N68-37369
(ACCESSION NUMBER)
469
(PAGES)
TMX 61290
(NASA CR OR TMX OR AD NUMBER)
(THRU)
1
(CODE)
31
(CATEGORY)
FACILITY FORM 602

METEOROLOGICAL DATA CATALOG

for the

APPLICATIONS TECHNOLOGY SATELLITE

USER'S GUIDE ATS I

GPO PRICE $ _____
CSFTI PRICE(S) $ _____
Hard copy (HC) _____
Microfiche (MF) _____
ff 653 July 65

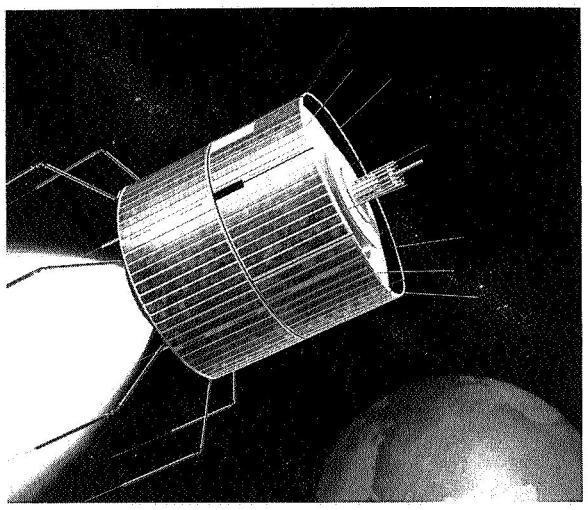
GODDARD SPACE FLIGHT CENTER
Greenbelt, Maryland

THE APPLICATIONS TECHNOLOGY SATELLITE METEOROLOGICAL DATA CATALOG

Volume 1

1 January through 30 June 1967

October 1967



Prepared by
Allied Research Associates, Inc.
Concord, Massachusetts

ATS Project
Goddard Space Flight Center
Greenbelt, Maryland

PRECEDING PAGE BLANK NOT FILMED.

FOREWORD

This catalog is the first in a series of catalogs to be published periodically by the National Aeronautics and Space Administration to document the meteorological data acquired from the Applications Technology Satellites. Part I contains the ATS-I Spin Scan Cloud Camera DATA USER'S GUIDE which describes the ATS-I system and offers an explanation of the data acquisition, categorization, cataloging and archiving processes. A computerized data service, based on the categorization scheme is also described. The User's Guide is a necessary adjunct to Part II of this publication and the ATS-I data portions of succeeding catalogs to be published in this series.

Data documentation in Part II herein is for the period 1 January 1967 through 30 June 1967. Subsequent catalogs will contain documentation throughout the useful lifetime of ATS-I and subsequent satellites, and will be available approximately 90 days following the documentation period. The ATS meteorological data catalogs present the types of data available, a meteorological data log identifying pictures as to time and picture quality, orbital data and a daily example of the photographic data acquired.

The ATS-I USER'S GUIDE was prepared by the Geophysics Division of Allied Research Associates, Inc., Concord, Massachusetts under Contract NAS 5-10343 with the Goddard Space Flight Center, NASA, Greenbelt, Maryland. Contributions to this Guide were made by Messrs. Wendell S. Sunderlin and John P. Lahzun of the ATS Project. The Allied Research Associates, Inc., technical effort was conducted primarily by Messrs. Abraham L. Ruiz, Leon Goldshlak and Walter C. Ahlin. Mr. John Lindstrom was the Data Utilization Manager for the ATS Project.

USER'S GUIDES will be published for the remaining meteorological sensors on the ATS series as useful data become available.

Robert J. Darcey
ATS Project Manager
Goddard Space Flight Center

PRECEDING PAGE BLANK NOT FILMED.

TABLE OF CONTENTS

		Page
FOREWORD		iii
	PART I THE ATS-I SPIN SCAN CLOUD CAMERA DATA USER'S GUIDE	
Section 1	INTRODUCTION	3
Section 2	THE APPLICATIONS TECHNOLOGY SATELLITE, ATS-I, SYSTEM	5
	2.1 The Spacecraft	5
	2.2 The Orbit	6
	2.3 Spacecraft Attitude	6
	2.4 Data Acquisition	7
	2.5 Experiments	9
Section 3	THE SPIN SCAN CLOUD CAMERA SYSTEM	11
	3.1 Description of the Spin Scan Cloud Camera (SSCC)	11
	3.2 Operation	13
	3.3 SSCC Area Coverage	14
	3.4 Illumination and the Terminator	15
	3.5 Meteorological Data Acquisition	16
Section 4	DATA DOCUMENTATION AND PROCESSING	21
	4.1 Identification	21
	4.2 Archival Film Selection	21
	4.3 Gridding	21
	4.4 Time Determination	25
	4.4.1 SSP	25
	4.4.2 Scan Line	25
	4.4.3 Picture Element Pulses	26

Page

4.5 Attitude Effects 26
4.6 Densitometric Stability 28
4.7 Data Classification 32
4.8 Archiving and Storage 32

Section 5 DATA CATALOG 33

Section 6 DATA AVAILABILITY 35

6.1 ATS Meteorological Data Catalog 35
6.2 Film Data 35
6.3 Magnetic Data Tapes 35
6.4 Special Requests 36

Section 7 INFORMATION RETRIEVAL SERVICE 37

7.1 Concept 37
7.2 Data Identification and Retrieval 37
7.3 Output Format 37
7.4 Retrieval Parameters 38
7.4.1 Data Time 38
7.4.2 Zones 38
7.4.3 Data Content Descriptor 38
7.5 Retrieval 39
7.6 Logical Combination of Parameters 40
7.7 Requests for Retrieval 40
7.8 Special Instruction to Users 41

Appendix A CLASSIFICATION OF DATA CONTENT 43

Appendix B ABBREVIATIONS, CONTRACTIONS AND CODES 71

Page

PART II
THE ATS-I METEOROLOGICAL DATA CATALOG

Section 1 INTRODUCTION 79

Section 2 ORBITAL DATA 83

Section 3 SSCC DATA LOG 85

Section 4 SSCC TAPE LISTINGS 439

PART I

THE ATS-I SPIN SCAN CLOUD CAMERA

DATA USER'S GUIDE

PRECEDING PAGE BLANK NOT FILMED.

SECTION 1

INTRODUCTION

The ATS-I Spin Scan Cloud Camera Data User's Guide has been prepared for the purpose of providing basic information and initial guidance to potential users of the ATS-I meteorological data.

Sections 2 and 3 of the Guide provide background information about the ATS-I systems. These sections also discuss the experimental meteorological subsystem and describe the data received from it.

Sections 4 through 7 cover the format of the ATS-I meteorological data, data processing, archiving, and the availability of data and of retrieval services.

PRECEDING PAGE BLANK NOT FILMED.

SECTION 2

THE APPLICATIONS TECHNOLOGY SATELLITE—ATS-I SYSTEM

2.1 THE SPACECRAFT

The ATS-I is the first of a series of ATS scientific satellites being built for the National Aeronautics and Space Administration, Goddard Space Flight Center. The basic ATS-I spacecraft, illustrated in Figure 2-1, is a cylinder 54 inches long and 57.6 inches in diameter with a solar cell array mounted around its periphery. The satellite weighs 775 pounds in orbit.

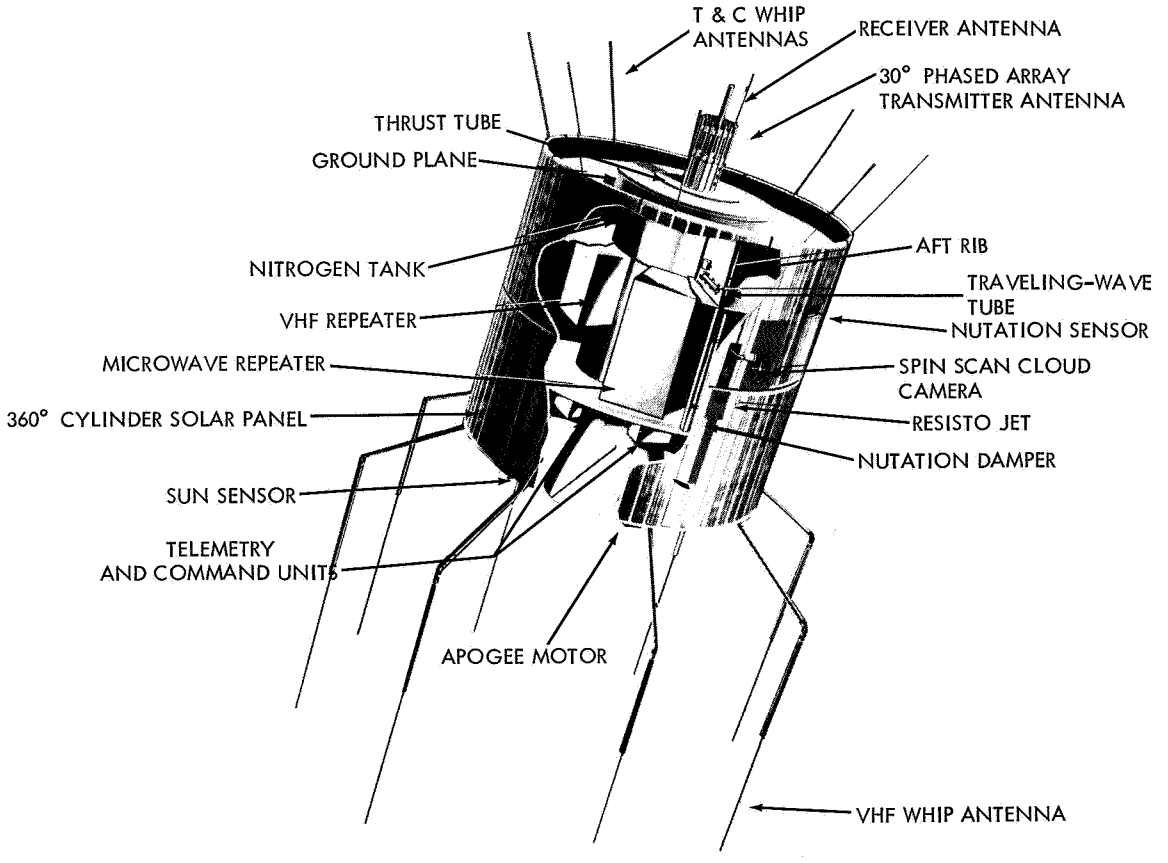


Figure 2-1. Applications Technology Satellite (ATS-1).

2.2 THE ORBIT

ATS-I was launched at 02 hours 12 minutes 00.997 seconds Universal Time on the 7th of December 1966 from the Eastern Test Range, Cape Kennedy, Florida. An initial earth-synchronous orbit was achieved with an apogee of 19757.66 nautical miles (36,615.89 km), a perigee of 19755.63 nautical miles (36,612.13 km) and an eccentricity of 0.0000343. The spacecraft has drifted to and maintains its nominal station over the equator at 151.0 W. longitude. The satellite drifts in longitude on the order of ± 0.03 degrees per day, and has a maximum latitudinal displacement of ± 0.43 degrees. Orbital elements will appear in each edition of the ATS Meteorological Data Catalog.

Some special properties of the earth synchronous orbit should be noted. The earth synchronous orbit is a prograde orbit (same direction as the earth's rotation) of 24 hour period. Since the earth's rotational period is also 24 hours, the satellite would appear to hover motionless over a fixed location on the equator if the satellite were in an exactly equatorial orbit (inclination zero), and of essentially zero eccentricity.

The residual inclination results in the daily execution of a small "figure eight" subpoint pattern crossing the equator at the nominal subpoint. The figure eight is oriented north-south. The latitude of its northern and southern extremities equals the orbital inclination, while the maximum longitudinal excursion relative to the subpoint is less than the inclination.

The eccentricity of the orbit superposes a single daily apparent oscillation of the longitude of the subpoint. Since perigee can occur anywhere in orbit, there is no necessary relation between the phase of this apparent motion and that resulting from orbit inclination.

The motion of the subpoint resulting from the combination of drift, orbital inclination, and orbital eccentricity is fairly complex, but fortunately has been of sufficiently small magnitude to be neglected in all but the most detailed applications.

2.3 SPACECRAFT ATTITUDE

The ATS-I spacecraft is spin stabilized. A control system maintains the satellite spin axis in a fixed direction in space. The spinning spacecraft (nominally at 100 rpm) acts as a "free gyro" with its spin axis aligned with that of the earth. Rotational position or phase is measured relative to the sun by the satellite's sun sensors. The nutation of the satellite is too small to measure.

The spin axis of the satellite may deviate from exact parallelism with the earth's axis. During a period of 24 hours the attitude of the spin axis may then be considered as fixed in inertial space, at some angle relative to the earth's axis. During the 24-hour orbit, the point of view from which this angle is seen (the subpoint) will rotate 360° in inertial space. Relative to the observer rotating with the earth, the axis of the satellite will sweep out a circular cone of half-angle equal to the angle between the spin axes of earth and satellite.

The parameters used to describe the attitude of the spacecraft are yaw and pitch. Positive yaw is a clockwise rotation about the vertical looking down on the satellite, while positive pitch is a counterclockwise rotation about the line of flight. (Figure 2-2)

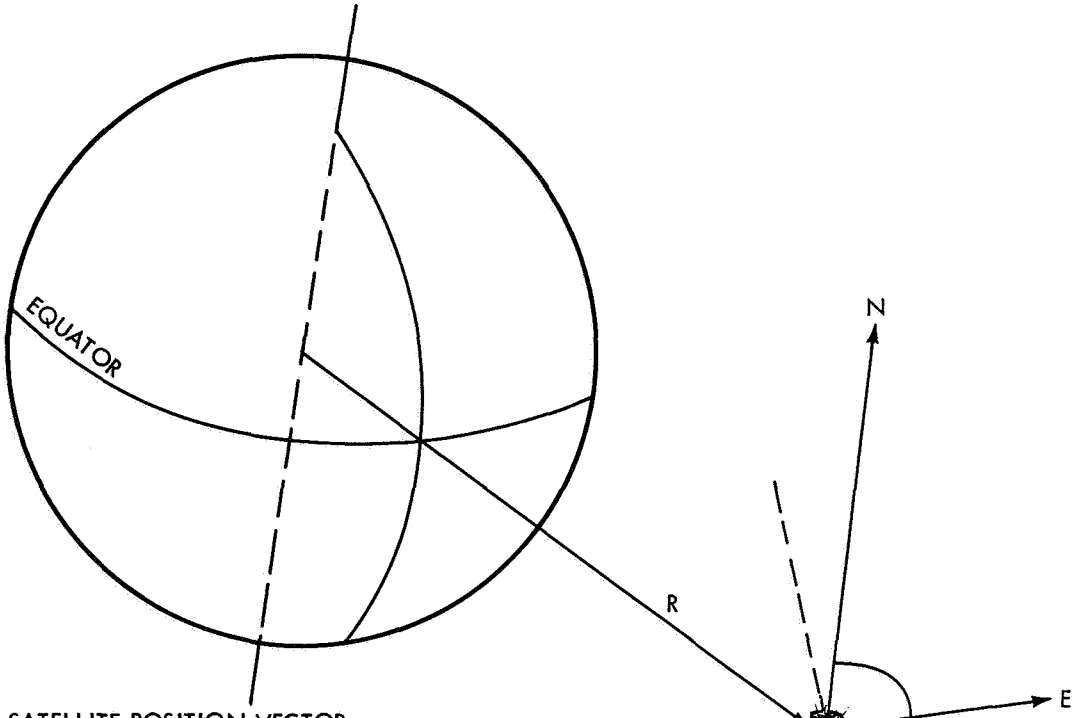
The attitude of the satellite will appear as 24-hour near-sinusoidal cycles of yaw and pitch, of equal magnitude, and 90° (or six hours) out of phase with each other. At the time of maximum yaw, the pitch is zero, and vice versa. There is no necessary relation between the phases of the attitude components and the phases of subpoint motions resulting from orbital inclination or eccentricity.

The convention used to specify yaw is to measure positive angles clockwise from the north and to measure negative angles counterclockwise from north. Zero yaw is arbitrarily specified as 180°. A positive 1° deviation from nominal is specified as -179° and a negative 1° deviation is specified as +179°.

2.4 DATA ACQUISITION

A network of six ground stations supports the ATS operation with three assuming prime responsibility for: (1) tracking the spacecraft during its normal scientific lifetime; (2) controlling the spacecraft, conducting experiments and demonstrations; and (3) recording and processing spacecraft housekeeping data for quick-look assessment of the spacecraft. These three ground stations are located at Rosman, North Carolina, Mojave, California, and Cooby Creek, Australia. The Rosman and Mojave ground stations assume additional responsibility for the acquisition of Spin Scan Cloud Camera (SSCC) data. These data are collected in magnetic tape and photographic formats.

Computation of orbital data is the responsibility of the GSFC Computing Center. Over-all responsibility for providing central control of all ATS operational activities is vested in the ATS Operations Control Center (ATSOCC). ATSOCC makes all spacecraft control decisions, which are implemented by the ground station in use at the moment.



R	SATELLITE POSITION VECTOR
N	VECTOR POINTING NORTH IN A PLANE NORMAL TO THE SATELLITE POSITION VECTOR
E	VECTOR POINTING EAST IN A PLANE NORMAL TO THE SATELLITE POSITION VECTOR
SSA	SATELLITE SPIN AXIS
PSSA	PROJECTION OF SATELLITE SPIN AXIS IN NE PLANE
YAW	ANGLE IN THE NE PLANE CLOCKWISE FROM THE N VECTOR TO THE PROJECTION OF THE SATELLITE SPIN AXIS
PITCH	ANGLE FROM THE PROJECTION OF THE SATELLITE SPIN AXIS IN THE NE PLANE TO THE SATELLITE SPIN AXIS. PITCH IS POSITIVE WHEN THE SATELLITE SPIN AXIS LIES FARTHER FROM THE EARTH THAN THE NE PLANE

Figure 2-2. Spacecraft Attitude.

All photographic data acquired are air mailed to the Nimbus-ATS Data Utilization Center (NADUC) at the Goddard Space Flight Center (GSFC). All taped data are air freighted to appropriate agencies.

2.5 EXPERIMENTS

The payload of the ATS-I consists of six experiments:

a. The Spin Scan Cloud Camera experiment, with Dr. Verner E. Suomi, University of Wisconsin, as the experimenter and the Environmental Science Services Administration (ESSA), as co-experimenter.

b. The VHF Communications experiment of which the WEFAX (Weather Facsimile) Experiment is a part. The WEFAX experiment is designed to explore the feasibility of transmitting meteorological data (maps, charts, tables and pictures) to ground stations with an automatic picture transmission (APT) capability. Selected SSCC pictures are being transmitted as part of this experiment.

c. Microwave Equipment.

d. Nutation Sensor.

e. Resisto Jets.

f. Environment Measuring Equipment.

PRECEDING PAGE BLANK NOT FILMED.

SECTION 3

THE SPIN SCAN CLOUD CAMERA SYSTEM

3.1 DESCRIPTION OF THE SPIN SCAN CLOUD CAMERA (SSCC)

The camera, Figure 3-1, collects sunlight reflected from the earth's surface and/or clouds. Ground resolution is approximately 2.5 nautical miles at the sub-satellite point. The optical system, shown in Figure 3-2, consists of a Cassegrain type telescope in which the light is reflected from the five inch diameter, ten inch focal length (f:2), primary parabolic mirror to a secondary plane mirror placed between the primary mirror and a 0.001 inch diameter aperture (0.1 milli radian resolution) in the image plane. The light then passes through a haze filter and impinges on the photocathode in front of a photomultiplier tube. The mirrors

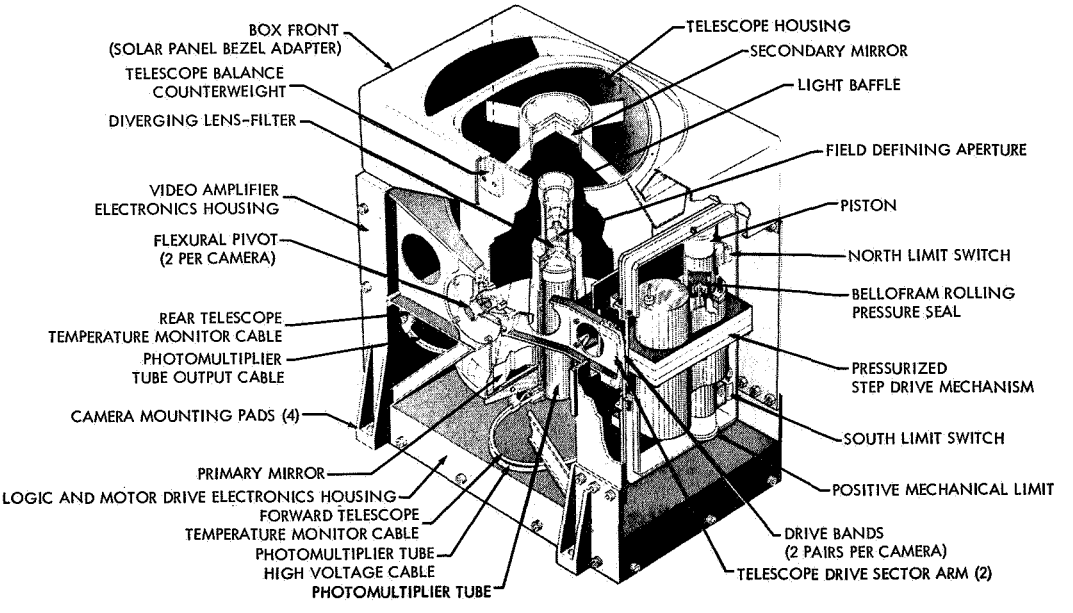


Figure 3-1. ATS-1 Spin Scan Cloud Camera.

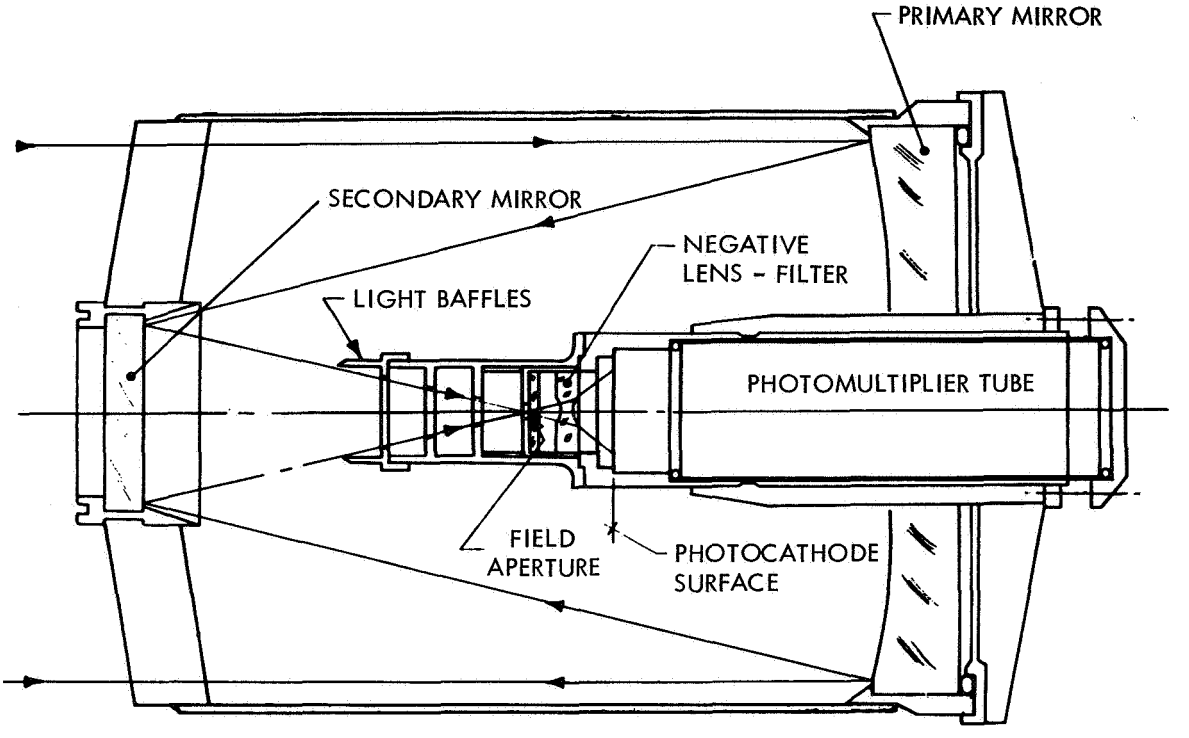
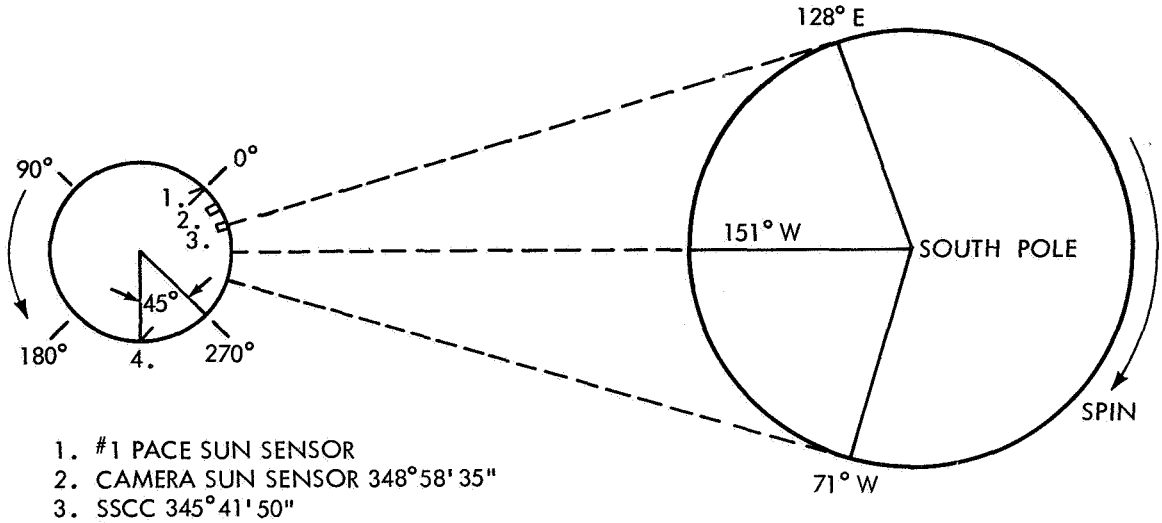


Figure 3-2. ATS Spin Scan Cloud Camera Optical System.

are made of fused quartz to provide optimum temperature stability. The telescope-photo multiplier assembly is mounted to the scanner frame by means of two flexural pivots located at the center of gravity of the assembly.

The hermetically sealed (2 atmospheres) mechanical drive advances the telescope approximately 0.0006 inches per revolution of the satellite. This step is accomplished upon command of the Phased Array Control Electronics (PACE) system aboard the spacecraft. When the step mechanism has completed the required 2000 steps, an internal camera limit switch initiates retrace. Repositioning of the telescope assembly to its northernmost limit requires approximately two minutes. The west to east scan is provided by the spin of the satellite itself.

This method of scanning provides earth coverage from approximately 52.5°N to 52.5°S latitude and from the west limb to the east limb. The assembly sweeps through 2000 revolutions of the satellite and approximately 15° of arc for each complete picture. The time required for this coverage in the normal mode at 100 rpm is 20 minutes; 20.5 minutes at 97.5 rpm. The system is designed to operate at 100 rpm ± 50 rpm. See Figure 3-3 for camera and PACE scan relationships.



1. #1 PACE SUN SENSOR
2. CAMERA SUN SENSOR 348°58'35"
3. SSCC 345°41'50"
4. #2 PACE SUN SENSOR

NOTE: PACE SUN SENSORS ARE 2 ELEMENT SENSORS SEPARATED BY 35° .

Figure 3-3. Spin Scan Cloud Camera W-E Geometry.

3.2 OPERATION

The SSCC system is designed to operate in a NORMAL mode or BACK TO BACK mode.

In the NORMAL mode, the assembly steps the full 2000 scan lines from north to south and then retraces at a greater rate (2 minutes) to the northernmost limit to complete a cycle. This cycle is automatic and continues until commanded to stop.

In the BACK TO BACK mode the assembly steps the full 2000 scan lines north to south and then reverses and steps from south to north at the same rate, i.e., one line per revolution of the satellite.

In the BACK TO BACK mode, the camera can be commanded to reverse the scan direction at any specified time rather than at the limits of the telescope travel. This method of operation does not automatically recycle and must be commanded for telescope reversal.

By the transmission of appropriate commands, the BACK TO BACK mode allows for more frequent scanning of a selected area of smaller latitudinal extent.

3.3 SSCC AREA COVERAGE

The spin scan cloud camera system produces a single west to east line scan of the earth with each revolution of the satellite. Each successive line butts against the preceding line. The total image composed during a complete series of scans (lines) covers approximately 108 degrees latitude and 161 degrees of longitude centered about the subsatellite point (SSP). (Figures 3-3 and 3-4)

Nominal earth area coverage is depicted in Figure 3-5. It should be noted that with zero attitude error, the west to east scan line is parallel only to the equator and is tangent to all other latitudes at the meridian of the SSP.

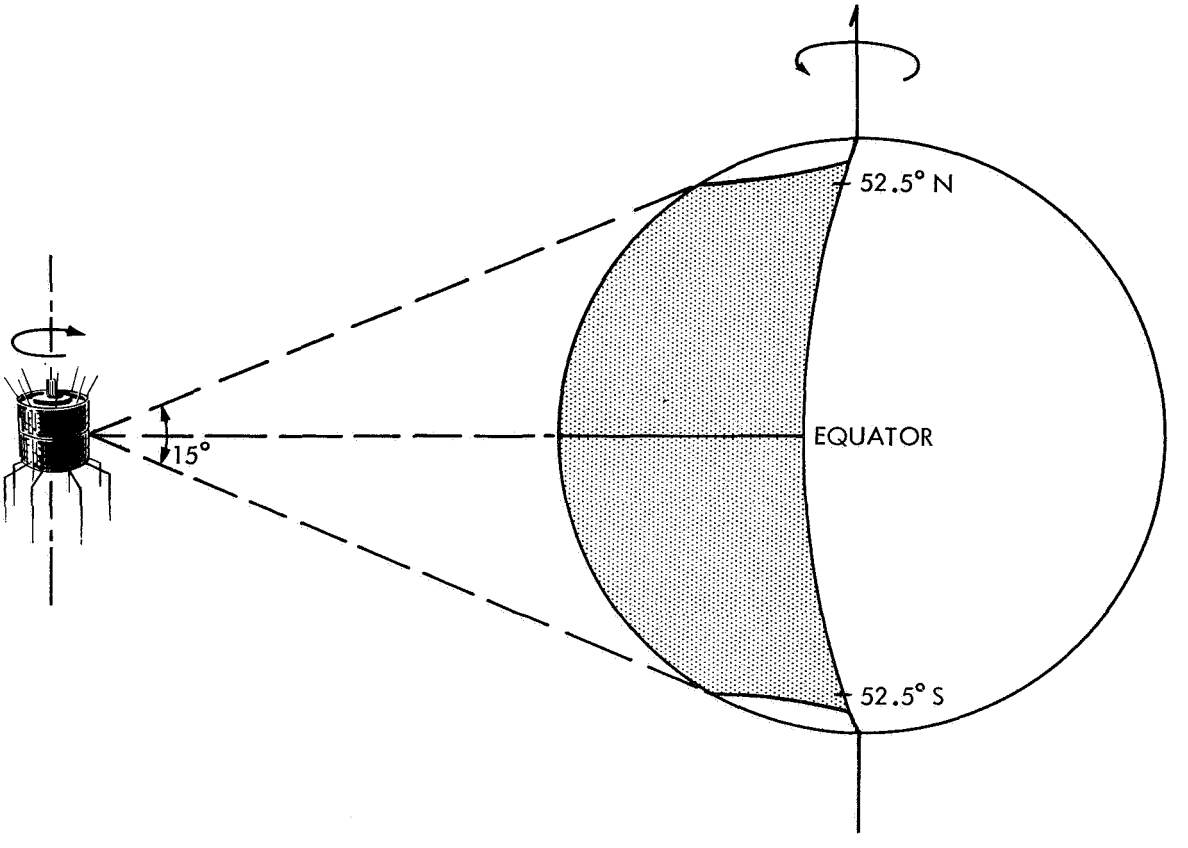


Figure 3-4. Spin Scan Cloud Camera N-S Geometry.

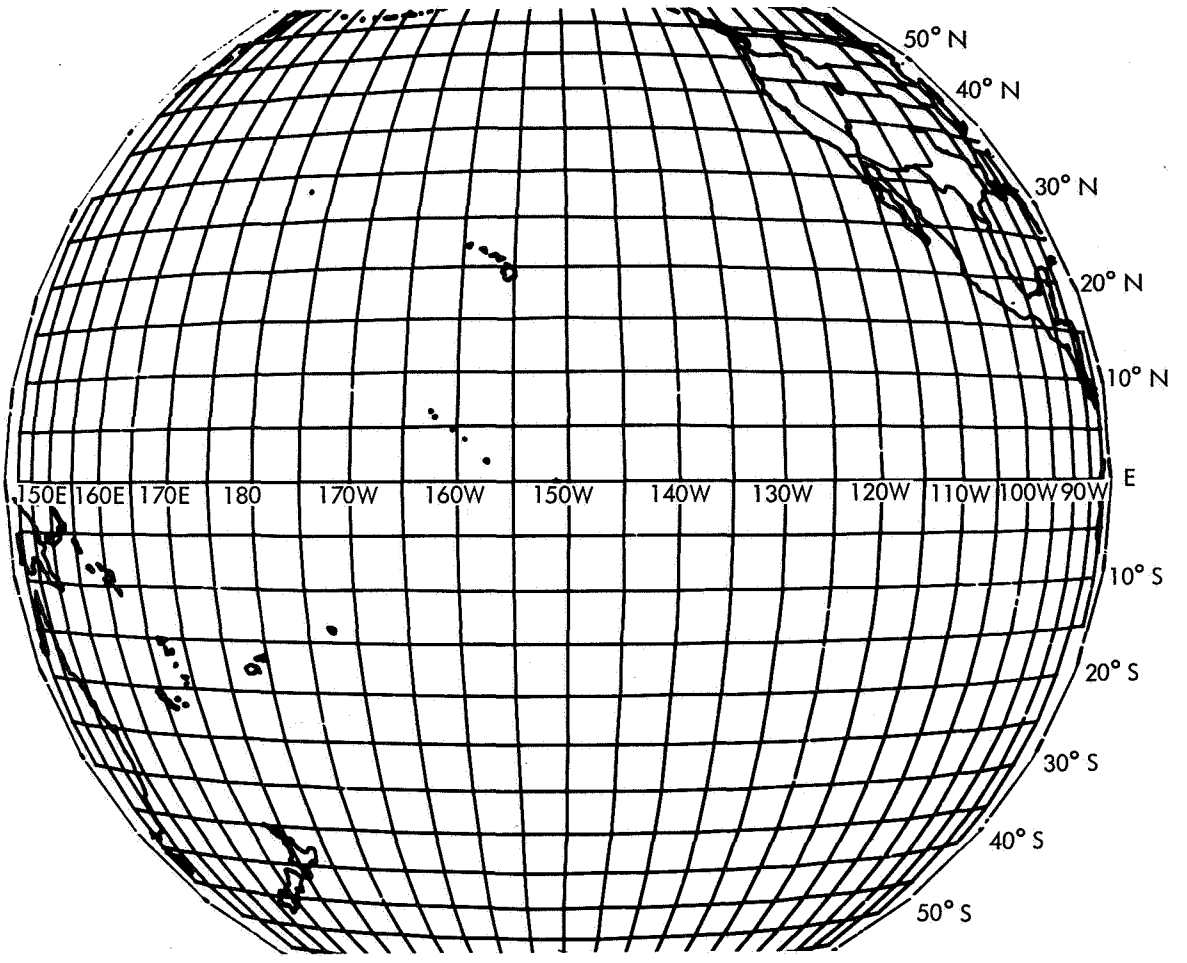


Figure 3-5. Nominal Earth Area Coverage.

3.4 ILLUMINATION AND THE TERMINATOR

The view of the earth from the spin scan cloud camera at synchronous altitude is similar, in many respects, to that of the moon as seen from earth. The earth goes through "phases" on a 24-hour cycle similar to the phases of the moon. There are, however, important differences.

The orbit of the moon lies near the plane of the ecliptic, so the apparent shape of the terminator (the sunset or sunrise line) does not change materially with season. ATS-I, on the other hand, is in an orbit inclined at about 23° to the ecliptic, so there is a strong seasonal trend to the shape of the terminator. At the summer solstice, for example, the terminator is tangent to the antarctic circle. While the nominal field of view of ATS-I stops at 52° latitude, the seasonal effect is still obvious. At the equinox, the terminator is essentially symmetrical in a North-South direction.

However, since the picture is scanned in 20 minutes, the southern extremity of the terminator will have progressed 5 degrees of longitude westward during the picture moving interval. Accordingly, in a normal mode picture the apparent terminator will be inclined in a Southwest-Northeast direction with respect to the instantaneous terminator.

The illumination incident on a point in the cloud field can be computed from standard almanac data and formulas. However, in the region of the terminator, cloud height, cloud shadowing, scattering, and refraction all become important. At least in principle it is possible to estimate the altitude above which a cloud must extend in order to be visible at a given distance beyond the astronomical terminator.

Examples of two typical days data, Figures 3-6 and 3-7, display the illumination of the earth over a 24 hour period.

3.5 METEOROLOGICAL DATA ACQUISITION

Meteorological data were acquired at either the ROSMAN or MOJAVE sites until 27 June 1967, when the Rosman equipment was removed for modification. The basic display is produced by an Electronic Image Systems, Inc., (EIS) photo-recorder on a 4x5 inch Polaroid (type 55 P/N) positive paper and negative film sheet. The image area is approximately 3x4 inches with the earth disc diameter a nominal 3.49 inches. The acquisition station also records the video data on magnetic tape in either digital or analog format, dependent upon station equipment.

Each picture contains a vertical line display at or near the left edge of the image area. This display is used as an indication of the deviation of the received sun pulse from the locally generated synthetic sun pulse.

Each receiving ground station has the capability to superpose fiducial marks on the display which may be used as the basis for precise measurements, as shown in Figure 3-8. The dimensions indicated are numbers of picture elements. To utilize the fiducial system in determining precise location of data displayed, it is necessary to greatly enlarge the picture. The counting of picture element pulses is then possible, but tedious.

The fiducial system is to be changed at a later date. The change will be described in the appropriate catalog.

After the negative has been identified and labeled by date and sequence number, it is air mailed to the Nimbus-ATS Data Utilization Center at Goddard Space Flight Center for further processing and reproduction.

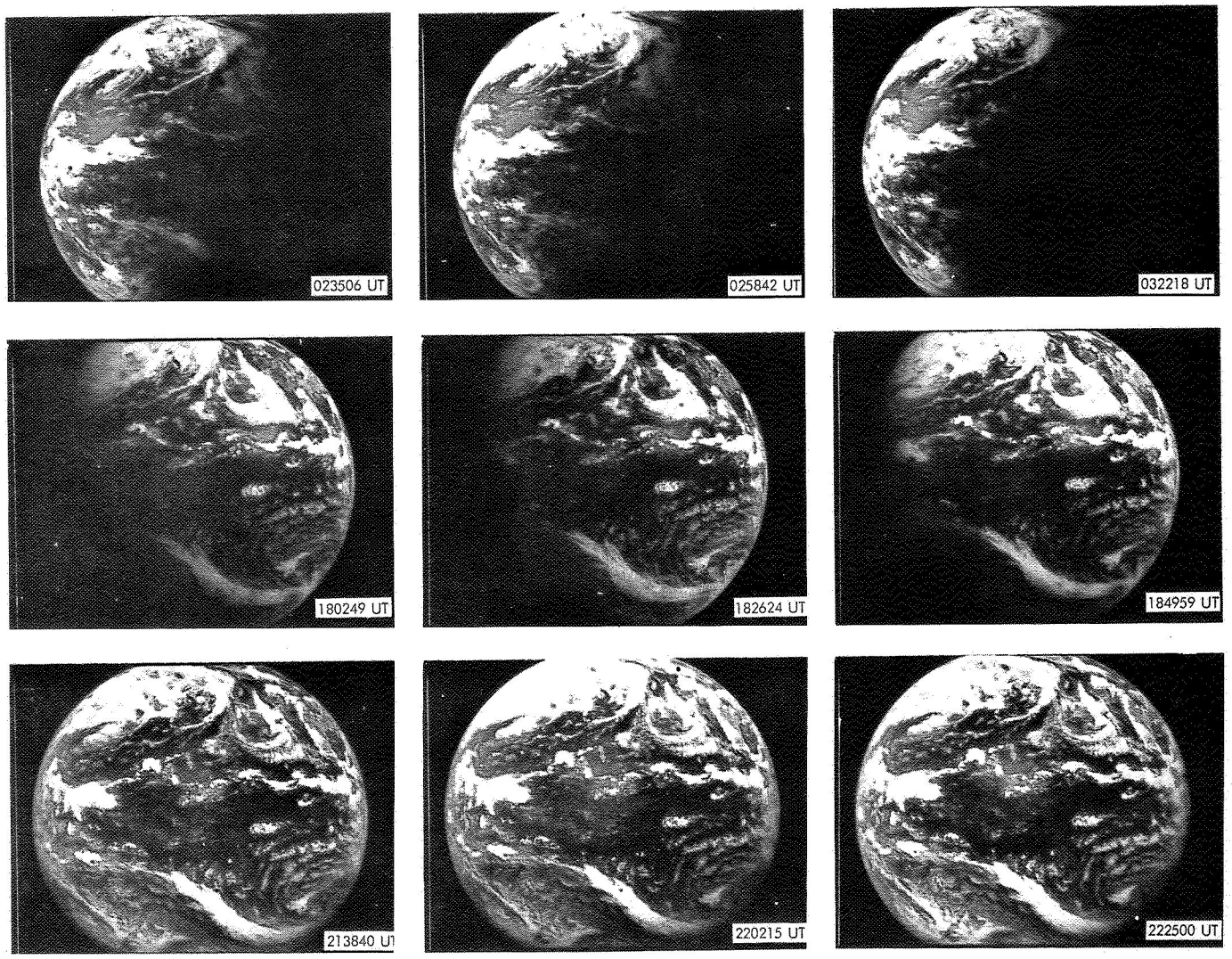


Figure 3-6. Data For 17 June 1967 From ATS-1.

