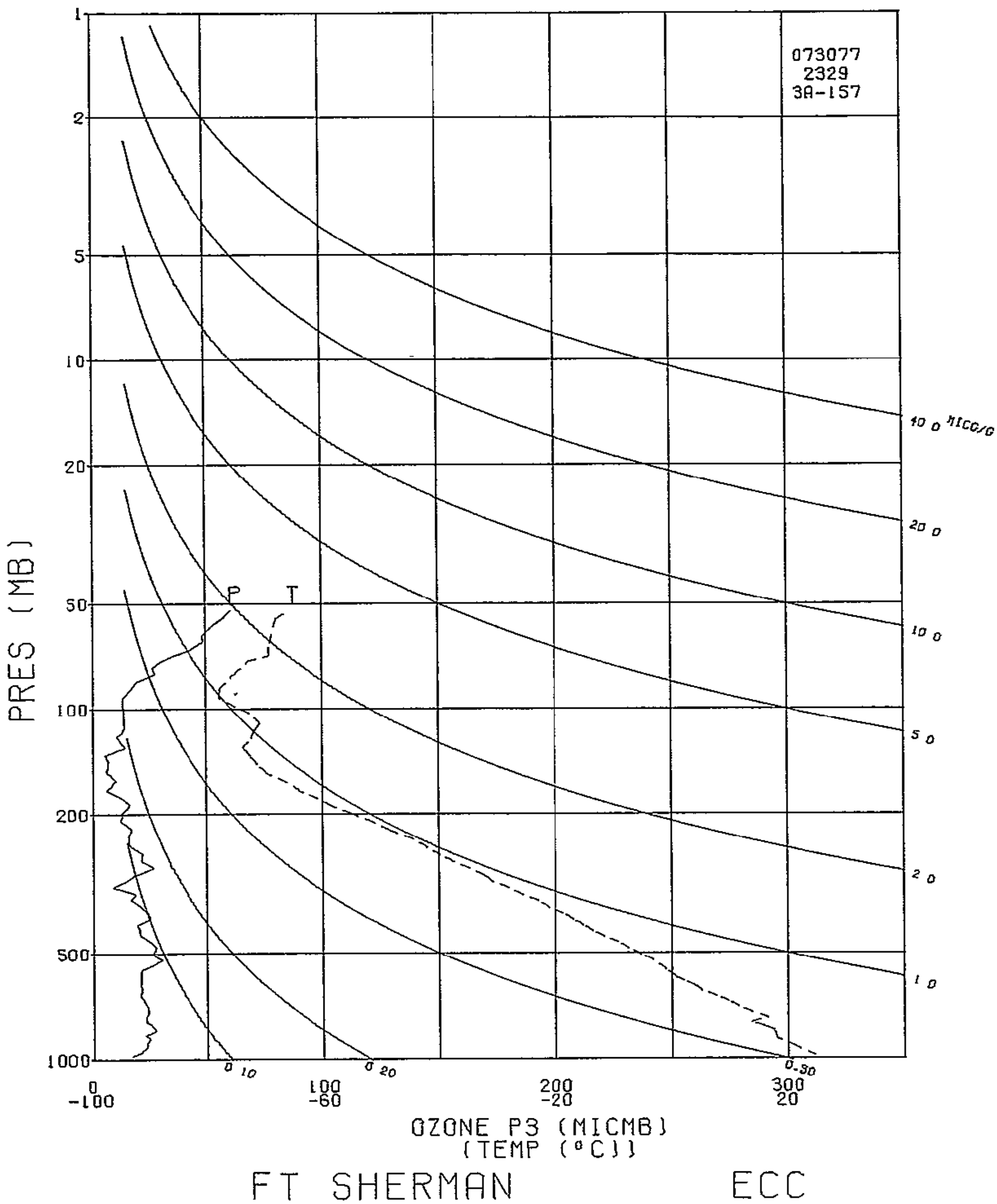
	PROFILE	DOBSON
INTEGRATED OZONE	0.05046	
RESIDUAL OZONE		
TOTAL OZONE		0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	15.5	0.	29.8	0.03	1002.5	3.0011	300.2	300.0	303.64	83.1	297.1	0.0186	2.0	360.0	-2.0	-0.0
0.1	75	15.6	0.00003	30.0	0.03	1000.0	3.0000	300.0	300.0	303.42	84.1	297.1	0.0186	2.1	358.0	-2.1	0.1
1.0	290	16.7	0.00034	32.4	0.03	976.0	2.9894	297.8	299.9	301.24	93.6	296.7	0.0187	3.4	346.8	-3.3	0.8
2.0	527	20.7	0.00074	40.3	0.04	950.0	2.9777	296.9	301.3	300.31	96.6	296.3	0.0188	3.8	345.8	-3.6	0.9
3.0	779	23.1	0.00124	45.3	0.04	923.0	2.9652	294.4	301.2	297.19	89.2	292.6	0.0153	3.3	350.3	-3.2	0.5
3.9	998	23.6	0.00170	46.4	0.04	900.0	2.9542	293.5	302.4	296.18	91.3	292.0	0.0151	3.0	2.8	-3.0	-0.1
4.0	1027	23.6	0.00176	46.5	0.04	897.0	2.9528	293.3	302.6	296.05	91.6	291.9	0.0151	3.0	4.6	-3.0	-0.2
5.0	1271	24.7	0.00230	48.9	0.05	872.0	2.9405	291.2	302.8	293.56	88.7	289.3	0.0132	2.7	13.3	-2.6	-0.6
6.0	1490	22.9	0.00278	45.4	0.04	850.0	2.9294	291.6	305.5	294.39	99.5	291.5	0.0157	2.3	12.5	-2.3	-0.5
6.0	1501	22.9	0.00280	45.2	0.04	849.0	2.9289	291.6	305.6	294.43	100.0	291.6	0.0157	2.3	12.5	-2.3	-0.5
7.0	1736	27.2	0.00335	54.1	0.05	826.0	2.9170	290.4	306.7	292.26	71.2	285.1	0.0106	2.2	39.7	-1.7	-1.4
8.0	1977	25.9	0.00394	51.8	0.05	803.0	2.9047	288.8	307.4	290.70	80.0	285.3	0.0110	3.1	66.1	-1.2	-2.8
8.1	2008	25.6	0.00401	51.1	0.05	800.0	2.9031	288.5	307.5	290.43	82.2	285.4	0.0112	3.1	68.7	-1.1	-2.9
9.0	2191	23.6	0.00443	47.4	0.05	783.0	2.8938	286.8	307.5	288.86	95.1	286.0	0.0118	3.6	81.4	-0.5	-3.6
10.0	2433	22.9	0.00495	45.7	0.05	761.0	2.8814	289.6	313.1	291.47	70.3	284.1	0.0108	5.7	91.7	0.2	-5.7
11.0	2739	24.2	0.00563	48.6	0.05	734.0	2.8657	286.8	313.3	288.22	62.1	279.7	0.0082	8.0	90.0	0.0	-8.0
12.0	3054	23.4	0.00633	47.4	0.05	707.0	2.8494	284.5	314.1	285.76	61.8	277.4	0.0073	8.4	89.0	-0.2	-8.4
12.3	3136	23.0	0.00651	46.7	0.05	700.0	2.8451	284.0	314.5	285.24	61.4	276.9	0.0070	8.9	88.7	-0.2	-8.9
13.0	3342	22.1	0.00695	45.1	0.05	683.0	2.8344	282.8	315.4	283.96	60.2	275.5	0.0066	10.2	88.1	-0.3	-10.2
14.0	3638	20.8	0.00755	42.8	0.05	659.0	2.8189	280.7	316.2	281.69	61.5	273.7	0.0060	10.4	105.8	2.8	-10.0
15.0	3916	21.2	0.00811	44.0	0.06	637.0	2.8041	278.2	316.5	279.11	61.0	271.3	0.0052	10.1	113.5	4.0	-9.3
16.0	4176	20.6	0.00864	43.0	0.06	617.0	2.7903	277.0	318.0	277.86	59.9	270.0	0.0049	10.6	94.6	0.8	-10.6
16.8	4402	20.6	0.00909	43.1	0.06	600.0	2.7782	275.5	318.8	276.24	60.3	268.6	0.0045	10.4	87.6	-0.4	-10.3
17.0	4443	20.6	0.00918	43.2	0.06	597.0	2.7760	275.2	318.9	275.95	60.3	268.3	0.0044	10.3	86.3	-0.7	-10.3
18.0	4675	20.9	0.00965	44.0	0.06	580.0	2.7634	273.6	319.6	274.17	52.6	265.0	0.0036	11.5	81.5	-1.7	-11.4
19.0	5042	21.4	0.01041	45.5	0.06	554.0	2.7435	272.0	322.0	272.53	52.9	263.6	0.0033	12.2	75.8	-3.0	-11.8
20.0	5260	25.6	0.01092	54.4	0.08	539.0	2.7316	271.2	323.6	271.35				12.2	70.0	-4.2	-11.5
21.0	5559	30.2	0.01175	64.7	0.10	519.0	2.7152	269.6	325.2	269.77				12.5	72.2	-3.8	-11.9
22.0	5852	25.7	0.01258	55.4	0.09	500.0	2.6990	267.7	326.3	267.75				13.2	75.3	-3.3	-12.7
23.0	6170	27.8	0.01344	60.4	0.10	480.0	2.6812	265.4	327.4	265.43				13.1	77.3	-2.9	-12.8
24.0	6482	24.9	0.01428	54.5	0.09	461.0	2.6637	263.7	329.0	263.67				12.4	77.7	-2.7	-12.1
25.0	6788	20.8	0.01500	46.0	0.08	443.0	2.6464	261.2	329.7	261.31				11.6	75.8	-2.8	-11.2
26.0	7050	20.2	0.01555	44.9	0.08	428.0	2.6314	259.4	330.6	259.46				11.3	73.4	-3.2	-10.8
27.0	7357	19.0	0.01618	42.6	0.08	411.0	2.6138	257.7	332.3	257.78				12.4	72.4	-3.7	-11.8
27.7	7560	23.3	0.01665	52.4	0.10	400.0	2.6021	256.4	333.2	256.47				12.8	73.4	-3.7	-12.2
28.0	7636	24.8	0.01682	56.0	0.10	396.0	2.5977	256.0	333.5	255.99				12.9	73.7	-3.6	-12.4
29.0	7944	23.7	0.01761	53.9	0.10	380.0	2.5798	254.2	335.1	254.19				12.0	74.6	-3.2	-11.6
30.0	8201	21.2	0.01823	48.7	0.10	367.0	2.5647	251.8	335.3	251.77				11.3	78.4	-2.3	-11.1
31.0	8549	16.6	0.01894	38.3	0.08	350.0	2.5441	249.9	337.3	249.91				10.2	84.0	-1.1	-10.1
32.0	8846	18.9	0.01951	44.2	0.09	336.0	2.5263	247.1	337.5	247.14				8.2	86.8	-0.5	-8.2
33.0	9174	8.8	0.02001	20.8	0.05	321.0	2.5065	244.7	338.6	244.75				6.2	76.8	-1.4	-6.1
34.0	9445	14.7	0.02036	35.1	0.08	309.0	2.4900	242.0	338.4	241.98				5.8	43.6	-4.2	-4.0
34.7	9653	17.8	0.02075	42.6	0.10	300.0	2.4771	241.0	339.9	240.99				7.5	34.9	-6.1	-4.3
35.0	9724	18.8	0.02089	45.1	0.10	297.0	2.4728	240.6	340.4	240.65				8.1	32.7	-6.8	-4.4
36.0	10062	26.7	0.02175	64.8	0.16	283.0	2.4518	238.0	341.3	237.99				8.5	35.2	-7.0	-4.9
37.0	10362	21.3	0.02257	52.3	0.13	271.0	2.4330	235.3	341.7	235.30	20.4	220.9	0.0001	8.0	32.9	-6.7	-4.3
38.0	10672	21.8	0.02334	54.0	0.14	259.0	2.4133	233.1	342.9	233.10				8.0	23.0	-7.4	-3.1
38.7	10912	17.9	0.02388	44.8	0.12	250.0	2.3979	231.4	343.8	231.35				6.7	26.9	-6.0	-3.1
39.0	10994	16.6	0.02406	41.6	0.11	247.0	2.3927	230.8	344.1	230.76				6.3	28.7	-5.5	-3.0
40.0	11386	15.3	0.02480	38.8	0.11	233.0	2.3674	228.2	346.0	228.22				4.6	68.1	-1.7	-4.2
41.0	11766	17.0	0.02553	43.7	0.13	220.0	2.3424	224.3	345.7	224.29				5.2	91.3	0.1	-5.2
42.0	12100	12.4	0.02613	32.4	0.10	209.0	2.3201	221.6	346.5	221.56				4.8	112.9	1.9	-4.5
42.7	12382	12.9	0.02657	34.1	0.11	200.0	2.3010	218.7	346.4	218.72				4.7	134.4	3.3	-3.4
43.0	12480	13.1	0.02672	34.7	0.11	197.0	2.2945	217.7	346.4	217.75				4.8	141.6	3.8	-3.0
44.0	12809	16.4	0.02733	44.3	0.15	187.0	2.2718	214.2	345.8	214.20				6.9	144.7	5.7	-4.0
45.0	13116	12.3	0.02789	33.5	0.11	178.0	2.2504	211.9	347.0	211.89				7.3	148.9	6.2	-3.7
46.0	13399	6.4	0.02823	17.8	0.06	170.0	2.2304	208.9	346.5	208.87				3.7	147.5	3.1	-2.0
47.0	13767	10.4	0.02863	29.2	0.11	160.0	2.2041	206.5	348.5	206.47				2.0	126.4	1.2	-1.6
48.0	14114	6.3	0.02901	18.0	0.07	151.0	2.1790	203.0	348.5	203.03				2.2	134.0	1.5	-1.6
48.1	14153	6.5	0.02905	18.4	0.07	150.0	2.1761	202.9	348.8	202.86				2.1	141.5	1.6	-1.3
49.0	14477	7.4	0.02935	21.2	0.09	142.0	2.1523	201.4	351.8	201.43				2.7	201.3	2.5	1.0
50.0	14774	5.7	0.02961	16.4	0.07	135.0	2.1303	200.2	354.8	200.24				3.9	278.5	-0.6	3.8
51.0	15085	14.3	0.03003	41.6	0.19	128.0	2.1072	199.0	358.0	199.00				4.1	356.8	-4.1	0.2
51.4	15223	13.1	0.03027	38.0	0.17	125.0	2.0969	199.5	361.5	199.54				4.6	24.5	-4.1	-1.9
52.0	15462	11.0	0.03068	31.8	0.15	120.0	2.0792	200.5	367.4	200.48				7.0	52.3	-4.3	-5.5
53.0	15763	14.4	0.03119	41.4	0.21	114.0	2.0569	201.2	374.2	201.19				9.4	65.3	-3.9	-8.6
54.0	16027	14.2	0.03170	40.4	0.22	109.0	2.0374	202.1	380.8	202.12				12.8	83.9	-1.4	-12.7
55.0	16418	14.1	0.03244	40.6	0.23	102.0	2.0086	200.2	384.4	200.24				14.7	90.2	0.0	-14.7
55.4	16532	13.8	0.03265	40.1	0.23	100.0	2.0000	199.1	384.4	199.11				14.6	91.5	0.4	-14.6
56.0	16674	13.5	0.03292	39.4	0.23	97.6	1.9894	197.7	384.4	197.72				14.5	93.1	0.8	-14.5
57.0	17013	14.0	0.03356	41.6	0.25	92.0	1.9638	195.0	385.6	195.00				16.2	94.8	1.4	-16.1
58.0	17338	17.5	0.03427	51.9	0.33	86.9	1.9390	195.0	391.9	195.00				17.0	98.8	2.6	-16.8
59.0	17600	19.8	0.03494	58.6	0.40	83.0	1.9191	195.6	398.2	195.57				16.7	91.9	0.6	-16.7

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
59.7	17811	25.5	0.03563	74.7	0.53	80.0	1.9031	197.2	405.8	197.17				15.5	85.9	-1.1	-15.5
60.0	17884	27.5	0.03587	80.2	0.58	79.0	1.8976	197.7	408.3	197.72				15.2	83.6	-1.7	-15.1
61.0	18116	26.3	0.03672	76.6	0.57	75.9	1.8802	198.5	414.6	198.50				14.6	90.1	0.0	-14.6
62.0	18399	31.0	0.03782	89.5	0.71	72.3	1.8591	200.2	424.1	200.24				15.8	94.4	1.2	-15.8
63.0	18590	35.9	0.03867	101.7	0.85	70.0	1.8451	203.7	435.5	203.70				14.6	92.7	0.7	-14.6
64.0	18816	43.2	0.03985	122.2	1.06	67.4	1.8287	204.4	441.6	204.36				12.6	89.1	-0.2	-12.6
65.0	19106	48.4	0.04161	137.0	1.25	64.2	1.8075	204.1	447.3	204.14				12.8	94.1	0.9	-12.8
66.0	19401	48.7	0.04351	138.0	1.32	61.1	1.7860	203.9	453.2	203.92				14.8	95.9	1.5	-14.7
66.3	19509	50.0	0.04423	141.3	1.38	60.0	1.7782	204.2	456.2	204.20				14.8	94.7	1.2	-14.8
67.0	19743	52.6	0.04580	148.3	1.51	57.7	1.7612	204.8	462.7	204.79				14.8	92.0	0.5	-14.8
68.0	20063	57.3	0.04811	161.2	1.74	54.7	1.7380	205.2	470.7	205.22				15.2	91.1	0.3	-15.2
69.0	20368	60.5	0.05046	168.5	1.93	52.0	1.7160	207.3	482.4	207.29				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***

*** TOTAL INTEGRATED OZONE INVALID ***
*** BALLOON SHORT OF 20 MB HEIGHT ***


073077
2329
3A-157
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
P
T
10.0 MICG/G
20.0
10.0
5.0
2.0
1.0
0.10
0.20
0.30
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN LAUNCH DATE 73177 LAUNCH TIME 0414 GMT ECC SONDE 3A-155X

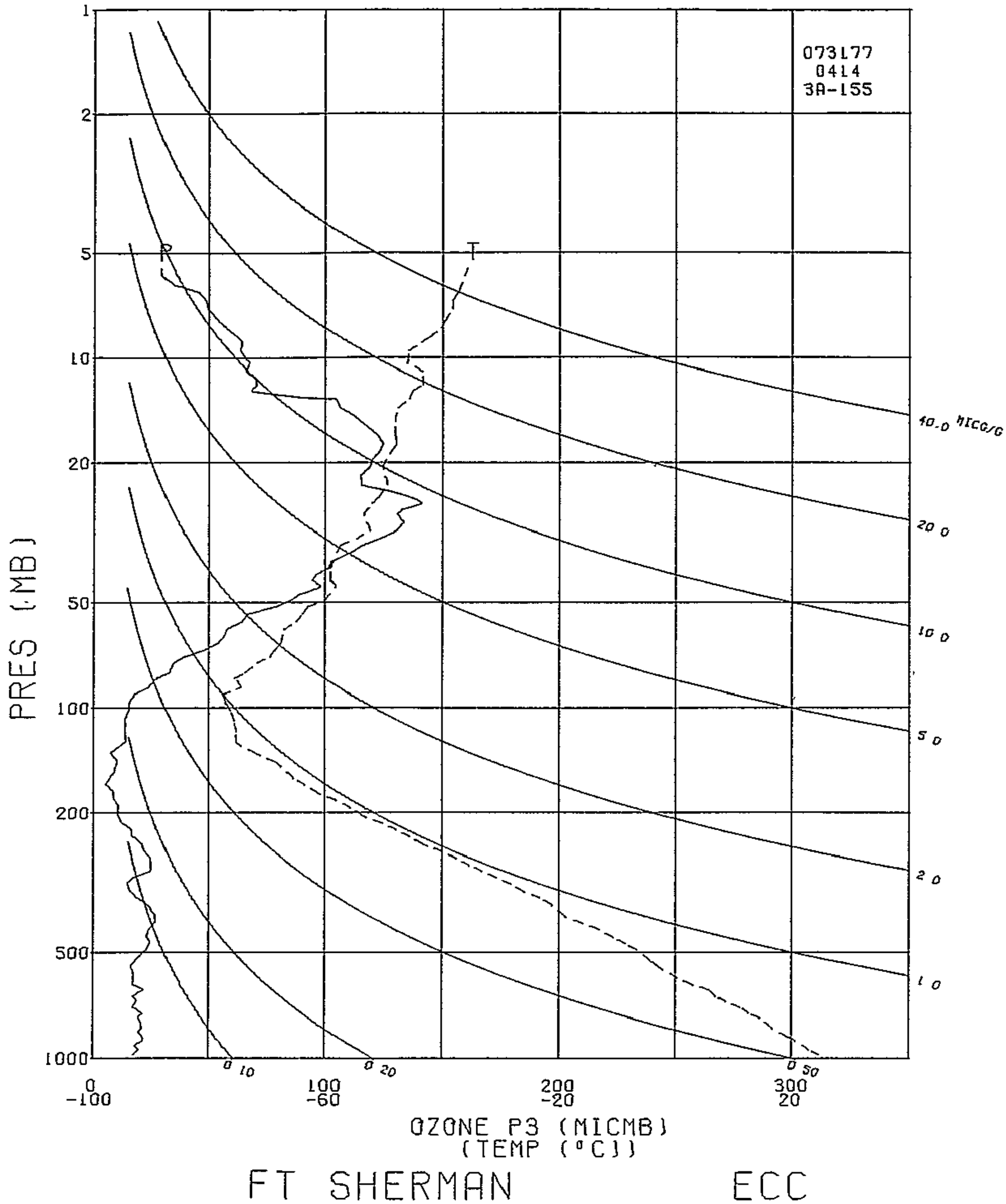
SURFACE CONDITIONS				
PRESS 1004.0 MB	OO3 = 34.4	TBOX CAL = 30.0 C	AT	74.2 ORD
TEMP 299.1 K	OIZ = 33.9	BASE CAL = 30.0 C	AT	73.4 ORD
HUMY 93.0 %	OZC = 60.6	HUMIDITY = 62.3 %	AT	46.0 ORD
	IO = 0.097			
	PS = 27.6			

	PROFILE	DOBSON
INTEGRATED OZONE	0.21524	
RESIDUAL OZONE	0.01823	
TOTAL OZONE	0.23346	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	15.5	0.	30.0	0.03	1004.0	3.0017	298.5	298.2	301.88	91.2	297.0	0.0184	0.	0.	0.	0.
0.1	88	15.7	0.00005	30.5	0.03	1000.0	3.0000	298.4	298.4	301.82	92.3	297.1	0.0188	0.4	8.8	-0.4	-0.1
1.0	339	17.5	0.00042	33.8	0.03	972.0	2.9877	297.8	300.2	301.45	100.0	297.8	0.0200	3.4	8.8	-3.4	-0.5
2.0	614	19.9	0.00088	38.9	0.04	942.0	2.9741	296.0	301.0	299.29	100.0	296.0	0.0185	4.7	353.3	-4.7	0.6
3.0	868	18.1	0.00132	35.4	0.03	915.0	2.9614	295.5	303.1	298.84	100.0	295.5	0.0185	4.9	335.9	-4.5	2.0
3.6	1012	20.1	0.00158	39.5	0.04	900.0	2.9542	294.5	303.5	297.68	99.3	294.4	0.0172	4.9	339.8	-4.6	1.7
4.0	1129	21.8	0.00179	42.8	0.04	888.0	2.9484	293.7	303.9	296.75	98.7	293.5	0.0169	4.9	343.1	-4.7	1.4
5.0	1366	21.2	0.00226	42.0	0.04	864.0	2.9365	292.2	304.7	294.91	94.8	291.3	0.0151	4.7	355.5	-4.7	0.4
5.6	1506	20.4	0.00252	40.4	0.04	850.0	2.9294	291.6	305.5	294.28	95.4	290.9	0.0148	4.6	1.1	-4.6	-0.1
6.0	1619	19.7	0.00273	39.2	0.04	839.0	2.9238	291.1	306.1	293.77	95.8	290.5	0.0148	4.6	5.7	-4.6	-0.5
7.0	1846	21.2	0.00316	42.2	0.04	817.0	2.9122	289.5	306.7	291.79	91.3	288.1	0.0130	4.5	22.1	-4.2	-1.7
7.6	2025	20.9	0.00351	41.6	0.04	800.0	2.9031	289.2	308.3	291.37	83.9	286.5	0.0116	4.2	37.4	-3.3	-2.5
8.0	2143	20.7	0.00373	41.3	0.04	789.0	2.8971	289.1	309.3	291.09	79.0	285.4	0.0113	4.1	48.4	-2.7	-3.1
9.0	2405	19.6	0.00423	39.4	0.04	765.0	2.8837	287.5	310.4	289.27	76.4	283.4	0.0102	5.1	81.9	-0.7	-5.0
10.0	2674	21.4	0.00474	43.3	0.05	741.0	2.8698	285.5	311.1	287.06	71.8	280.6	0.0087	6.6	79.2	-1.2	-6.5
11.0	2996	17.2	0.00533	35.0	0.04	713.0	2.8531	284.0	312.8	285.45	72.1	279.2	0.0082	7.2	73.9	-2.0	-6.9
11.5	3149	18.2	0.00559	37.2	0.04	700.0	2.8451	282.8	313.2	284.18	72.2	278.1	0.0075	6.7	80.0	-1.2	-6.6
12.0	3305	19.2	0.00586	39.4	0.05	687.0	2.8370	281.6	313.5	282.89	72.4	277.0	0.0073	6.3	87.0	-0.3	-6.3
13.0	3573	17.1	0.00633	35.2	0.04	665.0	2.8228	279.9	314.5	280.97	71.2	275.0	0.0065	5.5	93.8	0.4	-5.5
14.0	3939	22.0	0.00702	45.5	0.06	636.0	2.8035	278.6	317.1	279.70	70.9	273.8	0.0063	6.3	96.7	0.7	-6.3
15.0	4225	17.2	0.00756	36.1	0.05	614.0	2.7882	275.8	317.0	276.72	76.8	272.1	0.0057	7.8	106.0	2.1	-7.5
15.6	4410	17.5	0.00788	36.8	0.05	600.0	2.7782	274.4	317.5	275.30	77.9	271.0	0.0053	8.5	103.1	1.9	-8.3
16.0	4560	17.7	0.00813	37.4	0.05	589.0	2.7701	273.3	317.9	274.16	78.8	270.1	0.0051	9.1	101.1	1.8	-9.0
17.0	4851	17.2	0.00863	36.5	0.05	568.0	2.7543	272.3	320.1	273.21	83.6	269.9	0.0053	9.7	88.5	-0.2	-9.7
18.0	5165	16.3	0.00915	34.8	0.05	546.0	2.7372	270.0	320.9	270.55	62.3	263.8	0.0034	10.1	84.3	-1.0	-10.0
19.0	5489	18.5	0.00972	39.8	0.06	524.0	2.7193	268.6	323.1	269.05	52.8	260.4	0.0027	10.8	83.7	-1.2	-10.7
20.0	5779	20.7	0.01029	44.7	0.07	505.0	2.7033	267.8	325.6	268.06	26.2	251.5	0.0013	11.3	83.2	-1.3	-11.2
20.3	5856	21.5	0.01046	46.4	0.07	500.0	2.6990	267.4	326.0	267.59	25.2	250.6	0.0012	11.3	83.5	-1.3	-11.2
21.0	6063	23.5	0.01092	50.9	0.08	487.0	2.6875	266.2	326.9	266.36	22.5	248.4	0.0010	11.3	84.4	-1.1	-11.2
22.0	6372	24.9	0.01168	54.4	0.09	468.0	2.6702	264.3	328.3	264.40				11.1	83.2	-1.3	-11.1
23.0	6691	23.3	0.01247	51.4	0.09	449.0	2.6522	262.3	329.7	262.35				11.5	80.2	-2.0	-11.4
24.0	7110	24.7	0.01351	54.8	0.10	425.0	2.6284	259.6	331.5	259.70	27.4	244.8	0.0009	10.6	77.6	-2.3	-10.3
25.0	7418	27.0	0.01434	60.7	0.11	408.0	2.6107	256.8	331.8	256.85				10.7	74.7	-2.8	-10.3
25.5	7566	27.1	0.01477	61.2	0.11	400.0	2.6021	255.3	331.7	255.38				12.1	70.7	-4.0	-11.4
26.0	7717	27.1	0.01520	61.8	0.11	392.0	2.5933	253.8	331.7	253.88	24.2	238.5	0.0005	13.6	67.4	-5.2	-12.5
27.0	8046	25.3	0.01612	57.7	0.11	375.0	2.5740	253.1	335.0	253.16				14.0	68.6	-5.1	-13.0
28.0	8327	23.2	0.01684	53.4	0.11	361.0	2.5575	251.4	336.3	251.42				11.3	78.2	-2.3	-11.0
28.7	8553	20.0	0.01736	46.1	0.09	350.0	2.5441	250.0	337.5	250.06				10.1	82.4	-1.3	-10.0
29.0	8638	18.8	0.01755	43.4	0.09	346.0	2.5391	249.5	337.9	249.56				9.7	84.2	-1.0	-9.6
30.0	8938	15.9	0.01811	37.3	0.08	332.0	2.5211	246.6	337.9	246.64				9.5	83.1	-1.1	-9.4
31.0	9270	14.7	0.01867	34.6	0.08	317.0	2.5011	244.6	339.7	244.65				8.2	67.7	-3.1	-7.6
32.0	9573	17.6	0.01921	42.0	0.10	303.8	2.4826	242.1	340.3	242.14				7.9	50.7	-5.0	-6.1
32.3	9661	19.7	0.01943	47.2	0.11	300.0	2.4771	241.4	340.6	241.45				7.7	52.1	-4.7	-6.1
33.0	9876	24.9	0.01994	59.9	0.14	291.0	2.4639	239.7	341.1	239.76				7.2	55.9	-4.1	-6.0
34.0	10145	25.4	0.02070	61.8	0.15	280.0	2.4472	237.6	341.9	237.65	25.0	224.7	0.0002	7.8	57.5	-4.2	-6.6
35.0	10448	25.0	0.02157	61.2	0.15	268.0	2.4281	235.3	342.8	235.39	55.1	229.7	0.0003	8.4	56.3	-4.7	-7.0
36.0	10767	22.1	0.02244	54.7	0.14	255.8	2.4079	232.9	343.8	232.91				6.9	61.5	-3.3	-6.1
36.5	10921	21.5	0.02283	53.7	0.14	250.0	2.3979	231.2	343.6	231.23				6.3	66.6	-2.5	-5.7
37.0	11086	20.9	0.02324	52.7	0.14	244.0	2.3874	229.4	343.3	229.45				5.6	73.2	-1.6	-5.4
38.0	11423	17.1	0.02399	43.5	0.12	232.0	2.3655	227.3	345.1	227.32				5.1	84.2	-0.5	-5.0
39.0	11714	16.5	0.02458	42.4	0.12	222.0	2.3464	225.0	345.9	225.01				5.4	89.4	-0.1	-5.4
40.0	12016	12.0	0.02510	31.0	0.09	212.0	2.3263	222.5	346.5	222.47				7.1	98.2	1.0	-7.0
41.0	12328	10.2	0.02552	26.9	0.08	202.0	2.3054	219.1	346.0	219.06				9.9	96.4	1.1	-9.8
41.2	12391	10.3	0.02560	27.3	0.09	200.0	2.3010	218.7	346.3	218.68				10.0	97.3	1.3	-9.9
42.0	12652	10.8	0.02594	28.7	0.09	192.0	2.2833	217.1	347.9	217.12				10.7	100.6	2.0	-10.5
43.0	12990	8.7	0.02635	23.5	0.08	182.0	2.2601	214.6	349.2	214.60				7.8	114.1	3.2	-7.1
44.0	13270	8.7	0.02666	23.7	0.08	174.0	2.2405	211.6	348.7	211.60				4.2	124.6	2.4	-3.5
45.0	13597	5.2	0.02695	14.4	0.05	165.0	2.2175	209.4	350.3	209.36				3.5	134.3	2.4	-2.5
46.0	13861	7.6	0.02717	21.1	0.08	158.0	2.1987	207.4	351.4	207.41				5.3	131.4	3.5	-4.0
47.0	14135	9.2	0.02747	25.7	0.10	151.0	2.1790	206.6	354.6	206.61				6.8	117.9	3.2	-6.0
47.1	14174	9.4	0.02752	26.2	0.10	150.0	2.1761	206.4	354.8	206.36				6.4	116.4	2.8	-5.7
48.0	14504	10.7	0.02795	30.3	0.12	142.0	2.1523	204.3	356.8	204.30				3.4	91.3	0.1	-3.4
49.0	14848	7.3	0.02837	21.0	0.09	134.0	2.1271	200.9	356.8	200.93				3.8	1.0	-3.8	-0.1
50.0	15253	13.9	0.02895	40.6	0.18	125.0	2.0969	197.5	357.7	197.47				6.5	53.4	-3.9	-5.2
51.0	15685	14.3	0.02978	41.7	0.20	116.0	2.0645	197.5	365.4	197.47				13.7	84.2	-1.4	-13.7
52.0	16097	13.9	0.03057	40.9	0.21	108.0	2.0334	196.9	372.0	196.94				16.9	84.2	-1.7	-16.8
53.0	16483	15.8	0.03136	46.5	0.26	101.0	2.0043	196.4	378.1	196.41				15.6	83.2	-1.8	-15.5
53.2	16540	15.9	0.03148	46.7	0.26	100.0	2.0000	196.2	378.9	196.25				15.3	83.4	-1.7	-15.2
54.0	16774	16.1	0.03200	47.5	0.28	96.0	1.9823	195.6	382.1	195.59				13.8	84.4	-1.3	-13.7
55.0	17079	18.0	0.03272	53.3	0.33	91.0	1.9590	195.0	386.8	195.03				15.6	78.9	-3.0	-15.4
56.0	17338	24.3	0.03347	70.6	0.46	87.0	1.9395	198.5	398.8	198.49				16.6	80.3	-2.8	-16.4
57.0	17681	27.5	0.03468	80.3	0.55	82.0	1.9138	197.5	403.5	197.47				15.8	77.7	-3.4	-15.4
57.7	17824	31.2	0.03527	90.6	0.65	80.0	1.9031	198.6	408.8	198.64				16.6	76.9	-3.8	-16.2

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	17897	33.1	0.03557	95.9	0.69	79.0	1.8976	199.2	411.5	199.24				17.0	76.5	-4.0	-16.6
59.0	18280	34.9	0.03732	100.2	0.78	74.0	1.8692	201.4	423.8	201.40				15.1	82.4	-2.0	-15.0
60.0	18525	39.8	0.03854	112.7	0.93	71.0	1.8513	203.7	433.6	203.65				13.5	86.9	-0.7	-13.5
60.3	18609	42.5	0.03903	120.3	1.01	70.0	1.8451	203.9	436.0	203.94				13.5	89.5	-0.1	-13.5
61.0	18783	48.1	0.04004	135.8	1.17	68.0	1.8325	204.5	440.9	204.52				13.6	94.8	1.1	-13.5
62.0	19063	53.9	0.04192	151.5	1.38	64.9	1.8122	205.6	449.1	205.58				13.1	100.4	2.4	-12.9
63.0	19338	56.7	0.04391	159.2	1.51	62.0	1.7924	205.6	455.0	205.58				15.4	92.9	0.8	-15.4
63.7	19535	57.5	0.04539	161.1	1.59	60.0	1.7782	206.0	460.3	206.02				17.6	85.0	-1.5	-17.6
64.0	19616	57.8	0.04600	161.9	1.62	59.2	1.7723	206.2	462.4	206.20				18.6	82.4	-2.5	-18.5
65.0	19910	64.4	0.04834	178.7	1.89	56.4	1.7513	208.2	473.4	208.20				22.2	81.0	-3.5	-21.9
66.0	20221	66.8	0.05097	184.3	2.07	53.6	1.7292	209.4	483.1	209.36				25.7	81.9	-3.6	-25.4
67.0	20526	79.0	0.05384	216.9	2.57	51.0	1.7076	210.3	492.2	210.31				26.4	83.4	-3.0	-26.2
67.5	20648	82.1	0.05512	224.0	2.72	50.0	1.6990	211.7	498.2	211.66				27.2	88.2	-0.9	-27.1
68.0	20774	85.3	0.05643	231.2	2.89	49.0	1.6902	213.0	504.3	213.04				28.1	92.8	1.4	-28.1
69.0	21034	89.4	0.05930	241.7	3.15	47.0	1.6721	213.6	511.6	213.56				30.8	98.2	4.4	-30.5
70.0	21306	97.7	0.06251	262.4	3.60	45.0	1.6532	214.9	521.3	214.95				29.9	99.1	4.7	-29.6
71.0	21591	94.1	0.06595	253.7	3.63	43.0	1.6335	214.1	526.0	214.09				27.7	95.2	2.5	-27.6
72.0	21843	96.3	0.06898	259.7	3.86	41.3	1.6160	214.1	532.1	214.09				28.2	89.3	-0.4	-28.2
72.7	22043	100.1	0.07148	270.0	4.15	40.0	1.6021	214.1	537.0	214.09				28.4	88.6	-0.7	-28.4
73.0	22122	101.6	0.07246	274.0	4.26	39.5	1.5966	214.1	539.0	214.09				28.4	88.3	-0.8	-28.4
74.0	22414	103.0	0.07623	278.5	4.53	37.7	1.5763	213.6	544.9	213.56				29.5	87.1	-1.5	-29.5
75.0	22756	111.0	0.08083	298.1	5.15	35.7	1.5527	215.1	557.4	215.12				30.7	83.1	-3.7	-30.4
75.4	22880	113.1	0.08260	303.2	5.36	35.0	1.5441	215.4	561.3	215.39				30.7	82.6	-4.0	-30.5
76.0	23063	116.1	0.08520	310.7	5.66	34.0	1.5315	215.8	567.0	215.79				30.8	81.8	-4.4	-30.5
77.0	23310	123.1	0.08888	325.3	6.24	32.7	1.5145	218.4	580.4	218.42				32.6	85.9	-2.3	-32.5
78.0	23653	130.4	0.09422	341.3	6.97	31.0	1.4914	220.6	595.3	220.63				33.6	88.8	-0.7	-33.6
78.7	23864	132.2	0.09763	346.5	7.31	30.0	1.4771	220.3	600.0	220.32				32.6	88.2	-1.0	-32.5
79.0	23973	133.2	0.09938	349.2	7.48	29.5	1.4698	220.2	602.5	220.16				32.1	87.9	-1.2	-32.0
80.0	24309	129.8	0.10479	341.4	7.68	28.0	1.4472	219.5	609.8	219.54				24.8	93.7	1.6	-24.7
81.0	24543	132.5	0.10856	346.9	8.13	27.0	1.4314	220.5	618.8	220.48				19.6	102.2	4.2	-19.2
82.0	24787	140.8	0.11263	367.8	8.98	26.0	1.4150	221.1	627.3	221.10				17.3	99.2	2.8	-17.1
83.0	25041	136.1	0.11691	353.7	9.02	25.0	1.3979	222.2	637.4	222.17				17.0	100.1	3.0	-16.7
84.0	25306	127.4	0.12116	331.2	8.80	24.0	1.3802	222.2	644.9	222.17				16.3	97.7	2.2	-16.2
85.0	25583	114.7	0.12522	296.1	8.26	23.0	1.3617	223.7	657.2	223.67				14.1	80.9	-2.2	-13.9
86.0	25934	113.7	0.13005	293.6	8.64	21.8	1.3385	223.7	667.3	223.67				16.0	71.0	-5.2	-15.1
87.0	26335	118.2	0.13568	306.3	9.55	20.5	1.3118	222.8	676.4	222.77				16.1	74.2	-4.4	-15.5
87.5	26495	118.8	0.13799	308.3	9.85	20.0	1.3010	222.5	680.3	222.48				16.2	68.8	-5.9	-15.1
88.0	26660	119.4	0.14036	310.3	10.15	19.5	1.2900	222.2	684.3	222.17				16.4	63.3	-7.4	-14.7
89.0	27039	122.9	0.14592	316.1	11.07	18.4	1.2648	224.4	702.8	224.42				15.9	54.3	-9.3	-12.9
90.0	27331	124.1	0.15025	318.0	11.68	17.6	1.2455	225.3	714.6	225.30				14.7	76.0	-3.6	-14.2
90.1	27368	123.9	0.15080	317.4	11.73	17.5	1.2430	225.3	715.6	225.27				14.7	77.1	-3.3	-14.3
91.0	27716	121.5	0.15592	311.8	12.13	16.6	1.2201	225.0	725.7	225.01				15.3	87.5	-0.7	-15.2
92.0	28041	117.5	0.16057	301.2	12.32	15.8	1.1987	225.2	736.5	225.15				13.2	83.7	-1.4	-13.1
93.0	28339	113.8	0.16471	292.1	12.48	15.1	1.1790	224.9	745.1	224.86				12.9	79.0	-2.5	-12.7
93.1	28382	113.2	0.16529	290.7	12.51	15.0	1.1761	224.9	746.6	224.88				12.8	79.0	-2.4	-12.6
94.0	28651	109.9	0.16889	281.9	12.64	14.4	1.1584	225.0	755.7	225.01				12.3	78.7	-2.4	-12.0
95.0	28931	105.0	0.17250	268.7	12.61	13.8	1.1399	225.6	767.0	225.59				14.6	87.8	-0.6	-14.6
96.0	29327	103.2	0.17741	261.9	13.15	13.0	1.1139	227.5	786.7	227.47				12.1	110.0	4.1	-11.4
97.0	29430	87.0	0.17857	220.2	11.26	12.8	1.1072	228.0	792.1	228.04				10.7	128.9	6.7	-8.4
97.6	29588	75.1	0.18001	190.2	9.94	12.5	1.0969	228.1	797.8	228.12				10.0	128.2	6.2	-7.9
98.0	29696	67.1	0.18099	169.7	9.04	12.3	1.0899	228.2	801.7	228.18				9.5	127.7	5.8	-7.5
99.0	29917	69.4	0.18277	174.5	9.67	11.9	1.0755	229.7	814.8	229.73				10.6	131.1	7.0	-8.0
100.0	30265	68.7	0.18559	172.5	10.08	11.3	1.0531	230.0	828.0	230.01				10.0	163.3	9.6	-2.9
101.0	30507	65.0	0.18749	163.7	9.89	10.9	1.0374	229.4	834.5	229.45				10.3	207.5	9.2	4.8
102.0	30885	66.9	0.19044	170.2	10.76	10.3	1.0128	227.0	839.2	227.04				8.4	200.9	7.9	3.0
103.0	31081	64.7	0.19198	164.9	10.71	10.0	1.0000	226.5	844.2	226.46				7.7	172.2	7.6	-1.0
104.0	31421	62.5	0.19455	158.7	10.90	9.5	0.9777	227.3	659.9	227.32				10.5	111.3	3.8	-9.8
105.0	31782	63.4	0.19723	159.5	11.67	9.0	0.9542	229.4	881.4	229.45				11.7	97.5	1.5	-11.6
106.0	32010	61.3	0.19890	153.2	11.67	8.7	0.9395	230.8	895.4	230.84				12.5	97.1	1.5	-12.4
107.0	32411	56.4	0.20165	139.9	11.41	8.2	0.9138	232.9	918.8	232.91				15.3	95.4	1.4	-15.2
107.5	32579	54.7	0.20272	135.5	11.33	8.0	0.9031	233.2	926.7	233.24				18.2	92.3	0.7	-18.2
108.0	32752	53.0	0.20381	131.0	11.25	7.8	0.8921	233.6	934.8	233.59				21.3	90.0	0.0	-21.3
109.0	33301	48.5	0.20701	119.1	11.15	7.2	0.8573	234.9	961.9	234.94				26.9	87.0	-1.4	-26.9
109.5	33494	47.8	0.20808	117.5	11.32	7.0	0.8451	234.9	969.8	234.94				25.9	88.3	-0.8	-25.9
110.0	33694	47.2	0.20917	116.0	11.50	6.8	0.8325	234.9	977.8	234.94				25.0	89.8	-0.1	-25.0
111.0	34112	43.8	0.21135	107.2	11.35	6.4	0.8062	236.0	999.4	236.02				21.3	90.3	0.1	-21.3
112.0	34444	33.4	0.21281	81.5	9.07	6.1	0.7853	236.4	1015.0	236.42				22.6	83.9	-2.4	-22.5
112.3	34558	31.8	0.21321	77.7	8.78	6.0	0.7782	236.6	1020.5	236.60				26.5	84.4	-2.6	-26.3
113.0	34793	28.7	0.21404	69.9	8.20	5.8	0.7634	237.0	1032.0	236.96				34.4	85.0	-3.0	-34.2
114.0	35162	28.2	0.21524	68.6	8.50	5.5	0.7404	237.5	1050.2	237.49				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



073177
0414
3A-155
PRES (MB)
1
2
5
10
20
50
100
200
500
1000
P
T
40.0 MICG/G
20.0
10.0
5.0
2.0
1.0
0.10
0.20
0.50
0
-100
100
-60
200
-20
300
20
OZONE P3 (MICMB)
(TEMP (°C))
FT SHERMAN
ECC

STATION FT SHERMAN   LAUNCH DATE 73177   LAUNCH TIME 1051 GMT   ECC SONDE 3A-156X

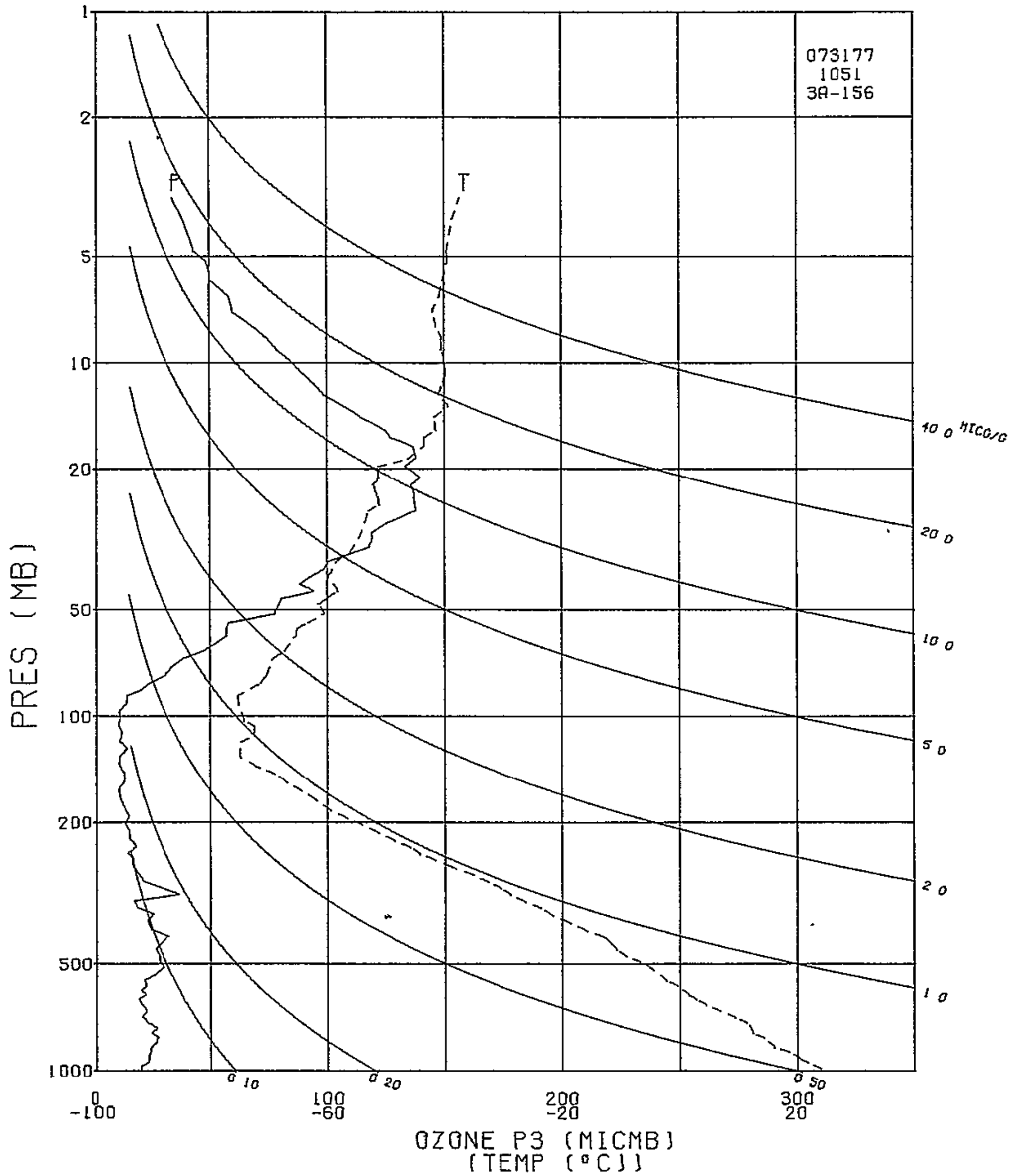
SURFACE CONDITIONS	OO3 = 34.0	TBOX CAL = 30.0 C	AT 74.3 ORD
PRESS 1003.0 MB	OIZ = 33.9	BASE CAL = 30.0 C	AT 73.3 ORD
TEMP 297.6 K	OZC = 57.8	HUMIDITY = 61.4 %	AT 46.0 ORD
HUMY 95.0 %	IO = 0.023		
	PS = 26.9		

	PROFILE	DOBSON
INTEGRATED OZONE	0.24458	
RESIDUAL OZONE	0.01801	
TOTAL OZONE	0.26259	0.

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
0.	53	18.7	0.	36.3	0.03	1003.0	3.0013	297.4	297.1	300.63	95.4	296.6	0.0180	5.0	210.0	4.3	2.5
0.1	79	18.8	0.00005	36.5	0.03	1000.0	3.0000	297.3	297.3	300.61	95.9	296.6	0.0182	4.9	213.6	4.0	2.7
1.0	230	19.4	0.00030	37.7	0.03	983.0	2.9926	297.1	298.6	300.52	98.6	296.9	0.0187	4.5	237.4	2.4	3.8
2.0	410	20.3	0.00062	39.6	0.03	963.0	2.9836	296.2	299.4	299.43	97.1	295.7	0.0178	3.4	281.0	-0.6	3.4
3.0	612	23.0	0.00102	45.0	0.04	941.0	2.9736	294.8	300.0	297.94	99.4	294.7	0.0172	3.4	326.8	-2.9	1.9
4.0	789	23.2	0.00139	45.6	0.04	922.0	2.9647	293.5	300.4	296.40	98.5	293.3	0.0160	4.3	345.8	-4.2	1.1
5.0	979	23.3	0.00179	46.0	0.04	902.0	2.9552	292.7	301.4	295.38	96.6	292.1	0.0152	4.9	346.8	-4.8	1.1
5.1	998	23.4	0.00184	46.2	0.04	900.0	2.9542	292.6	301.5	295.30	96.9	292.1	0.0152	4.9	346.8	-4.7	1.1
6.0	1221	24.0	0.00232	47.4	0.05	877.0	2.9430	291.6	302.7	294.30	100.0	291.6	0.0152	4.7	347.0	-4.6	1.1
7.0	1448	24.3	0.00282	48.5	0.05	854.0	2.9315	289.1	302.5	291.47	100.0	289.1	0.0133	3.9	350.5	-3.8	0.6
7.1	1487	24.5	0.00292	49.0	0.05	850.0	2.9294	289.0	302.8	291.38	100.0	289.0	0.0133	3.7	353.2	-3.7	0.4
8.0	1732	26.3	0.00349	52.6	0.05	826.0	2.9170	288.5	304.7	290.85	100.0	288.5	0.0132	3.2	14.2	-3.1	-0.8
9.0	1982	27.0	0.00411	54.3	0.06	802.0	2.9042	287.3	306.0	289.54	100.0	287.3	0.0126	4.5	40.8	-3.4	-2.9
9.1	2003	26.8	0.00416	53.9	0.06	800.0	2.9031	287.2	306.1	289.33	98.6	286.9	0.0121	4.5	41.7	-3.4	-3.0
10.0	2227	24.3	0.00470	49.2	0.05	779.0	2.8915	285.4	306.5	287.05	83.4	282.7	0.0095	5.3	49.2	-3.5	-4.0
11.0	2501	26.5	0.00535	53.6	0.06	754.0	2.8774	285.4	309.4	286.87	72.1	280.5	0.0085	5.3	68.3	-1.9	-4.9
12.0	2795	22.2	0.00603	45.1	0.05	728.0	2.8621	284.4	311.5	285.78	67.0	278.5	0.0077	5.1	86.6	-0.3	-5.1
13.0	3086	20.1	0.00661	41.1	0.05	703.0	2.8470	282.4	312.3	283.66	70.1	277.2	0.0073	5.4	76.1	-1.3	-5.3
13.1	3121	20.3	0.00668	41.5	0.05	700.0	2.8451	282.2	312.4	283.40	70.2	277.0	0.0071	5.5	74.7	-1.5	-5.3
14.0	3446	22.0	0.00733	45.3	0.05	673.0	2.8280	279.9	313.4	281.00	70.4	274.9	0.0064	6.8	64.2	-3.0	-6.1
15.0	3756	19.5	0.00795	40.7	0.05	648.0	2.8116	277.5	314.1	278.46	71.5	272.8	0.0057	6.4	68.3	-2.4	-6.0
16.0	4049	18.1	0.00849	37.9	0.05	625.0	2.7959	275.8	315.4	276.57	61.4	269.1	0.0045	6.6	71.4	-2.1	-6.2
17.0	4271	21.5	0.00892	45.3	0.06	608.0	2.7839	274.5	316.4	274.91	36.5	261.2	0.0025	8.0	73.2	-2.3	-7.7
17.5	4377	20.6	0.00914	43.4	0.06	600.0	2.7782	274.2	317.3	274.57	33.4	259.8	0.0022	8.1	74.7	-2.1	-7.8
18.0	4499	19.5	0.00938	41.2	0.05	591.0	2.7716	273.8	318.2	274.18	29.9	258.2	0.0020	8.2	76.4	-1.9	-8.0
19.0	4760	22.2	0.00992	47.0	0.06	572.0	2.7574	272.6	319.7	272.77	20.0	252.4	0.0013	7.4	87.5	-0.3	-7.4
20.0	5028	20.8	0.01049	44.5	0.06	553.0	2.7427	270.7	320.6	270.72				6.8	94.6	0.5	-6.8
21.0	5334	26.1	0.01121	55.8	0.08	532.0	2.7259	270.0	323.4	270.04				7.8	77.2	-1.7	-7.6
22.0	5682	29.5	0.01218	63.5	0.10	509.0	2.7067	267.9	324.9	267.90				11.2	69.8	-3.9	-10.5
22.4	5821	28.8	0.01258	62.2	0.10	500.0	2.6990	267.2	325.7	267.17				11.5	71.8	-3.6	-10.9
23.0	5995	27.9	0.01309	60.6	0.09	489.0	2.6893	266.3	326.6	266.25				11.8	74.0	-3.2	-11.3
24.0	6286	27.2	0.01390	59.6	0.10	471.0	2.6730	263.8	327.1	263.76				10.2	80.9	-1.6	-10.1
25.0	6586	25.9	0.01472	57.0	0.09	453.0	2.6561	262.2	328.7	262.18				10.4	84.0	-1.1	-10.4
26.0	6914	28.7	0.01564	63.3	0.11	434.0	2.6375	261.2	331.5	261.18				11.6	81.1	-1.8	-11.5
27.0	7255	31.5	0.01671	70.1	0.13	415.0	2.6180	259.9	334.2	259.91				11.4	78.1	-2.4	-11.2
27.9	7533	24.6	0.01751	55.1	0.10	400.0	2.6021	257.2	334.2	257.22				10.6	77.9	-2.2	-10.3
28.0	7571	23.6	0.01762	53.1	0.10	398.0	2.5999	256.9	334.2	256.85				10.4	77.8	-2.2	-10.2
29.0	7956	21.8	0.01854	49.6	0.10	378.0	2.5775	254.0	335.4	253.99				10.5	88.4	-0.3	-10.5
30.0	8316	25.0	0.01944	57.5	0.12	360.0	2.5563	251.0	336.1	251.04				10.1	96.2	1.1	-10.0
30.7	8521	19.9	0.01991	46.0	0.09	350.0	2.5441	249.9	337.3	249.89				8.6	92.6	0.4	-8.6
31.0	8627	17.3	0.02015	40.1	0.08	345.0	2.5378	249.3	337.9	249.31				7.9	90.3	0.0	-7.9
32.0	8949	15.8	0.02073	37.1	0.08	330.0	2.5185	246.4	338.2	246.39				7.4	88.7	-0.2	-7.4
33.0	9260	36.0	0.02162	85.0	0.19	316.0	2.4997	244.2	339.3	244.15				7.4	87.1	-0.4	-7.4
34.0	9559	28.1	0.02268	66.9	0.15	303.0	2.4814	242.4	341.0	242.44				6.8	79.4	-1.2	-6.7
34.2	9629	26.2	0.02287	62.6	0.14	300.0	2.4771	241.9	341.2	241.88				6.8	75.4	-1.7	-6.6
35.0	9844	20.6	0.02346	49.4	0.12	291.0	2.4639	240.2	341.8	240.19				7.0	63.3	-3.1	-6.2
36.0	10188	17.9	0.02420	43.6	0.11	277.0	2.4425	237.4	342.6	237.40				7.7	55.3	-4.4	-6.3
37.0	10519	15.7	0.02484	38.8	0.10	264.0	2.4216	233.9	342.2	233.89				7.8	67.4	-3.0	-7.2
38.0	10835	16.3	0.02543	40.7	0.11	252.0	2.4014	231.0	342.5	231.01				6.6	69.6	-2.3	-6.2
38.2	10888	15.7	0.02552	39.3	0.10	250.0	2.3979	230.5	342.5	230.49				6.2	70.3	-2.1	-5.9
39.0	11079	13.6	0.02586	34.2	0.09	243.0	2.3856	228.6	342.5	228.62				4.9	73.8	-1.4	-4.7
40.0	11359	17.5	0.02637	44.6	0.12	233.0	2.3674	226.9	344.0	226.91				5.0	98.5	0.7	-4.9
41.0	11678	14.8	0.02699	38.1	0.11	222.0	2.3464	224.1	344.6	224.13				6.2	112.1	2.3	-5.8
42.0	12009	14.2	0.02757	37.1	0.11	211.0	2.3243	221.3	345.1	221.25				8.1	119.2	3.9	-7.0
43.0	12321	12.3	0.02806	32.5	0.10	201.0	2.3032	218.7	345.9	218.73				10.4	115.8	4.5	-9.4
43.1	12352	12.5	0.02813	33.2	0.10	200.0	2.3010	218.4	345.9	218.43				10.6	114.9	4.5	-9.6
44.0	12612	14.4	0.02856	38.4	0.12	192.0	2.2833	215.9	346.0	215.94				12.1	108.1	3.8	-11.5
45.0	12913	12.4	0.02907	33.5	0.11	183.0	2.2625	213.4	346.6	213.36				15.4	106.8	4.4	-14.7
46.0	13120	11.5	0.02938	31.3	0.11	177.0	2.2480	212.3	348.2	212.29				19.3	109.3	6.4	-18.2
47.0	13369	10.2	0.02973	27.9	0.10	170.0	2.2304	210.6	349.5	210.64				21.0	109.5	7.0	-19.8
48.0	13702	9.5	0.03015	26.3	0.10	161.0	2.2068	208.3	351.1	208.34				16.7	100.1	2.9	-16.4
49.0	14050	12.1	0.03064	33.9	0.13	152.0	2.1816	205.7	352.4	205.71				11.6	72.7	-3.4	-11.0
49.2	14129	12.1	0.03077	33.9	0.13	150.0	2.1761	205.2	352.9	205.24				11.3	69.3	-4.0	-10.5
50.0	14374	12.0	0.03115	34.0	0.14	144.0	2.1584	203.8	354.5	203.79				10.7	57.6	-5.7	-9.0
51.0	14669	10.0	0.03159	28.8	0.12	137.0	2.1367	200.6	354.0	200.59				8.3	48.0	-5.6	-6.2
52.0	15020	10.1	0.03206	29.6	0.13	129.0	2.1106	197.9	355.2	197.85				7.2	32.8	-6.0	-3.9
52.7	15201	12.5	0.03236	36.5	0.17	125.0	2.0969	197.7	358.1	197.68				8.1	51.6	-5.0	-6.3
53.0	15295	13.7	0.03251	40.0	0.18	123.0	2.0899	197.6	359.6	197.59				8.8	59.2	-4.5	-7.6
54.0	15584	10.3	0.03298	30.1	0.15	117.0	2.0682	198.1	365.7	198.11				11.6	85.2	-1.0	-11.5
55.0	15838	11.8	0.03337	34.1	0.17	112.0	2.0492	200.3	374.5	200.35				11.0	106.1	3.1	-10.6
56.0	16161	9.8	0.03384	28.1	0.15	106.0	2.0253	200.6	380.9	200.59				9.5	122.4	5.1	-8.0
57.0	16385	10.5	0.03414	30.5	0.17	102.0	2.0086	198.6	381.3	198.62				9.3	106.7	2.7	-8.9
57.4	16500	10.2	0.03430	29.7	0.17	100.0	2.0000	198.5	383.3	198.52				11.5	98.7	1.7	-11.3