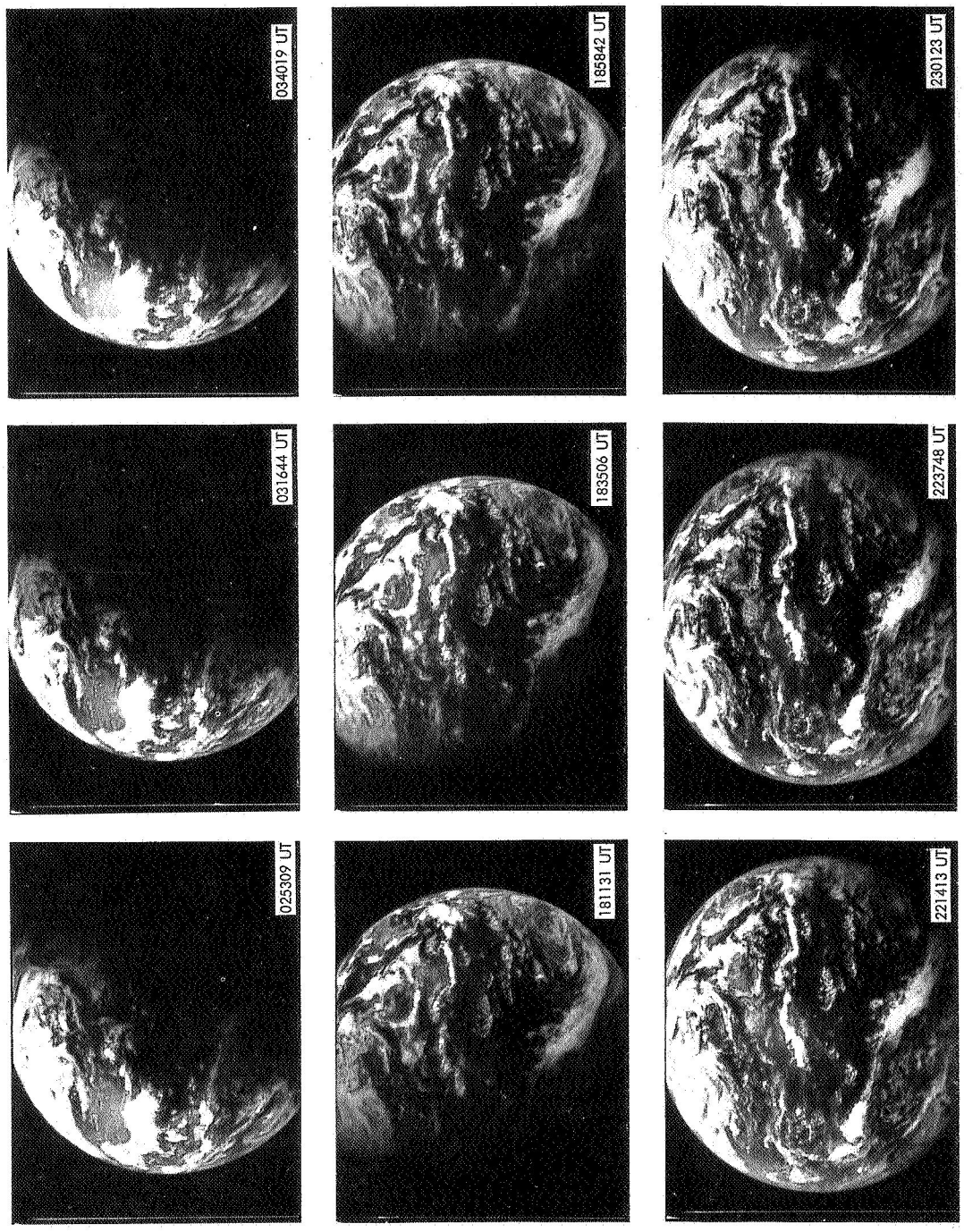


Figure 3-7. Data For 18 June 1967 From ATS-1.

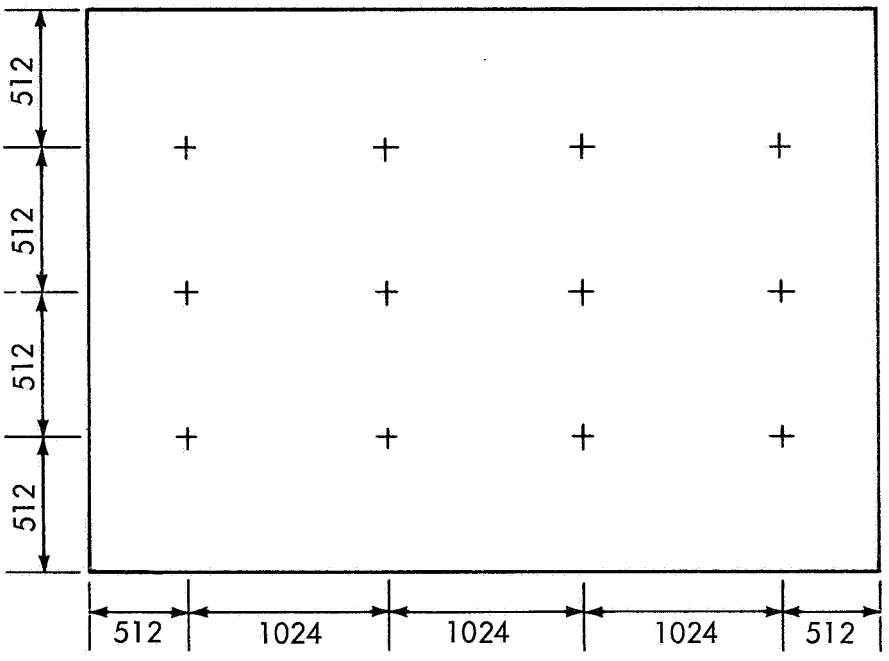


Figure 3-8. FIDUCIAL DISPLAY with number of lines and pulses indicated between fiducials.

PRECEDING PAGE BLANK NOT FILMED

SECTION 4

DATA DOCUMENTATION AND PROCESSING

4.1 IDENTIFICATION

Each negative received at NADUC is again identified and labeled. The label, identifying the negative as ATS-I, is placed in the image area directly beneath the earth disc with the following format:

ATS-I DTG (U) 103-6-210732 SEQ 14BD

DTG (U)—Signifies that that which follows is the Date Time Group. The first three digits indicate day of the year, i.e., 103 = April 13th (see Table 4-1). Next follows a digit indicating the year, i.e., 6 = 1966, 7 = 1967. The start time of the picture follows, in hours, minutes and seconds, Universal Time, i.e., 210732 = 21 hours, 07 minutes, 32 seconds. The sequential picture number of the Universal Time Day follows the word "SEQ" i.e., 14 indicates the 14th picture acquired that UT day. Data received in the BACK TO BACK mode (paragraph 3.2), are indicated by the suffix "B" after the sequence number. Digitally reproduced data are indicated by the suffix "D" added to the sequence number and mode indication.

4.2 ARCHIVAL FILM SELECTION

During the period that pictorial data were being received at Rosman and Mojave, a number of duplicate original negatives were acquired. Only one of each pair has been archived. In all cases, the negative of highest photographic quality has been chosen.

4.3 GRIDDING

SSCC pictures are not automatically gridded, i.e., electronic grid points are not mixed with the video data. Instead, separate latitude-longitude grids, including key geographical outlines, are computer generated on transparent film and are distributed with each film data order (see Section 6.2, Film Data). Actual "wedding" of the appropriate grid to the picture must be done manually by the user. However, NADUC personnel do verify that the grids can be properly fitted to pictures prior to grid dissemination. Grid fit is verified only for those pictures used for data extraction. (See Section 4.7.) It is assumed that the character of other pictures during the same day is essentially identical.

Table 4-1
Tabulation of Calendar Day Number Versus Date
(For Other Than Leap Years)

Day of Month	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Day of Month
1	1	32	60	91	121	152	182	213	244	274	305	335	1
2	2	33	61	92	122	153	183	214	245	275	306	336	2
3	3	34	62	93	123	154	184	215	246	276	307	337	3
4	4	35	63	94	124	155	185	216	247	277	308	338	4
5	5	36	64	95	125	156	186	217	248	278	309	339	5
6	6	37	65	96	126	157	187	218	249	279	310	340	6
7	7	38	66	97	127	158	188	219	250	280	311	341	7
8	8	39	67	98	128	159	189	220	251	281	312	342	8
9	9	40	68	99	129	160	190	221	252	282	313	343	9
10	10	41	69	100	130	161	191	222	253	283	314	344	10
11	11	42	70	101	131	162	192	223	254	284	315	345	11
12	12	43	71	102	132	163	193	224	255	285	316	346	12
13	13	44	72	103	133	164	194	225	256	286	317	347	13
14	14	45	73	104	134	165	195	226	257	287	318	348	14
15	15	46	74	105	135	166	196	227	258	288	319	349	15
16	16	47	75	106	136	167	197	228	259	289	320	350	16
17	17	48	76	107	137	168	198	229	260	290	321	351	17
18	18	49	77	108	138	169	199	230	261	291	322	352	18
19	19	50	78	109	139	170	200	231	262	292	323	353	19
20	20	51	79	110	140	171	201	232	263	293	324	354	20
21	21	52	80	111	141	172	202	233	264	294	325	355	21
22	22	53	81	112	142	173	203	234	265	295	326	356	22
23	23	54	82	113	143	174	204	235	266	296	327	357	23
24	24	55	83	114	144	175	205	236	267	297	328	358	24
25	25	56	84	115	145	176	206	237	268	298	329	359	25
26	26	57	85	116	146	177	207	238	269	299	330	360	26
27	27	58	86	117	147	178	208	239	270	300	331	361	27
28	28	59	87	118	148	179	209	240	271	301	332	362	28
29	29	(60)	88	119	149	180	210	241	272	302	333	363	29
30	30		89	120	150	181	211	242	273	303	334	364	30
31	31		90		151		212	243		304		365	31

NOTE: This table is for years other than leap years. For leap years, add one to each calendar day number on and after that for March 1.

The technique used by NADUC to verify grid fitting is recommended to most users and will be presently described.

Figure 4-1 is an example of an ATS-I grid to be used with the SSCC pictures. The grid is drawn for an altitude of 19,325 nautical miles (35815 km) and a sub-satellite point of 0.0 latitude and 151.0W longitude. A full earth disc is shown on the grids even though the SSCC does not normally view latitudes higher than approximately 52.5 degrees (except by special spacecraft attitude manipulations). The latitude-longitude grid interval is everywhere five degrees except at latitudes higher than 60 degrees where the longitude interval is 10 degrees. The highest latitude drawn on the grids is 70 degrees north and south. The center of the grid, i.e., 0.0 latitude and nominally 151.0W longitude, is indicated by a small hatch mark.

Additional grids are used to increase the accuracy of grid fitting of SSCC pictures taken when the satellite is located at other than its nominal position. Eleven grids have been produced at one degree longitude intervals between 146W and 156W. This longitude range is more than sufficient to accommodate the

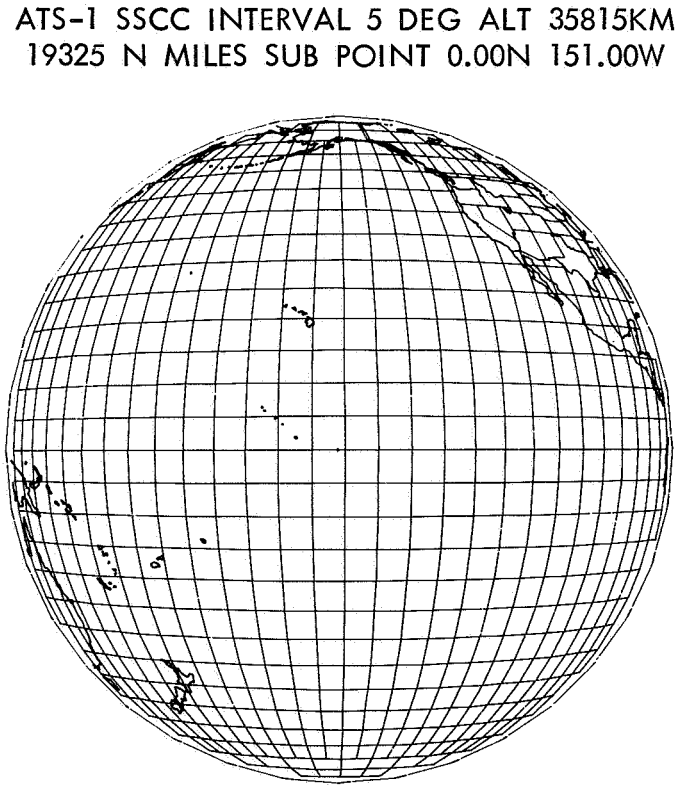


Figure 4-1. ATS-1 Grid.

limits of ATS-I drift; however, should the spacecraft be maneuvered outside these limits, appropriate grids can be added to the existing family.

Grids have not been generated for the meridional motion component since it is less than 1/2 degree, but such grids can be generated if the requirement arises. If the family of grids is increased the new grids will be automatically included with the appropriate film orders.

No grids have been drawn to accommodate changes in perspective due to satellite attitude differing from nominal. Yaw errors can be accommodated by a simple rotation of the grid about the subpoint. Pitch errors can be accommodated by "slipping" the grid north or south; the perspective errors introduced by this procedure are minimal because of the very small pitch angles encountered.

Grid fit accuracy is usually readily attained to better than one degree of great circle arc (60 n.mi.) in the region of the satellite subpoint and 3 degrees of arc near the horizon. Considerably better accuracy can be attained in localized areas through the use of special techniques and/or calculations.

The grid fitting and/or grid verification technique used at NADUC is as follows:

a. An ATS-I SSCC picture with clearly identifiable horizons, both east and west (pictures near 2200 UT), and obvious landmarks are enlarged to an image earth diameter of 7.87 inches. The earth diameter dimension is completely arbitrary, chosen by consideration of factors such as type of equipment available, desired gridding accuracy, ease of handling, quantity of data to be gridded and manpower and/or time available. It is also a convenient image size for 8 x 10 inch photographic paper.

b. The appropriate ATS-I grid is selected by noting the longitude of the subpoint in the ATS-I Spin Scan Cloud Camera Data Catalog.

c. The grid is enlarged or projected onto the SSCC picture so that the grid horizon can be superposed precisely on the SSCC picture horizon (i.e., grid horizon diameter of 7.87 inches).

d. The grid (or the picture) is rotated until the appropriate geographical outlines on the grid fit the geography displayed in the picture. A geographical landmark fit will provide better gridding accuracy than only a horizon fit. Thus, if any small discrepancies exist between landmark and horizon fitting, the landmark correspondence should prevail. Two widely separated landmarks are required for a correct rotational grid fit; however, three widely separated

landmarks greatly improve the confidence of the grid fitting. At NADUC the landmarks normally used are Baja, California, Australia and/or New Zealand, and the Hawaiian Islands, the location of which can be inferred by the normally persistent cloud formations marking the larger islands.

4.4 TIME DETERMINATION

4.4.1 SSP

Start time of each picture is indicated in Universal Time. Local Mean Time, LMT, at the SSP, can be determined by subtracting the appropriate time difference shown in Table 4-2 from UT. Subtraction of 10 hours from UT gives the Local Standard Time, LST, at the SSP.

Table 4-2
Conversion from Universal to Local Mean Time

SSP	Time Difference
150.0°	10 hours 0 minutes
150.25°	10 hours 1 minute
150.50°	10 hours 2 minutes
150.75°	10 hours 3 minutes
151.0°	10 hours 4 minutes
151.25°	10 hours 5 minutes
151.50°	10 hours 6 minutes
151.75°	10 hours 7 minutes
152.0°	10 hours 8 minutes

Start time at any longitude other than the SSP may be determined by adding four minutes to the indicated start time for each degree of longitude west of the SSP or by subtracting four minutes for each degree east of the SSP.

4.4.2 Scan Line

Time of any given scan line, ± 5 lines, can be determined by adding a time increment to the picture start time. The time increment is found by dividing the scan line number by the spin rate of the satellite, i.e., scan line number 880 of

a picture scanned at 100 rpm began 8.8 minutes or 8 minutes 48 seconds after picture start time.

4.4.3 Picture Element Pulses

Each scan line, from edge to edge of the frame, contains 4096 picture element pulses (PEP) and is scanned out in 30 milliseconds when the satellite spin rate is 100 rpm. Therefore, the time interval between pulses can be computed by dividing the time required to scan one line by 4096 (number of PEP) and multiplying the quotient by the number of pulses in the desired span.

4.5 ATTITUDE EFFECTS

The apparent satellite attitude cycle was described in Section 2.3. As can be appreciated from the picture making geometry, any significant departure in attitude from nominal is readily discernible in the resulting picture. Yaw produces an overall rotation of the picture, while pitch moves the earth up or down in the frame and causes a decrease in latitude coverage in the direction of pitch. The effect of small pitch deviation is much larger than the geometrically somewhat similar effect of north-south subpoint excursions, so compensation for the latter may be included in any pitch compensation procedures.

An approximate method of estimating attitude of the spin axis at the (mean) time of a picture is as follows:

a. Picture Pitch. Using a full disc picture, fit the appropriate grid to horizons and landmarks. In case of minor discrepancy, landmarks should prevail. Observe the grid latitude of the first (northernmost) and the last (southernmost) scan line at the points where they intersect the meridian of the subsatellite point. Those cases where the scan reverses while recording continues, marked by an abrupt reversal of the trend of the width of the earth in the South, should be avoided, as this effect may mark a late recording start. The difference of latitudes observed is used to find the pitch angle, using the graph, Figure 4-2. When the greater latitude extent is noted in the Southern hemisphere, the sign of the pitch angle is positive.

b. Picture Yaw. Using the same grid fit, observe the angle between the grid equator and the direction of the scan lines. This is the yaw angle. When the grid appears rotated counterclockwise with respect to the scan lines, the yaw is positive.

c. Maximum Pitch. The numerical value of the maximum pitch may be estimated by finding the root mean square of the picture pitch and yaw angles.

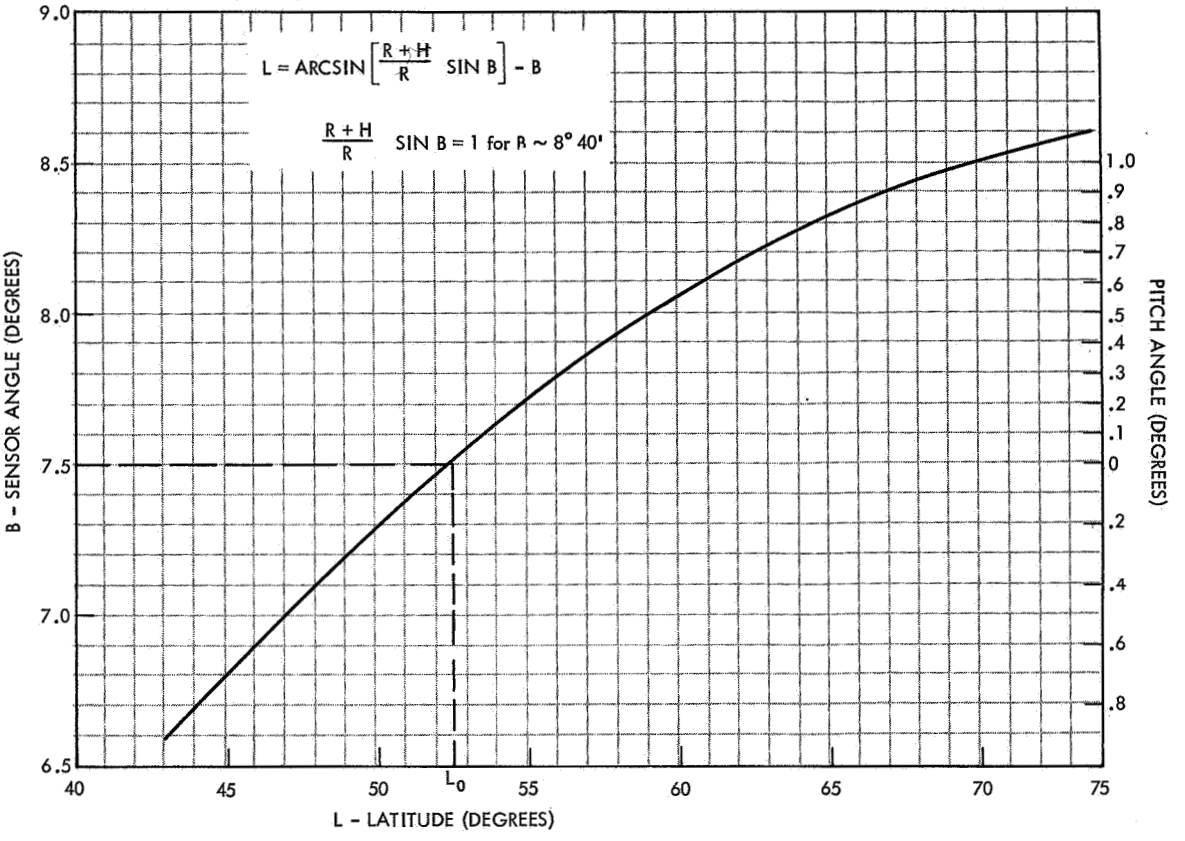


Figure 4-2. Latitude-Pitch Relation.

Alternatively, it may be found desirable to fit a sequence pitch and/or yaw measurements to 24-hour sine curves, with the yaw curve lagging the pitch curve by 90° or 6 hours.

d. Time of maximum pitch. The time (UT) at which maximum positive pitch occurs can be found either from the sine-wave fit, or much more crudely estimated from:

$$T_o = \frac{24}{360} \arctan \frac{\text{yaw}}{\text{pitch}} + T_p$$

where T_p is the time in hours of the picture from which the angles were estimated.

e. Attitude computation. Once the amplitude and time of maximum pitch have been established, the pitch and yaw of the spin axis at any time can be estimated from:

$$\text{pitch} = \text{pitch (max)} \cos \frac{360}{24} (T-T_o)$$

$$\text{yaw} = \text{pitch (max)} \sin \frac{360}{24} (T-T_o)$$

These relations may be useful in estimating attitude adjustments to be made in gridding pictures with only part of the earth's disc illuminated or poor landmark definition. However, care should be taken that attitude extrapolations are not made for more than a few days or across an attitude change maneuver. The times of such maneuvers are listed in the data catalogs.

It should be noted that the techniques and relations given are approximate and only valid for the small normal attitude excursions.

Figure 4-3 shows the earth horizon in different locations relative to the limits of the field of view of the camera. This motion of the horizon characterizes an attitude departure. At about a 12 hour interval, the pitch values are seen to be identical - but opposite in sign, a constant space attitude having been maintained throughout the period. Maximum yaw occurs at the time of zero pitch. Note the indentations of the west limbs of the pictures (2300UT) in Figures 4-3 and 4-4. These indentations represent mislocated (not lost) data and can be retrieved and relocated by manipulating videoline synchronization by computer techniques.

Figure 4-4(A) depicts pitch deviation in the opposite direction from that shown in Figure 4-3(C).

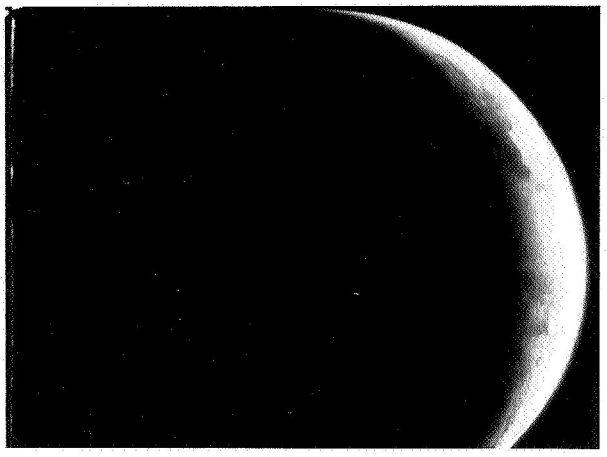
Figure 4-4(B) displays near zero pitch deviation.

Figure 4-5 displays the effect of two deliberate attitude changes, at 2100UT (A) and 2125UT (B), made during picture scanning.

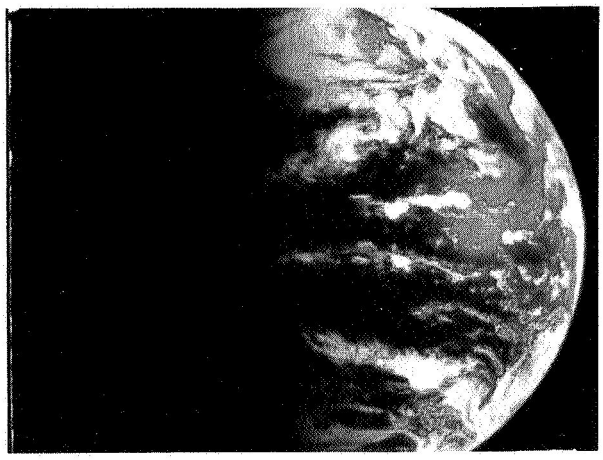
The change takes place over 200 lines of data while the next 800 lines reflect the settling of the system. The effect of each change can be ascertained by noting the increase in latitudinal extent of the Southern Hemisphere and a corresponding decrease for the Northern Hemisphere. (See 4-5C.)

4.6 DENSITOMETRIC STABILITY

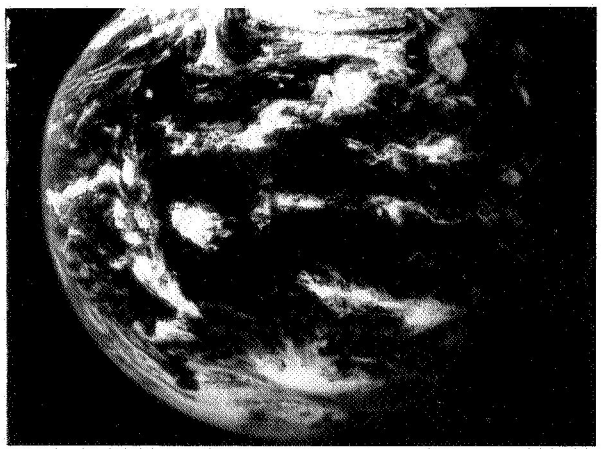
Variations of the grid to cathode voltage in the EIS ground equipment resulted in day-to-day image density changes during the early phases of the ATS-I



(A) 13 hrs. 11 min. 39 sec. UT

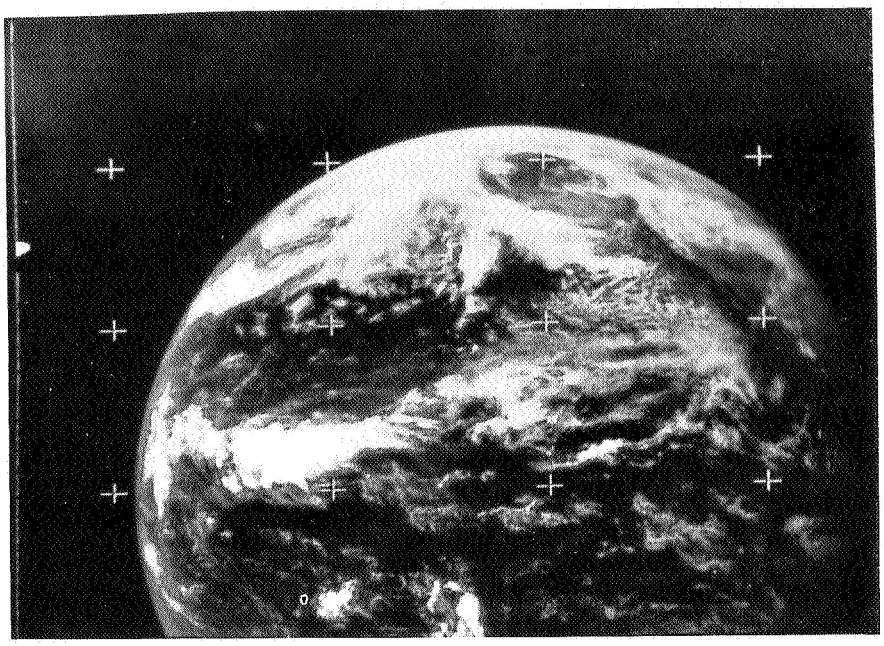


(B) 17 hrs. 00 min. 36 sec. UT

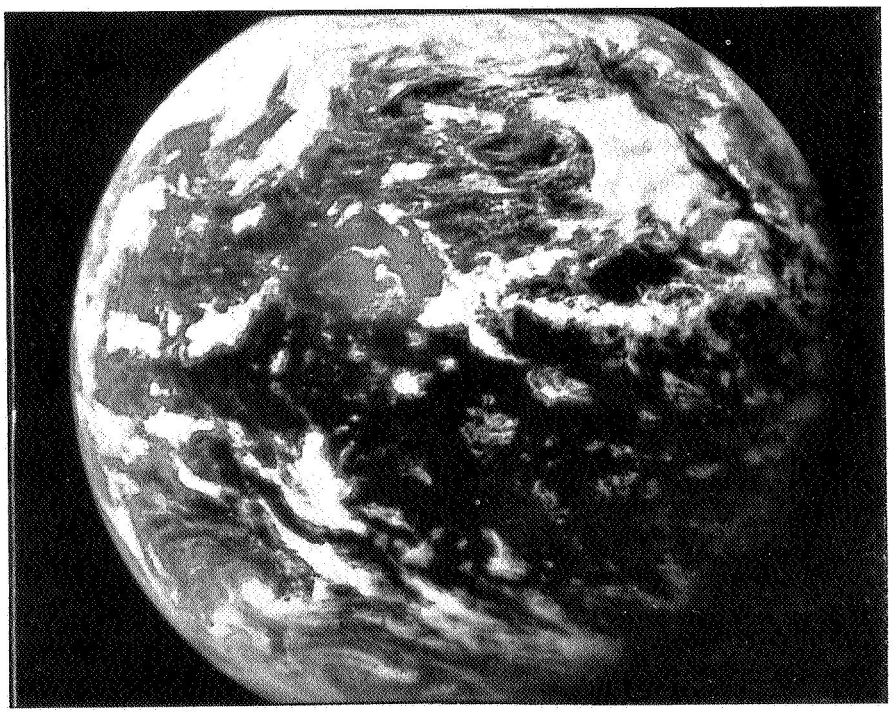


(C) 23 hrs. 30 min. 04 sec. UT

Figure 4-3. Constant Attitude Deviation (14 April 1967).

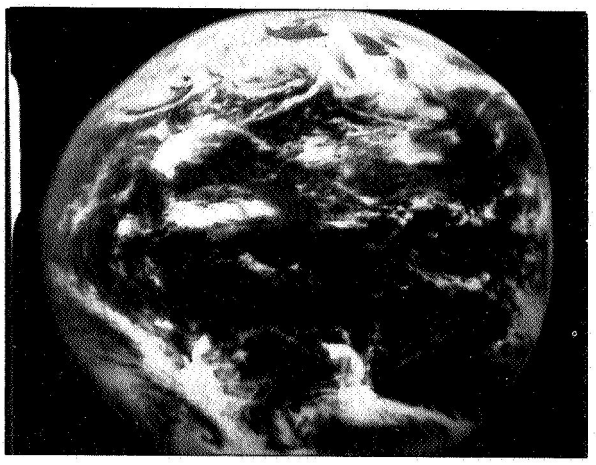


(A) 25 April 1967 23 hrs. 39 min. 52 sec. UT

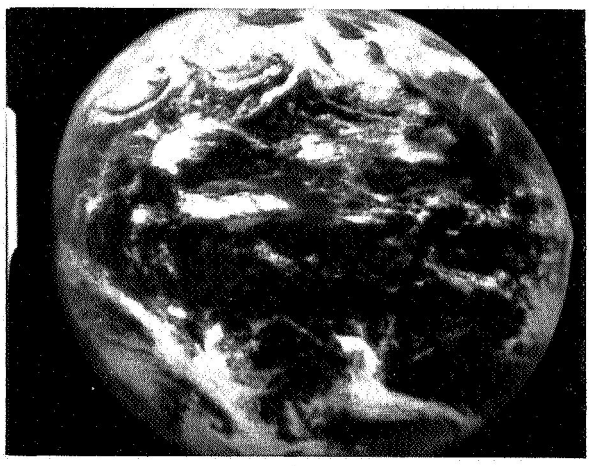


(B) 8 July 1967 23 hrs. 25 min. 46 sec. UT

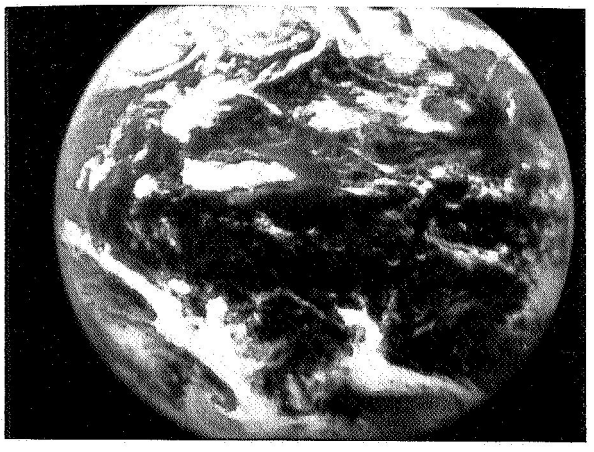
Figure 4-4. Attitude Comparison.



(A) 20 hrs. 57 min. 04 sec. UT



(B) 21 hrs. 20 min. 30 sec. UT



(C) 21 hrs. 46 min. 31 sec. UT

Figure 4-5. Attitude Changes 11 May 1967.

operations. More recently, a fixed and monitored grid to cathode voltage was established, providing more uniform density from picture to picture.

4.7 DATA CLASSIFICATION

Two or three SSCC pictures per day are carefully examined to give a broad preliminary classification of data content, with respect to meteorological and/or geographical features. The data classifications are published in the data catalog. This classification is done by a professional meteorologist experienced in satellite picture interpretation. Final classification for research is, of course, left to the user. See Appendix A for details of the classification system.

4.8 ARCHIVING AND STORAGE

Individual SSCC pictures are copied in chronological order by universal day and sequence number onto a 125 foot, 5 inch wide reel of film. Each reel includes a family of suitable grids each identified by the subpoint for which it was generated.

The archival data are stored by the:

National Weather Records Center
ESSA
Federal Building
Asheville, North Carolina 28801

See Section 6.2 for information on data orders from National Weather Records Center.

SECTION 5

DATA CATALOG

Meteorological data acquired from the ATS-I satellite may be recorded in any or all of three formats: digital tape, analog tape and photographic film. The photographic and tape data are itemized in a periodically published catalog.

The catalog, the first issue of which is Part II of this document, is made up of four sections. Section 1, Introduction, contains comments concerning the ATS-I satellite operation during the catalog period. Section 2, Orbital Data, contains a listing of those elements defining the ATS-1 orbit. Section 3, The SSCC Data Log, contains a listing of the photographic data acquired during the period with appropriate comments as to photographic quality and meteorological and geomorphological content. The SSP is cataloged as of 2200 UT. Since the latitude of the SSP varies in an unspecified way during the day, the listed latitude should be used only near that time. A sample of the day's SSCC photographic data, as near 2200 UT as possible, is displayed opposite the data listing for that day. Section 4, The SSCC Tape Listing, contains a listing of those tapes, analog or digital, which are on file at the University of Wisconsin.

PRECEDING PAGE BLANK NOT FILMED.

SECTION 6

DATA AVAILABILITY

6.1 ATS METEOROLOGICAL DATA CATALOG

ATS Meteorological Data Catalogs are available upon request from:

National Aeronautics and Space Administration
Goddard Space Flight Center
Greenbelt, Maryland 20771
Attn: NADUC, Code 460

6.2 FILM DATA

SSCC film data are available in either positive or negative transparencies in 125 foot rolls of 5 inch wide film, including the family of grids, at cost.

Address requests for film data to:

National Weather Records Center
ESSA
Federal Building
Asheville, North Carolina 28801

The following information should be included in correspondence or on orders to the National Weather Records Center:

a. Reel numbers desired. Section 1, Part II, of the catalog contains a listing of the archival reel numbers with inclusive data days.

b. Format desired. Data are available in either positive or negative transparency format. Appropriate grids are available with each.

c. Address for delivery of material.

6.3 MAGNETIC DATA TAPES

Many of ATS-I SSCC data exist on digital and/or analog tapes. However, these tapes cannot be easily read by conventional equipment. Queries relative

to their nature and format should be directed to:

Dr. Verner E. Suomi
Space Science and Engineering Center
601 East Main Street
Madison, Wisconsin 53706

Section 4, Part II, contains a listing of the analog and digital data which are on record at the University of Wisconsin.

6.4 SPECIAL REQUESTS

a. The NADUC will, with authority of the NADUC Technical Officer, reproduce ATS-I SSCC film in positive or negative transparency or positive print formats in various sizes. Limited quantities of such data can be provided under special circumstances without charge. Address such requests to:

National Aeronautics and Space Administration
Goddard Space Flight Center
Greenbelt, Maryland 20771
Attn: NADUC, Code 460

b. If the primary interest of the investigator is in land and/or ocean features rather than clouds, he should so indicate in the request to permit suitable photographic treatment.

c. Unless otherwise specified, a uniform exposure will be employed. However, the detail in a single transparency or print can be further enhanced photographically by automatically "dodging" or varying the exposure over the various light and dark portions of a given frame.

d. To the extent of available resources and capabilities, special requests will be considered.

SECTION 7

INFORMATION RETRIEVAL SERVICE

7.1 CONCEPT

The majority of information presented in this ATS meteorological data catalog has been computer generated. The computer program used in compiling the data is known as the Sensory Catalog for ATS (SCATS) Program. This section provides the background of the SCATS.

The functions of the SCATS Program are: (1) to assemble, process and store on magnetic tape information defining the major characteristics of the ATS-I Spin Scan Cloud Camera (SSCC) photographic data; (2) to provide a service of data retrieval by data content descriptors or by other data characteristics; and (3) to print out SSCC data logs in a format suitable for generating the ATS meteorological data catalog.

7.2 DATA IDENTIFICATION AND RETRIEVAL

When the need for retrieval search is expressed or implied by a user's data request (Section 7.7), the following procedure will be followed:

a. The user's requirements will be translated into a form suitable for computer search.

b. Search input cards will be prepared.

c. The computer will print the identification and location of data sought, and if desired, the remainder of the catalog entries for each item.

d. After inspection, the printout will be forwarded to the user with any necessary explanation.

7.3 OUTPUT FORMAT

Either of two types of printed outputs can be requested for the SCATS data retrieval, Index or Catalog. The index output is printed in an abbreviated format, listing only the appropriate days which satisfy the retrieval request. The catalog output is similar to index output, except that the data descriptions which satisfy the conditions of the request are also printed.

7.4 RETRIEVAL PARAMETERS

Data can be retrieved on the basis of an individual parameter, of logical combinations of parameters (Section 7.5), or of a range of values stated for a parameter or parameters. The data retrieval parameters are:

a. Sensor—ATS-I SSCC.

b. Year

c. Day (Calendar)

d. Time (hr min sec)

e. Zones (Geographic)

f. Data Content Descriptors.

The definitions of certain of these parameters are given in subsequent paragraphs. Data cannot be retrieved on the basis of information contained in the remarks section of the data log.

7.4.1 Data Time

The Universal Time system is used throughout. Each day begins at 00 hrs 00 min 01 second GMT and ends at 24 hrs 00 min 00 second GMT.

7.4.2 Zones

For data identification purposes, each picture is divided into geographical zones. These zones are coincident with the superzones of the Nimbus II Sensory Information Processing (SIP) Program. A map defining the zones is shown in Figure 7-1. Each zone lying between the 60th parallels of latitude may be broken into quadrants and identified by a letter suffix. (Table A-5, Appendix A)

7.4.3 Data Content Descriptor

A four digit code designating a particular meteorological or geomorphological phenomenon plus an alphabetical suffix indicating location within the zone. (Appendix A)

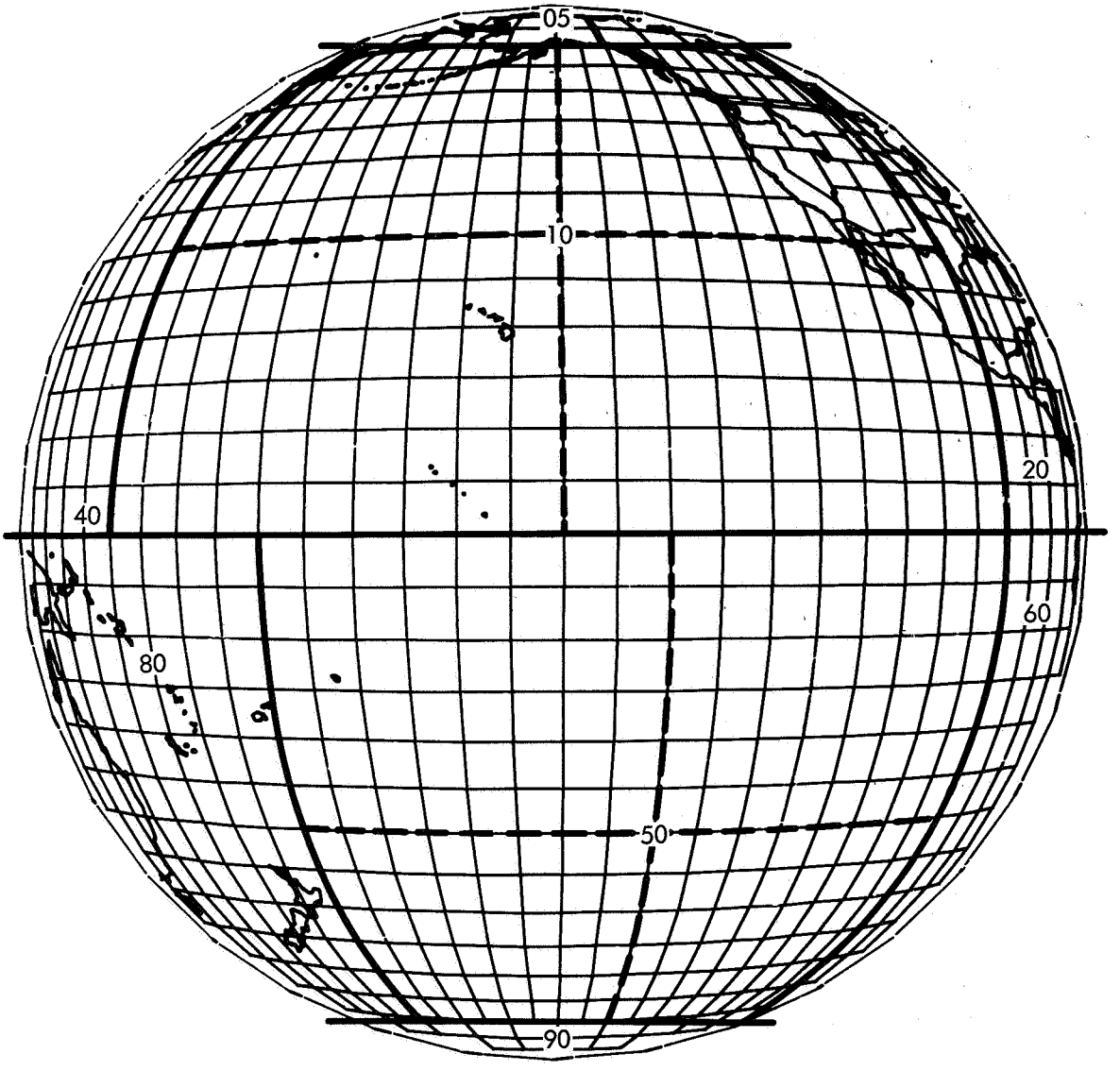


Figure 7-1. Geographical Zones.

7.5 RETRIEVAL

As an example of the use of a single parameter for data retrieval, consider this case:

A user requires all pictures for the lifetime of the satellite, which contain Typhoon Grace. The SCATS retrieval input will specify only the range of the data content descriptor, i.e., the descriptor must be greater than 6605 and less then 6607. The computer will then print out and identify in index or catalog format, as specified, all pictures which contain the desired data.

Data content descriptors are organized in logical tree fashion, so that the most detailed descriptors are special cases of more general descriptors. The level of generality is indicated by the number of trailing zeros in the descriptor code. Thus, 1231 is a special case of 1230 which in turn is contained in 1200. The program can be instructed to retrieve all special cases falling under a more general descriptor.

7.6 LOGICAL COMBINATIONS OF PARAMETERS

Various retrieval parameters may be strung together, linked by "and" or "or," to achieve almost any desired special retrieval. The user must of course be careful to state his desires very clearly so that retrieval can be properly achieved. The range of possibilities is illustrated by five examples of possible retrieval requests which could be processed:

a. ATS-I pictures showing vortical clouds in the northern hemisphere during January 1967.

b. ATS-I pictures in the northern hemisphere, at any time, which contain an extratropical vortex and a named storm.

c. All ATS-I meteorological data in the tropical Pacific Ocean at any time which contain a tropical cyclone more than 6° x 6° in extent.

d. All ATS-I meteorological data containing recognizable land masses during February 1967.

e. All cold frontal systems with associated cumulonimbus occurring between 30°-45°N latitude and 100°-150°W longitude during the period June - August 1967 between 20Z and 23Z.

7.7 REQUESTS FOR RETRIEVAL

Requests for data retrieval should be sent to:

NASA
Goddard Space Flight Center
Greenbelt, Maryland 20771
Attn: NADUC, Code 460

7.8 SPECIAL INSTRUCTION TO USERS

Cumuliform and stratiform clouds have not been encoded in the retrieval program because their frequency of occurrence within any SSCC picture is so great as to lose significance in the retrieval system. Therefore, researchers interested in these cloud forms should form their request on the basis of associated systems: i.e., all cold fronts with associated cumuliform; all warm or occluded fronts with associated stratiform clouds.

PRECEDING PAGE BLANK NOT FILMED.

APPENDIX A

CLASSIFICATION OF DATA CONTENT

A.1 INTRODUCTION

The ATS-I data classification scheme is a simplification and modification of a system originally designed for handling the Nimbus II meteorological satellite data.

However, upon viewing the ATS-I SSCC resolution, it becomes apparent that the truncated Nimbus classification system used for this ATS catalog does not adequately describe the SSCC data. For example, the ability to indicate motion, growth or decay of systems and to identify meso-scale phenomena has not been included in the system. Therefore, the data classification system is being reviewed to provide data extraction commensurate with the unique scope of the SSCC data output.

The geophysical data content of the ATS SSCC meteorological output is divided into seven major categories. The first three categories are related to cloud features; the fourth to terrestrial features; the fifth to pictures containing indistinguishable features (Figures A-1 through A-6) or pictures of poor quality (The pictures in the poor quality portion of this category are considered to be of no value to researchers or operational users and should not be retrieved by the computerized system.); the sixth category is limited to storm names (Tables A-1, A-2, and A-3); and the seventh is used to designate those pictures devoted to moon photography.

To assist the user in extracting data from areas adjacent to continents, geographic zones 10 and 50 have been divided into four quadrants. The coding suffixes for these quadrants are shown in Table A-4.

Pictures which have not been meteorologically analyzed are photographically evaluated as to their potential use to the researcher. Picture quality is indicated as shown in Table A-5.

A.2 CLOUD FEATURES

To date, the meteorological community has not adopted a completely standard set of names, definitions, or descriptions for all meteorological phenomena observed in satellite photographs. The names, definitions and descriptions used

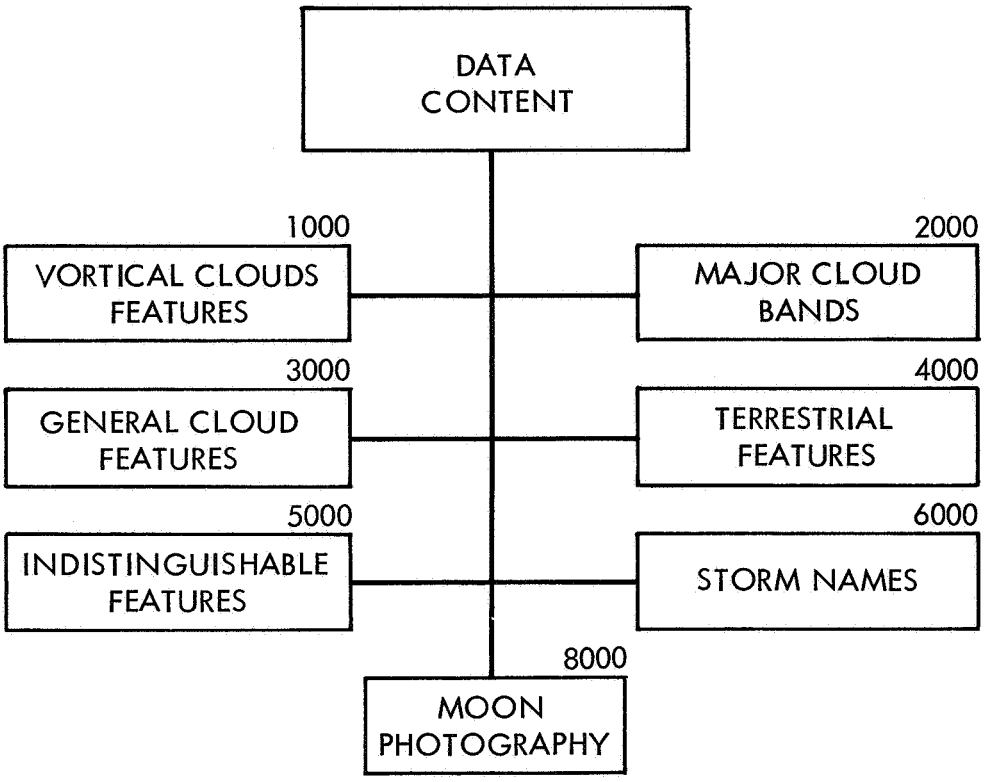


Figure A-1. Data Content.

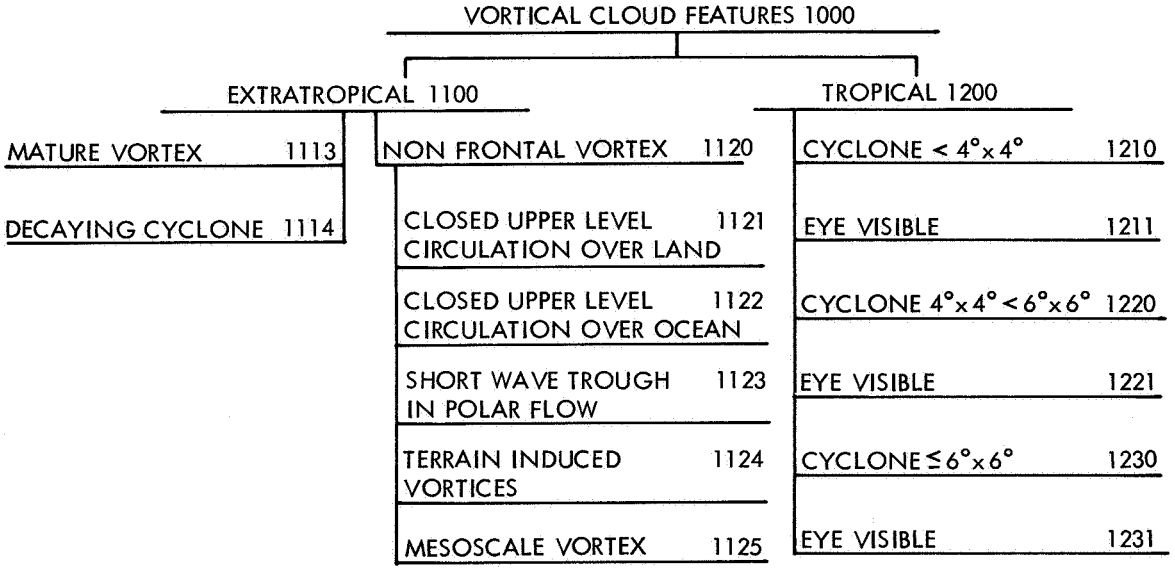


Figure A-2. Vortical Cloud Features.

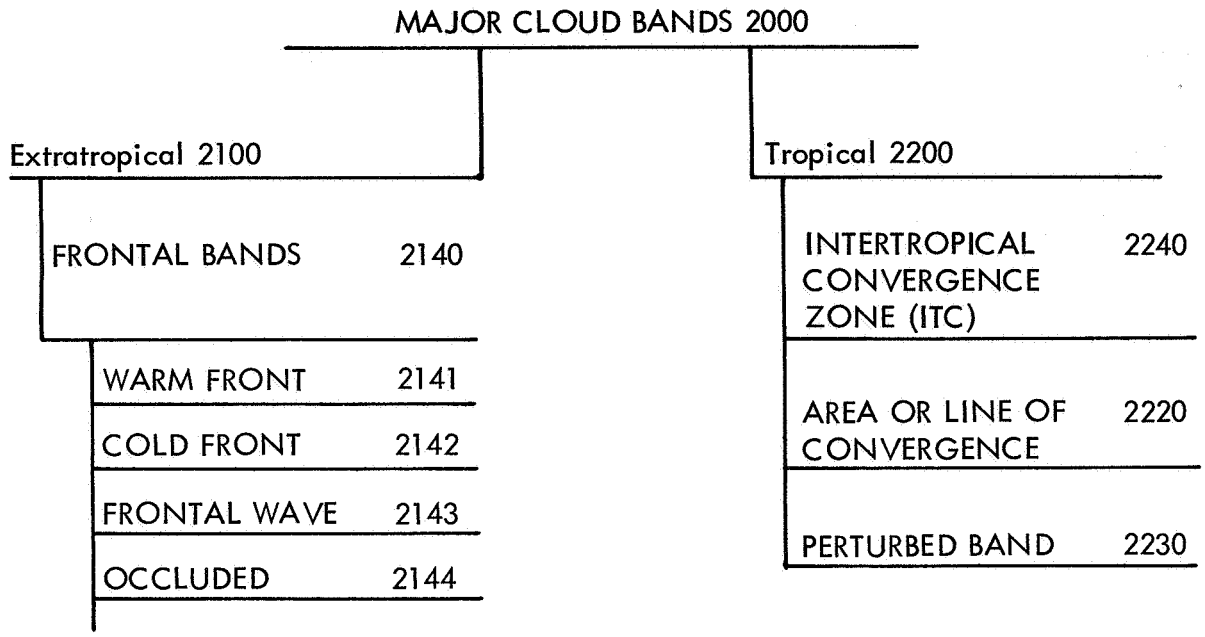


Figure A-3. Major Cloud Bands.

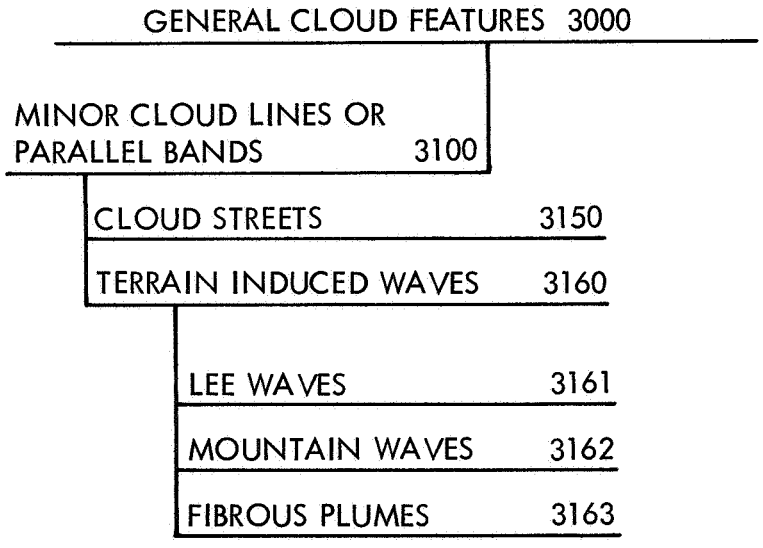


Figure A-4. General Cloud Features.

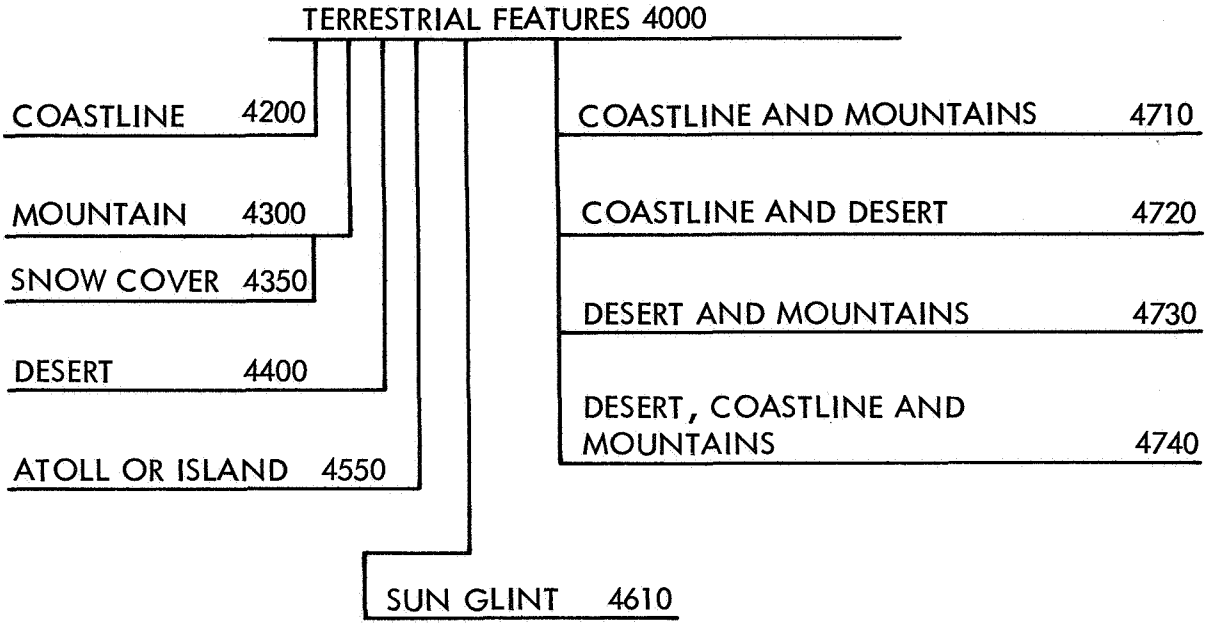


Figure A-5. Terrestrial Features.

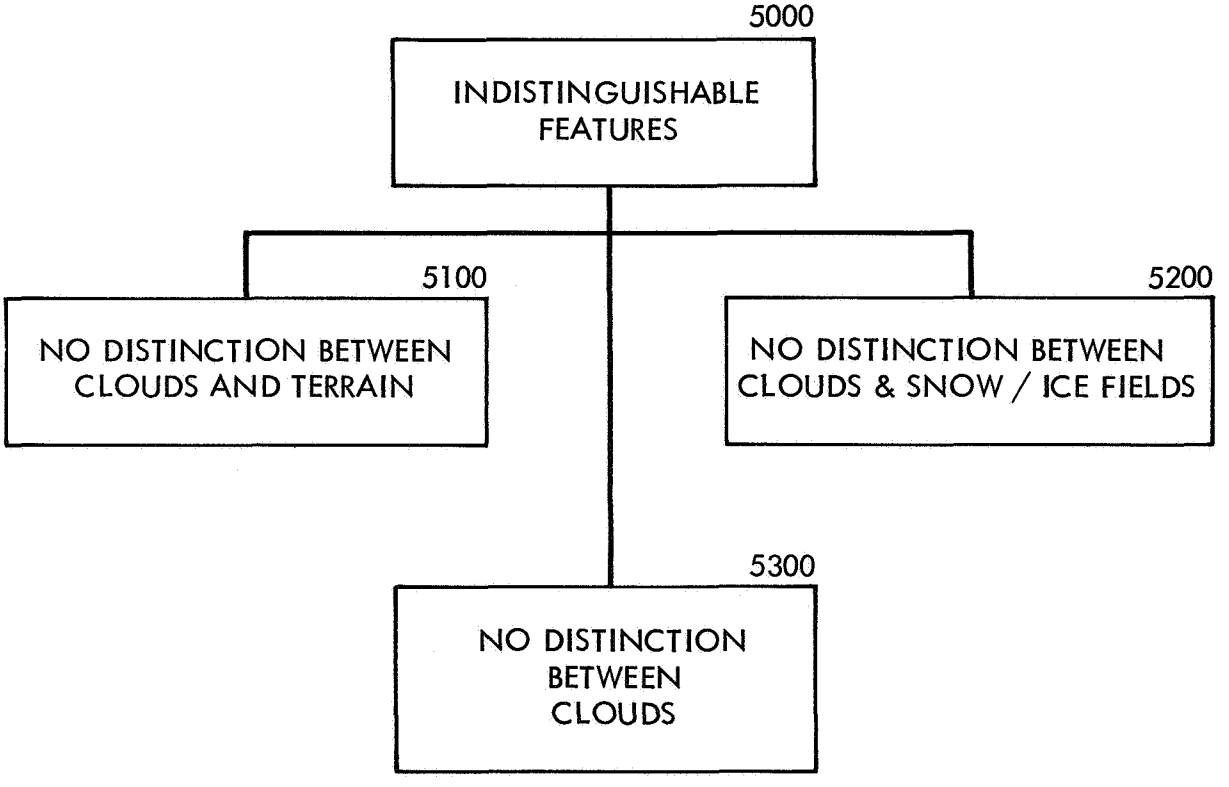


Figure A-6. Indistinguishable or Unidentifiable Features.

Table A-1
Tropical Cyclone Names
North Pacific East of 140° West Longitude

Names listed below will be used in identifying tropical cyclones originating in the North Pacific east of 140°W. A cyclone, once named, will retain its name as long as the cyclone can be identified. All names will be used consecutively beginning with the first set. Set 1 was used in 1966. Sets 2, 3 and 4 will be used for succeeding years in sequence. When the entire list (4 sets) has been used, it will be repeated.

6001	Adele	6040	Agatha	6080	Annette	6120	Ava
6002	Blanca	6041	Bridget	6081	Bonny	6121	Bernice
6003	Connie	6042	Carlotta	6082	Celeste	6122	Claudia
6004	Dolores	6043	Denise	6083	Diana	6123	Doreen
6005	Eileen	6044	Eleanor	6084	Estelle	6124	Emily
6006	Francesca	6045	Francene	6085	Fernanda	6125	Florence
6007	Gretchen	6046	Georgette	6086	Gwen	6126	Glenda
6008	Helga	6047	Hilary	6087	Hyacinth	6127	Hazel
6009	Ione	6048	Ilsa	6088	Iva	6128	Irah
6010	Joyce	6049	Jewel	6089	Joanne	6129	Jennifer
6011	Kirsten	6050	Katrina	6090	Kathleen	6130	Katherine
6012	Lorraine	6051	Lily	6091	Liza	6131	Lillian
6013	Maggie	6052	Monica	6092	Madeline	6132	Mona
6014	Norma	6053	Nanette	6093	Naomi	6133	Natalie
6015	Orlene	6054	Olivia	6094	Orla	6134	Odessa
6016	Patricia	6055	Priscilla	6095	Pauline	6135	Prudence
6017	Rosalie	6056	Ramona	6096	Rebecca	6136	Roslyn
6018	Selma	6057	Sharon	6097	Simone	6137	Sylvia
6019	Toni	6058	Terry	6098	Tara	6138	Tillie
6020	Vivian	6059	Veronica	6099	Valerie	6139	Victoria
6021	Winona	6060	Winifred	6100	Willa	6140	Wallie

Table A-2
Tropical Cyclone Names
Atlantic Ocean, Caribbean Sea and Gulf of Mexico

The list of names given below is used for identifying tropical cyclones in the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico. The list consists of four sets of names in alphabetical order. Names beginning with the letters Q, U, X, Y and Z are not included because of the scarcity of suitable names beginning with these letters.

Set 1 in the list was used in alphabetical order in 1966, Set 2 will be used in alphabetical order in 1967, etc. A separate set of names will be used each year, beginning with the first name in the set. When the four sets have been used, the sets are used over again in sequence.

If a major hurricane seriously affects the United States, the name assigned to it will be "retired" for 10 years and another name substituted in the list.

Set 1		Set 2		Set 3		Set 4	
6300	Alma	6340	Arlene	6380	Abby	6420	Anna
6301	Becky	6341	Beulah	6381	Brenda	6421	Blanche
6302	Celia	6342	Chloe	6382	Candy	6422	Carol
6303	Dorothy	6343	Doria	6383	Dolly	6323	Debbie
6304	Ella	6344	Edith	6384	Edna	6424	Eve
6305	Frances	6345	Fern	6385	Felice	6425	Francelia
6306	Greta	6346	Ginger	6386	Gladys	6426	Gerda
6307	Hallie	6347	Heidi	6387	Hannah	6427	Holly
6308	Inez	6348	Irene	6388	Ingrid	6428	Inga
6309	Judith	6349	Janice	6389	Janet	6429	Jenny
6310	Kendra	6350	Kristy	6390	Katy	6430	Kara
6311	Lois	6351	Laura	6391	Lila	6431	Laurie
6312	Marsha	6352	Margo	6392	Molly	6432	Martha
6313	Noreen	6353	Nona	6393	Nita	6433	Netty
6314	Orpha	6354	Orchid	6394	Odette	6434	Orva
6315	Patty	6355	Portia	6395	Paula	6435	Peggy
6316	Rena	6356	Rachel	6396	Roxie	6436	Rhoda
6317	Sherry	6357	Sandra	6397	Stella	6437	Sadie
6318	Thora	6358	Terese	6398	Trudy	6438	Tanya
6319	Vicky	6359	Verna	6399	Vesta	6439	Virgy
6320	Wilna	6360	Wallis	6400	Wesley	6440	Wenda

Table A-3
Typhoon Names
North Pacific West of 140° West Longitude

A listing of the names of tropical cyclones reaching the tropical storm or typhoon stages is given below for the western North Pacific. When the four sets of names have been used once, the list will be used over again.

Set 1		Set 2		Set 3		Set 4	
6600	Alice	6640	Anita	6680	Amy	6720	Agnes
6601	Betty	6641	Billie	6681	Babe	6721	Bess
6602	Cora	6642	Clara	6682	Carla	6722	Carmen
6603	Doris	6643	Dot	6683	Dinah	6723	Della
6604	Elsie	6644	Ellen	6684	Emma	6724	Elaine
6605	Flossie	6645	Fran	6685	Freda	6725	Faye
6606	Grace	6646	Georgia	6686	Gilda	6726	Gloria
6607	Helen	6647	Hope	6687	Harriet	6727	Hester
6608	Ida	6648	Iris	6688	Ivy	6728	Irma
6609	June	6649	Joan	6689	Jean	6729	Judy
6610	Kathy	6650	Kate	6690	Kim	6730	Kit
6611	Lorna	6651	Louise	6691	Lucy	6731	Lola
6612	Marie	6652	Marge	6692	Mary	6732	Mamie
6613	Nancy	6653	Nora	6693	Nadine	6733	Nina
6614	Olga	6654	Opal	6694	Olive	6734	Ora
6615	Pamela	6655	Patsy	6695	Polly	6735	Phyllis
6616	Ruby	6656	Ruth	6696	Rose	6736	Rita
6617	Sally	6657	Sarah	6697	Shirley	6737	Susan
6618	Therese	6658	Thelma	6698	Trix	6738	Tess
6619	Violet	6659	Vera	6699	Virginia	6739	Viola
6620	Wilda	6660	Wanda	6700	Wendy	6740	Winnie

Table A-4
Coding Suffixes for Zones 10 and 50
Data Content Descriptors

A—Occurs all quadrants of zone

B—Occurs Northeast quadrant of zone

C—Occurs Northwest quadrant of zone

D—Occurs Southwest quadrant of zone

E—Occurs Southeast quadrant of zone

F—Occurs Northern quadrants of zone

G—Occurs Southern quadrants of zone

H—Occurs Eastern quadrants of zone

I—Occurs Western quadrants of zone

J—Occurs Northeast, Northwest, Southwest quadrants of zone

K—Occurs Northwest, Southwest, Southeast quadrants of zone

L—Occurs Southwest, Southeast, Northeast quadrants of zone

M—Occurs Southeast, Northeast, Northwest quadrants of zone

Suffixes in other zones have no meaning.

Table A-5
Picture Quality

1000	Excellent meteorological data
2000	Excellent geographical data
3000	All data excellent
4000	More than 50% but less than 90% usable data
5000	50% or less usable data
7000	Picture not used (damaged film, distorted, double image, etc.)
8000	Picture devoted to moon photography
x5xx	Restricted scan (less than full vertical sweep) added to basic 1000, 2000, 3000, 4000 and 5000 group
xxx1	Day-night transition zone (Limb west of SSP)— added to basic 1000, 2000, 3000, 4000 and 5000 group
xxx2	Night-day transition zone (Limb east of SSP)— added to basic 1000, 2000, 3000, 4000 and 5000 group

here may differ from those used elsewhere. A satellite picture or zone will be placed in a specific category when it satisfies the description of the category. If the associated synoptic situation is known to be quite different from that usually associated with the description, an appropriate notation will be made in the remarks section of the Data Log Section of the Catalog.

Cloud features are classified primarily on the basis of cloud patterns as seen in the satellite data. The scheme for classifying cloud patterns was chosen to meet the following constraints: (1) relatively high frequency of occurrence; (2) reasonably reliable identifiability; (3) ease of recognition by an analyst. Cumuliform and stratiform clouds are not encoded because their frequency of occurrence would be so great as to lose significance in the retrieval system. Whenever sufficient time and data are available, the interpretive classification of cloud features will be validated by correlating the satellite data with current

synoptic data. In many cases, some of the subtle features in the conventional analysis, such as short wave troughs, may be difficult to establish over areas of limited conventional data. When the interpretive classification is in doubt and confirmation based on reliable conventional meteorological data is not possible, classification will remain at a higher or more general level.

A zone will be placed in the category "indistinguishable features" whenever a clear distinction cannot be made between the clouds and other objects, such as snow or ice fields (especially in polar or mountainous regions), clouds above a uniform undercast or above a highly reflective terrain.

Cloud features can be illustrated and initially better understood from the television pictures than HRIR or other similar data. Accordingly, ATS and Nimbus AVCS pictures are used in initial illustrations. Nimbus AVCS pictures are identified as such in each figure by the letter (N). ATS pictures are identified by the letter (A).

In most cases the descriptions of various categories and subdivisions are written in terms of how the cloud features appear over the northern hemisphere. These descriptions are also valid for the southern hemisphere if appropriate adjustments are made, as for the clockwise-circulation around southern hemisphere vortices, and the upside-down appearance of southern hemisphere extratropical cyclones.

Cloud features are placed in the following three major categories:

a. Vortical Clouds

b. Major Cloud Bands

c. General Cloud Features

A.2.1 Vortical Clouds

Circular and/or spiral cloud bands or cloud patterns are usually referred to as vortices and occur in a wide range of sizes and shapes. Curved or linear bands of clouds, usually very much longer than they are wide, are frequently associated with vortical cloud features. In some cases these are frontal bands. Therefore, when these bands are present in vortical patterns, the pattern is classified as a frontal vortex. The classification, nonfrontal vortex, is used here to describe those satellite pictures in which there are vortices with no associated cloud bands or those in which the cloud bands are not primarily related to a surface frontal system.

A.2.1.1 Extratropical Vortical Cloud Features

Meteorological satellites have provided photographs of cloud fields associated with an extremely large number of individual extratropical vortical (cyclonic) systems. In examining this large sample, satellite meteorologists have long recognized that certain gross characteristics of these cloud fields are common to meteorologically similar cyclonic systems.

The illustrations of extratropical vortical cloud features in this section contain a generalized representation of the cloud features associated with a particular class of extratropical cyclonic systems. Thus, the reader should not expect to find a one-to-one correlation between all the cloud features of the displayed and other pictures of the same phenomenon.

A.2.1.1.1 Frontal Vortices

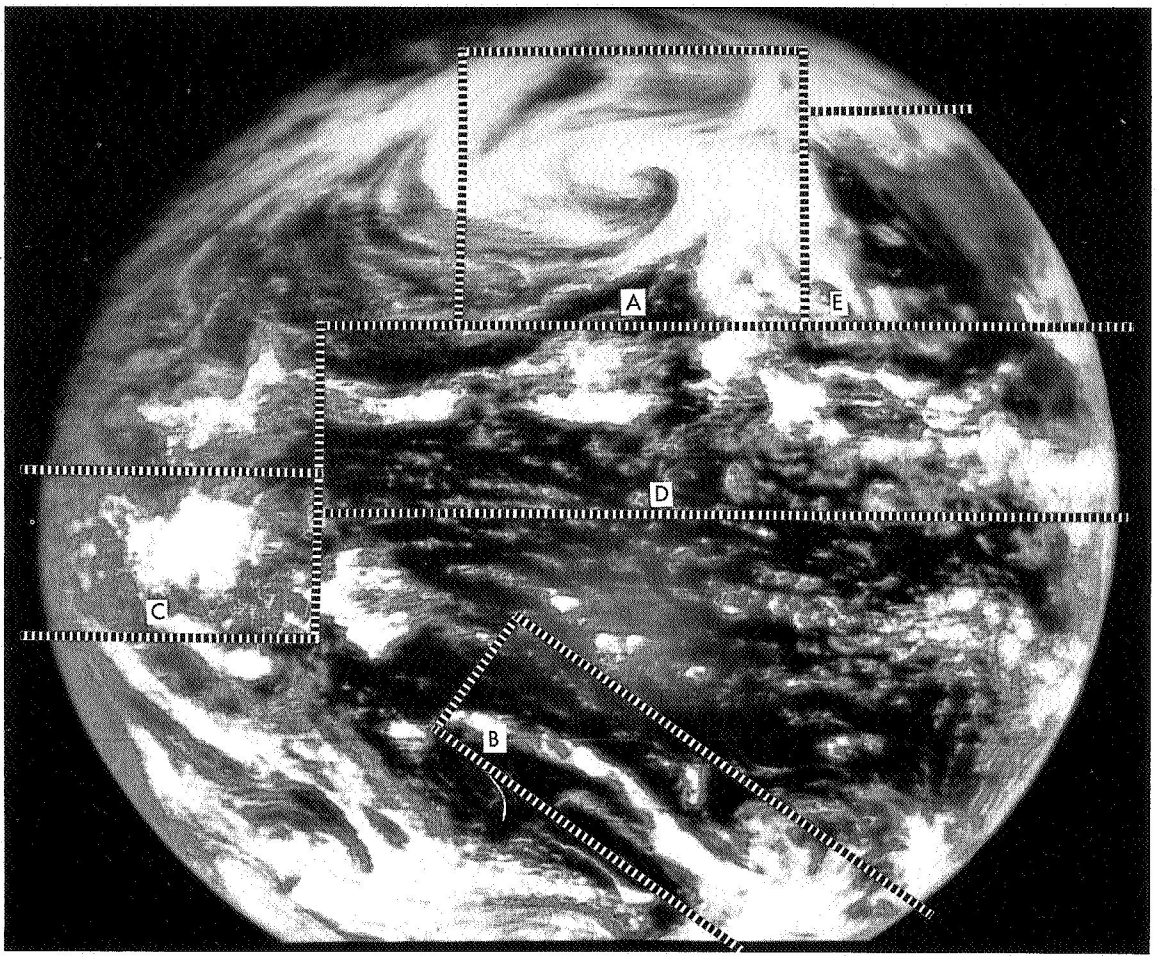
"Mature Vortex" (Fully Occluded Cyclone) (Figure A-7-A)—These vortices are cyclonically curved, middle and/or high cloud bands, with heavy overcast area in the northeastern quadrant and a striated, broken area in the northwest quadrant, usually with low to middle level spiral clouds. The spiral low and/or middle cloud patterns appear near the circulation center.

The closed circulation at the surface and lower levels expands in size and reaches its maximum intensity. Fully occluded frontal systems are usually in evidence. The closed cyclonic circulation at the 500 mb level is usually directly above the surface low pressure area and reaches its maximum intensity. A short wave trough is occasionally imbedded in the southerly flow on the east side of the closed circulation in the mid-troposphere.

Typical longitudinal dimensions of these cloud patterns range from 700 to 1000 nautical miles.

"Decaying Cyclone" (Figure A-8)—This vortex depicts spiralling low and/or middle level clouds, with an appearance of decreasing organization.

This is usually a decaying cyclone which may or may not be associated with an active frontal system. In general, there is a closed cyclonic circulation at the 500 mb level. The 500 mb low is normally over the surface low pressure area. The surface and 500 mb low pressure areas are usually much weaker than those of the "Mature Vortex."

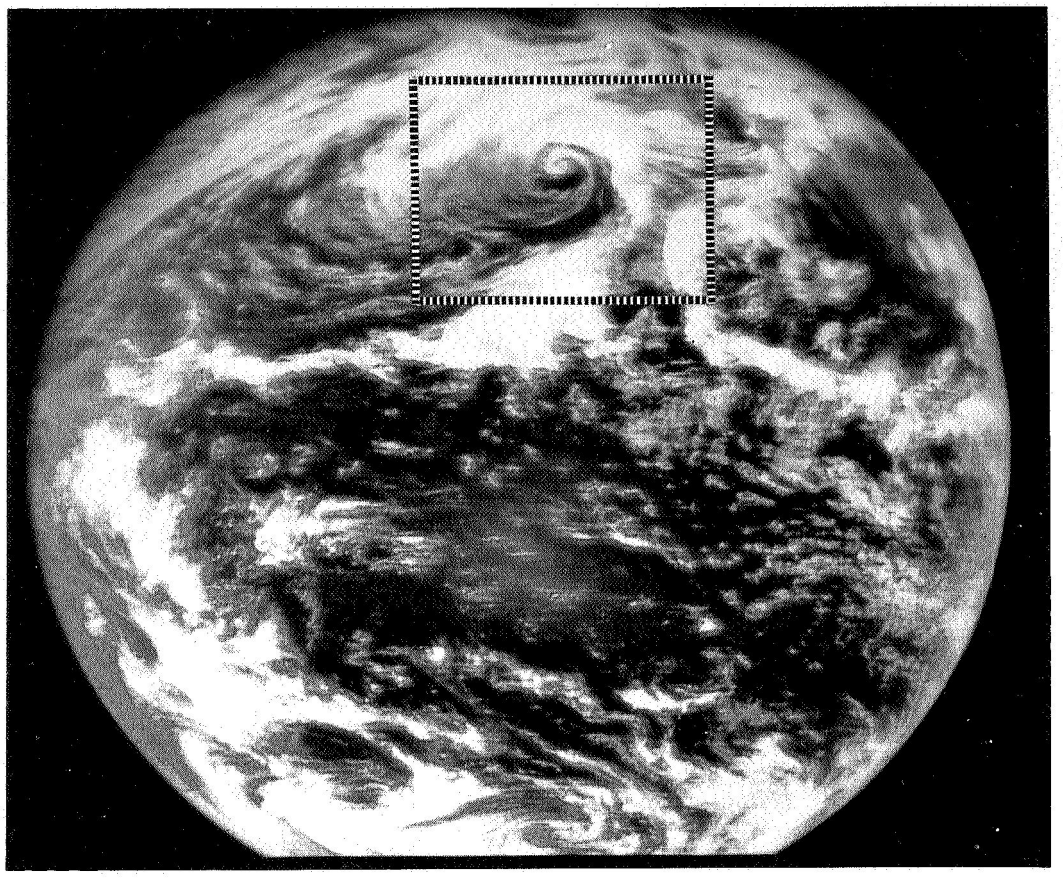


(A) Figure A-7.

A.2.1.1.2 Nonfrontal Vortices

"Closed Upper Level Circulation Over Land" (Figure A-9)—This is a circular middle and/or high cloud mass with essentially continuous circular striations imbedded in it. This pattern is associated with closed cyclonic circulation aloft (over land), which develops first at mid-tropospheric levels, and may then penetrate downward. A closed low may be in evidence at the 500 mb level and the surface.

"Closed Upper Level Circulation Over Oceans" (Figure A-10) — This is a spiral middle and/or high cloud band, but differing from that over land in that it lacks an area of striated clouds in the northwestern quadrant; the cloud band is narrower and often more prominent than in the over land category.

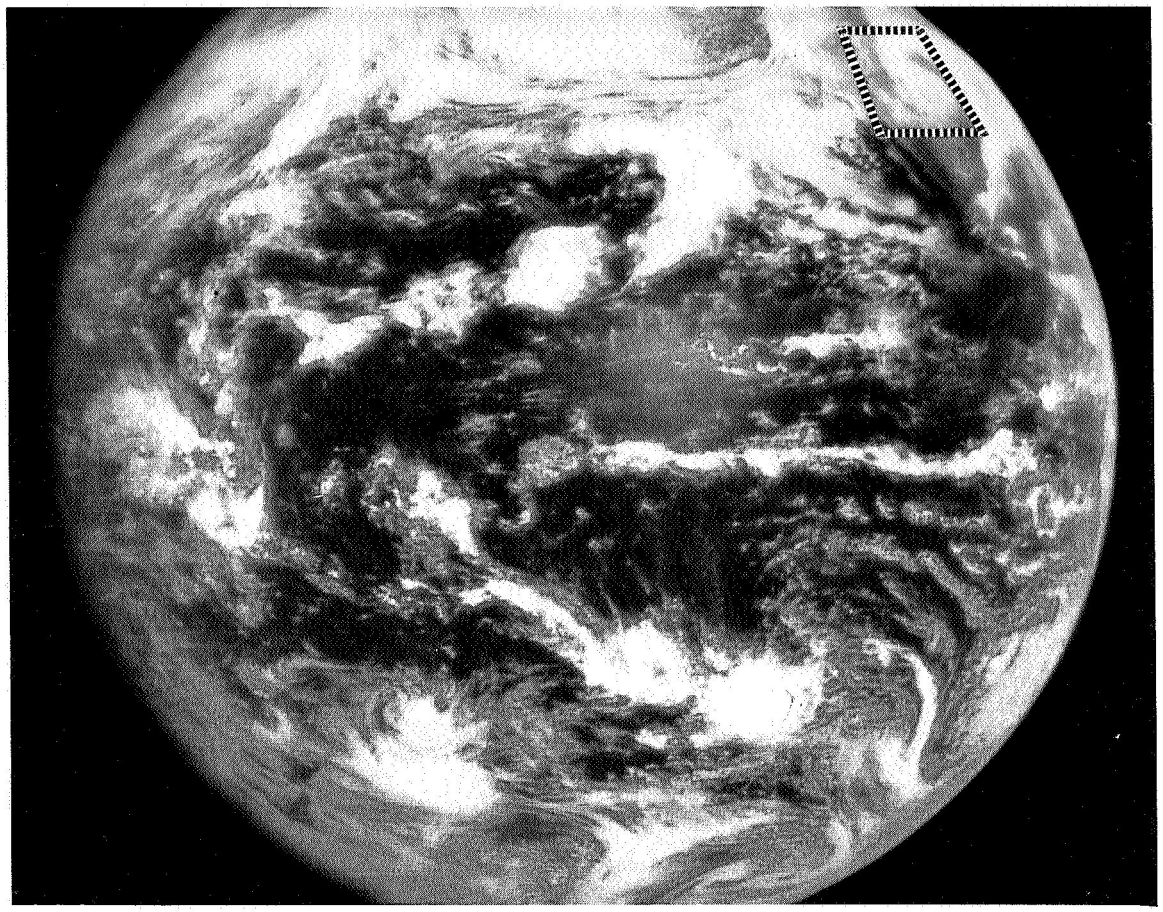


(A) Figure A-8.

The synoptic situation associated with this pattern is the same as that for over land but located over subtropical oceanic regions.

"Short Wave Trough in Polar Flow" (Figure A-14-G)—These are crescent shaped patterns composed of cumuliform clouds of considerable vertical extent, with some middle and high clouds. These cloud patterns are associated with a small amplitude, short wave trough imbedded in northwesterly flow at 500 mb. The surface synoptic chart is characterized by a distinct surface wind shift line and a trough in the pressure field.