TIME MIN	ALT GP MT	OZONE MICMB	TOTOZ ATMCM	OZDEN GAMMA	OZMXR MICGG	PRESS MB	LOG PRESS	TEMP DEG K	PTEMP DEG K	VTEMP DEG K	HUMTY PRCNT	DEWPT DEG K	SPECIF HUMTY	SPD MPS	DIR DEG	NS MPS	EW MPS
58.0	16677	9.8	0.03455	28.4	0.17	97.0	1.9868	198.4	386.3	198.37				15.0	91.0	0.3	-15.0
59.0	16983	13.1	0.03502	38.2	0.24	92.0	1.9638	197.6	390.7	197.59				19.7	94.2	1.4	-19.7
60.0	17306	13.7	0.03561	40.0	0.26	87.0	1.9395	197.3	396.5	197.33				19.7	97.4	2.5	-19.6
61.0	17509	19.6	0.03607	57.1	0.39	84.0	1.9243	198.1	402.0	198.11				17.2	97.9	2.4	-17.0
62.0	17794	24.0	0.03691	68.6	0.50	80.0	1.9031	201.5	414.7	201.53				15.1	99.2	2.4	-14.9
63.0	18097	30.6	0.03801	87.2	0.67	76.0	1.8808	202.7	423.2	202.68				13.4	98.1	1.9	-13.3
64.0	18417	33.5	0.03938	95.4	0.77	72.0	1.8573	202.7	429.8	202.68				13.7	94.7	1.1	-13.6
64.5	18584	36.1	0.04018	102.5	0.86	70.0	1.8451	203.2	434.5	203.22				14.1	88.0	-0.5	-14.1
65.0	18757	38.8	0.04101	109.9	0.95	68.0	1.8325	203.8	439.3	203.79				14.7	81.6	-2.1	-14.6
66.0	19027	46.8	0.04254	131.4	1.19	65.0	1.8129	205.7	449.2	205.71				17.2	75.7	-4.3	-16.7
67.0	19311	52.1	0.04438	146.4	1.39	62.0	1.7924	205.7	455.3	205.71				18.1	85.1	-1.5	-18.0
67.7	19509	55.3	0.04579	154.2	1.53	60.0	1.7782	206.9	462.3	206.93				18.5	81.8	-2.7	-18.3
68.0	19611	56.9	0.04651	158.2	1.60	59.0	1.7709	207.6	465.9	207.55				18.8	80.1	-3.2	-18.5
69.0	19928	57.0	0.04886	158.2	1.69	56.0	1.7482	207.9	473.8	207.95				21.4	73.4	-6.1	-20.5
70.0	20150	57.9	0.05051	159.5	1.78	54.0	1.7324	209.7	482.8	209.70				25.1	80.7	-4.0	-24.8
71.0	20503	76.9	0.05355	209.0	2.50	51.0	1.7076	212.5	497.2	212.47				27.0	85.5	-2.1	-26.9
71.3	20625	77.7	0.05477	211.4	2.58	50.0	1.6990	212.2	499.4	212.17				26.0	87.4	-1.2	-26.0
72.0	20879	79.3	0.05728	216.3	2.74	48.0	1.6812	211.6	503.8	211.56				24.0	91.6	0.7	-24.0
73.0	21143	80.5	0.05997	218.2	2.90	46.0	1.6628	213.0	513.4	213.00				26.2	92.7	1.2	-26.2
74.0	21421	93.4	0.06302	251.2	3.52	44.0	1.6435	214.8	524.2	214.75				25.8	89.2	-0.4	-25.8
75.0	21713	87.9	0.06634	236.9	3.47	42.0	1.6232	214.2	530.0	214.23				22.3	90.2	0.1	-22.3
76.0	22018	92.7	0.06982	251.2	3.84	40.0	1.6021	213.2	534.8	213.18				26.6	91.1	0.5	-26.6
77.0	22338	98.7	0.07370	267.2	4.30	38.0	1.5798	213.2	542.7	213.18				31.5	94.6	2.5	-31.4
78.0	22676	100.8	0.07795	270.9	4.64	36.0	1.5563	214.8	555.2	214.75				31.9	96.4	3.5	-31.7
78.5	22853	106.0	0.08031	283.4	5.03	35.0	1.5441	215.8	562.5	215.83				29.8	97.5	3.9	-29.5
79.0	23037	111.3	0.08273	296.3	5.43	34.0	1.5315	216.9	570.1	216.94				27.7	98.9	4.3	-27.3
80.0	23227	117.5	0.08543	311.0	5.90	33.0	1.5185	218.1	578.0	218.09				27.1	99.9	4.7	-26.7
81.0	23626	119.2	0.09127	314.9	6.37	31.0	1.4914	218.6	589.7	218.57				26.5	95.7	2.6	-26.4
82.0	23835	118.6	0.09434	313.0	6.55	30.0	1.4771	218.7	595.7	218.73				27.5	90.6	0.3	-27.5
83.0	24277	125.9	0.10100	331.1	7.45	28.0	1.4472	219.5	609.8	219.53				26.9	87.3	-1.3	-26.9
84.0	24754	137.2	0.10869	359.7	8.74	26.0	1.4150	220.2	624.6	220.16				18.9	82.0	-2.6	-18.7
85.0	25007	136.7	0.11293	355.8	9.06	25.0	1.3979	221.9	636.5	221.87				20.5	82.3	-2.8	-20.3
86.0	25408	136.8	0.11961	356.8	9.65	23.5	1.3711	221.4	646.5	221.41				21.6	89.5	-0.2	-21.6
87.0	25835	135.2	0.12669	353.6	10.18	22.0	1.3424	220.8	657.0	220.79				17.0	84.0	-1.8	-16.9
88.0	26136	139.1	0.13172	362.0	10.98	21.0	1.3222	221.9	669.0	221.87				19.8	81.7	-2.9	-19.6
88.7	26452	134.7	0.13695	350.8	11.16	20.0	1.3010	221.8	678.2	221.77				21.3	85.3	-1.7	-21.2
89.0	26617	132.5	0.13966	345.0	11.26	19.5	1.2900	221.7	682.9	221.71				22.1	87.0	-1.2	-22.0
90.0	26962	137.4	0.14527	349.5	12.30	18.5	1.2672	226.9	709.5	226.91				21.8	92.2	0.8	-21.8
90.7	27332	136.5	0.15126	344.6	12.93	17.5	1.2430	228.7	726.7	228.72				20.7	98.5	3.1	-20.5
91.0	27487	136.2	0.15376	342.6	13.19	17.1	1.2330	229.5	733.8	229.47				20.3	101.3	4.0	-19.9
92.0	27892	126.2	0.15999	317.0	12.98	16.1	1.2068	229.8	747.5	229.75				15.2	115.1	6.4	-13.7
93.0	28192	124.0	0.16438	309.2	13.34	15.4	1.1875	231.6	763.0	231.56				16.0	118.4	7.6	-14.1
93.3	28370	120.8	0.16685	301.2	13.33	15.0	1.1761	231.5	768.7	231.52				14.0	120.4	7.1	-12.1
94.0	28789	113.2	0.17264	282.4	13.30	14.1	1.1492	231.4	782.0	231.42				9.4	128.7	5.9	-7.4
95.0	29238	106.3	0.17835	262.6	13.35	13.2	1.1206	233.8	804.9	233.76				4.2	186.4	4.1	0.5
95.7	29609	100.4	0.18273	249.2	13.30	12.5	1.0969	232.5	813.2	232.52				6.1	154.3	5.5	-2.6
96.0	29775	97.7	0.18469	243.3	13.27	12.2	1.0864	232.0	817.0	231.98				7.3	146.6	6.1	-4.0
97.0	30357	92.2	0.19110	228.6	13.65	11.2	1.0492	232.9	840.6	232.94				9.7	162.8	9.2	-2.9
98.0	30797	87.5	0.19568	216.6	13.81	10.5	1.0212	233.3	857.8	233.35				8.3	184.0	8.3	0.6
98.7	31130	84.6	0.19897	209.5	14.01	10.0	1.0000	233.1	868.8	233.06				5.6	213.8	4.6	3.1
99.0	31268	83.3	0.20033	206.6	14.09	9.8	0.9912	232.9	873.3	232.94				5.2	233.1	3.1	4.1
100.0	31773	77.5	0.20503	192.5	14.11	9.1	0.9590	232.4	889.9	232.39				7.9	301.2	-4.1	6.7
101.0	32237	73.8	0.20910	183.2	14.39	8.5	0.9294	232.5	908.0	232.53				8.5	14.3	-8.2	-2.1
101.7	32648	69.1	0.21247	172.2	14.31	8.0	0.9031	231.8	921.2	231.85				10.7	44.6	-7.6	-7.5
102.0	32821	67.2	0.21388	167.5	14.27	7.8	0.8921	231.6	926.7	231.56				12.2	53.0	-7.3	-9.7
103.0	33457	58.8	0.21856	147.1	13.72	7.1	0.8513	230.9	949.1	230.87				15.0	76.9	-3.4	-14.6
103.1	33553	58.5	0.21920	146.2	13.85	7.0	0.8451	231.1	953.8	231.06				15.7	79.0	-3.0	-15.4
104.0	34160	56.7	0.22328	140.8	14.67	6.4	0.8062	232.3	983.5	232.25				20.7	88.8	-0.4	-20.7
104.7	34599	51.8	0.22598	128.5	14.26	6.0	0.7782	232.6	1003.4	232.61				24.2	88.8	-0.5	-24.2
105.0	34830	49.2	0.22739	122.0	14.05	5.8	0.7634	232.8	1013.9	232.80				26.1	88.8	-0.5	-26.1
106.0	35708	46.9	0.23227	116.0	15.25	5.1	0.7076	233.6	1055.6	233.62				22.4	86.0	-1.6	-22.4
106.3	35843	45.2	0.23296	111.8	14.97	5.0	0.6990	233.6	1061.4	233.57				26.4	86.4	-1.7	-26.3
107.0	36122	41.7	0.23439	103.2	14.41	4.8	0.6812	233.5	1073.4	233.48				34.5	86.9	-1.9	-34.5
107.9	37370	37.5	0.24005	92.3	15.51	4.0	0.6021	234.3	1135.1	234.32				46.4	89.8	-0.1	-46.4
108.0	37544	36.9	0.24083	90.8	15.67	3.9	0.5911	234.4	1143.6	234.43				48.0	90.1	0.1	-48.0
108.8	38288	33.3	0.24379	81.7	15.74	3.5	0.5441	235.4	1184.6	235.39				999.9	999.9	999.9	999.9
109.0	38488	32.3	0.24458	79.2	15.76	3.4	0.5315	235.7	1195.5	235.65				999.9	999.9	999.9	999.9

*** RECORDED INSTRUMENT HUMIDITIES ***
*** LESS THAN 20 PRCNT NOT LISTED ***



FT SHERMAN ECC

OMIT TO END

APPENDIX B

ROCKETSONDE DATA

SCALES OF MOTION EXPERIMENT

Francis J. Schmidlin

Wallops Flight Center

and

Greg Kloos

University of Dayton Research Institute

PAGE 348 INTENTIONALLY BLANK

78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	16	1830		031	010	000	000	01	01

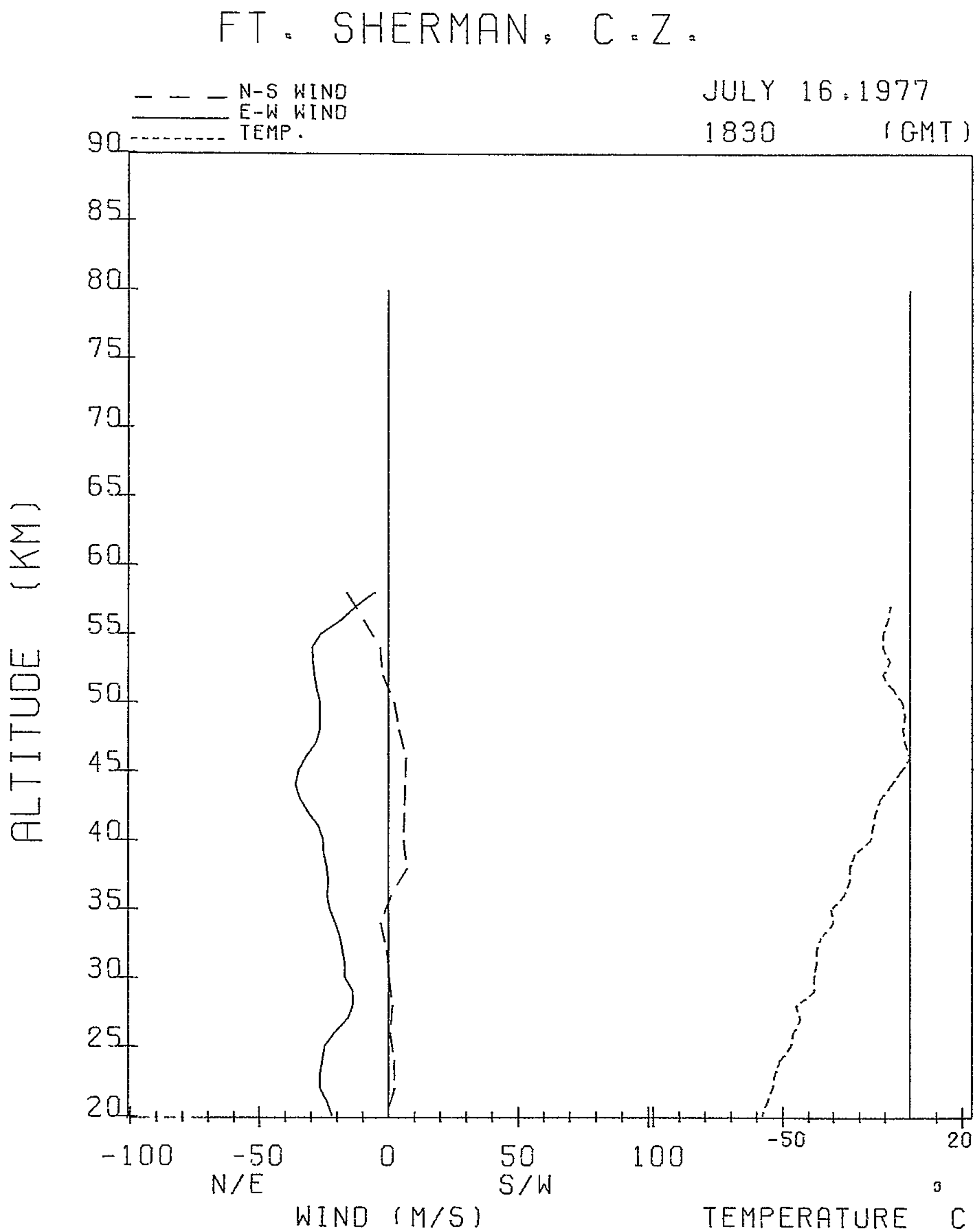
QUESTIONABLE DATA

BASE DATA

		WHT	WHB	THT	THB	SQ	SHT	SHB	RT	RP
GEOM HGT	DECAMTRS									
PRESSURE	MBS									
TEMP	DEGC									

SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY G M-3	SOS MPS	SPC A	SPC B
05900	999	999	9999	9999	999	9999		9.99999	9.99999	999		
05800	021	017	-016	-006	083	9999		9.99999	9.99999	999		
05700	043	019	-014	-013	083	-008		9.99999	9.99999	327		
05600	063	021	-010	-019	079	-009		9.99999	9.99999	326		
05500	078	027	-006	-027	075	-011		9.99999	9.99999	325		
05414	086	030	-002	-030	071	-012		9.99999	9.99999	324		
05400	084	030	-003	-030	070	-011		9.99999	9.99999	325		
05313	082	030	-004	-030	069	-007		9.99999	9.99999	327		
05300	083	030	-003	-029	068	-008		9.99999	9.99999	327		
05213	083	029	-003	-029	067	-012		9.99999	9.99999	324		
05200	086	029	-002	-029	063	-011		9.99999	9.99999	325		
05100	091	028	000	-028	059	-007		9.99999	9.99999	327		
05000	095	027	002	-027	053	-003		9.99999	9.99999	330		
04970	096	027	003	-027	052	-002		9.99999	9.99999	331		
04900	097	027	003	-026	050	-002		9.99999	9.99999	330		
04800	099	027	004	-027	048	-003		9.99999	9.99999	330		
04755	100	027	005	-027	047	-003		9.99999	9.99999	330		
04700	101	029	005	-028	046	-002		9.99999	9.99999	331		
04618	102	030	006	-030	045	001		9.99999	9.99999	332		
04600	102	033	007	-032	043	000		9.99999	9.99999	331		
04500	102	036	007	-035	040	-004		9.99999	9.99999	329		
04400	100	037	006	-036	037	-008		9.99999	9.99999	326		
04300	099	035	005	-035	037	-012		9.99999	9.99999	324		
04279	098	034	005	-034	036	-013		9.99999	9.99999	323		
04200	101	032	006	-031	034	-014		9.99999	9.99999	323		
04100	103	028	006	-028	032	-015		9.99999	9.99999	322		
04012	105	026	007	-026	030	-015		9.99999	9.99999	322		
04000	103	026	006	-026	029	-016		9.99999	9.99999	321		
03916	102	026	005	-025	028	-022		9.99999	9.99999	318		
03900	105	026	007	-025	027	-022		9.99999	9.99999	318		
03800	107	025	007	-024	025	-024		9.99999	9.99999	316		
03786	110	024	008	-023	025	-025		9.99999	9.99999	316		
03700	104	024	006	-023	024	-024		9.99999	9.99999	316		
03639	101	024	005	-023	023	-024		9.99999	9.99999	317		
03600	092	024	001	-024	022	-026		9.99999	9.99999	315		
03528	085	024	-002	-024	021	-031		9.99999	9.99999	312		
03500	085	023	-002	-023	020	-031		9.99999	9.99999	312		
03400	081	021	-003	-021	018	-030		9.99999	9.99999	313		
03300	086	019	-001	-019	017	-035		9.99999	9.99999	309		
03280	087	018	-001	-018	016	-036		9.99999	9.99999	309		
03200	088	018	-001	-018	015	-037		9.99999	9.99999	308		
03100	092	017	000	-017	015	-037		9.99999	9.99999	308		
03000	091	017	000	-017	015	-038		9.99999	9.99999	308		
02900	091	014	000	-014	013	-038		9.99999	9.99999	307		
02884	089	013	000	-013	013	-038		9.99999	9.99999	307		
02860	089	013	000	-013	013	-043		9.99999	9.99999	304		
02820	089	013	000	-013	013	-046		9.99999	9.99999	302		
02800	096	014	001	-014	012	-045		9.99999	9.99999	303		
02718	102	013	003	-013	011	-042		9.99999	9.99999	305		
02700	094	016	001	-016	011	-043		9.99999	9.99999	305		
02658	093	019	001	-019	011	-044		9.99999	9.99999	303		
02600	091	021	000	-021	011	-046		9.99999	9.99999	302		
02595	086	024	-002	-024	011	-046		9.99999	9.99999	302		
02552	086	024	-002	-024	011	-044		9.99999	9.99999	303		
02500	090	025	000	-025	010	-047		9.99999	9.99999	302		
02400	095	026	002	-026	009	-051		9.99999	9.99999	299		
02397	099	027	004	-027	009	-051		9.99999	9.99999	299		
02300	097	027	003	-027	008	-053		9.99999	9.99999	298		
02200	095	027	002	-026	008	-054		9.99999	9.99999	297		
02100	090	024	000	-024	008	-056		9.99999	9.99999	296		
02000	087	022	-001	-022	008	-058		9.99999	9.99999	294		


FT. SHERMAN, C.Z.
N-S WIND
E-W WIND
TEMP.
JULY 16,1977
1830 (GMT)
ALTITUDE (KM)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
-100
-50
0
50
100
N/E
S/W
WIND (M/S)
-50
20
TEMPERATURE C

78801 Y M D GMT TR WS TS AC BC WC TC
FT. SHERMAN, C.Z.
09.3N 080.0W 77 07 17 1900 +088 031 010 000 000 01 01

QUESTIONABLE DATA

BASE DATA

		WHT	WHB	THT	THB	SQ	SHT	SHB	RT	RP
GEOM HGT	2985 DECAMTRS									
PRESSURE	12.20 MBS									
TEMP	-39.4 DEGC								01	00

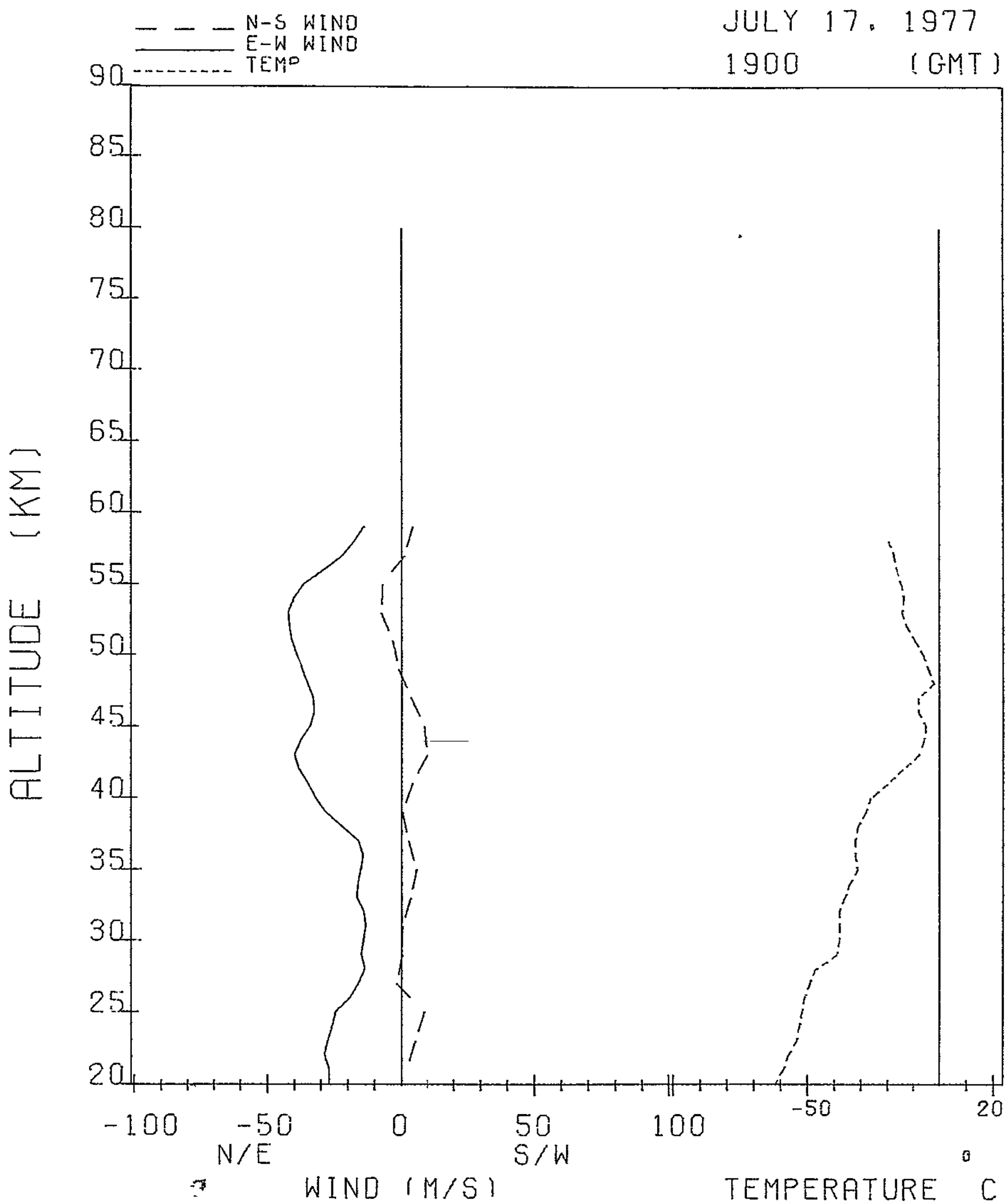
SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY G M^{-3}	SOS MPS	SPC A	SPC B
06000	999	999	9999	9999	999	9999		9.99999	9.99999	999		
05900	107	015	004	-014	083	9999		9.99999	9.99999	999		
05875	107	015	004	-014	083	-020		2.645-1	3.641-1	319		
05800	100	018	003	-018	083	-019		2.916-1	3.995-1	320		
05700	093	022	001	-022	083	-017		3.325-1	4.525-1	321		
05600	085	029	-003	-029	083	-016		3.788-1	5.122-1	322		
05500	079	037	-007	-036	076	-014		4.313-1	5.794-1	323		
05444	077	040	-009	-039	073	-013		4.644-1	6.216-1	324		
05400	078	041	-008	-040	070	-013		4.907-1	6.576-1	323		
05300	080	043	-008	-043	063	-014		5.583-1	7.500-1	323		
05256	082	043	-006	-043	063	-014		5.916-1	7.956-1	323		
05200	084	042	-005	-042	063	-012		6.352-1	8.479-1	324		
05100	086	041	-003	-041	063	-009		7.217-1	9.509-1	326		
05031	087	040	-002	-040	063	-006		7.884-1	1.030+0	328		
05000	088	039	-001	-039	059	-006		8.188-1	1.067+0	328		
04900	089	037	000	-037	053	-004		9.278-1	1.199+0	329		
04809	090	036	000	-036	048	-002		1.040+0	1.335+0	330		
04800	092	035	001	-035	047	-002		1.051+0	1.351+0	330		
04700	097	033	004	-033	045	-008		1.191+0	1.563+0	327		
04659	100	032	006	-032	045	-010		1.256+0	1.663+0	325		
04600	102	033	007	-032	045	-008		1.352+0	1.777+0	326		
04500	105	035	009	-033	043	-005		1.533+0	1.992+0	328		
04485	106	036	010	-035	042	-005		1.566+0	2.031+0	329		
04400	106	039	011	-037	040	-006		1.739+0	2.269+0	328		
04300	104	041	010	-039	038	-008		1.973+0	2.594+0	326		
04200	101	039	008	-038	036	-014		2.243+0	3.016+0	323		
04103	099	036	006	-036	035	-020		2.552+0	3.507+0	319		
04100	097	035	004	-035	033	-020		2.558+0	3.516+0	319		
04047	095	033	003	-033	030	-019		2.749+0	3.772+0	320		
04006	095	033	003	-033	030	-026		2.905+0	4.100+0	315		
04000	093	032	002	-032	030	-026		2.927+0	4.132+0	315		
03900	091	028	001	-028	028	-028		3.356+0	4.763+0	314		
03861	090	025	000	-025	028	-026		3.544+0	4.986+0	316		
03813	090	025	000	-025	028	-031		3.783+0	5.440+0	312		
03800	093	022	001	-022	026	-031		3.853+0	5.545+0	312		
03700	101	016	003	-016	023	-032		4.431+0	6.412+0	311		
03650	109	014	005	-014	022	-033		4.752+0	6.896+0	311		
03600	112	015	006	-014	021	-032		5.096+0	7.375+0	311		
03512	117	015	007	-013	020	-031		5.764+0	8.298+0	312		
03500	112	016	006	-015	020	-031		5.861+0	8.448+0	312		
03400	108	017	005	-016	018	-034		6.743+0	9.806+0	310		
03300	102	017	003	-016	016	-036		7.768+0	1.140+1	309		
03200	095	014	001	-014	015	-038		8.960+0	1.327+1	308		
03177	089	013	000	-013	015	-038		9.259+0	1.374+1	307		
03100	092	013	001	-013	014	-038		1.034+1	1.533+1	307		
03000	095	014	001	-014	014	-038		1.194+1	1.766+1	308		
02985	100	015	002	-015	014	-038		1.220+1	1.804+1	308		
02946	100	015	002	-015	014	-037		1.290+1	1.906+1	308		
02900	091	015	000	-015	013	-039		1.379+1	2.050+1	307		
02866	087	016	-001	-016	013	-040		1.447+1	2.162+1	306		
02829	087	016	-001	-016	013	-046		1.529+1	2.345+1	302		
02800	075	014	-004	-013	012	-047		1.596+1	2.455+1	302		
02700	084	016	-002	-016	011	-049		1.855+1	2.880+1	300		
02602	088	017	-001	-017	010	-051		2.151+1	3.374+1	299		
02600	097	019	002	-019	010	-051		2.158+1	3.384+1	299		
02500	110	026	009	-025	009	-052		2.514+1	3.960+1	298		
02400	106	027	008	-026	008	-053		2.930+1	4.637+1	298		
02300	101	028	006	-028	008	-054		3.418+1	5.434+1	297		
02288	097	029	003	-029	008	-054		3.480+1	5.535+1	297		
02200	096	029	003	-028	008	-057		3.993+1	6.423+1	295		
02100	094	027	002	-027	007	-059		4.674+1	7.616+1	293		
02000	093	027	001	-027	007	-062		5.480+1	9.048+1	291		

SOUNDING CONSTANT PRESSURE LEVELS (HGT IN GEOPOTENTIAL DECAMTRS)

HGT	DEG	MPS	N-S	E-W	FV	TEMP	TC	PRESS	DENSITY	SOS	SPC A	SPC B
05716	100	018	003	-018		-018		3.000-1	4.104-1	320		
05500	082	033	-005	-033		-015		4.000-1	5.394-1	322		
05074	085	042	-003	-042		-010		7.000-1	9.252-1	326		
04795	090	036	000	-036		-002		1.000+0	1.287+0	330		
04254	103	041	009	-040		-009		2.000+0	2.635+0	326		
03950	092	031	001	-031		-027		3.000+0	4.239+0	315		
03587	109	014	005	-014		-033		5.000+0	7.241+0	311		
03351	105	018	005	-017		-034		7.000+0	1.020+1	310		
03102	089	013	000	-013		-038		1.000+1	1.483+1	307		
02634	088	017	-001	-017		-050		2.000+1	3.121+1	300		
02372	105	029	007	-028		-053		3.000+1	4.750+1	297		
02048	093	027	001	-027		-061		5.000+1	8.192+1	292		

FT. SHERMAN, C.Z.



78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	18	1915	+089	031	010	000	000	01	01

QUESTIONABLE DATA

BASE DATA
GEOM HGT 2490 DECAMTRS
PRESSURE 25.55 MBS
TEMP -49.1 DEGC

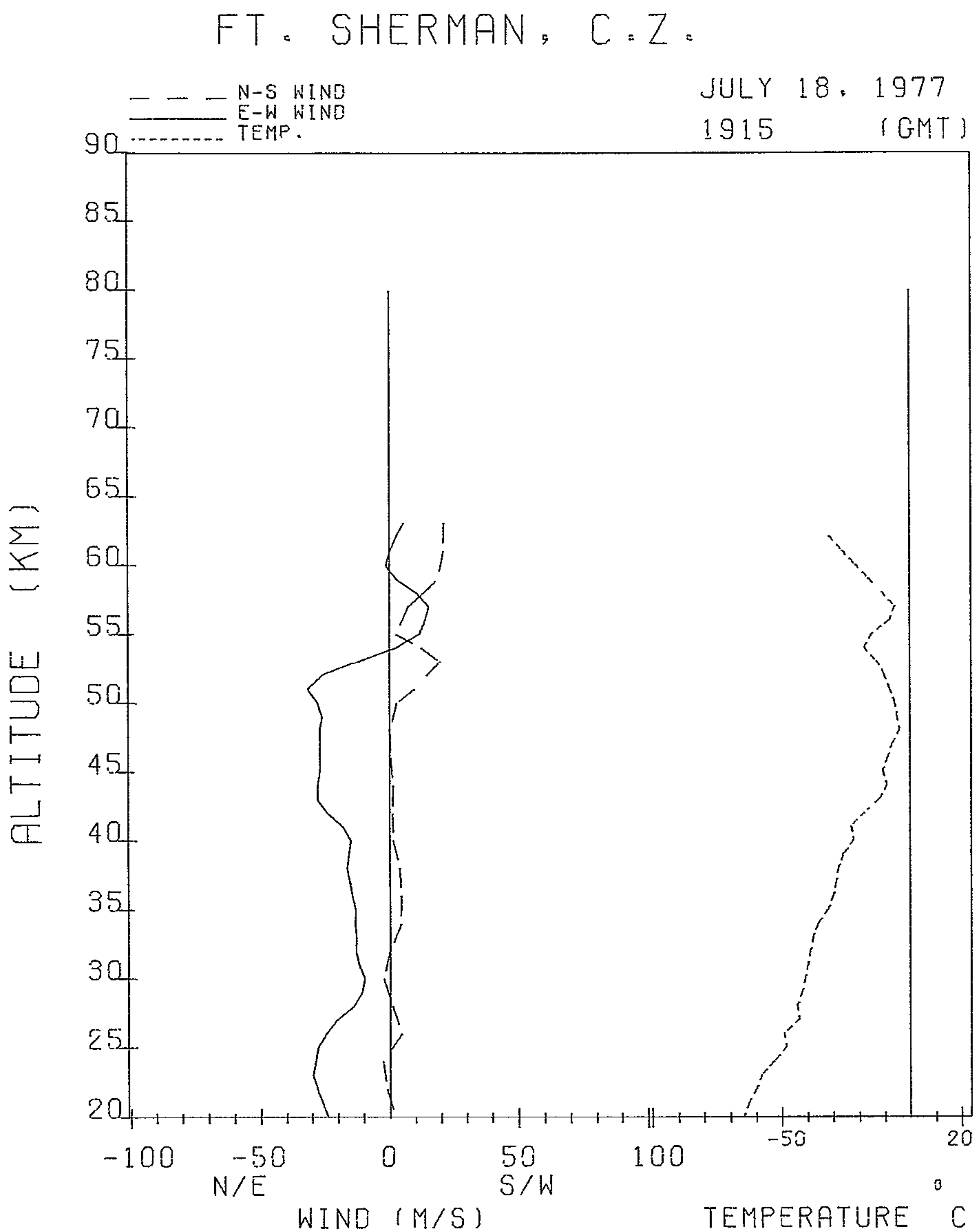
WHT	WHB	THT	THB	SQ	SHT	SHB	RT	RP
							01	00

SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND				FV	TEMP	TC	PRESS	DENSITY	SOS	SPC	SPC
	POLAR		COMPONENT									
	DEG	MPS	N-S	E-W	MPS	DEGC		MB	G M -3	MPS	A	B
06400	999	999	9999	9999	999	9999		9.99999	9.99999	999		
06300	194	022	021	005	125	9999		9.99999	9.99999	999		
06238	194	022	021	005	125	-033		1.643-1	2.386-1	311		
06200	187	021	021	003	113	-031		1.727-1	2.486-1	312		
06100	180	021	021	000	108	-026		1.981-1	2.795-1	315		
06000	176	020	020	-001	100	-021		2.265-1	3.132-1	318		
05900	188	019	018	003	100	-016		2.583-1	3.502-1	321		
05800	218	017	014	011	094	-011		2.939-1	3.906-1	325		
05700	244	017	007	015	089	-006		3.336-1	4.351-1	328		
05658	260	017	003	017	083	-004		3.519-1	4.555-1	329		
05600	261	014	002	014	079	-008		3.783-1	4.975-1	326		
05500	257	012	003	011	075	-015		4.301-1	5.814-1	322		
05436	249	010	004	009	071	-020		4.682-1	6.446-1	319		
05400	192	013	013	003	070	-018		4.902-1	6.699-1	320		
05300	149	023	020	-012	068	-013		5.584-1	7.479-1	323		
05247	138	035	026	-023	067	-010		5.987-1	7.935-1	325		
05200	128	033	020	-026	062	-010		6.347-1	8.388-1	326		
05100	107	033	010	-031	058	-008		7.205-1	9.464-1	327		
05000	096	028	003	-028	053	-006		8.174-1	1.067+0	328		
04900	090	026	000	-026	053	-005		9.267-1	1.203+0	329		
04837	090	027	000	-027	053	-004		1.004+0	1.298+0	329		
04800	090	027	000	-027	050	-004		1.050+0	1.362+0	329		
04700	090	027	000	-027	046	-007		1.191+0	1.556+0	327		
04600	091	027	000	-027	041	-009		1.351+0	1.779+0	326		
04500	092	027	001	-027	040	-011		1.535+0	2.037+0	325		
04400	093	028	002	-028	037	-009		1.744+0	2.298+0	326		
04375	094	029	002	-029	037	-008		1.802+0	2.370+0	326		
04300	093	028	002	-028	036	-012		1.982+0	2.648+0	324		
04200	093	024	001	-024	032	-018		2.258+0	3.080+0	321		
04108	093	020	001	-020	031	-023		2.552+0	3.550+0	317		
04100	093	018	001	-018	030	-023		2.579+0	3.586+0	317		
04025	093	014	001	-014	028	-022		2.854+0	3.952+0	318		
04000	096	015	001	-015	027	-022		2.950+0	4.099+0	318		
03900	100	016	003	-015	026	-026		3.377+0	4.757+0	315		
03843	102	017	004	-017	025	-028		3.653+0	5.185+0	314		
03800	104	017	004	-016	024	-028		3.873+0	5.512+0	314		
03714	106	017	005	-017	024	-030		4.365+0	6.246+0	313		
03700	107	016	005	-016	023	-029		4.446+0	6.350+0	313		
03667	108	015	005	-015	022	-028		4.658+0	6.624+0	314		
03600	108	015	005	-014	021	-030		5.105+0	7.306+0	313		
03500	110	014	005	-013	020	-032		5.868+0	8.476+0	311		
03450	111	014	005	-013	019	-033		6.295+0	9.140+0	311		
03400	108	014	004	-013	018	-036		6.756+0	9.919+0	309		
03360	108	014	004	-013	018	-038		7.153+0	1.060+1	308		
03300	100	013	002	-013	017	-038		7.794+0	1.156+1	307		
03200	089	013	000	-012	016	-039		8.999+0	1.337+1	307		
03193	082	012	-002	-012	016	-039		9.099+0	1.352+1	307		
03100	079	012	-002	-011	015	-040		1.040+1	1.551+1	306		
03000	076	010	-002	-010	014	-041		1.202+1	1.801+1	306		
02900	079	011	-002	-010	013	-042		1.390+1	2.093+1	305		
02821	083	011	-001	-011	012	-043		1.560+1	2.357+1	305		
02800	095	014	001	-014	011	-044		1.610+1	2.449+1	304		
02788	101	016	003	-016	011	-045		1.638+1	2.501+1	303		
02700	102	021	005	-021	011	-043		1.865+1	2.818+1	305		
02671	106	025	007	-025	010	-042		1.948+1	2.933+1	305		
02626	106	025	007	-025	010	-050		2.080+1	3.240+1	300		
02600	101	025	005	-025	010	-049		2.164+1	3.367+1	300		
02500	093	028	002	-028	009	-048		2.516+1	3.897+1	301		
02490	087	027	-001	-027	009	-048		2.554+1	3.954+1	301		
02400	085	029	-002	-028	009	-053		2.929+1	4.634+1	298		
02318	082	030	-004	-030	009	-057		3.325+1	5.367+1	295		
02300	084	030	-003	-029	008	-058		3.422+1	5.534+1	294		
02200	088	028	-001	-028	007	-060		4.008+1	6.558+1	293		
02100	093	026	002	-026	007	-063		4.703+1	7.786+1	291		
02000	096	024	003	-024	007	-065		5.531+1	9.265+1	289		

SOUNDING CONSTANT PRESSURE LEVELS (HGT IN GEOPOTENTIAL DECAMTRS)

06019	173	020	020	-003		-026		2.000-1	2.815-1	315		
05717	236	019	011	016		-010		3.000-1	3.973-1	325		
05500	268	011	000	011		-011		4.000-1	5.320-1	325		
05072	113	037	014	-034		-008		7.000-1	9.208-1	326		
04794	090	027	000	-027		-004		1.000+0	1.293+0	329		
04258	094	028	002	-028		-013		2.000+0	2.674+0	324		
03956	098	014	002	-014		-023		3.000+0	4.175+0	317		
03589	108	015	005	-015		-029		5.000+0	7.145+0	313		
03351	108	014	004	-013		-037		7.000+0	1.033+1	308		
03107	082	012	-002	-012		-039		1.000+1	1.490+1	307		
02637	106	025	007	-025		-045		2.000+1	3.052+1	303		
02372	082	030	-004	-030		-054		3.000+1	4.762+1	297		
02053	096	024	003	-024		-064		5.000+1	8.313+1	290		


FT. SHERMAN, C.Z.
JULY 18, 1977
1915 (GMT)
N-S WIND
E-W WIND
TEMP.
ALTITUDE (KM)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
-100 -50 0 50 100
N/E
S/W
WIND (M/S)
-50 20
TEMPERATURE °C

78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	19	1900	+114	031	010	000	000	01	01

QUESTIONABLE DATA

BASE DATA
GEOM HGT 2140 DECAMTRS
PRESSURE 44.35 MBS
TEMP -66.4 DEGC

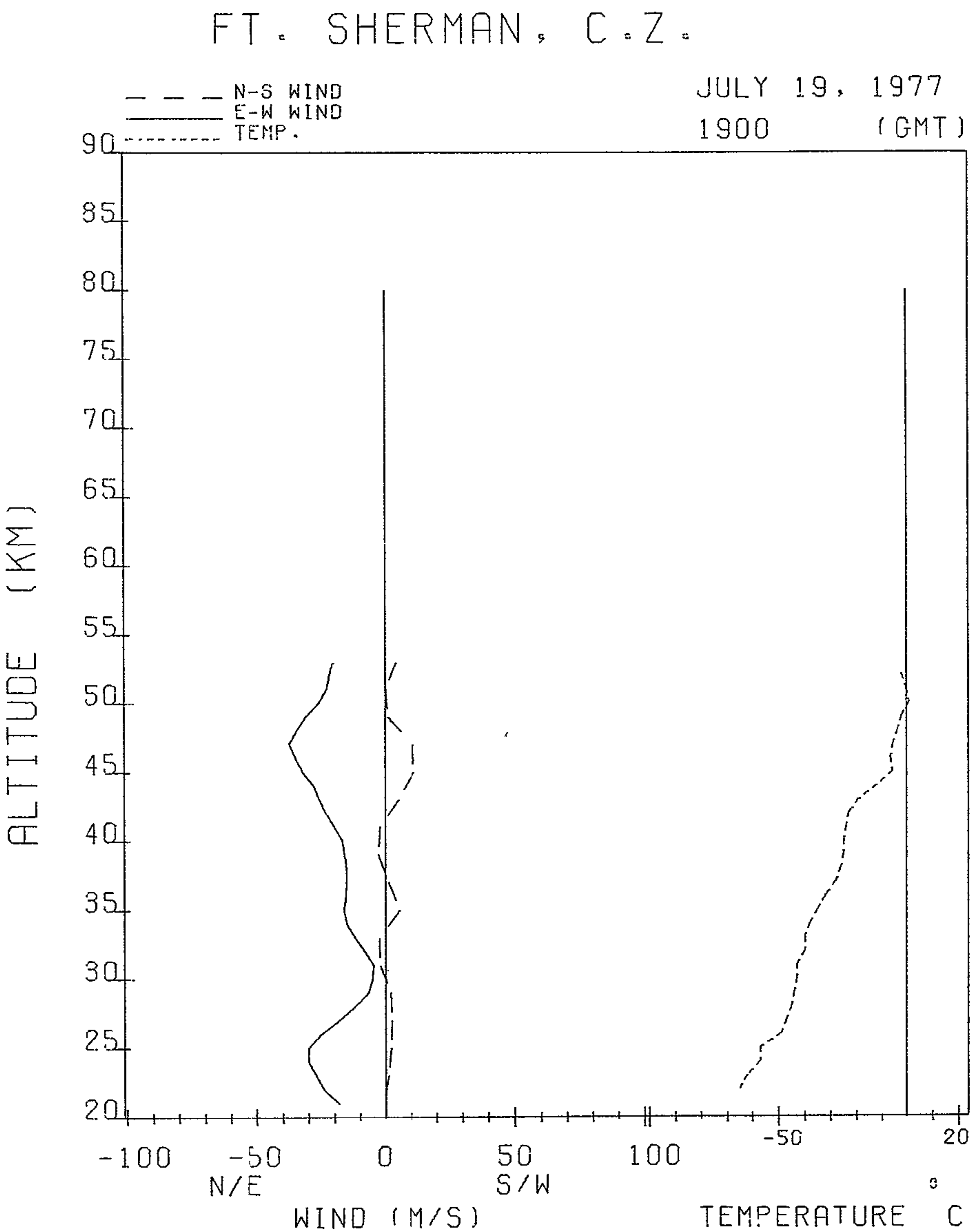
WHT	WHB	THT	THB	SQ	SHT	SHB	RT	RP
							01	00

SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY G M-3	SOS MPS	SPC A	SPC B
05300	102	021	004	-021	063	9999		9.99999	9.99999	999		
05219	102	021	004	-021	063	-003		6.082-1	7.832-1	330		
05200	095	022	002	-022	060	-002		6.228-1	8.005-1	330		
05100	090	023	000	-023	058	-000		7.044-1	8.970-1	332		
05050	085	024	-002	-024	056	002		7.486-1	9.488-1	332		
05000	087	026	-001	-026	054	001		7.963-1	1.013+0	332		
04900	092	031	001	-031	052	-002		9.007-1	1.156+0	330		
04800	100	035	006	-035	048	-004		1.020+0	1.319+0	329		
04700	106	039	010	-037	045	-006		1.156+0	1.507+0	328		
04643	108	039	013	-037	043	-007		1.240+0	1.625+0	327		
04600	109	037	012	-035	041	-007		1.311+0	1.716+0	327		
04500	109	034	011	-032	039	-006		1.487+0	1.940+0	328		
04468	109	031	010	-029	037	-006		1.548+0	2.017+0	328		
04400	107	029	008	-028	036	-012		1.689+0	2.255+0	324		
04347	105	027	007	-027	035	-017		1.809+0	2.463+0	321		
04300	101	026	005	-025	033	-019		1.925+0	2.641+0	320		
04209	097	024	003	-024	031	-023		2.172+0	3.025+0	317		
04200	092	023	001	-023	030	-023		2.200+0	3.064+0	317		
04100	083	020	-002	-020	028	-024		2.517+0	3.518+0	317		
04000	079	017	-003	-017	026	-025		2.882+0	4.040+0	316		
03900	079	016	-003	-016	024	-025		3.301+0	4.642+0	316		
03800	083	015	-002	-015	022	-026		3.782+0	5.336+0	315		
03752	084	015	-002	-015	021	-027		4.036+0	5.703+0	315		
03700	095	015	001	-015	020	-028		4.337+0	6.157+0	314		
03656	103	016	003	-015	020	-029		4.606+0	6.564+0	314		
03637	103	016	003	-015	020	-031		4.730+0	6.814+0	312		
03600	107	016	005	-016	019	-032		4.982+0	7.206+0	311		
03500	109	017	006	-016	018	-035		5.735+0	8.391+0	309		
03400	097	015	002	-015	017	-038		6.614+0	9.788+0	308		
03300	077	012	-003	-011	015	-040		7.639+0	1.144+1	306		
03296	060	010	-005	-008	014	-041		7.675+0	1.150+1	306		
03200	061	009	-004	-008	013	-040		8.831+0	1.320+1	306		
03149	053	007	-004	-006	012	-044		9.507+0	1.443+1	304		
03100	063	005	-003	-005	011	-043		1.022+1	1.550+1	304		
03000	093	005	000	-005	010	-043		1.183+1	1.791+1	304		
02914	114	005	002	-005	010	-043		1.341+1	2.026+1	305		
02900	108	007	002	-007	010	-044		1.371+1	2.082+1	304		
02877	106	009	003	-009	010	-046		1.418+1	2.172+1	302		
02832	106	009	003	-009	010	-043		1.515+1	2.296+1	304		
02800	101	012	002	-011	009	-045		1.589+1	2.428+1	303		
02766	097	014	002	-014	009	-047		1.671+1	2.574+1	302		
02700	098	018	002	-018	009	-047		1.844+1	2.837+1	302		
02638	096	021	002	-021	009	-047		2.024+1	3.111+1	302		
02600	095	025	002	-025	008	-049		2.142+1	3.323+1	301		
02566	095	029	002	-029	008	-051		2.254+1	3.527+1	299		
02532	095	029	002	-029	008	-057		2.376+1	3.822+1	295		
02500	094	030	002	-030	007	-057		2.497+1	4.018+1	295		
02411	092	032	001	-032	007	-057		2.870+1	4.617+1	295		
02400	092	030	001	-030	007	-057		2.920+1	4.710+1	295		
02300	092	027	001	-027	007	-062		3.422+1	5.654+1	291		
02258	092	025	001	-025	007	-065		3.663+1	6.115+1	290		
02200	090	024	000	-024	006	-065		4.022+1	6.730+1	289		
02140	088	022	-001	-022	006	-065		4.433+1	7.433+1	289		
02100	087	018	-001	-018	005	9999		9.99999	9.99999	999		

SOUNDING CONSTANT PRESSURE LEVELS (HGT IN GEOPOTENTIAL DECAMTRS)

HGT	DEG	MPS	N-S	E-W	FV	TEMP	TC	PRESS	DENSITY	SOS
05054	095	022	002	-022		000		7.000-1	8.917-1	332
04772	095	033	003	-033		-003		1.000+0	1.292+0	329
04235	097	024	003	-024		-020		2.000+0	2.757+0	319
03939	079	016	-003	-016		-025		3.000+0	4.209+0	316
03571	115	017	007	-016		-032		5.000+0	7.234+0	311
03337	086	014	-001	-014		-039		7.000+0	1.041+1	307
03094	053	007	-004	-006		-044		1.000+1	1.517+1	304
02630	096	021	002	-021		-047		2.000+1	3.074+1	302
02370	092	029	001	-029		-058		3.000+1	4.858+1	294


FT. SHERMAN, C.Z.
N-S WIND
E-W WIND
TEMP.
JULY 19, 1977
1900 (GMT)
ALTITUDE (KM)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
-100
-50
0
50
100
N/E
S/W
WIND (M/S)
-50
20
TEMPERATURE °C

78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	20	1850	-221	031	010	000	000	01	01

QUESTIONABLE DATA

BASE DATA

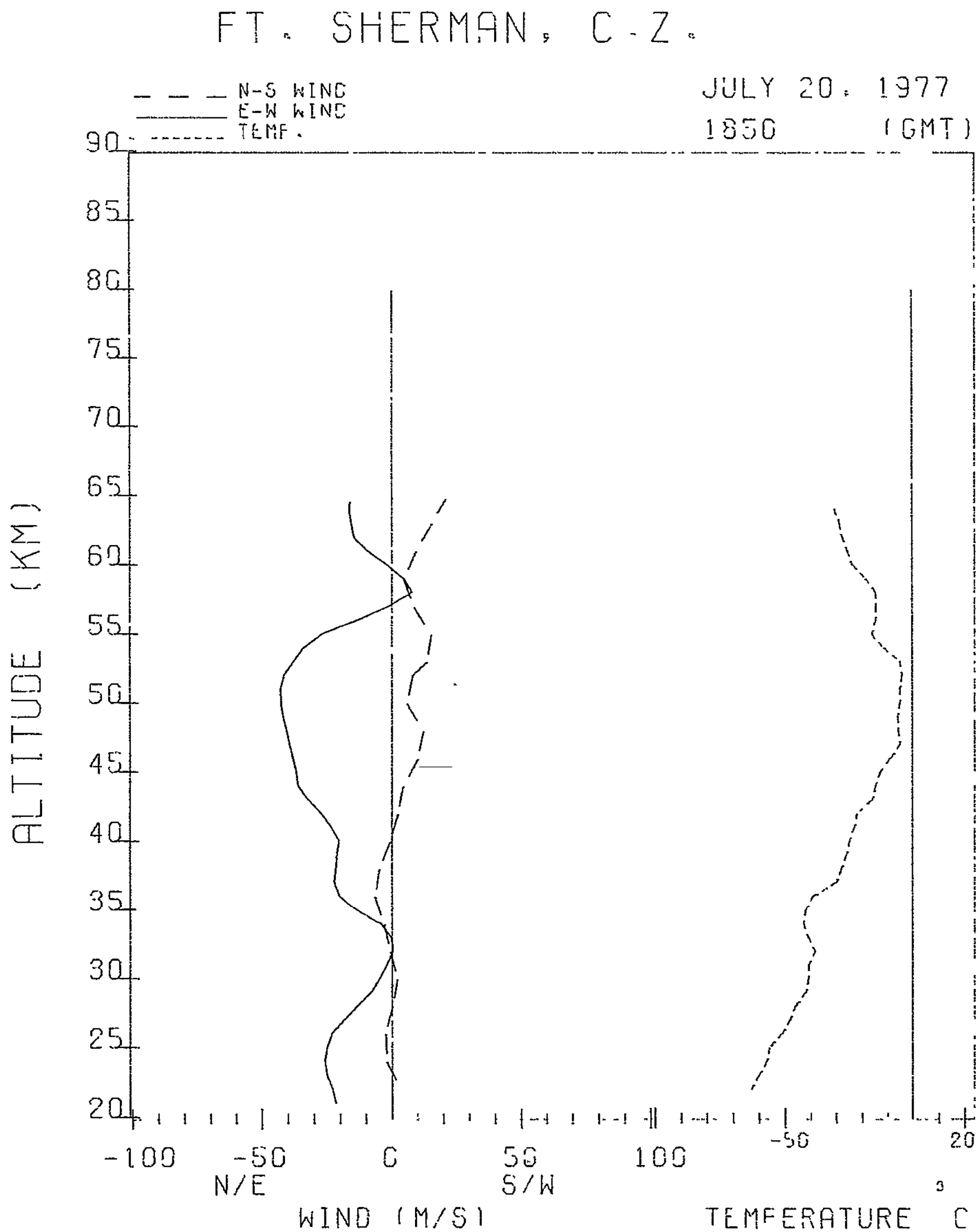
		WHT	WHB	THT	THB	SQ	SHT	SHB	RT	RP
GEOM HGT	2540 DECAMTRS									
PRESSURE	24.35 MBS									
TEMP	-53.5 DEGC								01	00

SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY G M^{-3}	SOS MPS	SPC A	SPC B
06600	999	999	9999	9999	999	9999		9.99999	9.99999	999		
06500	144	027	022	-016	111	9999		9.99999	9.99999	999		
06422	144	027	022	-016	111	-031		1.267-1	1.819-1	312		
06400	139	025	019	-016	111	-030		1.307-1	1.873-1	313		
06300	135	022	016	-016	111	-028		1.499-1	2.134-1	314		
06200	127	018	011	-015	111	-027		1.718-1	2.429-1	315		
06100	136	013	010	-009	107	-025		1.966-1	2.762-1	316		
06030	146	011	009	-006	106	-024		2.160-1	3.020-1	317		
06000	170	008	008	-001	101	-023		2.249-1	3.128-1	317		
05900	227	007	005	005	094	-018		2.568-1	3.511-1	320		
05809	262	008	001	008	091	-015		2.890-1	3.892-1	323		
05800	237	010	005	008	088	-014		2.925-1	3.939-1	323		
05700	176	009	009	-001	084	-014		3.329-1	4.472-1	323		
05615	163	016	015	-005	080	-013		3.712-1	4.976-1	323		
05600	138	019	014	-013	079	-014		3.788-1	5.091-1	323		
05523	121	028	015	-024	077	-017		4.185-1	5.693-1	321		
05500	120	031	016	-027	075	-016		4.313-1	5.840-1	322		
05400	114	037	015	-034	070	-011		4.906-1	6.510-1	325		
05300	110	040	014	-038	063	-005		5.568-1	7.240-1	328		
05267	106	041	012	-040	060	-004		5.803-1	7.497-1	329		
05200	101	042	008	-041	058	-004		6.308-1	8.165-1	329		
05100	097	043	005	-042	056	-005		7.147-1	9.275-1	329		
05000	098	043	006	-042	056	-005		8.100-1	1.054+0	328		
04900	104	043	010	-042	052	-006		9.184-1	1.198+0	328		
04827	107	043	013	-041	051	-007		1.006+0	1.315+0	327		
04800	107	042	013	-040	049	-006		1.041+0	1.357+0	328		
04732	109	042	014	-040	045	-003		1.134+0	1.464+0	329		
04700	108	041	013	-039	045	-005		1.180+0	1.532+0	329		
04600	105	039	010	-037	043	-009		1.339+0	1.765+0	326		
04500	101	037	007	-036	040	-013		1.522+0	2.039+0	323		
04482	099	036	006	-036	037	-014		1.557+0	2.091+0	323		
04400	097	036	005	-035	036	-015		1.733+0	2.335+0	322		
04310	095	035	003	-035	035	-015		1.948+0	2.632+0	322		
04300	096	032	003	-032	034	-016		1.975+0	2.681+0	321		
04260	095	030	003	-030	033	-021		2.080+0	2.873+0	319		
04200	095	027	003	-027	032	-022		2.254+0	3.122+0	318		
04166	097	023	003	-023	032	-022		2.360+0	3.274+0	318		
04100	093	023	001	-023	031	-023		2.578+0	3.591+0	317		
04000	088	020	-001	-020	030	-025		2.951+0	4.137+0	316		
03900	084	021	-002	-021	026	-026		3.381+0	4.770+0	315		
03800	077	022	-005	-021	023	-028		3.877+0	5.505+0	314		
03709	075	023	-006	-022	020	-029		4.391+0	6.272+0	313		
03700	074	023	-006	-022	020	-030		4.450+0	6.380+0	313		
03600	072	021	-007	-020	019	-039		5.126+0	7.629+0	307		
03574	075	019	-005	-018	019	-041		5.319+0	7.996+0	305		
03500	071	014	-005	-013	019	-042		5.926+0	8.938+0	305		
03400	056	005	-003	-004	018	-043		6.860+0	1.040+1	304		
03380	343	003	-003	001	017	-044		7.067+0	1.072+1	304		
03300	344	001	-001	000	016	-041		7.939+0	1.192+1	305		
03200	283	001	000	001	015	-038		9.173+0	1.360+1	307		
03197	119	001	001	-001	015	-038		9.212+0	1.365+1	307		
03131	119	001	001	-001	015	-041		1.014+1	1.524+1	305		
03100	149	003	002	-001	014	-041		1.060+1	1.592+1	305		
03000	119	005	002	-004	013	-041		1.226+1	1.840+1	306		
02933	127	007	004	-006	012	-041		1.353+1	2.030+1	306		
02900	108	008	003	-008	012	-042		1.419+1	2.139+1	305		
02800	091	013	000	-013	011	-046		1.644+1	2.519+1	302		
02761	086	015	-001	-015	011	-047		1.743+1	2.687+1	301		
02700	086	018	-001	-018	010	-048		1.909+1	2.956+1	301		
02678	086	020	-001	-020	009	-049		1.975+1	3.062+1	301		
02600	084	023	-002	-023	009	-051		2.221+1	3.484+1	299		
02544	083	024	-003	-024	009	-053		2.420+1	3.829+1	298		
02540	083	024	-003	-024	009	-053		2.435+1	3.858+1	297		
02500	085	025	-002	-025	008	-056		2.590+1	4.153+1	296		
02493	085	027	-002	-027	008	-056		2.617+1	4.204+1	295		
02400	086	026	-002	-026	008	-057		3.029+1	4.888+1	295		
02375	089	025	000	-025	008	-058		3.150+1	5.091+1	294		
02300	093	025	001	-025	007	-060		3.546+1	5.788+1	293		
02200	099	023	003	-023	007	-063		4.160+1	6.881+1	291		
02104	103	023	005	-022	007	-065		4.862+1	8.148+1	289		
02103	103	023	005	-022	007	-065		4.866+1	8.156+1	289		
02100	103	022	005	-021	006	9999		9.99999	9.99999	999		