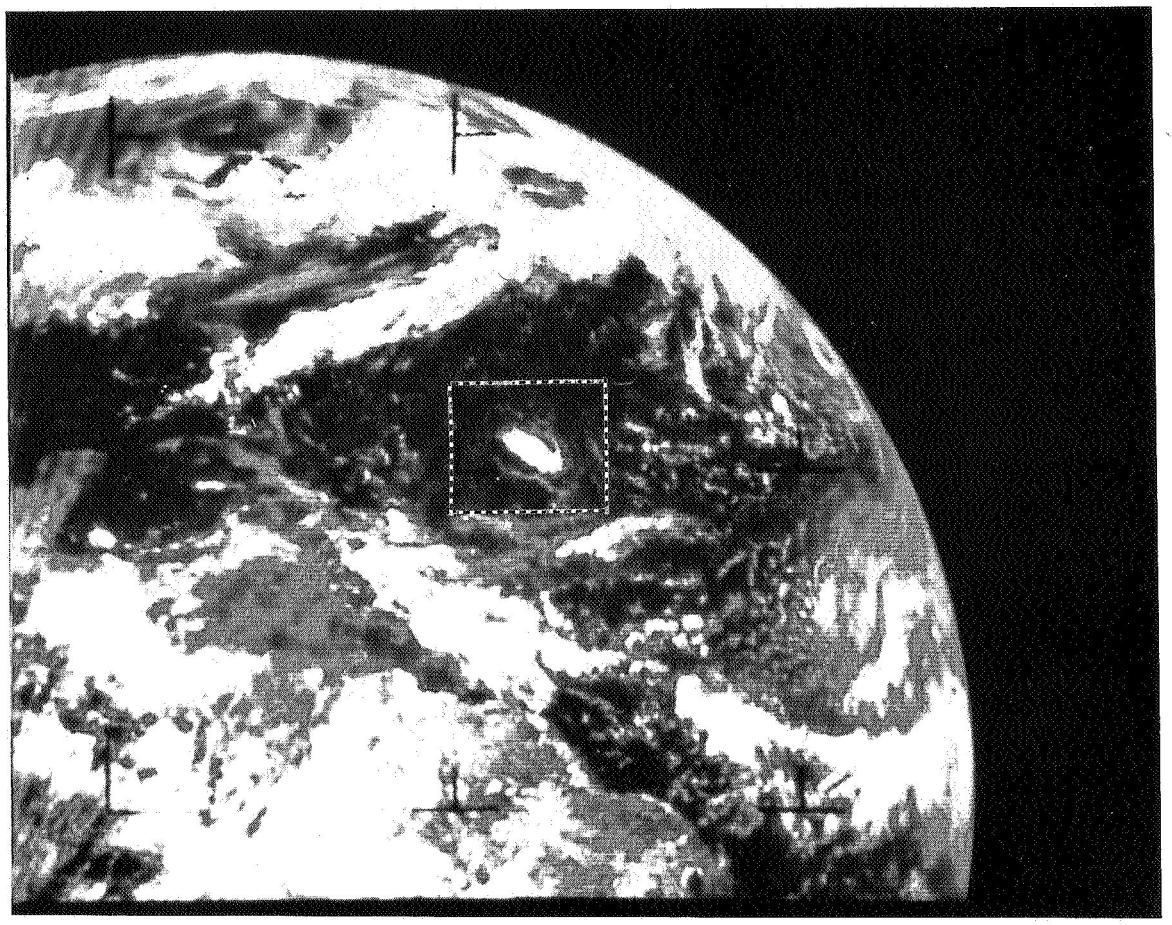
"Terrain Induced Vortices" (Figure A-11)—Small scale vortices related to the flow of air over and around islands are sometimes observed in satellite pictures. These cloud features appear as arcs, eddies or complete spiralling patterns downwind from islands of subtropical regions such as the Canary and Guadeloupe Islands. The cloud features are frequently found in an area which is partially cleared of clouds. The cloud features are associated with, or are



(A) Figure A-9.

parts of, a layer of stratocumulus or stratus below an inversion, with low wind speeds and ceilings. These cloud features provide information on the general direction of low level wind flow in the area. It is usually easy to differentiate these vortices from those associated with significant storms because of their size, location, and apparent weak intensity.

"Mesoscale Vortices" (Figure A-12)—These cumuliform and cirriform secondary mesoscale vortex patterns, in the polar flow behind major extra-tropical cyclones, appear to be indicative of 500 mb short wave troughs. These small scale eddies or vortices are usually similar in appearance to the vortical patterns of Closed Upper Level Circulation and especially short wave troughs in polar flow. This category accommodates the secondary mesoscale vortices frequently observed near the edge of the Antarctic pack ice.

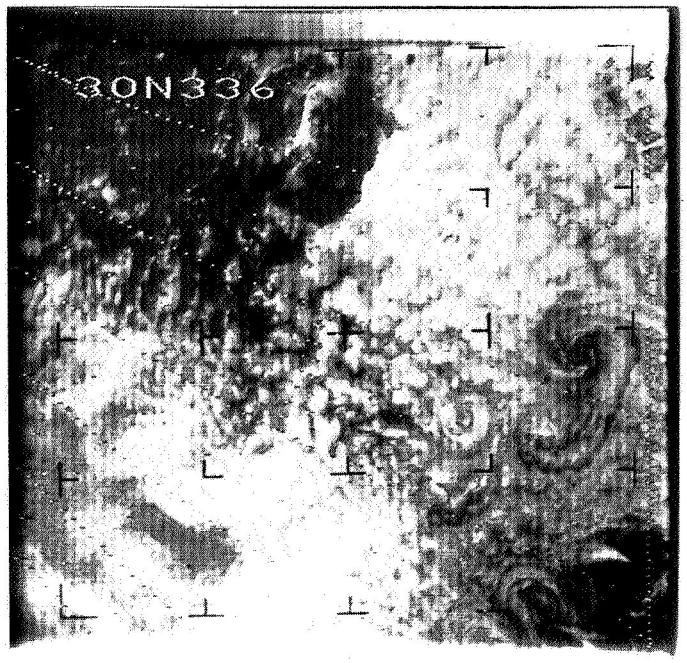


(A) Figure A-10.

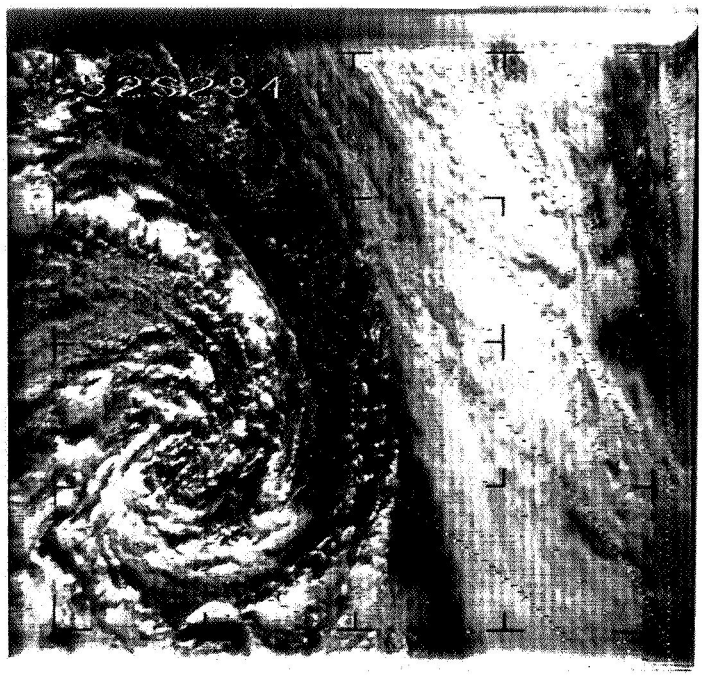
A.2.1.2 Tropical Vortical Cloud Features

A.2.1.2.1 Tropical Cyclones

Extensive research has led to appreciable progress in determining the wind speeds and intensity of tropical cyclones from the appearance and configuration of the cloud patterns in the satellite pictures. All tropical cloud vortices, tropical depressions of greater intensity than a perturbed band, storms, hurricanes, and typhoons are classified as tropical cyclones. Likewise, no attempt is made to classify tropical cyclones according to their stage of development. However, subclassifications are made according to the extent of the area covered by the cyclonic cloud pattern, and whether or not the eye of the cyclone is visible. In this classification scheme, the dimension of the area of coverage of a tropical cyclone includes the essentially contiguous area of organized concentric or curved cloud bands surrounding the bright cirrus canopy or striations and/or the lower level spiral cloud bands of the central core.



(N) Figure A-11.



(N) Figure A-12.

Tropical cyclones are divided into the following groups:

Less than 4° x 4° in extent (Figure A-13)

4° x 4° to 6° x 6° in extent (Figure A-14-A)

6° x 6° in extent or greater (Figure A-15-A)

A.2.2 Major Cloud Bands

a. A major cloud band is defined here as a linear and continuous arrangement of clouds, usually very much longer than wide. These bands can include low, middle, and/or high clouds, and most often are associated with surface fronts in middle latitudes or areas of convergence in the tropics. Also, the bands may or may not be associated with cloud vortices. However, to fit into this category, the cloud vortex is not present in the specific zone being classified.

b. A major band is also frequently slightly curved or distorted by a bend or bulge in the band. The distorted band may be associated with a surface frontal wave (developing wave) in mid-latitides, or with a perturbed area in the tropics.

A.2.2.1 Extratropical Cloud Bands

A.2.2.1.1 Frontal Bands (Figure A-7-B)

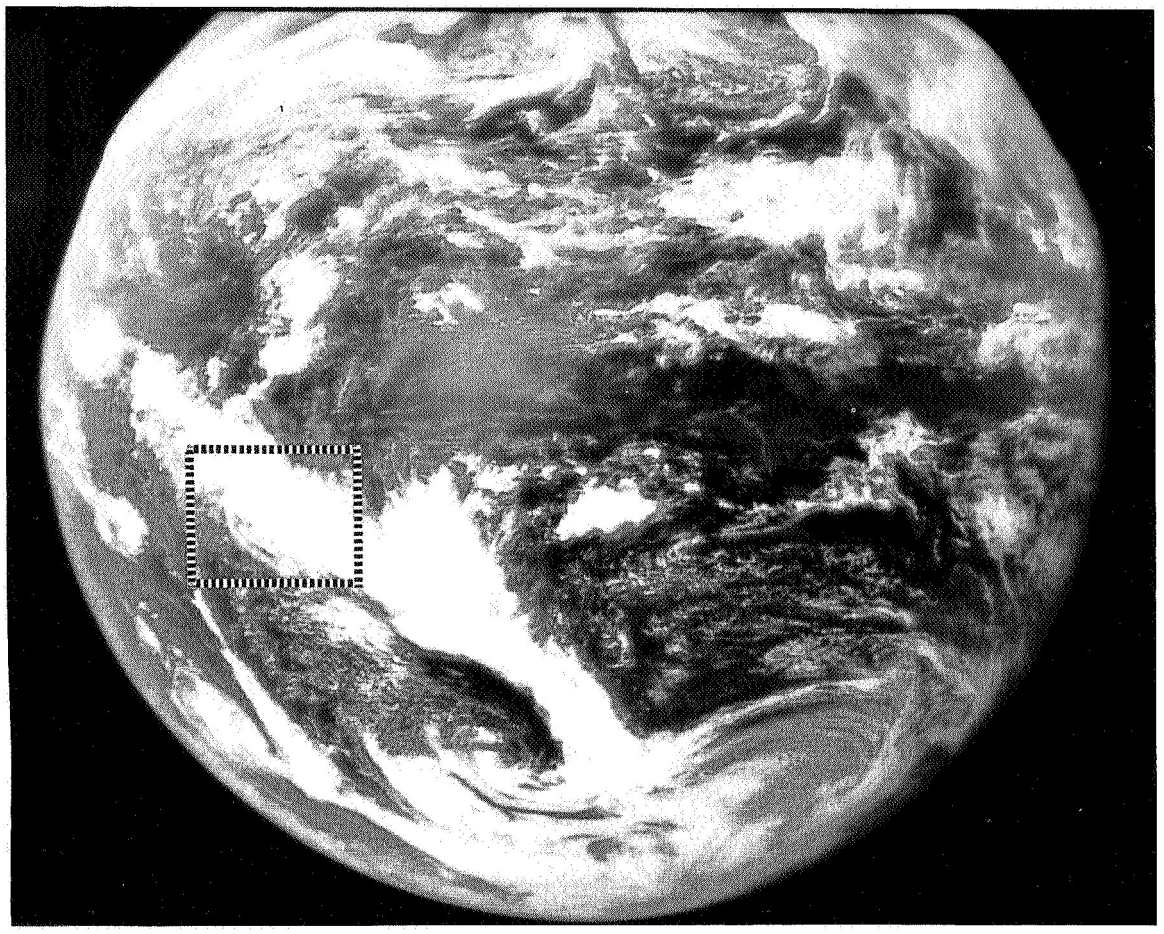
A major frontal band is usually associated with an existing or recently dissipated cold or occluded front. The identification of the type of frontal band solely from a satellite picture is often difficult. Therefore, when the following five classes of frontal bands are cited, it is usually on the basis of correlating the satellite data with current synoptic data.

Warm Front (Figure A-14-B)—This is usually a relatively wide cloud band and is probably a cloud mass pertaining to the eastern edge of a vortex.

Cold Front (Figure A-14-C)—This is usually a relatively narrow band of clouds.

Occluded Front (Figure A-14-E)—A wide band of clouds, usually associated with a cloud vortex.

Triple Point of an Occluded Front (Figure A-7-A)—This is a wide cloud mass which depicts the point of intersection of the warm and cold fronts of an occluded frontal system. The triple point is usually associated with a cloud vortex to its

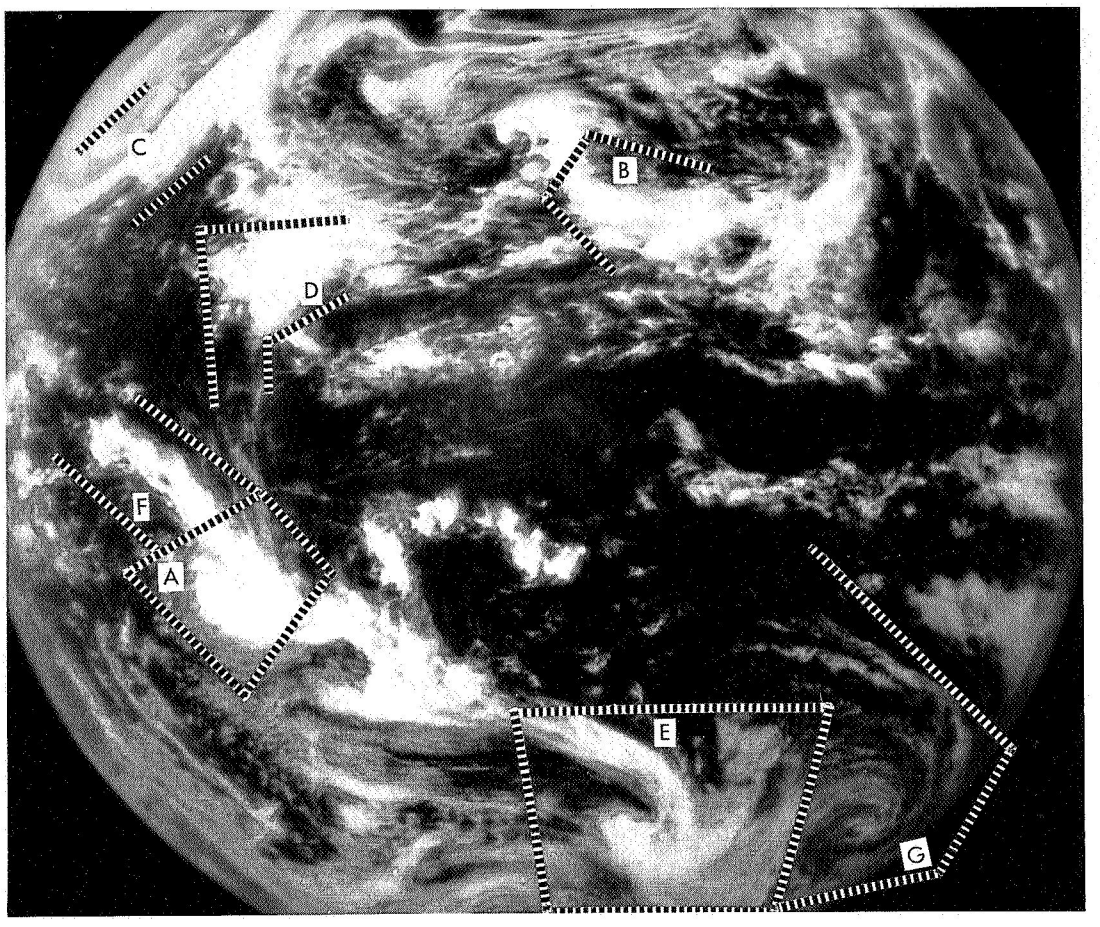


(A) Figure A-13.

west, and with a 500 mb short wave trough. The cloud band becomes narrower as one moves away from the triple point to either the south or northwest. Striated broken areas of cumuliform clouds may exist to the west or southwest of the triple point cloud mass.

Frontal Wave (Figure A-14-D)—A frontal wave is usually evidenced by a broadening or poleward bulging of the frontal band, which is often difficult to distinguish among other cloudiness. A frontal wave is, at times, accompanied by slightly curving parallel bands poleward of the frontal band, and/or by a more reflective area of higher and deeper clouds just east of the wave crest. Vortical cloud patterns are not in evidence. A weak closed cyclonic circulation may or may not be associated with the location of the wave on the surface synoptic chart.

This classification also includes the so-called "pre-occlusion stage," which generally has a greater poleward bulging of the frontal band. Vortical cloud patterns are not in evidence. A closed cyclonic circulation is usually in evidence



(A) Figure A-14.

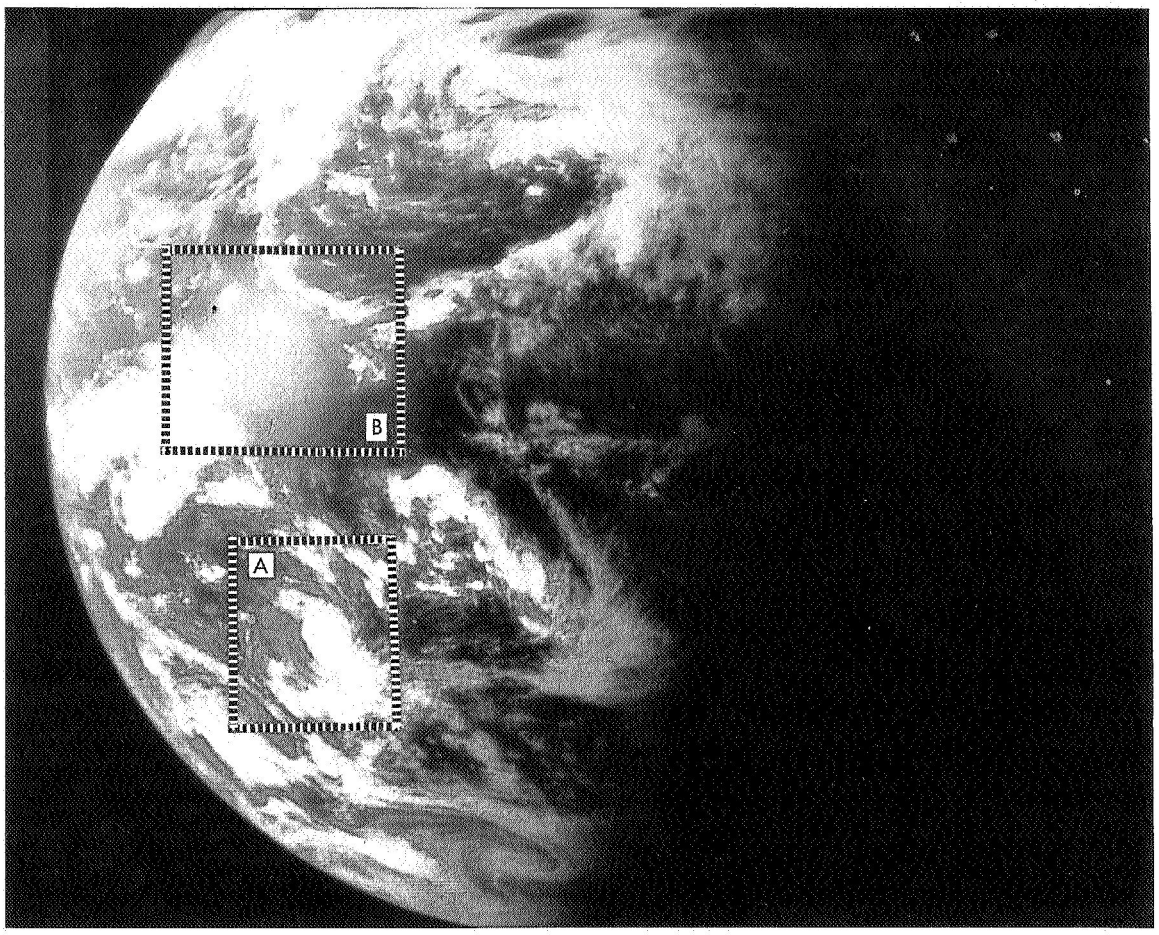
on surface synoptic charts, but has not yet reached the 500 mb level. A 500 mb short wave trough may be present, northwest of the wave.

A.2.2.2 Tropical Cloud Bands

Tropical cloud bands are often associated with areas of wind convergence and/or horizontal shear, or with mid-latitide cold fronts which have moved into the tropics.

A.2.2.2.1 Area or Lines of Convergence

These are convergence lines or zones of heavy bands of cloudiness which are located primarily over tropical oceanic areas and are associated with monsoonal troughs and are oriented N-S (Figure A-14-F). A separate encoding has been reserved for the intertropical convergence (ITC) zone, primarily oriented E-W. (Figure A-7-D)



(A) Figure A-15.

A.2.2.2.2 Perturbed Tropical Cloud Band (Figure A-7-C)

An apparent distortion of a major cloud band is often the first indication of the formation of a tropical storm. The distortion is in the form of a bending, folding, or bulging of the cloud band. These perturbed cloud bands may be the early stages of an easterly wave or easterly perturbation.

A.2.3 General Cloud Features (Neither Vortical Nor Major Bands)

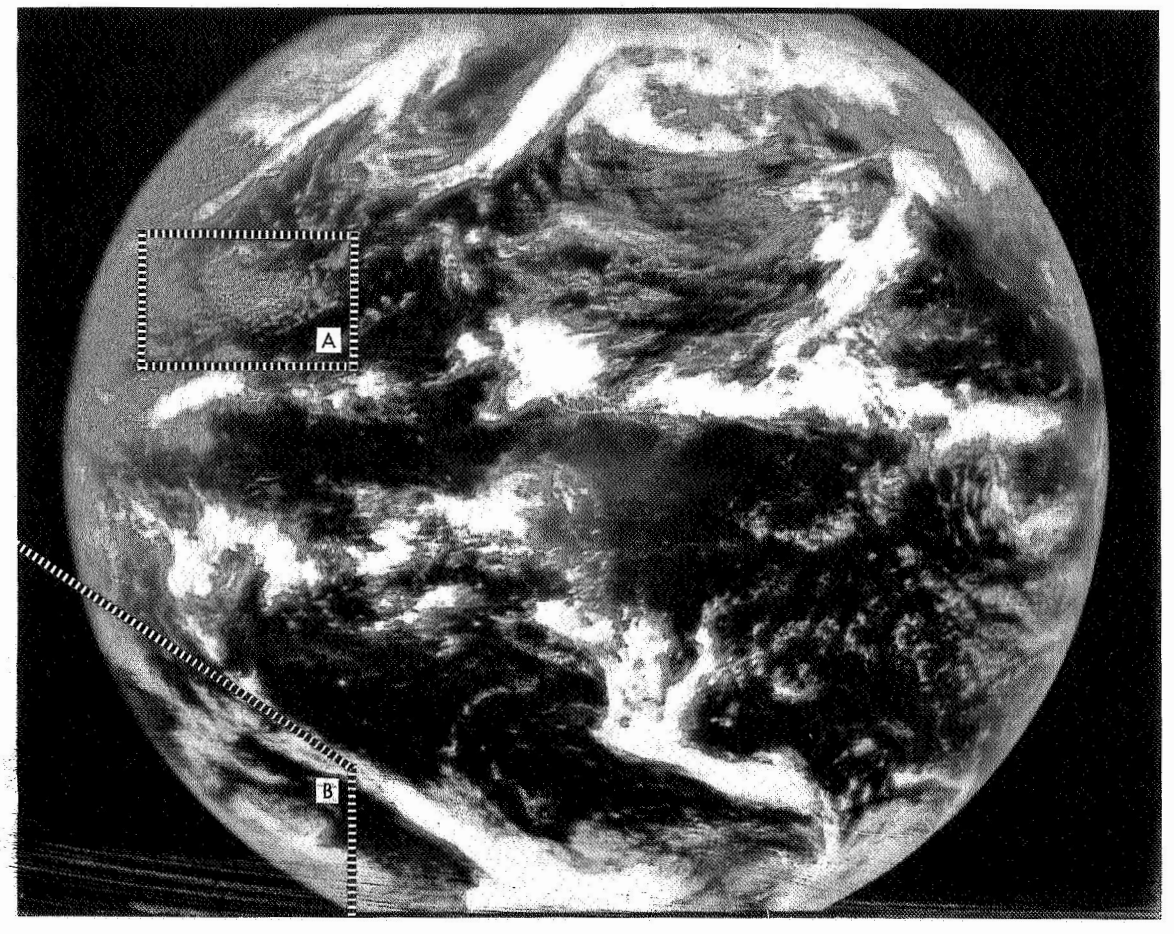
The satellite data depict cloud features which are neither vortical in character nor major cloud bands. These cloud features vary in size, shape, and coverage. They may be isolated or areas of clouds of more or less homogeneous characteristics.

A.2.3.1 Minor Cloud Lines or Parallel Bands (Figure A-7-A)

These are lines, parallel lines, or minor bands of clouds of various widths, lengths, spacings and apparent cell sizes. These clouds may be oriented parallel, perpendicular or at other angles to the wind flow.

A.2.3.1.1 Cloud Streets (Figure A-16-A)

These parallel lines of cumuliform clouds, frequently oriented parallel to the wind flow, are found (1) in trade wind areas of the tropics, (2) associated with low level inflow into major tropical storms, or (3) in association with circulations about extratropical cyclones, as well as in other types of situations. In many cases however, the cloud lines are not oriented parallel to the wind flow. Cloud streets observed contiguous to shorelines often provide an indication of offshore or onshore flow.



(A) Figure A-16.

A.2.3.1.2 Terrain Induced Wave Clouds (Figure A-17)

These are forms of orographic cloudiness, over or downwind from hills or mountain ridges. They form in the crests of vertical waves produced by air flow over mountain barriers. These clouds must be related to the local geography and topography in order to be properly identified.

Lee Waves (Figure A-18)—These are approximately parallel bands of straight or slightly curved stratiform appearing clouds over or downwind from hills or ridges, at altitudes not significantly greater than 10,000 feet above the terrain.

Mountain Waves (Isolated Lenticular Clouds) (Figure A-19)—These clouds are usually small. When transparent, the lenticular clouds are not visible in satellite pictures. However, the large thick lenticular clouds are discernible and appear much like white circular cumulonimbus, often surrounded by cumuliform clouds of lesser development. They are found at levels at or above 20,000 feet, with thicknesses over 1500 feet.

Fibrous Plumes (Figure A-20)—These are banded or fibrous stratiform streaky cirrus clouds. These clouds are usually at heights of 20,000 feet or higher over or downstream from hilltops or mountains.

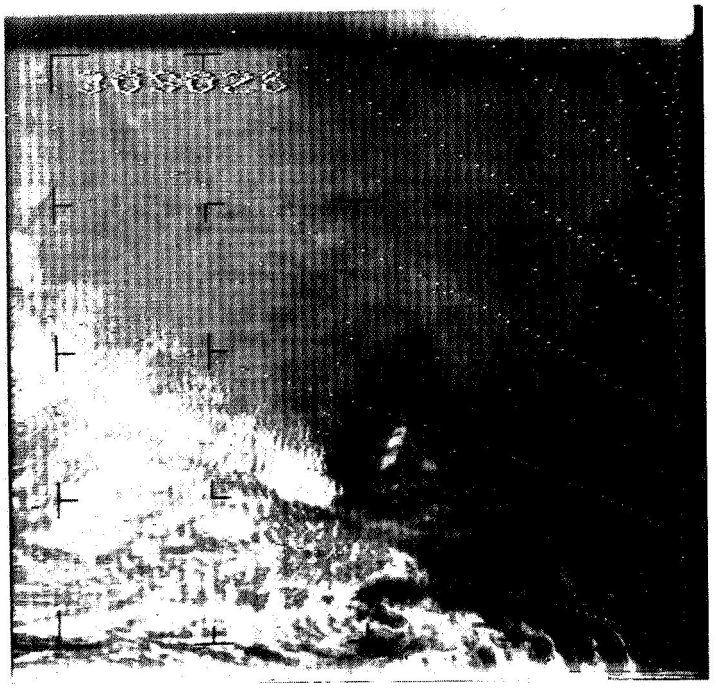
A.3 TERRESTRIAL FEATURES

Terrestrial features or land forms are often observed in satellite data. Since terrestrial features are of interest to a variety of researchers, they will be identified and cataloged. However, priority is given to cloud features.

Terrestrial features are divided into three divisions. These divisions were selected on the basis of ease of recognition and identification, and frequency of occurrence in satellite pictures. Since they are in common usage and familiar to most people, further description is considered unnecessary. The names and/or identification of terrestrial features may be listed in the remarks section of appropriate documentation. Selected terrestrial features are illustrated in Figures A-7-E and A-16-B. Sun Glint is illustrated in Figure A-15-B.

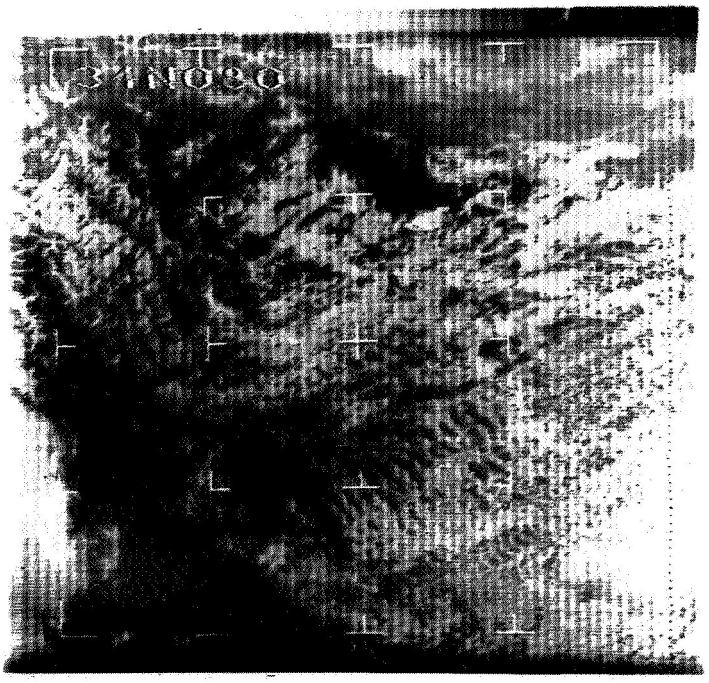
A.4 INDISTINGUISHABLE FEATURES

There are cases in which a clear distinction cannot be made between clouds and terrain, clouds and snow or ice fields, or clouds above a continuous undercast. This portion of the category is established to indicate to researchers,

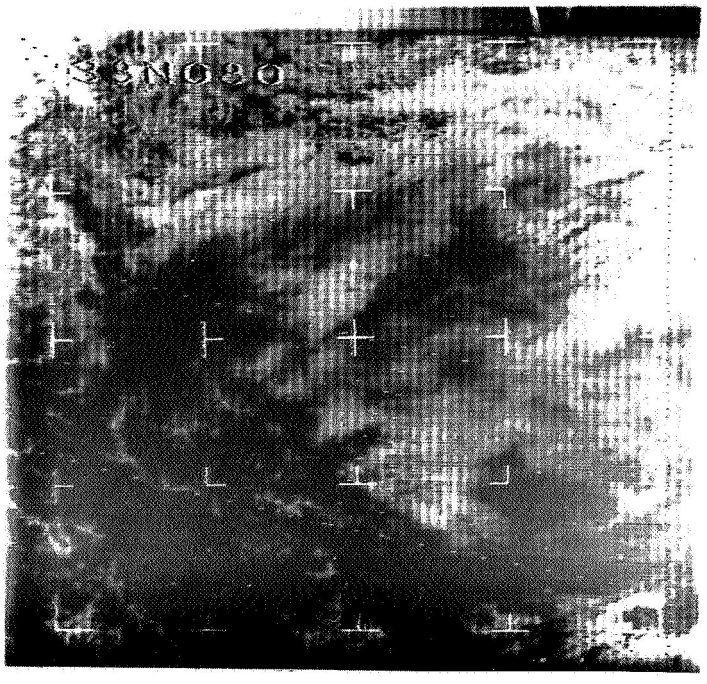


(N) Figure A-17.

(N) Figure A-18.



(N) Figure A-19.



(N) Figure A-20.

experimenters and other users the questionable value of the data within a particular zone and at the same time to provide a classification for retrieval. When this classification is used, a coded entry (Section B.1.2 - Appendix B) may be included in the remarks section of the Data Content Log Sheet and the Data Log Section of the catalog to indicate the probable classification.

A.4.1.1 Clear Distinction Cannot be Made Between Clouds and Terrain, Clouds and Snow or Ice Fields and/or Cloud Fields.

A.4.1.2 Inadequate Distinction Between Clouds and Terrain.

A.4.1.3 Inadequate Distinction Between Clouds and Snow/Ice Fields.

A.4.1.4 Inadequate Distinction Between Clouds and Lower Undercast.

A. 4. 2 Pictures of Poor Quality

This portion of the category is established in order to account for data acquired by the ATS-I satellite, which is considered to be of no value to researchers, experimenters and other users other than spacecraft engineers. The poor quality of the picture is related to the condition of the data transmitted from the satellite to the ground station and/or to data degradation in initial reproduction. In general, it is not possible to improve the quality of these pictures by more sophisticated photographic processing techniques. Zones with all data missing, or no discernible features, as well as zones with excessive lines, excess noise breaks or dots, will be placed in this category. A coded entry (Section B.1.3 - Appendix B) will be made in the remarks section of the Data Log Section of the catalog indicating the reason for placing the picture in this category. Pictures with identifiable features, but containing some missing data, limited engineering errors or other minor deficiencies will be classified on the basis of their data content and a coded entry (Section B.1.1 - Appendix B) made in remarks section of the Data Log Section of the catalog to indicate the deficiency.

A.5 STORM NAMES

This category has been added to allow those researchers of large scale storms such as tropical storms, hurricanes and/or typhoons to retrieve pictures containing these systems. Each disturbance bearing a name will be encoded from the time it is first named until it loses its identity (Tables A-1, A-2 and A-3).

A.6 CLASSIFICATION AND CATALOGING DESCRIPTORS FOR ATS-I SATELLITE

Numerical Descriptor	Data Content
1000	Vortical Cloud Features
1100	Extratropical Vortical Cloud Features
1113	Mature Vortex
1114	Decaying Cyclone
1120	Nonfrontal Vortices
1121	Closed Upper Level Circulation Over Land
1122	Closed Upper Level Circulation Over Ocean
1123	Short Wave Trough in Polar Flow
1124	Terrain Induced Vortices
1125	Mesoscale Vortex
1200	Tropical Vortical Cloud Features
1210	Tropical Cyclone, less 4° x 4° in extent
1211	Tropical Cyclone, less 4° x 4° in extent, Eye visible
1220	Tropical Cyclone, 4° x 4° to 6° x 6° in extent
1221	Tropical Cyclone, 4° x 4° to 6° x 6° in extent, Eye visible
1230	Tropical Cyclone, 6° x 6° in extent or greater
1231	Tropical Cyclone, 6° x 6° in extent or greater, Eye visible
2000	Major Cloud Bands
2100	Extratropical Cloud Bands
2140	Frontal Bands
2141	Warm Front
2142	Cold Front
2143	Frontal Wave
2144	Occluded Front
2145	Triple Point of an Occluded Front
2200	Tropical Cloud Bands
2220	Area or Line of Convergence
2230	Perturbed Tropical Cloud Band
2240	Intertropical Convergence Zone (ITC)

Numerical Descriptor	Data Content
3000	General Cloud Features
3100	Minor Cloud Lines or Parallel Bands
3150	Cloud Streets
3160	Terrain Induced Wave Clouds
3161	Lee Waves
3162	Mountain Wave
3163	Fibrous Plumes
4000	Terrestrial Features
4200	Coastline
4300	Mountain
4350	Snow Cover
4400	Desert
4550	Atoll or Island
4610	Sun Glint
4710	Coastline & Mountains
4720	Coastline & Desert
4730	Desert & Mountains
4740	Coastline, Mountains, Desert
5000	Indistinguishable Features
5100	Inadequate Distinction Between Clouds & Terrain
5200	Inadequate Distinction Between Clouds & Ice/Snow Field
5300	Inadequate Distinction Between Cloud Fields
6000	Storm Names
6001	Adele
6002	Blanca
....*	....
6740	Winnie
8000	Moon Photography

*See Tables A-1, A-2 and A-3 for complete listing of storm names.

PRECEDING PAGE BLANK NOT FILMED.

APPENDIX B

ABBREVIATIONS, CONTRACTIONS AND CODES

Section B.1 contains the quality control code for entries in the remarks section of the Data Log Section of the ATS-I Spin Scan Cloud Camera Data Catalog.

Section B.2 lists abbreviations and contractions used for entries in the remarks section of the Data Log Section of the catalog. Each abbreviation, contraction, and/or code entry is separated from other entries by a blank space.

The order of entry in the remarks section of the Data Log Section of the ATS-I Spin Scan Cloud Camera Data Catalog is as follows:

a. Quality Control

b. Abbreviations and Contractions

B.1 Quality Control Codes for Entries in Data Log Section of the ATS-I Spin Scan Cloud Camera Data Catalog

B.1.1 Discrepancies Noted in Categorized Data

Code

EE—Electronics Error - sync loss, double exposure, noise lines, breaks, dots, etc.

AE—Apparent Attitude Error (Attitude appears to deviate more than 3° from nominal in at least one of the two axes).

UG—Unable to grid.

PE—Phasing Error (shift) - sync pulses visible on picture or earth's horizon not centered on picture.

PC—Poor film contrast.

PU—Picture underexposed.

PO—Picture overexposed.

PP—Partial picture (some data missing).

PR—Faulty Photographic Processing.

Code

XX—No data.

B.1.2 Most Probable Classification of Features of Zones Classified Under the Category, "Indistinguishable Features"

Code

IC —Indistinguishable features, probably cloud(s) above a snow or ice field.

IS —Indistinguishable features, probably snow or ice field rather than clouds.

IL —Indistinguishable features, probably low level cloud(s) rather than terrain.

IT —Indistinguishable features, probably terrain rather than low level clouds.

IA —Indistinguishable features, probably cloud(s) above a uniform undercast.

B.1.3 Reasons for Placing Picture or Zone in the Category "Picture of Poor Quality or no Discernible Features"

Code

NF—No discernible features (no visible image or pattern).

PQ—Picture of poor quality.

XX—No data (all data missing).

EX—Excessive lines, breaks, dots, noise, etc.

B.2 Abbreviations and Contractions

ABV	Above	ARC	Arctic(a)
ACRS	Across	ASIA	Asia
AFR	Africa	ASOC(D)	Associate(d)
PM	Afternoon	ATL	Atlantic
ALUTN	Aleutian	ATOL	Atoll
ALG	Along	ATD	Attitude
AMT	Amount	AUG	August
ANT	Antarctic(a)	ASTR	Australia
APR	April		

BND	Band
BRAZ	Brazil
BRKN	Broken
CAM	Camera
CAN	Canada
CNL	Canal
CAP	Cap
CARIB	Caribbean
CLUR	Cellular
CNTR	Center
CA	Central America
CHNL	Channel
CRC	Circle
CRCLR	Circular
CRCLN	Circulation
CIFN	Cirriform
CI	Cirrus
CLR	Clear
CLD	Cloud(s)
CLDNS	Cloudiness
CLDY	Cloudy
CST	Coast
CSTL	Coastal
CD	Cold
CDFNT	Cold Front
CONVG	Convergence (nt)
CMPL	Complete
CNTL	Contrail
CVR(D)	Cover(ed)
CNG	Crossing
CUFM	Cumuliform
CB	Cumulonimbus
CU	Cumulus
CYCL	Cyclone
DEC	December
DPNG	Deepening
DFNT	Definite
DEG	Degree
DNS	Dense
DPRSN	Depression
DSND	Descend
DSRT	Desert
DTL	Detail
DGNL	Diagonal
DIAM	Diameter
DIR	Direct
DSIPT	Dissipate
DIVG	Divergence (nt)
DUPE	Duplicate
EA	Each
E	East
ERLY	Easterly
ERN	Eastern
EQ	Equator
ETC	Et Cetera
EURP	Europe

EXTSN	Extension
XTR	Extra
XTRP	Extratropical
FEB	February
FLD	Field
FLPL	Flood plain
FRST	Forest
FWD	Forward
FR	Frame
FM	From
FNT	Front
FNTL	Frontal
FRZN	Frozen
GNL	General
GLCR	Glacier
GLNT	Glint
GRG	Gorge
UT	Greenwich Mean Time
G	Grid
GND	Ground
GRP	Group
HAW	Hawaii
HZ	Haze
HT	Height
HI	High
HRZN	Horizon
HRCN	Hurricane
INDN	Indian
INOP	Inoperative
INTS	Intense
INTMT	Intermittent
INTRP	Interrupt
INTVL	Interval
ITC	Intertropical Convergence Zone
INVSN	Inversion
IRE	Irregular
IS	Island(s)
JPN	Japan
JAN	January
JTSTR	Jet Stream
JUL	July
JUN	June
LK	Lake
LND	Land
LAT	Latitude
LYR	Layer
LGH	Length
LVL	Level
LGT	Light
LI	Line Islands
LCL	Local
LONG	Longitude
LWR	Lower

MAR	March
MAS	Master
MAX	Maximum
MDUM	Medium
MSG	Message
MOJ	Mojave
N	North
NRN	Northern
NE	Northeast
NW	Northwest
NA	North America
NWGN	New Guinea
NZ	New Zealand
NOV	November
NO	Number
NMRS	Numerous
OBSC(D)	Obscure(d)
OBS	Observe (observation)
OBST	Obstruct
OCNL	Occasional
OCT	October
PI	Philippine Islands
PSN	Position
PSO	Positive
PRIM	Primary
PBL	Probable
QLTY	Quality
QK	Quick
RF	Radio Frequence
RNG	Range
RCV(D)	Receive(d)
RMRK	Remark
RVR	River
ROSMN	Rosman, N.C.
ROT	Rotate
ROTG	Rotating
SCTD	Scattered
SEC	Second
SCATS	Sensory Catalog for ATS
SEP	September
SEQ	Sequence
SVR	Severe
SHT	Sheet
SIG	Signal
SLO	Slow
SML	Small
SMK	Smoke
SNW	Snow
SLD	Solid
S	South
SRN	Southern
SE	Southeast
SEA	Southeast Asia

SW	Southwest
SA	South America
SPL	Special
SPRL	Spiral
SQAL	Squall
SQLN	Squall Line
STNY	Stationary
STD	Standard
STDY	Steady
STM	Storm
STRT	Strait
STFM	Stratiform
SC	Stratocumulus
ST	Stratus
STRM	Stream
SSP	Subsatellite Point
SNGLT	Sun Glint
SFC	Surface
SYN	Synchronous
SYS	System
TRRN	Terrain
THK	Thick
THN	Thin
TWRG	Towering
TRK	Track
TRIB	Tributary
TRP	Tropical
TRPST	Tropical Storm
TROPO	Tropospheric or Troposphere
TYPN	Typhoon
US	United States
UT	Universal Time (GMT, Z, etc.)
UPR	Upper
VLY	Valley
VSBL	Visible
VSBY	Visibility
VOL	Volume
VLCN	Volcano
VRX	Vortex
VRTL	Vortical
WV	Wave
WK	Weak
WX	Weather
W	West
WRLY	Westerly
WRN	Western
WH	White
WND	Wind

PART II

THE ATS-I METEOROLOGICAL DATA CATALOG

1 January 1967

through

30 June 1967

PRECEDING PAGE BLANK NOT FILMED.