SOUNDING CONSTANT PRESSURE LEVELS (HGT IN GEOPOTENTIAL DECAMTRS)

HGT	DEG	MPS	N-S	E-W	TEMP	PRESS	DENSITY	SOS
06018	146	011	009	-006	-025	2.000-1	2.807-1	316
05718	237	010	005	008	-014	3.000-1	4.038-1	323
05499	121	028	015	-024	-016	4.000-1	5.412-1	322
05067	096	042	004	-042	-005	7.000-1	9.080-1	329
04787	107	043	013	-041	-007	1.000+0	1.307+0	327
04253	095	030	003	-030	-018	2.000+0	2.727+0	321
03957	084	020	-002	-020	-025	3.000+0	4.208+0	316
03591	069	024	-008	-022	-037	5.000+0	7.391+0	308
03362	343	003	-003	001	-043	7.000+0	1.062+1	304
03119	119	001	001	-001	-041	1.000+1	1.499+1	306
02653	086	020	-001	-020	-049	2.000+1	3.105+1	300
02393	085	027	-002	-027	-057	3.000+1	4.841+1	295



FT. SHERMAN, C.Z.
N-S WIND
E-W WIND
TEMP.
JULY 20, 1977
1850 (GMT)
ALTITUDE (KM)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
-100
-50
0
50
100
N/E
S/W
WIND (M/S)
-50
20
TEMPERATURE C

78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	21	1815	-185	031	010	000	000	01	01

BASE DATA
GEOM HGT 2525 DECAMTRS
PRESSURE 24.85 MBS
TEMP -45.6 DEGC

QUESTIONABLE DATA

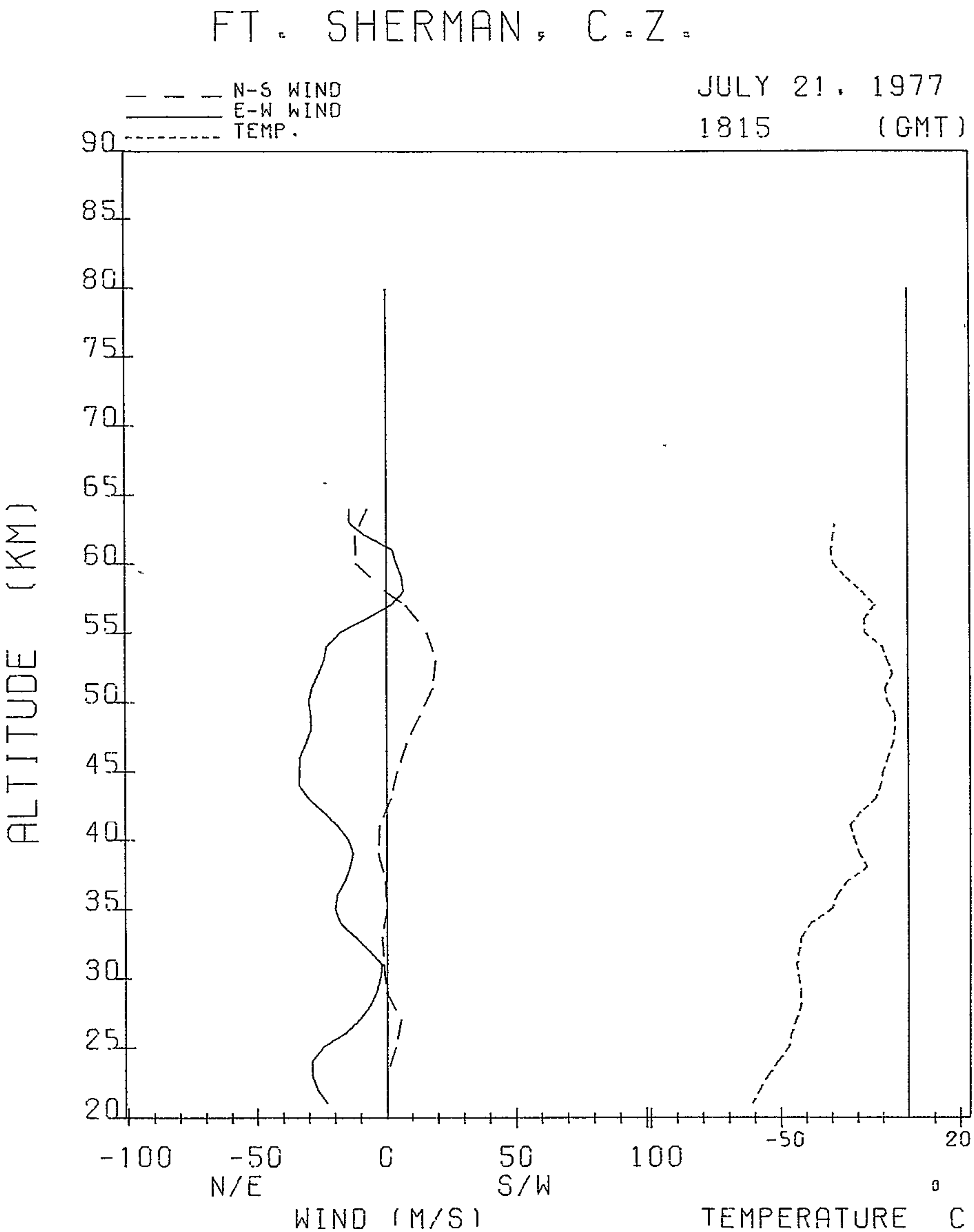
WHT	WHB	THT	THB	SO	SHT	SHB	RT	RP
							01	00

SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY G M^{-3}	SOS MPS	SPC A	SPC B
06520	999	999	9999	9999	999	-026		1.136-1	1.604-1	315		
06500	999	999	9999	9999	999	9999		9.99999	9.99999	999		
06400	064	016	-007	-014	125	9999		9.99999	9.99999	999		
06363	064	016	-007	-014	125	-044		1.417-1	2.156-1	304		
06300	064	016	-007	-014	125	-028		1.533-1	2.182-1	314		
06200	033	014	-012	-007	113	-029		1.758-1	2.510-1	313		
06100	350	014	-014	002	100	-030		2.017-1	2.890-1	313		
06030	350	014	-014	002	100	-031		2.220-1	3.189-1	312		
06000	340	012	-011	004	100	-029		2.314-1	3.302-1	313		
05900	316	009	-006	006	094	-024		2.650-1	3.701-1	317		
05800	269	007	000	007	089	-018		3.026-1	4.137-1	320		
05700	194	008	008	002	083	-013		3.446-1	4.615-1	323		
05600	150	015	013	-007	079	-017		3.924-1	5.329-1	321		
05529	135	022	016	-015	077	-019		4.308-1	5.911-1	320		
05500	132	024	016	-018	074	-017		4.471-1	6.074-1	321		
05433	124	027	015	-023	069	-011		4.874-1	6.470-1	325		
05400	127	029	017	-023	068	-010		5.087-1	6.734-1	325		
05300	129	031	020	-024	066	-008		5.775-1	7.586-1	327		
05213	130	032	021	-025	065	-006		6.448-1	8.411-1	328		
05200	127	033	020	-026	062	-006		6.551-1	8.555-1	328		
05100	122	034	018	-029	056	-009		7.433-1	9.789-1	326		
05070	120	034	017	-030	053	-009		7.720-1	1.019+0	326		
05000	118	034	016	-030	052	-008		8.437-1	1.107+0	327		
04900	114	032	013	-029	050	-005		9.569-1	1.244+0	328		
04845	112	031	012	-029	050	-004		1.025+0	1.327+0	329		
04800	110	031	011	-029	048	-005		1.085+0	1.408+0	329		
04700	104	032	008	-031	046	-006		1.230+0	1.605+0	328		
04600	100	034	006	-033	043	-008		1.395+0	1.833+0	327		
04500	097	034	004	-034	039	-010		1.584+0	2.094+0	326		
04400	095	034	003	-034	035	-011		1.801+0	2.394+0	325		
04319	096	033	003	-033	032	-013		1.998+0	2.671+0	324		
04300	093	030	001	-030	032	-013		2.048+0	2.748+0	323		
04200	088	024	-001	-024	030	-019		2.335+0	3.197+0	320		
04109	082	021	-003	-021	030	-024		2.636+0	3.676+0	317		
04100	081	019	-003	-019	029	-023		2.668+0	3.720+0	317		
04000	077	015	-003	-015	027	-021		3.051+0	4.214+0	318		
03900	075	013	-003	-013	024	-019		3.485+0	4.769+0	320		
03800	081	014	-002	-014	023	-016		3.975+0	5.390+0	321		
03777	085	015	-001	-015	022	-016		4.095+0	5.541+0	322		
03723	085	015	-001	-015	022	-023		4.400+0	6.133+0	317		
03700	089	016	000	-016	021	-024		4.542+0	6.352+0	317		
03600	092	019	001	-019	020	-028		5.205+0	7.391+0	314		
03568	092	020	001	-020	019	-029		5.433+0	7.752+0	313		
03505	092	020	001	-020	019	-029		5.928+0	8.455+0	313		
03500	091	020	000	-020	019	-030		5.975+0	8.550+0	313		
03463	089	020	000	-020	018	-035		6.288+0	9.209+0	309		
03400	084	018	-002	-018	017	-038		6.880+0	1.019+1	308		
03306	080	018	-003	-017	017	-042		7.880+0	1.188+1	305		
03300	081	012	-002	-012	016	-042		7.951+0	1.198+1	305		
03200	070	007	-002	-006	015	-043		9.203+0	1.392+1	304		
03100	060	002	-001	-002	014	-044		1.066+1	1.617+1	304		
03061	046	002	-002	-002	013	-044		1.129+1	1.714+1	304		
03000	057	003	-002	-003	012	-043		1.234+1	1.867+1	304		
02971	053	003	-002	-003	012	-042		1.288+1	1.944+1	305		
02900	093	004	000	-004	012	-042		1.429+1	2.154+1	305		
02804	103	006	001	-006	011	-042		1.644+1	2.474+1	305		
02800	113	007	003	-006	011	-042		1.654+1	2.490+1	305		
02700	118	012	006	-011	010	-044		1.915+1	2.913+1	304		
02600	108	017	005	-017	009	-046		2.222+1	3.413+1	302		
02586	105	022	006	-021	009	-047		2.270+1	3.492+1	302		
02526	105	022	006	-021	009	-046		2.481+1	3.796+1	303		
02525	105	022	006	-021	009	-046		2.485+1	3.804+1	303		
02500	098	025	003	-025	008	-047		2.579+1	3.968+1	302		
02400	091	029	001	-029	008	-051		2.999+1	4.708+1	299		
02376	088	031	-001	-031	008	-052		3.110+1	4.905+1	298		
02300	090	029	000	-029	007	-055		3.498+1	5.578+1	296		
02200	090	027	000	-027	006	-058		4.089+1	6.615+1	294		
02102	093	025	001	-025	006	-061		4.777+1	7.841+1	292		
02100	091	023	000	-023	006	-061		4.791+1	7.868+1	292		
02047	089	021	000	-021	006	-065		5.219+1	8.748+1	289		
02046	089	021	000	-021	006	-065		5.224+1	8.755+1	289		

SOUNDING CONSTANT PRESSURE LEVELS (HGT IN GEOPOTENTIAL DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY G M^{-3}	SOS MPS	SPC A	SPC B
06037	002	016	-016	-001		-030		2.000-1	2.866-1	313		
05741	299	007	-004	006		-019		3.000-1	4.105-1	320		
05527	135	022	016	-015		-017		4.000-1	5.445-1	321		
05097	124	034	019	-028		-008		7.000-1	9.182-1	327		
04819	112	031	012	-029		-004		1.000+0	1.297+0	329		
04281	096	033	003	-033		-013		2.000+0	2.673+0	324		
03979	079	016	-003	-016		-021		3.000+0	4.148+0	318		
03602	094	019	001	-019		-027		5.000+0	7.068+0	315		
03364	080	018	-003	-017		-038		7.000+0	1.039+1	307		
03122	075	002	-001	-002		-043		1.000+1	1.515+1	304		
02655	115	014	006	-013		-045		2.000+1	3.050+1	303		
02387	093	028	002	-026		-051		3.000+1	4.709+1	299		
02063	089	021	000	-021		-063		5.000+1	8.295+1	291		



FT. SHERMAN, C.Z.
N-S WIND
E-W WIND
TEMP.
JULY 21, 1977
1815 (GMT)
ALTITUDE (KM)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
-100
-50
0
50
100
N/E
S/W
WIND (M/S)
-50
20
TEMPERATURE °C

78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	22	1900	+059	031	010	000	000	01	01

QUESTIONABLE DATA

BASE DATA
GEOM HGT 2675 DECAMTRS
PRESSURE 19.60 MBS
TEMP -41.3 DEGC

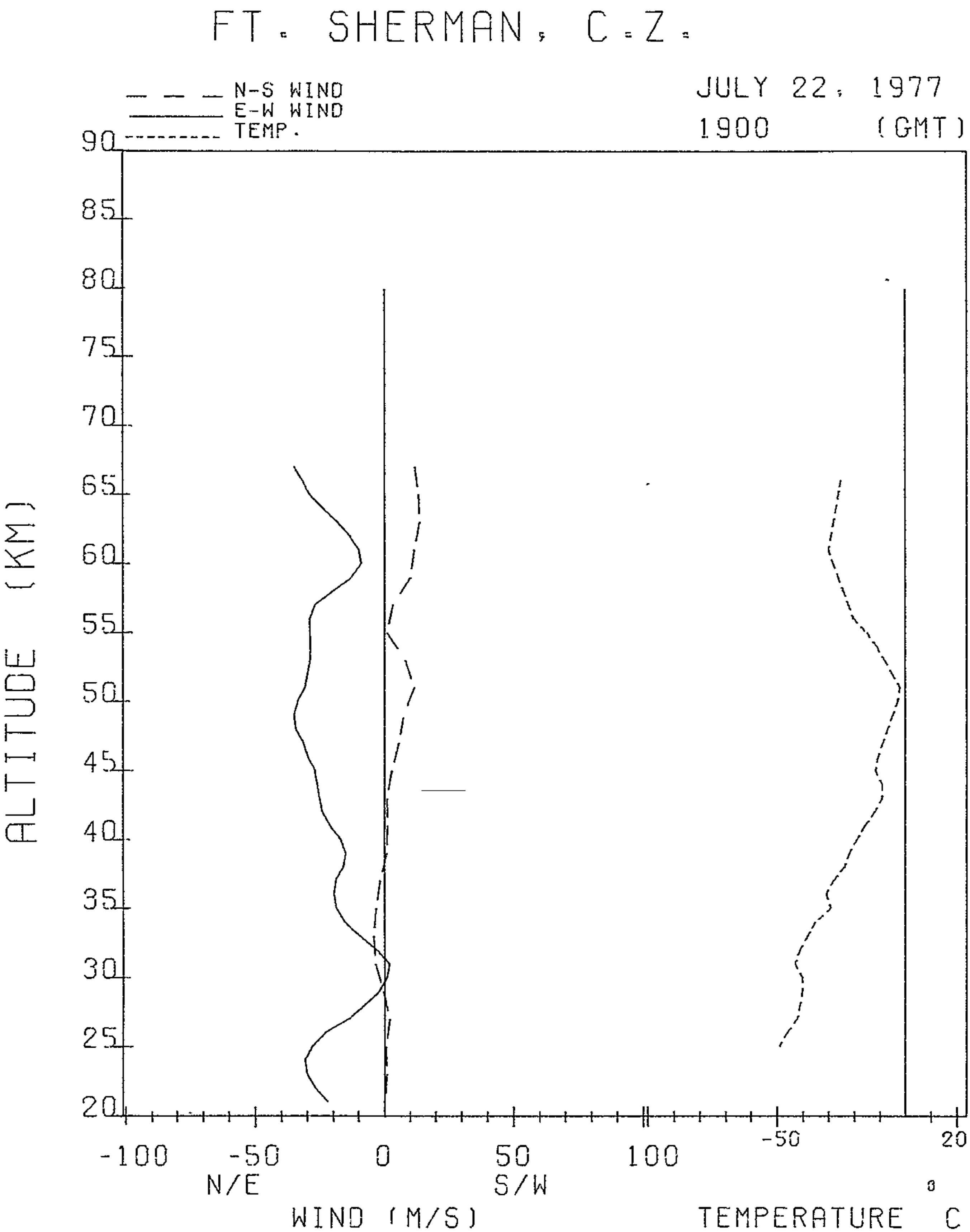
WHT	WHB	THT	THB	SQ	SHT	SHB	RT	RP
							01	00

SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY G M-3	SOS MPS	SPC A	SPC B
06900	999	999	9999	9999	999	9999		9.99999	9.99999	999		
06800	999	999	9999	9999	999	9999		9.99999	9.99999	999		
06700	109	037	012	-035	125	9999		9.99999	9.99999	999		
06625	109	037	012	-035	125	-025		9.780-2	1.372-1	316		
06600	112	034	013	-032	125	-025		1.012-1	1.421-1	316		
06500	115	032	014	-029	125	-026		1.158-1	1.632-1	315		
06400	121	028	014	-024	125	-027		1.326-1	1.876-1	315		
06300	127	023	014	-018	125	-028		1.519-1	2.158-1	314		
06200	134	019	013	-014	125	-029		1.741-1	2.484-1	313		
06100	140	015	012	-010	117	-030		1.997-1	2.861-1	313		
06000	142	014	011	-009	105	-028		2.291-1	3.254-1	314		
05900	129	016	010	-013	094	-026		2.624-1	3.697-1	315		
05800	109	021	007	-020	088	-024		3.003-1	4.197-1	317		
05700	097	027	003	-027	086	-022		3.433-1	4.760-1	318		
05600	090	029	000	-029	078	-020		3.921-1	5.394-1	319		
05593	090	029	000	-029	075	-020		3.955-1	5.436-1	319		
05500	092	029	001	-029	072	-015		4.469-1	6.027-1	322		
05473	094	028	002	-026	067	-013		4.626-1	6.204-1	323		
05400	098	029	004	-029	066	-011		5.084-1	6.761-1	325		
05300	106	030	009	-029	064	-008		5.774-1	7.591-1	326		
05200	111	032	011	-030	062	-005		6.548-1	8.513-1	328		
05100	111	033	012	-031	060	-002		7.417-1	9.534-1	330		
05065	108	034	011	-032	059	-001		7.745-1	9.918-1	331		
05000	106	035	010	-034	054	-003		8.395-1	1.081+0	330		
04900	102	036	008	-035	050	-005		9.509-1	1.234+0	329		
04800	100	035	006	-034	045	-007		1.078+0	1.411+0	327		
04700	100	032	006	-032	045	-008		1.224+0	1.615+0	326		
04600	099	030	005	-029	043	-011		1.391+0	1.850+0	325		
04542	099	028	004	-028	042	-013		1.497+0	2.001+0	324		
04500	096	027	003	-027	040	-012		1.581+0	2.107+0	324		
04400	093	026	001	-026	037	-009		1.797+0	2.374+0	326		
04325	092	025	001	-025	036	-008		1.976+0	2.595+0	327		
04300	092	025	001	-025	034	-009		2.041+0	2.689+0	326		
04200	093	024	001	-024	032	-012		2.320+0	3.100+0	324		
04183	093	023	001	-023	030	-013		2.369+0	3.173+0	323		
04100	093	021	001	-021	029	-016		2.642+0	3.572+0	322		
04017	092	018	001	-016	028	-018		2.946+0	4.022+0	320		
04000	093	017	001	-017	027	-019		3.014+0	4.131+0	320		
03943	094	015	001	-015	026	-022		3.250+0	4.515+0	318		
03900	093	015	001	-015	025	-022		3.443+0	4.778+0	318		
03873	094	015	001	-015	024	-022		3.570+0	4.950+0	318		
03800	091	016	000	-016	023	-024		3.940+0	5.518+0	316		
03700	085	019	-002	-019	021	-028		4.516+0	6.412+0	314		
03682	082	020	-003	-020	020	-028		4.626+0	6.584+0	314		
03600	080	020	-004	-020	019	-031		5.185+0	7.445+0	312		
03575	077	020	-005	-020	018	-031		5.366+0	7.726+0	312		
03500	080	019	-003	-019	018	-029		5.956+0	8.506+0	313		
03495	080	018	-003	-018	018	-029		5.996+0	8.558+0	313		
03445	080	018	-003	-018	018	-033		6.428+0	9.341+0	311		
03400	076	016	-004	-016	017	-035		6.850+0	1.001+1	310		
03300	065	010	-004	-009	015	-038		7.899+0	1.170+1	308		
03200	033	005	-004	-003	014	-041		9.127+0	1.371+1	305		
03158	327	004	-003	002	014	-043		9.699+0	1.465+1	305		
03100	327	004	-003	002	013	-043		1.056+1	1.596+1	305		
03079	309	004	-002	003	013	-043		1.090+1	1.647+1	305		
03025	309	004	-002	003	013	-040		1.178+1	1.758+1	306		
03000	330	002	-002	001	013	-040		1.222+1	1.823+1	306		
02900	087	002	000	-002	011	-040		1.412+1	2.112+1	306		
02801	118	004	002	-004	011	-041		1.631+1	2.444+1	306		
02800	105	008	002	-008	010	-041		1.633+1	2.447+1	306		
02700	099	014	002	-014	009	-042		1.889+1	2.850+1	305		
02676	094	019	001	-019	009	-043		1.957+1	2.956+1	305		
02675	094	019	001	-019	009	-043		1.960+1	2.962+1	304		
02600	092	023	001	-023	009	-046		2.189+1	3.351+1	303		
02500	091	028	001	-028	008	-049		2.543+1	3.960+1	300		
02443	091	031	001	-031	008	-052		2.775+1	4.363+1	299		
02442	091	031	001	-031	008	-052		2.778+1	4.368+1	299		
02400	092	031	001	-031	007	9999		9.99999	9.99999	999		
02300	092	030	001	-030	007	9999		9.99999	9.99999	999		
02200	092	027	001	-027	006	9999		9.99999	9.99999	999		
02100	091	022	000	-022	006	9999		9.99999	9.99999	999		

SOUNDING CONSTANT PRESSURE LEVELS (HGT IN GEOPOTENTIAL DECAMTRS)

06529	109	037	012	-035		-025		1.000-1	1.404-1	316
06030	144	013	011	-008		-030		2.000-1	2.864-1	313
05735	100	026	005	-026		-024		3.000-1	4.193-1	317
05526	090	029	000	-029		-019		4.000-1	5.490-1	320
05094	113	032	013	-030		-004		7.000-1	9.044-1	329
04816	101	036	007	-035		-006		1.000+0	1.302+0	328
04279	092	025	001	-025		-008		2.000+0	2.629+0	326
03971	092	018	001	-018		-019		3.000+0	4.109+0	320
03599	082	020	-003	-020		-030		5.000+0	7.160+0	313
03362	077	014	-003	-014		-035		7.000+0	1.025+1	309
03116	327	004	-003	002		-043		1.000+1	1.511+1	305
02646	094	019	001	-019		-043		2.000+1	3.029+1	304


FT. SHERMAN, C.Z.
N-S WIND
E-W WIND
TEMP.
JULY 22, 1977
1900 (GMT)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
ALTITUDE (KM)
-100
-50
0
50
100
N/E
S/W
WIND (M/S)
-50
20
TEMPERATURE C

78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	23	1900	-210	031	010	000	000	01	01

QUESTIONABLE DATA

BASE DATA
GEOM HGT 2740 DECAMTRS
PRESSURE 17.75 MBS
TEMP -43.1 DEGC

WHT	WHB	THT	THB	SO	SHT	SHB	RT	RP
							01	00

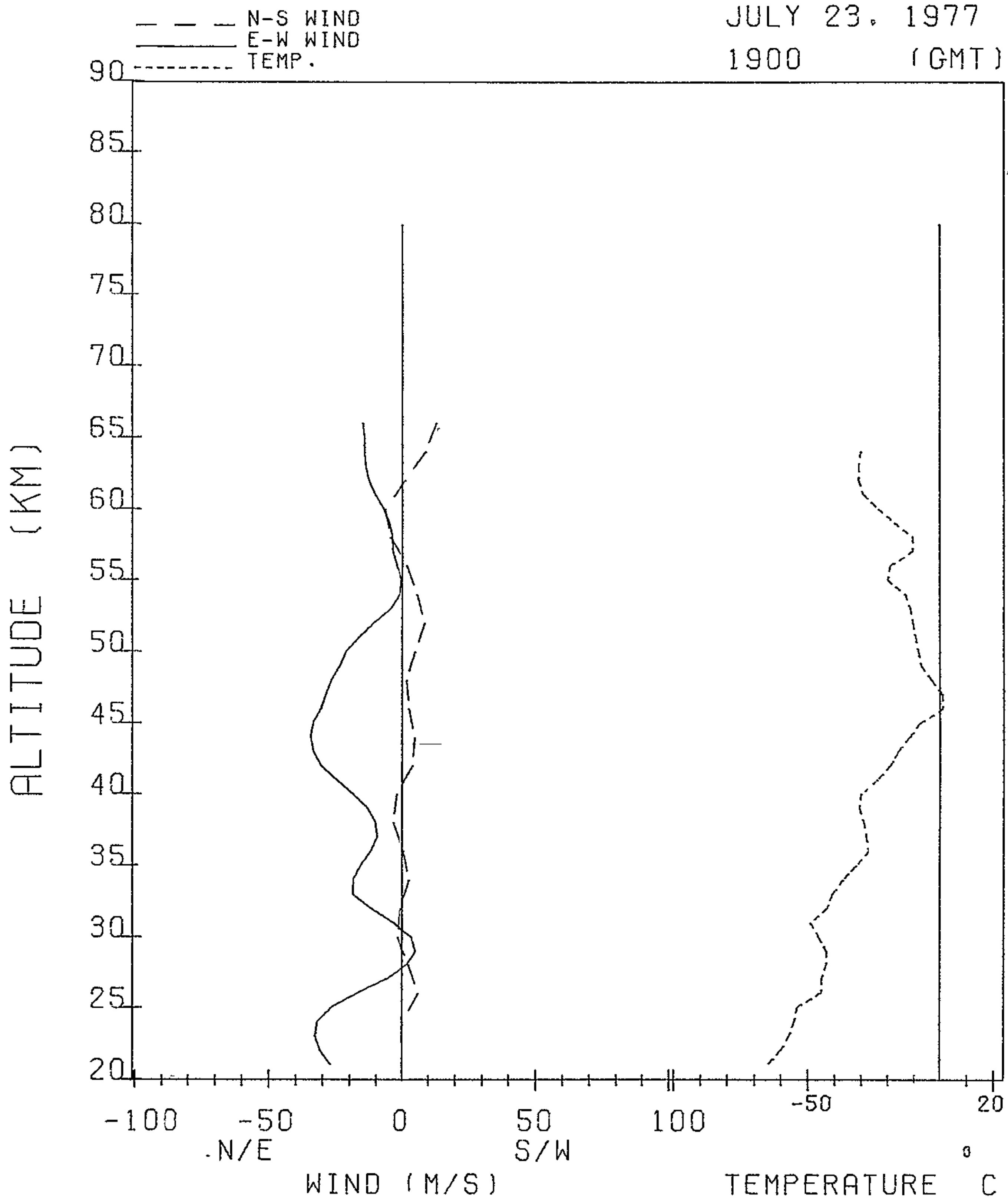
SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY $G\ M^{-3}$	SOS MPS	SPC A	SPC B
06700	999	999	9999	9999	999	9999		9.99999	9.99999	999		
06600	130	020	013	-015	125	9999		9.99999	9.99999	999		
06500	125	018	011	-015	125	9999		9.99999	9.99999	999		
06488	125	018	011	-015	125	-030		1.145-1	1.639-1	313		
06400	120	017	009	-015	117	-030		1.289-1	1.849-1	312		
06300	109	015	005	-014	108	-031		1.479-1	2.130-1	312		
06230	103	014	003	-014	100	-032		1.634-1	2.357-1	312		
06200	094	013	001	-013	100	-031		1.699-1	2.447-1	312		
06110	086	012	-001	-012	100	-030		1.928-1	2.763-1	313		
06100	074	011	-003	-011	100	-029		1.950-1	2.787-1	313		
06000	048	010	-007	-006	100	-023		2.233-1	3.111-1	317		
05900	036	009	-008	-006	100	-017		2.548-1	3.462-1	321		
05800	041	006	-005	-004	094	-010		2.899-1	3.844-1	325		
05733	062	005	-003	-005	092	-006		3.161-1	4.125-1	328		
05700	072	004	-001	-004	085	-010		3.292-1	4.355-1	325		
05621	113	003	001	-003	077	-018		3.649-1	4.986-1	320		
05600	132	003	002	-002	075	-019		3.747-1	5.134-1	320		
05514	158	002	002	-001	071	-022		4.205-1	5.821-1	318		
05500	173	003	003	000	068	-020		4.277-1	5.896-1	319		
05400	168	006	006	-001	066	-013		4.874-1	6.529-1	323		
05381	168	007	007	-002	063	-012		5.003-1	6.666-1	324		
05300	149	009	008	-005	063	-011		5.542-1	7.362-1	325		
05200	128	014	009	-011	061	-010		6.297-1	8.334-1	325		
05100	113	018	007	-017	058	-009		7.151-1	9.430-1	326		
05000	103	022	005	-021	054	-008		8.118-1	1.067+0	327		
04905	100	023	004	-023	053	-007		9.169-1	1.201+0	327		
04900	096	024	003	-024	052	-007		9.211-1	1.205+0	327		
04800	093	027	001	-027	048	-003		1.044+0	1.346+0	330		
04700	093	029	002	-029	046	001		1.181+0	1.501+0	332		
04654	095	030	002	-030	044	003		1.251+0	1.580+0	333		
04600	095	031	003	-031	042	001		1.335+0	1.696+0	332		
04569	097	032	004	-032	040	000		1.388+0	1.770+0	332		
04500	097	034	004	-034	039	-008		1.512+0	1.985+0	327		
04482	098	035	005	-035	037	-010		1.548+0	2.048+0	326		
04400	098	035	005	-035	035	-012		1.718+0	2.295+0	324		
04300	099	034	005	-034	033	-016		1.956+0	2.646+0	322		
04200	097	031	004	-030	031	-019		2.231+0	3.055+0	320		
04167	096	028	003	-028	030	-020		2.335+0	3.210+0	319		
04100	093	025	001	-025	029	-024		2.550+0	3.563+0	317		
04000	083	019	-002	-019	027	-030		2.924+0	4.186+0	313		
03961	075	016	-004	-015	027	-032		3.092+0	4.470+0	311		
03900	073	014	-004	-013	026	-031		3.359+0	4.836+0	312		
03800	070	011	-004	-010	023	-029		3.859+0	5.517+0	313		
03700	073	010	-003	-009	021	-028		4.429+0	6.288+0	314		
03637	075	009	-002	-009	019	-027		4.838+0	6.839+0	315		
03600	092	012	000	-012	019	-027		5.079+0	7.180+0	315		
03554	098	013	002	-013	019	-027		5.420+0	7.661+0	315		
03500	098	016	002	-016	018	-032		5.833+0	8.419+0	312		
03475	104	020	005	-019	018	-034		6.045+0	8.813+0	310		
03400	099	019	003	-019	017	-037		6.718+0	9.922+0	308		
03305	095	020	002	-020	017	-041		7.715+0	1.159+1	305		
03300	095	019	002	-019	016	-041		7.760+0	1.165+1	306		
03257	093	017	001	-017	016	-039		8.266+0	1.232+1	307		
03200	085	012	-001	-012	015	-043		8.980+0	1.359+1	304		
03100	064	004	-002	-003	013	-049		1.042+1	1.619+1	300		
03000	302	004	-002	003	012	-046		1.210+1	1.857+1	302		
02900	274	005	000	005	011	-043		1.403+1	2.126+1	304		
02857	265	003	000	003	011	-042		1.495+1	2.253+1	305		
02800	209	003	002	001	011	-043		1.625+1	2.462+1	304		
02745	171	004	003	-001	011	-044		1.762+1	2.683+1	303		
02740	171	004	003	-001	011	-044		1.775+1	2.703+1	303		
02700	132	008	005	-006	010	-045		1.883+1	2.871+1	303		
02600	110	018	006	-017	009	-045		2.184+1	3.336+1	303		
02566	104	024	006	-023	009	-045		2.296+1	3.511+1	303		
02500	098	027	004	-026	008	-054		2.540+1	4.029+1	297		
02495	092	031	001	-031	008	-054		2.556+1	4.066+1	297		
02400	090	032	000	-032	008	-055		2.965+1	4.743+1	296		
02300	088	033	-001	-033	007	-057		3.465+1	5.579+1	295		
02246	088	033	-001	-033	007	-058		3.770+1	6.089+1	295		
02200	089	031	-001	-031	007	-060		4.057+1	6.627+1	293		
02100	089	027	000	-027	006	-065		4.764+1	7.977+1	289		
02098	088	024	-001	-024	006	-065		4.775+1	7.999+1	289		
02097	088	024	-001	-024	006	-065		4.778+1	8.005+1	289		

SOUNDING CONSTANT PRESSURE LEVELS (HGT IN GEOPOTENTIAL DECAMTRS)

06013	061	011	-005	-010	-028		2.000-1	2.846-1	314
05711	062	005	-003	-005	-009		3.000-1	3.952-1	326
05494	158	002	002	-001	-020		4.000-1	5.512-1	319
05067	119	017	008	-015	-009		7.000-1	9.237-1	326
04790	093	025	001	-025	-004		1.000+0	1.296+0	329
04249	099	033	005	-033	-016		2.000+0	2.709+0	322
03950	075	016	-004	-015	-031		3.000+0	4.314+0	312
03585	075	009	-002	-009	-027		5.000+0	7.068+0	315
03349	095	020	002	-020	-038		7.000+0	1.039+1	307
03107	080	008	-001	-008	-047		1.000+1	1.542+1	301
02643	128	012	007	-009	-045		2.000+1	3.052+1	303
02379	087	032	-002	-032	-055		3.000+1	4.802+1	296

FT. SHERMAN, C.Z.



78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	24	2010	031	010	000	000	01	01	

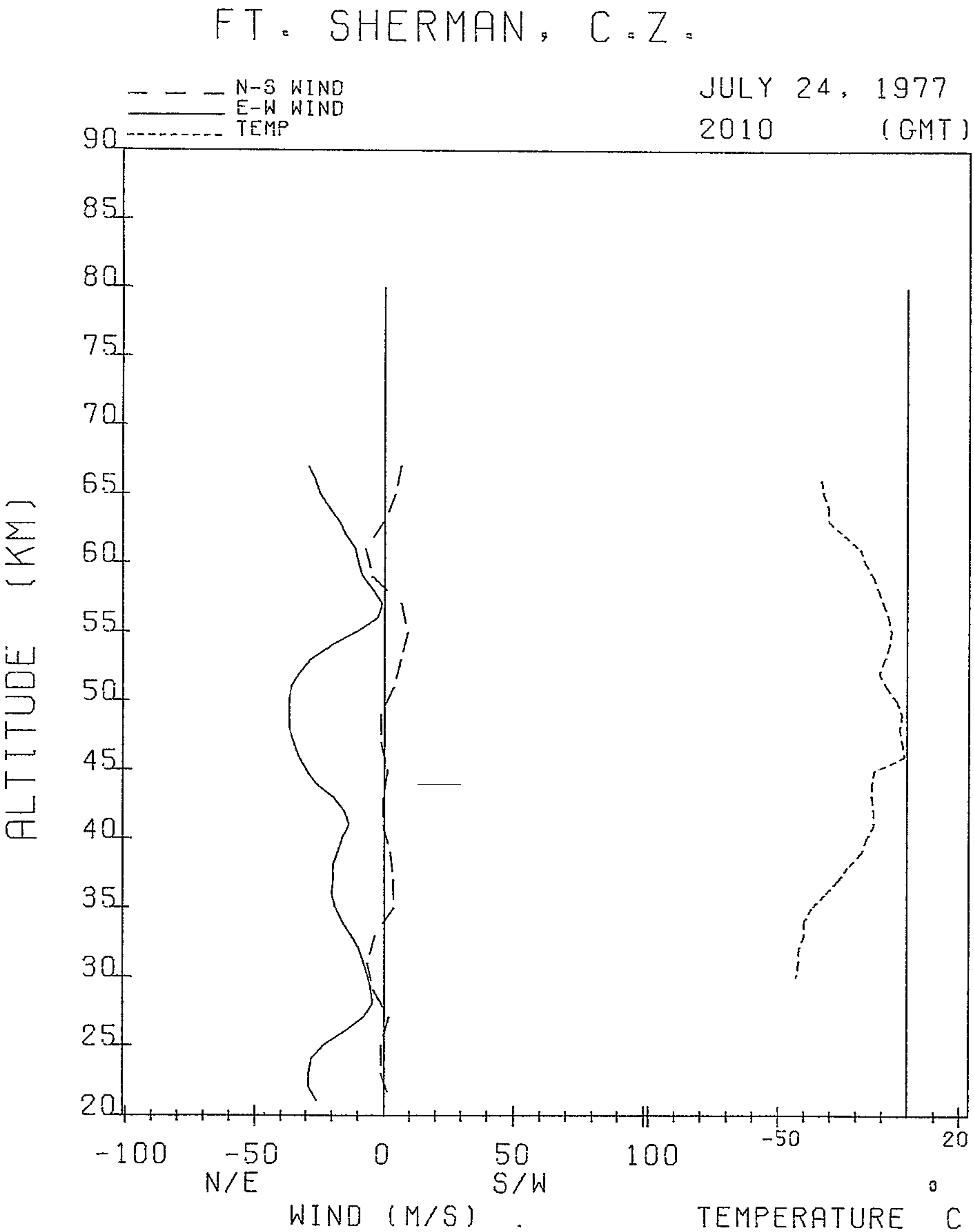
QUESTIONABLE DATA

BASE DATA

GEOM HGT	DECAMTRS	WHT	WHB	THT	THB	SO	SHT	SHB	RT	RP
PRESSURE	MBS									
TEMP	DEGC									

SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY $G M^{-3}$	SOS MPS	SPC A	SPC B
06900	999	999	9999	9999	999	9999		9.99999	9.99999	999		
06800	999	999	9999	9999	999	9999		9.99999	9.99999	999		
06700	103	030	007	-029	167	9999		9.99999	9.99999	999		
06650	103	030	007	-029	167	-034		9.99999	9.99999	310		
06600	101	027	005	-027	167	-033		9.99999	9.99999	311		
06500	100	025	004	-025	167	-032		9.99999	9.99999	312		
06400	096	021	002	-021	153	-030		9.99999	9.99999	313		
06300	090	017	000	-017	131	-030		9.99999	9.99999	313		
06280	086	015	-001	-015	113	-030		9.99999	9.99999	313		
06200	077	015	-003	-014	108	-024		9.99999	9.99999	317		
06130	069	014	-005	-013	100	-019		9.99999	9.99999	320		
06100	057	013	-007	-011	100	-018		9.99999	9.99999	320		
06000	047	013	-009	-016	097	-016		9.99999	9.99999	322		
05964	042	013	-009	-009	096	-015		9.99999	9.99999	322		
05900	062	009	-004	-008	094	-013		9.99999	9.99999	323		
05800	103	004	001	-004	088	-011		9.99999	9.99999	325		
05700	177	007	007	006	086	-009		9.99999	9.99999	326		
05617	200	007	007	003	083	-007		9.99999	9.99999	327		
05600	165	009	009	-002	078	-007		9.99999	9.99999	327		
05500	132	014	010	-011	072	-006		9.99999	9.99999	328		
05460	119	019	010	-017	067	-006		9.99999	9.99999	328		
05400	113	022	009	-021	066	-007		9.99999	9.99999	327		
05313	106	026	007	-025	065	-009		9.99999	9.99999	326		
05300	103	029	007	-028	064	-009		9.99999	9.99999	326		
05206	102	031	006	-031	063	-011		9.99999	9.99999	325		
05200	100	033	006	-032	063	-011		9.99999	9.99999	325		
05100	096	036	003	-035	063	-008		9.99999	9.99999	327		
05000	091	037	001	-037	057	-004		9.99999	9.99999	329		
04923	089	037	-001	-037	054	-002		9.99999	9.99999	330		
04900	088	037	-001	-037	051	-002		9.99999	9.99999	330		
04800	087	037	-002	-037	045	-003		9.99999	9.99999	330		
04759	087	036	-002	-036	045	-003		9.99999	9.99999	329		
04700	088	035	-001	-035	044	-002		9.99999	9.99999	330		
04600	090	033	000	-033	042	-001		9.99999	9.99999	331		
04508	091	031	001	-031	040	-012		9.99999	9.99999	324		
04500	093	030	001	-030	039	-013		9.99999	9.99999	324		
04400	093	026	001	-026	036	-014		9.99999	9.99999	323		
04323	092	024	001	-024	035	-015		9.99999	9.99999	322		
04300	089	019	000	-019	033	-014		9.99999	9.99999	323		
04275	082	015	-002	-015	032	-013		9.99999	9.99999	324		
04200	083	015	-002	-015	032	-013		9.99999	9.99999	324		
04100	088	013	000	-013	030	-013		9.99999	9.99999	323		
04044	094	014	001	-014	030	-013		9.99999	9.99999	323		
04000	096	016	002	-016	030	-016		9.99999	9.99999	321		
03956	099	017	003	-017	029	-019		9.99999	9.99999	320		
03926	099	017	003	-017	029	-017		9.99999	9.99999	321		
03900	099	018	003	-018	026	-018		9.99999	9.99999	320		
03800	099	020	003	-019	023	-023		9.99999	9.99999	317		
03748	099	020	003	-020	021	-025		9.99999	9.99999	316		
03710	099	020	003	-020	021	-026		9.99999	9.99999	315		
03700	101	020	004	-020	020	-027		9.99999	9.99999	315		
03600	105	021	005	-020	019	-032		9.99999	9.99999	311		
03500	102	019	004	-018	018	-037		9.99999	9.99999	308		
03433	100	018	003	-018	018	-041		9.99999	9.99999	306		
03400	094	016	001	-016	017	-040		9.99999	9.99999	306		
03350	082	013	-002	-013	017	-039		9.99999	9.99999	307		
03300	074	013	-003	-012	016	-040		9.99999	9.99999	306		
03255	066	012	-005	-011	016	-041		9.99999	9.99999	305		
03200	059	011	-006	-009	015	-042		9.99999	9.99999	305		
03100	049	010	-006	-008	013	-042		9.99999	9.99999	305		
03000	046	008	-006	-006	012	-043		9.99999	9.99999	304		
02940	048	007	-005	-005	012	-032		9.99999	9.99999	311		
02900	050	006	-004	-005	012	9999		9.99999	9.99999	999		
02895	054	005	-003	-004	012	-044		9.99999	9.99999	304		
02813	054	005	-003	-004	012	-048		9.99999	9.99999	301		
02800	084	004	000	-004	011	9999		9.99999	9.99999	999		
02700	105	008	002	-008	010	9999		9.99999	9.99999	999		
02662	112	011	004	-010	010	-049		9.99999	9.99999	300		
02606	112	011	004	-010	010	-047		9.99999	9.99999	302		
02600	099	015	002	-015	009	9999		9.99999	9.99999	999		
02532	094	020	001	-020	009	-047		9.99999	9.99999	301		
02500	087	023	-001	-023	008	9999		9.99999	9.99999	999		
02400	085	028	-003	-028	008	9999		9.99999	9.99999	999		
02363	084	030	-003	-030	008	-057		9.99999	9.99999	295		
02300	088	029	-001	-029	007	9999		9.99999	9.99999	999		
02278	093	029	002	-029	007	-056		9.99999	9.99999	296		
02200	093	029	002	-029	007	9999		9.99999	9.99999	999		
02188	096	028	003	-028	007	-059		9.99999	9.99999	294		
02100	096	026	003	-025	006	9999		9.99999	9.99999	999		
02063	096	024	003	-024	006	-061		9.99999	9.99999	292		
02033	096	024	003	-024	006	-065		9.99999	9.99999	289		



FT. SHERMAN, C.Z.
N-S WIND
E-W WIND
TEMP
JULY 24, 1977
2010 (GMT)
ALTITUDE (KM)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
-100
-50
0
50
100
N/E
S/W
WIND (M/S)
-50
20
TEMPERATURE °C

C - S

78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	25	1830	-202	031	010	000	000	01	01

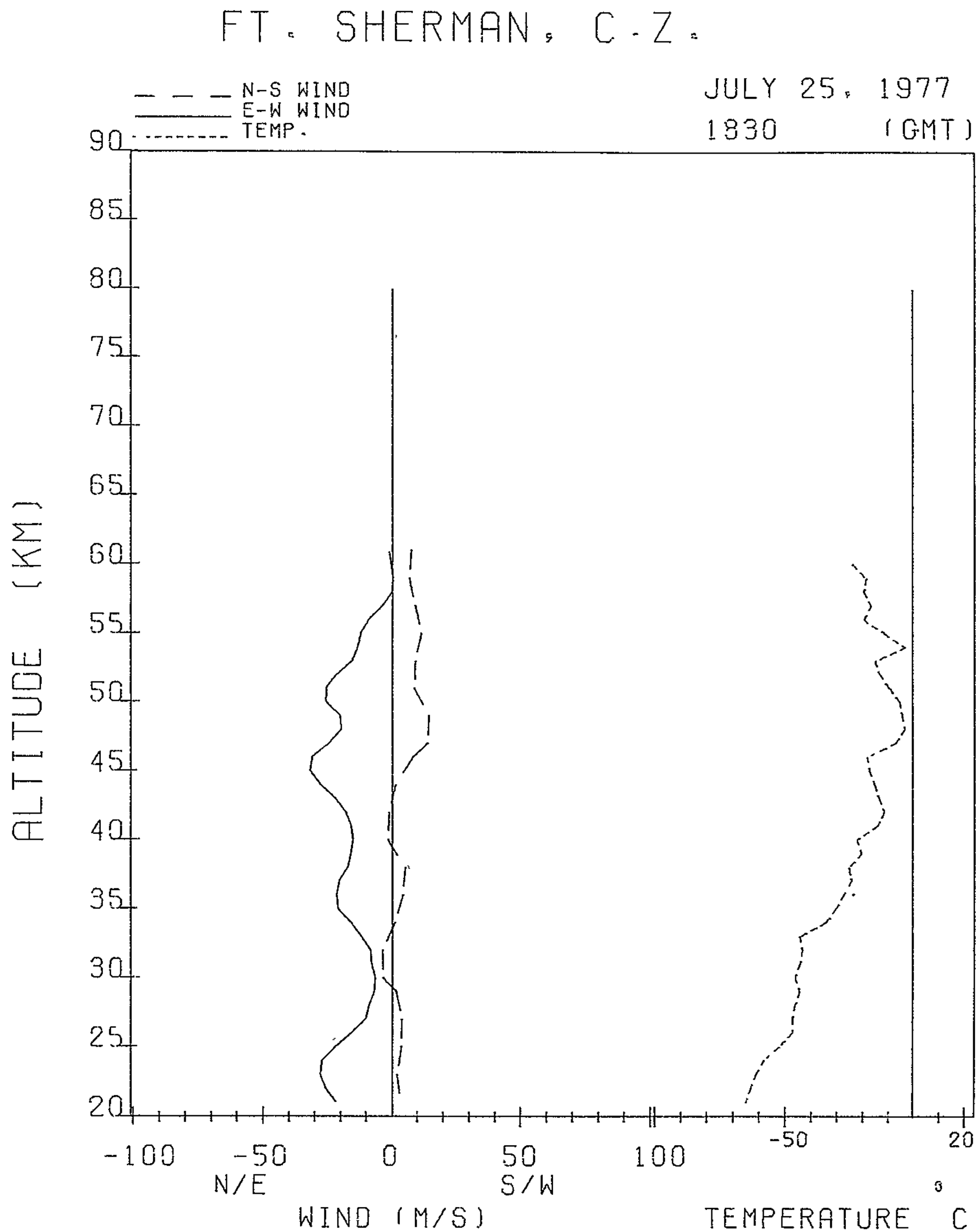
QUESTIONABLE DATA

BASE DATA

		WHT	WHB	THT	THB	SQ	SHT	SHB	RT	RP
GEOM HGT	DECAMTRS									
PRESSURE	MBS									
TEMP	DEGC								01	00

SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY $G\ M^{-3}$	SOS MPS	SPC A	SPC B
06200	999	999	9999	9999	999	9999		9.99999	9.99999	999		
06100	171	008	008	-001	100	9999		9.99999	9.99999	999		
06070	171	008	008	-001	100	-028		9.99999	9.99999	314		
06000	178	007	007	000	100	-023		9.99999	9.99999	317		
05920	178	007	007	000	100	-018		9.99999	9.99999	320		
05900	183	007	007	000	094	-018		9.99999	9.99999	320		
05800	182	008	008	000	089	-019		9.99999	9.99999	319		
05792	180	008	008	000	083	-020		9.99999	9.99999	319		
05725	180	008	008	000	083	-015		9.99999	9.99999	322		
05700	160	010	010	-003	083	-016		9.99999	9.99999	322		
05608	154	014	012	-006	083	-020		9.99999	9.99999	319		
05600	144	015	012	-009	079	-019		9.99999	9.99999	320		
05500	134	017	012	-012	075	-011		9.99999	9.99999	325		
05400	128	017	010	-013	068	-003		9.99999	9.99999	329		
05375	127	016	010	-013	067	-001		9.99999	9.99999	331		
05300	121	018	010	-016	063	-015		9.99999	9.99999	322		
05294	118	020	009	-018	060	-016		9.99999	9.99999	321		
05211	118	020	009	-018	060	-013		9.99999	9.99999	323		
05200	111	023	008	-021	058	-013		9.99999	9.99999	324		
05100	109	027	009	-026	056	-009		9.99999	9.99999	326		
05000	113	028	011	-026	054	-005		9.99999	9.99999	328		
04985	120	027	013	-024	053	-004		9.99999	9.99999	329		
04900	126	025	015	-020	050	-004		9.99999	9.99999	329		
04800	131	026	017	-019	047	-003		9.99999	9.99999	330		
04736	132	026	017	-019	045	-002		9.99999	9.99999	330		
04700	120	028	014	-024	042	-007		9.99999	9.99999	327		
04600	105	032	008	-031	039	-018		9.99999	9.99999	320		
04593	097	034	004	-034	036	-019		9.99999	9.99999	320		
04500	096	032	003	-032	036	-017		9.99999	9.99999	321		
04400	093	028	001	-028	035	-015		9.99999	9.99999	322		
04300	091	022	000	-022	034	-013		9.99999	9.99999	323		
04200	086	018	-001	-018	031	-011		9.99999	9.99999	325		
04147	082	016	-002	-016	031	-010		9.99999	9.99999	325		
04100	081	016	-002	-015	030	-014		9.99999	9.99999	323		
04011	080	015	-003	-015	028	-022		9.99999	9.99999	318		
04000	084	015	-002	-015	028	-022		9.99999	9.99999	318		
03900	093	016	001	-016	027	-020		9.99999	9.99999	319		
03888	099	017	003	-017	027	-020		9.99999	9.99999	319		
03817	099	017	003	-017	027	-025		9.99999	9.99999	316		
03800	107	018	005	-017	025	-025		9.99999	9.99999	316		
03700	103	021	005	-020	023	-024		9.99999	9.99999	316		
03679	103	022	005	-022	022	-024		9.99999	9.99999	316		
03600	101	022	004	-021	021	-027		9.99999	9.99999	315		
03500	092	021	001	-021	020	-030		9.99999	9.99999	312		
03404	095	019	002	-019	019	-034		9.99999	9.99999	310		
03400	094	016	001	-016	018	-034		9.99999	9.99999	310		
03300	081	012	-002	-012	016	-044		9.99999	9.99999	303		
03200	066	009	-004	-008	015	-043		9.99999	9.99999	304		
03183	053	009	-005	-007	015	-043		9.99999	9.99999	304		
03100	058	009	-004	-007	014	-044		9.99999	9.99999	304		
03004	062	007	-004	-007	014	-045		9.99999	9.99999	303		
03000	062	007	-004	-007	014	-046		9.99999	9.99999	303		
02960	071	008	-003	-008	013	-049		9.99999	9.99999	300		
02900	107	007	002	-007	012	-044		9.99999	9.99999	303		
02874	138	009	007	-006	011	-042		9.99999	9.99999	305		
02802	138	009	007	-006	011	-046		9.99999	9.99999	302		
02800	117	010	004	-009	011	-046		9.99999	9.99999	302		
02700	113	011	004	-010	011	-047		9.99999	9.99999	301		
02642	104	012	003	-012	011	-048		9.99999	9.99999	301		
02600	103	016	004	-016	010	-047		9.99999	9.99999	301		
02527	104	018	004	-017	009	-046		9.99999	9.99999	302		
02500	100	022	004	-021	009	-052		9.99999	9.99999	298		
02498	098	026	004	-026	008	-052		9.99999	9.99999	298		
02400	094	027	002	-027	008	-058		9.99999	9.99999	294		
02372	091	029	000	-029	008	-059		9.99999	9.99999	293		
02300	094	028	002	-028	007	-061		9.99999	9.99999	292		
02200	096	026	003	-026	006	-063		9.99999	9.99999	291		
02100	100	022	004	-022	006	-065		9.99999	9.99999	289		
02074	100	020	003	-020	006	-065		9.99999	9.99999	289		


FT. SHERMAN, C.Z.
N-S WIND
E-W WIND
TEMP.
JULY 25, 1977
1830 (GMT)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
ALTITUDE (KM)
-100
-50
0
50
100
-50
20
N/E
S/W
WIND (M/S)
TEMPERATURE C

78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	26	1830	-188	031	010	000	000	01	01

QUESTIONABLE DATA

BASE DATA
GEOM HGT 2630 DECAMTRS
PRESSURE 20.85 MBS
TEMP -45.0 DEGC

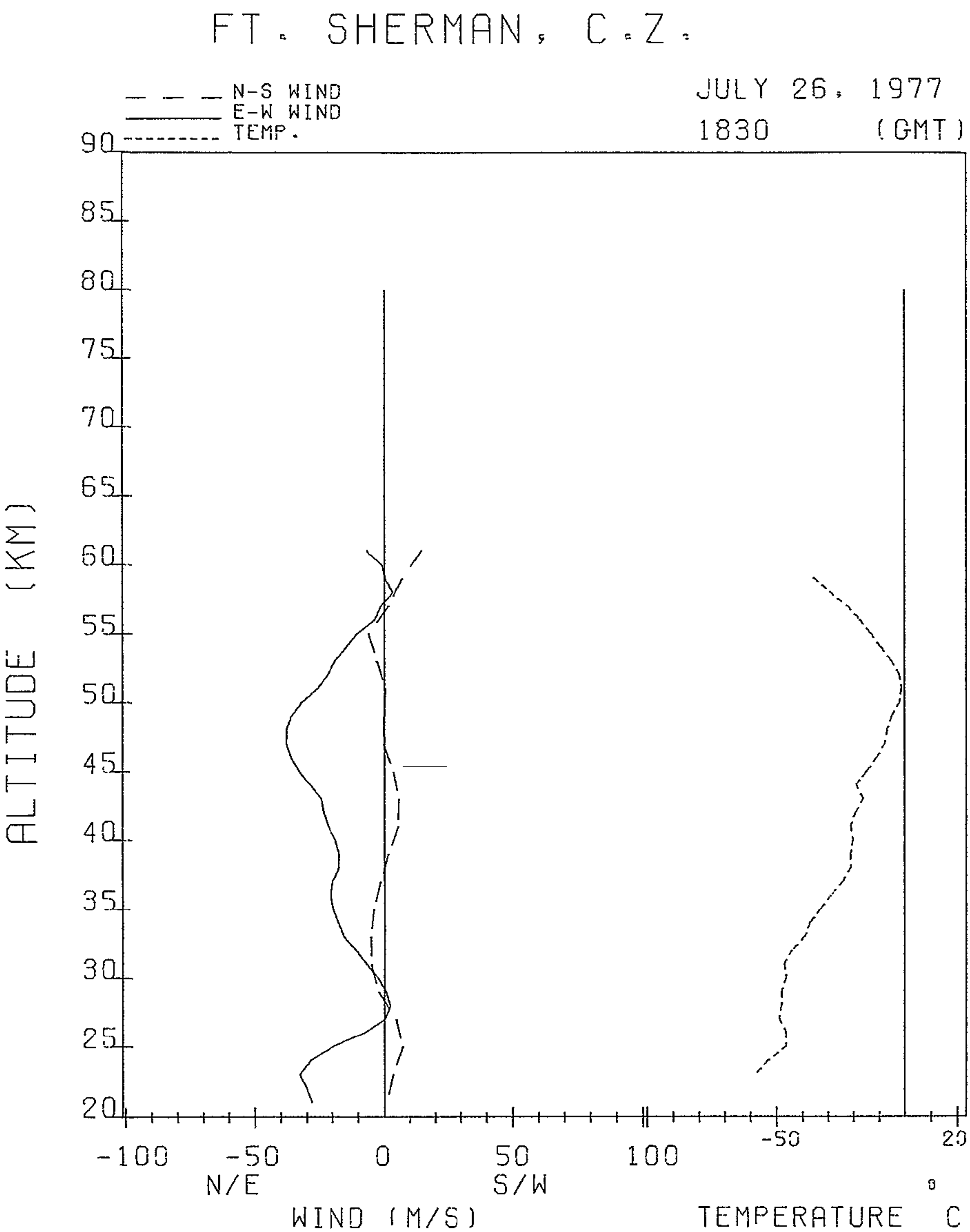
WHT	WHB	THT	THB	SQ	SHT	SHB	RT	RP
							01	00

SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY G M^{-3}	SOS MPS	SPC A	SPC B
06200	999	999	9999	9999	999	9999		9.99999	9.99999	999		
06100	155	016	015	-007	100	9999		9.99999	9.99999	999		
06000	177	011	011	000	100	9999		9.99999	9.99999	999		
05980	177	011	011	000	100	-040		2.255-1	3.368-1	306		
05900	185	007	007	001	100	-035		2.522-1	3.688-1	310		
05800	226	005	004	004	097	-029		2.898-1	4.127-1	314		
05700	145	002	001	-001	094	-022		3.317-1	4.605-1	318		
05636	130	004	002	-003	091	-018		3.613-1	4.936-1	320		
05600	067	004	-002	-004	084	-017		3.785-1	5.142-1	321		
05500	061	012	-006	-010	073	-013		4.309-1	5.763-1	324		
05400	067	016	-006	-014	061	-009		4.896-1	6.447-1	326		
05300	083	019	-002	-019	056	-005		5.552-1	7.201-1	329		
05267	091	020	000	-020	056	-003		5.793-1	7.475-1	330		
05200	091	022	001	-022	056	-002		6.287-1	8.089-1	330		
05100	092	026	001	-026	054	-001		7.115-1	9.110-1	331		
05045	092	029	001	-029	053	000		7.619-1	9.731-1	331		
05000	091	032	001	-032	052	-002		8.050-1	1.034+0	330		
04900	090	036	000	-036	050	-005		9.118-1	1.185+0	328		
04875	089	037	000	-037	050	-006		9.413-1	1.227+0	328		
04800	089	038	000	-038	048	-007		1.034+0	1.352+0	327		
04700	090	038	000	-038	046	-008		1.173+0	1.541+0	327		
04667	091	037	001	-037	044	-008		1.225+0	1.611+0	326		
04600	093	036	002	-036	042	-011		1.333+0	1.771+0	325		
04500	097	033	004	-032	039	-015		1.516+0	2.047+0	322		
04400	101	029	005	-028	036	-019		1.729+0	2.371+0	320		
04397	103	026	006	-026	036	-019		1.737+0	2.383+0	320		
04300	104	025	006	-024	034	-016		1.972+0	2.672+0	322		
04278	104	023	006	-022	032	-015		2.030+0	2.743+0	322		
04200	105	024	006	-023	031	-019		2.250+0	3.084+0	320		
04144	106	023	007	-023	030	-022		2.423+0	3.355+0	318		
04100	105	022	006	-022	028	-021		2.570+0	3.552+0	318		
04024	105	022	006	-022	027	-020		2.846+0	3.921+0	319		
04000	103	019	004	-016	027	-020		2.936+0	4.047+0	319		
03900	096	017	002	-017	026	-021		3.355+0	4.632+0	319		
03800	090	017	000	-017	025	-021		3.835+0	5.303+0	318		
03759	088	019	-001	-019	024	-021		4.052+0	5.607+0	318		
03700	086	020	-001	-020	023	-024		4.387+0	6.137+0	316		
03600	082	021	-003	-021	021	-029		5.029+0	7.167+0	314		
03500	078	020	-004	-020	019	-033		5.781+0	8.396+0	311		
03417	075	019	-005	-019	018	-037		6.500+0	9.592+0	308		
03400	074	018	-005	-018	017	-037		6.661+0	9.827+0	308		
03338	072	017	-006	-017	017	-037		7.275+0	1.072+1	308		
03300	071	016	-005	-015	016	-039		7.688+0	1.144+1	307		
03224	070	014	-005	-014	016	-044		8.591+0	1.304+1	304		
03200	061	012	-006	-011	015	-044		8.895+0	1.354+1	303		
03100	052	008	-005	-006	013	-047		1.032+1	1.589+1	302		
03095	035	006	-005	-003	013	-047		1.039+1	1.602+1	302		
03011	035	006	-005	-003	013	-045		1.178+1	1.797+1	303		
03000	023	005	-005	-002	012	-046		1.197+1	1.832+1	303		
02960	011	003	-003	-001	012	-048		1.271+1	1.967+1	301		
02900	330	002	-002	001	011	-048		1.390+1	2.151+1	301		
02812	297	003	-001	002	011	-048		1.587+1	2.455+1	301		
02800	249	003	001	002	010	-048		1.615+1	2.498+1	301		
02768	224	005	003	003	010	-048		1.695+1	2.620+1	301		
02711	224	005	003	003	010	-049		1.846+1	2.869+1	300		
02700	184	005	005	000	010	-049		1.877+1	2.912+1	301		
02630	169	007	007	-001	009	-046		2.084+1	3.197+1	302		
02600	131	010	007	-006	009	-046		2.180+1	3.344+1	302		
02500	111	021	007	-020	009	-046		2.530+1	3.874+1	302		
02489	104	027	007	-027	009	-046		2.573+1	3.939+1	303		
02400	100	029	005	-029	008	-053		2.943+1	4.658+1	298		
02377	097	033	004	-033	008	-055		3.049+1	4.870+1	296		
02300	096	033	003	-032	007	-058		3.438+1	5.570+1	294		
02216	092	032	001	-032	007	-062		3.927+1	6.463+1	292		
02200	091	030	001	-030	007	9999		9.99999	9.99999	999		
02100	092	028	001	-028	006	9999		9.99999	9.99999	999		

SOUNDING CONSTANT PRESSURE LEVELS (HGT IN GEOPOTENTIAL DECAMTRS)

05709	234	003	002	003		-027		3.000-1	4.242-1	315		
05498	056	009	-005	-007		-015		4.000-1	5.397-1	322		
05063	093	023	001	-023		-001		7.000-1	8.969-1	331		
04782	089	037	000	-037		-007		1.000+0	1.307+0	327		
04253	104	023	006	-022		-016		2.000+0	2.706+0	322		
03952	099	016	003	-016		-020		3.000+0	4.136+0	319		
03580	084	021	-002	-021		-028		5.000+0	7.116+0	314		
03341	072	017	-006	-017		-037		7.000+0	1.032+1	308		
03100	053	010	-006	-008		-046		1.000+1	1.536+1	302		
02642	169	007	007	-001		-047		2.000+1	3.082+1	302		
02374	097	033	004	-033		-054		3.000+1	4.771+1	297		



FT. SHERMAN, C.Z.
N-S WIND
E-W WIND
TEMP.
JULY 26, 1977
1830 (GMT)
ALTITUDE (KM)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
-100
-50
0
50
100
-50
20
N/E
S/W
WIND (M/S)
TEMPERATURE °C

78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	27	1830	-209	031	010	000	000	01	01

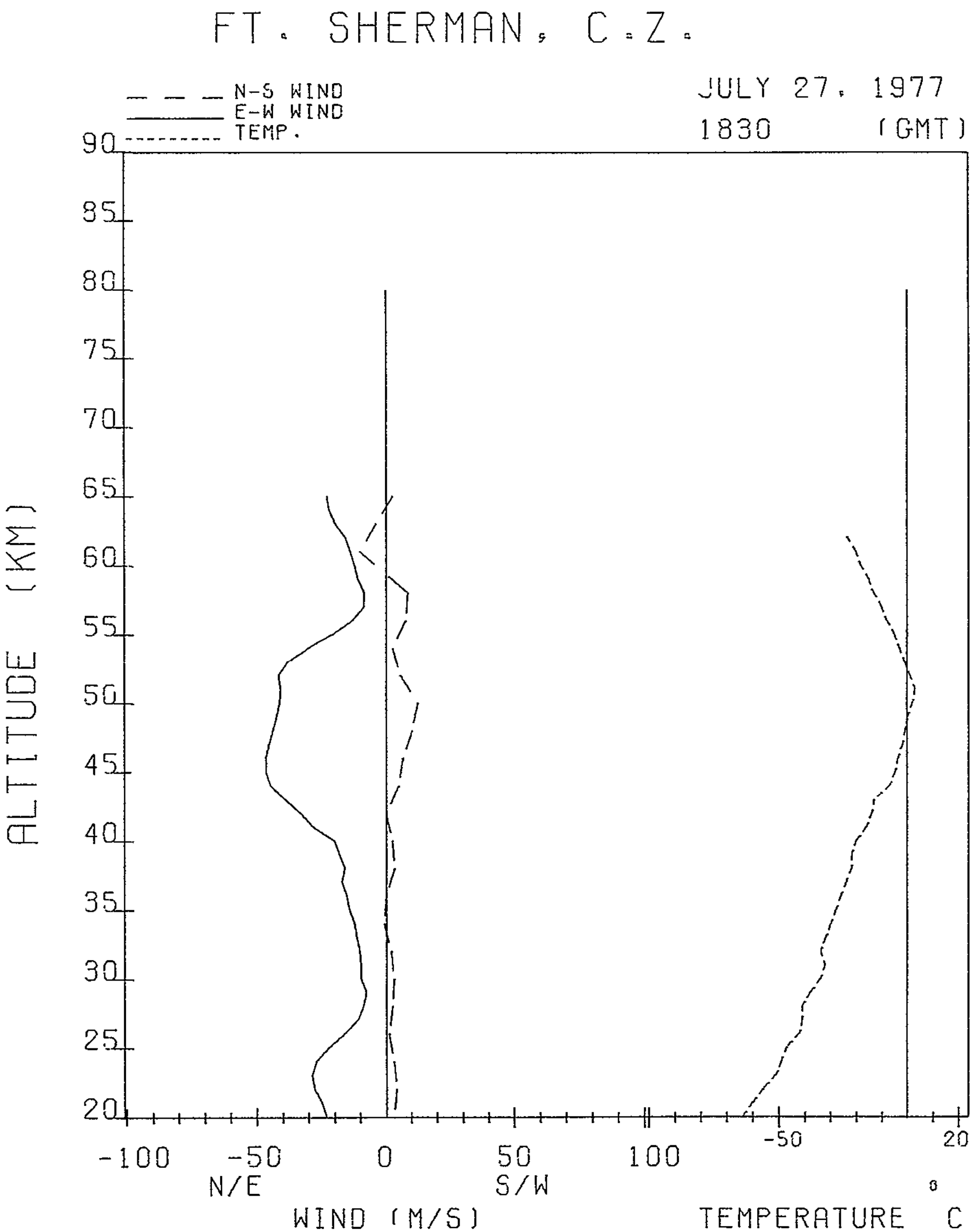
QUESTIONABLE DATA

BASE DATA

		WHT	WHB	THT	THB	SO	SHT	SHB	RT	RP
GEOM HGT	DECAMTRS									
PRESSURE	MBS									
TEMP	DEGC								01	00

SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY G M-3	SOS MPS	SPC A	SPC B
06600	999	999	9999	9999	999	9999		9.99999	9.99999	999		
06500	097	023	003	-023	167	9999		9.99999	9.99999	999		
06400	088	022	-001	-022	146	9999		9.99999	9.99999	999		
06300	079	020	-004	-020	139	9999		9.99999	9.99999	999		
06225	069	020	-007	-018	125	-023		9.99999	9.99999	317		
06200	060	018	-009	-016	120	-023		9.99999	9.99999	317		
06100	054	017	-010	-014	116	-020		9.99999	9.99999	319		
06000	068	013	-005	-012	111	-018		9.99999	9.99999	321		
05900	104	011	003	-010	104	-015		9.99999	9.99999	322		
05800	137	012	008	-008	095	-013		9.99999	9.99999	324		
05700	141	013	010	-008	086	-010		9.99999	9.99999	325		
05600	121	015	008	-012	083	-008		9.99999	9.99999	327		
05508	110	017	006	-016	083	-005		9.99999	9.99999	328		
05500	103	021	005	-020	083	-005		9.99999	9.99999	328		
05400	095	030	003	-030	079	-003		9.99999	9.99999	330		
05300	095	038	004	-038	075	-001		9.99999	9.99999	331		
05200	098	042	006	-042	068	001		9.99999	9.99999	332		
05113	101	043	008	-042	067	003		9.99999	9.99999	333		
05100	104	042	010	-041	063	003		9.99999	9.99999	333		
05000	107	043	012	-041	058	002		9.99999	9.99999	332		
04900	106	044	012	-042	056	000		9.99999	9.99999	332		
04800	103	045	010	-044	056	-001		9.99999	9.99999	331		
04700	100	046	008	-046	052	-002		9.99999	9.99999	330		
04600	098	047	007	-047	048	-004		9.99999	9.99999	329		
04500	098	047	006	-047	042	-005		9.99999	9.99999	328		
04412	098	047	006	-047	041	-006		9.99999	9.99999	328		
04400	096	045	005	-044	041	-007		9.99999	9.99999	327		
04300	093	039	002	-039	038	-013		9.99999	9.99999	324		
04293	090	035	000	-035	037	-013		9.99999	9.99999	323		
04200	090	033	000	-033	035	-014		9.99999	9.99999	323		
04100	091	028	000	-028	032	-016		9.99999	9.99999	322		
04076	092	026	001	-026	032	-016		9.99999	9.99999	322		
04000	098	020	003	-020	027	-020		9.99999	9.99999	319		
03958	101	018	003	-017	024	-022		9.99999	9.99999	318		
03900	100	018	003	-016	025	-022		9.99999	9.99999	318		
03832	104	016	004	-016	023	-022		9.99999	9.99999	318		
03800	103	016	004	-016	023	-022		9.99999	9.99999	318		
03700	096	017	002	-017	025	-024		9.99999	9.99999	316		
03600	090	015	000	-015	022	-026		9.99999	9.99999	315		
03500	085	014	-001	-014	021	-028		9.99999	9.99999	314		
03400	086	012	-001	-012	018	-030		9.99999	9.99999	313		
03300	095	011	001	-011	018	-032		9.99999	9.99999	312		
03205	099	010	002	-010	017	-034		9.99999	9.99999	310		
03200	103	010	002	-010	017	-034		9.99999	9.99999	310		
03100	109	010	003	-009	016	-032		9.99999	9.99999	312		
03082	109	010	003	-009	016	-031		9.99999	9.99999	312		
03000	109	010	003	-009	016	-034		9.99999	9.99999	310		
02900	114	008	003	-008	014	-038		9.99999	9.99999	308		
02800	106	009	003	-009	012	-041		9.99999	9.99999	306		
02790	106	009	003	-009	012	-041		9.99999	9.99999	305		
02700	099	011	002	-011	011	-041		9.99999	9.99999	306		
02615	093	014	001	-014	011	-041		9.99999	9.99999	306		
02600	094	016	001	-016	010	-042		9.99999	9.99999	305		
02518	093	018	001	-018	010	-047		9.99999	9.99999	302		
02500	095	022	002	-022	009	-047		9.99999	9.99999	302		
02400	097	027	003	-026	009	-049		9.99999	9.99999	300		
02300	098	029	004	-029	008	-051		9.99999	9.99999	299		
02228	098	028	004	-028	008	-053		9.99999	9.99999	298		
02200	099	028	004	-028	007	-056		9.99999	9.99999	296		
02187	100	027	004	-027	007	-057		9.99999	9.99999	295		
02100	098	025	003	-024	006	-060		9.99999	9.99999	292		
02000	097	023	003	-023	006	-064		9.99999	9.99999	290		


FT. SHERMAN, C.Z.
N-S WIND
E-W WIND
TEMP.
JULY 27, 1977
1830 (GMT)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
ALTITUDE (KM)
-100
-50
0
50
100
N/E
S/W
WIND (M/S)
-50
20
TEMPERATURE °C

78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	28	1925	-229	031	010	000	000	01	01

QUESTIONABLE DATA

BASE DATA

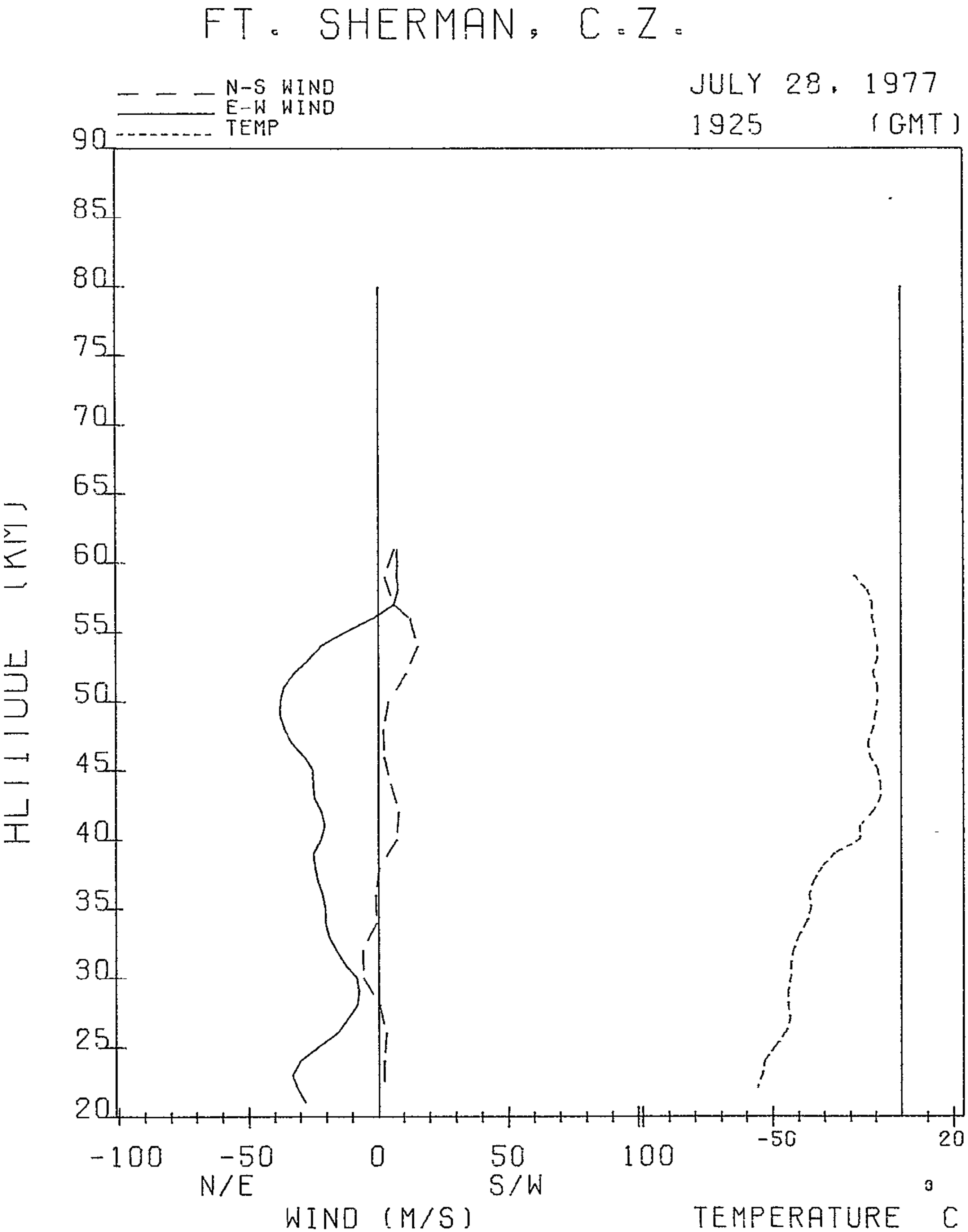
		WHT	WHB	THT	THB	SO	SHT	SHB	RT	RP
GEOM HGT	2725 DECAMTRS									
PRESSURE	18.25 MBS									
TEMP	-43.1 DEGC								01	00

SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	WIND COMPONENT N-S	WIND COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY G M-3	SOS MPS	SPC A	SPC B
06100	229	010	007	008	100	9999		9.99999	9.99999	999		
06000	239	009	005	008	089	9999		9.99999	9.99999	999		
05992	239	009	005	008	089	-023		2.292-1	3.186-1	318		
05900	251	008	002	007	085	-018		2.589-1	3.535-1	320		
05800	260	008	001	008	077	-013		2.948-1	3.949-1	323		
05785	265	008	001	008	077	-012		3.008-1	4.017-1	324		
05700	224	009	006	006	077	-011		3.352-1	4.463-1	324		
05600	172	013	013	-002	077	-011		3.809-1	5.052-1	325		
05500	144	021	017	-012	077	-010		4.327-1	5.717-1	326		
05400	126	027	016	-022	074	-009		4.912-1	6.467-1	326		
05353	123	028	016	-024	072	-008		5.212-1	6.850-1	326		
05300	118	030	014	-026	070	-009		5.576-1	7.361-1	326		
05213	115	032	013	-029	067	-011		6.228-1	8.279-1	325		
05200	109	034	011	-032	063	-011		6.335-1	8.414-1	325		
05100	101	037	007	-036	060	-009		7.196-1	9.493-1	326		
05044	097	038	005	-038	056	-008		7.722-1	1.015+0	326		
05000	096	038	004	-038	054	-009		8.170-1	1.076+0	326		
04900	094	038	002	-038	052	-010		9.279-1	1.229+0	325		
04800	093	036	002	-036	047	-011		1.055+0	1.404+0	324		
04700	093	033	002	-033	043	-013		1.200+0	1.605+0	324		
04654	094	031	002	-031	040	-014		1.273+0	1.708+0	323		
04600	095	028	002	-028	039	-012		1.364+0	1.818+0	324		
04515	096	025	003	-025	038	-009		1.520+0	2.004+0	326		
04500	098	025	003	-025	038	-009		1.550+0	2.043+0	326		
04400	102	025	005	-024	038	-008		1.760+0	2.315+0	326		
04300	106	025	007	-024	036	-008		1.998+0	2.622+0	327		
04287	108	025	008	-024	036	-008		2.033+0	2.667+0	327		
04237	108	025	008	-024	036	-008		2.166+0	2.842+0	327		
04200	111	023	008	-021	033	-011		2.270+0	3.016+0	325		
04144	116	021	009	-019	031	-016		2.440+0	3.302+0	322		
04100	114	022	009	-020	030	-016		2.584+0	3.500+0	322		
04000	108	023	007	-022	028	-016		2.946+0	3.993+0	321		
03987	104	025	006	-025	028	-016		2.997+0	4.064+0	321		
03900	099	025	004	-025	027	-026		3.367+0	4.741+0	315		
03857	094	026	002	-026	026	-031		3.570+0	5.125+0	312		
03800	091	024	000	-024	024	-031		3.863+0	5.560+0	312		
03756	086	023	-002	-023	023	-032		4.108+0	5.922+0	312		
03700	086	023	-002	-023	022	-034		4.445+0	6.483+0	310		
03663	084	021	-002	-021	021	-036		4.688+0	6.892+0	309		
03600	087	021	-001	-021	020	-036		5.120+0	7.512+0	309		
03500	090	020	000	-020	019	-035		5.900+0	8.627+0	310		
03440	093	020	001	-020	018	-034		6.426+0	9.377+0	310		
03400	088	020	-001	-020	018	-037		6.802+0	1.004+1	308		
03390	086	020	-001	-020	017	-038		6.900+0	1.021+1	308		
03300	079	019	-004	-018	016	-040		7.853+0	1.172+1	306		
03200	069	017	-006	-016	016	-042		9.080+0	1.367+1	305		
03185	063	016	-007	-014	015	-042		9.278+0	1.399+1	305		
03100	058	015	-008	-012	014	-043		1.051+1	1.588+1	305		
03000	055	010	-006	-008	013	-043		1.217+1	1.844+1	304		
02900	064	008	-004	-007	012	-044		1.410+1	2.141+1	304		
02800	094	008	001	-008	011	-044		1.634+1	2.488+1	303		
02780	104	010	002	-010	011	-045		1.684+1	2.565+1	303		
02725	104	010	002	-010	011	-042		1.825+1	2.754+1	305		
02722	104	010	002	-010	011	-042		1.832+1	2.764+1	305		
02700	105	012	003	-012	010	-043		1.893+1	2.866+1	304		
02695	109	013	004	-012	010	-043		1.906+1	2.886+1	304		
02658	109	013	004	-012	010	-049		2.014+1	3.129+1	300		
02600	102	016	003	-016	009	-045		2.194+1	3.353+1	303		
02572	099	019	003	-019	009	-043		2.289+1	3.470+1	304		
02500	097	023	003	-023	008	-049		2.549+1	3.966+1	300		
02490	095	027	002	-027	008	-050		2.589+1	4.044+1	300		
02415	095	027	002	-027	008	-053		2.903+1	4.601+1	297		
02400	094	030	002	-030	008	-053		2.969+1	4.705+1	297		
02300	094	033	002	-033	007	-054		3.463+1	5.495+1	297		
02225	093	033	002	-033	007	-054		3.893+1	6.183+1	297		
02200	094	031	002	-031	007	-056		4.044+1	6.493+1	295		
02168	094	029	002	-029	007	-059		4.255+1	6.931+1	293		
02113	094	029	002	-029	007	-065		4.650+1	7.790+1	289		
02112	094	029	002	-029	007	-065		4.655+1	7.798+1	289		
02100	094	028	002	-028	006	9999		9.99999	9.99999	999		

SOUNDING CONSTANT PRESSURE LEVELS (HGT IN GEOPOTENTIAL DECAMTRS)

05724	265	008	001	008	-012	3.000-1	4.008-1	324
05503	156	019	017	-008	-010	4.000-1	5.298-1	325
05071	105	036	009	-035	-009	7.000-1	9.248-1	326
04797	093	037	002	-037	-011	1.000+0	1.328+0	325
04263	108	025	008	-024	-008	2.000+0	2.624+0	327
03954	104	025	006	-025	-016	3.000+0	4.068+0	321
03590	084	021	-002	-021	-036	5.000+0	7.340+0	309
03356	086	020	-001	-020	-038	7.000+0	1.037+1	308
03113	063	016	-007	-014	-042	1.000+1	1.510+1	305
02647	109	013	004	-012	-048	2.000+1	3.097+1	301
02380	094	033	002	-033	-053	3.000+1	4.755+1	297


FT. SHERMAN, C.Z.
N-S WIND
E-W WIND
TEMP
JULY 28, 1977
1925 (GMT)
ALTITUDE (KM)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
-100
-50
0
50
100
-50
20
N/E
S/W
WIND (M/S)
TEMPERATURE C

78801
FT. SHERMAN, C.Z.
09.3N 080.0W

Y	M	D	GMT	TR	WS	TS	AC	BC	WC	TC
77	07	30	1816	-178	031	010	000	000	01	01

QUESTIONABLE DATA

BASE DATA
GEOM HGT 2615 DECAMTRS
PRESSURE 21.60 MBS
TEMP -49.4 DEGC

WHT	WHB	THT	THB	SQ	SHT	SHB	RT	RP
							01	00

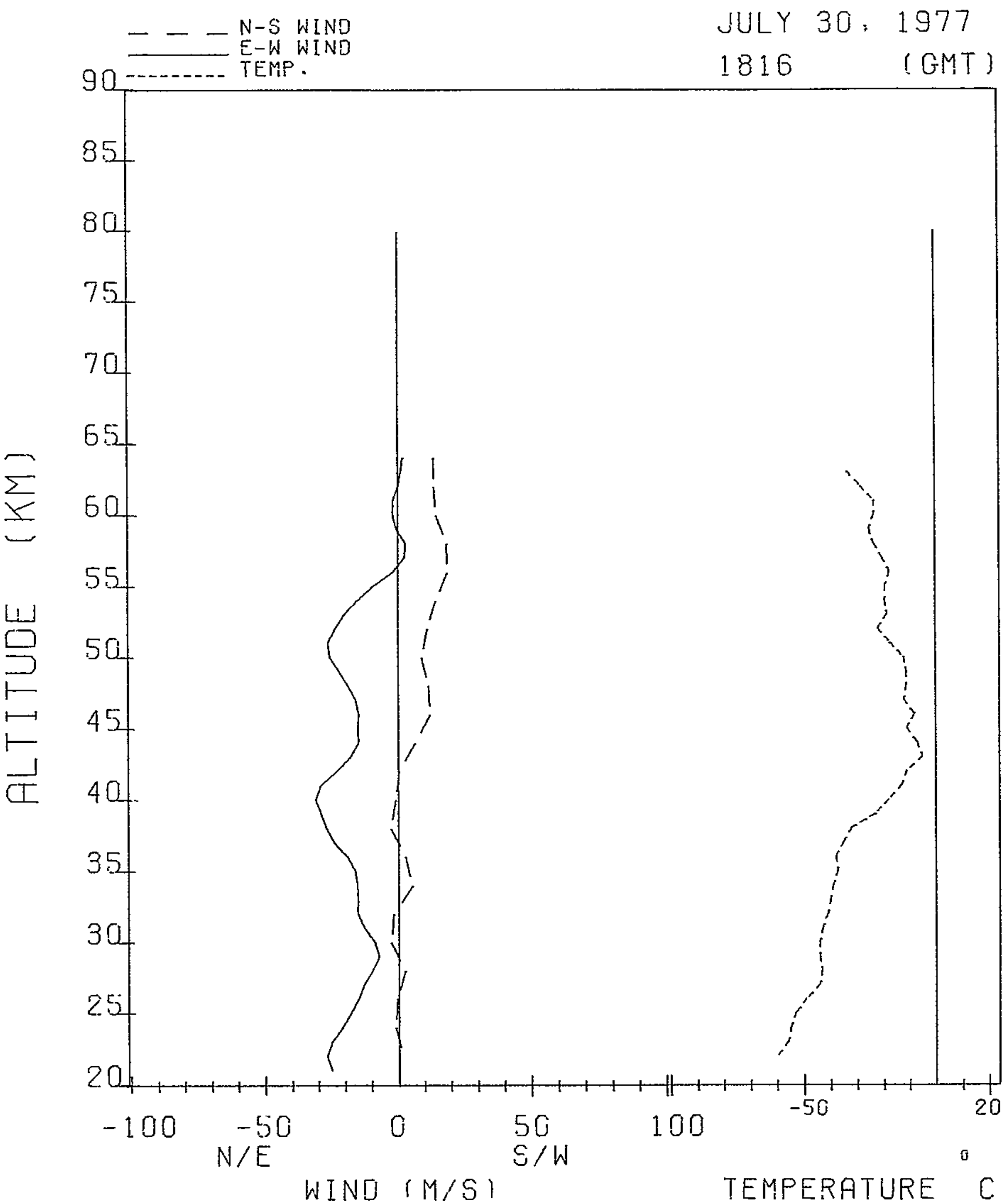
SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND POLAR DEG	WIND POLAR MPS	COMPONENT N-S	COMPONENT E-W	FV MPS	TEMP DEGC	TC	PRESS MB	DENSITY G M -3	SOS MPS	SPC A	SPC B
06500	999	999	9999	9999	999	9999		9.99999	9.99999	999		
06400	187	014	014	002	143	9999		9.99999	9.99999	999		
06343	187	014	014	002	143	-036		1.372-1	2.013-1	309		
06300	184	014	014	001	127	-033		1.454-1	2.113-1	310		
06200	180	014	014	000	122	-028		1.669-1	2.373-1	314		
06100	172	014	014	-002	111	-023		1.910-1	2.657-1	317		
06067	169	014	014	-003	111	-021		2.001-1	2.763-1	319		
06000	172	015	015	-002	111	-023		2.183-1	3.034-1	318		
05900	178	017	017	000	107	-025		2.497-1	3.504-1	316		
05880	183	018	018	001	106	-025		2.568-1	3.611-1	316		
05800	189	019	019	003	098	-023		2.856-1	3.979-1	317		
05700	187	020	020	002	089	-020		3.262-1	4.494-1	319		
05600	174	019	019	-002	083	-017		3.722-1	5.069-1	321		
05583	160	019	017	-006	083	-017		3.810-1	5.179-1	321		
05500	150	019	016	-009	079	-019		4.245-1	5.826-1	319		
05471	139	019	015	-013	077	-020		4.414-1	6.079-1	319		
05400	133	021	014	-015	074	-019		4.844-1	6.647-1	320		
05300	123	024	013	-020	068	-018		5.526-1	7.546-1	320		
05273	119	025	012	-022	067	-018		5.732-1	7.817-1	321		
05200	115	026	011	-024	063	-022		6.309-1	8.762-1	318		
05100	110	028	009	-026	058	-017		7.202-1	9.784-1	321		
05010	107	028	008	-027	053	-012		8.102-1	1.080+0	324		
05000	109	027	009	-025	052	-012		8.198-1	1.092+0	324		
04900	114	024	010	-022	048	-011		9.320-1	1.239+0	325		
04800	122	022	012	-018	047	-011		1.059+0	1.405+0	325		
04727	127	020	012	-016	045	-010		1.164+0	1.541+0	325		
04700	128	020	012	-016	044	-012		1.204+0	1.608+0	324		
04683	130	019	012	-015	044	-014		1.231+0	1.653+0	323		
04600	130	019	012	-015	041	-008		1.368+0	1.795+0	327		
04500	124	018	010	-015	037	-011		1.554+0	2.069+0	324		
04493	121	018	009	-015	035	-012		1.570+0	2.091+0	324		
04400	113	016	006	-015	034	-007		1.766+0	2.311+0	327		
04343	102	015	003	-015	033	-004		1.898+0	2.458+0	329		
04300	097	018	002	-018	033	-005		2.002+0	2.603+0	328		
04267	091	018	000	-018	033	-006		2.090+0	2.724+0	328		
04217	091	018	000	-018	033	-011		2.227+0	2.957+0	325		
04200	091	023	000	-023	032	-011		2.273+0	3.019+0	325		
04147	091	027	000	-027	032	-011		2.436+0	3.237+0	325		
04100	090	029	000	-029	031	-013		2.586+0	3.468+0	323		
04000	088	031	-001	-031	029	-018		2.948+0	4.030+0	320		
03971	087	030	-002	-030	028	-020		3.064+0	4.214+0	319		
03900	085	029	-003	-029	026	-023		3.368+0	4.685+0	317		
03893	084	028	-003	-028	025	-023		3.402+0	4.738+0	317		
03857	084	028	-003	-028	025	-021		3.569+0	4.933+0	318		
03800	084	027	-003	-027	024	-032		3.863+0	5.590+0	311		
03787	083	025	-003	-025	023	-035		3.931+0	5.750+0	309		
03722	083	025	-003	-025	023	-035		4.310+0	6.300+0	310		
03700	087	024	-001	-023	022	-035		4.447+0	6.518+0	309		
03627	091	021	000	-021	022	-038		4.932+0	7.297+0	308		
03600	099	019	003	-019	021	-038		5.128+0	7.584+0	308		
03500	111	017	006	-016	019	-037		5.917+0	8.735+0	308		
03483	119	016	008	-014	018	-037		6.062+0	8.947+0	308		
03400	110	016	005	-015	018	-039		6.830+0	1.017+1	307		
03330	104	015	004	-015	017	-041		7.554+0	1.133+1	306		
03300	100	015	003	-015	016	-040		7.892+0	1.181+1	306		
03243	090	015	000	-015	015	-040		8.566+0	1.278+1	306		
03200	083	015	-002	-015	014	-041		9.124+0	1.367+1	306		
03100	074	013	-004	-012	013	-043		1.056+1	1.599+1	304		
03045	064	012	-005	-011	013	-045		1.145+1	1.744+1	303		
03000	072	009	-003	-009	013	-044		1.223+1	1.862+1	303		
02900	092	007	000	-007	012	-044		1.418+1	2.153+1	304		
02800	105	010	003	-010	011	-043		1.642+1	2.489+1	304		
02798	102	012	003	-012	011	-043		1.647+1	2.496+1	304		
02750	102	012	003	-012	011	-045		1.768+1	2.695+1	303		
02700	097	013	002	-013	010	-044		1.903+1	2.899+1	303		
02694	092	014	001	-014	010	-044		1.920+1	2.924+1	303		
02642	092	014	001	-014	010	-046		2.073+1	3.185+1	302		
02615	092	014	001	-014	010	-049		2.160+1	3.354+1	300		
02613	092	014	001	-014	010	-049		2.167+1	3.369+1	300		
02600	088	015	-001	-015	009	-049		2.209+1	3.426+1	301		
02587	083	015	-002	-015	008	-048		2.252+1	3.484+1	301		
02554	083	015	-002	-015	008	-053		2.368+1	3.740+1	298		
02500	084	018	-002	-018	008	-053		2.573+1	4.078+1	297		
02449	083	019	-002	-019	008	-054		2.783+1	4.427+1	297		
02400	087	021	-001	-021	008	-055		3.002+1	4.785+1	296		
02300	091	025	000	-025	007	-056		3.506+1	5.615+1	296		
02275	094	027	002	-027	007	-056		3.647+1	5.848+1	296		
02200	094	027	002	-027	007	-060		4.103+1	6.712+1	293		
02108	094	027	002	-027	007	-065		4.756+1	7.975+1	289		
02100	093	025	001	-025	006	9999		9.99999	9.99999	999		

SOUNDING CONSTANT PRESSURE LEVELS (HGT IN GEOPOTENTIAL DECAMTRS)

05998	169	014	014	-003	-021	2.000-1	2.762-1	319
05701	194	021	020	005	-022	3.000-1	4.162-1	318
05488	160	019	017	-006	-018	4.000-1	5.461-1	320
05071	112	027	010	-025	-018	7.000-1	9.555-1	320
04800	119	023	011	-020	-011	1.000+0	1.328+0	325
04265	102	015	003	-015	-005	2.000+0	2.599+0	328
03955	087	030	-002	-030	-019	3.000+0	4.112+0	320
03590	091	021	000	-021	-038	5.000+0	7.397+0	308
03359	104	015	004	-015	-040	7.000+0	1.044+1	307
03116	079	016	-003	-015	-042	1.000+1	1.508+1	305
02650	092	014	001	-014	-045	2.000+1	3.060+1	303
02387	083	019	-002	-019	-055	3.000+1	4.782+1	296

FT. SHERMAN, C.Z.



78801 Y M D GMT TR WS TS AC BC WC TC
FT. SHERMAN. C.Z.
09.3N 080.0W 77 07 31 1900 -178 031 010 000 000 01 01

QUESTIONABLE DATA

BASE DATA

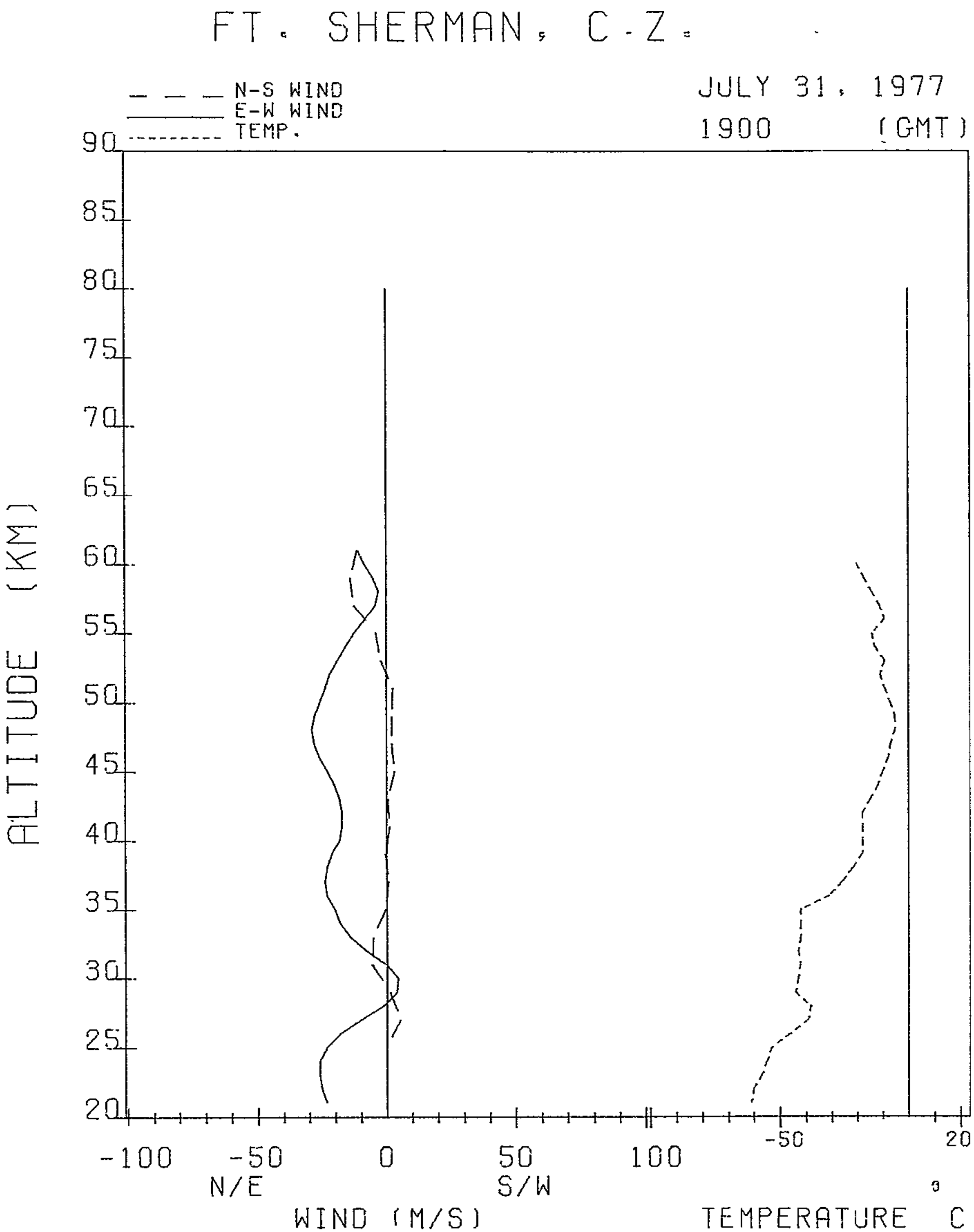
		WHT	WHB	THT	THB	SQ	SHT	SHB	RT	RP
GEOM HGT	2045 DECAMTRS									
PRESSURE	52.00 MBS									
TEMP	-64.7 DEGC								01	00

SOUNDING (HGT IN GEOMETRIC DECAMTRS)

HGT	WIND				FV	TEMP	TC	PRESS	DENSITY	SOS	SPC	SPC
	POLAR		COMPONENT									
	DEG	MPS	N-S	E-W	MPS	DEGC		MB	G M -3	MPS	A	B
06100	044	016	-012	-011	125	9999		9.99999	9.99999	999		
06038	044	016	-012	-011	125	-021		2.167-1	2.995-1	318		
06000	032	016	-013	-008	113	-020		2.280-1	3.136-1	319		
05910	032	016	-013	-008	113	-017		2.563-1	3.483-1	321		
05900	020	015	-014	-005	103	-017		2.600-1	3.530-1	321		
05800	011	015	-015	-003	087	-014		2.961-1	3.979-1	323		
05700	019	013	-012	-004	079	-011		3.367-1	4.480-1	324		
05600	047	011	-007	-008	075	-009		3.824-1	5.036-1	326		
05571	066	011	-004	-010	074	-008		3.959-1	5.202-1	327		
05500	072	013	-004	-012	073	-014		4.346-1	5.841-1	323		
05471	080	013	-002	-013	071	-016		4.502-1	6.106-1	321		
05400	081	016	-002	-015	071	-013		4.945-1	6.627-1	323		
05300	084	019	-002	-019	066	-009		5.620-1	7.407-1	326		
05283	086	021	-001	-021	064	-008		5.733-1	7.535-1	326		
05200	090	022	000	-022	061	-011		6.384-1	8.486-1	325		
05194	094	023	002	-023	056	-011		6.419-1	8.540-1	325		
05100	096	024	002	-024	055	-009		7.252-1	9.573-1	326		
05000	097	026	003	-026	054	-007		8.231-1	1.078+0	327		
04900	094	028	002	-028	050	-005		9.334-1	1.212+0	328		
04868	092	029	001	-029	049	-004		9.698-1	1.256+0	329		
04800	093	029	001	-029	048	-005		1.058+0	1.376+0	328		
04700	094	028	002	-028	044	-007		1.200+0	1.569+0	327		
04600	098	026	004	-026	042	-008		1.362+0	1.792+0	326		
04500	098	023	003	-023	039	-010		1.546+0	2.047+0	325		
04400	094	020	002	-020	037	-012		1.758+0	2.341+0	324		
04324	089	018	000	-018	036	-013		1.935+0	2.589+0	324		
04300	091	018	000	-018	035	-015		2.001+0	2.705+0	322		
04262	091	017	000	-017	034	-020		2.099+0	2.884+0	319		
04200	094	017	001	-017	032	-018		2.282+0	3.120+0	320		
04114	099	017	003	-017	032	-017		2.551+0	3.465+0	321		
04100	094	017	001	-017	031	-018		2.604+0	3.548+0	321		
04071	093	017	001	-017	029	-019		2.699+0	3.703+0	320		
04000	089	018	000	-018	028	-018		2.971+0	4.063+0	320		
03908	083	019	-002	-019	028	-018		3.350+0	4.566+0	321		
03900	088	021	-001	-021	027	-018		3.390+0	4.625+0	320		
03800	090	023	000	-023	025	-022		3.872+0	5.366+0	318		
03784	094	025	002	-025	024	-022		3.950+0	5.486+0	318		
03700	092	024	001	-024	023	-026		4.433+0	6.261+0	315		
03600	090	023	000	-023	021	-031		5.089+0	7.331+0	312		
03500	088	020	-001	-020	019	-042		5.869+0	8.840+0	305		
03493	087	019	-001	-019	018	-043		5.920+0	8.945+0	305		
03400	082	018	-003	-018	017	-042		6.791+0	1.025+1	305		
03300	068	015	-006	-013	016	-042		7.859+0	1.184+1	305		
03250	056	014	-008	-011	016	-042		8.444+0	1.271+1	305		
03200	044	011	-008	-007	015	-043		9.098+0	1.379+1	304		
03165	023	009	-009	-004	015	-045		9.565+0	1.457+1	303		
03100	001	006	-006	000	014	-042		1.053+1	1.587+1	305		
03097	321	006	-005	004	013	-042		1.056+1	1.591+1	305		
03041	321	006	-005	004	013	-045		1.147+1	1.749+1	303		
03000	303	005	-003	004	013	-043		1.219+1	1.843+1	304		
02959	270	006	000	006	013	-041		1.294+1	1.939+1	306		
02909	270	006	000	006	013	-044		1.392+1	2.116+1	304		
02900	252	004	001	004	012	-044		1.412+1	2.142+1	304		
02801	225	004	003	003	012	-038		1.629+1	2.417+1	307		
02800	164	005	004	-001	011	-038		1.633+1	2.424+1	307		
02749	145	007	006	-004	011	-043		1.757+1	2.654+1	305		
02700	119	011	005	-009	010	-039		1.887+1	2.811+1	307		
02691	113	015	006	-014	010	-039		1.913+1	2.843+1	307		
02648	113	015	006	-014	010	-046		2.036+1	3.125+1	302		
02600	100	018	003	-017	009	-046		2.185+1	3.355+1	302		
02566	092	022	001	-022	009	-046		2.302+1	3.535+1	302		
02500	089	023	000	-023	009	-053		2.542+1	4.015+1	298		
02400	087	026	-001	-026	008	-055		2.966+1	4.735+1	296		
02300	090	026	000	-026	007	-057		3.466+1	5.594+1	295		
02200	092	025	001	-025	007	-060		4.058+1	6.622+1	293		
02148	092	024	001	-024	007	-061		4.412+1	7.241+1	292		
02100	089	023	000	-023	006	-061		4.759+1	7.819+1	292		
02071	088	022	-001	-022	006	-061		4.986+1	8.199+1	292		
02045	088	022	-001	-022	006	-065		5.200+1	8.706+1	289		
02044	088	022	-001	-022	006	-065		5.207+1	8.722+1	289		

SOUNDING CONSTANT PRESSURE LEVELS (HGT IN GEOPOTENTIAL DECAMTRS)

05725	006	015	-015	-002	-014	3.000-1	4.027-1	323
05505	066	011	-004	-010	-009	4.000-1	5.268-1	326
05076	094	023	002	-023	-010	7.000-1	9.260-1	325
04799	092	029	001	-029	-005	1.000+0	1.297+0	329
04262	091	017	000	-017	-016	2.000+0	2.705+0	322
03959	083	019	-002	-019	-018	3.000+0	4.102+0	320
03585	091	023	000	-023	-031	5.000+0	7.185+0	312
03354	077	017	-004	-016	-042	7.000+0	1.056+1	305
03114	023	009	-009	-004	-043	1.000+1	1.516+1	304
02644	113	015	006	-014	-044	2.000+1	3.041+1	304
02381	089	026	-001	-026	-055	3.000+1	4.793+1	296
02059	088	022	-001	-022	-062	5.000+1	8.232+1	292


FT. SHERMAN, C.Z.
N-S WIND
E-W WIND
TEMP.
JULY 31, 1977
1900 (GMT)
ALTITUDE (KM)
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
-100 -50 0 50 100
N/E S/W
WIND (M/S)
-50 20
TEMPERATURE °C

APPENDIX C

LEARJET AND GROUND LEVEL

WHOLE-AIR SAMPLES

Dagmar Rais Cronn and Elmer Robinson

Washington State University

PRECEDING PAGE BLANK NOT FILMED

Table C1

Mixing Ratios of F-12, F-11, CH_3CCl_3, CCl_4, and N_2O from Learjet Whole-Air Samples (Flights 1-14)

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT I - JULY 17, 1977

Tropopause Height: 15.61 km (51,200 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location Radial DME	Deg.	N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-60	1-92	Taboga	355°	40	1014	761.5	332	149	132.5	333.5
45,000	13.72	-60	1-32	Taboga	350°	19	1030	691	296	145	131.5	331
40,000	12.19	-50	1-127	Taboga	355°	102	1039	364.5	187	97	124.5	332
40,000	12.19	-52	1-124	Taboga	360°	95	1046	392	193	102	132	332
40,000	12.19	-52	1-121	Taboga	002°	60	1053	377	190.5	102	122.5	333
40,000	12.19	-52	1-128	Taboga	010°	29	1056	380	191	110	128	330
35,000	10.67	-43	1-15	Taboga	359°	38	1103	288.5	161	93.5	126	331.5
35,000	10.67	-40	1-112	Taboga	356°	65	1108	284	160	97	129	327
35,000	10.67	-40	1-114	Taboga	354°	99	1113	280	157.5	90	124.5	333
35,000	10.67	-40	1-18	Taboga	357°	115	1118	286	163	98.5	132	331
30,000	9.14	-26	1-59	Taboga	360°	80	1123	269.5	153	92	130.5	331
30,000	9.14	-26	1-115	Taboga	004°	55	1128	268.5	154	88	127.5	330
30,000	9.14	-26	1-35	Taboga	010°	30	1132	271	154	95.5	131.5	331
30,000	9.14	-30	1-29	Taboga	004°	17	1136	269.5	153	93.5	133	331
25,000	7.62	-14	1-56	Taboga	352°	55	1143	263.5	152	95.5	128.5	333.5
25,000	7.62	-15	1-90	Taboga	352°	85	1149	264	150	92.5	128.5	332
20,000	6.10	-5	1-84	Taboga	352°	105	1152	258	149.5	91.5	131.5	329
20,000	6.10	-5	1-54	Taboga	355°	115	1156	261	150.5	90.5	130.5	332
15,000	4.57	0	1-8	Taboga	354°	90	1200	255	149.5	92	129	329
15,000	4.57	1	1-129	Taboga	355°	74	1205	256.5	150	90.5	131	332

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 2 - JULY 18, 1977

Tropopause Height: 15.12 km (49,600 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location Radial DME	Deg.	N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-62	1-85	Taboga	006°	123	1059	306	169	96.5	123.5	330
45,000	13.72	-63	1-11	Taboga	008°	35	1110	284	160	117	126.5	328
40,000	12.19	-53	1-14	Taboga	002°	114	1029	275	158.5	105.5	131	332
40,000	12.19	-53	1-69	Taboga	003°	50	1034	272	158	95	125	333
40,000	12.19	-52	1-76	Taboga	356°	20	1041	272	157	113	137	331
35,000	10.67	-39	1-123	Taboga	011°	30	1005	267.5	154	102.5	131.5	333
35,000	10.67	-40	1-48	Taboga	032°	26	1008	268.5	155	98	134.5	331.5
35,000	10.67	-39	1-89	Taboga	355°	55	1016	260	153	101	134	332
30,000	9.14	-27	1-103	Taboga	353°	96	0946	262	155	101	129	331.5
30,000	9.14	-30	1-58	Taboga	360°	113	0951	260.5	156	101	130.5	337
25,000	7.62	-19	1-6	Taboga	354°	33	1117	250	152	98	131	332
25,000	7.62	-16	1-21	Taboga	355°	54	1121	252.5	152	112.5	135	334.5
20,000	6.10	-6	1-2	Taboga	355°	44	1126	249	151	98	133	331
15,000	4.57	4	1-73	Taboga	015°	27	1130	245	147	97.5	126	328
15,000	4.57	3	1-52	Taboga	025°	15	1134	243	147	95	131	329.5
5,500 -2,000	1.68 -.61	16 23	1-72	South Tocumen			1140	248	149	95	131	331
2,000	.61	24	1-39	Taboga			1143	253.5	152	103.5	131	328
500	.15		1-126				1145	252	151	107	134	349.5
			1-96	Cabin Air			1103	1955	2171	154.5	131.5	331
			1-60	Cabin Air				1830.5	5498	5621	127	334

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 3 - JULY 19, 1977

Tropopause Height: 16.92 km (55,500 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location			TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
				Radial DME	Deg.	N.M.						
45,000	13.72	-62	1-40-C	Taboga	350°	42	1010	244.5	148	93	132	330.5
45,000	13.72	-62	1-13	Taboga	353°	70	1014	259	154	88	119	329
45,000	13.72	-63	1-74	Taboga	002°	103	1025	258.5	151.5	78.5	123.5	331
40,000	12.19	-52	1-122	Taboga	355°	90	0945	258	152	92	125	329.5
40,000	12.19	-52	1-100-C	Taboga	355°	105	0948	241.5	148.5	97	127.5	330
40,000	12.19	-53	1-108	Taboga	003°	75	0958	257.5	152	92	130	331
35,000	10.67	-38	1-10	Taboga	002°	49	0928	255	152	100	127	332
35,000	10.67	-39	1-120-C	Taboga	004°	39	0929	248	154	96.5	132	331
35,000	10.67	-39	1-105	Taboga	020°	12	0934	256.5	153	102	127	330.5
30,000	9.14	-25	1-67	Taboga	355°	98	0913	254	153	102.5	131	336
30,000	9.14	-29	1-55	Taboga	359°	108	0919	255	154	110	130	335
30,000	9.14	-29	1-47-C	Taboga	357°	115	0915	247.5	153.5	100	128	331.5
25,000	7.62	-19	1-49	Taboga	015°	43	1034	249	151	103	132	331
25,000	7.62	-16	1-93-C	Taboga	017°	36	1035	239	152	96.5	130.5	331
20,000	6.10	-7	1-78	Taboga	020°	18	1039	248	150	103	132	330.5
20,000	6.10	-5	1-38-C	Taboga	355°	27	1041	245.5	149.5	97	130.5	330.5
15,000	4.57	2	1-32	Taboga	353°	50	1047	243.5	146	95.5	130	330
15,000	4.57	2	1-25-C	Taboga	360°	55	1049	244.5	151	92	131	334.5
10,000	3.05	12	1-125				1054	EMPTY				
10,000	3.05	12	1-101-C	Taboga	010°	35	1055	241	147	93	128.5	330

C - Bleed air from engine compressor

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 4 - JULY 20, 1977

Tropopause Height: 14.48 km (47,500 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location Radial DME	Deg.	N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-64	1-111	Taboga	358°	44	1037	257	153	116	128.5	332.5
45,000	13.72	-65	1-54-C	Taboga	010°	55	1044	251	154	100.5	129.5	338
45,000	13.72	-65	1-35	Taboga	358°	50	1057	254	152	106	128	334
40,000	12.19	-50	1-37	Taboga	355°	75	1005	257.5	154.5	110	131	330.5
40,000	12.19	-55	1-114	Taboga	004°	118	1014	257	153.5	110	128	330.5
40,000	12.19	-55	1-121	Taboga	005°	73	1021	254.5	152	110	134	330.5
35,000	10.67	-38	1-81	Taboga	032°	75	0943	255.5	154	106.5	131.5	332
35,000	10.67	-39	1-74	Taboga	030°	45	0948	253.5	152	102.5	128.5	331.5
35,000	10.67	-39	1-102	Taboga	060°	14	0953	253.5	152	104.5	130	331.5
30,000	9.14	-27	1-61	Taboga	354°	75	0926	249	152	107.5	132	327
30,000	9.14	-30	1-80	Taboga	355°	114	0931	248.5	151.5	106	130.5	328
30,000	9.14	-31	1-56	Taboga	008°	112	0935	247.5	148.5	98	129	326.5
25,000	7.62	-21	1-16	Taboga	020°	15	1106	246	148	98	131	329.5
25,000	7.62	-19	1-116	Taboga	030°	32	1110	247	149	95.5	131	331
20,000	6.10	-6	1-90	Taboga	020°	29	1115	244	149	96	128.5	330.5
20,000	6.10	-6	1-66	Taboga	350°	17	1118	244	148	95	129.5	330.5
5,100	1.55	16	1-4	Taboga	10°	South	1127	246.5	149.5	95	129.5	332

C - Bleed air from engine compressor

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 5 - JULY 21, 1977

Tropopause Height: 15.85 km (52,000 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location Radial DME	Location Deg.	Location N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-62	1-85	Taboga	002°	15	1017	242.5	149	71	124.5	327
45,000	13.72	-63	6-106	Taboga	355°	90	1027	249.5	148	76	128	330.5
45,000	13.72	-63	1-76-C	Taboga	360°	115	1034	239	148.5	88.5	127.5	329
40,000	12.19	-53	1-29	Taboga	356°	62	0953	246.5	152.5	98	127.5	331
40,000	12.19	-52	1-115	Taboga	355°	115	0959	244	151	80	127	328
40,000	12.19	-52	1-69	Taboga	004°	83	1005	247.5	152	120.5	148	330
35,000	10.67	-37	1-15	Taboga	360°	85	0932	254.5	152	104	121.5	332.5
35,000	10.67	-40	1-89	Taboga	002°	55	0937	249	152	106.5	131	330
35,000	10.67	-40	1-114	Taboga	012°	25	0942	265.5	155	105.5	130	338
30,000	9.14	-26	1-62	Taboga	353°	55	0917	255	155	97	133.5	333.5
30,000	9.14	-28	1-95	Taboga	354°	79	0920	263	153.5	102.5	132	338
30,000	9.14	-29	1-127	Taboga	353°	105	0925	254	152	97.5	132	333
25,000	7.62	-19	1-112	Taboga	003°	55	1042	242.5	148.5	104	132	333.5
25,000	7.62	-19	1-48	Taboga	018°	38	1046	245.5	149	90.5	130.5	334
20,000	6.10	-5	1-59	Taboga	In the turn		1050	239	144	90	129	329
20,000	6.10	-4	1-123	Taboga	357°	35	1055	239	146	91	134	331
15,000	4.57	10	1-18	Taboga	020°	38	1059	241	145	95	133	331
15,000	4.57	8	1-14	Taboga	015°	54	1102	241.5	145	94	133	332
10,000	3.05	15	1-11	Taboga	360°	55	1106	245	145	98	129	331
5,000	1.52	18	6-182	Taboga	025°	05	1113	242	145.5	92.5	130	372

C - Bleed air from engine compressor

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 6 - JULY 22, 1977

Tropopause Height: 15.48 km (50,800 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location Radial DME	Location Deg.	Location N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-63	1-60	Taboga	002°	40	1010	249	152	81	126.5	332.5
45,000	13.72	-64	6-152	Taboga	352°	115	1020	243	151	76.5	123.5	324.5
45,000	13.72	-64	1-10-C	Taboga	355°	85	1027	246.5	149	93	130.5	333
40,000	12.19	-52	1-124	Taboga	355°	97	0945	246	150	87	113	329
40,000	12.19	-52	1-55	Taboga	005°	110	0951	251.5	152	78.5	123	331.5
40,000	12.19	-52	1-32	Taboga	358°	62	0959	246	151.5	103	131	330
35,000	10.67	-38	1-67	Taboga	005°	50	0925	242	151	100.5	131	325.5
35,000	10.67	-40	1-102	Taboga	022°	20	0930	244.5	154	100.5	132.5	327
35,000	10.67	-40	1-96	Taboga	358°	33	0936	249.5	153	106	131	330
30,000	9.14	-28	1-16	Taboga	355°	78	0912	229	149.5	100.5	131	325
30,000	9.14	-24	1-111	Taboga	355°	100	0915	242	152	100.5	128	334
30,000	9.14	-26	1-129	Taboga	358°	95	0919	247.5	150	99.5	124.5	330.5
25,000	7.62	-20	1-56	Taboga	360°	36	1035	240.5	146	95.5	124.5	325
25,000	7.62	-18	1-54	Tocumen	17		1039	247	151	97	134	329.5
20,000	6.10	-7	1-81	Taboga	332°	32	1044	241	146	92	130.5	331
20,000	6.10	-6	1-128	Taboga	348°	50	1048	232.5	144	89.5	128.5	324
15,000	4.57	5	1-78	Taboga	353°	42	1053	247.5	149	97	132.5	333.5
15,000	4.57	7	1-105	Taboga	342°	26	1057	242	148	92	132	331
10,000	3.05	13	1-84	Taboga	265°	16	1101	239	146	87	145	329.5
<10,000	<3.05	18	6-143	Taboga	210°	8	1107	235	147.5	99.5	129	327

C - Bleed air from engine compressor

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 7 - JULY 23, 1977

Tropopause Height: 15.54 km (51,000 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location Radial DME	Deg.	N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-63	1-21-C	Taboga	010°	34	1004	248.5	151.5	98	132	331
45,000	13.72	-64	1-6-C	Taboga	358°	20	1009	245	150	97	127.5	330.5
45,000	13.72	-65	6-83-C	Taboga	354°	65	1015	243	151	97	125	326
40,000	12.19	-53	1-63-C	Taboga	355°	70	0942	247	153	99.5	130	329.5
40,000	12.19	-54	1-74-C	Taboga	355°	105	0948	252.5	153.5	104.5	132.5	333.5
40,000	12.19	-53	1-2-C	Taboga	360°	90	0956	248	154	100.5	133	335
35,000	10.67	-38	1-90-C	Taboga	003°	59	0927	248.5	155	95	131	333.5
35,000	10.67	-38	1-92-C	Taboga	010°	35	0931	249	155	96	132	337
35,000	10.67	-38	1-73-C	Taboga	005°	12	0935	247	154	96.5	129.5	331.5
30,000	9.14	-26	1-72	Taboga	335°	90	0913	248	151.5	91	127	332
30,000	9.14	-29	1-37	Taboga	002°	119	0918	251	151	103	131.5	331
30,000	9.14	-28	1-80	Taboga	360°	100	0921	249	151	98	126.5	331
25,000	7.62	-20	1-108	Taboga	359°	117	1023	249	148.5	98	130.5	332.5
25,000	7.62	-19	1-58	Taboga			1027	246.5	151	99	132	329.5
20,000	6.10	-5	1-119	Taboga	359°	73	1032	240.5	148.5	97	131.5	332
20,000	6.10	-4	1-122	Taboga	014°	53	1036	246.5	148	98	132	331
15,000	4.57	5	1-126	Taboga	014°	30	1041	246.5	147.5	101	133.5	333
15,000	4.57	4	1-49	Taboga	007°	18	1046	246.5	149	99	131.5	330
10,000	3.05	15	1-121	Taboga	020°	28	1052	245	148	97	129	329.5
5,000	1.52	21	6-56	Taboga	060°	09	1057	246.5	147	96.5	120.5	322.5

C - Bleed air from engine compressor

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 8 - JULY 24, 1977

Tropopause Height: 15.45 km (50,700 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location Radial DME	Location Deg.	Location N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-64	1-115-C	Taboga	006°	47	1005	245	151.5	95.5	130	332
45,000	13.72	-64	1-102-C	Taboga	028°	18	1009	246	151	97	131.5	331.5
45,000	13.72	-64	6-162-C	Taboga	358°	45	1015	248.5	150	96	130	333.5
40,000	12.19	-51	1-103-C	Taboga	355°	59	0945	243.5	152	95.5	131.5	331
40,000	12.19	-52	1-62-C	Taboga	355°	96	0949	246	152	96.5	132	332.5
40,000	12.19	-52	1-123-C	Taboga	002°	117	0954	246	151	96.5	133	333.5
35,000	10.67	-35	1-112-C	Taboga	004°	67	0928	248	155	93	121	333
35,000	10.67	-38	1-48-C	Taboga	008°	41	0933	245	154	100.5	133	330.5
35,000	10.67	-38	1-114-C	Taboga	020°	20	0936	249	153.5	100.5	132	332.5
30,000	9.14	-25	1-127-C	Taboga	355°	87	0914	248	158	99	133	331
30,000	9.14	-25	1-29-C	Taboga	355°	115	0918	248	157	99.5	133.5	332.5
30,000	9.14	-27	1-15-C	Taboga	360°	103	0923	250	157.5	99	131	335
25,000	7.62	-20	1-60-C	Taboga	355°	90	1022	247	152	97.5	131.5	332
25,000	7.62	-17	1-69-C	Taboga	355°	112	1026	246	152.5	96	134	330
20,000	6.10	-6	1-52-C	Taboga	358°	99	1031	246	152.5	102	133	330
20,000	6.10	-5	1-85-C	Taboga	360°	79	1035	246	153	97	128	333
15,000	4.57	8	1-95-C	Taboga	002°	57	1039	246.5	153	100.5	131	330.5
15,000	4.57	9	1-67-C	Taboga	006°	48	1042	247	153	100	127.5	329
10,000	3.05	15	1-14-C	Taboga	015°	28	1048	246	151	95	132	329.5
<10,000	<3.05	18	6-176-C	Taboga				252.5	161.5	107	130	329

C - Bleed air from engine compressor

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 9 - JULY 25, 1977

Tropopause Height: 14.90 km (48,900 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location: Radial DME	Location: Deg.	Location: N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-64	1-126-C	Taboga	015°	28	1005	248	152	103.5	126	332
45,000	13.72	-65	1-74-C	Taboga	357°	24	1009	250.5	154	102	134.5	333
45,000	13.72	-66	6-2-C	Taboga	356°	81	1017	243.5	153	97.5	134	326
40,000	12.19	-52	1-32-C	Taboga	355°	94	0946	247.5	151.5	97	137.5	332.5
40,000	12.19	-53	1-56-C	Taboga	357°	123	0950	247	152	100	132	332
40,000	12.19	-53	1-21-C	Taboga	002°	92	0955	245.5	152	98.5	131	331
35,000	10.67	-36	1-92-C	Taboga	004°	48	0928	248.5	154	98	134.5	333
35,000	10.67	-38	1-96-C	Taboga	020°	21	0938	246.5	153	98	132.5	330
35,000	10.67	-38	1-6-C	Taboga	360°	32	0933	249.5	155	93	134	332
30,000	9.14	-25	1-72-C	Taboga	355°	95	0913	248	155	96.5	130	332
30,000	9.14	-27	1-63-C	Taboga	356°	118	0917	246	155	95.5	130.5	332
30,000	9.14	-26	1-128-C	Taboga	360°	93	0922	248	155	101	134	333
25,000	7.62	-17	1-108-C	Taboga	001°	106	1026	248.5	153	95	133	332.5
25,000	7.62	-14	1-58-C	Taboga	360°	80	1031	247.5	152	97	132	330.5
20,000	6.10	-6	1-37-C	Taboga	005°	40	1038	244	151	89.5	131	332.5
20,000	6.10	-5	1-16-C	Taboga	020°	19	1043	242	150	92	131.5	332.5
15,000	4.57	6	1-55-C	Taboga	355°	36	1049	243	146	112	126	326
15,000	4.57	4	1-84-C	Taboga	360°	49	1053	--	--	--	--	--
10,000	3.05	12	1-119-C	Taboga	020°	22	1101	248.5	154	103.5	130.5	331.5
1,700	.52	20	6-63-C	Taboga	356°	118	1111	243	161	106	132	328

C - Bleed air from engine compressor

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 10 - JULY 26, 1977

Tropopause Height: 15.85 km (52,000 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location Radial DME	Location Deg.	Location N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-63	1-126-C	Taboga	020°	13	1015	246	151	96	120	331.5
45,000	13.72	-64	1-128-C	Taboga	358°	35	1019	246	151	99	131.5	329.5
45,000	13.72	-63	6-81-C	Taboga	355°	78	1025	246	151	96	130.5	329
40,000	12.19	-52	1-123-C	Taboga	030°	7	0954	246	152	91	133	330.5
40,000	12.19	-53	1-32-C	Taboga	360°	26	0958	246.5	152.5	97	130.5	331
40,000	12.19	-53	1-48-C	Taboga	360°	53	1002	247.5	151.5	96	132.5	332
35,000	10.67	-37	1-72-C	Taboga	002°	90	0942	245.5	152.5	95.5	132	332
35,000	10.67	-39	1-74-C	Taboga	360°	69	0944	244	152.5	95.5	133	328
35,000	10.67	-39	1-127-C	Taboga	002°	49	0947	246	153	99	132	331.5
30,000	9.14	-24	1-112-C	Taboga	354°	72	0927	243	156	91	129	329.5
30,000	9.14	-27	1-114-C	Taboga	354°	94	0930	245.5	155	91	132	331.5
30,000	9.14	-27	1-84-C	Taboga	350°	115	0934	245.5	153	96.5	133	331.5
25,000	7.62	-19	1-95-C	Taboga	360°	116	1033	244.5	153	95	128.5	331.5
25,000	7.62	-17	1-29-C	Taboga	360°	94	1036	245	152	97	131.5	330
20,000	6.10	-6	1-103-C	Taboga	360°	66	1042	243.5	149	92	129.5	330
20,000	6.10	-5	1-92-C	Taboga	005°	48	1045	243	149	92	129	331.5
15,000	4.57	5	1-115-C	Taboga	025°	18	1051	239	149	94.5	130	328.5
15,000	4.57	5	1-69-C	Taboga	352°	25	1059	244	151	97.5	130.5	329
10,000	3.05	11	1-85-C	Taboga	008°	28	1102	246.5	154	104	133	324
2,000	.61	18	6-53-C	Taboga			1116	250	156	100	129	349

C - Bleed air from engine compressor

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 11 - JULY 27, 1977

Tropopause Height: 16.06 km (52,700 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location Radial DME	Location Deg.	Location N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-63	1-95-C	Taboga	004°	50	0958	248.5	153	98	129	332
45,000	13.72	-63	1-125-C	Taboga	020°	25	1002	245	150	97.5	125.5	342
45,000	13.72	-64	6-111-C	Taboga	353°	45	1012	244.5	153	101.5	130.5	329
40,000	12.19	-52	1-90-C	Taboga	353°	50	0937	252.5	157	106	134	330
40,000	12.19	-53	1-21-C	Taboga	353°	80	0942	244.5	155.5	103	131	332
40,000	12.19	-54	1-78-C	Taboga	353°	115	0947	250	154.5	99.5	130.5	332.5
35,000	10.67	-37	1-128-C	Taboga	360°	75	0923	252	157	94.5	131	333
35,000	10.67	-38	1-90-C	Taboga	353°	50	0926	252.5	157	106	134	330
35,000	10.67	-39	1-8-C	Taboga	015°	28	0930	252.5	157	104.5	130	329
30,000	9.14	-26	1-103-C	Taboga	352°	85	0910	255	159	99	131.5	334.5
30,000	9.14	-25	1-84-C	Taboga	352°	105	0914	254.5	157.5	99	131	330
30,000	9.14	-27	1-127-C	Taboga	358°	113	0917	255.5	160	108.5	132	331.5
25,000	7.62	-19	1-111-C	Taboga	353°	45	1017	243.5	151.5	115	127.5	330.5
25,000	7.62	-18	1-72-C	Taboga	353°	111	1020	249.5	151	97	132	331.5
20,000	6.10	-6	1-115-C	Taboga	003°	95	1029	241	149	97.5	127	330
20,000	6.10	-5	1-13-C	Taboga	002°	78	1031	245	151	94.5	133	331
15,000	4.57	6	1-48-C	Taboga	007°	58	1036	243	151	94.5	129	328
15,000	4.57	7	1-123-C	Taboga	010°	45	1039	246	151	94	128.5	330
10,000	3.05	14	1-124-C	Taboga	020°	25	1043	247	152.5	104.5	129.5	328.5
<10,000	<3.05	19	6-194-C	Taboga			1049	248.5	157	127.5	129.5	330

C - Bleed air from engine compressor

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 12 - JULY 28, 1977

Tropopause Height: 17.53 km (57,500 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location Radial DME	Deg.	N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-60	6-57-C	Taboga	020°	22	1000	251	151	94.5	133	331.5
45,000	13.72	-60	6-46-C	Taboga	360°	35	1006	242	156	96	128.5	331
40,000	12.19	-52	6-202-C	Taboga	358°	105	0943	253	153.5	100	131.5	331.5
40,000	12.19	-53	6-147-C	Taboga	358°	89	0950	254	153	95	135.5	330
35,000	10.67	-40	6-171-C	Taboga	008°	50	0929	248	155	94	130	333
35,000	10.67	-40	6-200-C	Taboga	358°	48	0935	245	155	94	130	330
30,000	9.14	-27	6-168-C	Taboga	002°	12	0918	250	159	107	128	333
30,000	9.14	-28	1-6-C	Taboga	360°	30	0922	248	155.5	111.5	130	331
25,000	7.62	-18	6-101-C	Taboga	355°	105	1017	243	150.5	89	128.5	332.5
25,000	7.62	-16	1-55-C	Taboga	358°	108	1021	242	149	94.5	127	331.5
20,000	6.10	-6	6-54-C	Taboga	360°	70	1029	242	155	90	130.5	330.5
20,000	6.10	-5	1-16-C	Taboga	005°	55	1032	245	152	101.5	128.5	331.5
15,000	4.57	4	6-164-C	Taboga	010°	30	1039	242	151	90	129	328
15,000	4.57	3	1-112-C	Taboga	010°	14	1042	245	151	102	128.5	330
10,000	3.05	12	6-188-C	Taboga	015°	29	1048	245.5	173.5	----	128	330
1,700	.52	18	6-19-C	Taboga			1100	282	166	----	127	330.5

C - Bleed air from engine compressor

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 13 - JULY 29, 1977

Tropopause Height: 16.15 km (53,000 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location Radial DME	Location Deg.	Location N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-62	6-157-C	Taboga	017°	14	0956	247	152	95.5	131.5	331.5
45,000	13.72	-63	6-163-C	Taboga	355°	47	1002	249	152	103	131.5	333
40,000	12.19	-51	6-88-C	Taboga	357°	120	0941	243	153	96	127.5	----
40,000	12.19	-52	6-65-C	Taboga	001°	78	0947	245	155	102	132.5	335.5
35,000	10.67	-37	6-138-C	Taboga	004°	64	0927	249.5	155	102	135	332
35,000	10.67	-38	6-179-C	Taboga	358°	65	0932	249	154	104.5	135.5	332.5
30,000	9.14	-25	1-78-C	Taboga	353°	85	0913	245.5	156	96	131.5	330.5
30,000	9.14	-27	6-28-C	Taboga	353°	120	0919	251.5	157	99	133	334
25,000	7.62	-18	6-145-C	Taboga	354°	110	1012	245.5	152.5	94	133	331.5
25,000	7.62	-16	1-95-C	Taboga	003°	107	1015	246	152	106	130	331.5
20,000	6.10	-5	6-170-C	Taboga	360°	65	1023	245	151.5	97	131	333
20,000	6.10	-5	1-13-C	Taboga	005°	48	1027	243	151	97.5	131	329
15,000	4.57	3	6-66-C	Taboga	025°	19	1034	239	148	87.5	131	329
15,000	4.57	3	1-123-C	Taboga	002°	25	1038	240.5	149	99.5	130	328.5
10,000	3.05	13	6-82-C	Taboga	018°	21	1045	239	148.5	91.5	131	333
<10,000	<3.05	16	6-67-C	Taboga			1051	253	156	102	133	330

C - Bleed air from engine compressor

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Learjet FLIGHT 14 - JULY 30, 1977

Tropopause Height: 15.03 km (49,300 ft)

Altitude (Ft)	Altitude (Km)	Temp (°C)	Can No.	Location Radial DME	Deg.	N.M.	TIME (EST)	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
45,000	13.72	-63	6-89-C	Taboga	008°	43	0959	246	150	88	127	330
45,000	13.72	-64	6-189-C	Taboga	360°	18	1005	246.5	152	94.5	129.5	330
40,000	12.19	-51	6-108-C	Taboga	358°	96	0942	250	152.5	96	129.5	334
40,000	12.19	-51	6-126-C	Taboga	005°	91	0951	248.5	153	94	131	333
35,000	10.67	-38	6-68-C	Taboga	360°	80	0925	247	154	97.5	132	329.5
35,000	10.67	-39	6-119-C	Taboga	006°	36	0932	247.5	153	97.5	133	331
30,000	9.14	-26	6-51-C	Taboga	355°	84	0913	250	155.5	98	129	336.5
30,000	9.14	-27	6-90-C	Taboga	355°	108	0916	243	154	95	130.5	329.5
25,000	7.62	-19	6-57-C	Taboga	355°	82	1016	243	151	93	133.5	332.5
25,000	7.62	-18	1-126-C	Taboga	355°	104	1020	238	148	90.5	127.5	329.5
20,000	6.10	-6	6-201-C	Taboga	358°	94	1027	243	150	99.5	129.5	333
20,000	6.10	-6	1-102-C	Taboga	358°	75	1032	239	149	93.5	129	331.5
15,000	4.57	4	6-112-C	Taboga	005°	45	1038	241.5	150	93	131	331
15,000	4.57	5	1-72-C	Taboga	012°	33	1042	240	148	92.5	130.5	327.5
10,000	3.05	12	6-147-C	Taboga	360°	19	1049	241	150	93	130.5	329
1,700	.52	17	6-171-C	Taboga			1056	248.5	155	101	129	329.5

C - Bleed air from engine compressor

Table C2

Mixing Ratios of F-12, F-11, CH_3CCl_3, CCl_4 and N_2O from Ground-Level Samples Collected in the Panama Canal Zone.

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations
Ground-Level Samples

Date	Time (EST)	Can No.	Location	F-12 (ppt)	F-11 (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)
7-15-77	1000	6-119	Howard Air Force Base, near bldg. 519	335	268	102	131	335.5
7-15-77	1000	6-89	Howard Air Force Base, near bldg. 519	362.5	315	102	128	335
7-15-77	1000	6-189	Howard Air Force Base, near bldg. 519	370.5	299	97	125	336.5
7-15-77	1000	6-201	Howard Air Force Base, near bldg. 519	381	333.5	102.5	129.5	327
7-15-77	1000	6-112	Howard Air Force Base, near bldg. 519	386	332	100	130.5	331.5
7-15-77	1430	6-51	Howard Elementary School	253.5	150	95.5	130.5	327
7-15-77	1430	6-108	Howard Elementary School	254.5	150	97	129	332
7-15-77	1450	6-68	Kobbe Elementary School	285	168	103	127	323.5
7-15-77	1450	6-126	Kobbe Elementary School	278	161	102.5	129	326
7-29-77	1125	1-128	Marsh, $\sim$18 mi. N of Howard A.F.B.	248	148	113.5	127.5	331.5
7-29-77	1135	1-127	Marsh, $\sim$18 mi. N of Howard A.F.B.	249.5	150	118.5	131.5	327
7-29-77	1210	1-58	Near canal bank at rifle range $\sim$18 mi. N of Howard A.F.B.	254.5	149.5	118.5	131	331.5
7-29-77	1215	1-103		256	150.5	106.5	157	334
7-30-77	1405	1-58	Park near Spanish Trail	248.5	149	122.5	126	330
7-30-77	1415	1-128	Park near Spanish Trail	249	149	103	129.5	329
7-30-77	1425	1-127	Park near Spanish Trail	249	149	107.5	132	329.5

Table C3

Mixing Ratios of F-114, F-113, $CHCl_3$, $CHCl{=}CCl_2$ and C_2Cl_4 for Selected Learjet Whole-Air Samples.

Intertropical Convergence Zone Study
Additional Halocarbon Concentrations

Learjet Flight 6 - July 22, 1977
Tropopause Height: 15.48 km (50,800 ft)

Altitude (ft)	Altitude (km)	Temp (°C)	Can No.	LOCATION Radial DME	Deg.	N.M.	Time (EST)	F114 (ppt)	F113 (ppt)	$CHCl_3$ (ppt)	$CHCl{=}CCl_2$ (ppt)	C_2Cl_4 (ppt)
45,000	13.72	-64	6-152	Taboga	352°	115	1020	11.9	49.8	6.1	15.2	6.6
45,000	13.72	-64	1-10-C	Taboga	355°	85	1027	11.4	58.8	11.0	50.8	8.4
30,000	9.14	-26	1-129	Taboga	358°	95	0919	--	26.3	33.5	42.8	8.4
25,000	7.62	-18	1-54	Tocumen	17		1039	11.4	30.5	12.8	71.2	10.6
20,000	6.10	-7	1-81	Taboga	332°	32	1044	9.8	45.6	22.2	32.9	6.4
15,000	4.57	7	1-105	Taboga	342°	26	1057	9.9	23.0	18.6	21.4	7.8
< 10,000	< 3.05	18	6-143	Taboga	210°	8	1107	11.0	24.7	31.7	24.2	10.1

Learjet Flight 7 - July 23, 1977
Tropopause Height: 15.54 km (51,000 ft)

Altitude (ft)	Altitude (km)	Temp (°C)	Can No.	LOCATION Radial DME	Deg.	N.M.	Time (EST)	F114 (ppt)	F113 (ppt)	$CHCl_3$ (ppt)	$CHCl{=}CCl_2$ (ppt)	C_2Cl_4 (ppt)
45,000	13.72	-65	6-83-C	Taboga	354°	65	1015	21.9	25.4	8.0	12.1	6.2
5,000	1.52	21	6-56	Taboga	060°	9	1057	24.4	25.6	21.2	19.0	7.7

Learjet Flight 8 - July 24, 1977
Tropopause Height: 15.45 km (50,700 ft)

Altitude (ft)	Altitude (km)	Temp (°C)	Can No.	LOCATION Radial DME	Deg.	N.M.	Time (EST)	F114 (ppt)	F113 (ppt)	$CHCl_3$ (ppt)	$CHCl{=}CCl_2$ (ppt)	C_2Cl_4 (ppt)
45,000	13.72	-64	6-162-C	Taboga	358°	45	1015	12.2	20.2	7.6	8.0	6.4

Intertropical Convergence Zone Study
Additional Halocarbon Concentrations

Learjet Flight 9 - July 25, 1977
Tropopause Height: 14.90 km (48,900 ft)

Altitude (ft)	Altitude (km)	Temp (°C)	Can No.	LOCATION Radial DME	Deg.	N.M.	Time (EST)	F114 (ppt)	F113 (ppt)	$CHCl_3$ (ppt)	$CHCl{=}CCl_2$ (ppt)	C_2Cl_4 (ppt)
45,000	13.72	-66	6-2-C	Taboga	356°	81	1017	12.4	28.8	3.2	5.2	2.7
40,000	12.19	-53	1-56-C	Taboga	357°	123	0950	10.2	35.3	5.7	19.0	6.2
35,000	10.67	-38	1-96-C	Taboga	020°	21	0938	10.4	52	10.0	21.5	12.4
30,000	9.14	-27	1-63-C	Taboga	356°	118	0917	10.4	38.7	10.6	24.5	9.0
25,000	7.62	-17	1-108-C	Taboga	001°	106	1026	10.8	32.6	9.3	10.3	9.6
20,000	6.10	-6	1-37-C	Taboga	005°	40	1038	10.4	34.2	13.2	18.0	8.8
10,000	3.05	12	1-119-C	Taboga	020°	22	1101	10.8	26.8	18.2	35.8	11.5

Learjet Flight 10 - July 26, 1977
Tropopause Height: 15.85 km (52,000 ft)

Altitude (ft)	Altitude (km)	Temp (°C)	Can No.	LOCATION Radial DME	Deg.	N.M.	Time (EST)	F114 (ppt)	F113 (ppt)	$CHCl_3$ (ppt)	$CHCl{=}CCl_2$ (ppt)	C_2Cl_4 (ppt)
45,000	13.72	-63	6-81-C	Taboga	355°	78	1025	21.6	25.0	8.4	19.4	12.2
40,000	12.19	-53	1-32-C	Taboga	360°	26	0958	96.6	24.4	21.6	11.1	14.2
35,000	10.67	-39	1-74-C	Taboga	360°	69	0944	10.6	22.1	5.4	10.8	4.4
30,000	9.14	-27	1-114-C	Taboga	354°	94	0930	10.0	19.8	101.5	18.5	7.6
25,000	7.62	-17	1-29-C	Taboga	360°	94	1036	10.4	20.9	107.5	19.6	10.4
20,000	6.10	-5	1-92-C	Taboga	005°	48	1045	10.2	21.2	102.0	75.6	9.6
15,000	4.57	5	1-69-C	Taboga	352°	25	1059	11.2	20.1	12.8	40.7	8.9
10,000	3.05	11	1-85-C	Taboga	008°	28	1102	11.0	74.5	55.0	108.5	11.2
2,000	.61	18	6-53-C	Taboga			1116	96.6	24.4	21.6	11.1	14.2

Intertropical Convergence Zone Study
Additional Halocarbon Concentrations

Learjet Flight 13 - July 29, 1977
Tropopause Height: 16.15 km (53,000 ft)

Altitude (ft)	Altitude (km)	Temp (°C)	Can No.	LOCATION Radial DME	LOCATION Deg.	LOCATION N.M.	Time (EST)	F114 (ppt)	F113 (ppt)	$CHCl_3$ (ppt)	$CHCl{=}CCl_2$ (ppt)	C_2Cl_4 (ppt)
45,000	13.72	-62	6-157-C	Taboga	017°	14	0956	10.6	24.4	8.2	9.4	8.1
45,000	13.72	-63	6-163-C	Taboga	355°	47	1002	11.0	23.8	7.7	8.4	9.4
40,000	12.19	-51	6-88-C	Taboga	357°	120	0941	17.2	52.7	97.7	133.0	12.9
40,000	12.19	-52	6-65-C	Taboga	001°	78	0947	11.4	22.6	9.1	16.4	9.2
35,000	10.67	-37	6-138-C	Taboga	004°	64	0927	10.6	25.6	7.6	7.7	8.2
35,000	10.67	-38	6-179-C	Taboga	358°	65	0932	11.4	18.2	7.2	8.0	7.0
30,000	9.14	-27	6-28-C	Taboga	353°	120	0919	12.2	22.3	7.7	7.8	8.8
25,000	7.62	-18	6-145-C	Taboga	354°	110	1012	10.1	25.2	11.0	12.9	7.6
15,000	4.57	3	6-66-C	Taboga	025°	19	1034	14.4	28.1	21.4	17.8	15.3
10,000	3.05	13	6-82-C	Taboga	018°	21	1045	17.8	43.9	137.2	137	7.6
<10,000	< 3.05	16	6-67-C	Taboga			1051	74.0	32.7	35.6	21.8	12.0

Intertropical Convergence Zone Study
Additional Halocarbon Concentrations

Learjet Flight 14 - July 30, 1977
Tropopause Height: 15.03 km (49,300 ft)

Altitude (ft)	Altitude (km)	Temp (°C)	Can No.	LOCATION Radial DME.	Deg.	N.M.	Time (EST)	F114 (ppt)	F113 (ppt)	$CHCl_3$ (ppt)	$CHCl=CCl_2$ (ppt)	C_2Cl_4 (ppt)
45,000	13.72	-63	6-89-C	Taboga	008°	43	0959	11.5	22.8	9.0	28.0	7.2
45,000	13.72	-64	6-189-C	Taboga	360°	18	1005	10.6	22.7	9.6	9.8	8.0
40,000	12.19	-51	6-108-C	Taboga	358°	96	0942	10.5	23.0	8.0	23.9	8.1
35,000	10.67	-38	6-68-C	Taboga	360°	80	0925	11.2	24.6	9.6	23.1	8.4
35,000	10.67	-39	6-119-C	Taboga	006°	36	0932	10.8	26.8	18.2	35.8	11.5
30,000	9.14	-26	6-51-C	Taboga	355°	84	0913	20.7	22.0	8.2	18.0	8.2
25,000	7.62	-19	6-57-C	Taboga	355°	82	1016	13.2	20.4	11.0	21.6	9.4
25,000	7.62	-18	1-126-C	Taboga	355°	104	1020	11.0	26.4	14.4	17.6	10.4
20,000	6.10	-6	6-201-C	Taboga	358°	94	1027	11.0	23.2	24.0	20.8	15.6
15,000	4.57	4	6-112-C	Taboga	005°	45	1038	11.6	19.2	9.4	21.8	7.8
10,000	3.05	12	6-147-C	Taboga	360°	19	1049	65.0	22.6	23.6	27.2	18.6
1,700	.52	17	6-171-C	Taboga			1056	10.7	42.2	271.0	46.0	14.2

Intertropical Convergence Zone Study
Additional Halocarbon Concentrations

Learjet Flight 11 - July 27, 1977
Tropopause Height: 16.06 km (52,700 ft)

Altitude (ft)	Altitude (km)	Temp (°C)	Can No.	LOCATION Radial DME	Deg.	N.M.	Time (EST)	F114 (ppt)	F113 (ppt)	$CHCl_3$ (ppt)	$CHCl{=}CCl_2$ (ppt)	C_2Cl_4 (ppt)
25,000	7.62	-19	1-111-C	Taboga	353°	45	1017	12.2	24.5	9.9	13.7	9.9
< 10,000	< 3.05	19	6-194-C	Taboga			1049	11.8	53.1	21.4	17.4	23.2

Learjet Flight 12 - July 28, 1977
Tropopause Height: 17.53 km (57,500 ft)

Altitude (ft)	Altitude (km)	Temp (°C)	Can No.	LOCATION Radial DME	Deg.	N.M.	Time (EST)	F114 (ppt)	F113 (ppt)	$CHCl_3$ (ppt)	$CHCl{=}CCl_2$ (ppt)	C_2Cl_4 (ppt)
45,000	13.72	-60	6-46-C	Taboga	360°	35	1006	19.4	17.2	7.0	11.4	10.7
40,000	12.19	-52	6-202-C	Taboga	358°	105	0943	11.6	21.6	9.7	10.7	11.1
35,000	10.67	-40	6-200-C	Taboga	358°	48	0935	10.7	27.2	8.3	8.0	9.2
30,000	9.14	-27	6-168-C	Taboga	002°	12	0918	11.0	24.0	10.2	14.9	9.6
25,000	7.62	-18	6-101-C	Taboga	355°	105	1017	13.2	21.2	5.8	8.6	6.7
20,000	6.10	-6	6-54-C	Taboga	360°	70	1029	19.4	19.9	8.6	9.4	10.5
15,000	4.57	4	6-164-C	Taboga	010°	30	1039	11.1	19.8	9.8	18.4	10.7
10,000	3.05	12	6-188-C	Taboga	015°	29	1048	11.5	23.2	10.2	10.1	11.5
1,700	.52	18	6-19-C	Taboga			1100	65.0	22.6	23.6	27.2	18.6

Table C4

CH_3Cl and CH_2Cl_2 Mixing Ratios for Selected Learjet Whole-Air Samples

Intertropical Convergence Zone Study
CH_3Cl and CH_2Cl_2 Concentrations
Learjet Flights 1-14

Date	Altitude (ft)	Altitude (km)	Can No.	CH_3Cl (ppt)	CH_2Cl_2 (ppt)
7-18-77	2,000	.61	1-39	1284.5	39.5
7-19-77	45,000	13.72	1-40	629	35
7-19-77	40,000	12.19	1-100	536	42
7-19-77	35,000	10.67	1-120	520	34
7-19-77	30,000	9.14	1-47	522	32
7-19-77	25,000	7.62	1-93	605	44
7-19-77	20,000	6.10	1-38	519	39
7-19-77	15,000	4.57	1-25	679	32
7-19-77	10,000	3.05	1-101	1543.5	33
7-20-77	5,100	1.55	1-4	1407	78.5
7-21-77	5,000	1.52	6-182	652	30
7-22-77	4,000	1.22	6-143	676	37
7-23-77	5,000	1.52	6-56	796	43
7-24-77	45,000	13.72	1-162	531.5	31
7-24-77	40,000	12.19	1-62	569	31
7-24-77	30,000	9.14	1-15	655	30.5
7-24-77	25,000	7.62	1-60	578	31
7-24-77	20,000	6.10	1-52	635	34
7-24-77	15,000	4.57	1-67	939	37.5
7-24-77	10,000	3.05	1-14	603	34
7-25-77	1,700	.52	6-63	686	41
7-26-77	$<$2,000	$<$.61	6-53	478.5	36
7-27-77	$<$10,000	$<$3.05	6-194	785.5	46.5
7-28-77	1,700	.52	6-19	794	58
7-29-77	45,000	13.72	6-157	620	33
7-29-77	45,000	13.72	6-163	598.5	31
7-29-77	40,000	12.19	6-65	591	30
7-29-77	40,000	12.19	6-88	627	32
7-29-77	35,000	10.67	6-138	513	30
7-29-77	35,000	10.67	6-179	580	31.5
7-29-77	30,000	9.14	1-78	726	32.5
7-29-77	30,000	9.14	6-28	657	36
7-29-77	25,000	7.62	1-95	590	37
7-29-77	25,000	7.62	6-145	705.5	34
7-29-77	20,000	6.10	1-13	605	34
7-29-77	15,000	4.57	6-66	702	36
7-29-77	15,000	4.57	1-123	587	32
7-29-77	10,000	3.05	6-82	657	39
7-29-77	$<$10,000	$<$3.05	6-67	872	45
7-30-77	1,700	.52	6-171	1133	39

Table C5

SF_6 Mixing Ratios for
Selected Learjet Whole-Air Samples.

Intertropical Convergence Zone Study
SF_6 Concentrations
Learjet Flights 4 and 5

Date	Altitude (ft)	Altitude (km)	Can No.	SF_6 (ppt)
7-20-77	45,000	13.72	1-35	0.21
7-20-77	35,000	10.67	1-74	0.17
7-20-77	30,000	9.14	1-61	0.21
7-20-77	25,000	7.62	1-116	0.19
7-20-77	20,000	6.10	1-66	0.18
7-20-77	5,100	1.55	1-4	0.21
7-21-77	45,000	13.72	1-76	0.18
7-21-77	35,000	10.67	1-89	0.18
7-21-77	20,000	6.10	1-59	0.18
7-21-77	15,000	4.57	1-11	0.18
7-21-77	10,000	3.05	1-18	0.16
7-21-77	5,000	1.52	6-182	0.19

Table C6

Concentrations of Ethane, Acetylene and Ethylene for Selected Learjet Whole-Air Samples.

Intertropical Convergence Zone Study
Ethane, Acetylene, and Ethylene Concentrations

Date	Altitude ft (km)	Can No.	Ethane $\mu g/m^3$ (ppb)	Acetylene $\mu g/m^3$ (ppb)	Ethylene $\mu g/m^3$ (ppb)
7-22-77	45,000 (13.72)	6-152	.65 (.53)	.08 (.08)	1.52 (1.33)
7-23-77	45,000 (13.72)	6-83	.73 (.59)	.07 (.07)	.21 (.18)
7-23-77	40,000 (12.19)	1-2	.90 (.73)	.05 (.05)	.50 (.44)
7-23-77	35,000 (10.67)	1-73	1.11 (.90)	.05 (.05)	.43 (.38)
7-23-77	30,000 (9.14)	1-80	.81 (.66)	.03 (.03)	1.11 (.97)
7-23-77	20,000 (6.10)	1-122	.64 (.52)	.06 (.06)	.40 (.35)
7-23-77	15,000 (4.57)	1-49	.40 (.33)	.02 (.02)	.80 (.70)
7-23-77	10,000 (3.05)	1-121	1.02 (.83)	.08 (.08)	.38 (.33)
7-23-77	5,000 (1.52)	6-56	1.25 (1.02)	.12 (.11)	.91 (.79)
7-24-77	45,000 (13.72)	6-162	.85 (.69)	.10 (.10)	.45 (.39)
7-25-77	45,000 (13.72)	6-2	.70 (.57)	.03 (.03)	.06 (.05)
7-26-77	45,000 (13.72)	6-81	1.09 (.89)	.14 (.13)	.09 (.08)
7-27-77	45,000 (13.72)	6-111	1.11 (.90)	.11 (.10)	.13 (.11)
7-28-77	45,000 (13.72)	6-46	.78 (.64)	0 0	.18 (.16)
7-28-77	40,000 (12.19)	6-202	1.58 (1.29)	.14 (.13)	.20 (.17)
7-28-77	35,000 (10.67)	6-200	.95 (.77)	.08 (.08)	.13 (.11)
7-28-77	30,000 (9.14)	6-168	1.53 (1.25)	.06 (.06)	.25 (.22)
7-28-77	30,000 (9.14)	1-6	1.21 (99)	.08 (.08)	1.55 (1.35)
7-28-77	25,000 (7.62)	6-101	.40 (.33)	.03 (.03)	.11 (.10)
7-28-77	25,000 (7.62)	1-55	.42 (.34)	.03 (.03)	.12 (.10)
7-28-77	20,000 (6.10)	6-54	1.25 (1.01)	.12 (.11)	.16 (.14)
7-28-77	20,000 (6.10)	1-16	.87 (.71)	.06 (.06)	.25 (.22)

Date	Altitude ft (km)	Can No.	Ethane $\mu g/m^3$ (ppb)	Acetylene $\mu g/m^3$ (ppb)	Ethylene $\mu g/m^3$ (ppb)
7-28-77	17,000 (5.18)	6-19	1.90 (1.55)	.42 (.40)	1.50 (1.31)
7-28-77	15,000 (4.57)	6-164	.51 (.42)	.06 (.06)	.20 (.17)
7-28-77	15,000 (4.57)	1-112	.60 (.49)	.07 (.07)	.02 (.89)
7-28-77	10,000 (3.05)	6-188	1.29 (1.05)	.30 (.28)	.38 (.33)
7-29-77	45,000 (13.72)	6-157	.99 (.81)	.05 (.05)	.19 (.17)
7-30-77	45,000 (13.72)	6-89	.93 (.76)	.04 (.04)	.43 (.38)

APPENDIX D

U-2 WHOLE-AIR SAMPLES

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Table D1

Mixing Ratios for Halocarbons and N_2O
from U-2 Whole-Air and Cryogenic Samples

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations

U-2 Flights 21-26, July 18-28, 1977

Date	Flight	Altitude ft	Altitude km	Temp °C	Sample #	LOCATION Lat.	LOCATION Long.	Time (EST)	F-12 (ppt)	F-114 (ppt)	F-11 (ppt)	F-113 (ppt)	$CHCl_3$ (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)	C_2HCl_3 (ppt)	C_2Cl_4 (ppt)
7/18	21	70,000	21.3	-58	2*	10°16'	79°20'	11 17	196	12.8	74.2	7.8	--	--	54.7	299	--	--
"	21	65,000	19.8	-63	9RT	10°46'	79°35'	11 01	126	6	80		10	60		--	76	218
"	21	60,000	18.3	-70	1*	10°16'	79°20'	10 07	176	8.0	--	--	--	--	--	275	--	--
"	21	60,000	18.3	-69	1RT	7°54	79°20'	10 28	210	39	59		56	49		--	70	11
"	21	60,000	18.3	-70	9LFT	10°30'	79°20'	10 05	195	34	96		7	76		--	--	58
"	21	55,000	16.8	-78	7RT	10°46'	79°20'	09 55	--	34	73		74	92		--	66	58
"	21	45,000	13.7	-71	7LFT	8°08'	79°35'	08 17	205	41	105		17	120		288	97	18
7/19	22	70,000	21.3	-62	5*	8°47'	79°35'	12 07	167	11.1	68.9	7.4	--	--	55.2	258	--	--
"	22	65,000	19.8	-64	8RT	10°20'	79°20'	11 30	194	66	58		84	66		266	178	30
"	22	60,000	18.3	-68	8LFT	10°46'	79°35'	11 20	197	18	61		32	48		293	105	220
"	22	60,000	18.3	-68	5FWD	8°11'	79°35'	10 57	195	21	89		32	66		239	64	38
"	22	55,000	16.8	-77	4FWD	11°20'	79°20'	10 24	205	38	87		48	57		288	108	39
"	22	45,000	13.7	-70	6LFT	8°13'	79°35'	9 50	226	30	128		51	72		253	97	50
7/23	23	70,000	21.3	-73	6*	8°11'	79°35'	11 15	163	3 7	--	--	--	--	--	259	--	--
"	23	65,000	19.8	-64	6RT	10°46'	79°35'	10 59	202	28	108		9	65		255	8	17
"	23	60,000	18.3	-70	1*	9°35'	79°20'	11 15	182	11.1	62.6	3.8	--	--	--	289	--	--
"	23	60,000	18.3	-68	5FWD	10°46'	79°35'	11 20	218	8	124		20	83		311	20	20
"	23	60,000	18.3	-68	8LFT	8°11'	79°35'	10 57	202	5	65		13	59		304	16	50
"	23	55,000	16.8	-78	4FWD	10°46'	79°35'	9 53	211	8	75		17	71		308	20	16
"	23	45,000	13.7	-72	5AFT	10°46'	79°35'	8 45	224	43	123		15	140		300	21	24
"	23	45,000	13.7	-73	7LFT	8°11'	79°35'	8 22	220	8	109		17	100		312	18	8
7/25	24	70,000	21.3	-62	5*	10°16'	79°20'	10 10	138	10.1	54.4	6.0	--	--	42	252	--	--
"	24	65,000	19.8	-69	6LFT	10°46'	79°35'	9 51	205	10	101		24	71		308	6	26
"	24	65,000	19.8	-69	9RT	8°14'	79°35'	9 28	184	4	69		15	55		297	3	49
"	24	60,000	18.3	-72	2*	10°14'	79°20'	8 56	159	12.2	71.5	7.0	--	--	61.5	253	--	--
"	24	60,000	18.3	-72	1RT	7°54'	79°35'	9 17	188	6	50		14	62		295	12	16
"	24	60,000	18.3	-72	9LFT	10°30'	79°35'	8 54	190	6	56		14	71		292	12	27
"	24	55,000	16.8	-79	7RT	10°46'	79°35'	8 44	207	10	76		13	59		239	9	10
"	24	55,000	16.8	-78	8RT	8°12'	79°35'	8 21	209	7	80		16	65		311	13	28

*NASA - Ames results from cryogenic samples.

(Cont'd)

Intertropical Convergence Zone Study
Halocarbon and N_2O Concentrations

U-2 Flights 21-26, July 18-28, 1977

Date	Flight	Altitude ft	Altitude km	Temp °C	Sample #	LOCATION Lat.	LOCATION Long.	Time (EST)	F-12 (ppt)	F-114 (ppt)	F-11 (ppt)	F-113 (ppt)	$CHCl_3$ (ppt)	CH_3CCl_3 (ppt)	CCl_4 (ppt)	N_2O (ppb)	C_2HCl_3 (ppt)	C_2Cl_4 (ppt)
7/28	25	70,000	21.3	-60	6*	8°43'	79°35'	10 01	157	3.1	--	--	--	--	--	244	--	--
"	25	65,000	19.8	-67	6RT	10°00'	79°20'	10 33	186	14	99		12	52		259	10	20
"	25	60,000	18.3	-70	1*	10°37'	79°20'	9 23	175	10.6	65.2	5.5	--	--	--	264	--	--
"	25	60,000	18.3	-70	5FWD	8°11'	79°20'	9 44	190	9	102		14	78		292	18	18
"	25	45,000	13.7	-70	5AFT	9°55'	79°35'	8 27	214	35	111		17	113		298	12	23
7/29	26	70,000	21.3	-60	7*	8°39'	79°35'	9 48	166	3.8	--	--	--	--	--	263	--	--
"	26	65,000	19.8	-63	9RT	10°17'	79°20'	10·20	179	4	70		20	--		273	10	64
"	26	60,000	18.3	-72	5*	10°37'	79°20'	9 13	180	12.6	72.1	6.4	--	--	55.4	265	--	--
"	26	60,000	18.3	-71	9LFT	10°46'	79°20'	9·34	182	5	58		16	80		298	13	30
"	26	60,000	18.3	-72	1RT	10°46'	79°20'	9 11	194	9	58		14	68		308	12	8
"	26	55,000	16.8	-79	6LFT	10°46'	79°35'	9 04	208	7	100		12	57		293	10	15
"	26	45,000	13.7	-69	7RT	8°42'	79°35'	8 25	221	12	99		17	85		275	16	10

*NASA - Ames results from cryogenic samples.

Table D2

Individual Sample Analysis Results
for the U-2 Whole-Air Samples

Intertropical Convergence Zone Study
Individual Sample Analyses for Halocarbons and N_2O

U-2 Flight #21 7/18/77, Tropopause 49,600 ft, ITCZ 12°N

	9 RT, 65,000 ft			9 LFT, 60,000 ft			7 LFT, 45,000 ft			1 RT, 60,000 Ft		7 RT, 55,000 ft		
Time (EST) of Analysis	15:05 7/18	15:50 7/18	12·20 7/20	18:25 7/18	19.05 7/18	11:50 7/20	20·30 7/18	21:30 7/18	11:10 7/20	13:10 7/19	13:50 7/19	15:15 7/19	16:00 7/19	13:06 7/20
Pressure when sampled, psia	1.65	1.156	0.55	1.48	0.995	0.77	2.66	2.03	1.62	1.50	1.02	1.91	1.55	1.00
F-12*	123	142	239	194	232	252	205	207	229	200	228			
(ppt)	113	127	248	168	187	242	175	184	227	196	216			
F-114	4	12	18	44	69	19	54	47	43	52	61	71	X	29
(ppt)	9	5	15	8	13	6	27	37	35	17	24	46	13	10
F-11	79	96	135	86	117	88	113	99	105	60	66	60	81	92
(ppt)	81	85	128	81	100	80	116	92	104	53	56	72	75	86
$CHCl_3$	14	4	128	5	9	173	4	8	48	48	90	71	74	128
(ppt)	7	6	103	3	10	74	3	8	32	33	53	48	44	77
CH_3CCl_3	60	51	188	76	185	220	141	77	37	35	64	50	45	231
(ppt)	115	107	214	169	392	154	293	128	45	44	52	54	36	137
C_2HCl_3	31	38	53	117	94	15	84	37	97	62	147	137	2	52
(ppt)	120	154	54	269	365	14	200	131	31	38	34	105	77	20
$C_2Cl^*_4$	218			33	34	36	5	6	24	5	15	119	42	52
(ppt)				73	92	62	26	20	24	13	11	48	30	54
N_2O			343			312			288	252	283			
(ppb)														

*Other values not reported because of contamination problems.

Bottle #6 RT did not close properly when sampled. Sample lost after second analysis for #1 RT.

Note. where two numbers are given for the same analysis of the same compound, the top number was determined by integrator area and the bottom number by peak height measurement. X = not integrated, - = below detection limit, + = offscale.

Intertropical Convergence Zone Study
Individual Sample Analyses for Halocarbons and N_2O

U-2 Flight #22 7/19/77, Tropopause 47,000 ft, ITCZ 13°N

	5 FWD, 60,000 ft		6 LFT, 45,000 ft		8 LFT, 60,000 ft		4 FWD, 55,000 ft		8 RT, 65,000 ft	
Time (EST) of Analysis	18:35 7/19	17:00 7/20	22:10 7/19	15:00 7/20	22:50 7/19	16:10 7/20	23·25 7/19	17:30 7/20	12M 7/19	15:35 7/20
Pressure when sampled, psia	1.55	1.13	2.075	1.70	1.54	1.155	1.80	1.36	1.185	0.85
F-12 (ppt)	208 200	183 187	236 222	221 224	188 188	204 209	202 198	208 213	203 185	210 221
F-114 (ppt)	40 27	9 7	53 40	14 12	17 26	14 15	42 52	26 23	67 64	37 23
F-11 (ppt)	101 98	63 95	123 125	133 130	68 55	63 57	74 74	104 94	61 54	69 64
$CHCl_3$ (ppt)	57 37	9 25	54 33	50 66	71 27	36 21	62 42	41 48	112 56	28 61
CH_3CCl_3 (ppt)	68 33	61 101	79 100	40 67	47 43	43 57	60 67	39 63	68 65	38 85
C_2HCl_3 (ppt)	103 109	20 24	118 132	102 35	132 91	159 38	162 106	112 51	262 93	61 56
C_2Cl_4 (ppt)	80 33	X 2	84 43	34 40	166 247	246	45 39	37 33	29 32	57 58
N_2O (ppb)	216	261	228	277	291	295	286	289	266	285

Bottle #5 AFT did not close properly when sampled.

All samples on this flight were run only twice due to sampling container requirements for later flights.

Note: where two numbers are given for the same analysis of the same compound, the top number was determined by integrator area and the bottom number by peak height measurement. X = not integrated, - = below detection limit, + = offscale.

Intertropical Convergence Zone Study
Individual Sample Analyses for Halocarbons and N_2O

U-2 Flight #23 7/23/77, Tropopause 51,000 ft, ITCZ 7°N

	8 LFT, 60,000 ft			6 RT, 65,000 ft			4 FWD, 55,000 ft			5 FWD, 60,000 ft			7 LFT, 45,000 ft			5 AFT, 45,000 ft		
Time (EST) of Analysis	14:25 7/23	8.20 7/24	7:40 7/25	15:25 7/23	8:55 7/24	9:18 7/25	16:00 7/23	9:30 7/24	9.50 7/25	16:40 7/23	6:35 7/24	10:20 7/25	7:20 7/23	7·15 7/24	7:05 7/25	18:00 7/23	7:45 7/24	8:15 7/25
Pressure when sampled, psia	1.56	1.19	0.84	1.24	0.90	0.81	1.97	1.58	1.23	1.54	1.155	0.88	2.155	1.77	1.34	2.655	2.20	1.77
F-12 (ppt)	183	220	259	197	298	353	185	236	206	187	247	234	195	229	230	194	263	223
	185	221	260	207	273	360	189	237	211	192	244	232	205	228	231	194	255	216
F-114 (ppt)	2	6	14	23	52	58	4	11		4	10	8	4	7	9	24	47	45
	3	8	20	32	57	72	4	14		5	14	11	6	9	11	29	59	51
F-11 (ppt)	62	58	90	108	143	199	63	84	82	104	145	128	94	109	120	105	146	118
	74			+			73			+			111			+		
$CHCl_3$ (ppt)	13	21	44	7	32	19	19	26	21	16	27	15	17	17	10	8	15	15
	10	9	22	11	17	21	9	14	12	12	27	37	11	18	27	14	21	18
CH_3CCl_3* (ppt)	37	77	94	58	142	65	65	111	39	83	162	88	148	100	40		154	14
	41	80	152	71	119	118	51	101	57	83	175	146	154	91	64		166	100
C_2HCl_3* (ppt)	22	18		8	62	11	14	51	3	26	21	4	20	37	9	16	27	3
	11	12	15	9	28	22	9	27	13	9	25	20	10	19	13	8	33	13
C_2Cl_4 (ppt)	35	37	88	21	1	4	21	26	4	19	14	29	8	4	3	10	16	68
	44	84	133	13	10	15	12	18	14	20	29	30	13	11	10	12	18	21
N_2O (ppb)	286	321	396	225	287	287	287	330	307	280	342	345	291	316	330	271	332	296

*Other values not reported because of contamination problems.

Note: where two numbers are given for the same analysis of the same compound, the top number was determined by integrator area and the bottom number by peak height measurement. X = not integrated, - = below detection limit, + = offscale.

Intertropical Convergence Zone Study
Individual Sample Analyses for Halocarbons and N_2O

U-2 Flight #24 7/25/77, Tropopause 48,900 ft, ITCZ 8°N

	7 RT, 55,000 ft			9 LFT, 60,000 ft			1 RT, 60,000 ft			9 RT, 65,000 ft			8 RT, 55,000 ft			6 LFT, 65,000 ft		
Time (EST) of Analysis	13.00 7/25	14:10 7/26	9:30 7/27	13:40 7/25	15:25 7/26	11:15 7/27	14:15 7/25	16·00 7/26	10:05 7/27	15.00 7/25	12:55 7/26	11:55 7/27	15·35 7/25	14:45 7/26	12:30 7/27	16:15 7/25	13·35 7/26	10:35 7/27
Pressure when	1.795	1.43	1.04	1.53	1.215	0.865	1.51	1.08	0.71	1.21	0.88	0.665	1.715	1.36	1.22	1.20	0.88	0.66
F-12 (ppt)	190 159	237 191	251 213	213 218	159 171	212 208	193 193	177 190	212 215	183 185	208 220	242 232	226 229	199 199	203 198	203 207	186 178	219 204
F-114 (ppt)	12 7	11 4	21 4	9 11	3 3	4 6	6 8	4 4	2 3	3 4	10 12	7 8	11 13	6 5	4 5	9 11	3 4	5 6
F-11 (ppt)	68	84	77	66	46	70	54	47	59	69	123	109	90	75	76	101	90	101
$CHCl_3$ (ppt)	3 12	19 20	18 8	5 19	14 18	24 40	16 15	16 11	5 10	14 16	46 21	39 47	12 29	15 12	23 15	20 27	26 27	39 32
CH_3CCl_3 (ppt)	46 72	97 60	39 41	67 95	72 50	125 105	76 70	49 51	539 559	46 63	124 114	221 166	51 86	66 60	64 65	56 86	81 78	186 174
C_2HCl_3 (ppt)	4 11	18 10	1 8	6 12	25 6	12 12	16 9	17 8	34 11	X 3	20 20	33 29	7 12	14 10	16 16	3 8	X 5	27 15
C_2Cl_4 (ppt)	5 14	3 12	14 13	35 39	16 17	12 33	30 17	6 13	-- 6	24 74	40 98	83 153	18 39	18 24	43 24	31 22	4 10	X 15
N_2O (ppb)	196	261	261	320	263	305	302	288	319	297	369	322	335	306	292	308	308	296

Note: where two numbers are given for the same analysis of the same compound, the top number was determined by integrator area and the bottom number by peak height measurement. X = not integrated, - = below detection limit, + = offscale.

Intertropical Convergence Zone Study
Individual Sample Analyses for Halocarbons and N_2O

U-2 Flight #25 7/28/77, Tropopause 57,000 ft, ITCZ 8.5°N

	5 FWD, 60,000 ft			5 AFT, 45,000 ft			6 RT, 65,000 ft		
Time (EST) of Analysis	16:40 7/28	10:25 7/29	14.05 7/30	17:15 7/28	9:05 7/29	12:45 7/30	17.50 7/28	9:40 7/29	13:20 7/30
Pressure when sampled, psia	1.585	1.275	1.01	2.65	2.27	1.895	1.24	0.93	0.86
F-12 (ppt)	199 204	172 184	261 267	186 188	200 216	254 238	179 192	211 220	306 315
F-114 (ppt)	8 11	9 7	21 34	18 24	28 37	43 61	12 16	28 23	36 58
F-11 (ppt)	106	98	132	90	118	124	99	142	166
$CHCl_3$ (ppt)	16 12	16 13	21 19	9 15	14 17	19 25	14 11	35 29	21 24
CH_3CCl_3* (ppt)	76 80		 +	 +		124 102	51 53	224 +	123 140
C_2HCl_3* (ppt)	18 19		73 102	14 6		14 15	14 7	44	30 41
C_2Cl_4 (ppt)	29 17	16 12	6 11	9 16	38 14	33 29	25 14	6 17	56 31
N_2O (ppb)	315	268	315	287	307	301	259	321	325

*Other values not reported because of contamination problems.

Bottles #7 LFT, 8 LFT, and 4 FWD did not close properly when sampled.

Note: where two numbers are given for the same analysis of the same compound, the top number was determined by integrator area and the bottom number by peak height measurement. x = not integrated, - = below detection limit, + = offscale.

Intertropical Convergence Zone Study
Individual Sample Analyses for Halocarbons and N_2O

U-2 Flight #26 7/29/77, Tropopause 53,000 ft, ITCZ - None

	1 RT, 60,000 ft			9 LFT, 60,000 ft			9 RT, 65,000 ft			6 LFT, 55,000 ft			7 RT, 45,000 ft		
Time (EST) of Analysis	14:10 7/29	10:50 7/30	11.00 7/31	14:40 7/29	9:35 7/30	12:40 7/31	15:20 7/29	11:20 7/30	10:25 7/31	15:55 7/29	9·00 7/30	11:45 7/31	16·30 7/29	10:10 7/30	9.50 7/31
Pressure when sampled, psia	1.555	1.215	0.87	1.592	1.275	0.92	1.255	0.84	0.625	1.905	1.55	1.18	2785	2.405	2.02
F-12 (ppt)	272	198	288	274	187	261	171	192	192	211	219	182	210	233	243
	296	190	292	298	178	268	187	190	192	227	223	183	212	202	225
F-114 (ppt)	8	7	9	7	2	11	3	4	5	5	9	2	8	15	20
	10	10	12	10	2	14	4	6	6	6	16	2	5	8	16
F-11 (ppt)	62	53	177	71	44	138	70	75	81	104	113	83	104	97	96
$CHCl_3$ (ppt)	20	12	46	21	5	24	25	16	48	21	9	8	29	15	17
	11	11	20	24	15	43	16	30	15	18	7	8	19	21	8
CH_3CCl_3* (ppt)	81	57	102		35	140		89	97		72	38	123	71	81
	71	63	92		36	108		90	92		73	43	104	67	64
C_2HCl_3* (ppt)	20	6	24	X	3	33	--	9	9		14	5	28	12	18
	15	9	18	30	6	26	--	11	11		14	5	17	11	12
C_2Cl_4 (ppt)	1	9	21	34	24	20	49	56	39	21	25	1	10	5	4
	11	13	15	41	19	37	80	119	156	13	23	4	15	9	16
N_2O (ppb)	314	302	334	314	281	325	273	294	308	299	313	267	272	270	283

*Other values not reported because of contamination problems.

Bottle #8 RT did not close properly when sampled.

Note: where two numbers are given for the same analysis of the same compound, the top number was determined by integrator area and the bottom number by peak height measurement. x = not integrated, - = below detection limit + = offscale.