SECTION 1

INTRODUCTION

The Applications Technology Satellite, ATS-I, was successfully launched from the Eastern Test Range, Florida on 7 December 1966. Lift-off occurred at 01 hours 12 minutes, 0.997 seconds Universal Time. The satellite achieved the desired orbit and the photographic subsystem has performed as designed during the period 1 January 1967 thru 30 June 1967.

The maximum number of pictures obtained on one day from the Spin Scan Cloud Camera was 47, acquired on 18 April 1967. No data were received on 10 and 25 February 1967, 6 March 1967 and 1 and 6 June 1967. The quality of the data has been excellent with few exceptions.

An interesting phenomenon occurred on 21 and 22 January 1967 when the video amplifier became oversaturated. The resultant reversal of vivid white to dense black give the impression that holes have developed in the cloud system. In reality, it is an indication of areas where the clouds have the highest albedo. See pictures displayed as pictures of the day in Section 3, Part II.

Another peculiar phenomenon occurred during the period 16 thru 20 March 1967 when a distortion was induced in the ground equipment. This distortion was caused by the viewing proximity of the sun sensor and the camera lens. At the sun angle then prevailing, the sun sensor pulse and the video pulse from the sun approximately coincided in time. The ground equipment could not discriminate between the sun pulse and the video, thereby creating the distortion.

On occasion, erroneous earth-satellite-sun angle data were inadvertently fed into the ground station computer, thereby creating distortion in the recorded data. Examples of these type of data can be seen on 11, 12, 13, 14 and 15 March 1967.

Other instances occur in which recorded data display synchronization shifts. Examples of these type of data can be seen on 21, 22, 23, 24, 25 and 26 March 1967.

The time assigned to picture sequence 3 of 12 February 1967 is not the exact start time of the picture since the time was not noted at the receiver site. An "execute command" time was assigned to the picture which is one of five poorly documented and displayed pictures.

The times assigned to sequence 1 and 2 of 1 January 1967 and sequence 16, 27 March 1967 are approximate times since exact starting time of each picture was not noted at the ground station.

A series of small attitude maneuvers was initiated on 15 April 1967 and continued through 21 June 1967 to calibrate the reaction control system under low pressure conditions. The resultant changes of attitude are readily discernible in the data. A tabulation of the data and time of these changes is included for information.

TABLE 1-1
Time of Attitude Maneuvers

April 1967	May 1967	May 1967
15 - 1347UT	11 - 1346UT	22 - 1800UT
15 - 1800UT	11 - 2125UT	22 - 1900UT
26 - 1730UT	11 - 2100UT	23 - 1700UT
27 - 1700UT	12 - 1330UT	25 - 1700UT
28 - 1700UT	12 - 1545UT	25 - 2000UT
29 - 1700UT	12 - 1750UT	25 - 2029UT
30 - 1700UT	12 - 1755UT	29 - 1830UT
	12 - 1835UT	
May 1967	16 - 1700UT	June 1967
	16 - 1800UT	
1 - 1700UT	16 - 1905UT	1 - 1300UT
2 - 1700UT	18 - 1700UT	6 - 0000UT
3 - 1700UT	18 - 1900UT	7 - 2100UT
4 - 1700UT	20 - 1715UT	21 - 1330UT
6 - 1700UT	20 - 1815UT	
8 - 1700UT	22 - 1700UT	

An example of the SSCC capability to photograph the moon and earth simulantaneously can be seen in the picture of the day displayed for 23 April 1967. The moon can be seen in the lower right hand corner.

The ATS-I spacecraft system checkout engineering evaluation, data evaluation and drift onto station (nominally 151°W, 0°N) were completed on 1 January 1967. As a result of these efforts, data reception, accountability, extraction and processing were sporadic during the testing period. The catalog reflects complete documentation starting with 1 January 1967.

Manual gridding of the ATS-I meteorological data was performed. Gridding accuracy was estimated to be better than ±1° great circle arc at the subsatellite point and to within 3° in the usable portion of the picture near the horizons. In a few instances, grids could not be matched due to picture distortion caused by the ground equipment that produced the negative. These pictures have been identified in this catalog by the use of the code UG (unable to grid).

SSCC photographic data are available from National Weather Record Center on film reels as follows:

Reel 1	January 1 through 20, 1967
Reel 2	January 21 through February 17, 1967
Reel 3	February 18 through March 11, 1967
Reel 4	March 12 through April 4, 1967
Reel 5	April 5 through 17, 1967
Reel 6	April 18 through 22, 1967
Reel 7	April 23 through 30, 1967
Reel 8	May 1 through 31, 1967
Reel 9	June 2 through 30, 1967 (No data for June 1, 1967)

PRECEDING PAGE BLANK NOT FILMED.

SECTION 2

ORBITAL DATA

This section contains a listing of the orbital elements. These data may be used by those who desire to compute the ephemeris. It should be noted that the velocity at perigee, velocity at apogee and the geocentric latitude of perigee are omitted for the period 1 January 1967 thru 17 March 1967.

Nutation was not measurable for the period included in this catalog.

ORBITAL ELEMENTS

Epoch (UT)	Valid Time (UT)	Semi-Major Axis (Km)	Eccentricity	Inclination (Deg)	Mean Anomaly (Deg)	Arg of Perigee (Deg)	Arg of Perigee/ Motion (Deg/Day)	Rt Ascn of A Node (Deg)	Rt Ascn of A Node/ Motion (Deg/Day)	Anomalistic Period (Min)	Anomalistic Period/ Motion (Min/Day)	Ht of Perigee (Km)	Ht of Apogee (Km)	Vel at Perigee (Km/Hr)	Vel at Apogee (Km/Hr)	Geocentric Lat of Perigee (Deg)	Spin Rate (Rpm)
27 Dec 66 12 00 00	0000/25 Dec 66 0000/31 Dec 66	42163.56	.00008	.31235	62.11425	152.44439	.0268	269.59110	.0134	1436.0038	0.0000	35781.436	35788.3545				97.40
02 Jan 67 12 00 00	0000/31 Dec 66 0000/06 Jan 67	42161.739	.00002	.29220	67.60429	154.53163	.0268	268.23495	.0134	1435.9365	0.0000	35782.617	35784.528				97.40
08 Jan 67 12 00 00	0000/06 Jan 67 0000/12 Jan 67	42160.817	.00012	.27245	71.89451	156.02494	.0268	268.71422	.0134	1435.8894	0.0000	35777.668	35787.634				97.40
13 Jan 67 12 00 00	0000/12 Jan 67 0000/19 Jan 67	42161.292	.00011	.25132	50.03191	185.48635	.0268	266.39859	.0134	1435.9136	0.0000	35778.396	35787.856				97.40
22 Jan 67 00 00 00	0000/19 Jan 67 1822/26 Jan 67	42155.420	.00011	.22359	307.20597	126.45008	.0268	257.31507	.0134	1435.7766	0.0000	35775.835	35778.5052				97.40
26 Jan 67 18 22 00	1722/26 Jan 67 1647/27 Jan 67	42133.173	.00041	.21112	210.09370	128.07792	.0268	263.44611	.0134	1435.0392	0.0000	35748.775	35783.238				97.40
27 Jan 67 16 47 00	1647/27 Jan 67 0632/28 Jan 67	42161.777	.00004	.21236	67.35442	259.47159	.0268	262.23333	.0134	1435.9384	0.0000	35781.861	35785.361				97.40
28 Jan 67 06 32 00	0632/28 Jan 67 0000/06 Feb 67	42173.349	.00020	.21514	339.08995	194.92605	.0268	261.87637	.0134	1436.5296	0.0000	35786.518	35803.847				97.40
05 Feb 67 00 00 00	0000/06 Feb 67 0000/12 Feb 67	42173.101	.00030	.20869	252.61546	195.65325	.0268	256.41485	.0134	1436.5170	0.0000	35782.419	35807.450				97.40
12 Feb 67 00 00 00	0000/12 Feb 67 0000/19 Feb 67	42174.082	.00027	.17711	278.28396	177.76779	.0268	254.88178	.0134	1436.5671	0.0000	35784.717	35807.113				97.40
25 Feb 67 10 40 00	0000/19 Feb 67 0000/05 Mar 67	42173.006	.00030	.15477	60.78529	214.92506	.0268	247.43624	.0134	1436.5121	0.0000	35782.121	35807.560				97.40
04 Mar 67 04 55 00	0000/05 Mar 67 0619/06 Mar 67	42170.504	.00038	.14335	356.18413	200.21970	.0268	246.73684	.0134	1436.3843	0.0000	35776.285	35808.390				97.40
06 Mar 67 05 19 00	0619/06 Mar 67 0000/12 Mar 67	42158.984	.00011	.13962	351.65807	212.80886	.0268	146.56198	.0134	1435.7957	0.0000	35776.261	35785.375				97.40
16 Mar 67 04 48 00	0000/12 Mar 67 0000/19 Mar 67	42156.976	.00059	.13295	44.80447	169.40050	.0268	239.89333	.0134	1435.6932	0.0000	35776.304	35781.315				97.50
18 Mar 67 04 48 00	0000/19 Mar 67 1430/23 Mar 67	42157.36	.00008	.126	30.218	186.760	.0268	239.31230	.0134	1435.71257	0.0000	35775.80	35782.58	11071	11069	00.015S	97.50
23 Mar 67 14 29 00	1430/23 Mar 67 0000/27 Mar 67	042165.30	.00016	.117	001.568	014.314	.0268	231.624	.0134	1436.11847	0.0000	35780.50	35793.76	11070	11067	00.029N	97.50
27 Mar 67 13 30 00	0000/27 Mar 67 2000/30 Mar 67	042166.71	.00019	.118	016.810	349.646	.0268	230.146	.0134	1436.19043	0.0000	35780.48	35796.60	11071	11066	00.021S	97.50
30 Mar 67 20 18 00	2000/30 Mar 67 0000/02 Apr 67	42165.044	.00012	.107	115.89366	355.460	.0268	230.69514	.0134	1436.1054	0.0000	35781.819	35791.938	11070	11067	00.010S	97.50
05 Apr 67 13 30 00	0000/02 Apr 67 0130/11 Apr 67	42164.09	.00013	.100	28.976	354.401	.0268	222.137	.0134	1436.05669	.0000	35780.63	35791.22	11070	11067	00.010S	97.50
11 Apr 67 01 15 00	0130/11 Apr 67 1400/15 Apr 67	42168.30	.00003	.094	173.347	031.633	.0268	222.271	.0134	143.271449	.0000	35788.80	35791.46	11069	11068	00.050N	97.50
15 Apr 67 13 58 00	1400/15 Apr 67 0000/23 Apr 67	42164.52	.00018	.381	82.074	286.869	.0268	253.403	.0134	1436.07861	.0000	35776.72	35793.99	11077	11067	00.365S	97.50
25 Apr 67 18 00 00	0000/23 Apr 67 1900/24 Apr 67	42167.68	.00015	.354	207.844	235.920	.0268	251.903	.0134	1436.23996	.0000	35783.04	35795.98	11070	11067	00.293S	95.65
25 Apr 67 18 21 00	1900/24 Apr 67 1900/25 Apr 67	42167.01	.00013	.366	216.803	227.252	.0268	254.340	.0134	1436.20574	.0000	35783.43	35794.25	11070	11067	00.268S	95.65
26 Apr 67 17 37 00	1900/25 Apr 67 1800/26 Apr 67	42167.22	.00011	.366	192.630	239.060	.0268	256.632	.0134	1436.21663	.0000	35784.35	35793.76	11070	11067	00.314S	95.65
27 Apr 67 17 08 00	1800/26 Apr 67 1715/27 Apr 67	42166.61	.00016	.368	206.318	224.688	.0268	251.005	.0134	1436.18537	.0000	35781.84	35795.04	11070	11067	00.259S	95.65
28 Apr 67 17 15 00	1715/27 Apr 67 1715/28 Apr 67	42165.57	.00013	.372	174.170	249.210	.0268	261.351	.0134	1436.13211	.0000	35781.89	35792.92	11070	11067	00.348S	95.65
29 Apr 67 17 08 00	1715/28 Apr 67 1715/29 Apr 67	42166.71	.00009	.375	165.964	254.621	.0268	263.375	.0134	1436.19046	.0000	35784.57	35792.52	11070	11067	00.362S	95.65
30 Apr 67 18 15 00	1715/29 Apr 67 1715/30 Apr 67	42169.75	.00010	.377	148.366	281.891	.0268	271.509	.0134	1436.34571	.0000	35787.45	35795.71	11069	11067	00.369S	95.31
01 May 67 17 15 00	1715/30 Apr 1715/01 May 67	42168.45	.00006	.387	158.999	262.216	.0268	266.450	.0134	1436.27952	.0000	35787.75	35792.83	11069	11068	00.383S	95.31
03 May 67 17 15 00	1715/01 May 67 1730/03 May 67	42169.01	.00011	.427	173.025	250.232	.0268	266.330	.0134	1436.30783	.0000	35786.01	35795.67	11069	11067	00.402S	95.31
04 May 67 17 15 00	1730/03 May 67 1715/04 May 67	42169.12	.00003	.385	116.126	303.598	.0268	270.815	.0134	1436.31338	.0000	35789.70	35792.19	11069	11068	00.321S	95.31
06 May 67 17 15 00	1715/04 May 67 0000/07 May 67	42168.67	.00005	.399	135.661	285.073	.0268	271.706	.0134	1436.29042	.0000	35788.22	35792.78	11069	11068	00.385S	95.31
08 May 67 17 15 00	0000/07 May 67 1715/10 May 67	42168.21	.00008	.400	118.177	301.339	.0268	274.822	.0134	1436.26702	.0000	35786.48	35793.61	11069	11067	00.342S	95.04
10 May 67 17 15 00	1715/10 May 67 0000/14 May 67	42167.17	.00008	.390	121.726	302.701	.0268	271.803	.0134	1436.21418	.0000	35785.52	35792.50	11069	11068	00.328S	95.04
15 May 67 00 00 00	0000/14 May 67 0000/21 May 67	42169.50	.00018	.423	216.353	300.938	.0268	284.292	.0134	1436.33305	.0000	35783.92	35798.75	11070	11066	00.363S	94.66
22 May 67 00 00 00	0000/21 May 67 1730/23 May 67	42168.48	.00008	.390	202.934	322.465	.0268	282.834	.0134	1436.28096	.0000	35786.73	35793.90	11069	11067	00.238S	94.57
23 May 67 17 00 00	1730/23 May 67 0000/28 May 67	42165.22	.00015	.395	152.183	270.054	.0268	282.611	.0134	1436.11415	.0000	35780.82	35793.28	11070	11067	00.395S	94.57
28 May 67 00 00 00	0000/28 May 67 0000/04 Jun 67	42166.19	.00016	.369	256.639	269.493	.0268	287.942	.0134	1436.16400	.0000	35781.25	35794.80	11070	11067	00.369S	94.51
04 Jun 67 00 00 00	0000/04 Jun 67 0017/06 Jun 67	42163.93	.00019	.354	235.334	297.353	.0268	288.362	.0134	1436.04860	.0000	35777.95	35793.58	11071	11067	00.314S	94.33
06 Jun 67 00 17 00	0017/06 Jun 67 2107/07 Jun 67	42166.33	.00016	.329	260.966	277.076	.0268	289.277	.0134	1436.17096	.0000	35781.62	35794.70	11070	11067	00.327S	94.33
07 Jun 67 21 07 00	2107/07 Jun 67 0000/11 Jun 67	42169.10	.00014	.313	249.964	238.900	.0268	292.791	.0134	1436.31254	.0000	35785.23	35796.63	11070	11067	00.268S	94.33
11 Jun 67 00 00 00	0000/11 Jun 67 0000/18 Jun 67	42168.65	.00018	.299	293.317	240.619	.0268	293.979	.0134	1436.28945	.0000	35782.76	35798.21	11070	11066	00.261S	94.33
18 Jun 67 00 00 00	0000/18 Jun 67 1800/23 Jun 67	42165.72	.00015	.280	290.611	249.889	.0268	294.208	.0134	1436.14007	.0000	35781.29	35793.82	11070	11067	00.263S	94.33
23 Jun 67 18 00 00	1800/23 Jun 67 0000/25 Jun 67	42164.47	.00022	.262	214.902	238.359	.0268	297.095	.0134	1436.07592	.0000	35777.22	35795.38	11071	11066	00.223S	94.33
25 Jun 67 18 00 00	0000/25 Jun 67 0000/01 Jul 67	42164.48	.00022	.262	214.485	238.716	.0268	297.155	.0134	1436.07662	.0000	35777.24	35795.40	11071	11066	00.224S	94.44

SECTION 3

METEOROLOGICAL DATA LOG

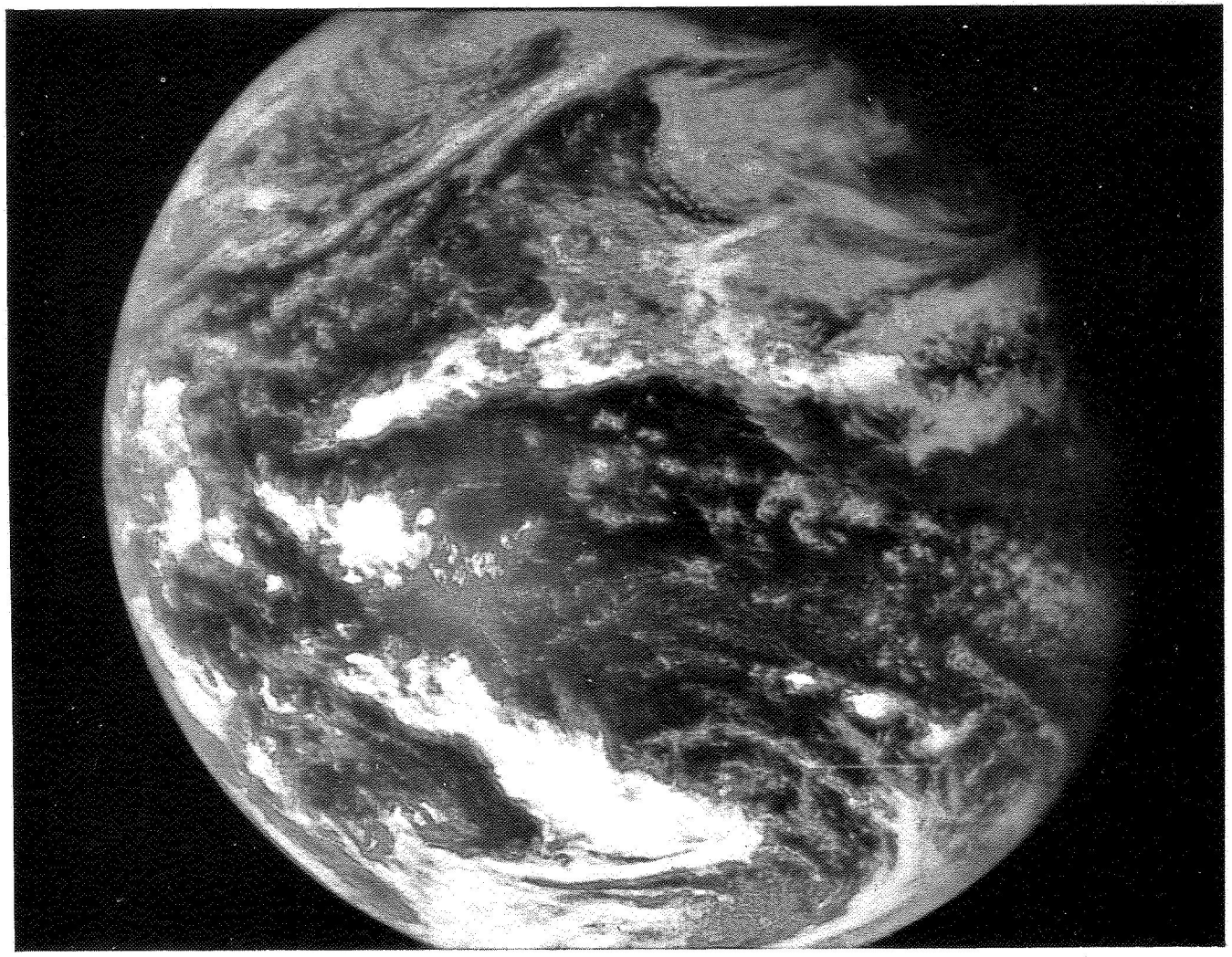
1 January 1967

through

30 June 1967

1 JAN 67 SUBSATELLITE PT 151.10W 00.06N TOTAL PICS 2

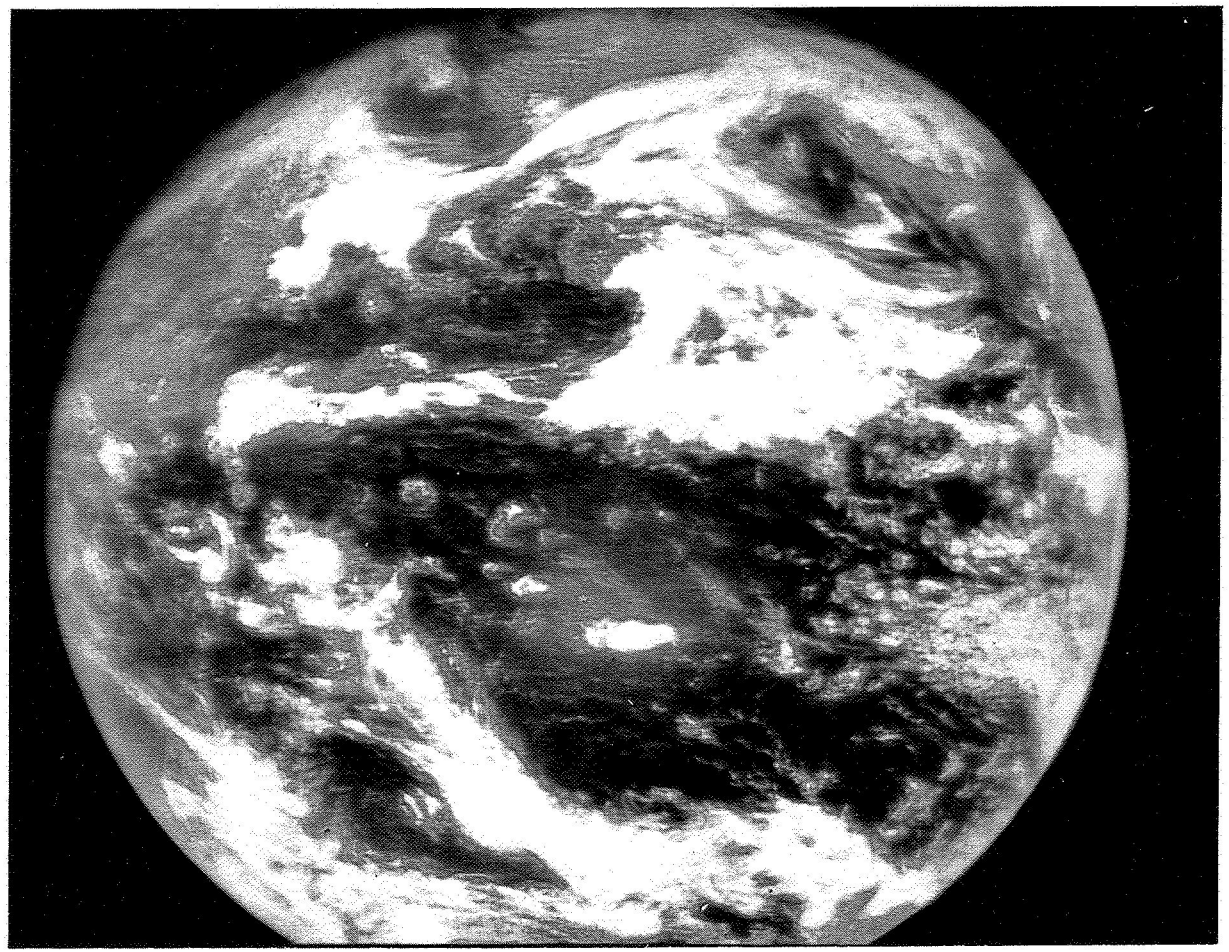
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 15 00	10	1001	1100M 2140A 2230G	
01	00 15 00	40	4000	1100A 2140A 2230A	
01	00 15 00	50	1000	1114G 1113G 2140A 2230C 4610C	
01	00 15 00	60	4001	1100A 2140A	
01	00 15 00	80	4000	1100A 4200A 2230A	AUSTRALIA
02	00 38 00	00	3001		



ATS-I 1 JANUARY 1967 00 15 00 UT SEQ 1

2 JAN 67 SUBSATELLITE PT 151.05W 00.06N TOTAL PICS 14

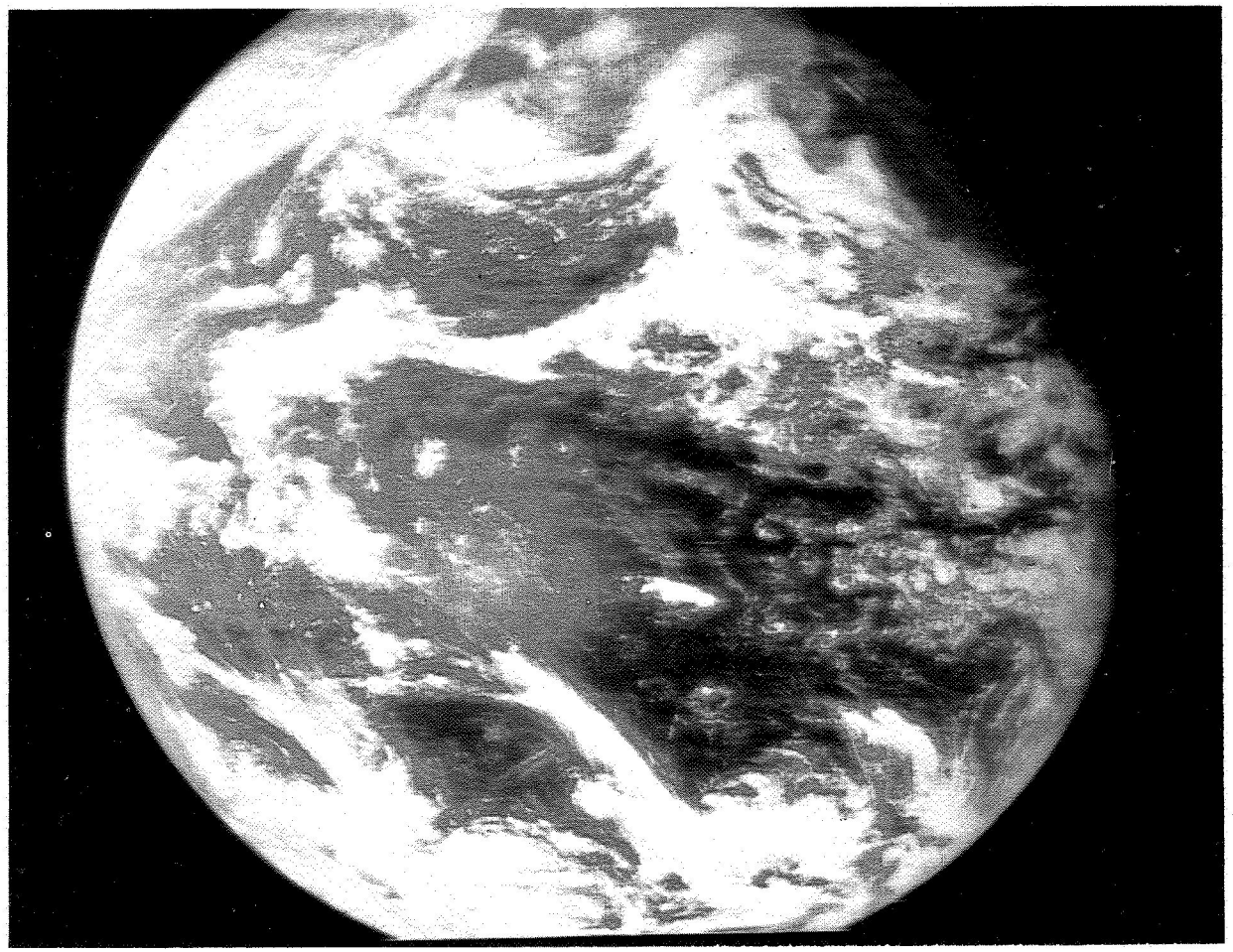
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	05 51 36	00	4501		
02	06 14 32	00	4501		
03	06 37 31	00	4501		
04	19 04 05	00	7000		
05	19 27 04	00	7000		
06	19 50 05	10	3002	1100H 2140A 2230G	
06	19 50 05	20	4000	2140A 4200A	MEXICO
06	19 50 05	40	5502	2230A	
06	19 50 05	50	1000	1100G 21401 3100B	
06	19 50 05	60	4000	2140A 2230A	
06	19 50 05	80	4002	2140A	
07	20 13 03	00	3002		
08	20 36 04	00	3002		
09	20 59 03	00	3002		
10	21 22 01	10	3000	1100H 2140A 3100G 4200H	USA
10	21 22 01	20	4000	2140A 1100A 4200A	
10	21 22 01	40	4000	2140A 2230A	
10	21 22 01	50	1000	1100G 21401 3150C	
10	21 22 01	60	4000	2140A 2230A	
10	21 22 01	80	4000	2140A 1100A 4200A	AUSTRALIA
11	21 45 00	00	3000		
12	22 07 59	00	3000		
13	23 25 43	00	1001		
14	23 48 42	10	1001	2140A 1100H 3150E	
14	23 48 42	20	5001	5000A	
14	23 48 42	40	4000	2140A	
14	23 48 42	50	1000	21401 3150C	
14	23 48 42	60	4001		
14	23 48 42	80	1000	2140A	



ATS-I 2 JANUARY 1967 21 22 01 UT SEQ 10

3 JAN 67 SUBSATELLITE PT 151.00W 00.07N TOTAL PICS 15

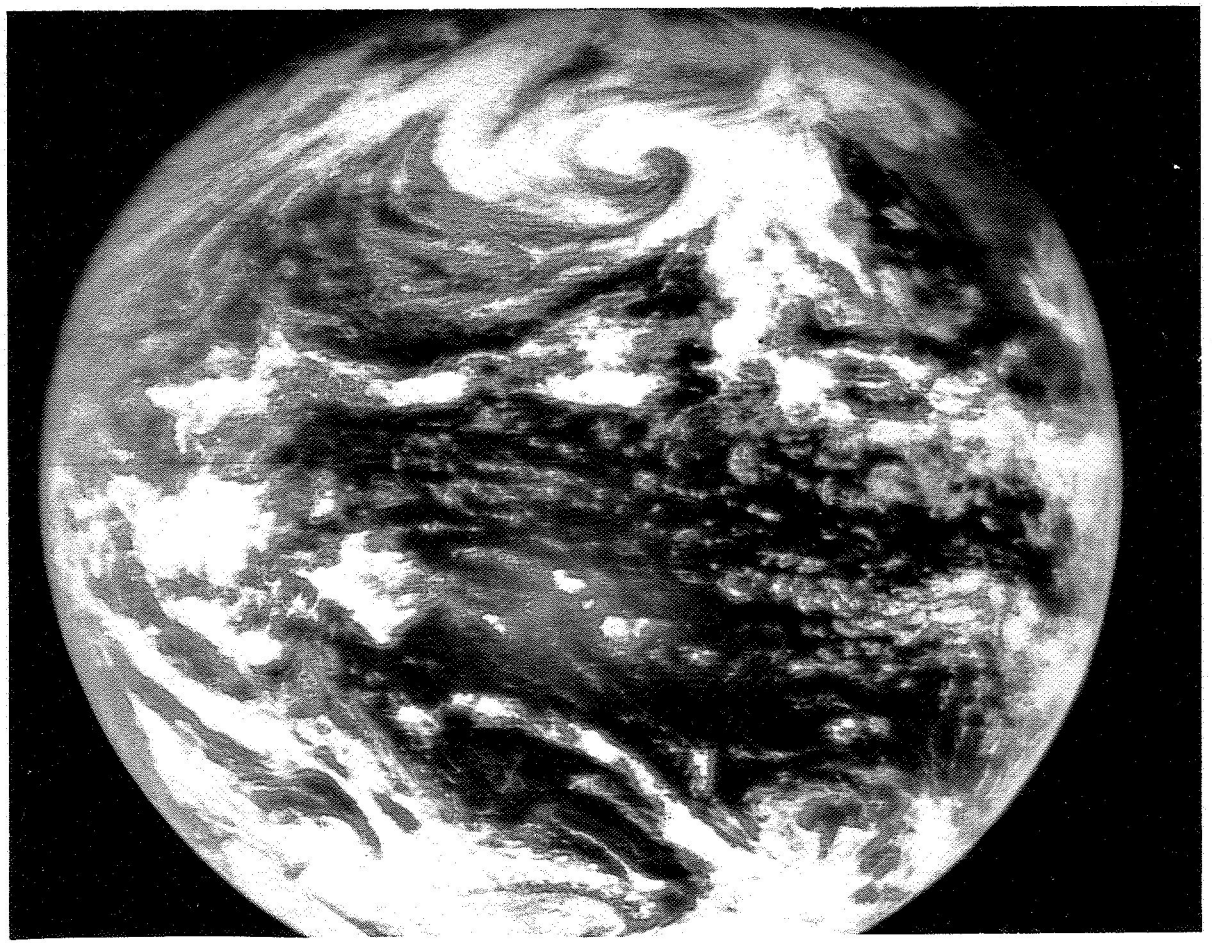
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 11 41	00	1001		
02	02 35 50	10	4001	1100C 2140H 2220D	
02	02 35 50	40	1000	2140A 2220A	
02	02 35 50	50	4001	1100G 2140I 3150C 4610C	
02	02 35 50	80	1000	2140A 2140A 4610A 4200A	AUSTRALIA
03	02 58 51	00	5001		
04	03 21 50	00	5001		
05	05 46 41	00	5001		
06	06 09 56	00	5001		
07	06 32 40	00	5001		
08	14 41 07	00	5002		
09	15 04 03	00	5002		
10	15 27 03	00	5002		
11	17 39 20	00	4002		
12	18 02 20	10	3002	1100B 2220G 4200H 3100A	
12	18 02 20	20	3000	2140A 4200A	
12	18 02 20	50	1000	2140A 4610B	
12	18 02 20	60	4000	2140A	
12	18 02 20	80	5002	1100A 2140A 3150A	
13	18 25 19	00	3502		
14	23 35 12	10	3001	1100C 1100H 2140A	
14	23 35 12	20	5001	5000A	
14	23 35 12	40	5000	2140A	
14	23 35 12	50	1000	1100G 2140A 2220F 4610C	
14	23 35 12	60	5001	2140A	
14	23 35 12	80	3000	2140A 1100A 3150A 4200A 4610C	AUSTRALIA
15	23 58 08	00	3001		



ATS-1 3 JANUARY 1967 23 35 12 UT SEQ 14

4 JAN 67 SUBSATELLITE PT 150.94W 00.07N TOTAL PICS 19

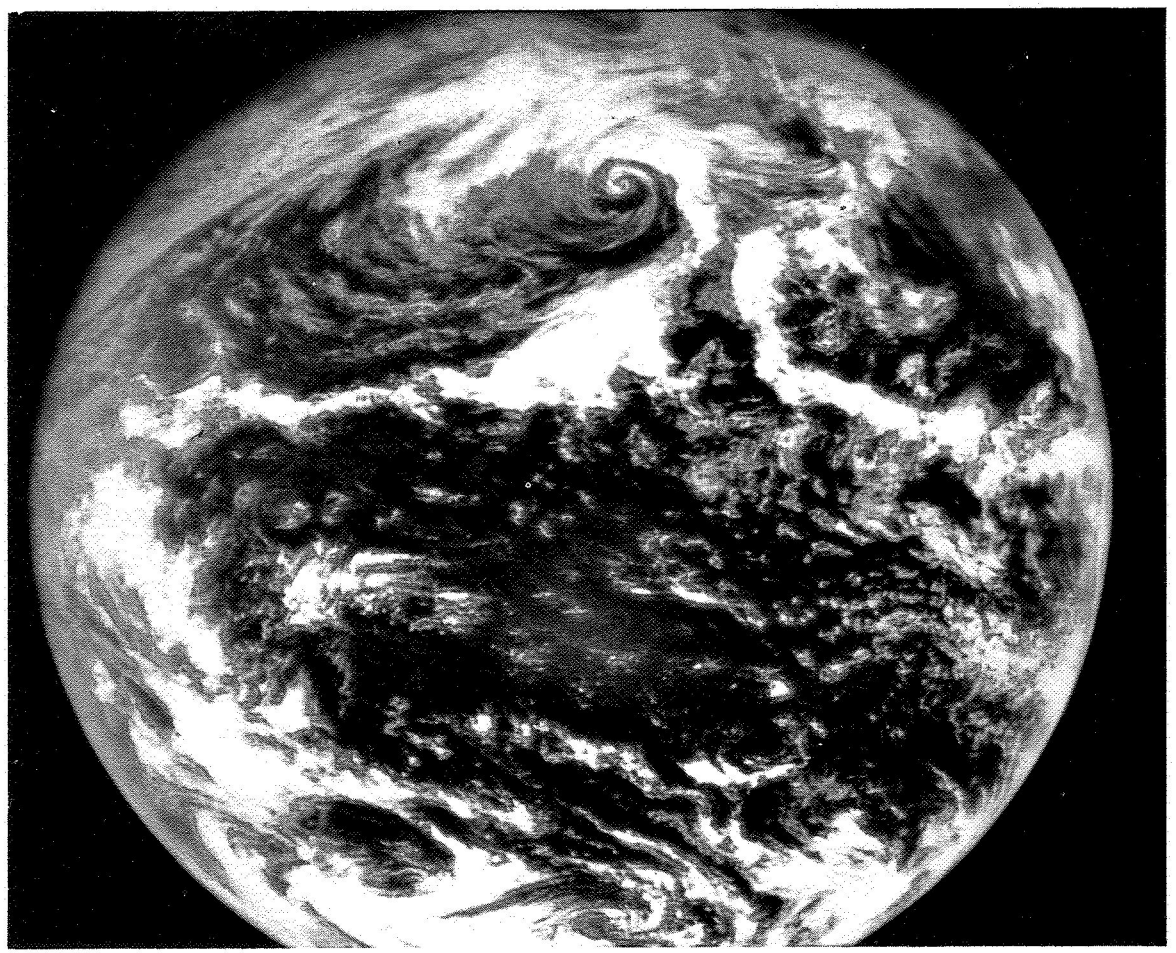
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 04 00	00	4501		
02	00 12 00	00	1500		
03	00 21 08	10	1001	1100F 2140A 3100D	
03	00 21 08	40	4000	2140A	
03	00 21 08	50	1000	1100G 2140G 2140F 3100F 4610C	
03	00 21 08	60	4001	1100A 3100A	
03	00 21 08	80	4000	1100A 2140A 1100A 3100A 4200A	AUSTRALIA
04	02 42 11	00	4001		
05	03 05 09	00	4001		
06	03 28 09	00	4001		
07	05 34 13	00	4001		
08	05 57 14	00	4001		
09	06 20 10	00	4001		
10	17 51 30	00	5002		FILM PROBLEM
11	18 11 28	00	4002		PIC OFF CNTR
12	18 32 00	00	4002		PIC OFF CNTR
13	19 52 18	10	3002	2140A 1114A 3100D 4710H	
13	19 52 18	20	3000	2140A 4200A	N AND C AMER
13	19 52 18	40	5002	5000A	
13	19 52 18	50	1000	2140A 1114D 3100C	
13	19 52 18	60	4000	3100A	
13	19 52 18	80	4002	1100A 2140A 4200A 3100A	
14	20 15 20	00	3002		
15	20 38 20	00	3002		
16	21 01 20	00	3002		
17	21 24 33	00	3002		SYNC OFFSET
18	21 47 40	10	1000	2140A 1100H 3100A 4710H	
18	21 47 40	20	4000	2140A 4200A	N AND C AMER
18	21 47 40	40	4002	2140A 3100A	
18	21 47 40	50	1000	2230B 2140G 2140C 1114D 31001 4610C	
18	21 47 40	60	4000	2140A 3100A 2230A	
18	21 47 40	80	4002	1100A 2140A 2230A 3100A 4200A	AUSTRALIA
19	23 38 27	00	4002		