APPENDIX E

RADAR TRACKING OF AIRCRAFT*

Christopher A. Riegel

San Jose State University

The U-2 and Learjet aircraft were skin-tracked by the two Battery Mackenzie Nike Hercules X-Band radars. The tracking data were digitized and recorded on magnetic tape. The raw data consist of:

1. The number of the tracking radar
2. Time, u.t.
3. Slant range, ft
4. Azimuth, deg, clockwise from true north
5. Elevation angle, deg

The data points are at 1-sec intervals.

Radar no. 1 is located at lat. 9°20'14" N, long. 79°59'28" W, and the center of the antenna is at an elevation of 216 ft above mean sea level (MSL). Radar no. 2 is at a distance of 188 ft, with an azimuth of 209.53125° (clockwise from true north), relative to Radar no. 1. Its antenna center is at 214 ft (MSL).

Given the slant range and elevation angle, the height of a target above a radar and the horizontal distance over a curved Earth are obtained from the following equations:

$$z = h + H \tag{1}$$

$$H = (R + h)\left\{\left[1 + 2\left(\frac{r}{R + h}\right)\sin\varepsilon + \left(\frac{r}{R + h}\right)^2\right]^{1/2} - 1\right\} \tag{2}$$

$$D = R\left\{\cos^{-1}\left[\frac{\cos\varepsilon}{1 + \left(\frac{H}{R + h}\right)}\right] - \varepsilon\right\} \tag{3}$$

where

z height of target above MSL

h elevation of radar antenna above MSL

R radius of the Earth (taken as 20,924,607.46 ft at Ft. Sherman)

r slant range

*Funds for the support of this study have been allocated by the NASA-Ames Research Center, Moffett Field, California, under Interchange No. NCA2-OR675-809.

ε elevation angle

D horizontal distance of target over the curved Earth's surface at MSL

The x (positive eastward) and y (positive northward) coordinates are obtained from

$$\left.\begin{aligned} x &= D \sin \alpha \\ y &= D \cos \alpha \end{aligned}\right\} \qquad (4)$$

where α is the azimuth.

Several corrections must be applied to the recorded slant ranges and elevation angles before eqs. (1) through (4) can be used. The slant range corrections are

$$\Delta r = -1230 \text{ ft for Radar no. 1}$$

$$\Delta r = -295.2 \text{ ft for Radar no. 2}$$

In preparation of the figures, the elevation angles were adjusted for atmospheric refraction by a simple two-point refractive index correction (ref. 1). The refractive index (in N-units) is

$$r_i = \frac{1}{T}\left(77.6\ p - 11\ e + \frac{374808e}{T}\right)$$

where

T air temperature, K

e actual vapor pressure, mbars

p total air pressure

If the angles are in degrees, the adjusted elevation angle is

$$\varepsilon' = \varepsilon + 2.604353\times10^{-5}(r_{it} - r_{is})\cot \varepsilon$$

where

r_{it} refractive index at the target

r_{is} refractive index at the surface

Approximate values of r_{it} were obtained from the Ft. Sherman radiosonde data (appendixes A and B).

The values of y and z obtained from the corrected slant ranges and elevation angles were finally subjected to an 11-point binomial smoothing

(11-sec running means) in order to remove any characteristic oscillations of the aircraft. The smoothed aircraft tracks (altitude vs north-south distance from the radars) are shown in figures 1 through 7. Oscillations in the tracks, which occurred mainly when the aircraft were far from the radars, appear to be caused by the radars "hunting" rather than by actual atmospheric oscillations. On several occasions, the U-2 was tracked for several minutes by both radars. The tracks showed identical features, and only one of the tracks is exhibited in the figures.

REFERENCE

1. IRIG Standards for Range Meteorological Data Reduction, Part I — Rawinsonde. IRIG Document 108-72, revised Feb. 1976. Secretariat, Range Commanders Council, White Sands Missile Range, New Mexico, 1976.

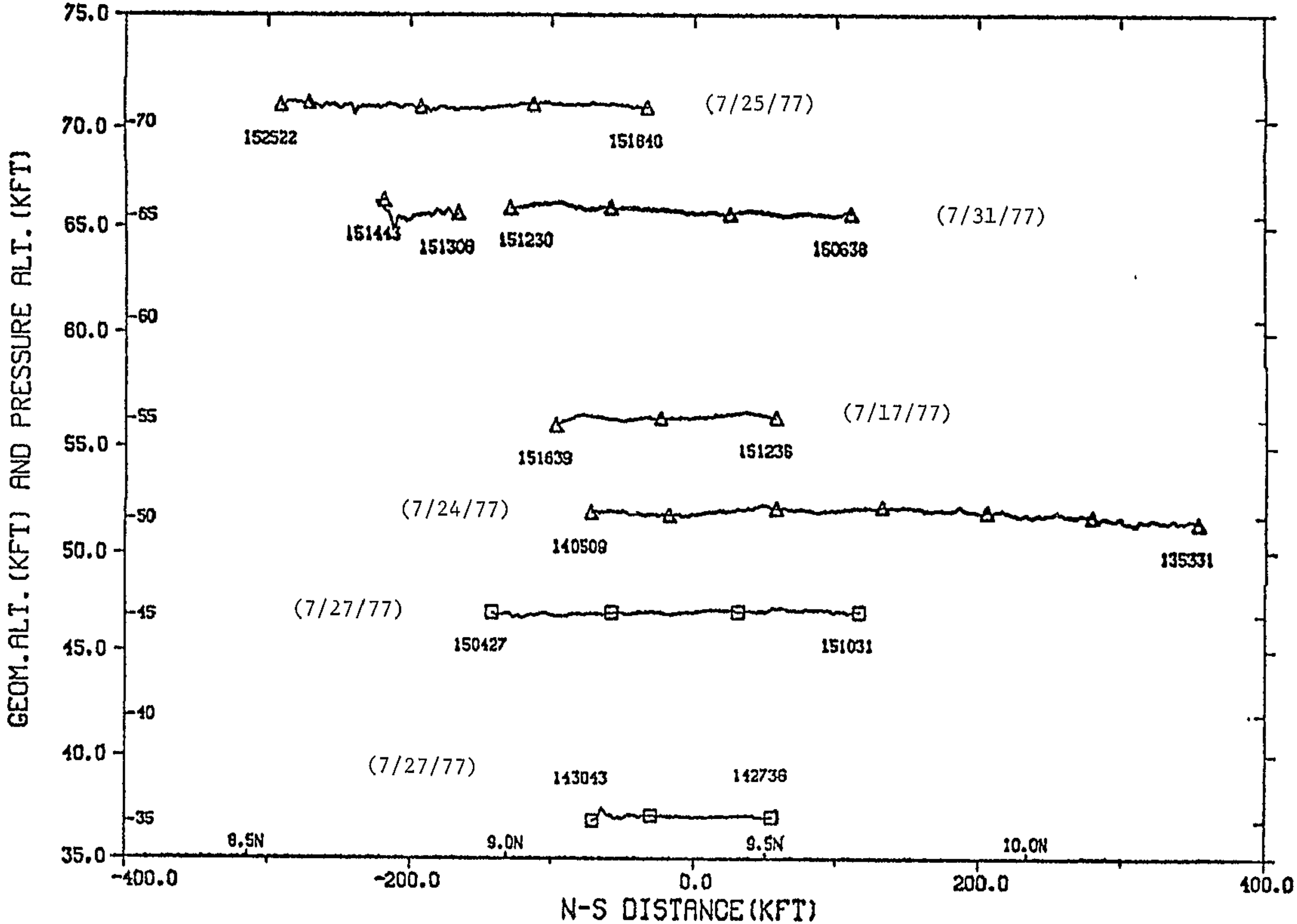


Figure 1.- Radar tracks of U-2 (△) and Learjet (□) on July 17, 24, 25, 27 and 31, 1977. Times are GMT in the form HHMMSS. Except for the endpoints, the symbols are at two-minute intervals. Interior tickmarks on the vertical axes indicate geometric altitudes.

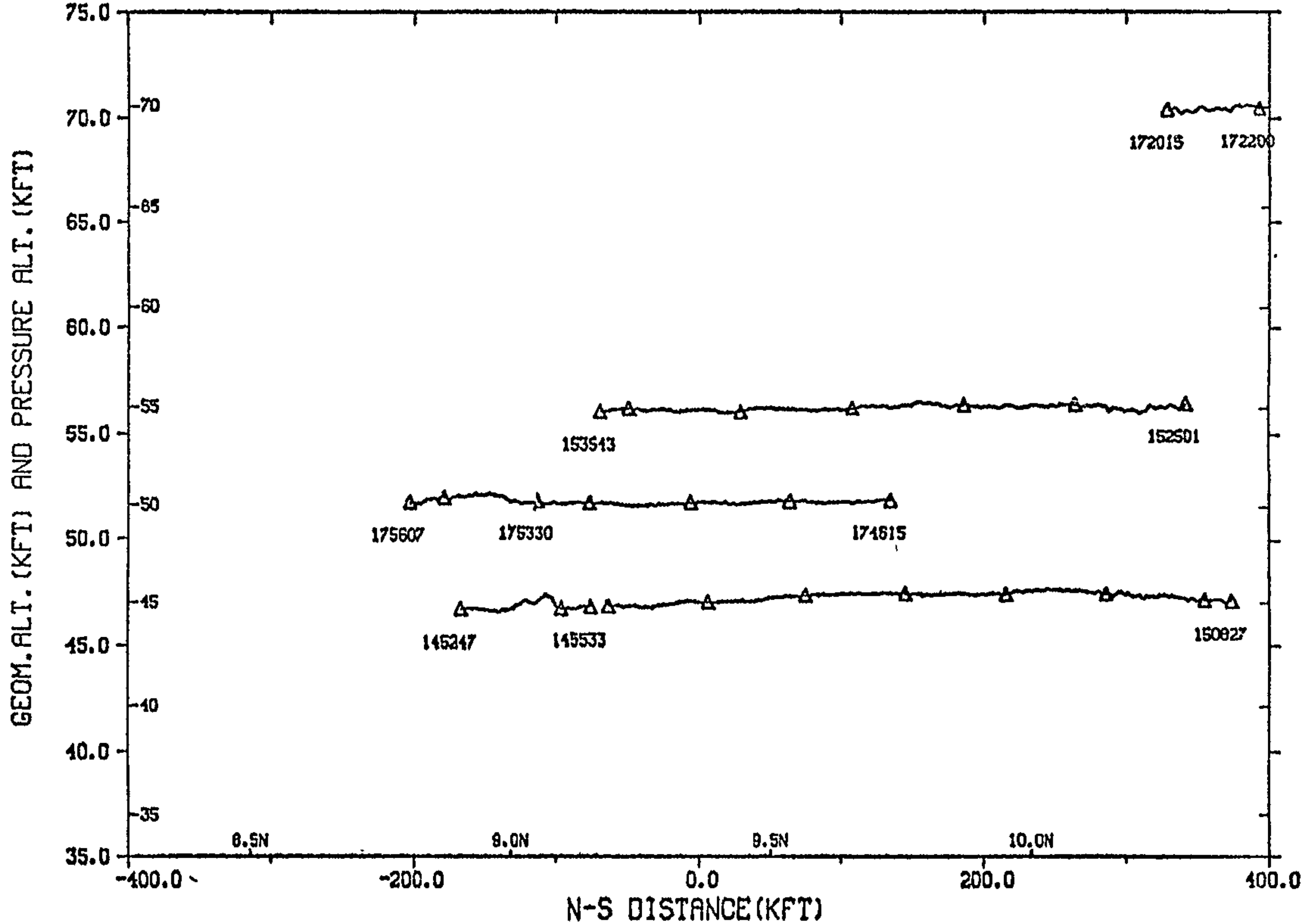


Figure 2.- Radar tracks of U-2 (Δ) and Learjet (□) on July 19, 1977. Times are GMT in the form HHMMSS. Except for the endpoints, the symbols are at two-minute intervals. Interior tickmarks on the vertical axes indicate geometric altitudes.

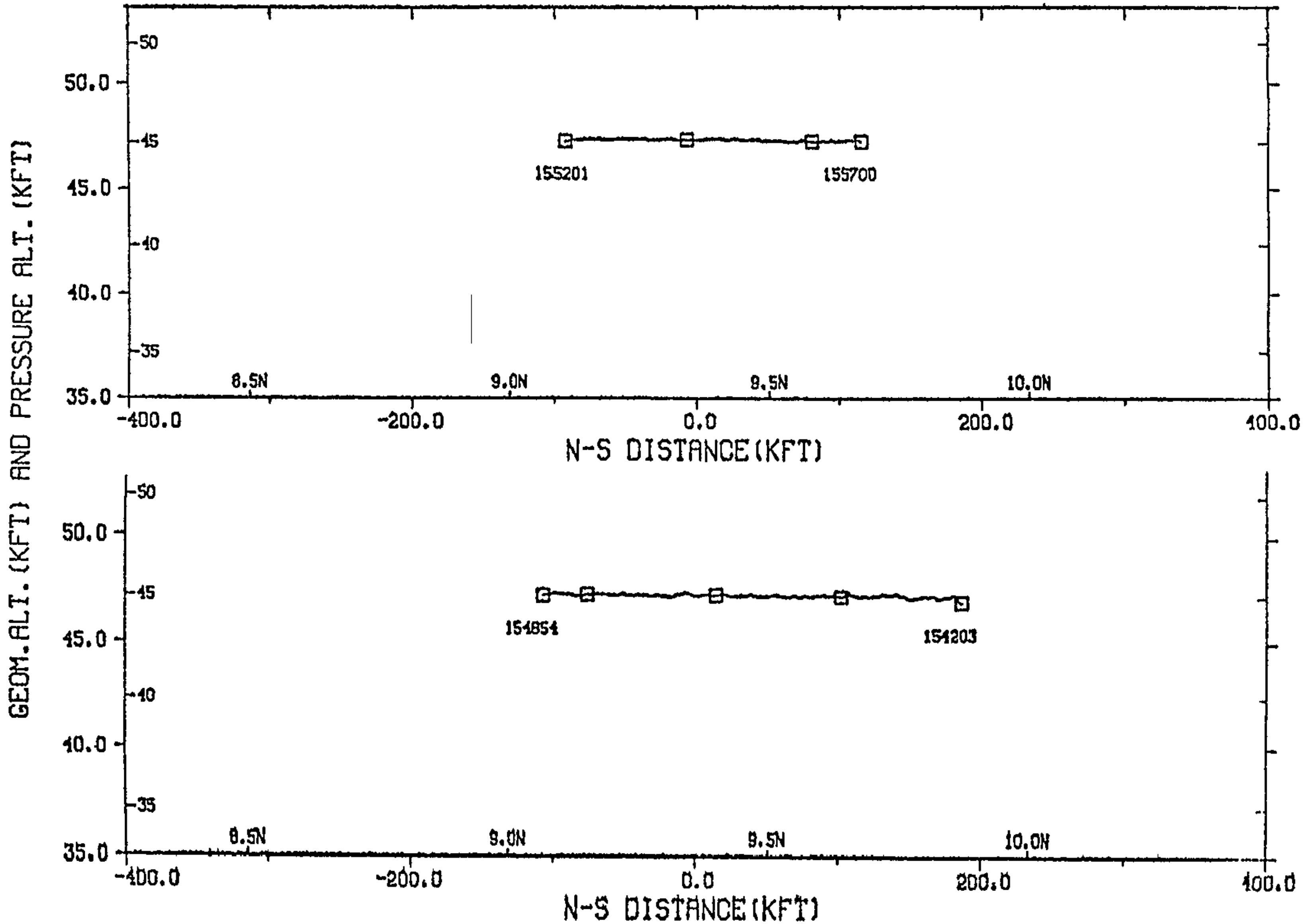


Figure 3.- Radar tracks of U-2 (Δ) and Learjet (□) on July 20, 1977. Times are GMT in the form HHMMSS. Except for the endpoints, the symbols are at two-minute intervals. Interior tickmarks on the vertical axes indicate geometric altitudes.

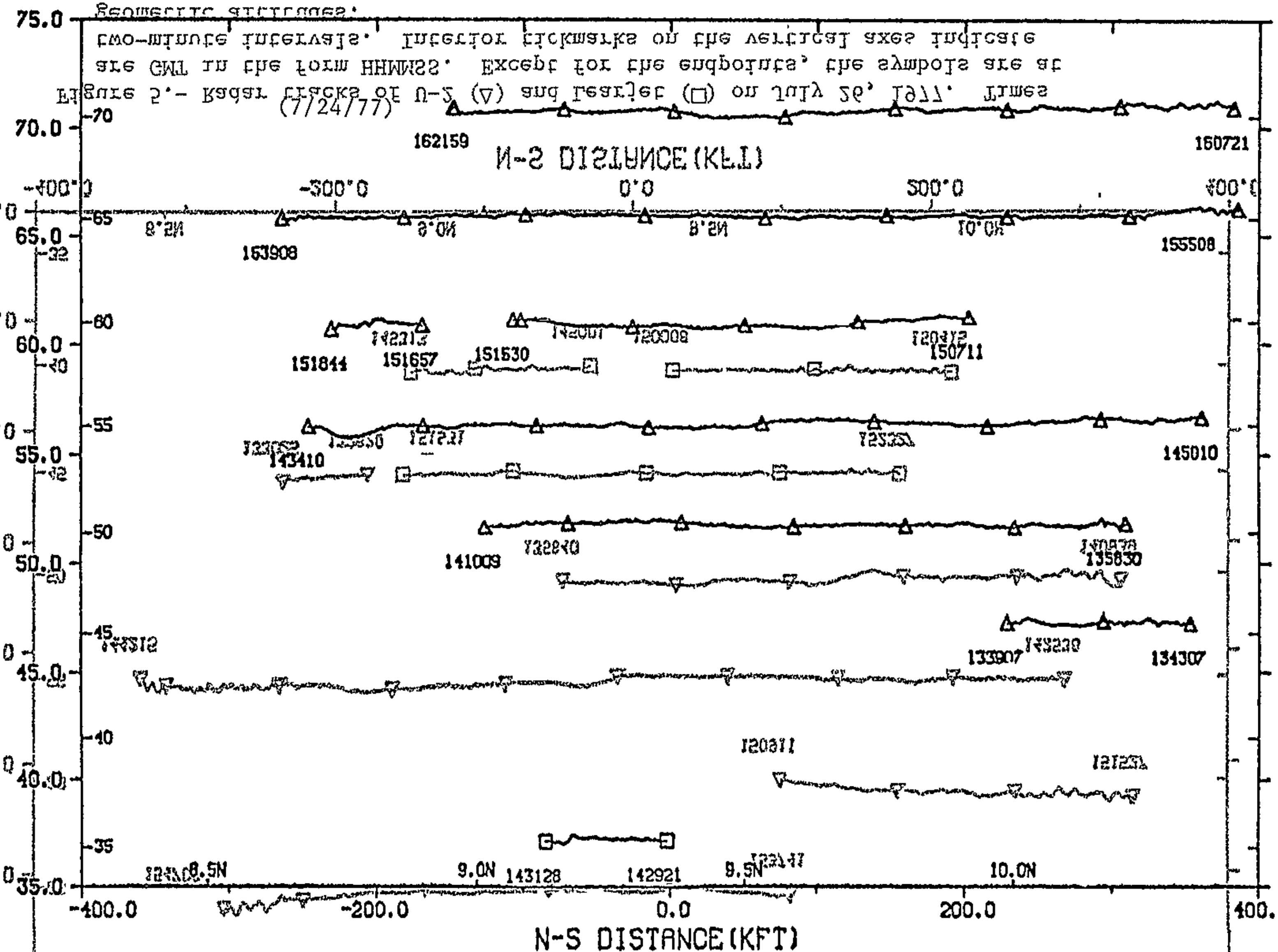


Figure 4.- Radar tracks of U-2 (Δ) and Learjet (⊡) on July 23, 1977, and the 70,000-ft track is for July 24, 1977. Times are GMT in the form HHMMSS. Except for the endpoints, the symbols are at two-minute intervals. Interior tickmarks on the vertical axes indicate geometric altitudes.

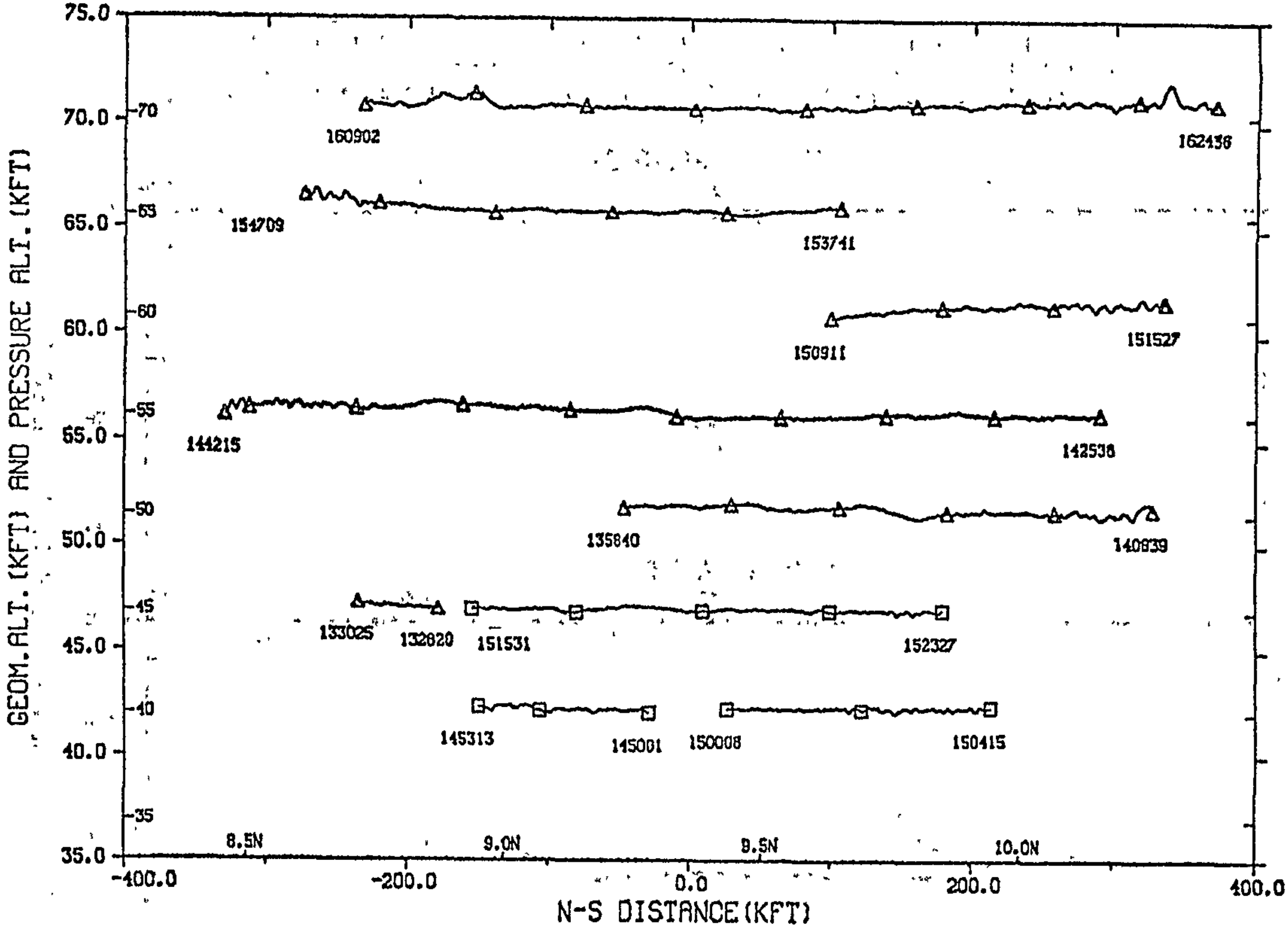


Figure 5.- Radar tracks of U-2 (Δ) and Learjet (□) on July 26, 1977. Times are GMT in the form HHMMSS. Except for the endpoints, the symbols are at two-minute intervals. Interior tickmarks on the vertical axes indicate geometric altitudes.

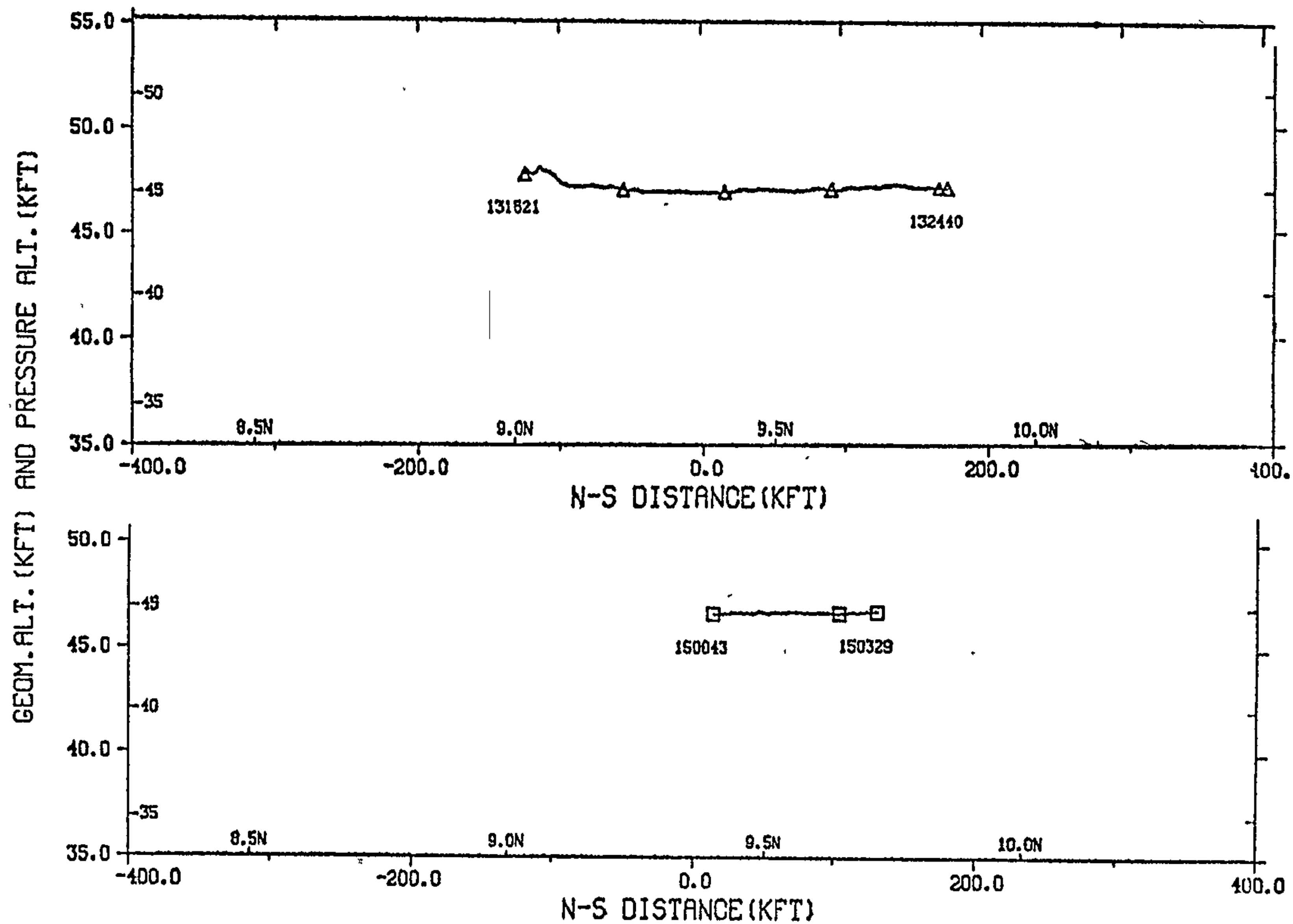


Figure 6.- Radar tracks of U-2 (Δ) and Learjet (□) on July 29, 1977. Times are GMT in the form HHMMSS. Except for the endpoints, the symbols are at two-minute intervals. Interior tickmarks on the vertical axes indicate geometric altitudes.

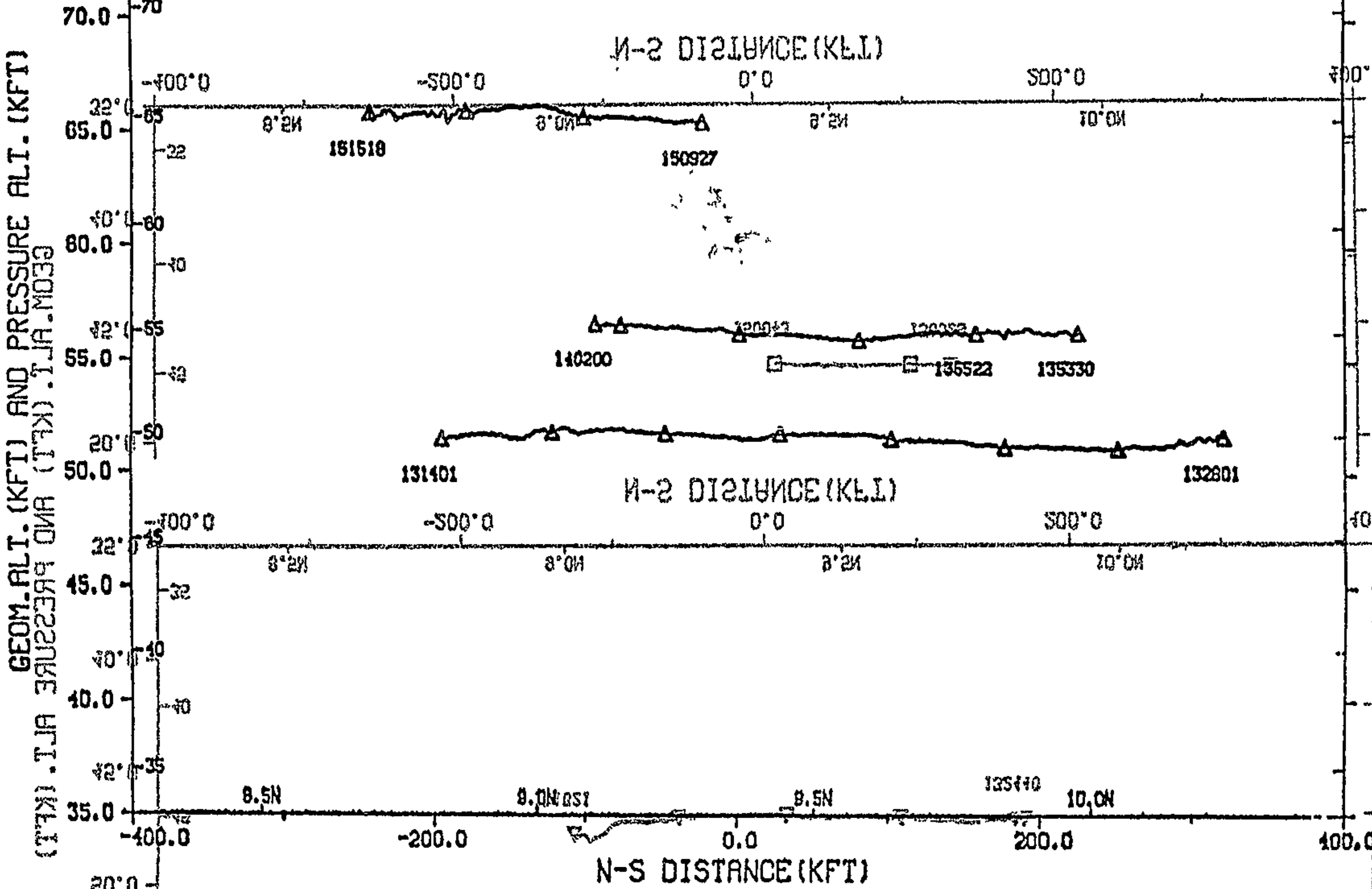


Figure 7.- Radar tracks of U-2 (Δ) and Learjet (□) on July 30, 1977. Times are GMT in the form HHMMSS. Except for the endpoints, the symbols are at two-minute intervals. Interior tickmarks on the vertical axes indicate geometric altitudes.

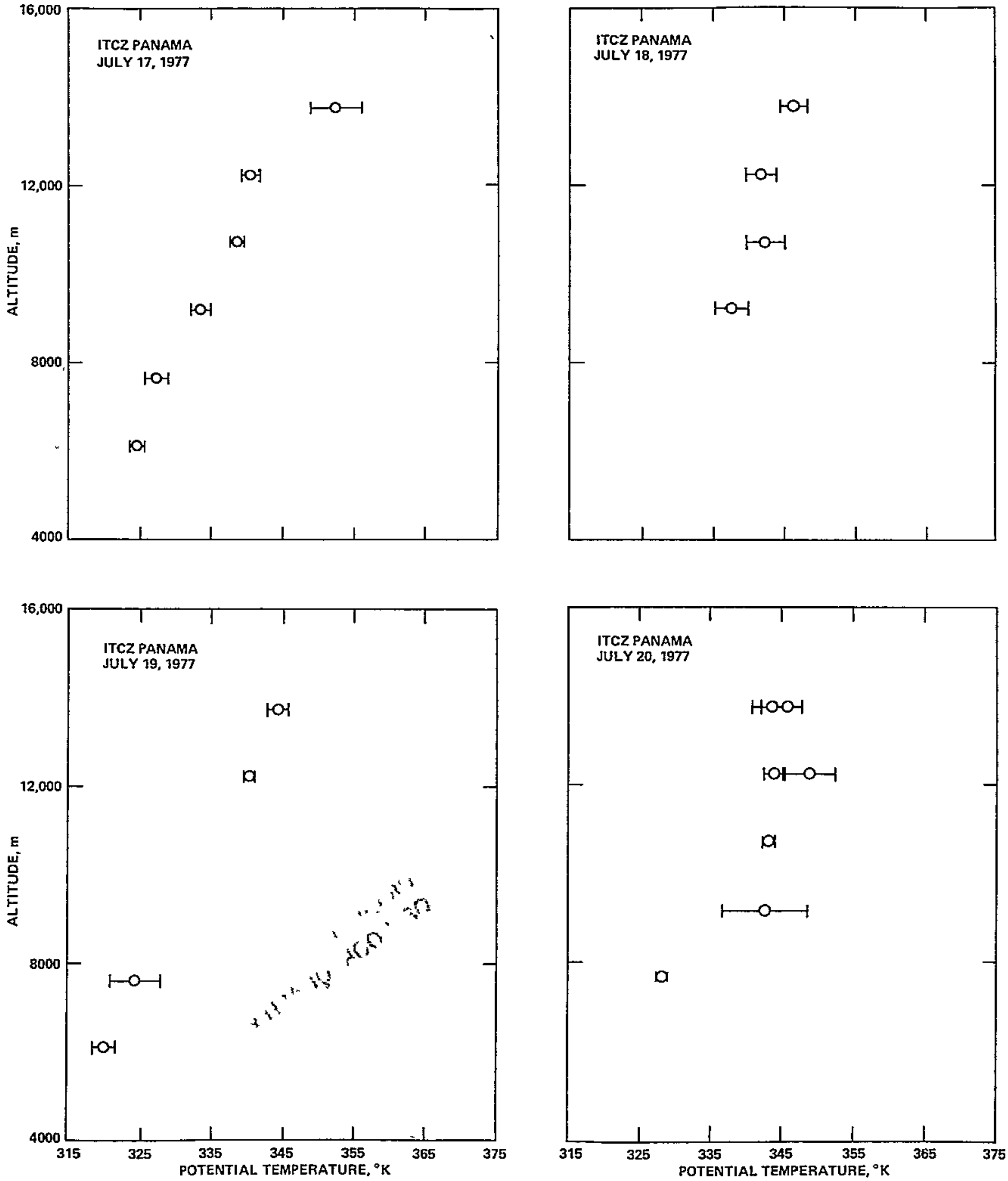
APPENDIX F

SUMMARIES OF POTENTIAL TEMPERATURE DATA

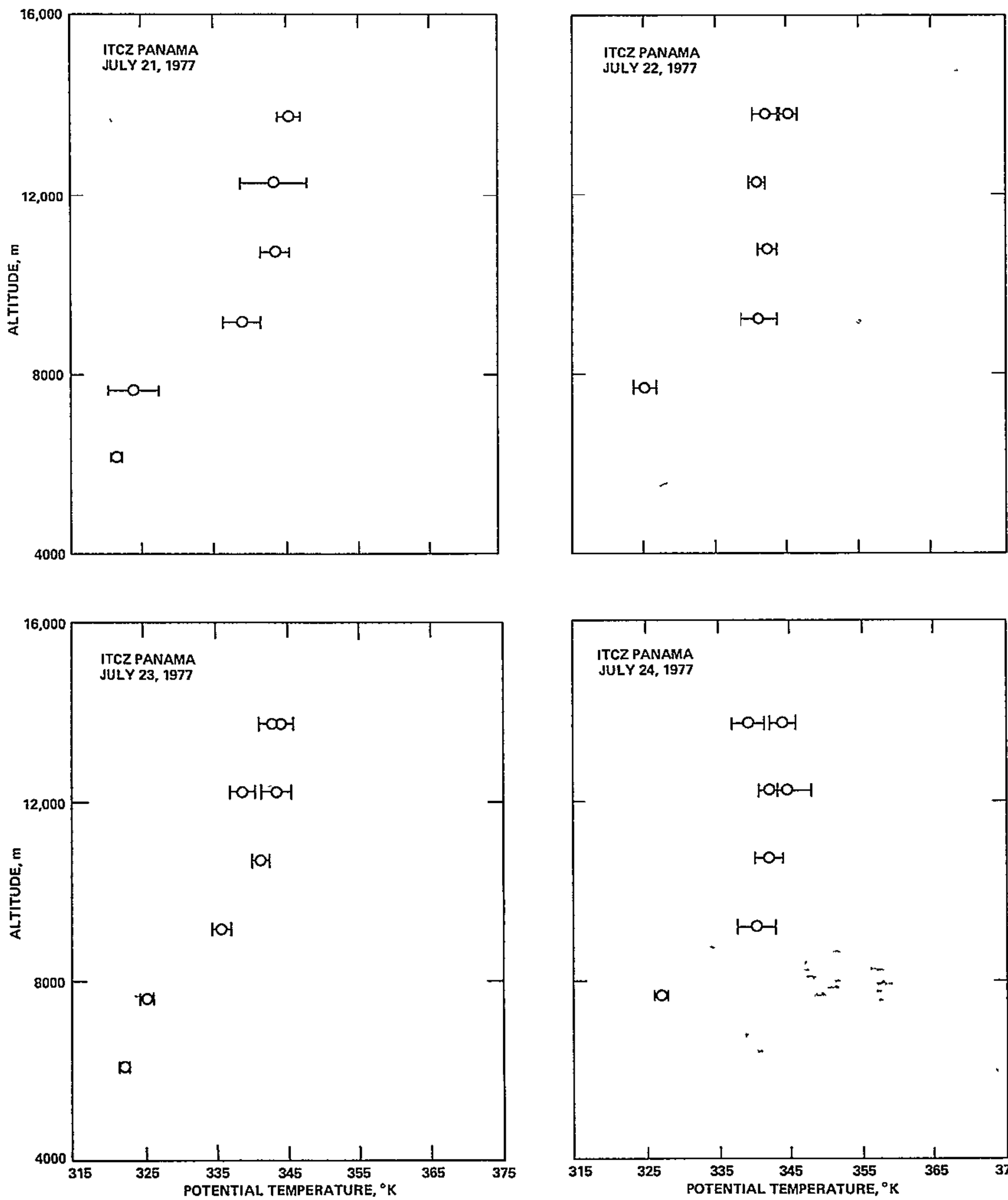
FROM LEARJET FLIGHTS

Robert M. Muñoz

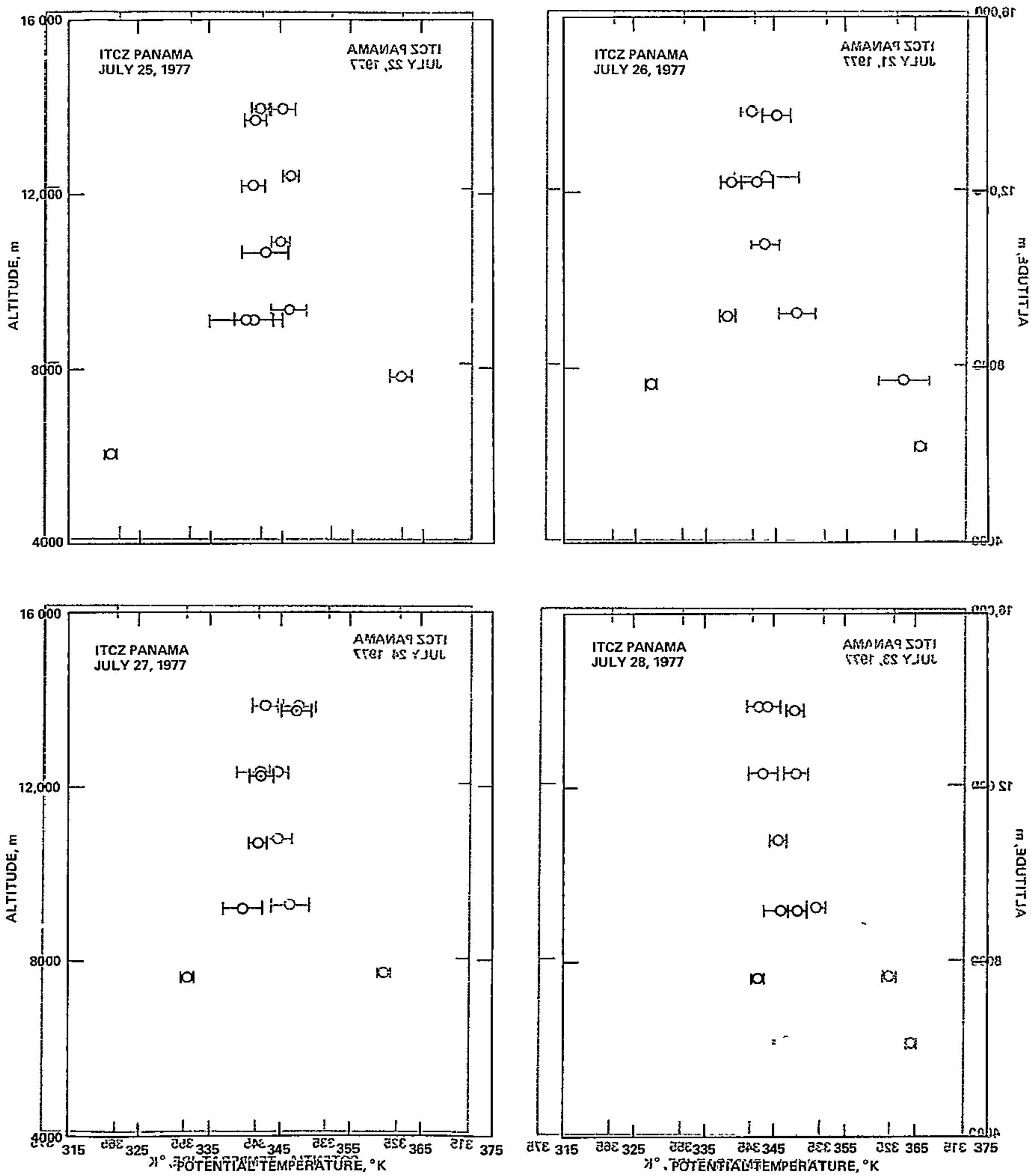
Ames Research Center



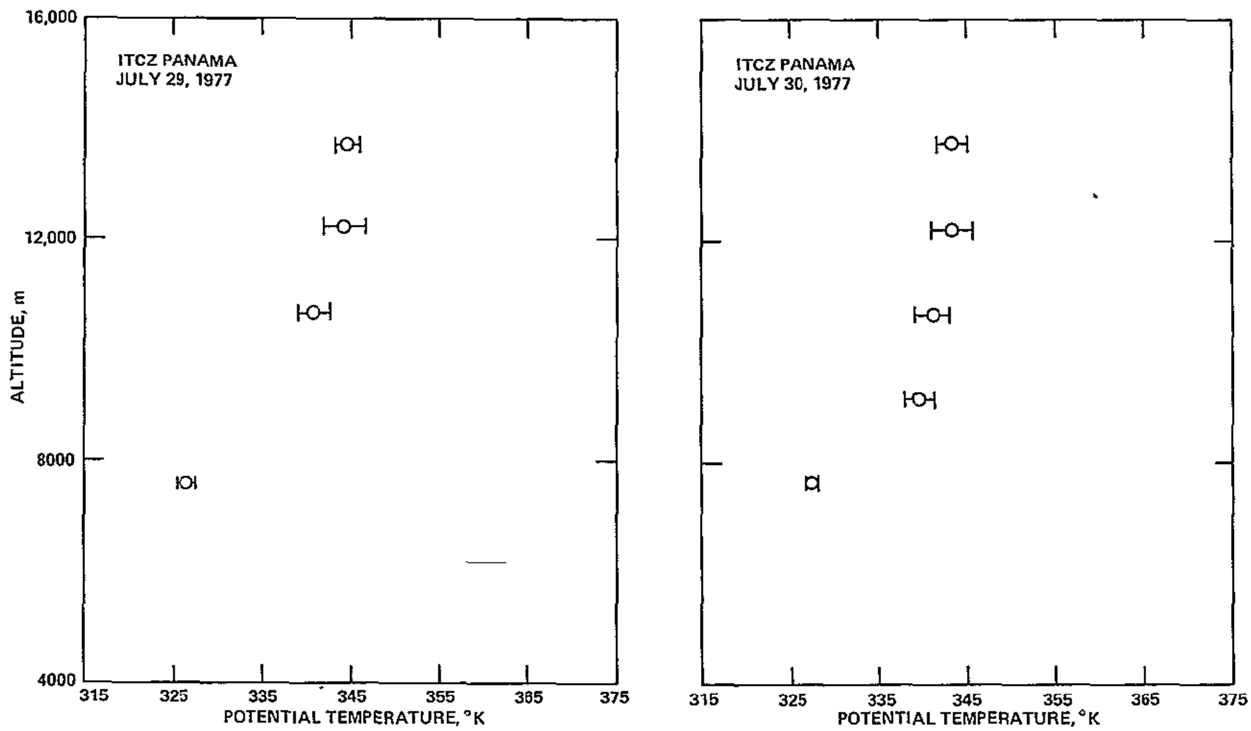
Altitude profiles of potential temperature.



Altitude profiles of potential temperature (continued).



Altitude profiles of potential temperature (continued).



Altitude profiles of potential temperature (concluded).

APPENDIX G

SATELLITE PHOTOGRAPHS

Edwin F. Danielsen

Oregon State University

Two types of satellite photographs are available. Examples of each type are shown in figures 1 and 2.

Figure 1 is a full-disk infrared photograph taken at 1300 u.t. on July 24, 1977. Resolution on the full-disk photo is 8 km. The full-disk photographs are available at 0400, 1000, 1300, 1600, and 2200 u.t. starting at 0400 u.t., July 16, 1977 and ending at 2200 u.t., July 31, 1977.

Figure 2 is a small-scale visible photograph for the same time (actually 1 min later). Resolution on the small-scale photograph is 1 km. The high-resolution visible photos are available only at 1300 and 1600 u.t. of each day. Shadows cast from turrets on the 1300 u.t. photographs permit cell resolution which is not possible on the 1600-u.t. photographs.

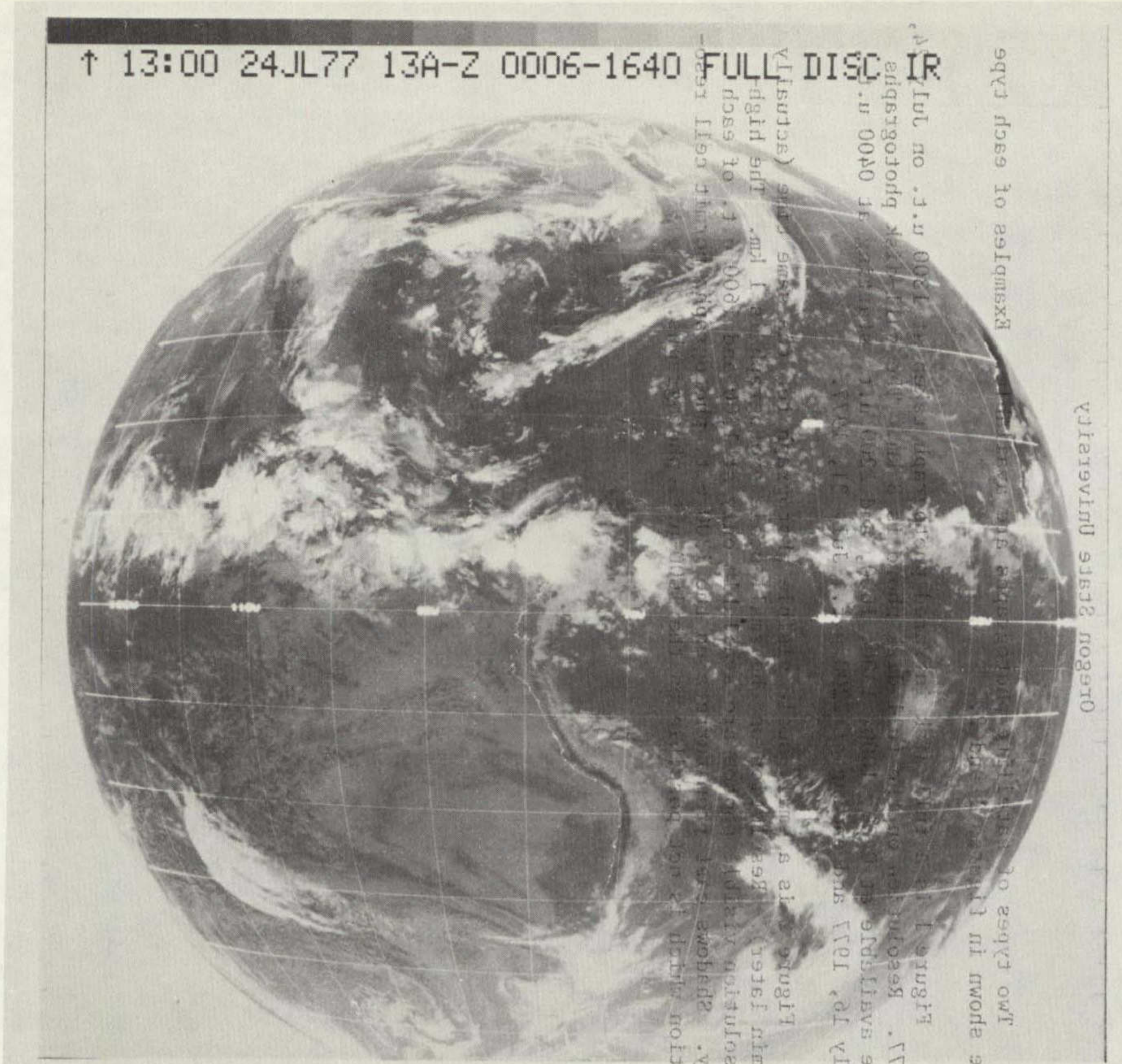


Figure 1.- Full-disk infrared photograph taken at 1300 u.t. on July 24, 1977.

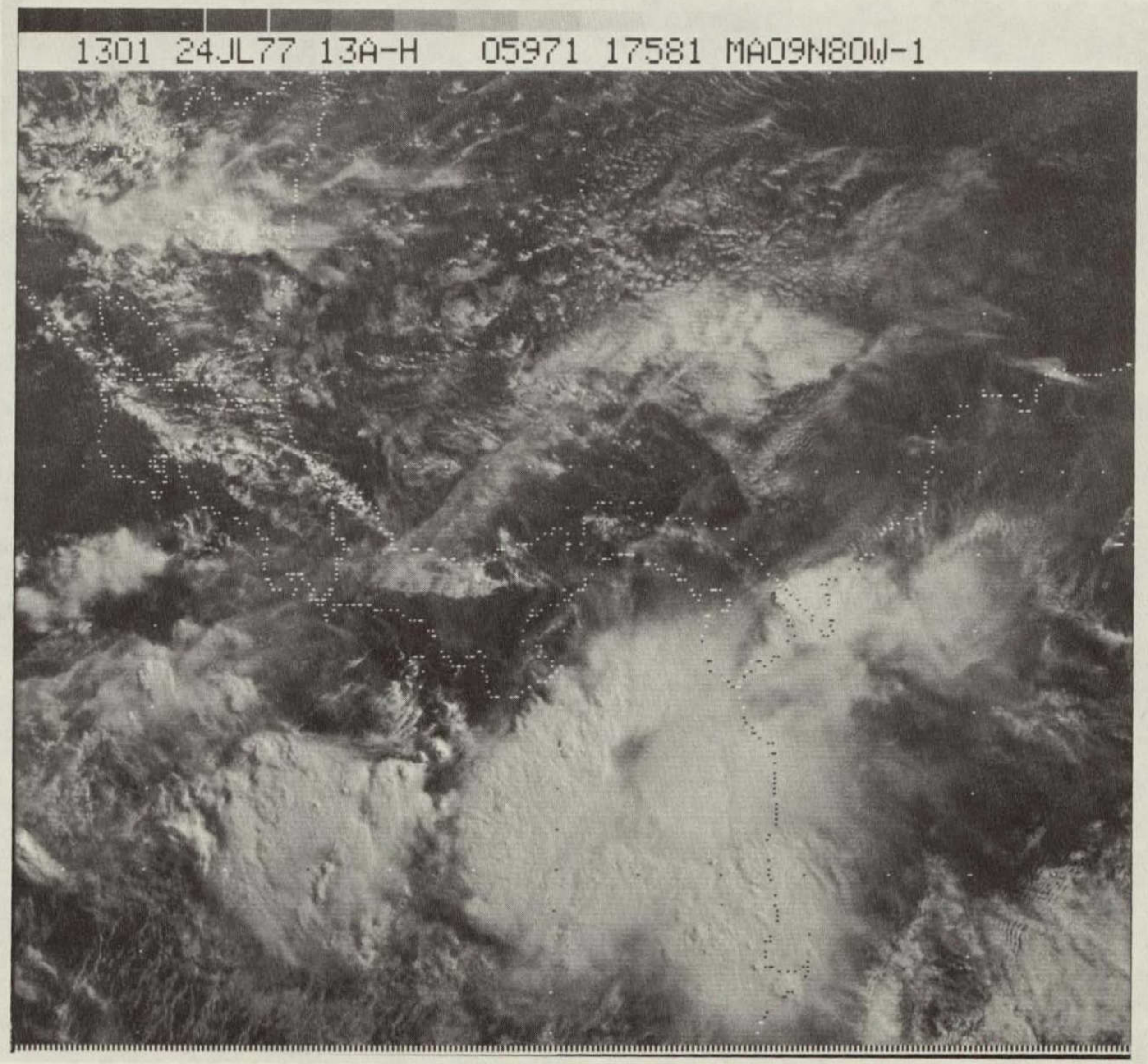


Figure 2.- High-resolution visible photograph taken at 1300 u.t. on July 24, 1977.

APPENDIX H

PILOT DEBRIEFINGS

Abstracted by

William A. Page

Ames Research Center

LEARJET AND U-2 PILOT DEBRIEFINGS

Within an hour after each flight, pilots of the Learjet and U-2 aircraft were debriefed and the debriefing was recorded. Comments were solicited about the flight track flown, observations of cloud levels and structure, performance of the aircraft such as roughness of the ride (turbulence), and any other observations or unusual events. The material listed below are abstracts from the taped records; the descriptions are those of the pilots. Comments about obtaining information from "weather" is a reference to the Air Force meteorological officer (or department) at Howard Air Force Base, from which the flights were made. The racetrack pattern was the planned flight path, having dimensions of 200 n. mi. for the U-2 (100 n. mi. for the Learjet) in the north-south direction and about 12 n. mi. in the east-west direction. The pattern was centered over the Canal Zone. Some listed times are local (8 a.m. local equals 1300 u.t.).

Date: Thursday, July 14, 1977
Aircraft: U-2
Pilot: Jim Barnes

Flew south for CRYO survey, descended to 50,000 ft about 4 to 4.5° N, went through thin ice cloud (few hundred feet thick) at 57,000 ft. Only seen three times before in 20 years. Seemed like area for vigorous ITCZ activity. Thunderheads in area. Flew into clear air a little farther south. Took sample at 55,000 because lower cloud level was at ~52,000 ft. Rough flying (turbulent) at 55,000. Farthest southern point was 3.5° S.

Date: Saturday, July 16, 1977
Aircraft: U-2
Pilot: Ron Williams

First ITCZ mission. Takeoff 8:00 A.M. local. Flew racetrack pattern. Flying too rough at 45,000 ft, started racetrack at 50,000 ft. Cirrus clouds at 45,000. Fifty thousand turbulence was high. Also rough at 55,000 ft, little smoother at higher altitudes. South edge of cloud mass around 9.5° N, sky clear to south. Left-hand turns in racetrack.

Date: Sunday, July 17, 1977
Aircraft: U-2
Pilot: Jim Barnes

Before flight weather reported thunderstorms 35 to 40 n. mi. south, southern edge of storm system also to east. . . we are in a clear hole. U-2 will take off southward and make right-hand turns in racetrack. Bulk of cloud activity lies to north, farther than 14° N. Some evidence that ITCZ is up north and has swept across Panama in last few days. Trope height 51,200 ft at 0 u.t. Noticed flight compared with last Thursday. Thought northern half of 45,000 ft leg would have to be aborted because of high clouds but just cleared them. Two cells dead on track, that is, about 41,000 or 42,000 ft high. Flew in clear air whole mission. During letdown cirrus from 46,000-48,000 to (large cells observed south of racetrack) 40,000, about 6,000 ft thick. Also lower heavy cloud deck.

Northern half of 45,000 track was rough flying. Scattered light turbulence on all other legs. Very smooth compared with Thursday flight. Saw numerous large thunderstorms 35 n. mi. west, exceeded 55,000 to 60,000 ft (in height) this cloud mass was on racetrack earlier (height reported by weather radar and reported to pilot on radio). Tops looked anvil shaped. Temperatures have apparently changed because aircraft engine behaved differently. Pilot's temperature gage (after correction) compared closely with Howard radiosonde (actually launched at Albrook) reported by weather. U-2 gage showed:

50,000	−59°C today	−60°C yesterday
60,000	−50°C today	−50°C yesterday
65,000	−41°C today	−45°C yesterday
70,000	−39°C today	−40°C yesterday

Note: above table lists ram temperatures (gage readings). All readings recorded in separate flight summary report.

Date: Monday, July 18, 1977
Aircraft: Learjet
Pilot: Ted Wright

9:00 A.M. takeoff, 11:30 landing. Climbout base of clouds 5500 ft, at 8,000 ft some buildup higher. First sample at 30,000 ft with cirrus clouds above. Some clouds above at all times except 40,000 in and out of cirrus deck. Above deck when at 45,000 ft. Very high thin cirrus deck appeared above 45,000 on horizon in all directions. Big thunderclouds 100 n. mi. away westward. Similar cloud decks on letdown.

Flew pattern except one change near Howard. Light chop (turbulence) at 30,000 ft (clear air type turbulence). Clear flying elsewhere.