ATS-1 4 JANUARY 1967 21 47 40 UT SEQ 18

5 JAN 67 SUBSATELLITE PT 150.88W 00.08N TOTAL PICS 17

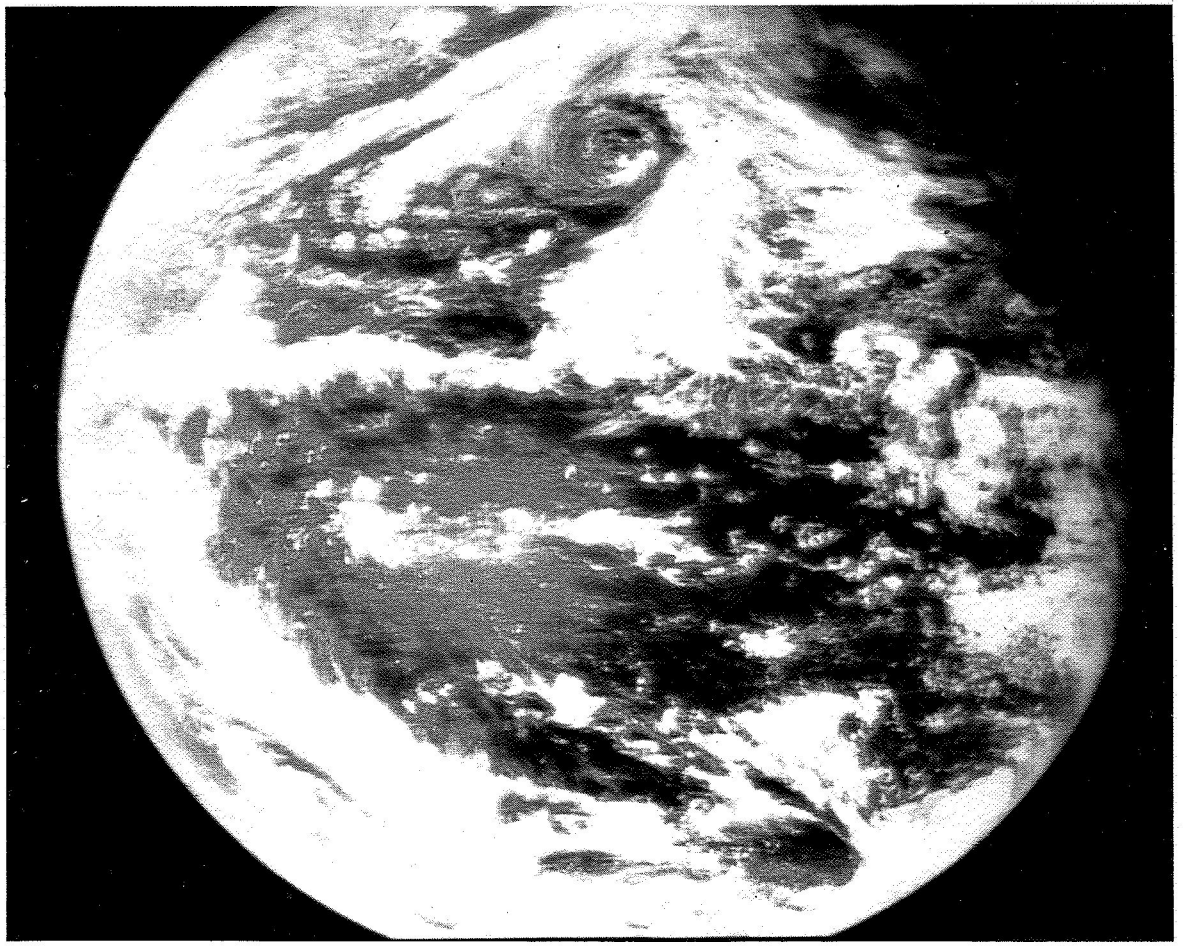
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 01 17	00	4001		
02	00 24 17	10	1001	1100F 2140A 2230G 3100D	
02	00 24 17	40	4000	2140A 3100A	
02	00 24 17	50	1000	1100G 2140A 2230F 3100A	
02	00 24 17	60	4001	2140A 2230A	
02	00 24 17	80	1000	2140A 2230A 1100A 4200A	AUSTRALIA
03	02 37 45	00	1001		
04	03 00 45	00	1001		
05	03 23 44	00	1001		SYNCTEAR
06	05 34 23	00	4001		DBLEIMAGE
07	05 57 19	00	1001		
08	06 20 19	00	1001		
09	14 52 29	00	1002		
10	15 15 20	00	1002		
11	15 38 25	00	3002		SYNCTEAR
12	17 39 31	00	4502		
13	20 14 53	10	1000	1100F 2140A 2230G 4710H	USA
13	20 14 53	20	4000	2140A 2230A	
13	20 14 53	40	5002	2140A 2230A	
13	20 14 53	50	1000	1100G 2140G 2230C 3100I	
13	20 14 53	60	1000	3100A	
13	20 14 53	80	4000	1100A 2140A 4200A	AUSTRALIA
14	20 38 00	00	4002		PICOFFCNTR
15	21 00 30	00	4002		
16	21 23 50	10	1000	1100F 2140A 2230G 4710H	USA
16	21 23 50	20	4000	1100A 2140A 2230A 4000A	MEXICO
16	21 23 50	40	4000	2140A 2230A	
16	21 23 50	50	1000	1100G 2140A 2230C	
16	21 23 50	60	4000	2140A 3100A	
16	21 23 50	80	4000	1100A 2140A 2230A 4200A	AUSTRALIA
17	21 46 50	00	4000		



ATS-1 5 JANUARY 1967 21 23 50 UT SEQ 16

6 JAN 67 SUBSATELLITE PT 150.82W 00.08N TOTAL PICS 13

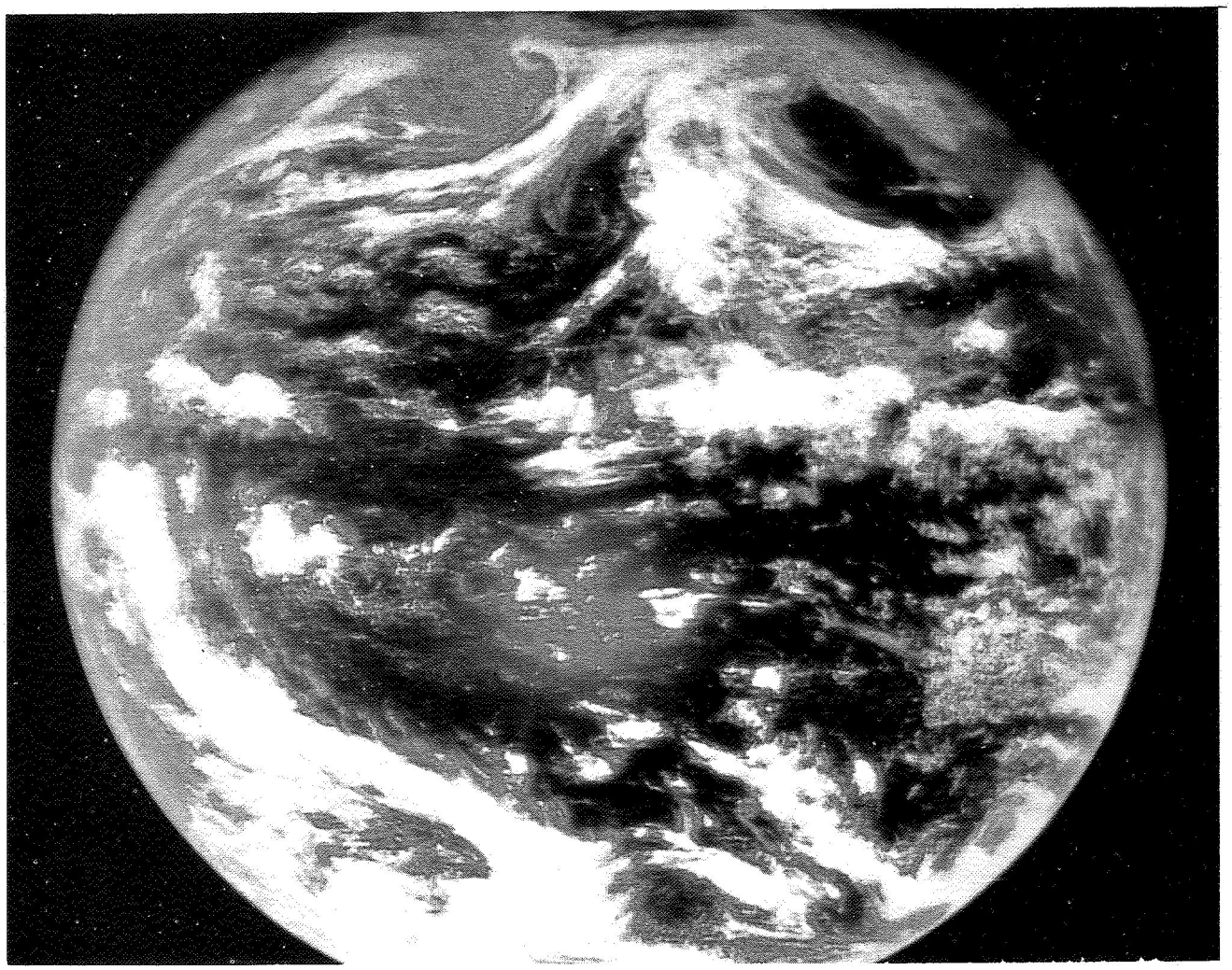
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 41 53	10	1001	2140H 1100B 2230G	
01	02 41 53	40	4000	2140A 2230A	
01	02 41 53	50	1001	1100G 2140C 2140G 3100C	
01	02 41 53	80	4000	1100A 2140A 2230A	
02	03 05 08	00	1001		
03	03 27 52	00	1001		
04	05 36 36	00	4001		
05	05 59 33	00	4001		
06	06 22 33	00	4001		
07	20 05 17	00	4502		DOUBLE IMAGE
08	20 28 16	10	1000	1100A 2140A 2230G 4200H	USA
08	20 28 16	20	4000	1100A 2140A 4200A	CNTRLAMERICA
08	20 28 16	40	4002	2140A 2230A	
08	20 28 16	50	1000	1100G 2140A 2230F	
08	20 28 16	60	4000	1100A	
08	20 28 16	80	1002	1100A 2140A 4200A	AUSTRALIA
09	20 51 15	00	3002		
10	21 14 12	00	4000		
11	21 37 10	00	4000		
12	23 26 04	10	1000	1100A 2140A 2230A 3100D	
12	23 26 04	20	5001	5000A	
12	23 26 04	40	4000	2140A 2230A	
12	23 26 04	50	1000	1100G 2140A 2230F 4610C	
12	23 26 04	60	4000	1100A	
12	23 26 04	80	1000	1100A 2140A 4200A	AUSTRALIA
13	23 49 13	00	1001		



ATS-1 6 JANUARY 1967 23 26 04 UT SEQ 12

7 JAN 67 SUBSATELLITE PT 150.76W 00.08N TOTAL PICS 32

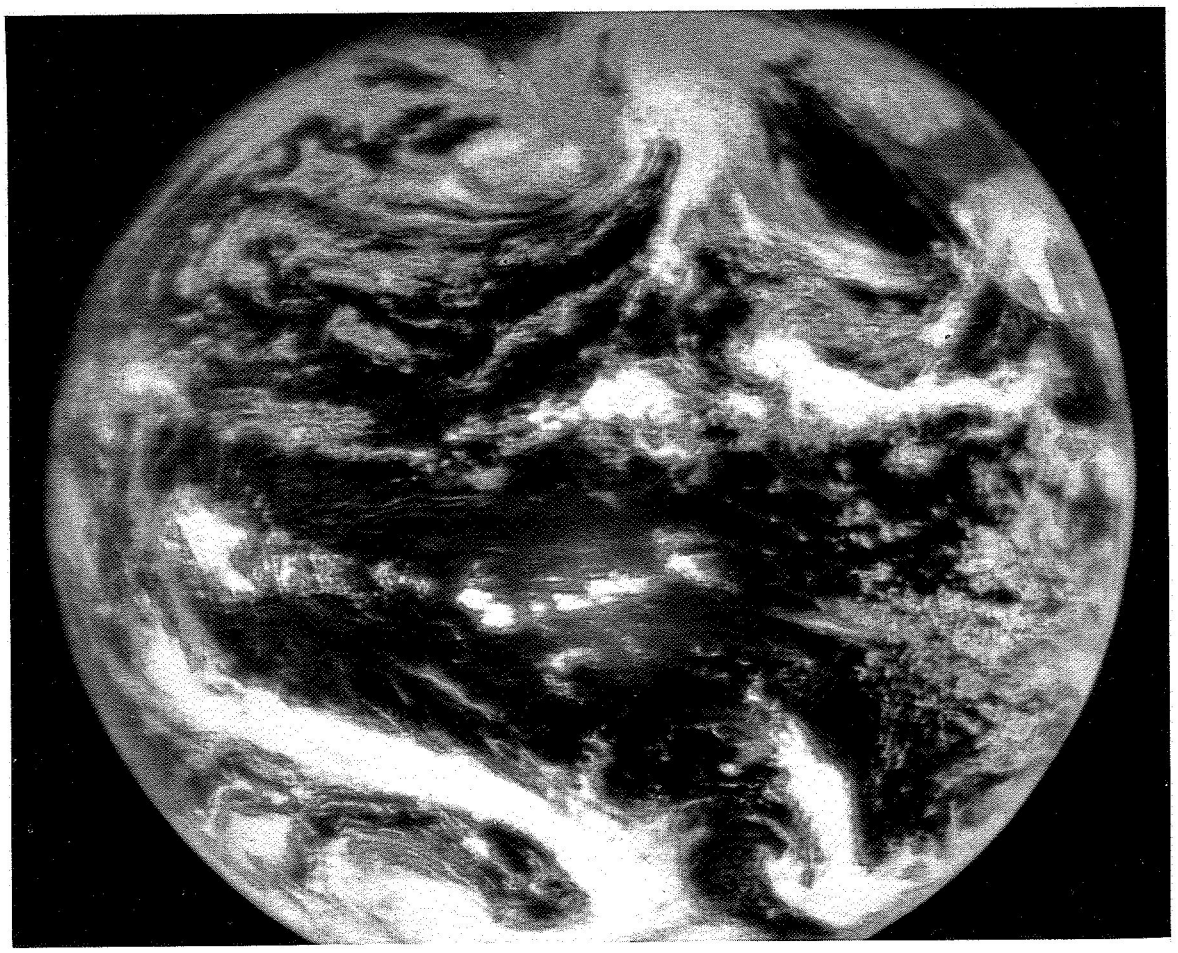
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 12 07	00	4001		
02	02 55 58	10	1000	2140I 2230G	
02	02 55 58	40	4000	2140A 2230A	
02	02 55 58	50	1001	2230C 2140I 3100I 3100E	
02	02 55 58	80	1000	2140A 1100A 3100A	
03	03 18 58	00	1001		
04	03 41 56	00	1501		SYNC OFFSET
05	05 37 10	00	3001		
06	06 00 10	00	4001		BAD FILM
07	14 11 02	00	1002		
08	14 34 00	00	3002		
09	14 57 00	00	3002		
10	15 20 00	00	4502		
11	15 42 45	00	1002		
12	16 05 45	00	1002		
13	16 28 45	00	3002		
14	16 51 41	00	3002		
15	17 14 40	00	3002		
16	17 37 38	10	1100	2140H 2230G	
16	17 37 38	20	3002	2140A 4200A	
16	17 37 38	50	1002	2140A 3100C 2230B	
16	17 37 38	60	1000	2140A	
16	17 37 38	80	1002	2140A 1100A	
17	18 00 40	00	3002		
18	18 23 38	00	3002		
19	18 46 38	00	3002		
20	19 09 37	00	3002		
21	19 32 36	00	3002		
22	19 55 40	00	3002		
23	20 18 32	00	3002		
24	20 41 30	00	3002		
25	21 04 31	00	3002		
26	21 27 30	00	3000		
27	21 50 26	00	3002		
28	22 13 25	10	3000	2140A 1100I 2230G 3100A	
28	22 13 25	20	4000	2140A 2230A	
28	22 13 25	40	4000	1100A 2140A	
28	22 13 25	50	1000	2140A 3100A	
28	22 13 25	60	1000	2140A 2230A	
28	22 13 25	80	1000	1100A 2140A	
29	22 36 30	00	3000		
30	22 59 26	00	3000		
31	23 22 23	00	3001		
32	23 45 23	00	3001		



ATS-I 7 JANUARY 1967 22 13 25 UT SEQ 28

8 JAN 67 SUBSATELLITE PT 150.69W 00.08N TOTAL PICS 29

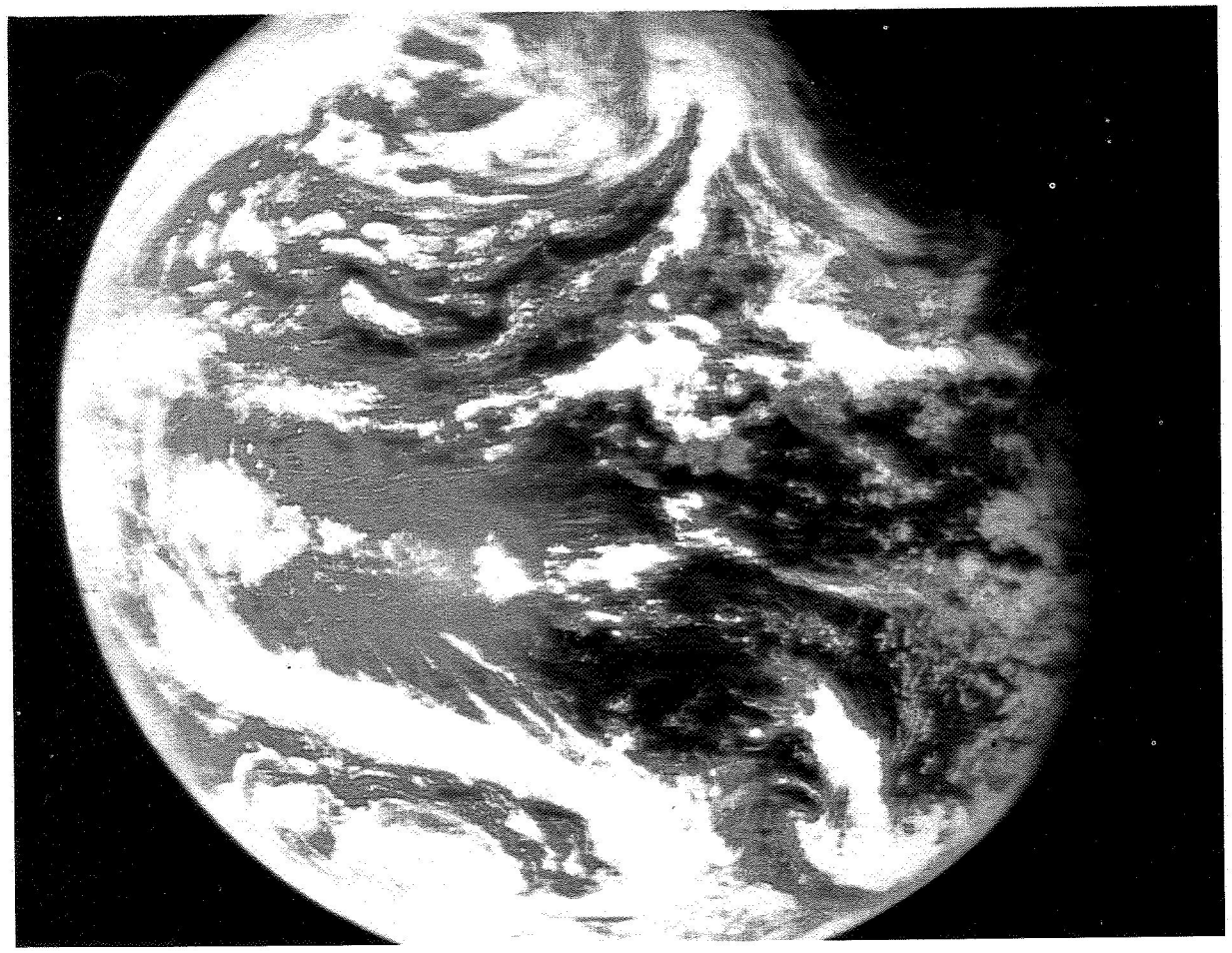
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 08 20	00	1001		
02	00 31 05	10	1001	1100C 2140A 2230G 3100D	
02	00 31 05	40	4000	2140A 2230A	
02	00 31 05	50	4000	1100D 2140A 3100F	
02	00 31 05	60	4001	2140A	
02	00 31 05	80	4000	1100A 2140A 4200A	
03	00 54 18	00	4001		
04	01 17 17	00	4001		
05	01 40 13	00	4001		
06	02 03 16	00	4001		
07	02 26 13	00	4001		
08	02 49 12	00	4001		
09	03 12 12	10	4001	1100C 2140I 2230G	
09	03 12 12	40	4000	1100A 2140A 2230A	
09	03 12 12	50	1001	1100D 2140I	
09	03 12 12	80	4000	1100A 2140A 2230A 4200A	
10	03 35 11	00	4001		
11	03 58 10	00	3001		
12	04 21 04	00	4001		
13	04 44 10	00	7000		
14	04 57 53	00	5001		
15	05 26 00	00	4001		SYNC PROBLEM
16	05 43 52	00	5001		
17	06 06 51	00	5001		
18	06 29 50	00	5001		
19	14 44 40	00	1002		
20	15 06 27	00	1002		
21	15 29 27	00	4002		
22	19 58 15	00	4002		PICOFFSET
23	20 21 14	00	3002		
24	20 44 13	00	3002		
25	21 07 12	00	4002		
26	21 29 12	10	3000	1100F 2140A 2230E 3100G 4200H	USA
26	21 29 12	20	4000	2140A 4200A	MEXICO
26	21 29 12	40	4000	2140A	
26	21 29 12	50	1000	1100G 2140A 2230C 3100C	
26	21 29 12	60	4000	2140A	
26	21 29 12	80	4000	1100A 2140A 2230A 4200A	AUSTRALIA
27	21 53 23	00	4000		DISTORTEDPIC
28	23 24 20	00	3000		
29	23 47 17	00	3001		



ATS-I 8 JANUARY 1967 21 29 12 UT SEQ 26

9 JAN 67 SUBSATELLITE PT 150.62W 00.09N TOTAL PICS 9

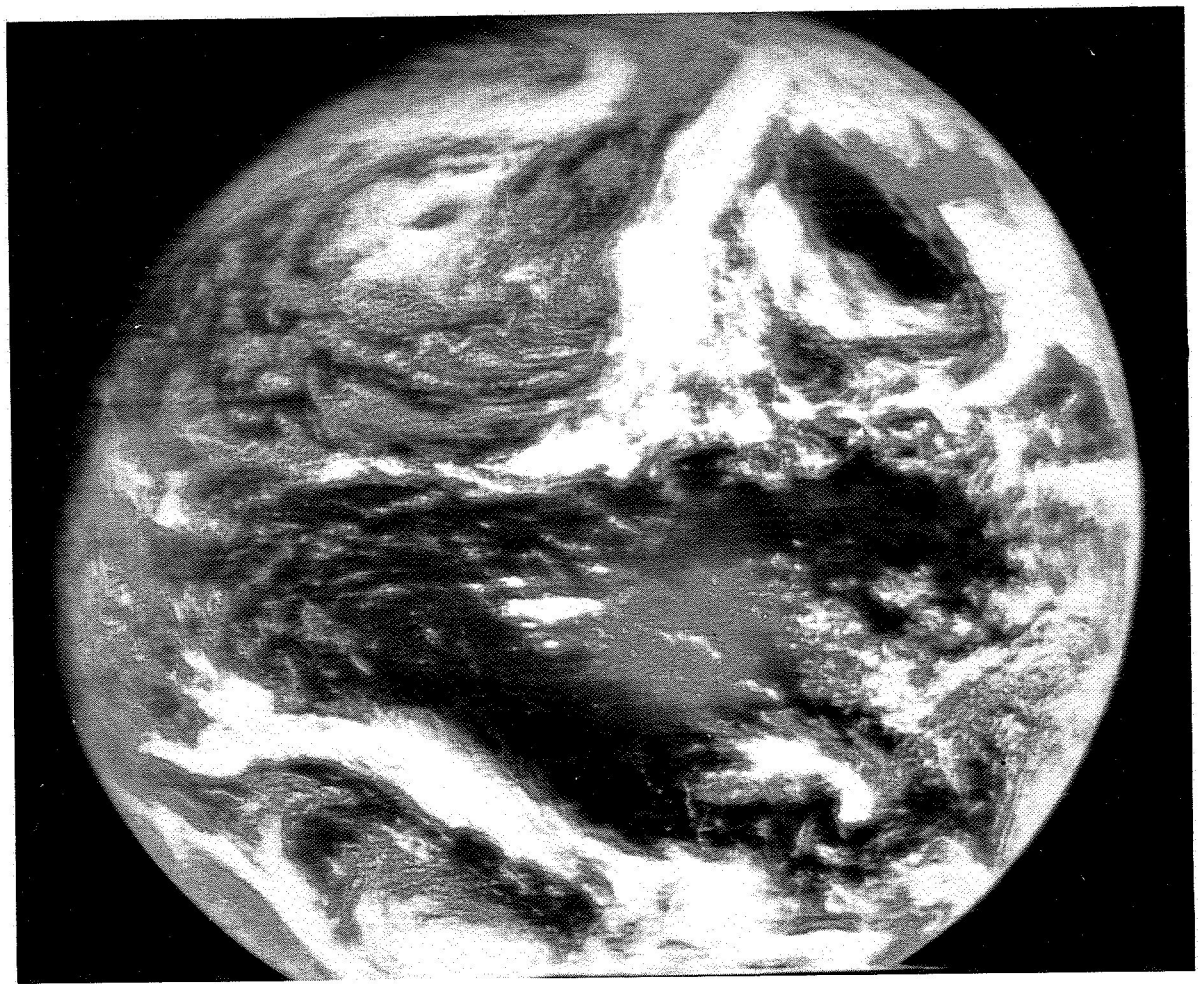
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 10 14	10	1001	1100F 2140A 2230G 3100G	
01	00 10 14	40	4000	1100A 2140A 2230A	
01	00 10 14	50	1000	1100G 2140A 3100A 4610C	
01	00 10 14	60	4001	2140A	
01	00 10 14	80	4000	1100A 2140A 4200A	AUSTRALIA
02	05 47 18	00	4001		
03	06 10 18	00	4001		
04	06 32 24	00	4001		
05	14 40 02	00	4002		
06	15 03 02	00	4002		
07	15 26 02	10	4002	2140H 2230H 4200A	USA
07	15 26 02	20	4000	2140A 2230A 4200A	C AMERICA
07	15 26 02	50	1002	1100H 2140H 2230H	
07	15 26 02	60	4000	1100A 2140A 2230A	
08	23 31 16	00	7000		
09	23 54 15	00	7000		



ATS-I 9 JANUARY 1967 00 10 14 UT SEQ 1

10 JAN 67 SUBSATELLITE PT 150.55W 00.09N TOTAL PICS 7

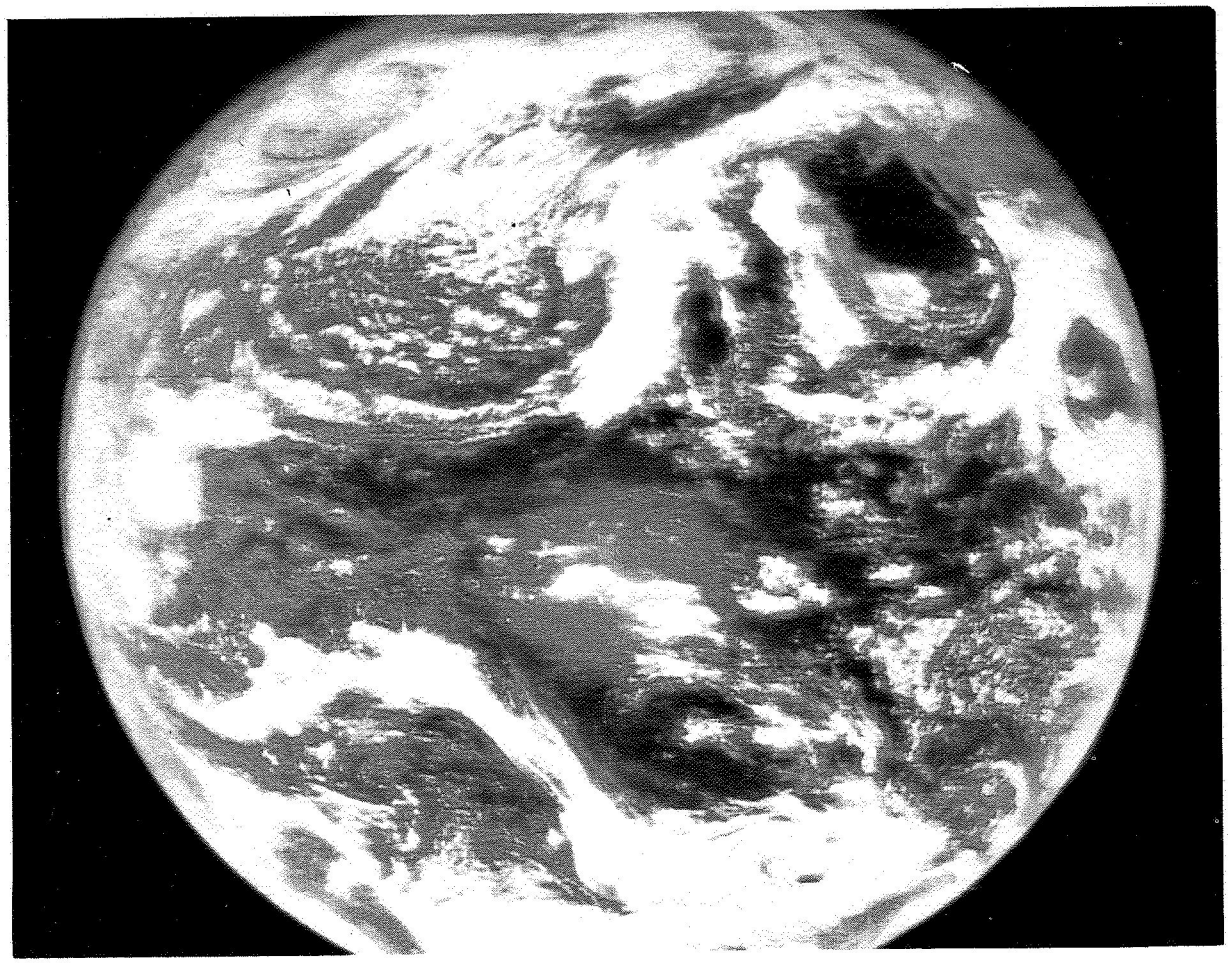
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 17 52	00	7000		
02	02 42 32	00	1001		EE
03	03 05 33	10	1001	2140H 2220G 3100D	
03	03 05 33	40	1000	1100A 2140A 2230A	
03	03 05 33	50	1001	1100D 2140K 3100C 4610C	
03	03 05 33	80	3000	2140A 1100A 2230A 4200A 4610A	AUSTRALIA
03	03 05 33	90	5000	5000A	
04	03 28 28	00	1001		
05	06 33 40	00	3001		
06	20 08 21	00	3002		
07	20 31 18	10	3000	1100F 2140A 2220G 3100G 4200H	USA
07	20 31 18	20	3000	1100A 2140A 4200A	CNTRL AMERICA
07	20 31 18	40	4002	2140A 2220A	
07	20 31 18	50	1000	1100G 2140K 2230F 4610F	
07	20 31 18	60	4000	2140A 2230A	
07	20 31 18	80	3000	2140A 2230A 3100A 4200A	AUSTRALIA



ATS-I 10 JANUARY 1967 20 31 18 UT SEQ 7

11 JAN 67 SUBSATELLITE PT 150.48W 00.10N TOTAL PICS 13

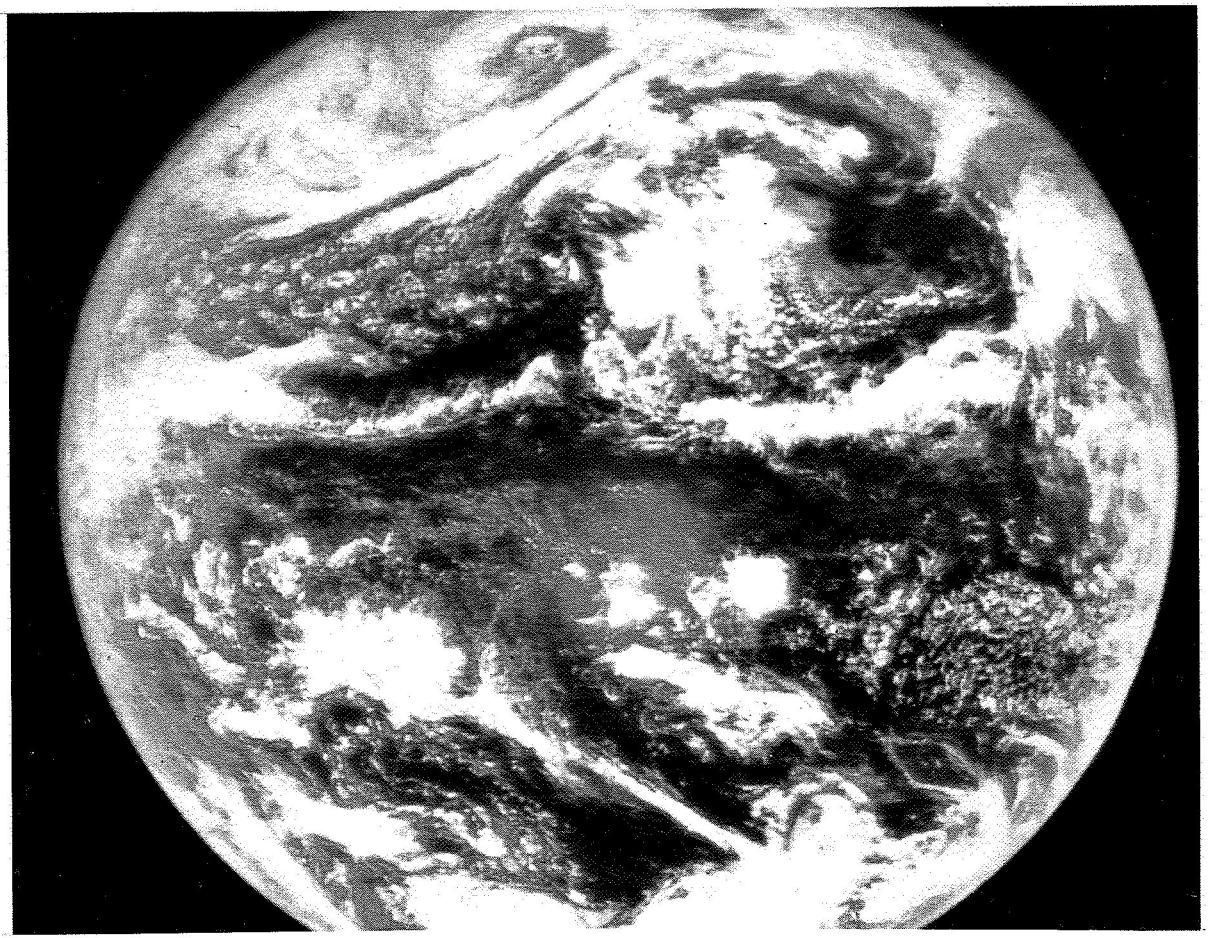
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 29 53	10	4001	2140I 2230I	
01	03 29 53	40	4000	2140A 1100A 2230A	
01	03 29 53	50	1001	1100G 2140K 2230C 3100I	
01	03 29 53	80	4000	1100A 2140A 2230A	
02	05 43 31	00	4001		
03	06 06 31	00	4001		
04	06 29 30	00	7000		
05	17 44 50	10	3002	1100H 2140A 2230E 4710H	USA
05	17 44 50	20	1000	1100A 2140A 2230A	
05	17 44 50	50	1002	1100G 2140K 2230B 3100I	
05	17 44 50	60	4000	2230A 2140A	
05	17 44 50	80	4002	1114A 2140A	
06	18 07 40	00	7000		
07	18 30 49	00	3002		
08	18 53 45	00	7000		
09	20 39 10	00	3002		SYNC TEARS
10	21 02 17	00	3002		
11	21 25 15	00	3002		
12	21 48 12	10	3000	1100F 2140A 2230G 3100A 4710H	USA
12	21 48 12	20	4000	1100A 2140A 2230A	
12	21 48 12	40	4000	1100A 2140A 2230A	
12	21 48 12	50	1000	1100G 2140A 2230F 4610C	
12	21 48 12	60	4000	1100A 2140A 2230A	
12	21 48 12	80	3000	1100A 2140A 2230A 4200A	AUSTRALIA
13	22 11 10	00	3500		USA



ATS-I 11 JANUARY 1967 21 48 12 UT SEQ 12

12 JAN 67 SUBSATELLITE PT 150.41W 00.10N TOTAL PICS 18

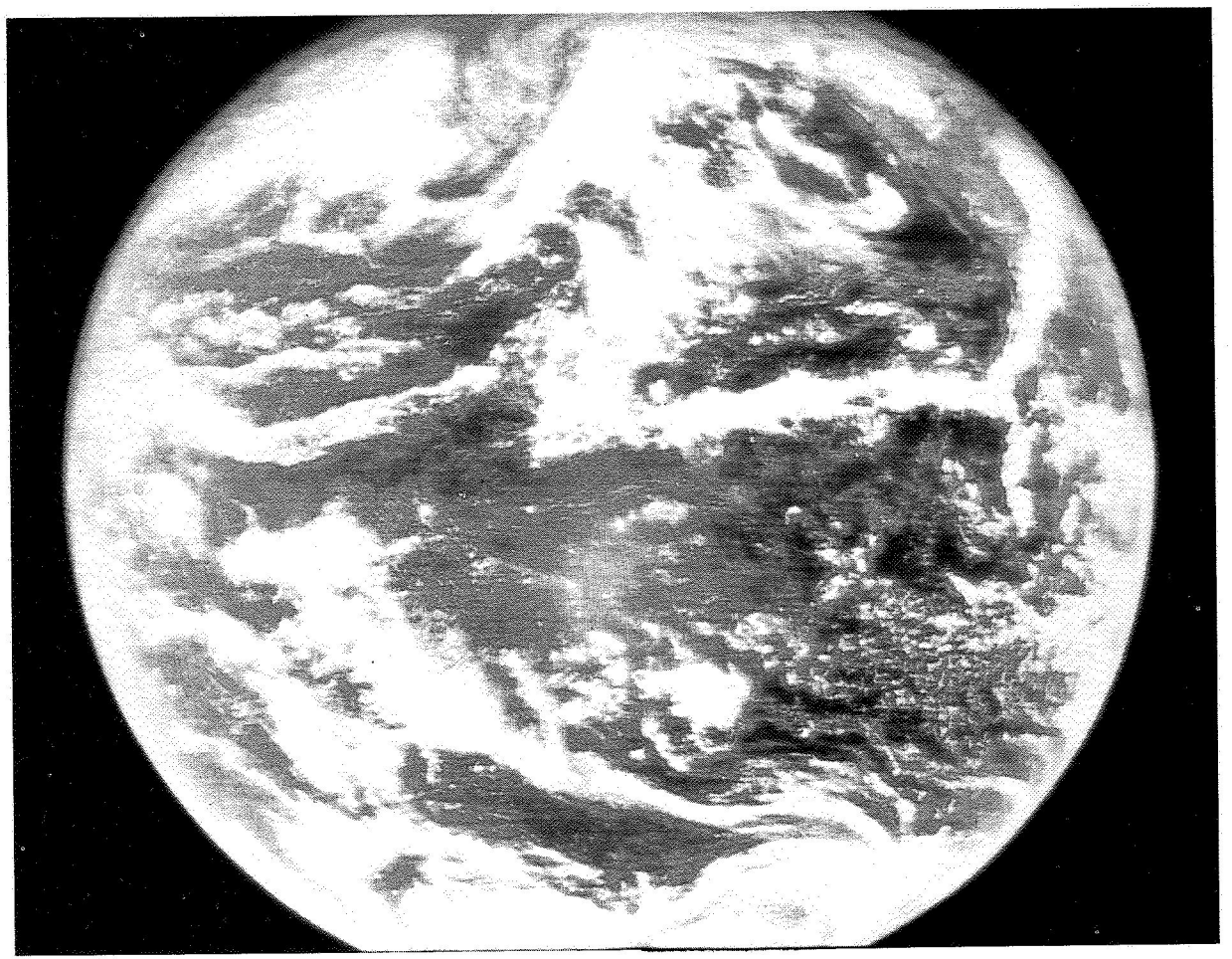
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 45 20	10	1001	2140I 2230G 1100C	
01	02 45 20	40	4000	1100A 2140A 2230A	
01	02 45 20	50	1001	2140I 1100D 4610C 2230C	
01	02 45 20	80	4000	2140A 2230A 4200A 4610A	AUSTRALIA
01	02 45 20	90	5000	5000A	
02	03 08 19	00	4001		
03	03 31 18	00	4001		
04	03 54 18	00	4001		
05	05 48 49	00	4001		
06	06 20 11	00	4001		
07	06 43 10	00	4001		
08	20 01 05	00	4002		DBLEIMAGE
09	20 24 01	10	3000	1100F 2140A 2220G 4710H	USA
09	20 24 01	20	3000	2140A 4200A	MEXICO
09	20 24 01	40	4002	2220A 2140A	
09	20 24 01	50	1000	1100G 2140A 2230F	
09	20 24 01	60	1000	1100A 2140A	
09	20 24 01	80	4002	2140A 2230A 4200A	AUSTRALIA
10	20 46 58	00	5000		XX
11	21 15 00	00	3500		
12	21 25 40	00	3000		
13	21 48 33	10	3000	1114C 1113B 2140A 2220G	
13	21 48 33	20	4000	2140A 4200A 2230A	
13	21 48 33	40	4000	1110A 2140A 2220A	
13	21 48 33	50	1000	1100G 2140A 2230F 4610C	
13	21 48 33	60	4000	2140A	
13	21 48 33	80	4000	2140A 2230A 4200A	AUSTRALIA
14	22 11 33	00	3000		
15	22 34 30	00	3001		
16	22 55 25	00	3001		
17	23 20 27	00	3001		
18	23 43 26	00	3001		



ATS-I 12 JANUARY 1967 21 48 33 UT SEQ 13

13 JAN 67 SUBSATELLITE PT 150.34W 00.11N TOTAL PICS 22

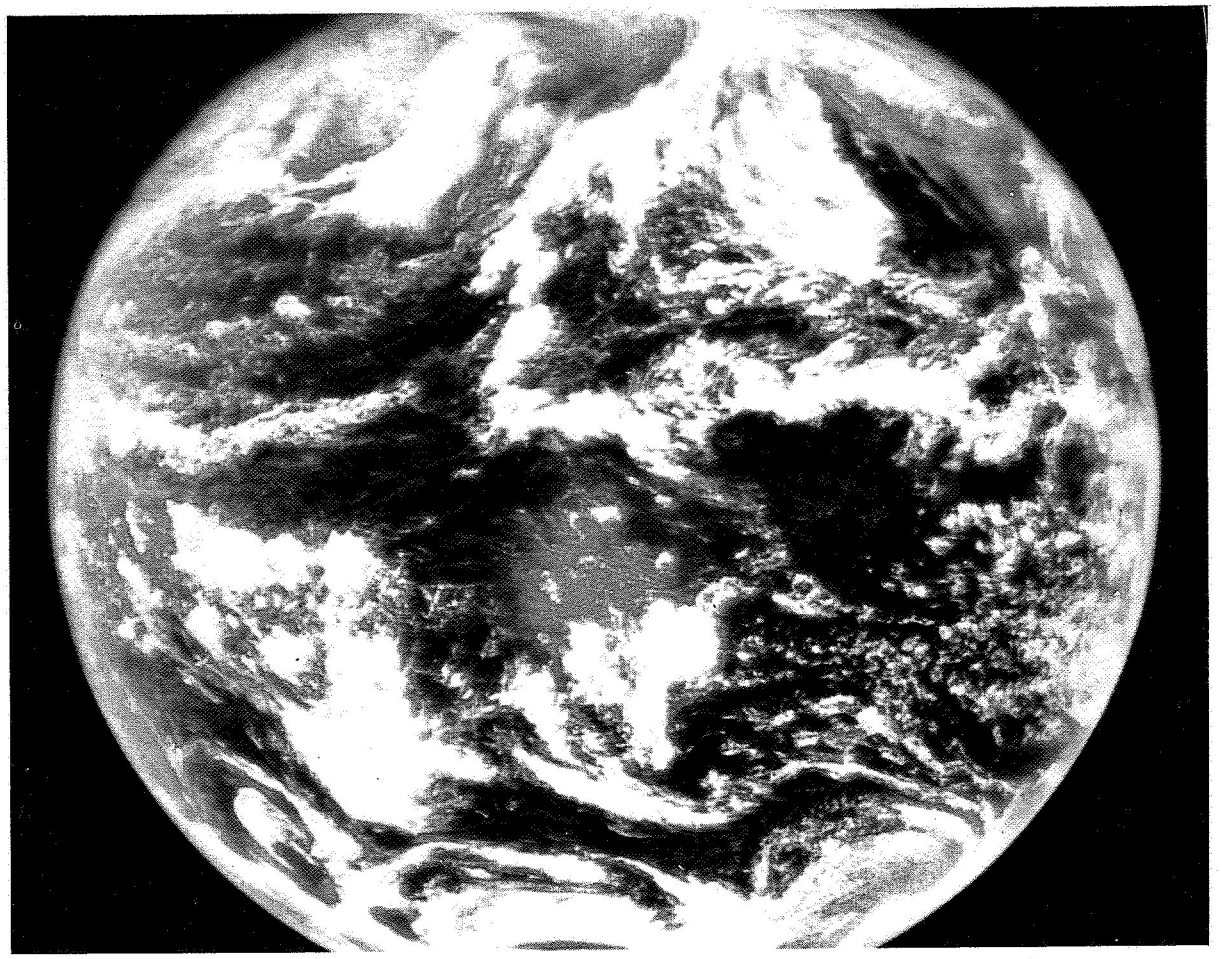
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 06 22	10	1001	1100F 2140A 2220G	
01	00 06 22	40	1000	1100A 2140A 2220A	
01	00 06 22	50	1000	1100G 2140A 2230F 4610C 3100A	
01	00 06 22	60	4001	1100A 2140A	
01	00 06 22	80	4000	2140A 2230A 3100A 4200A	AUSTRALIA
02	00 29 23	00	1501		
03	00 52 19	00	1001		
04	01 15 18	00	1001		
05	01 38 17	00	4501		
06	02 35 14	00	1001		
07	02 58 14	00	1001		
08	03 21 12	00	1001		
09	05 41 07	00	4001		
10	06 04 06	00	4001		
11	06 27 03	00	4001		
12	15 06 18	00	3002		
13	15 26 45	00	3002		
14	17 29 40	00	7000		
15	17 52 56	00	7000		
16	18 18 59	00	3502		EE
17	19 52 10	10	3000	1100F 2140A 2220G 3100E 4200H	
17	19 52 10	20	4000	1100A 2140A 4000A 2220A	EE MEXICO
17	19 52 10	40	4002	2140A 2220A	
17	19 52 10	50	1000	1100G 2140A 2230F 4610F	
17	19 52 10	60	1000	1100A 2140A	EE
17	19 52 10	80	4002	1100A 2140A 2230A 4200A	AUSTRALIA
18	20 15 08	00	3002		
19	20 38 15	00	3002		
20	21 01 10	00	7000		
21	21 24 00	00	3000		
22	21 47 03	10	3000	1114C 1113B 2140A 3100G 2220G 4200H	USA
22	21 47 03	20	3000	2140A 2230A 4200A	CNTRL AMERICA
22	21 47 03	40	4000	2140A 2230A	
22	21 47 03	50	1000	1114E 1113D 2140A 4610C	
22	21 47 03	60	4000	2140A 2230A	
22	21 47 03	80	3000	1100A 2140A 2230A	



ATS-I 13 JANUARY 1967 21 47 03 UT SEQ 22

14 JAN 67 SUBSATELLITE PT 150.26W 00.12N TOTAL PICS 15

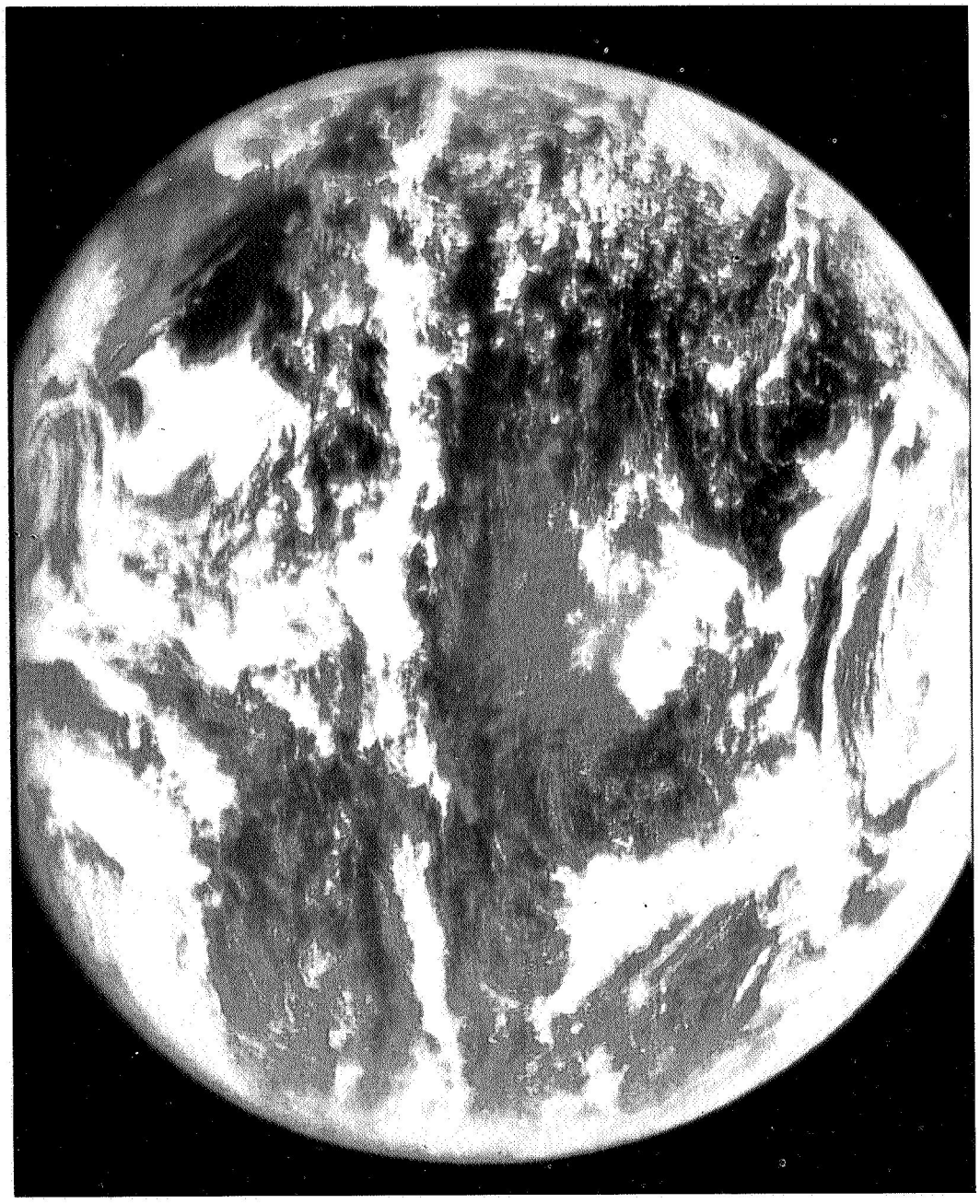
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	14 32 40	00	1002		
02	14 55 40	00	1002		
03	15 18 40	00	1002		
04	17 45 10	10	3002	1100B 2140H 2220G 3100A 4710H	USA MEXICO
04	17 45 10	20	3000	1100A 2140A 2230A 4200A	CNTRL AMERICA
04	17 45 10	50	1502	1100E 2140A 2230C 4610B	
04	17 45 10	60	1000	2140A 2230A	
04	17 45 10	80	1502	1100A 2140A	
05	18 08 40	00	3002		
06	18 31 05	00	3002		
07	20 00 25	00	3002		
08	20 24 10	00	3502		
09	20 46 20	00	3002		
10	21 09 18	10	3000	1100F 2140A 3100G 2220G	
10	21 09 18	20	3000	1100A 2140A 4200A 2230A	CNTRL AMERICA
10	21 09 18	40	1002	2140A 2220A	
10	21 09 18	50	1000	1114G 2140A 4610C	
10	21 09 18	60	1000	2140A	
10	21 09 18	80	3002	1100A 2140A 4200A 2230A	AUSTRALIA
11	21 32 14	00	3000		
12	21 55 13	00	3000		
13	22 18 13	00	7000		
14	23 26 20	00	7000		
15	23 46 50	00	7000		



ATS-I 14 JANUARY 1967 21 55 13 UT SEQ 12

15 JAN 67 SUBSATELLITE PT 150.19W 00.12N TOTAL PICS 21

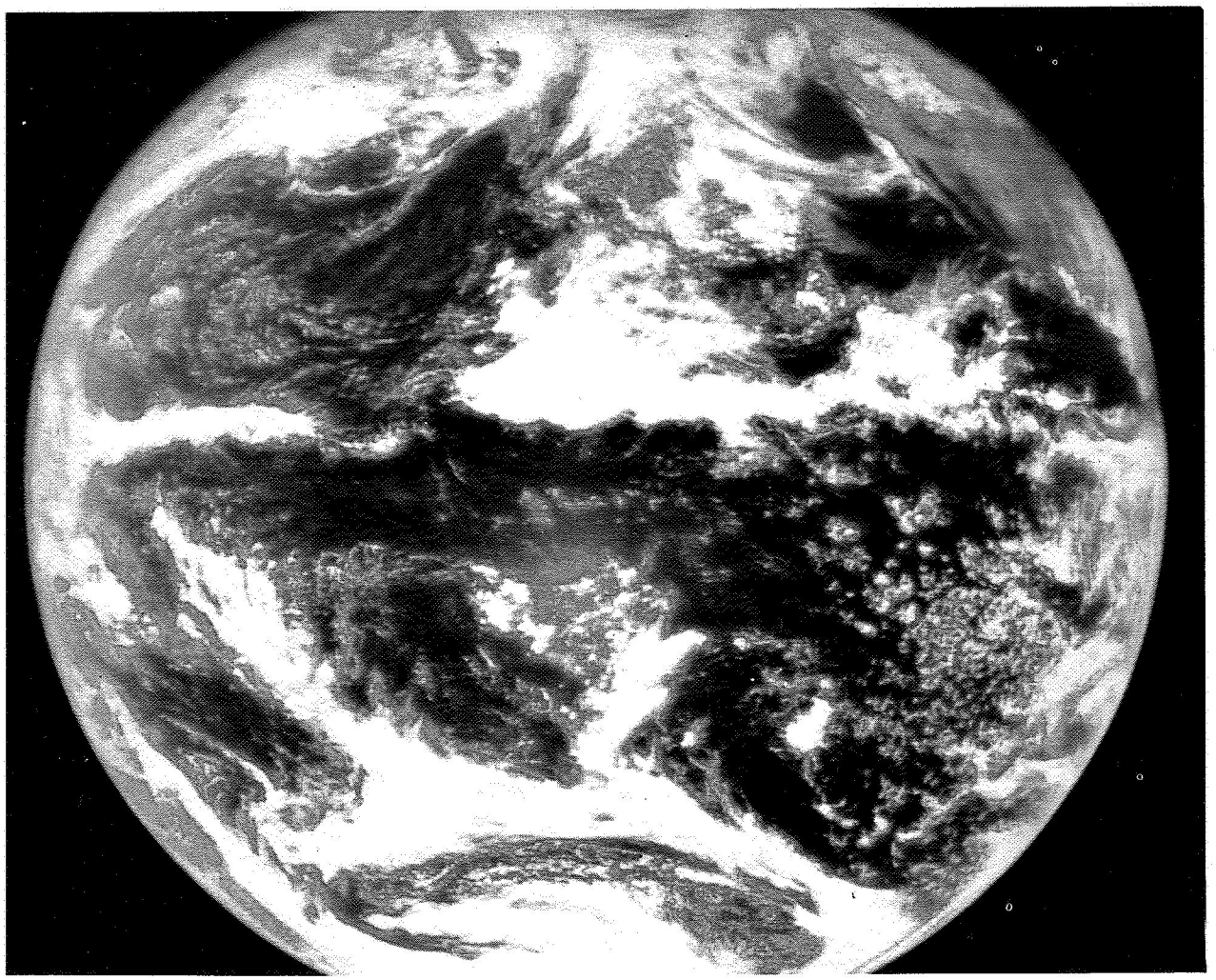
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 10 00	00	7000		EE
02	00 32 50	10	1001	1100F 2140A 2240G	
02	00 32 50	40	4000	1100A 2140A 2240A	
02	00 32 50	50	1001	1100I 2140A 4610C	
02	00 32 50	80	3000	2140A 1100A 4200A	AUSTRALIA EE
03	02 55 40	00	7000		
04	03 10 00	00	7000		
05	03 23 05	00	3001		
06	05 48 13	00	3001		
07	06 11 12	00	3001		
08	06 34 12	00	4001		EE
09	17 05 28	00	3002		
10	17 28 28	10	3002	1100H 2140F 2240G 4710H	MEXICO USA
10	17 28 28	20	4000	2240A 2140A 4200A	CNTRL AMERICA
10	17 28 28	50	1502	2140A 4610B	
10	17 28 28	60	4500	2140A	
11	17 51 28	00	3002		
12	18 14 24	00	7000		
13	20 01 25	00	3002		
14	20 24 24	00	3002		EE
15	20 47 24	10	3000	1113F 2142A 2240G 4710H	
15	20 47 24	20	3000	2240A 2142A 4200A	CNTRL AMERICA
15	20 47 24	40	1002	1100A 2140A	
15	20 47 24	50	1500	1100I 2140A 4610F	
15	20 47 24	60	4000	2140A	
15	20 47 24	80	3000	1100A 2140A 4200A	AUSTRALIA
16	21 10 20	00	3000		
17	21 33 19	00	3000		
18	21 56 18	00	3000		
19	22 19 14	00	7000		
20	23 31 04	00	3001		
21	23 54 03	00	1001		



ATS-I 15 JANUARY 1967 21 56 18 UT SEQ 18

16 JAN 67 SUBSATELLITE PT 150.11W 00.13N TOTAL PICS 20

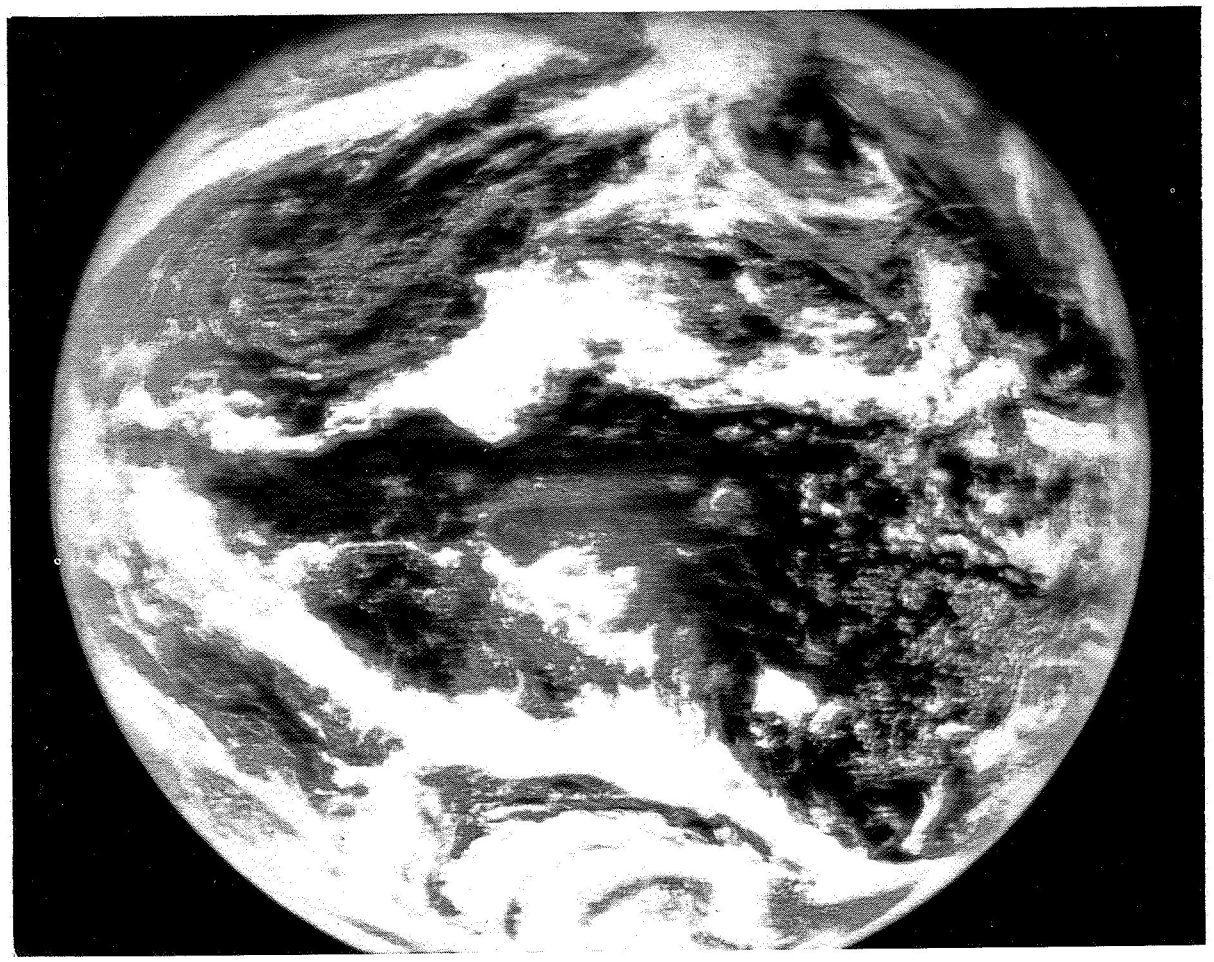
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 17 03	00	3001		
02	03 09 01	10	1001	2140I 2240D 3100D	
02	03 09 01	40	4000	1100A 2140A 2240A	
02	03 09 01	50	1001	2140J 1100D 4610C	
02	03 09 01	80	3000	1100A 2140A 4200A	AUSTRALIA
03	03 32 00	00	3001		
04	03 54 57	00	3001		
05	05 37 19	00	4001		
06	05 59 54	00	4001		
07	06 22 54	00	4001		
08	14 34 57	00	4002		
09	14 57 57	00	3002		
10	15 20 52	10	5002	2240D 4710H	
10	15 20 52	20	4000	1100A 2140A 4200A	CNTRL AMERICA
10	15 20 52	50	1002	2142D 4610B	
10	15 20 52	60	5000	1100A 2140A	
11	17 18 40	00	3002		
12	17 41 09	00	3002		EE
13	18 04 06	00	3002		EE
14	20 32 50	10	3000	2143H 2140I 1100B 2240G 3100G 4710H	USA MEXICO
14	20 32 50	20	4000	2140A 4200A	CNTRL AMERICA
14	20 32 50	40	4002	2140A 2240A	
14	20 32 50	50	1000	2140A 1100G	
14	20 32 50	60	5000	2140A	
14	20 32 50	80	4002	2140A 4200A	AUSTRALIA
15	20 56 04	00	3000		
16	21 18 47	00	3000		
17	21 42 47	00	3000		
18	22 04 45	00	3000		
19	23 19 02	00	3001		
20	23 42 02	10	3001	1100H 2140H 2240G 3100G 4710I	USA MEXICO
20	23 42 02	20	5001	5000A	
20	23 42 02	40	1000	2142A 2240A 1100A	
20	23 42 02	50	1000	2140A 1100G 4610C	
20	23 42 02	60	5000	5000A	
20	23 42 02	80	1000	2140A 1100A	AUSTRALIA



ATS-I 16 JANUARY 1967 22 04 45 UT SEQ 18

17 JAN 67 SUBSATELLITE PT 150.03W 00.13N TOTAL PICS 9

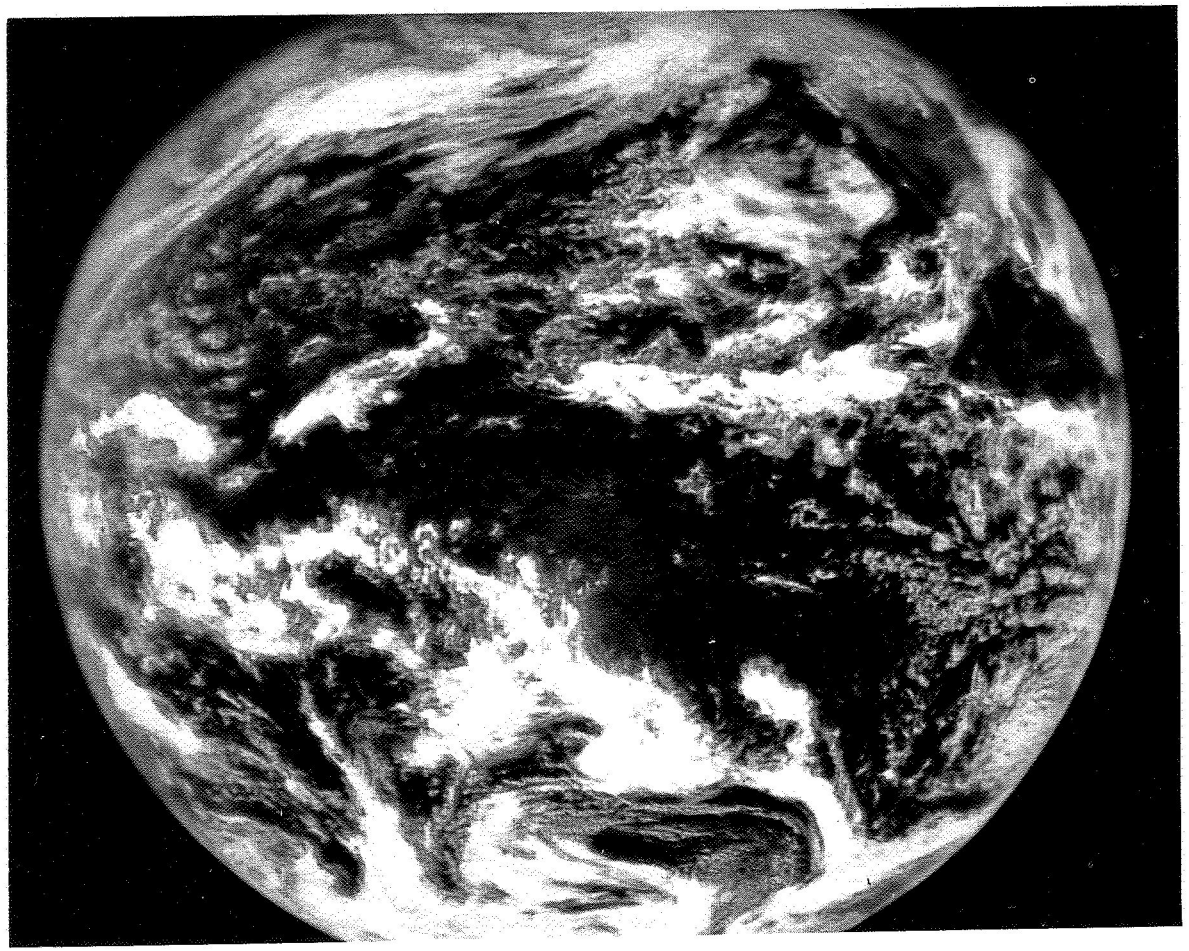
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	05 42 39	00	3001		
02	06 05 39	00	3001		
03	06 28 37	00	3001		
04	20 07 16	10	3000	1113F 2140A 3100K 2220G 2230D 4710H	USA MEXICO
04	20 07 16	20	3000	2140A 2220A 4200A	CNTRL AMERICA
04	20 07 16	40	4002	2140A 2220A	
04	20 07 16	50	1000	1114D 1113E 2140A 2230F 4610F	
04	20 07 16	60	1000	1100A 2140A	
04	20 07 16	80	3002	2140A 2230A 4200A	AUSTRALIA
05	20 30 12	00	3002		
06	20 53 12	00	3002		
07	21 16 08	00	3002		XX
08	21 39 08	00	3002		
09	22 02 08	10	3000	1100F 2140A 2220G 2230D 3100E 4710H	USA MEXICO
09	22 02 08	20	3000	2140A 2220A 4200A	CNTRL AMERICA
09	22 02 08	40	1000	2140A 2220A	
09	22 02 08	50	1000	1100G 2140A 2230F 4610C	
09	22 02 08	60	1000	2140A 2220A	
09	22 02 08	80	3000	1100A 2140A 2230A 4200A	AUSTRALIA



ATS-I 17 JANUARY 1967 22 02 08 UT SEQ 9

18 JAN 67 SUBSATELLITE PT 149.95W 00.13N TOTAL PICS 15

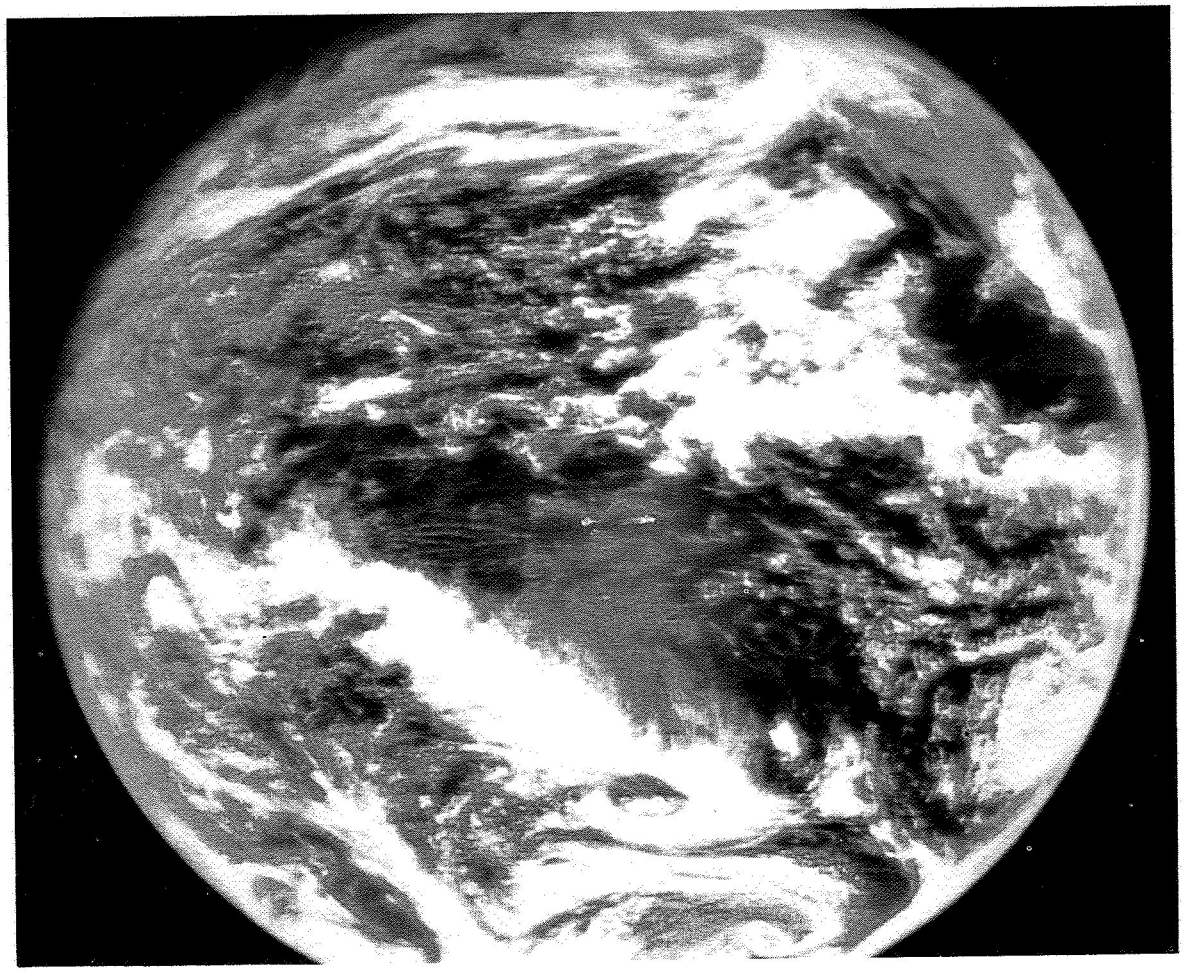
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	05 45 27	00	3001		
02	06 08 26	00	3001		
03	06 42 40	00	4001		
04	15 24 30	00	1002		
05	15 47 00	10	1002	2220E 2140B 4200H 3100H	MEXICO
05	15 47 00	20	3000	1100A 2140A 2220A 4200A	CNTRL AMERICA
05	15 47 00	50	1002	2140A 2230B	
05	15 47 00	60	1000	2140A 3100A 2230A	
06	17 43 02	00	3002		XX
07	18 05 58	00	3002		
08	18 28 56	10	3002	1100B 2140A 2220F 2100E 3100A 4710H	USA MEXICO
08	18 28 56	20	3000	1100A 2140A 2220A 4200A	CNTRL AMERICA
08	18 28 56	50	1500	2140A 2220B	
08	18 28 56	60	1500	2220A	
08	18 28 56	80	4500	2140A	
09	20 17 42	00	3002		
10	20 40 35	00	3002		
11	21 03 30	00	3002		
12	21 26 33	00	3000		
13	21 49 38	10	3000	1114C 1113F 2140A 2220G 3100K 4710H	USA MEXICO
13	21 49 38	20	3000	1100A 2140A 2220A 4200A	CNTRL AMERICA
13	21 49 38	40	4000	2140A 2220A 1100A	
13	21 49 38	50	1000	11001 2140A 2230C 4610C	
13	21 49 38	60	1000	2140A 2220A	
13	21 49 38	80	3000	1100A 2140A 2230A 4200A	AUSTRALIA
14	22 12 27	00	3000		
15	23 51 30	00	3001		



ATS-I 18 JANUARY 1967 21 49 38 UT SEQ 13

19 JAN 67 SUBSATELLITE PT 149.87W 00.15N TOTAL PICS 18

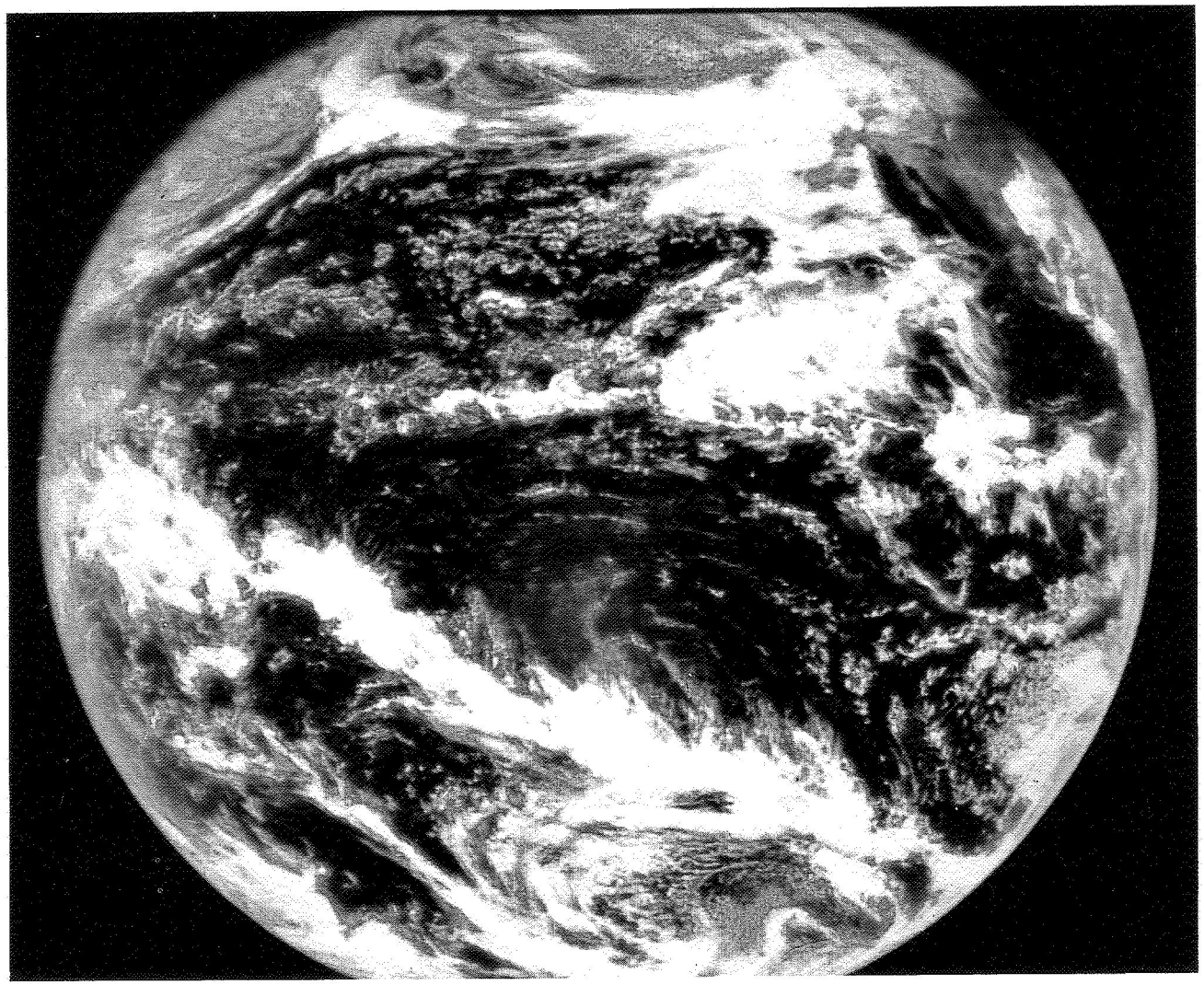
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 14 28	10	1001	2140A 2220G 3100C 4200B	MEXICO USA
01	00 14 28	40	1000	2140A 2220A 1100A	
01	00 14 28	50	1000	1100G 2140A 3100H 4610C	
01	00 14 28	60	1001	1100A 2140A	
01	00 14 28	80	3000	1100A 2140A 2230A 4200A	AUSTRALIA
01	00 14 28	90	5000	5000A	
02	00 37 24	00	1501		
03	05 43 16	00	4001		
04	06 06 16	00	5001		
05	06 29 15	00	5001		
06	14 27 00	00	4502		
07	14 45 00	00	4502		
08	15 08 15	00	3002		
09	15 31 10	10	3002	2140H 2220E 4200H	MEXICO
09	15 31 10	20	3000	2140A 4200A	CNTRL AMERICA
09	15 31 10	50	1002	2140A 4610B	
09	15 31 10	60	1000	2140A 4610A	
10	17 49 06	00	3002		
11	18 12 02	10	3002	2140H 1100B 2220E 4200H	MEXICO USA
11	18 12 02	20	3000	2140A 4200A	CNTRL AMERICA
11	18 12 02	50	1002	1100D 2140A	
11	18 12 02	60	1000	2140A	
11	18 12 02	80	1002	2140A	
12	18 35 02	00	3502		
13	20 11 15	00	3002		
14	20 34 15	00	3002		
15	20 57 10	00	3000		
16	21 20 09	40	1000	2140A	
16	21 20 09	10	3000	1114B 1113B 2140J 2220E 4710H 3100D	MEXICO USA
16	21 20 09	20	3000	2140A 4200A	CNTRL AMERICA
16	21 20 09	50	1000	1113D 2140A 1114E 3100C	
16	21 20 09	60	1000	2140A	
16	21 20 09	80	3000	2140A 2230A 1100A 4200A	AUSTRALIA
17	21 43 09	00	3000		
18	22 06 05	00	3000		



ATS-I 19 JANUARY 1967 21 20 09 UT SEQ 16

20 JAN 67 SUBSATELLITE PT 149.79W 00.15N TOTAL PICS 18

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 52 10	00	7000		
02	05 40 58	00	4001		
03	06 03 54	00	4001		
04	06 26 56	00	4001		
05	14 25 32	00	4002		
06	14 48 27	00	3002		
07	15 11 27	00	3002		
08	15 34 25	10	3002	2140B 2230D 4710H 3100D	USA MEXICO
08	15 34 25	20	3000	2140A 4200A	CNTRL AMERICA
08	15 34 25	50	1002	1114G 2140L 3100F	
08	15 34 25	60	1000	2140A 4610A	
09	17 36 18	00	3002		
10	17 59 14	00	3002		
11	18 22 13	00	3002		
12	19 54 27	10	3000	2140A 1100B 2220G 3100C 4710H	USA MEXICO
12	19 54 27	20	3000	2140A 4200A	CNTRL AMERICA
12	19 54 27	40	4002	2140A	
12	19 54 27	50	1000	2140A 1114E 1113D 3100F 4610F	
12	19 54 27	60	1000	2140A	
12	19 54 27	80	1002	2140A 2230A	
13	20 17 21	00	3002		
14	20 40 21	00	3002		
15	21 03 23	00	3000		
16	21 26 00	00	3000		
17	21 49 16	00	3000		
18	22 12 15	10	3000	2140M 2230D 4710H 1100C	USA MEXICO
18	22 12 15	20	3000	2140A 4200A	CNTRL AMERICA
18	22 12 15	40	1000	2140A 1100A	
18	22 12 15	50	1000	2140A 1100F 3100H 4610C	
18	22 12 15	60	1000	2140A	
18	22 12 15	80	3000	2140A 1100A 2230A	



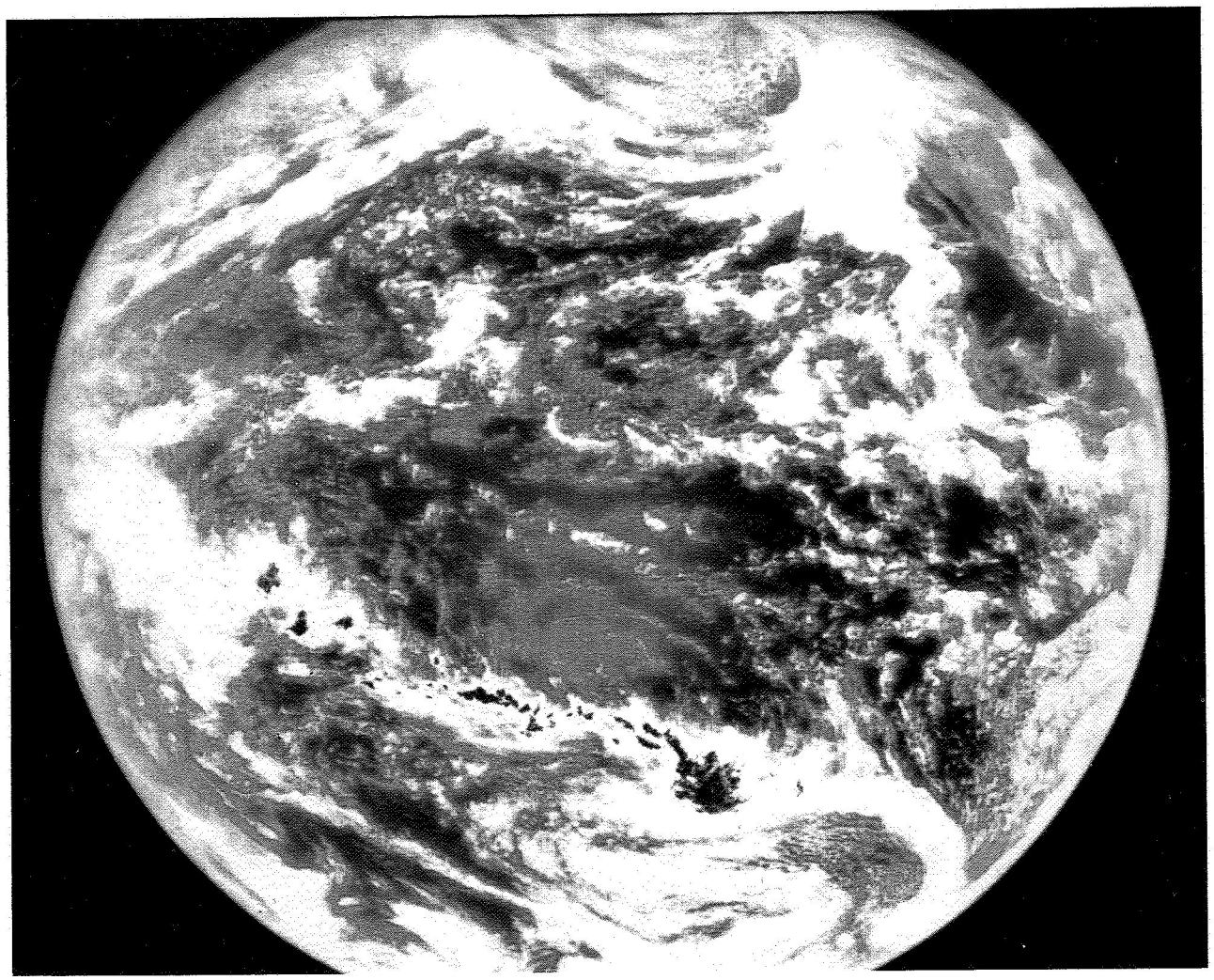
ATS-I 20 JANUARY 1967 21 49 16 UT SEQ 17

21 JAN 67 SUBSATELLITE PT 149.70W 00.15N TOTAL PICS 15

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	05 48 37	00	5001		
02	06 11 37	00	5001		
03	06 34 33	00	5001		
04	15 28 50	00	4002		
05	18 02 27	10	3002	1100B 2140H 3100L 4710H 2240G	MEXICO USA
05	18 02 27	20	4000	2140A 4200A	CNTRL AMERICA
05	18 02 27	50	1002	1114I 2140A 4610B	
05	18 02 27	60	4000	2140A	
06	18 25 25	00	3002		
07	18 48 22	00	3002		
08	19 34 22	00	3002		
09	19 57 16	00	3002		
10	20 20 12	00	3002		
11	20 43 15	10	3000	1114B 2143C 2145B 2142I 2240G 4710H	USA MEXICO
11	20 43 15	20	5000	4200A	CNTRL AMERICA
11	20 43 15	40	4002	2142A 2240A	
11	20 43 15	50	1000	1113E 2140A 2240C	
11	20 43 15	60	5000	1100A 2140A	
11	20 43 15	80	3000	2140A 2240A 4200A	AUSTRALIA
12	21 06 10	00	3000		
13	21 29 15	00	3000		
14	21 52 12	00	3000		
15	22 15 10	00	3000		

NOTE:

DENSE BLACK HOLES IN CLOUD SYSTEMS OF PICTURES NUMBER 8,9,10,11, 12,13,14 and 15 CAUSED BY OVERSATURATION OF VIDEO AMPLIFIER IN GROUND STATION.