Date: Monday, July 18, 1977
Aircraft: U-2
Pilot: Ron Williams

Flew about 10 miles west of racetrack on first north leg, radar failure. Two hundred n. mi. legs. Forty-five thousand ft was smooth flying. Thin cirrus deck above about 47,000, but only on southern portion of track, clear on north end. At 50,000 U-2 was above cirrus. Broke out of cirrus at 42,000 during climbout. Horizon clear to north especially — could see ocean. Scattered buildup of cumulus (Q) around. Big thunderstorms about 100 n. mi. south of southern turnpoint — perhaps to 50,000 or 55,000 ft altitude, 3,000 or 4,000 above cirrus deck. Flying smooth, only light turbulence at 55,000 ft at north end of track.

Date: Tuesday, July 19, 1977
Aircraft: Learjet
Pilot: Dan Dugan

Takeoff 9:00 A.M., landing 11:00 A.M. Climbout in clear air. High cirrus above most of flying in about 45,000 ft, thin scattered cirrus. Lower cumulous deck 3500 to 6000 ft, some buildups to ~13,000. Little CAT (clear air turbulence) at 40,000 ft — less than one minute. U-2 contrails visible at 1508 u.t., U-2 contrail and Lear moving north, both at 45,000 ft, Lear watched U-2 climb to 55,000, and turn. U-2 reported could see Lear. Contrails very persistent. Sky much clearer than yesterday.

Date: Tuesday, July 19, 1977
Aircraft: U-2
Pilot: Jim Barnes

In clear, except southern half of 45,000 ft run, which was in middle of heavy cirrus deck. Ride a little rough at lower altitudes, but silk-smooth at 70,000. Not as bad as southern flight last Thursday. Weather reported false trope at 47,200 ft, true trope at 55,500 ft. All clear air at these altitudes. Lear contrails easily visible. Flew 50,000-ft track last because of late takeoff. Very heavy cirrus to south. Approximate position of ITCZ, as reported by weather, was 13° N. Yesterday was 12° N, and prior day 9°. Seems to be breaking up today. Weather thought ITCZ would move southward in near future.

Date: Wednesday, July 20, 1977
(No flight today — weather too rough.)

Comments from U-2 pilot Jim Barnes on Wednesday morning — Weather reported heavy storm activity from Panama to the south, too heavy for U-2 flight. Expect cloud structure to move to northwest. IR satellite photo at 0 u.t. looked pretty severe. As day wore on, heavy storm activity didn't appear as expected.

Comments from Learjet pilot Dagmar Cronn — Takeoff at 9:15 A.M., flight time 2-1/2 hr. Aircraft in clouds for whole flight all the way to 45,000 ft. At 45,000, in and out of cloud tops. Had to deviate from racetrack pattern to dodge thunderheads. Raining and icing conditions at 40,000 (or 4,000?). Severe turbulence (chop) at 30,000 ft.

Comments (next day) from Learjet pilot Ted Wright — Thirteen to fourteen thousand on climbout into clouds. North near turnpoint ran into moderate turbulence, heavy rain, a little lightning — only time we did. Thereafter, flew irregular pattern, 20 to 30 miles off track to miss weather. Heavy rain. At 30,000 to 35,000, rime icing also. Seemed colder, -42, -43°C ram temperature at 0.8 Mach number. Had more weather than previous flights.

Date: Thursday, July 21, 1977
Aircraft: Learjet
Pilot: Dan Dugan

Today similar to flight on 19th, not much weather to report — typical low cumulus clouds around Canal Zone. For most part, had cirrus layers above aircraft, even at 45,000 ft. Saw U-2 contrails — quite noticeable. Sometimes clear above but not over land. Seemed to be layered. Clear north of isthmus. At 40,000 over isthmus, between layers of cirrus. Own contrails visible. A little turbulence at 45,000 over air field.

Date: Thursday, July 21, 1977
Aircraft: U-2
Pilot: Ron Williams

Good flight today. Clear on climbout and at 45,000 ft. Scattered thin cirrus above and below at 45,000 and 50,000 but aircraft never went through it. Don't know exact altitude, but definitely above 50,000. More on northern portion of track. Above layer at 55,000. Could see ground. Never seen weather so good. Only thunderstorm right at southern turnpoint, exactly 80 mi south of Howard. Noticed aircraft picked up speed for unknown reason at 45,000, flew only 27-min leg. Temperatures seemed a little warm. Aircraft also climbed faster at high altitudes than normal — strange! Scattered Q over land. Made left-hand turns today. Patches of light turbulence at 45,000. Pockets of light turbulence at 50,000. Contrails visible from ground. Very smooth flight at higher altitudes. Large thunderstorms way off in northwest horizon. ITCZ at 12° N reported by weather. Trope at 52,000.

Date: Friday, July 22, 1977
Aircraft: Learjet
Pilot: Ted Wright

No significant clouds at any altitude when collections made. Some high cirrus at 45,000 but not in flight path. Few cumulus clouds about 100 mi southwest. Smooth flying. Little chop at 45,000 in northwest. Could see Panama Canal easily.

Date: Friday, July 22, 1977
Aircraft: U-2
Pilot: Jim Barnes

Clear at altitudes, nothing in area but low scattered to broken tops 7,000 to 8,000 ft. Remanents of ITCZ are visible to north and northwest, 200 miles off, 180 miles off rows of thunderstorms but well away. Lower 4 altitudes flown (45,000 to 60,000) were fairly bouncy (kind of rough) flying, upper two altitudes (65,000 and 70,000) were smooth. Saw Learjet contrails easily. Left-hand turns. Contrails easily seen from ground for first three passes, could not see 65,000 contrail, pilot says very light as seen in rear-view mirror.

Date: Saturday, July 23, 1977
Aircraft: Learjet
Pilot: Dan Dugan

Only thin scattered cirrus, most of time above, at 45,000 in clear. Flying under U-2 contrails, Learjet left persistent contrails. A little light chop (turbulence) at 35,000 ft for brief period, other altitudes were smooth. Temperatures looked regular, -39°C at 45,000. Mach number 0.80 to 0.82. See cumulus deck down low above Panama. Can see stuff off southward (~100 miles). ITCZ to southward, about 7° N. Trope at 52,000. Eight knot wind on ground coming from north.

Date: Saturday, July 23, 1977
Aircraft: U-2
Pilot: Ron Williams

Pretty clear today. Cirrus up to about 44,000 ft, south of Howard about 50 miles, north of that it was clear above 40,000. Light turbulence at 45,000, light turbulence at 55,000 (50,000?) till about 50 miles south (of Howard) and then moderate to heavy. At 55,000, patches of light turbulence. Above was smooth. Winds were unusual, below 55,000 were out of west today, have been out of east since we arrived. ITCZ reformed at 7° N. Pilot reports northern edge of ITCZ just at end of track. Looks like bunch of heavy cirrus with thunderstorms. Temperatures seemed normal except at higher altitudes were warmer. Big difference between north and south ends of track. About 3°C change. Warmer end was north. At 45,000, -58°C at south, -56°C at north. At 50,000, -58° at north, -51° at south. At 55,000, -59° south, -57° north. At 60,000, -51° south, -50° north. At 65,000, -48° south, -45° north. (Notice reverse at 65,000.) At 70,000, -39 everywhere.

Date: Sunday, July 24, 1977
Aircraft: Learjet
Pilot: Ted Wright

Considerable haze in area. Tops at 15,000 this morning, with cirrus above all flight altitudes. Some cumulus buildup, bulk to west, both southwest and northwest, apparently at 30,000 ft. Biggest buildup over mountains off to west. In and out of cirrus at 40,000, same at 45,000. Light chop (turbulence) at both 40,000 and 45,000, some clear air turbulence, some in cirrus clouds. Not too much ITCZ activity visible on horizon. Lots of haze. Sky is darker toward ITCZ. Can't see big buildups we saw yesterday. Flew track very closely and have done so everyday last few days. Trope today is 50.7K ft. ITCZ centered at 7.5° N.

Date: Sunday, July 24, 1977
Aircraft: U-2
Pilot: Jim Barnes

No Q in sight, but a few on far, far horizon. Very heavy and deep cirrus throughout entire scene (everywhere, first day we have had that), about 22,000 deep. Tops were at 51,000 ft at end of flight, about 46,000 on climbout, 29,000 on bottom. Trope listed at 50.5K ft today. Turbulence was bad at lower altitudes, 45,000 and 50,000. At 35,000 and

40,000 during descent within cirrus deck flying was smooth as silk, not a ripple. The turbulence decreased at higher altitudes. From ground, clouds near Howard closed in, moving from south to north after takeoff. North end of track characteristic of what pilots call thin cirrus, nearly transparent. At south end of track, cirrus became thicker and thicker. Ground winds up to 15 knots during flight period.

Date: Monday, July 25, 1977
Aircraft: Learjet
Pilot: Dan Dugan

More weather activity today. Layers of clouds, cirrus and stratus, right on up to 45,000. Aircraft sometimes between layers, above layers, and in the clouds. And sometimes in and out of tops. On top, at 41,000 at north end of track. Layer seemed to slant upward as aircraft got over isthmus, so just on top at 45,000 ft. Nothing higher. However, near Howard, went under thin layer of cirrus — very thin, also light turbulence. Worse southward. No icing occurred. Couldn't see much to southward. Same old thing to west — big thunderheads about 100 miles away. Minus 40°C at 45,000. Looks normal.

Date: Monday, July 25, 1977
Aircraft: U-2
Pilot: Ron Williams

On climbout in clouds up to 53,000 ft, cirrus, went through some buildup, got awful rough, heavy rain, must have been thunderstorms. About a 1000-ft clear layer at 51,000-52,000, another layer at 50,000. Right-hand turns and so was south of Howard during climbout. Climbed to 55,000. Light turbulence at 55,000 ft. Cirrus deck went to 90 miles north, there it became scattered. Tops were about the same. Did not fly track at 45,000 and 50,000, can't see thunderheads. Sixty thousand to 70,000 were smooth. Highest cloud tops were about 55,000 to south and west. On letdown, nothing but cirrus, some buildups to south poking through cirrus. There was one right at turnpoint, sticking up to about 50,000. Could see water (ocean) right at north end of track. Trope at 48.9K ft, ITCZ 8° N.

Date: Tuesday, July 26, 1977
Aircraft: U-2
Pilot: Jim Barnes

Scattered to broken cirrus to north of Howard during climbout. South of Howard had ITCZ activity, cirrus was very heavy, distinctly visible row of thunderstorms in the area, just to south of flight track (80 to 100 n. mi. south and extending as far as could be seen southeast to southwest). We are on northern edge of zone, just as yesterday. Cirrus extended to 45,000 ft, with convection cells extending higher, perhaps another 2000 ft, to 47,000. Later in day, reached 50,000. Trope listed at 52,000, center of ITCZ at 7° to 7.5° N. Ride was rough at 45,000, a common observation. Within cirrus, flying is smooth, in contrast. Smoother at higher altitudes. Although yesterday (2 days ago?) a few ripples at 70,000 due to very strong wind coming out of east (60 knots, dropping to 35 knots at 65,000). Quite a wind shear. Typical ram temperatures observed today. Little change last 4-5 days, ITCZ hasn't moved.

Date: Tuesday, July 26, 1977
Aircraft: Learjet
Pilot: Ted Wright

Few scattered cumulus over land, cirrus above aircraft until flight level 40,000, then in and out of cirrus. In clear at 45,000. Cloud tops appeared about 42,000. One giant thunderstorm southeast at least 100 to 150 n. mi, out over land. On letdown, hit tops of cumulus at 10,000 ft. No rain. Flying was smooth.

Date: Wednesday, July 27, 1977
Aircraft: Learjet
Pilot: Dan Dugan

Went through some rain on climbout. At 30,000 ft clear sky above aircraft part of time, some cirrus. Scattered cirrus at 35,000 returning from northern end of track. Ran into solid clouds about 75 n. mi. out coming toward Howard. Picked up light clear ice. Stayed in clouds for all 35,000 foot flying. Went to 40,000, still in clouds, made turn at southern end of track. First sample at 40,000 in clouds. Later at 40,000 began to break out of clouds during second sample. In and out of clouds while taking third sample. At 45,000, first and second sample on top, with little touch of thin cirrus above. One big thunderstorm building right in middle of racetrack. Tops above aircraft by 1000 ft or so. Light turbulence felt when near. Third sample taken near edge of buildup as we went north again. Dropped to 20,000 ft. Scattered cirrus above, could see water easily. At 15,000, a solid deck of clouds above, aircraft between layers, little puffy Q's below aircraft. Same for 10,000 ft. Lot of heavy rain descending through layers. Heavy rain on ground. U-2 contrails were visible from Lear easily when at 30,000. Looked pretty persistent. Also saw them when Lear was at 45,000. U-2 was doing left-hand turns, Lear right hand.

Date: Wednesday, July 27, 1977
Aircraft: U-2
Pilot: Ron Williams

Clouds to 44,000 on climbout, light turbulence, thunderstorms to 46,000 to 47,000 scattered, some to east ~15 miles. Most to north and west. Light to moderate turbulence at 45,000. At 50,000, patches of light turbulence. Fifty-five thousand was smooth. Sixty thousand rough in places. Sixty-five thousand was rough whole track, unusual. Seventy-thousand was smooth. Winds strong at 65,000. Temperatures constant to 65,000, stayed at −55°C (indicated) 45,000–55,000. Minus 52°C at 60,000. Cirrus on letdown, broke out at 35,000. Landed at end of rainstorm. Smooth flying at low altitudes. Trope at ~52,000. No obvious sharp temperature change through tropopause. Robinson interested in why no sharp trope. Flew 26-minute legs.

Date: Thursday, July 28, 1977
Aircraft: Learjet
Pilot: Ted Wright

Line of cumulus type clouds with rain showers east and west and parallel to north coast, hence shortened pattern at north end at 30,000 and 35,000. In tops at 30,000 at south end. At 40,000, still in cirrus but broke out in clear about 105 n. mi. north of Howard. Cloud tops somewhere between 40,000 and 43,000 depending on location. Clouds were lower than yesterday. Light turbulence only at 45,000, near top of thunderstorm and nearby. Smooth ride at other locations. Lots of sun today. Huge hole in cloud deck over Panama Canal.

Date: Thursday, July 28, 1977
Aircraft: U-2
Pilot: Jim Barnes

On climbout, broke through thin cirrus at 39,000 moving southbound (right-hand turns). Smooth flying at 45,000. ITCZ obviously moved to north of us. The row of thunderstorms normally associated with ITCZ and 80 to 120 n. mi. south has now moved north of us, about 63 n. mi. from Howard (DME distance) to south edge of it. Estimate height at 42,000 to 44,000 ft, early in morning. Cloud structure suggests ITCZ is fading (getting weaker). It's thin and weak and we flew directly over what's left of it. ITCZ lies halfway between Howard and northern end of our track. Flight at all altitudes was fairly smooth, much smoother than before. Temperatures seemed normal. Thin scattered to thin broken cirrus at very north end of track once clear of ITCZ stuff. Same condition south of ITCZ. Temperatures: 60,000 slightly colder than 55,000, trope is about halfway in between, about 57,000. Sixty-five thousand, warmer. Fifty-five thousand and 60,000 almost same. All numbers are in flight summary report.

Date: Friday, July 29, 1977
Aircraft: Learjet
Pilot: Dan Dugan

Entire flight track was free of clouds except during descent. Climbed in clear, clear above aircraft for entire flight. Layer of low level scattered cumulus over land over Panama. Light turbulence at 35,000 ft only, all other altitudes very smooth flying. Left a light contrail at 45,000. Could see one of U-2's contrails. To west and northwest, there were large thunderstorms, large anvil clouds being drawn out to the southeast for many, many miles. Clouds seemed to be about 200 miles away. Well south in bay of Panama could see ITCZ disturbances (according to this morning's satellite photo). Lowest ram temperature was observed at 45,000 as -38°C. Trope listed today as 53,000. ITCZ dissipated.

Date: Friday, July 29, 1977
Aircraft: U-2
Pilot: Ron Williams

Beautiful day for flying. A few broken Q up to 6,000 ft. Clear sky above. Off northern end of track there was some scattered cirrus, but aircraft didn't get near it. One or two patches of light turbulence at 45,000 and 50,000, smoother elsewhere. Could not see any big thunderstorms anywhere, although canopy was frosted over and couldn't see much (aircraft heating system failure). Slightly shorter pattern flown today to save time.

Date: Saturday, July 30, 1977
Aircraft: Learjet
Pilot: Ted Wright

On climbout, hit top of haze layer about 7,000 ft. Cirrus covering whole area above, base at 38,000, inside layer at 40,000, broke out underneath layer going northbound, hence it sloped higher to north. Cirrus above until climbed to 45,000 coming back south. In cirrus tops at 45,000 for practically whole 100 n. mi. run. Tops slightly above 45,000. Light turbulence in cirrus at 40,000. At 45,000, flight was smooth. Giant thunderstorm about 50-100 n. mi. south, much higher. Cirrus stopped at turnpoint (115 n. mi. DME) to north. ITCZ listed by weather people at 7.5° N.

Date: Saturday, July 30, 1977
Aircraft: U-2
Pilot: Jim Barnes

Very heavy cirrus deck to south with imbedded large thunderstorms where ITCZ reforming at 7.5° N. Obvious. Flight track to north nice flying, thin scattered cirrus, no Q at all. Low scattered clouds. Very heavy cirrus far above 45,000, so did not fly 45,000 today. Heavy Q extended to about 49,000. Just on top at 50,000. Lot of large Q moving westward to the north. Trope at 49.3K. Low altitude inversion around 6,000 ft (as yesterday). Very peculiar, but weather expects it to be gone by tomorrow. Ram temps today a little colder than usual, similar to yesterday. Colder near trop but warmer at 70,000, -36°C. Rough flying (turbulent) at 50,000 ft on south end of track. Rest of ride was fairly smooth. Rough as a cob in vicinity of tops of cirrus, and upwards 5,000 or 6,000 ft. In the cirrus it's smooth, smooth as silk. Higher above cirrus than 5,000 or 6,000, another 10,000 ft, light turbulence is usually encountered, but not to 70,000 ft. Seventy-thousand ft is smooth with sometimes an occasional light bounce.

Date: Sunday, July 31, 1977
Aircraft: U-2
Pilot: Ron Williams

Takeoff on schedule at 8 A.M. Weather very bad, ITCZ must be sitting right on top of Howard. On climbout heavy cirrus from 35,000 to about 48,000 (trope at 48,000). Didn't fly at 45,000, because lots of imbedded thunderstorms and can't see in advance (no weather radar installed in U-2 as there is in Learjet). Went to 50,000 ft, and things were unusual, flying was smooth as glass instead of rough as it usually is just above cirrus deck. Didn't fly pattern as planned because skipped 45,000 ft. Started 50,000 run 20 miles north of Howard, did a 360° turn, flew to track end (to north) and did another 360° turn to run out time for 50,000 altitude. Ram temperatures were peculiar, -55°C overhead, -60°C at north end (all at 50,000 ft). Flying was also smooth at 55,000 except close to thunderheads (within couple of miles), but rough at 60,000. More thunderstorms around than could be counted, right in pattern. Thunderstorms tops went as high at 58,000 and still building! No anvil tops observed. Ram temperatures were -60°C at 55,000. At 60,000 wasn't rough flying, but could not hold airplane at altitude, not within 1000 ft!

Changed power and everything but couldn't hold . . . period of motion was couple of minutes! Flying Mach hold on auto pilot and pilot believes effect not due to updrafts and downdrafts, but due to temperature changes but not sure. Flew 65,000 track and at north end observed another temperature change. Started at north end and flew full 200 n. mi. temperature change 4°C, -48°C at north end, -44°C at south end. North end was smooth flying, south end long period motions started again, couldn't hold altitude. Aborted mission at this time (1551 u.t.) to save fuel, still waited hour, however, before getting clearance from weather to descend. Heavy cirrus went to 100 n. mi north of Howard. Q buildup went to north coast, out over Atlantic, small Q and scattered thunderstorms. North coast southward just solid thunderstorms . . . really solid.

APPENDIX I

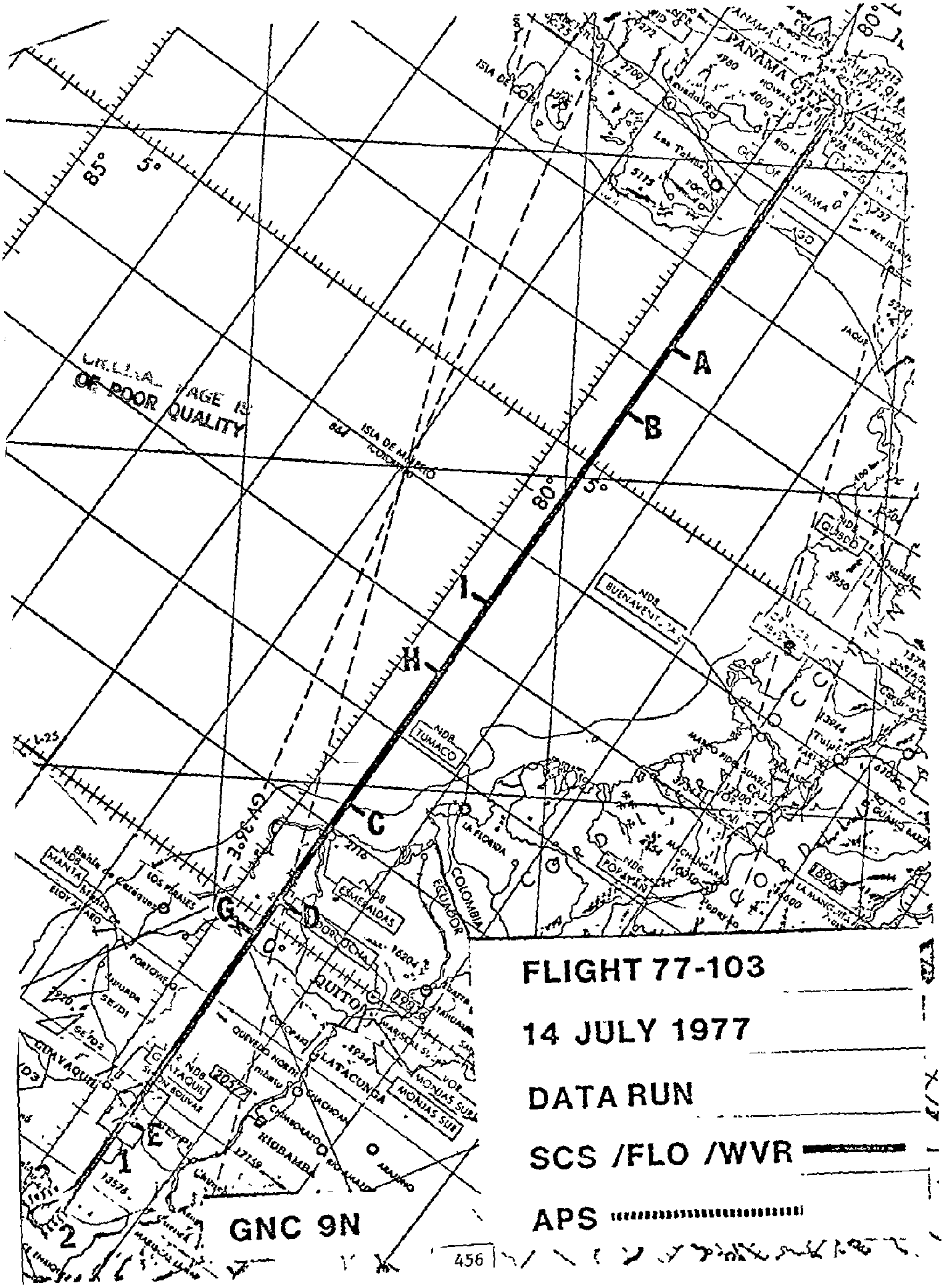
U-2 AIRCRAFT FLIGHT SUMMARY REPORTS

Abstracted by

William A. Page

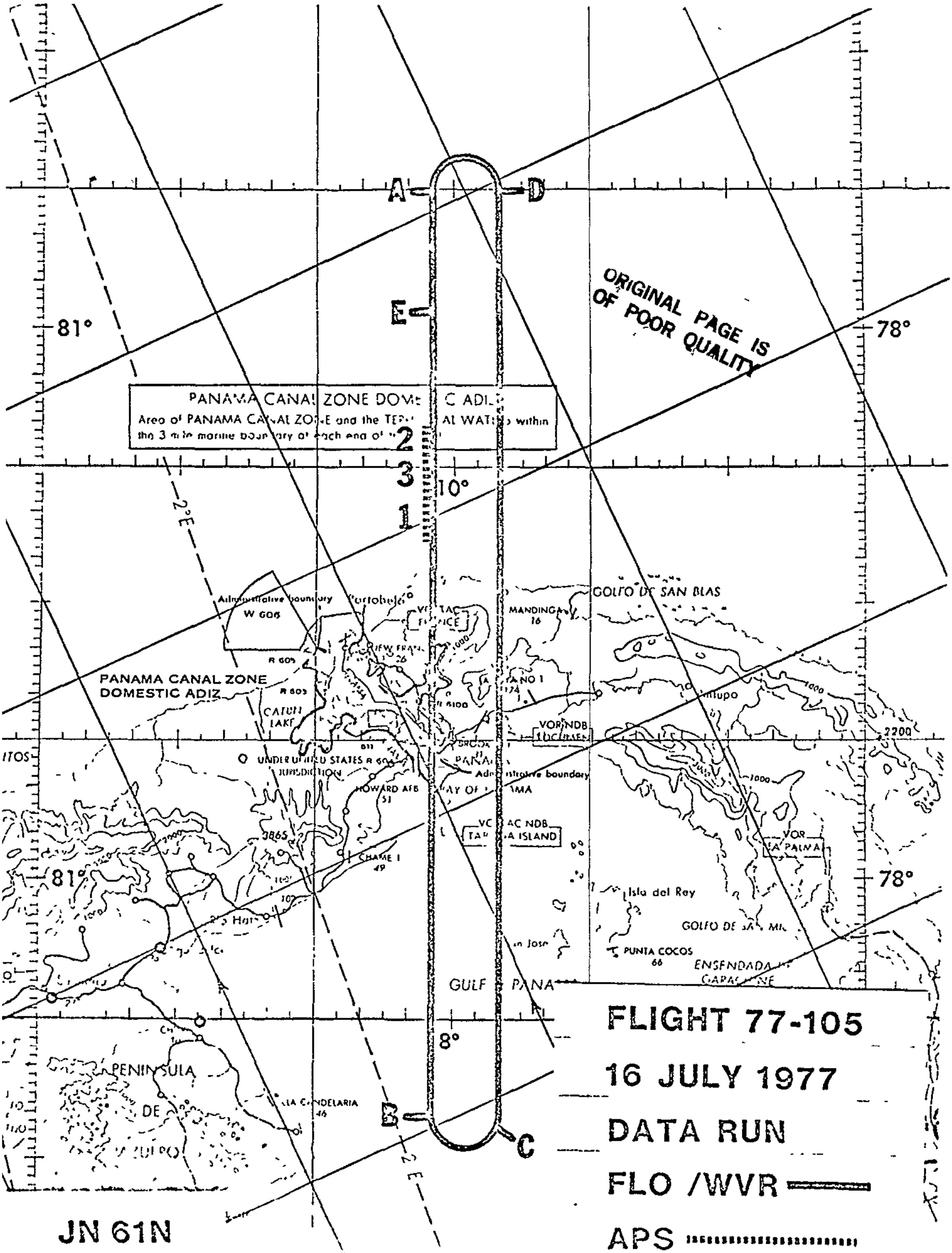
Ames Research Center

The following material is abstracted from the U-2 flight summary reports prepared by Lockheed Aircraft contractor personnel. For each day of flight a chart is given showing the aircraft track and a table of events and times. Lettered and numbered checkpoints are positions around the racetrack pattern as shown on the charts. They refer to aircraft position as well as the time for experiment operation as performed by the pilot according to the requested flight plan. The notation APS refers to the aerosol impact collector; IOAT denotes indicated outside air temperature (ram or total temperature); SAS is the stratospheric air sampler, which measures ozone and nitric oxide; WVR is the water vapor radiometer; SCS denotes the cryogenic sampler; and FLO denotes the infrared emission spectrometer.


FLIGHT 77-103
14 JULY 1977
DATA RUN
SCS /FLO /WVR
APS
GNC 9N
A
B
C
D
E
G
H
I
1
2
85°
5°
80°
PANAMA CITY
ISLA DE MALPELO
NDB BUENAVENTURA
NDB TUMACO
NDB ESMERALDAS
NDB POPAYAN
NDB MANTA
LA FLORIDA
COLOMBIA
ECUADOR
QUITO
LATACUNGA
RIOBAMBA
GUAYAQUIL
PORTOVIEJO
COTOPAXI
CHIMBORAZO

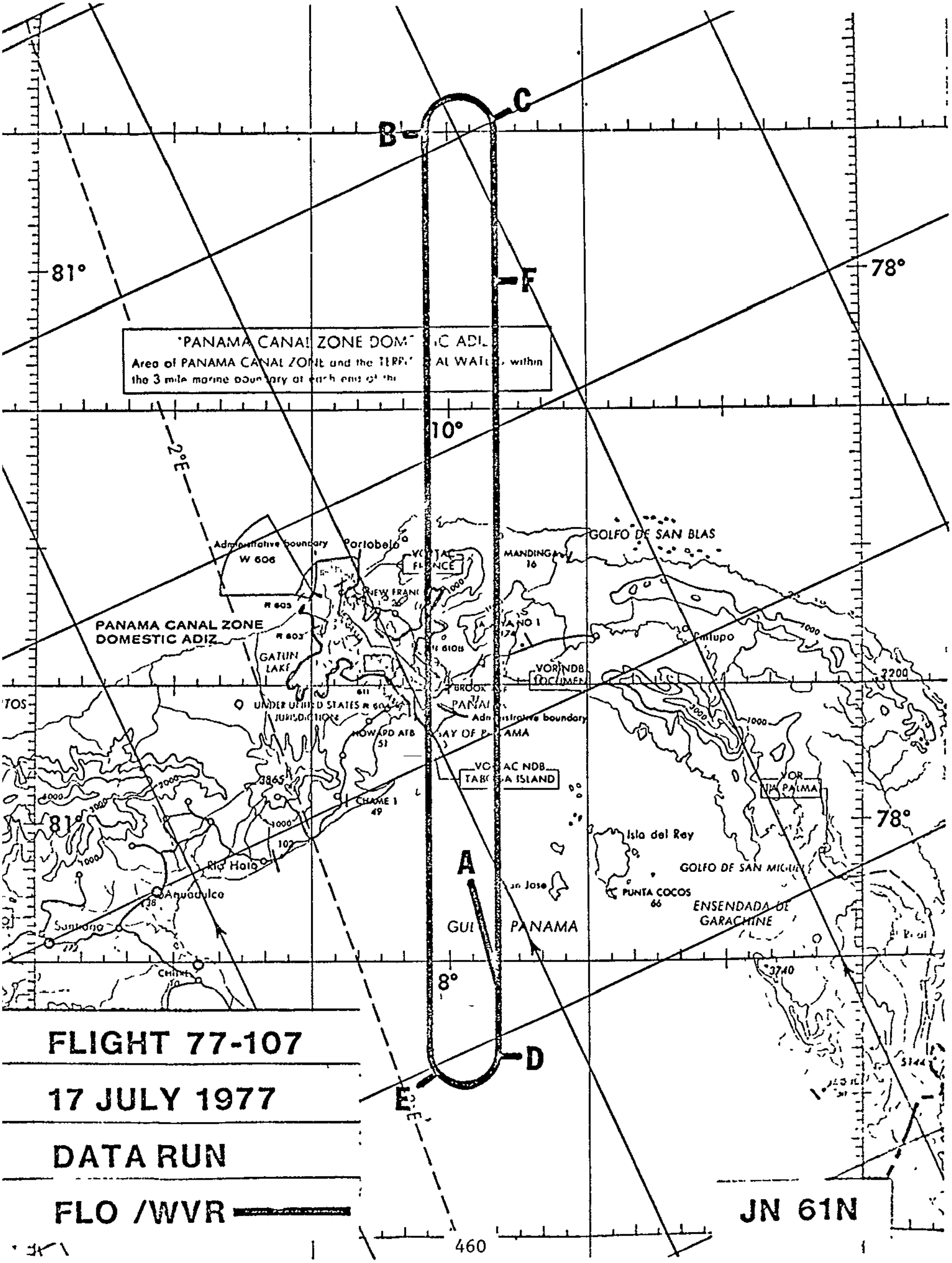
SENSOR FLIGHT DATA — FLIGHT NO. 77-103

Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
A	13:15:00	50,000/15200	Recorder on	Level-off
–	13:21:00	50,000/15200	Sample bottle #1	
B	13:22:00	50,000/15200	Open cryo #1	IOAT -65°C
C	13:45:00	50,000/15200	Seal cryo #1	
–	13:47:00	50,000/15200		Begin climb to 60,000 ft
–	13:49:00	60,000/18300		Level-off
D	13:55:00	60,000/18300	Open cryo #2	IOAT -51°C
E	14:18:00	60,000/18300	Seal cryo #2	
–	14:20:00	60,000/18300		Begin climb to 70,000 ft
F	14:40:00	70,000/21300		Level-off
–	14:45:00	70,000/21300	Open cryo #3	IOAT -40°C
G	15:06:00	70,000/21300	Seal cryo #3	
–	15:07:00	70,000/21300	Sample bottle #2	
–	15:09:00	70,000/21300	Open cryo #4	IOAT -40°C
H	15:32:00	70,000/21300	Seal cryo #4	
I	15:40:00	70,000/21300	Power off	
1	14:19:00	60,000/18300	APS #1 exposed for 1 min	IOAT -53°C
2	14:31:00	65,000/19800	APS #2 exposed for 2 min	IOAT -48°C
3	14:41:00	70,000/21300	APS #3 exposed for 2 min	IOAT -40°C


FLIGHT 77-105
16 JULY 1977
DATA RUN
FLO /WVR
APS
JN 61N
PANAMA CANAL ZONE DOMESTIC ADIZ
GOLFO DE SAN BLAS
MANDINGA
GULF
PENINSULA
DE
Isla del Rey
PUNTA COCOS
HOWARD AFB
UNDER UNITED STATES
JURISDICTION
Administrative boundary
A
D
E
B
C
2
3
1
81°
78°
10°
8°

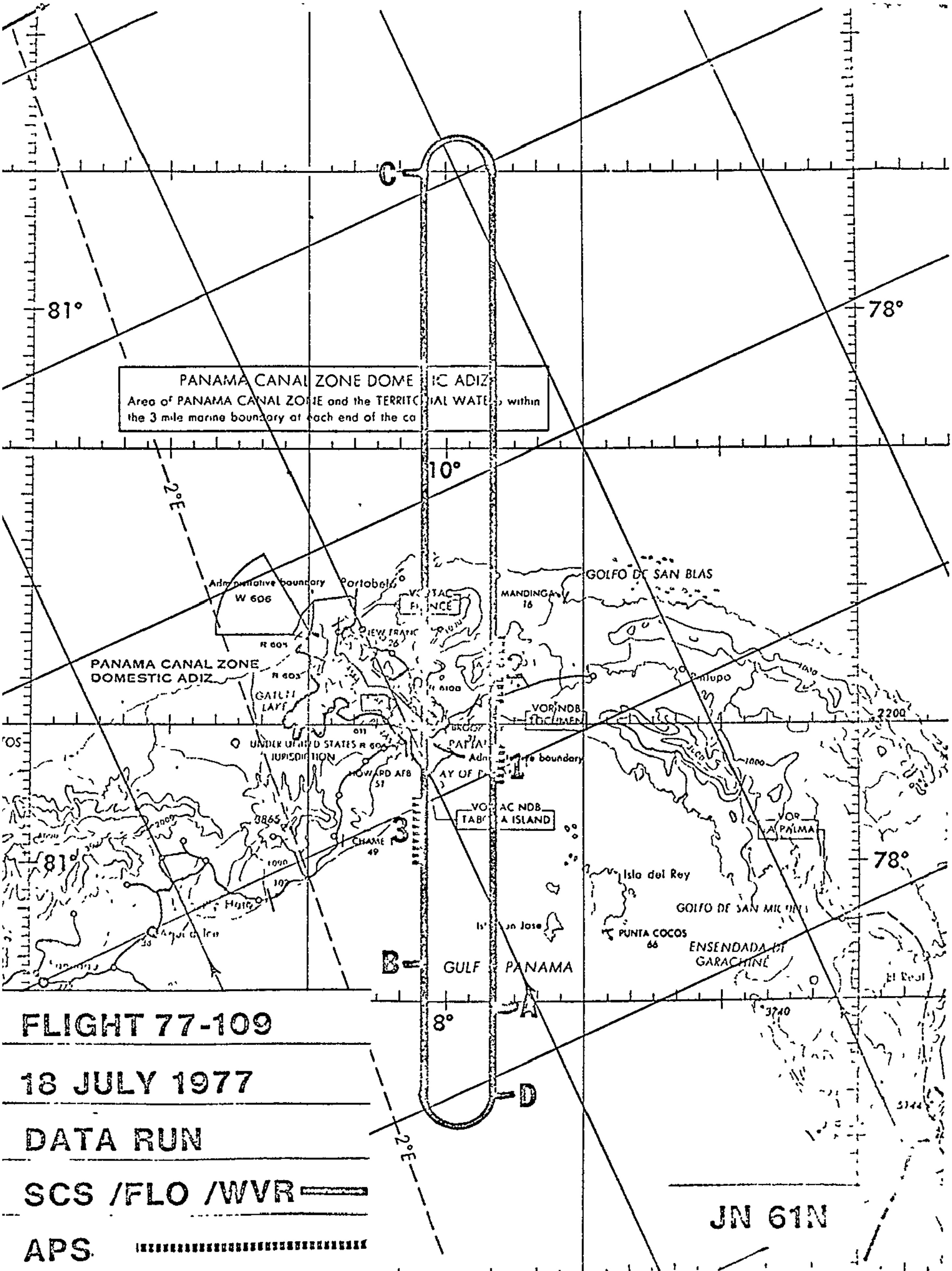
SENSOR FLIGHT DATA — FLIGHT NO. 77-105

Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
-	13:00:--	---	Take-off	
A	13:27:20	50,000/15200	Level-off; Begin data run	45,000-ft data run aborted due to turbulence
B	13:58:--	50,000/15200	End data run; Begin climb	
C	14:00:45	55,000/16800	Level-off; Begin data run	
D	14:31:--	55,000/16800	End data run; Begin climb	
A	14:33:54	60,000/18300	Level-off; Begin data run	
B	15:04:--	60,000/18300	End data run; Begin climb	
C	15:07:20	65,000/19800	Level-off; Begin data run	
D	15:37:--	65,000/19800	End data run; Begin climb	
E	15:45:20	70,000/21300	Level-off; Begin data run	
B	16:16:--	70,000/21300	End data run; Begin descent	
-	16:48:--	---	Power off during taxi	
2	13:35:--	50,000/15200	APS #2 exposed for 2 min	
1	14:43:--	60,000/18300	APS #1 exposed for 1 min	
3	15:54:--	70,000/21300	APS #3 exposed for 2 min	


FLIGHT 77-107
17 JULY 1977
DATA RUN
FLO /WVR
JN 61N
A
B'
C
D
E
F
81°
78°
10°
8°
2°E
460
PANAMA CANAL ZONE DOMESTIC ADIZ
Administrative boundary
W 606
Portobelo
GOLFO DE SAN BLAS
MANDINGA
GATUN LAKE
UNDER UNITED STATES JURISDICTION
HOWARD AFB
BAY OF PANAMA
TABOGA ISLAND
CHAME
Rio Hato
Aguadulce
Santiago
Chitre
Isla del Rey
GOLFO DE SAN MIGUEL
PUNTA COCOS
ENSENADA DE GARACHINE
Chiman
La Palma
3865
2200
3740
5144

SENSOR FLIGHT DATA — FLIGHT NO. 77-107

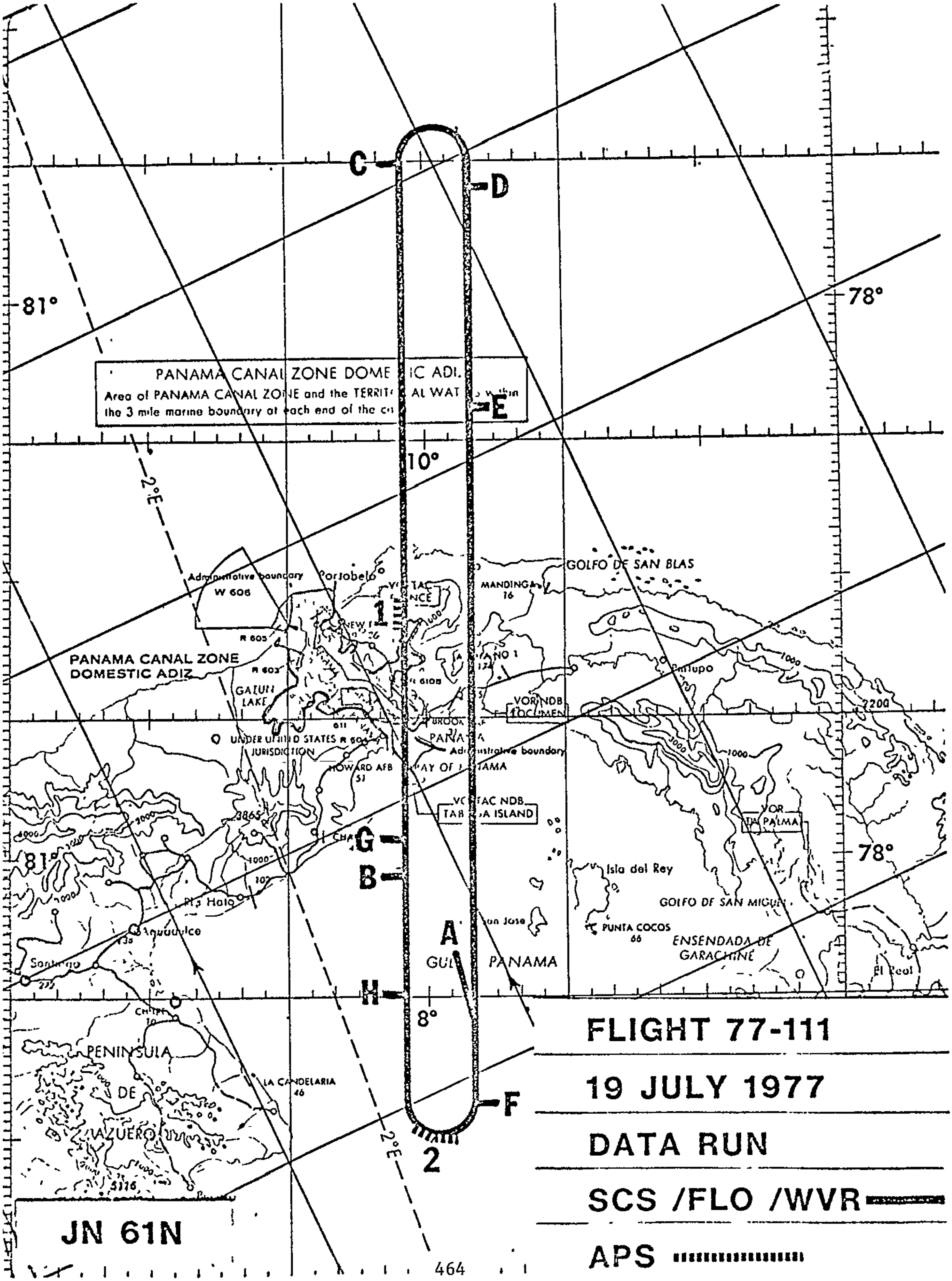
Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
-	13:00:--	---	Take-off	
A	13:08:30	45,000/13700	Level-off; Begin data run	IOAT -55°C
B	13:48:00	45,000/13700	End data run; begin climb	IOAT -53°C
C	13:49:45	50,000/15200	Level-off; Begin data run	IOAT -59°C
D	14:22:00	50,000/15200	End data run; Begin climb	IOAT -60°C
E	14:24:15	55,000/16800	Level-off; Begin data run	IOAT -56°C
B	14:56:00	55,000/16800	End data run; Begin climb	IOAT -58°C
C	14:59:00	60,000/18300	Level-off; Begin data run	IOAT -50°C
D	15:30:00	60,000/18300	End data run; Begin climb	IOAT -50°C
E	15:34:00	65,000/19800	Level-off; Begin data run	IOAT -41°C
B	16:04:00	65,000/19800	End data run; Begin climb	IOAT -42°C
F	16:12:00	70,000/21300	Level-off; Begin data run	IOAT -39°C
D	16:36:00	70,000/21300	End data run; Begin descent	



FLIGHT 77-109
18 JULY 1977
DATA RUN
SCS /FLO /WVR
APS
JN 61N
PANAMA CANAL ZONE DOMESTIC ADIZ
PANAMA CANAL ZONE
DOMESTIC ADIZ
GOLFO DE SAN BLAS
GULF PANAMA
Isla del Rey
GOLFO DE SAN MIGUEL
PUNTA COCOS
ENSENADA DE GARACHINE
HOWARD AFB
UNDER UNITED STATES JURISDICTION
Portobelo
MANDINGA
Administrative boundary
W 606
81°
78°
10°
8°
2°E
C
B
A
D
1
3

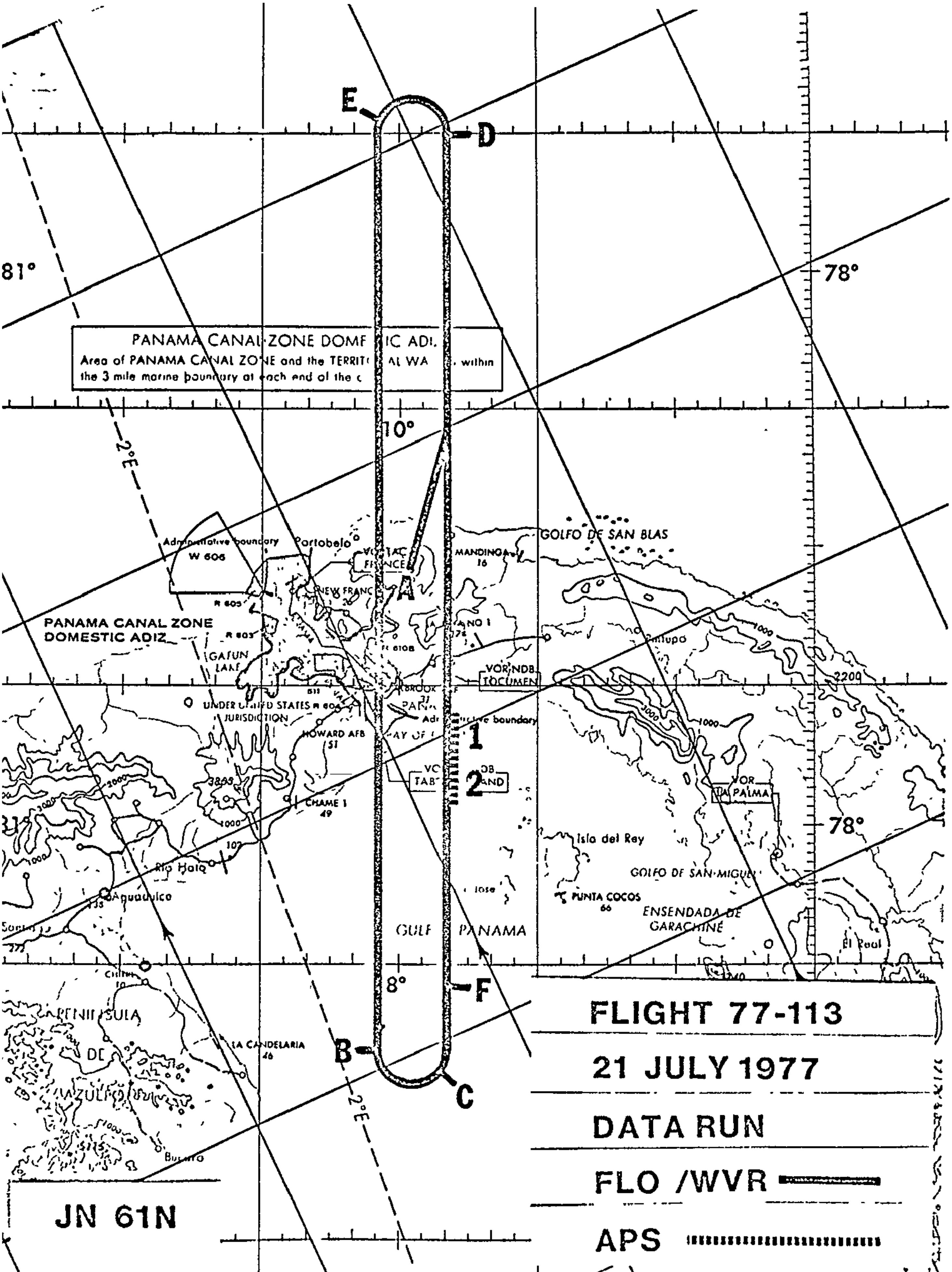
SENSOR FLIGHT DATA — FLIGHT NO. 77-109

Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
A	L3:12:00	45,000/13700	Begin data run	
B	13:17:17	45,000/13700	Sample bottle #1	
–	13:47:17	45,000/13700	Sample bottle #2	
C	13:48:17	45,000/13700		Begin climb to 50,000 ft
–	13:53:00	50,000/15200	Level-off	IOAT -58°C
D	14:23:00	50,000/15200	Begin climb to 55,000 ft	
–	14:26:10	55,000/16800	Level-off	
–	14:55:00	55,000/16800	Sample bottle #3	
C	14:57:00	55,000/16800		Begin climb to 60,000 ft
–	15:00:00	60,000/18300	Level-off	
–	15:05:00	60,000/18300	Sample bottle #4	
–	15:07:00	60,000/18300	Open cryo #1	Begin cryogenic sampling
–	15:27:00	60,000/18300	Seal cryo #1	IOAT -50°C
–	15:28:00	60,000/18300	Sample bottle #5	IOAT -49°C
D	15:30:00	60,000/18300		Begin climb to 65,000 ft
–	15:33:00	65,000/19800	Level-off	
–	16:01:00	65,000/19800	Sample bottle #6	IOAT -45°C
C	16:03:00	65,000/19800		IOAT -43°C, Begin climb to 70,000 ft
–	16:10:00	70,000/21300	Level-off	
–	16:17:00	70,000/21300	Open cryo #2	Begin cryogenic sampling; IOAT -35°C
–	16:37:00	70,000/21300	Seal cryo #2	
D	16:40:00	70,000/21300	Begin descent	IOAT -40°C
2	14:10:00	50,000/15200	APS #2 exposed for 2 min	IOAT -58°C
1	15:19:00	60,000/18300	APS #1 exposed for 1 min	IOAT -49°C
3	16:50:00	40,000/12200	APS #3 exposed for 2 min	IOAT -48°C


C
D
E
F
G
B
A
H
1
2
81°
78°
10°
8°
2°E
PANAMA CANAL ZONE DOMESTIC ADIZ
Portobelo
W 606
GATUN LAKE
HOWARD AFB
GOLFO DE SAN BLAS
MANDINGA
Isla del Rey
PUNTA COCOS
ENSENADA DE GARACHINE
PENINSULA DE AZUERO
LA CANDELARIA
JN 61N
FLIGHT 77-111
19 JULY 1977
DATA RUN
SCS /FLO /WVR
APS

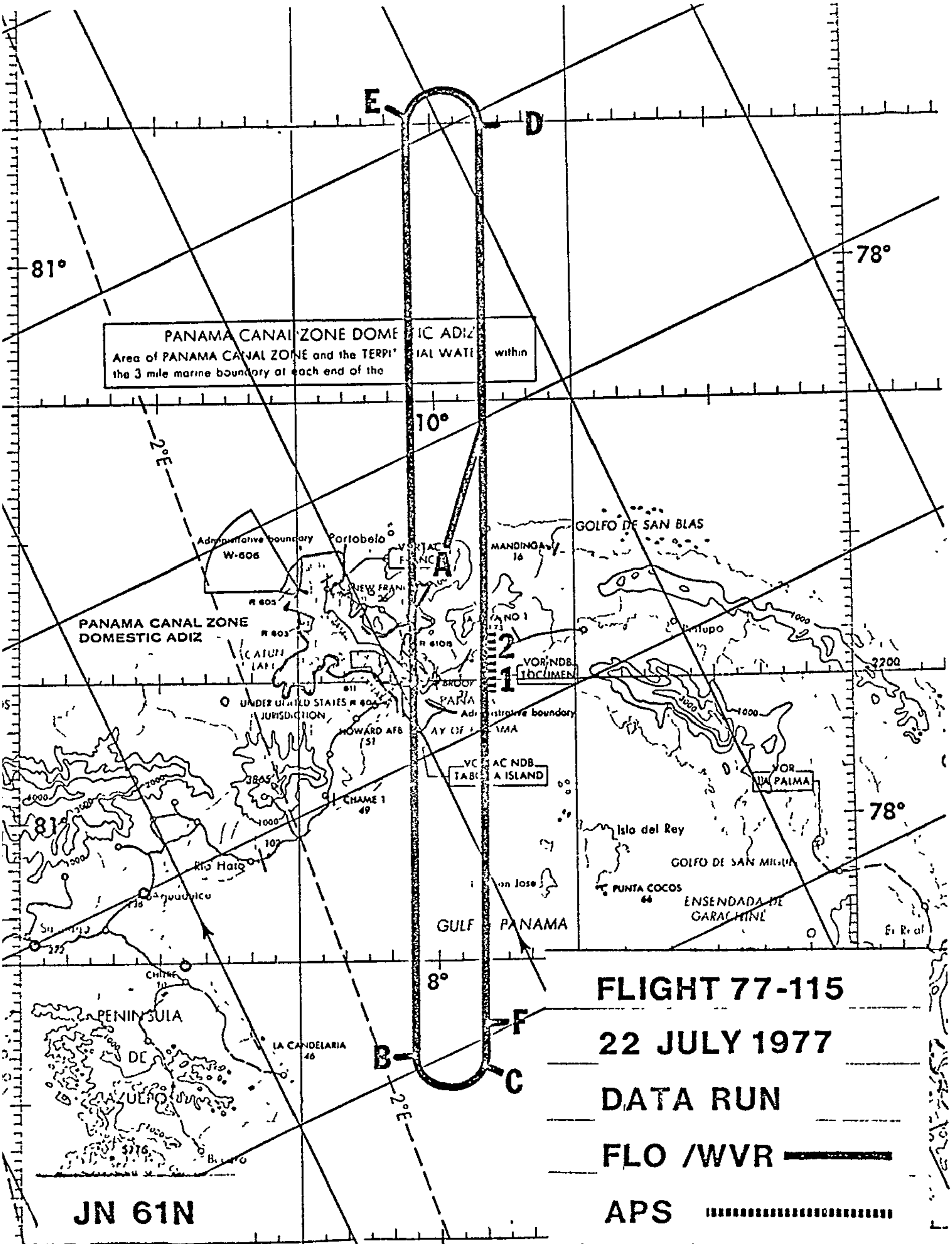
SENSOR FLIGHT DATA — FLIGHT NO. 77-111

Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
A	14:40:00	45,000/13700	Level-off	IOAT -56°C
-	14:50:00	45,000/13700	Sample bottle #1	IOAT -55°C
B	14:52:00	45,000/13700		IOAT -54°C
-	15:13:00	45,000/13700	Sample bottle #2	IOAT -55°C
C	15:15:00	45,000/13700		IOAT -55°C; begin climb to 55,000 ft
D	15:19:00	55,000/16800	Level-off	
-	15:24:00	55,000/16800	Sample bottle #3	IOAT -58°C
E	15:26:00	55,000/16800		IOAT -59°C
F	15:48:30	55,000/16800	Begin climb to 60,000 ft	
-	15:52:00	60,000/18300	Level-off	IOAT -48°C
-	15:57:00	60,000/18300	Sample bottle #4	IOAT -48°C; bottle sample
G	15:59:00	60,000/18300	Open cryo #1	IOAT -48°C
-	16:19:00	60,000/18300	Seal cryo #1	IOAT -48°C
-	16:20:00	60,000/18300	Sample bottle #5	IOAT -48°C
C	16:22:00	60,000/18300		IOAT -48°C; begin climb to 65,000 ft
D	16:25:00	65,000/19800	Level-off	IOAT -45°C
-	16:30:00	65,000/19800	Sample bottle #6	IOAT -45°C
F	16:53:30	65,000/19800	Begin climb to 70,000 ft	
H	17:00:00	70,000/21300	Level-off	
-	17:07:00	70,000/21300	Open cryo #2	IOAT -42°C
C	17:27:00	70,000/21300	Seal cryo #2	IOAT -42°C; descent to 50,000 ft
D	17:35:00	50,000/15200	Level-off at 50,000 ft	
F	18:05:00	50,000/15200	Begin final descent	
1	16:06:00	60,000/18300	APS #1 exposed for 1 min	
2	18:06:30	40,000/12200	APS #2 exposed for 2 min	APS #3 drive motor failed


FLIGHT 77-113
21 JULY 1977
DATA RUN
FLO /WVR
APS
JN 61N
E
D
A
B
C
F
1
2
81°
78°
10°
8°
2°E
PANAMA CANAL ZONE DOMESTIC ADIZ
GOLFO DE SAN BLAS
Portobelo
Administrative boundary
W 606
GATUN LAKE
HOWARD AFB
MANDINGA
VOR/NDB TOCUMEN
Isla del Rey
GOLFO DE SAN MIGUEL
PUNTA COCOS
ENSENADA DE GARACHINE
GULF PANAMA
El Real
CHAME 1
Rio Hato
Aguadulce
LA CANDELARIA
PENINSULA
DE
AZUERO

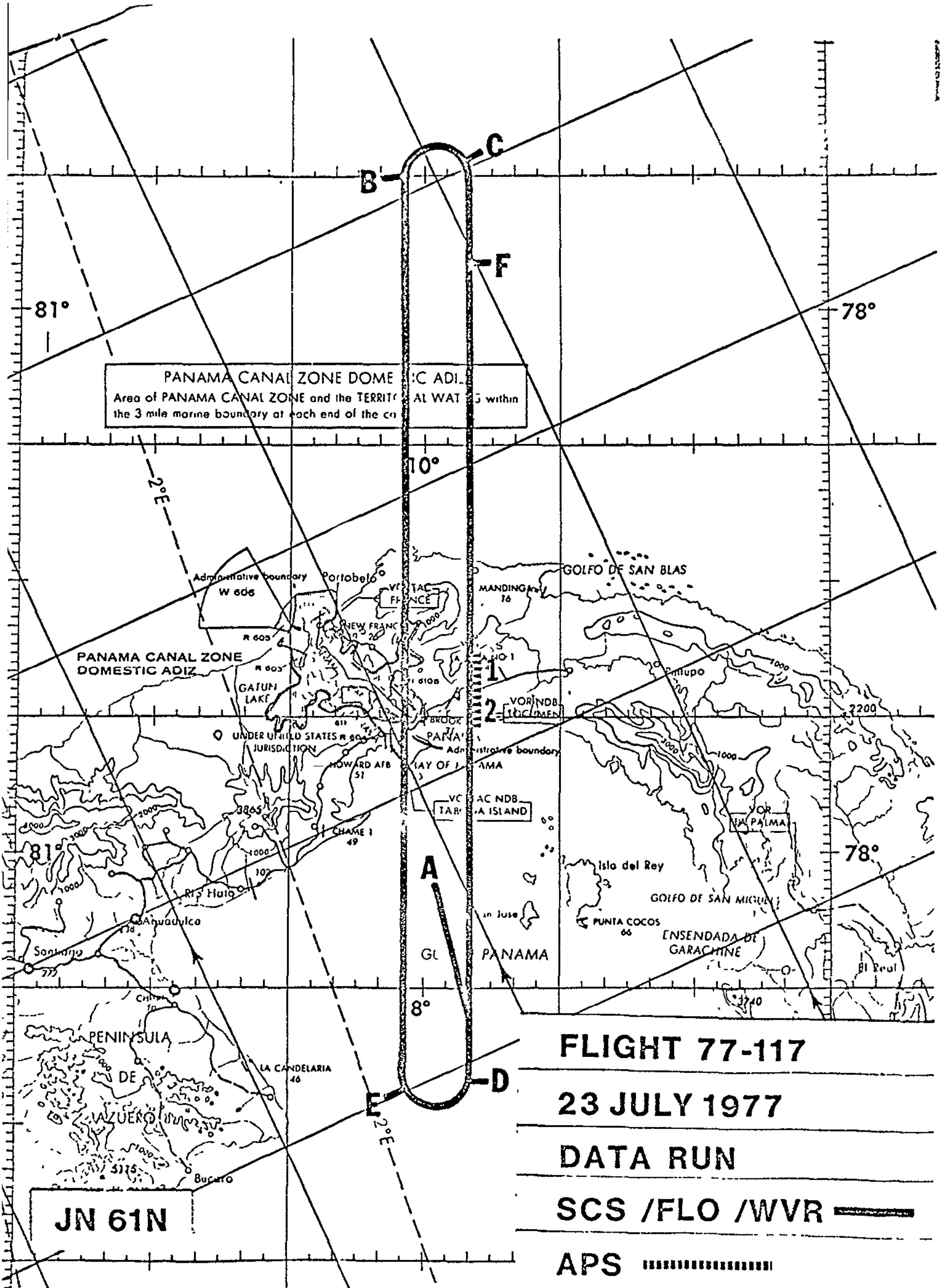
SENSOR FLIGHT DATA — FLIGHT NO. 77-113

Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
-	13:07:00	----	Take-off	
A	13:16:00	45,000/13700	Level-off; Begin data run	IOAT -55°C
B	13:47:00	45,000/13700	End run; Begin climb	
C	13:49:30	50,000/15200	Level-off; Begin data run	IOAT -62°C
D	14:21:00	50,000/15200	End run; Begin climb	IOAT -59°C
E	14:23:40	55,000/16800	Level-off; Begin data run	
B	14:54:00	55,000/16800	End run; Begin climb	IOAT -49°C
C	14:57:00	60,000/18300	Level-off; Begin data run	
D	15:27:00	60,000/18300	End run; Begin climb	IOAT -48°C
E	15:30:30	65,000/19800	Level-off; Begin data run	
B	16:01:00	65,000/19800	End run; Begin climb	IOAT -45°C
F	16:08:00	70,000/21300	Level-off; Begin data run	
D	16:38:00	70,000/21300	End run; Begin final descent	
2	14:01:00	50,000/15200	APS #2 exposed for 2 min	IOAT -62°C
1	15:08:00	60,000/18300	APS #1 exposed for 1 min	IOAT -49°C


FLIGHT 77-115
22 JULY 1977
DATA RUN
FLO /WVR
APS
JN 61N
PANAMA CANAL ZONE DOMESTIC ADIZ
Area of PANAMA CANAL ZONE and the TERRITORIAL WATERS within the 3 mile marine boundary at each end of the
PANAMA CANAL ZONE
DOMESTIC ADIZ
81°
78°
10°
8°
2°E
A
B
C
D
E
F
1
2
GOLFO DE SAN BLAS
Portobelo
Administrative boundary
W-606
MANDINGA
VOR/NDB
TOCUMEN
UNDER UNITED STATES
JURISDICTION
HOWARD AFB
TABOGA ISLAND
CHAME 1
Rio Hato
Isla del Rey
GOLFO DE SAN MIGUEL
PUNTA COCOS
ENSENDADA DE GARACHINE
GULF PANAMA
LA PALMA
PENINSULA DE AZUERO
LA CANDELARIA
CHITRE

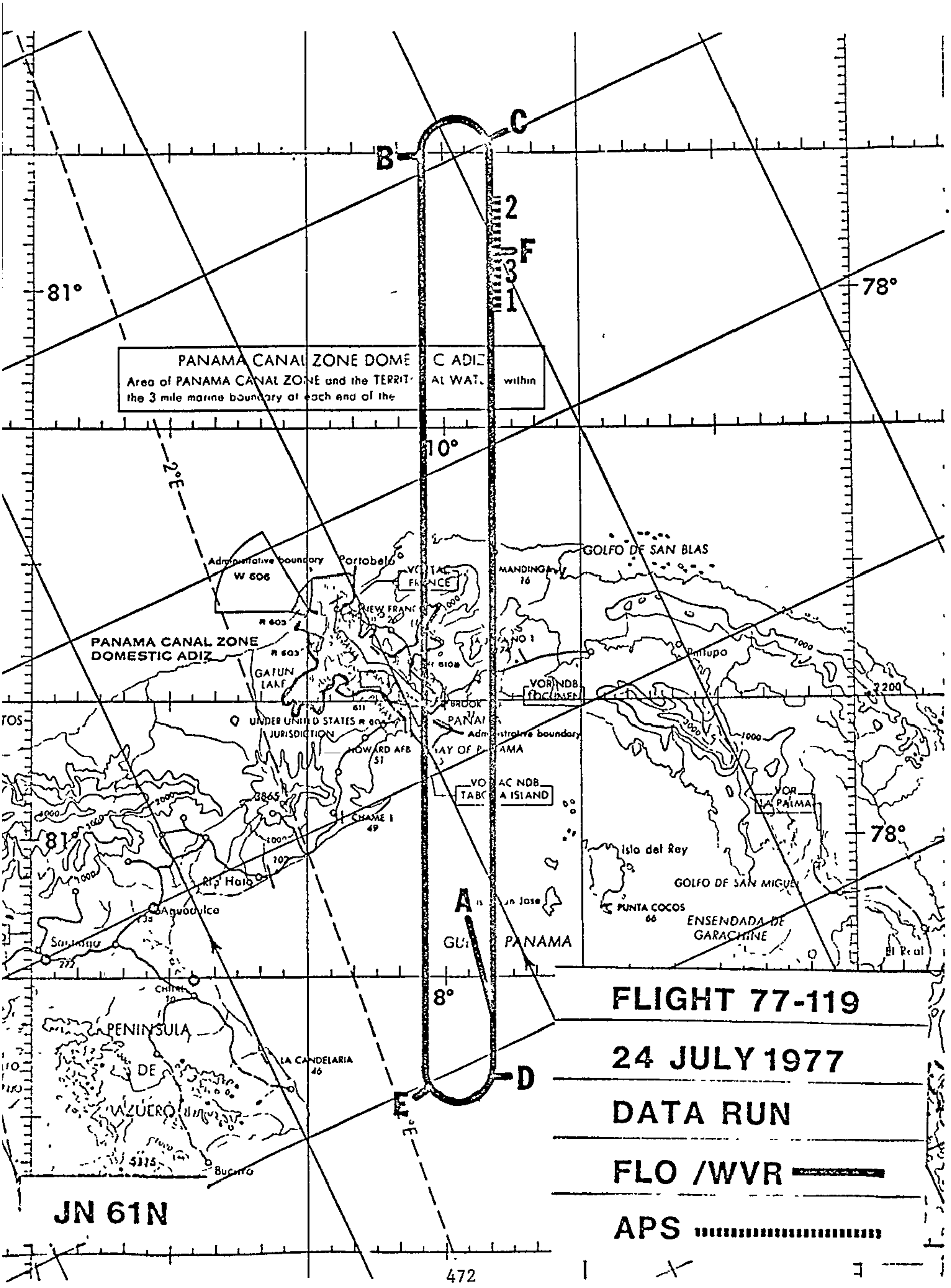
SENSOR FLIGHT DATA — FLIGHT NO. 77-115

Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
-	13:00:00	---	Take-off	
A	13:08:15	45,000/13700	Level-off; Begin data run	
B	13:37:00	45,000/13700	End run; Begin climb to 50,000 ft	
C	13:39:00	50,000/15200	Level-off; Begin data run	
D	14:11:00	50,000/15200	End run; Begin climb to 55,000 ft	
E	14:13:00	55,000/16800	Level-off; Begin data run	
B	14:44:00	55,000/16800	End run; Begin climb to 60,000 ft	
C	14:46:00	60,000/18300	Level-off; Begin data run	
D	15:17:00	60,000/18300	End run; Begin climb to 65,000 ft	
E	15:21:00	65,000/19800	Level-off; Begin data run	
B	15:50:00	65,000/19800	End run; Begin climb to 70,000 ft	
F	15:55:00	70,000/21300	Level-off; Begin data run	
D	16:23:00	70,000/21300	End run; begin final descent	
-	16:57:00	10,000/3100	Power off during descent	
2	13:53:00	50,000/15200	APS #2 for 2 min	
1	14:59:00	60,000/18300	APS #1 for 1 min	


FLIGHT 77-117
23 JULY 1977
DATA RUN
SCS /FLO /WVR
APS
JN 61N
81°
78°
10°
8°
B'
C
F
A
1
2
D
E
2°E
PANAMA CANAL ZONE
DOMESTIC ADIZ
GOLFO DE SAN BLAS
Portobelo
GATUN LAKE
Isla del Rey
GOLFO DE SAN MIGUEL
PUNTA COCOS
ENSENDADA DE GARACHINE
PANAMA
PENINSULA DE AZUERO
Santiago
Aguadulce
Bucaro
LA CANDELARIA
HOWARD AFB
Administrative boundary
W 606

SENSOR FLIGHT DATA — FLIGHT NO. 77-117

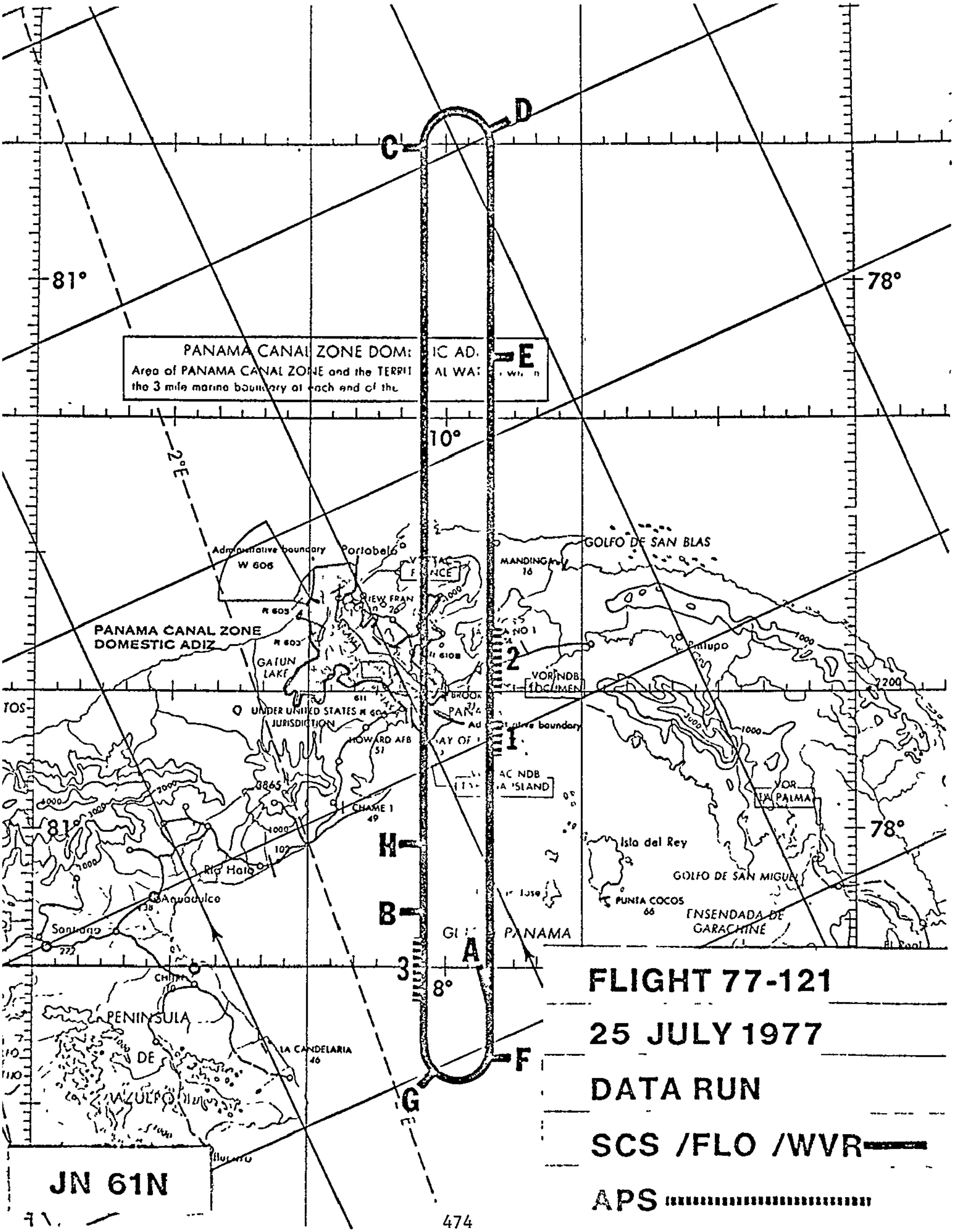
Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
–	13:00:00	---	Take-off	
A	13:09:00	45,000/13700	Level-off	IOAT -58°C
–	13:22:00	45,000/13700	Sample bottle #1	
–	13:45:00	45,000/13700	Sample bottle #2	
B	13:47:00	45,000/13700		IOAT -56°C; Begin climb to 50,000 ft
C	13:50:00	50,000/15250	Level-off at 50,000 ft	IOAT -59°C
D	14:22:00	50,000/15250	Begin climb to 55,000 ft	IOAT -60°C
E	14:25:00	55,000/16800	Level-off	IOAT -59°C
–	14:53:00	55,000/16800	Sample bottle #3	IOAT -58°C
B	14:55:00	55,000/16800		IOAT -57°C; Begin climb to 60,000 ft
C	14:57:30	60,000/18300	Level-off	IOAT -51°C
–	15:03:00	60,000/18300	Sample bottle #4	IOAT -51°C; bottle sample
–	15:05:00	60,000/18300	Open cryo #1	IOAT -50°C; cryogenic sample
–	15:25:00	60,000/18300	Seal cryo #1	IOAT -50°C
–	15:26:00	60,000/18300	Sample bottle #5	
D	15:28:00	60,000/18300		IOAT -50°C; Begin climb to 65,000 ft
E	15:31:00	65,000/19800	Level-off	
–	15:59:00	65,000/19800	Sample bottle #6	IOAT -47°C
B	16:01:00	65,000/19800		IOAT -45°C; Begin climb to 70,000 ft
F	16:08:00	70,000/21300	Level-off	IOAT -39°C
–	16:15:00	70,000/21300	Open cryo #2	IOAT -39°C; cryogenic sampler
D	16:35:00	70,000/21300	Seal cryo #2	
2	14:08:00	50,000/15250	APS #2 exposed for 1 min	IOAT -50°C
1	15:14:00	60,000/18300	APS #1 exposed for 2 min	IOAT -59°C



C
B
2
F
3
1
81°
78°
10°
8°
A
D
E
PANAMA CANAL ZONE
DOMESTIC ADIZ
GOLFO DE SAN BLAS
Portobelo
GATUN LAKE
Isla del Rey
GOLFO DE SAN MIGUEL
PUNTA COCOS
ENSENADA DE GARACHINE
PENINSULA DE AZUERO
LA CANDELARIA
JN 61N
FLIGHT 77-119
24 JULY 1977
DATA RUN
FLO /WVR
APS

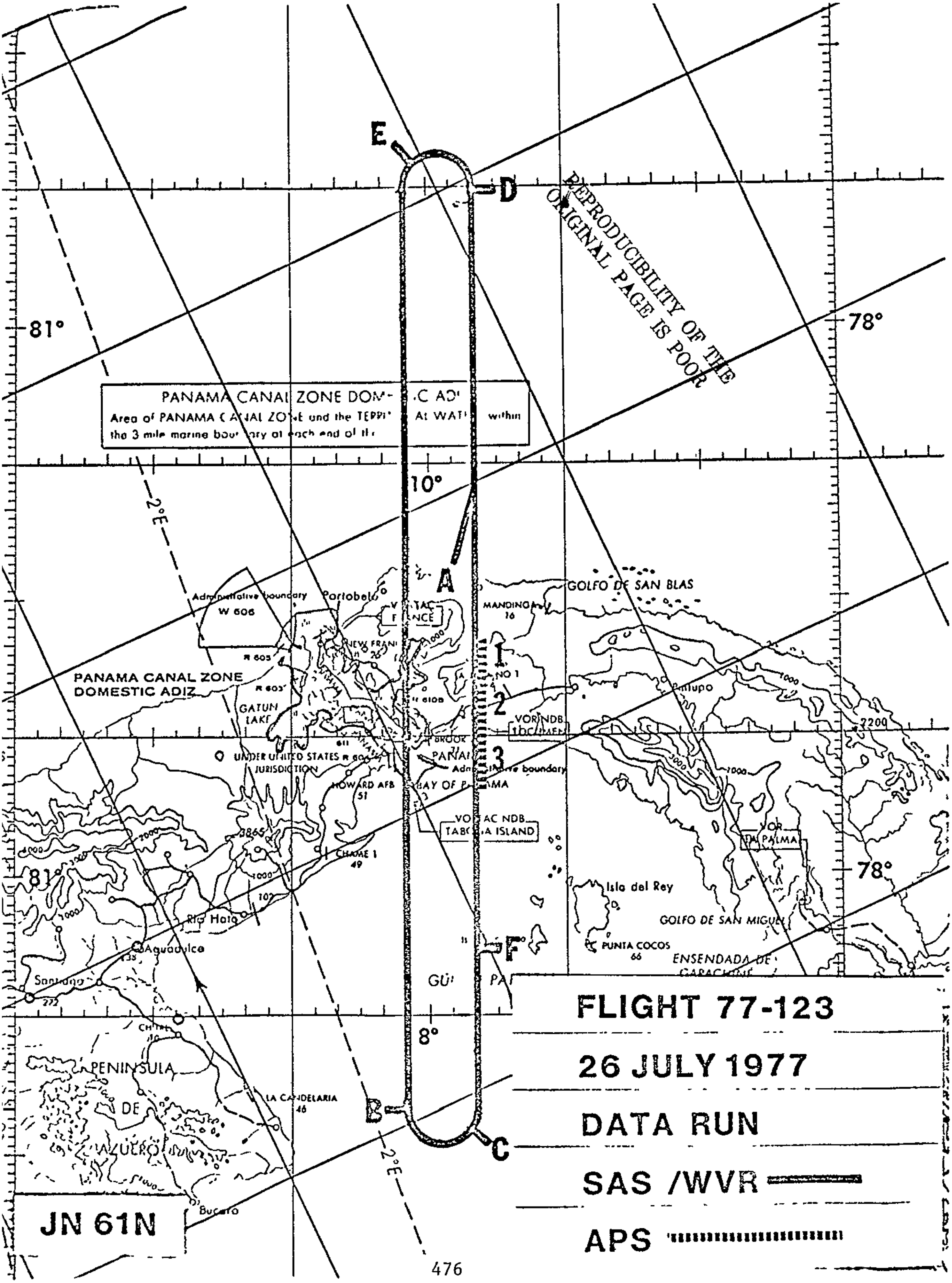
SENSOR FLIGHT DATA — FLIGHT NO. 77-119

Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
-	13:00:00	---	Take-off	
A	13:09:00	45,000/13700	Level-off; Begin data run	IOAT -57°C
B	13:42:00	45,000/13700	End run; Begin climb to 50,000 ft	IOAT -60°C
C	13:44:00	50,000/15250	Level-off; Begin data run	IOAT -60°C
D	14:18:00	50,000/15250	End run; Begin climb to 55,000 ft	IOAT -60°C
E	14:20:00	55,000/16800	Level off; Begin data run	IOAT -61°C
B	14:51:00	55,000/16800	End run; Begin climb to 60,000 ft	IOAT -58°C
C	14:53:00	60,000/18300	Level-off; Begin data run	IOAT -50°C
D	15:24:00	60,000/18300	End run; Begin climb to 65,000 ft	IOAT -50°C
E	15:27:00	65,000/19800	Level-off; Begin data run	IOAT -48°C
B	15:57:00	65,000/19800	End run; Begin climb to 70,000 ft	IOAT -46°C
F	16:03:00	70,000/21300	Level-off; Begin data run	IOAT -40°C
D	16:34:00	70,000/21300	End run; Begin descent	
-	17:15:00	---	Power off at shut-down	
2	13:50:00	50,000/15250	APS #2 exposed for 2 min	
1	14:56:00	60,000/18300	APS #1 exposed for 1 min	
3	16:07:00	70,000/21300	APS #3 exposed for 2 min	


FLIGHT 77-121
25 JULY 1977
DATA RUN
SCS /FLO /WVR
APS
JN 61N
PANAMA CANAL ZONE DOMESTIC ADIZ
Administrative boundary
W 606
Portobelo
GATUN LAKE
UNDER UNITED STATES JURISDICTION
HOWARD AFB
GOLFO DE SAN BLAS
MANDINGA
Isla del Rey
GOLFO DE SAN MIGUEL
PUNTA COCOS
ENSENDADA DE GARACHINE
CHAME
Rio Hato
Aguadulce
Santiago
PENINSULA DE AZUERO
LA CANDELARIA
LA PALMA
81°
78°
10°
8°
2°E
A
B
C
D
E
F
G
H
I
2
3

SENSOR FLIGHT DATA — FLIGHT NO. 77-121

Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
A	13:12:--	55,000/16800	Power on	IOAT -58°C
B	13:21:--	55,000/16800	Sample bottle #1	IOAT -59°C
-	13:44:--	55,000/16800	Sample bottle #2	IOAT -60°C
C	13:46:--	55,000/16800	Begin climb to 60,000 ft	IOAT -60°C
D	13:49:--	60,000/18300	Level-off	IOAT -52°C
-	13:54:--	60,000/18300	Sample bottle #3	Bottle sample
E	13:56:--	60,000/18300	Open cryo #1	Cryogenic sample
-	14:16:--	60,000/18300	Seal cryo #1	
-	14:17:--	60,000/18300	Sample bottle #4	IOAT -52°C
F	14:19:--	60,000/18300		IOAT -52°C; Begin climb to 65,000 ft
G	14:23:--	65,000/19800	Level-off	
-	14:28:--	65,000/19800	Sample bottle #5	Bottle sample
H	14:30:--	65,000/19800		
-	14:51:--	65,000/19800	Sample bottle #6	IOAT -49°C
C	14:53:--	65,000/19800		IOAT -48°C; Begin climb to 70,000 ft
E	15:03:--	70,000/21300	Level-off	IOAT -42°C
-	15:10:--	70,000/21300	Open cryo #2	
-	15:30:--	70,000/21300	Seal cryo #2	IOAT -42°C
F	15:33:--	70,000/21300	Begin descent	
1	14:08:00	60,000/18300	APS #1 exposed for 1 min	IOAT -52°C
3	15:19:00	70,000/21300	APS #3 exposed for 2 min	IOAT -42°C
2	15:42:00	50,000/15250	APS #2 exposed for 2 min	IOAT -55°C



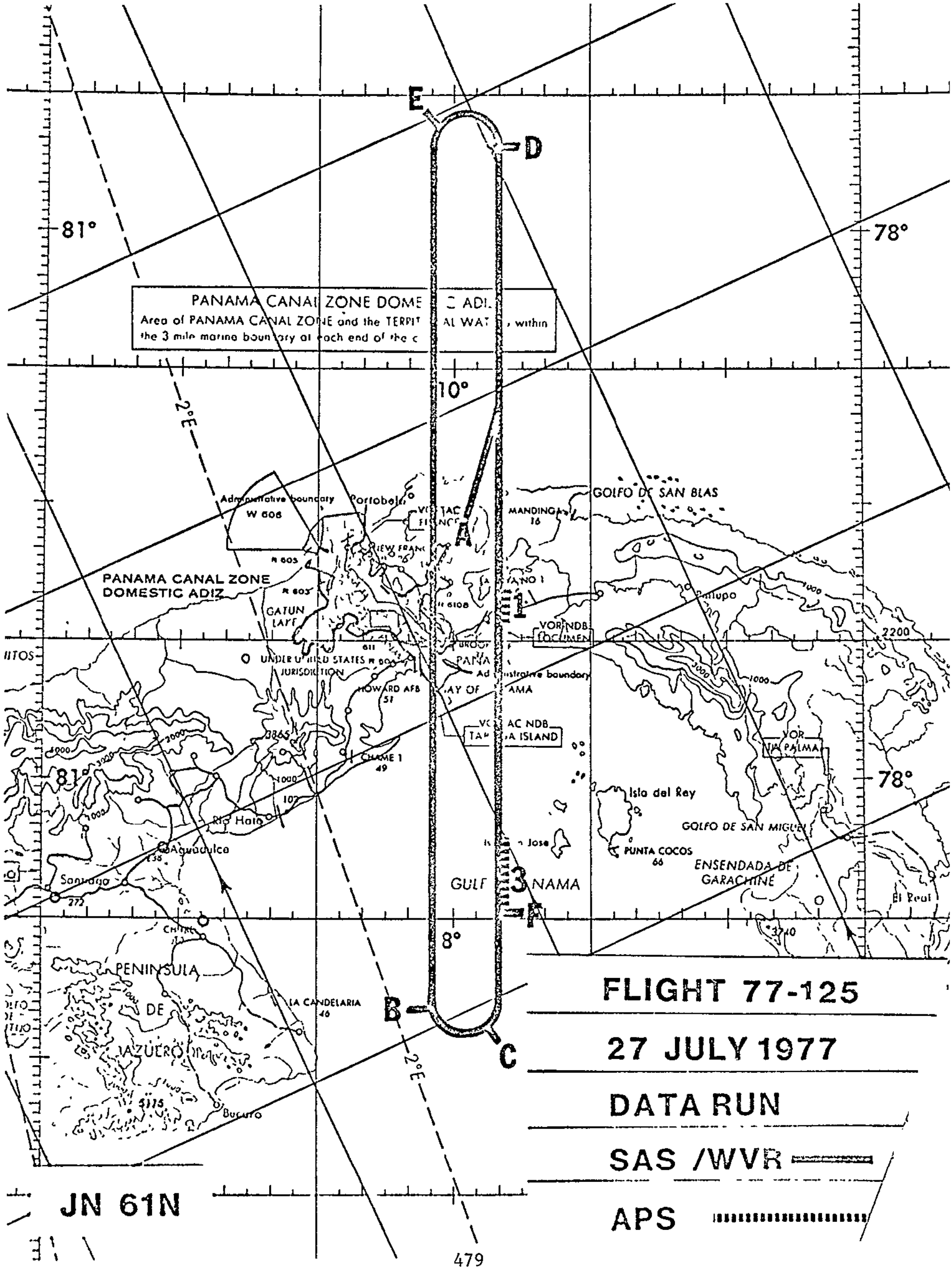
FLIGHT 77-123
26 JULY 1977
DATA RUN
SAS /WVR
APS
JN 61N
E
D
A
B
C
F
1
2
3
81°
78°
10°
8°
2°E
PANAMA CANAL ZONE
DOMESTIC ADIZ
GATUN LAKE
Portobelo
W 606
GOLFO DE SAN BLAS
MANDINGA
16
UNDER UNITED STATES
JURISDICTION
HOWARD AFB
51
BAY OF PANAMA
TABOGA ISLAND
CHAME 1
49
Isla del Rey
GOLFO DE SAN MIGUEL
PUNTA COCOS
66
Rio Hato
Aguadulce
Santiago
PENINSULA
DE
AZUERO
LA CANDELARIA
46
Bucaro
3865
2000
1000

SENSOR FLIGHT DATA — FLIGHT NO. 77-123

Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
-	13:00:00	---	Take-off	
A	13:11:00	45,000/13700	Level-off, switch to auto	IOAT -53°C
-	13:20:10	45,000/13700	Switch to manual	
-	13:32:10	45,000/13700	Switch to auto	
-	13:41:10	45,000/13700	Switch to manual	
B	13:42:00	45,000/13700	Climb to 50,000 ft	IOAT -54°C
C	13:44:00	50,000/15200	Level-off, switch to auto	IOAT -58°C
-	13:53:15	50,000/15200	Switch to manual	
-	14:05:15	50,000/15200	Switch to auto	
D	14:14:15	50,000/15200	Switch to manual, climb to 55,000 ft	IOAT -60°C
E	14:17:00	55,000/16800	Level-off, switch to auto	IOAT -60°C
-	14:26:10	55,000/16800	Switch to manual	
-	14:38:00	55,000/16800	Switch to auto	
-	14:47:00	55,000/16800	Switch to manual	
-	14:47:15	55,000/16800	High/Low switch to HIGH	
B	14:49:00	55,000/16800	Begin climb to 60,000 ft	IOAT -60°C
C	14:51:00	60,000/18300	Level-off, switch to auto	IOAT -51°C
-	15:00:00	60,000/18300	Switch to manual	
-	15:12:00	60,000/18300	Switch to auto	
-	15:21:00	60,000/18300	Switch to manual	
D	15:22:00	60,000/18300	Begin climb to 65,000 ft	IOAT -50°C
E	15:25:00	65,000/19800	Level-off	IOAT -46°C
-	15:27:00	65,000/19800	Switch to auto	
-	15:36:00	65,000/19800	Switch to manual	
-	15:48:00	65,000/19800	Switch to auto	
B	15:57:00	65,000/19800	Switch to manual, climb to 70,000 ft	IOAT -46°C
F	16:01:00	70,000/21300	Level-off, switch to auto	IOAT -46°C
-	16:10:25	70,000/21300	Switch to manual	
-	16:22:00	70,000/21300	Switch to auto	
-	16:31:00	70,000/21300	Switch to manual	
-	16:31:10	70,000/21300	High/Low switch to LOW	
D	16:45:00	70,000/21300	Begin descent	

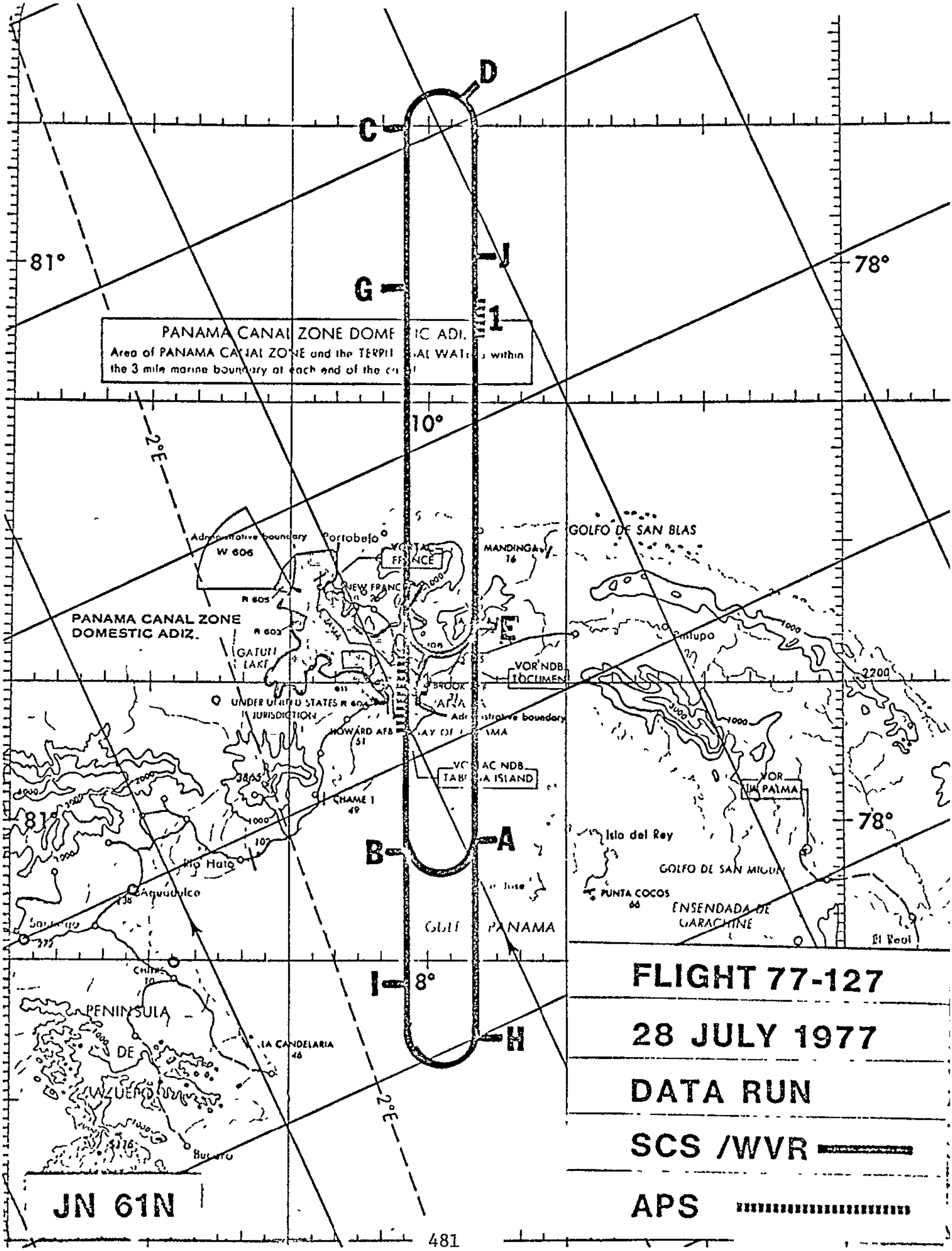
SENSOR FLIGHT DATA — FLIGHT NO. 77-123 (Concluded)

Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
2	13:56:00	50,000/15200	APS #2 exposed for 2 min	
1	15:06:00	60,000/18300	APS #1 exposed for 1 min	
3	16:10:00	70,000/21300	APS #3 exposed for 2 min	


FLIGHT 77-125
27 JULY 1977
DATA RUN
SAS /WVR
APS
JN 61N
E
D
A
1
3
F
B
C
81°
78°
10°
8°
2°E
PANAMA CANAL ZONE DOMESTIC ADIZ
Administrative boundary
W 606
Portobelo
GATUN LAKE
UNDER UNITED STATES JURISDICTION
HOWARD AFB
GOLFO DE SAN BLAS
MANDINGA
Isla del Rey
GOLFO DE SAN MIGUEL
PUNTA COCOS
ENSENADA DE GARACHINE
El Real
Rio Hato
Aguadulce
Santiago
PENINSULA DE AZUERO
LA CANDELARIA
Bucuro
CHAME 1

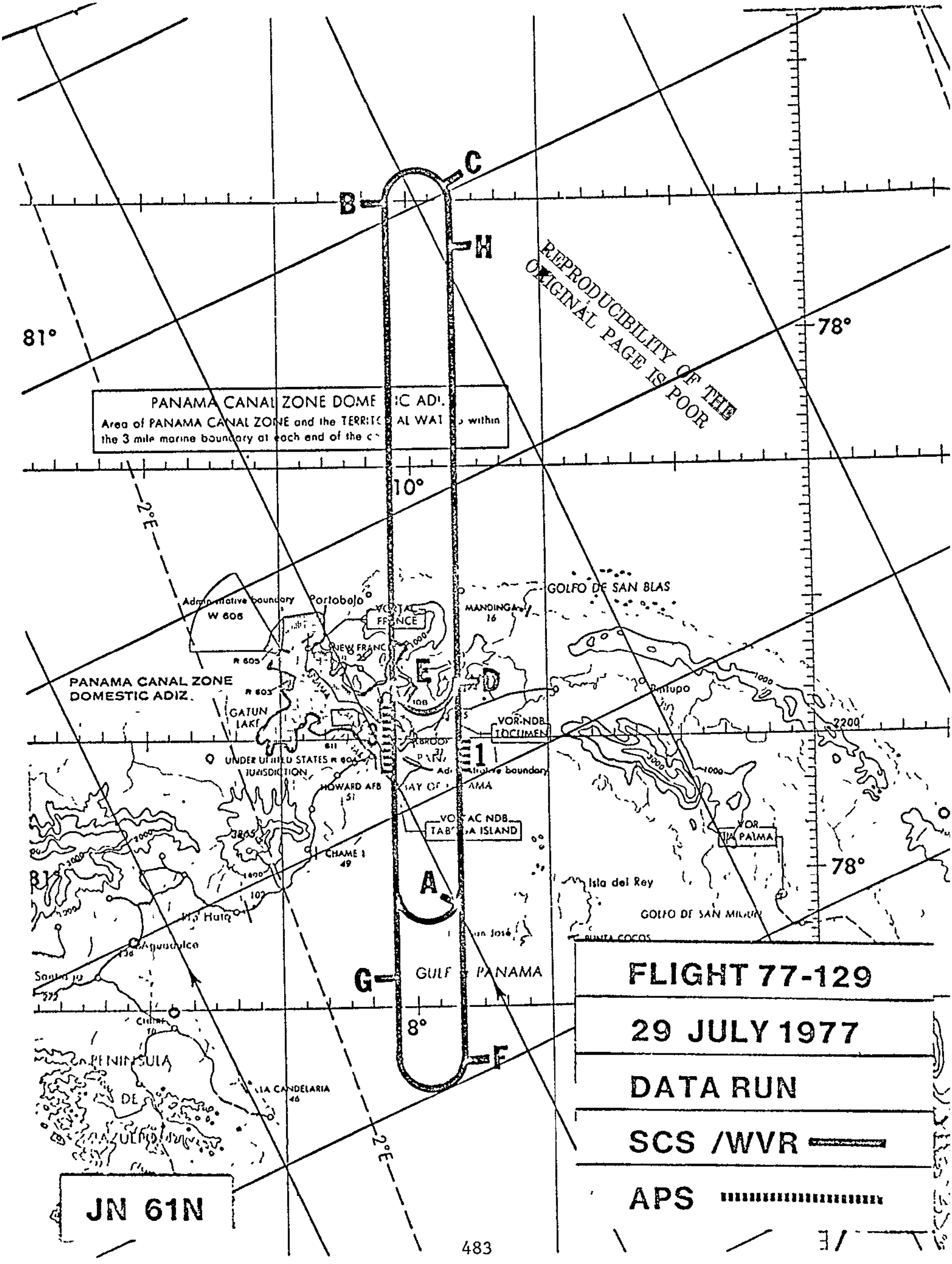
SENSOR FLIGHT DATA — FLIGHT NO. 77-125

Check points	Time-GMT, hr,min,sec	Altitude-MSL, feet/meters	Event	Remarks
A	13:08:20	45,000/13700	Level-off	IOAT -55°C
-	13:17:00	45,000/13700	Switch to auto	
-	13:26:00	45,000/13700	Switch to manual	
-	13:34:00	45,000/13700	Switch to auto	
B	13:43:00	50,000/15200	Switch to Manual	Begin climb to 50,000 ft
C	13:45:15	50,000/15200	Level-off; switch to auto	IOAT -55°C
-	13:54:15	50,000/15200	Switch to manual	
-	14:02:15	50,000/15200	Switch to auto	
D	14:11:15	55,000/16800	Switch to manual; HIGH/LOW switch to HIGH	Begin climb to 60,000 ft
E	14:14:00	55,000/16800	Level-off; switch to auto	IOAT -55°C
-	14:23:00	55,000/16800	Switch to manual	
-	14:31:00	55,000/16800	Switch to auto	
B	14:40:00	55,000/16800	Switch to manual	Begin climb to 60,000 ft
C	14:43:00	60,000/18300	Level-off; switch to manual	
-	14:52:00	60,000/18300	Switch to manual	
-	15:00:00	60,000/18300	Switch to auto	
D	15:09:00	60,000/18300	Switch to manual	Begin climb to 65,000 ft
E	15:13:00	65,000/19800	Level-off; switch to auto	IOAT -49°C
-	15:22:00	65,000/19800	Switch to manual	
-	15:30:00	65,000/19800	Switch to auto	
-	15:39:00	65,000/19800	Switch to manual	Begin climb to 70,000 ft
B	15:46:00	70,000/21300	Level-off; switch to auto	IOAT -42°C
F	15:55:00	70,000/21300	Switch to manual	
-	16:03:00	70,000/21300	Switch to auto	
D	16:12:00	70,000/21300	Switch to manual	Begin descent
-	16:30:30	40,000/12200	Switch to recorder	
1	14:53:00	60,000/18300	APS #1 exposed for 1 min	IOAT -52°C
3	15:55:00	70,000/21300	APS #3 exposed for 2 min	IOAT -42°C


D
C
81°
78°
J
G
1
PANAMA CANAL ZONE DOMESTIC ADIZ
10°
2°E
GOLFO DE SAN BLAS
Portobelo
W 606
MANDINGA
PANAMA CANAL ZONE DOMESTIC ADIZ.
GATUN LAKE
VOR NDB TOCUMEN
Administrative boundary
HOWARD AFB
Isla del Rey
GOLFO DE SAN MIGUEL
PUNTA COCOS
ENSENADA DE GARACHINE
Rio Hato
Aguadulce
A
B
E
I
H
8°
PENINSULA DE AZUERO
LA CANDELARIA
El Real
FLIGHT 77-127
28 JULY 1977
DATA RUN
SCS /WVR
APS
JN 61N

SENSOR FLIGHT DATA — FLIGHT NO. 77-127

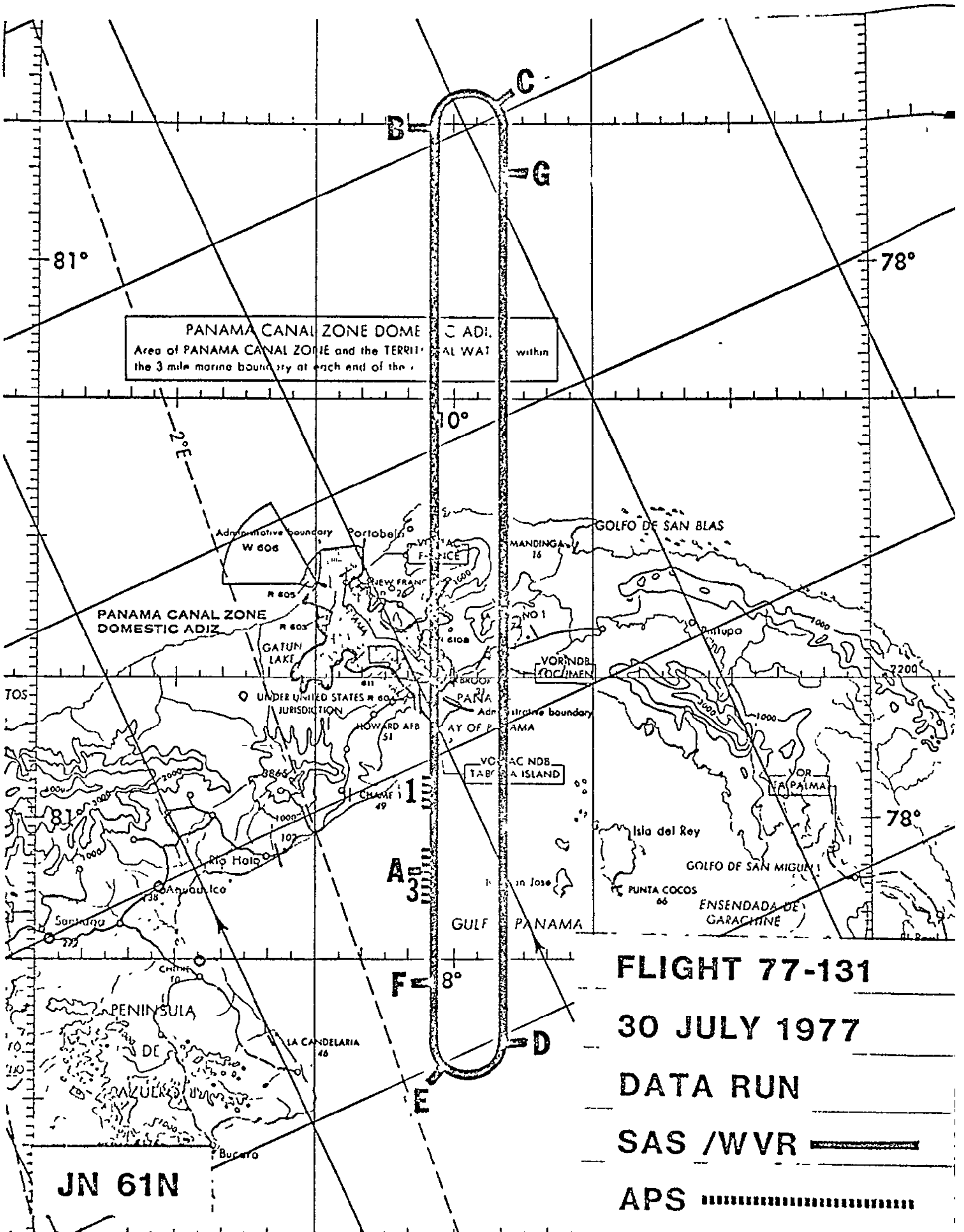
Check points	Time-GMT, hr,min,sec	Altitude-MSL, feet/meters	Event	Remarks
-	13:00:00	---	Take-off	
A	13:08:00	45,000/13700	Level-off	IOAT -52°C
B	13:12:30	45,000/13700		IOAT -52°C
-	13:13:30	45,000/13700	Sample bottle #1	Bottle sample
-	13:27:00	45,000/13700	Sample bottle #2	IOAT -55°C
C	13:38:00	45,000/13700	Begin climb to 50,000 ft	IOAT -55°C
D	13:40:00	50,000/15200	Level-off	IOAT -58°C
E	13:55:00	50,000/15200	Begin climb to 55,000 ft	IOAT -58°C
F	13:57:00	55,000/16800	Level-off	IOAT -58°C
G	14:09:00	55,000/16800		IOAT -59°C
-	14:10:00	55,000/16800	Sample bottle #3	Bottle sample
C	14:14:00	55,000/16800	Begin climb to 60,000 ft	IOAT -59°C
D	14:16:00	60,000/18300	Level-off	IOAT -50°C
-	14:21:00	60,000/18300	Sample bottle #4	Bottle sample
-	14:23:00	60,000/18300	Open cryo #1	
-	14:43:00	60,000/18300	Seal cryo #1	IOAT -50°C
-	14:14:00	60,000/18300	Switch #5 to sample bottle #5	IOAT -50°C
H	14:48:00	60,000/18300	Begin climb to 70,000 ft	IOAT -50°C
I	14:54:00	70,000/21300	Level-off	IOAT -45°C
-	15:01:00	70,000/21300	Open cryo #2	
C	15:21:00	70,000/21300	Seal cryo #2; descend to 65,000 ft	IOAT -40°C
-	15:28:00	65,000/19800	Level-off	IOAT -48°C
-	15:33:00	65,000/19800	Sample bottle #6	IOAT -47°C
E	15:40:00	65,000/19800	Begin final descent	
1	14:25:00	60,000/18300	APS #1 exposed for 1 min	
3	15:02:00	70,000/21300	APS #3 exposed for 2 min	



FLIGHT 77-129
29 JULY 1977
DATA RUN
SCS /WVR
APS
JN 61N
REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR
PANAMA CANAL ZONE DOMESTIC ADIZ
GOLFO DE SAN BLAS
GATUN LAKE
HOWARD AFB
TABOGA ISLAND
Isla del Rey
GOLFO DE SAN MIGUEL
GULF PANAMA
81°
78°
10°
8°
2°E
A
B
C
D
E
F
G
H
1

SENSOR FLIGHT DATA — FLIGHT NO. 77-129

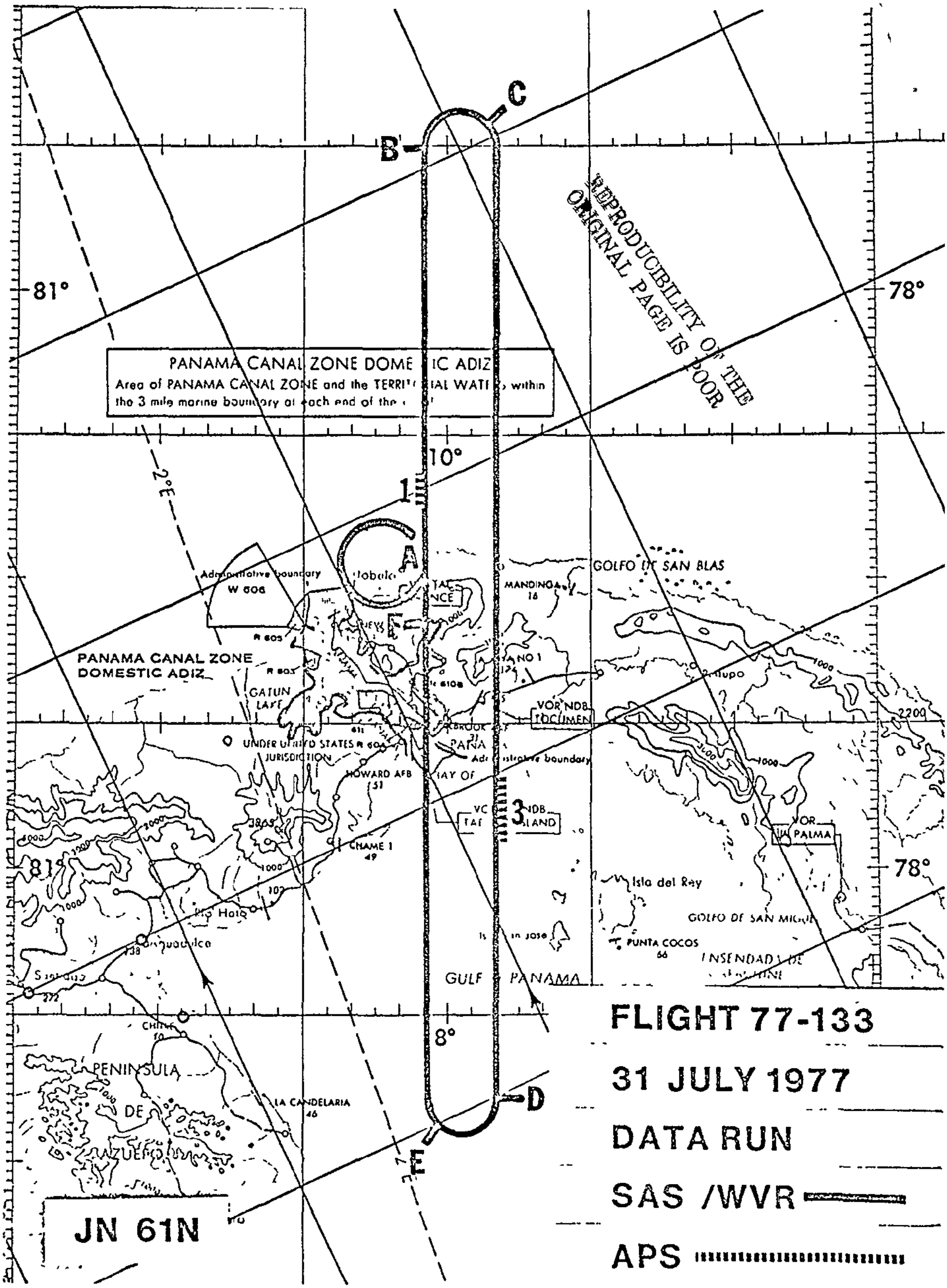
Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
-	13:00:00	---	Take-off	
A	13:08:00	45,000/13700	Level-off	IOAT -54°C
-	13:13:25	45,000/13700	Sample bottle #1	IOAT -54°C; bottle sample
-	13:27:25	45,000/13700	Sample bottle #2	IOAT -52°C
B	13:30:00	45,000/13700	Begin climb to 50,000 ft	IOAT -52°C
C	13:32:00	50,000/15200	Level-off	IOAT -55°C
D	13:50:00	50,000/15200	Begin climb to 55,000 ft	IOAT -55°C
E	13:53:00	55,000/16800	Level-off	IOAT -61°C
-	14:04:00	55,000/16800	Sample bottle #3	IOAT -61°C; bottle sample
B	14:06:00	55,000/16800		Begin climb to 60,000 ft
C	14:09:00	60,000/18300	Level-off	IOAT -52°C
-	14:11:00	60,000/18300	Sample bottle #4	Bottle sample
-	14:13:00	60,000/18300	Open cryo #1	IOAT -52°C; cryogenic sample
-	14:33:00	60,000/18300	Seal cryo #1	
-	14:34:00	60,000/18300	Sample bottle #5	IOAT -51°C
F	14:36:00	60,000/18300		IOAT -51°C; begin climb to 70,000 ft
G	14:43:00	70,000/21300	Level-off	IOAT -40°C
-	14:48:00	70,000/21300	Open cryo #2	Cryogenic sample
-	15:08:00	70,000/21300	Seal cryo #2	
B	15:10:00	70,000/21300		IOAT -39°C; descend to 65,000 ft
H	15:15:00	65,000/19800	Level-off	IOAT -43°C
-	15:20:00	65,000/19800	Sample bottle #6	IOAT -43°C
D	15:23:00	65,000/19800	Begin final descent	
3	14:51:00	70,000/21300	APS #3 exposed for 2 min	IOAT -40°C
1	15:25:00	60,000/18300	APS #1 exposed for 1 min	IOAT -51°C



FLIGHT 77-131
30 JULY 1977
DATA RUN
SAS /WVR
APS
JN 61N
PANAMA CANAL ZONE DOMESTIC ADIZ
PANAMA CANAL ZONE DOMESTIC ADIZ
GOLFO DE SAN BLAS
GATUN LAKE
Portobelo
Isla del Rey
GOLFO DE SAN MIGUEL
PUNTA COCOS
ENSENDADA DE GARACHINE
GULF PANAMA
Rio Hato
Santana
PENINSULA DE AZUERO
LA CANDELARIA
HOWARD AFB
Bucaro
81°
78°
10°
8°
2°E
A
B
C
D
E
F
G
1
3

SENSOR FLIGHT DATA — FLIGHT NO. 77-131

Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
-	13:00:00	---	Take-off	
A	13:13:00	50,000/15200	Level-off; switch	(45,000-ft run aborted due to weather) IOAT -61°C
-	13:22:45	50,000/15200	Switch to manual	
-	13:34:00	50,000/15200	Switch to auto	
B	13:43:15	50,000/15200	Switch to manual	IOAT -60°C; begin climb to 55,000 ft
C	13:46:00	55,000/16800	Level-off; switch to auto	IOAT -59°C
-	13:55:00	55,000/16800	Switch to manual	
-	14:07:00	55,000/16800	Switch to auto	
D	14:16:00	55,000/16800	Switch to manual; High/low to HIGH	IOAT -60°C; begin climb to 60,000 ft
E	14:19:05	60,000/18300	Level-off; switch to auto	IOAT -50°C
-	14:28:05	60,000/18300	Switch to manual	
-	14:40:20	60,000/18300	Switch to auto	
-	14:49:20	60,000/18300	Switch to manual	
B	14:51:00	60,000/18300	Begin climb to 65,000 ft	IOAT -49°C
C	14:54:00	65,000/19800	Level-off; switch to auto	IOAT -42°C
-	15:05:15	65,000/19800	Switch to manual	
-	15:17:15	65,000/19800	Switch to auto	
D	15:26:15	65,000/19800	Switch to manual	IOAT -49°C; begin climb to 70,000 ft
F	15:32:00	70,000/21300	Level-off; switch to auto	IOAT -36°C
-	15:42:20	70,000/21300	Switch to manual	
-	15:54:00	70,000/21300	Switch to auto	
B	16:03:00	70,000/21300	Switch to manual	Begin descent; High/Low to LOW
1	14:29:00	60,000/18300	APS #1 exposed for 1 min	
3	15:39:00	70,000/21300	APS #3 exposed for 2 min	


FLIGHT 77-133
31 JULY 1977
DATA RUN
SAS /WVR
APS
JN 61N
REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR
PANAMA CANAL ZONE DOMESTIC ADIZ
PANAMA CANAL ZONE
DOMESTIC ADIZ
81°
78°
10°
8°
A
B'
C
D
E
1
3
GOLFO DE SAN BLAS
GATUN LAKE
HOWARD AFB
Isla del Rey
GOLFO DE SAN MIGUEL
PUNTA COCOS
GULF
PENINSULA
DE
AZUERO
LA CANDELARIA
W 606
R 605
R 603
MANDINGA
VOR NDB
TOCUMEN
VOR
LA PALMA

SENSOR FLIGHT DATA — FLIGHT NO. 77-133

Check points	Time-GMT, hr,min,sec	Altitude, MSL, feet/meters	Event	Remarks
-	13:00:00	---	Take-off	
A	13:10:00	50,000/15200	Level-off; switch to auto	IOAT -55°C; 45,000-ft run aborted by weather
-	13:19:00	50,000/15200	Switch to manual	
-	13:31:00	50,000/15200	Switch to auto	
B	13:40:00	50,000/15200	Switch to manual	Begin climb to 55,000 ft
C	13:42:00	55,000/16800	Level-off	IOAT -60°C
-	13:44:00	55,000/16800	Switch to auto	
-	13:53:00	55,000/16800	Switch to manual	
-	14:05:00	55,000/16800	Switch to auto	
D	14:14:00	55,000/16800	Switch to manual	Begin climb to 60,000 ft
-	14:16:30	60,000/18300	High/Low switch to HIGH	
E	14:17:00	60,000/18300	Level-off	IOAT -50°C
-	14:18:00	60,000/18300	Switch to auto	
-	14:27:00	60,000/18300	Switch to manual	
-	14:39:00	60,000/18300	Switch to auto	
B	14:48:00	60,000/18300	Switch to manual	Begin climb to 65,000 ft
C	14:52:00	65,000/19800	Level-off; switch to auto	IOAT -48°C
-	15:01:00	65,000/19800	Switch to manual	
-	15:13:00	65,000/19800	Switch to auto	
D	15:22:00	65,000/19800	Switch to manual	70,000-ft run aborted due to ground weather conditions
F	15:51:00	65,000/19800		Begin descent
1	14:25:00	60,000/18300	APS #1 exposed for 1 min	IOAT -50°C
3	15:12:00	65,000/19800	APS #3 exposed for 2 min	IOAT -45°C

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15 Supplementary Notes

16 Abstract

Data are presented from the 1977 Intertropical Convergence Zone (ITCZ) Experiment conducted in the Panama Canal Zone in July 1977. Measurements were made daily over a 16-day period when the ITCZ moved across the Canal Zone. Two aircraft (Learjet and U-2) flew daily and provided data from horizontal traverses at several altitudes to 21.3 km of ozone, temperature, pressure, water vapor, aerosols, fluorocarbons, methane, nitrous oxide, nitric oxide, and nitric acid. Balloonsondes flown four times per day provided data on ozone, wind fields, pressure, temperature, and humidities to altitudes near 30 km. Rocketsondes provided daily data to altitudes near 69 km. Satellite photography provided detailed cloud information. Descriptions of individual experiments and detailed compilations of all results are provided in 15 sections and nine appendixes.

17 Key Words (Suggested by Author(s))	18 Distribution Statement
Intertropical convergence zone, Stratosphere, Troposphere-stratosphere exchange, ozone, nitric oxide, aerosols, fluorocarbons, nitric acid, nitrous oxide	Unlimited STAR Category - 47

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