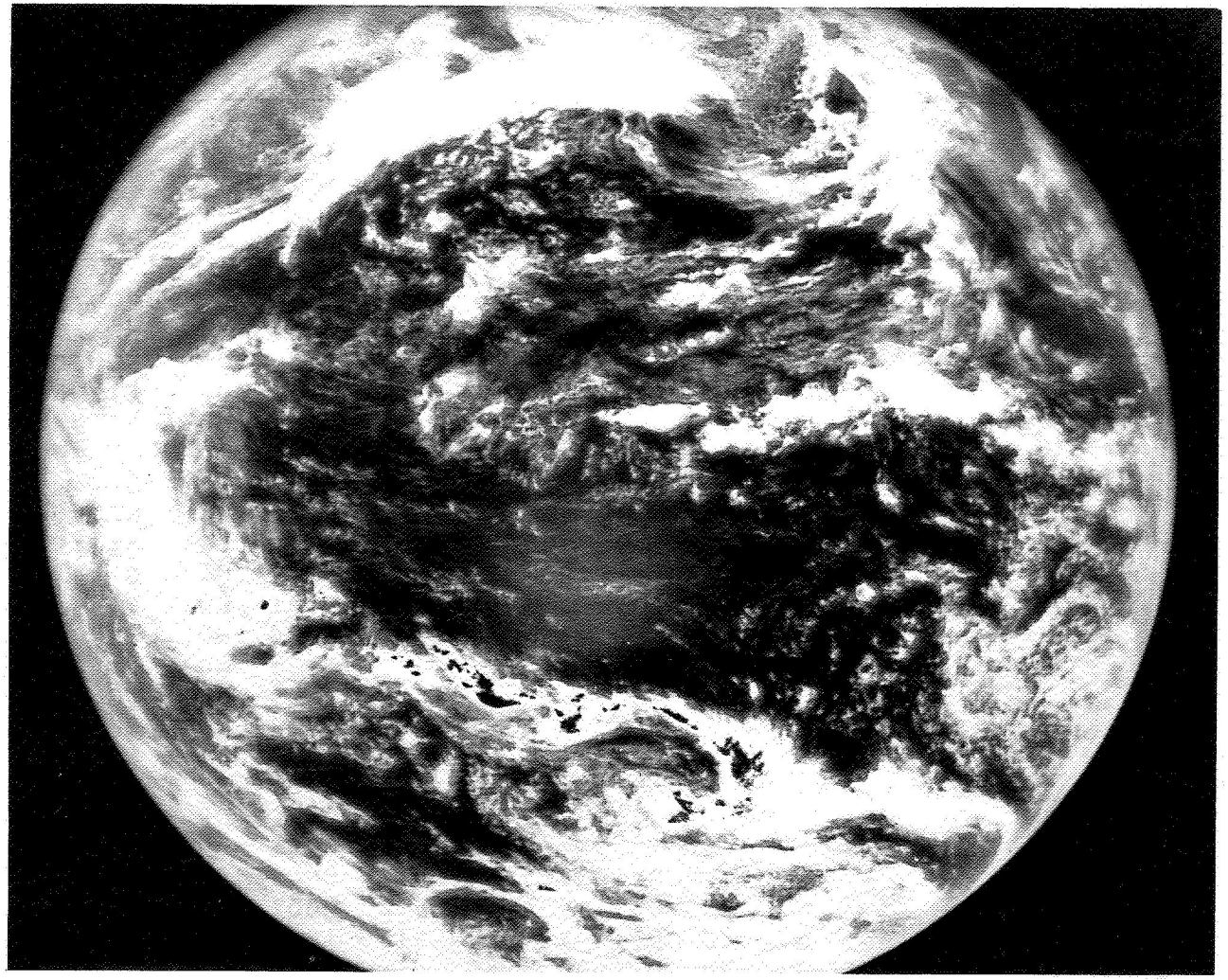
ATS-I 21 JANUARY 1967 21 52 12 UT SEQ 14

22 JAN 67 SUBSATELLITE PT 149.62W 00.15N TOTAL PICS 13

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	05 53 04	00	5001		
02	06 16 03	00	5001		
03	06 39 03	00	5501		
04	14 47 56	00	3002		
05	15 10 56	00	3002		
06	15 33 53	10	3002	1100H 2140H 2240E 3100E 4710H	USA MEXICO
06	15 33 53	20	5000	5000A	
06	15 33 53	50	5002	2140A 4610B	
06	15 33 53	60	5000	5000A	
07	20 41 33	10	3000	2143H 1100C 2240G 3100G 4710H	USA MEXICO
07	20 41 33	20	5000	2240A 4200A	CNTRL AMERICA
07	20 41 33	40	4002	2140A 2240A	
07	20 41 33	50	1000	2140A 1100G 3100H 4610F	
07	20 41 33	60	4000	2140A	
07	20 41 33	80	3000	2140A 2230A 4200A	AUSTRALIA
08	21 04 33	00	3000		
09	21 27 30	00	3000		
10	21 50 32	00	3000		
11	22 13 30	00	3000		
12	23 31 18	10	3001	1100C 2143F 3100H 2240G	
12	23 31 18	20	5001	5000A	
12	23 31 18	40	4000	2140A 2240A	
12	23 31 18	50	1000	1100A 2140A 3100F	
12	23 31 18	60	4001	2140A	
12	23 31 18	80	4000	2140A 4200A	AUSTRALIA
13	23 54 12	00	3001		

NOTE:

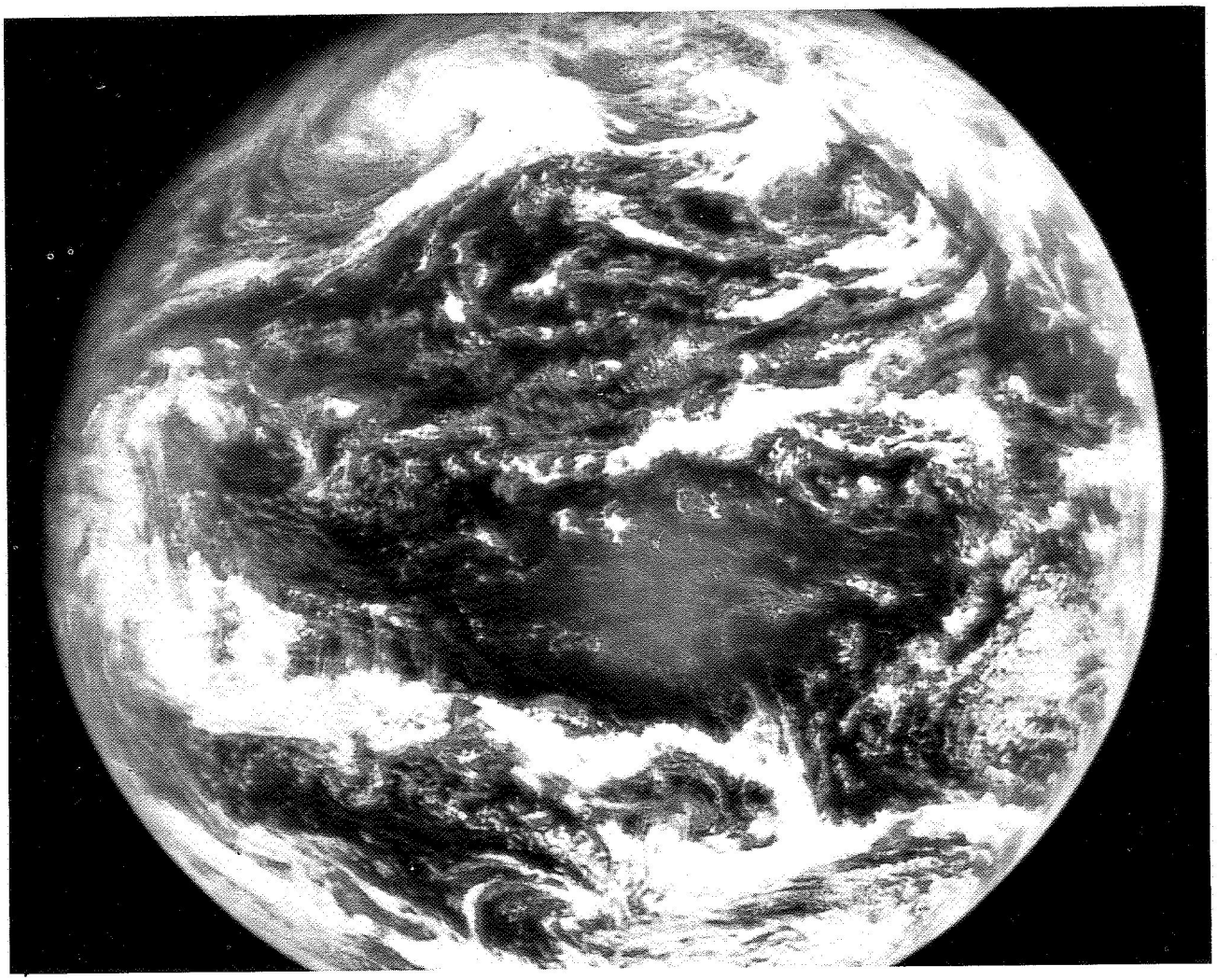
DENSE BLACK HOLES IN CLOUD SYSTEMS OF PICTURES NUMBER 7,8,9,10 and 11 CAUSED BY OVERSATURATION OF VIDEO AMPLIFIER IN GROUND STATION.



ATS-I 22 JANUARY 1967 22 13 30 UT SEQ 11

23 JAN 67 SUBSATELLITE PT 149.53W 00.16N TOTAL PICS 18

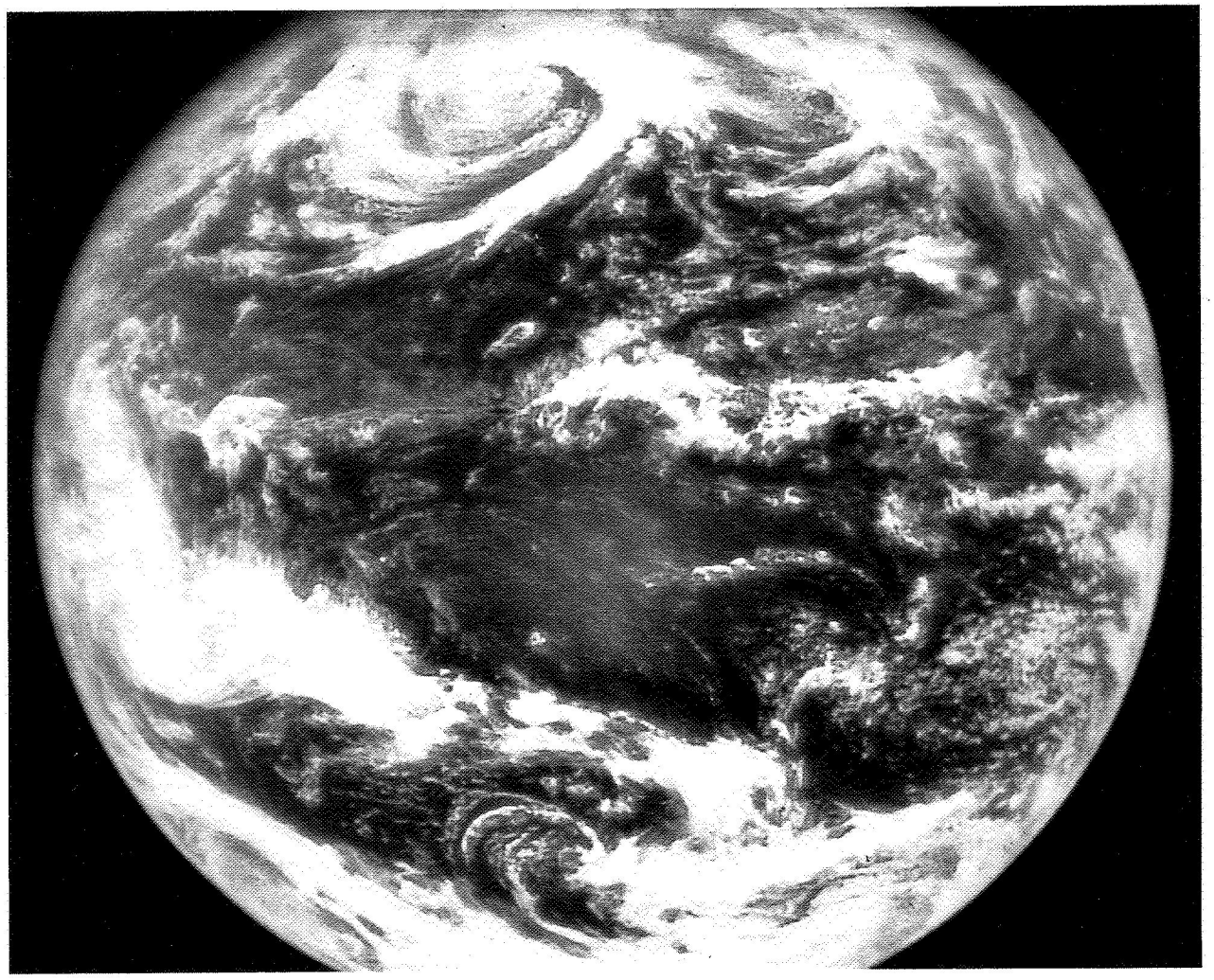
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 17 08	10	1001	2145F 2142A 3100G 2240G	
01	00 17 08	40	1000	2142A 2240A 1100A	
01	00 17 08	50	1000	1100A 2140A 3100D 4610C	
01	00 17 08	60	5001	5000A	
01	00 17 08	80	3000	1100A 2140A 4200A	AUSTRALIA
02	00 40 07	00	3001		
03	05 58 29	00	5001		
04	06 21 26	00	5001		
05	14 37 54	00	4002		
06	15 00 47	00	4002		
07	15 23 48	00	4002		
08	16 05 24	00	1002		
09	17 14 19	10	3002	2143B 1100B 2142E 2240G	
09	17 14 19	20	4000	2240A 4200A	CNTRL AMERICA
09	17 14 19	50	1002	1100A 2140A	
09	17 14 19	60	5000	2140A	
10	17 37 15	00	3002		
11	18 00 14	00	3002		
12	18 23 17	00	3002		
13	20 34 09	00	3002		
14	20 57 07	10	1000	2143B 2145C 2142I 2142E 2240G 4710H	USA MEXICO
14	20 57 07	20	5000	2240A	
14	20 57 07	40	1000	2140A 2240A	
14	20 57 07	50	1000	1100G 2140A	
14	20 57 07	60	5000	2140A	
14	20 57 07	80	3000	1100A 2140A 4200A	AUSTRALIA
15	21 20 04	00	3500		
16	21 43 06	00	3000		
17	22 06 06	00	3000		EE
18	23 38 28	00	1000		EE



ATS-I 23 JANUARY 1967 20 57 07 UT SEQ 14

24 JAN 67 SUBSATELLITE PT 149.43W 00.16N TOTAL PICS 18

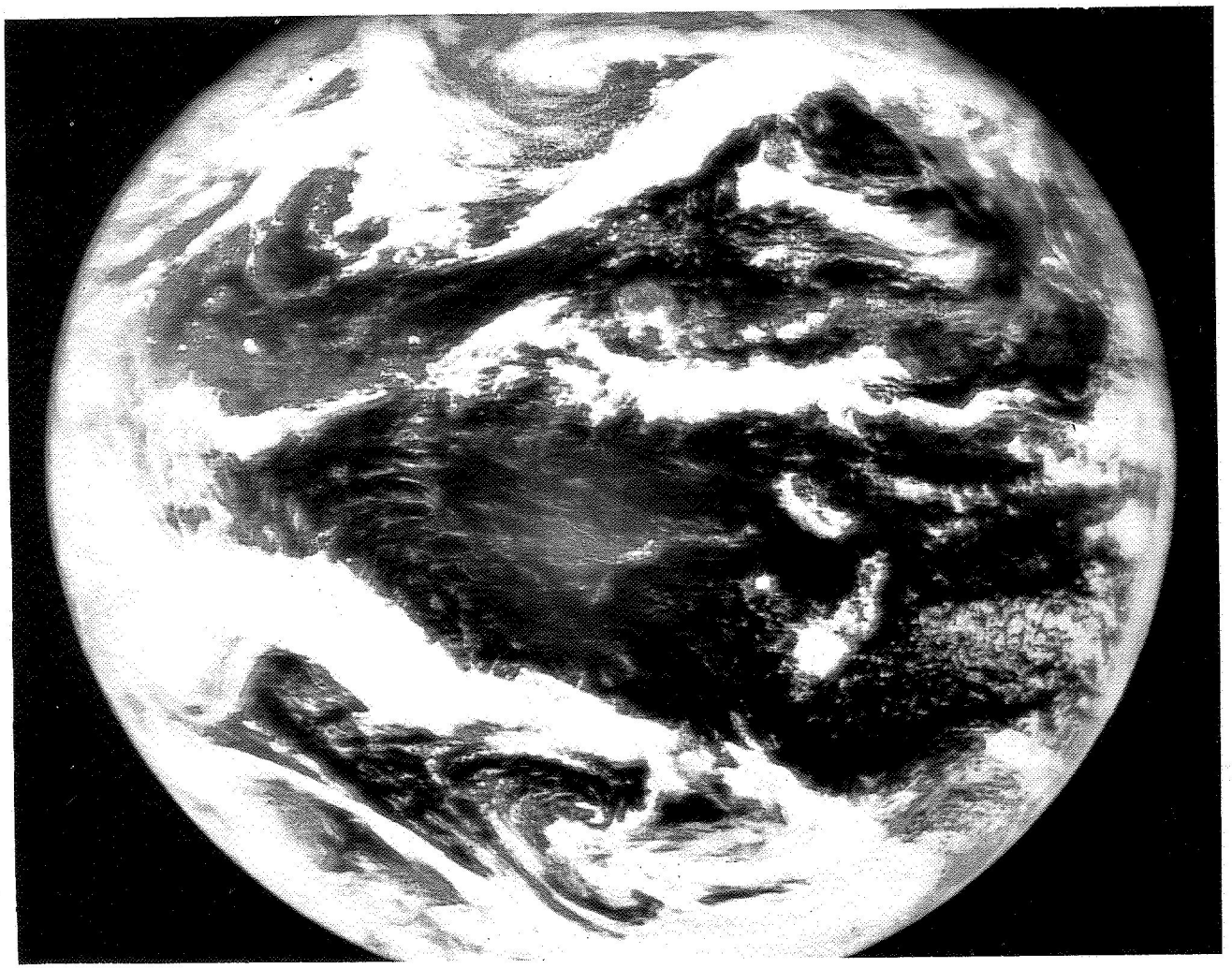
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 00 24	10	1001	2145C 2143B 2142A 2240G	
01	00 00 24	40	1000	2140A 2240A	
01	00 00 24	50	1000	1100G 2140A 4610C	
01	00 00 24	80	4000	2140A 2240A	
02	00 24 28	00	3001		
03	00 47 22	00	3001		EE
04	05 26 27	00	5001		
05	05 49 24	00	5001		
06	06 12 22	00	5001		
07	17 31 10	10	3000	2145B 2143B 2142H 2240G 4710H	USA MEXICO
07	17 31 10	20	4000	2240A 4200A	CNTRL AMERICA
07	17 31 10	50	1002	1114D 1113A 2140A 4610B	
07	17 31 10	60	4000	2140A	
08	17 54 08	00	3002		
09	18 17 04	00	3002		
10	18 40 05	00	3002		EE
11	19 03 03	00	3002		
12	19 26 00	00	3002		
13	19 48 57	00	3002		
14	20 11 56	00	3002		
15	20 34 55	00	3000		
16	20 57 51	10	3000	1114C 2145C 2143B 2140A 2240G 4710H	MEXICO USA
16	20 57 51	20	5000	2240A 4200A	CNTRL AMERICA
16	20 57 51	40	5000	5000A	
16	20 57 51	50	1000	1114D 1113A 2140A 4610F	
16	20 57 51	60	5000	5000A	
16	20 57 51	80	4000	2140A 1100A	
17	21 21 00	00	3000		
18	21 43 51	00	3000		



ATS-I 24 JANUARY 1967 21 43 51 UT SEQ 18

25 JAN 67 SUBSATELLITE PT 149.34W 00.16N TOTAL PICS 7

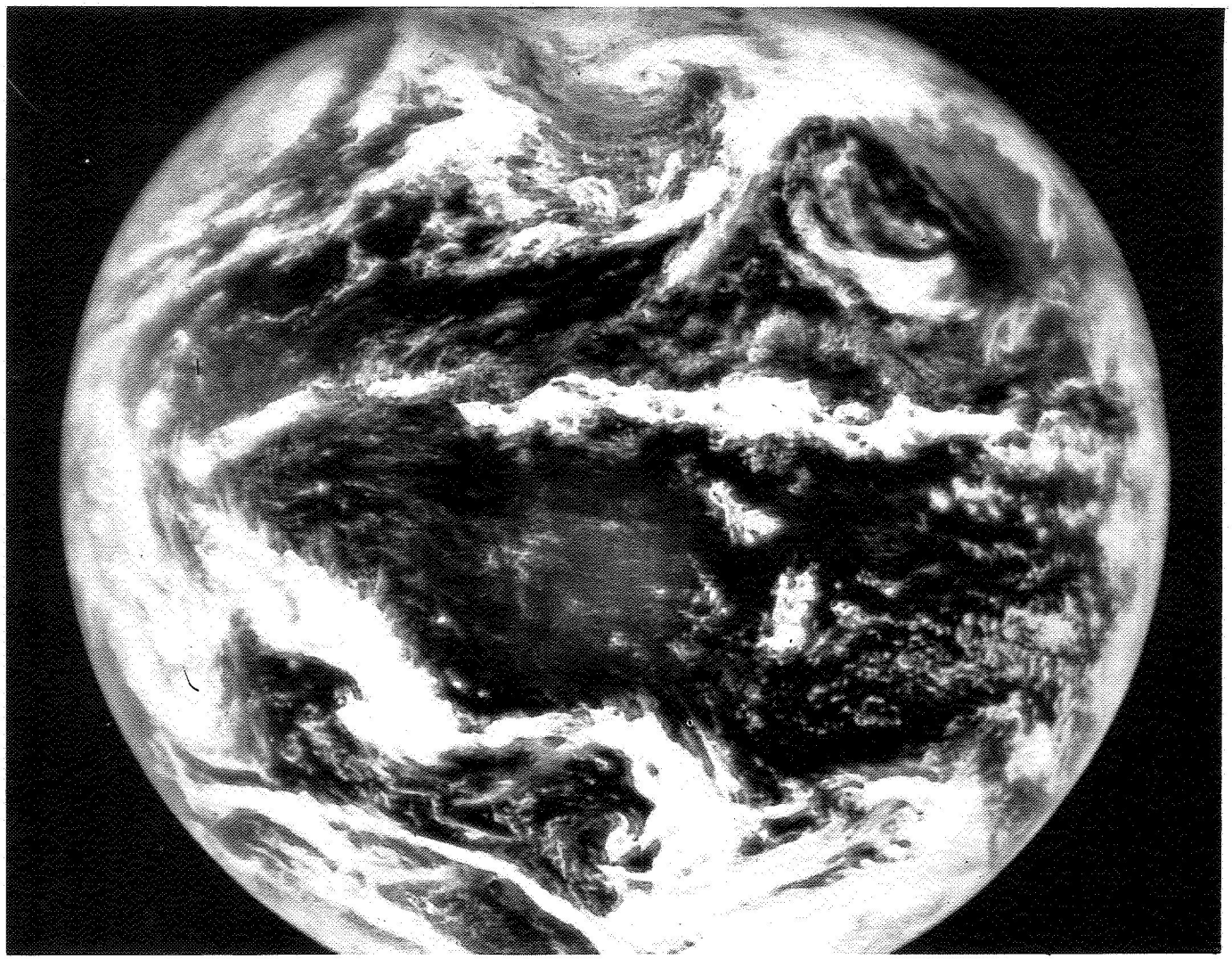
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	05 45 54	00	4001		
02	20 07 22	10	3000	1100B 1114C 2142A 2143C 2240G 4710H	MEXICO USA
02	20 07 22	20	5000	2240A 4200A	CNTRL AMERICA
02	20 07 22	40	5002	5000A	
02	20 07 22	50	1000	1113E 2140A 2230B 4610H	
02	20 07 22	60	4000	2140A	
02	20 07 22	80	4000	1100A 2140A 4200A	NEW ZEALAND
03	20 30 20	00	3000		
04	20 53 18	00	3500		
05	21 16 18	00	3000		
06	21 39 17	00	3000		
07	22 02 11	00	3000		



ATS-I 25 JANUARY 1967 22 02 11 UT SEQ 7

26 JAN 67 SUBSATELLITE PT 149.24W 00.14N TOTAL PICS 15

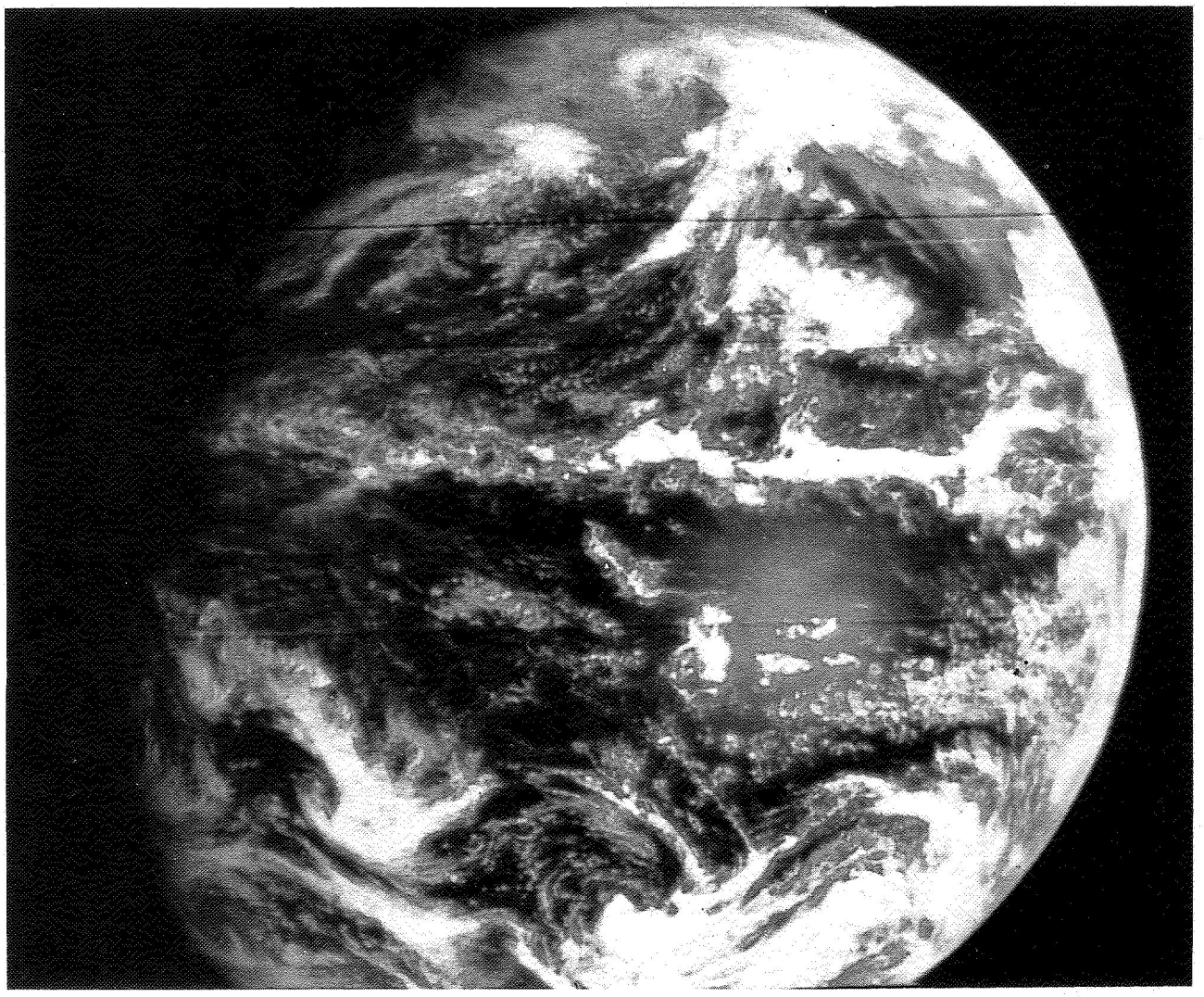
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 50 10	00	3501		
02	03 13 07	10	1001	1113C 2144C 2142I 2240D 3100D	
02	03 13 07	40	4000	2140A 2240A	
02	03 13 07	50	1001	2140K 11001	
02	03 13 07	80	1000	2140A 1113A 2240A 4200A	NEW ZEALAND
02	03 13 07	90	5001	5000A	
03	03 36 09	00	1001		
04	14 36 21	00	4002		EE
05	14 59 14	00	4002		EE
06	15 22 11	00	4002		EE
07	20 36 50	00	3002		EE
08	20 59 45	10	3000	1113F 1114B 2142A 2240G 4710H	MEXICO USA
08	20 59 45	20	5000	5000A	
08	20 59 45	40	4002	2140A 2240A	
08	20 59 45	50	1000	1100K 2143C 2142D 4610F	
08	20 59 45	60	5000	5000A	
08	20 59 45	80	3000	1113A 2142A 4200A	AUSTRALIA
09	21 22 46	00	3000		
10	21 45 43	00	3500		
11	22 08 46	00	3000		
12	22 31 42	00	3000		
13	22 54 37	00	3000		
14	23 17 46	00	3000		
15	23 40 36	10	1001	1114B 2143F 2142A 1113F 4710H 2240G	MEXICO USA
15	23 40 36	40	4000	1100A 2140A	
15	23 40 36	50	1500	2143C 2142M 4610C	
15	23 40 36	60	5501	5000A	
15	23 40 36	80	3500	1113A 2140A 2240A	



ATS-I 26 JANUARY 1967 22 08 46 UT SEQ 11

27 JAN 67 SUBSATELLITE PT 148.95W 00.15N TOTAL PICS 5

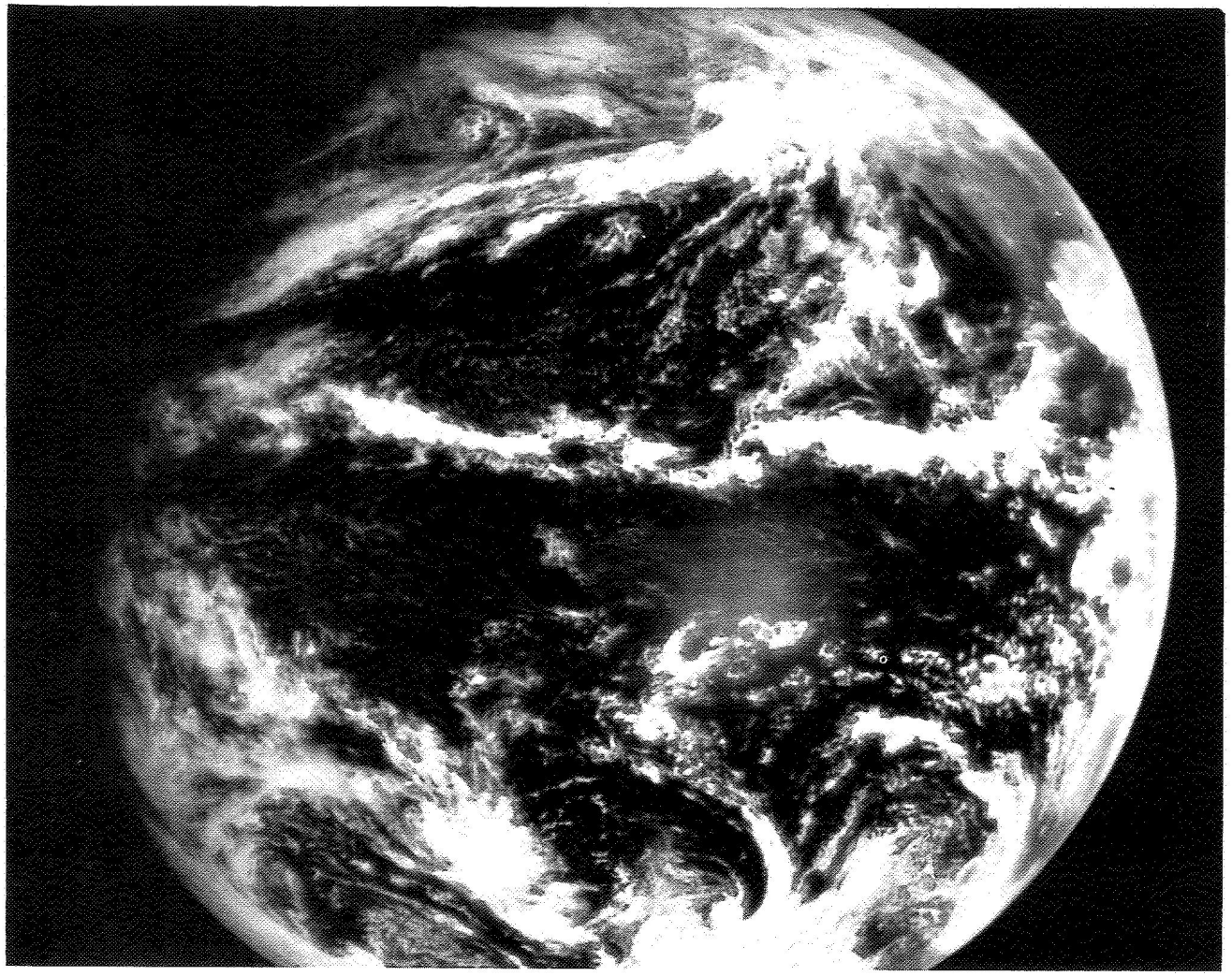
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	05 37 20	00	4001		
02	06 00 27	00	4001		
03	06 23 20	00	5001		
04	19 00 16	10	3002	2143B 1100F 2142A 2240G 4710H	MEXICO USA EE
04	19 00 16	20	4000	1100A 2240A	
04	19 00 16	50	1500	1100G 2143B 2142A 3100A 4610B	
04	19 00 16	60	5500	5000A	
04	19 00 16	80	1502	2140A 1100A	
05	19 54 09	00	7000		



ATS-I 27 JANUARY 1967 19 00 16 UT SEQ 4

28 JAN 67 SUBSATELLITE PT 149.04W 00.16N TOTAL PICS 18

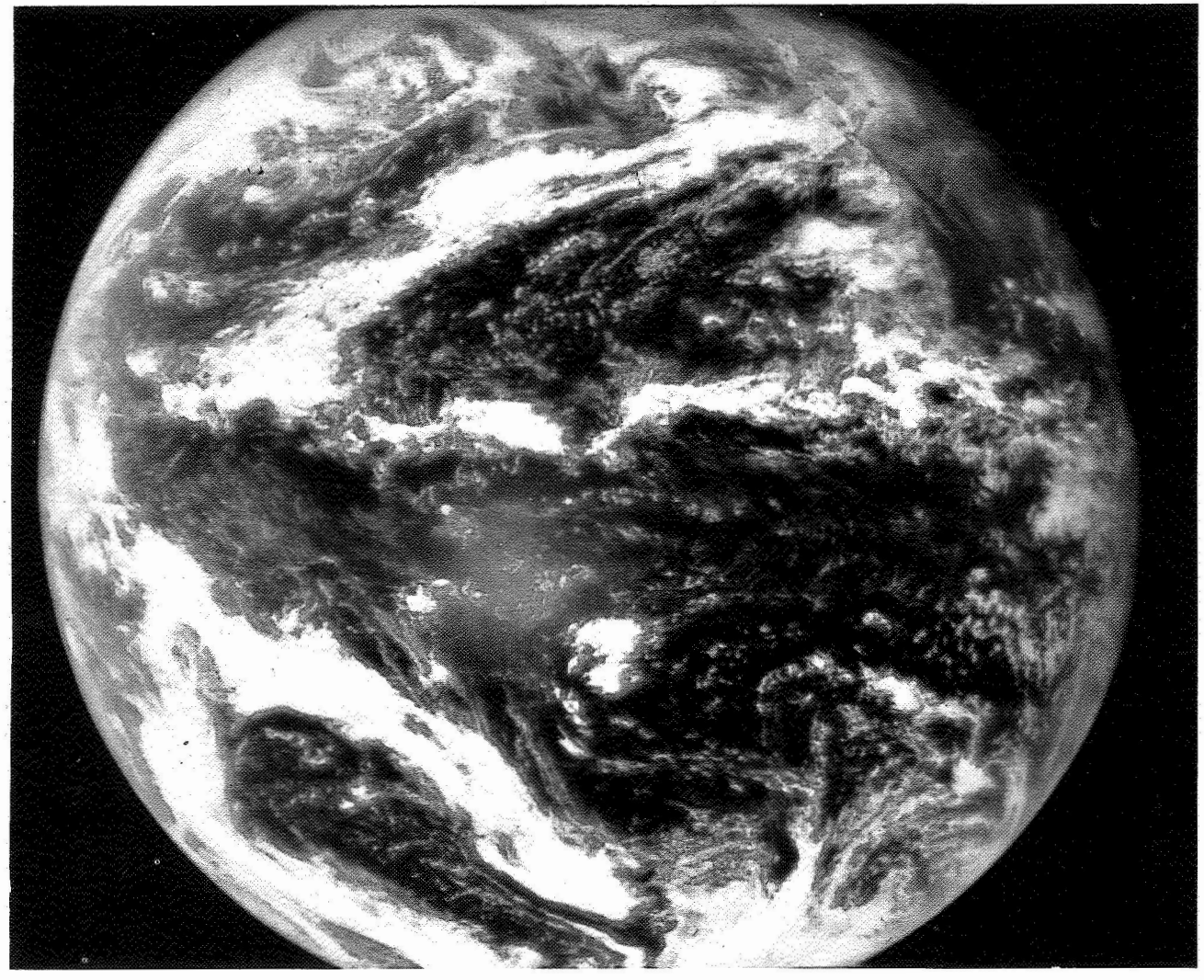
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 47 42	10	1001	1100C 2140I 2240D	
01	02 47 42	40	1000	1100A 2140A 2240A	
01	02 47 42	50	1001	2143I 2142D 4610C	
01	02 47 42	80	3000	1113A 2240A 2140A 4200A 4610A	NEW ZEALAND
02	03 12 34	00	3001		
03	03 35 30	00	7000		
04	14 34 49	00	3002		
05	14 57 46	00	3002		
06	15 20 39	00	3002		
07	16 14 03	00	3002		
08	16 35 56	00	3002		
09	17 00 06	10	1002	1100B 2142H 2240G 3100H 4710H	MEXICO USA
09	17 00 06	20	4000	2140A 2240A	
09	17 00 06	50	1502	1114G 2143G 2142L 4610B	
09	17 00 06	60	5500	5000A	
10	17 22 49	00	3002		
11	17 45 44	00	3002		
12	18 08 41	00	3002		
13	18 31 35	00	3002		
14	18 54 31	00	3002		
15	19 17 27	00	3002		
16	19 40 23	00	3002		
17	20 03 19	10	3002	2143B 1114C 2142A 2240G 3100A 4710H	MEXICO USA
17	20 03 19	20	4000	1100A 2140A	
17	20 03 19	50	1000	2140A 1100K 3100C 4610F	
17	20 03 19	60	4000	2140A	
17	20 03 19	80	3002	1113A 2140A	NEW ZEALAND
18	20 26 13	00	3002		



ATS-I 28 JANUARY 1967 20 03 19 UT SEQ 17

29 JAN 67 SUBSATELLITE PT 149.15W 00.16N TOTAL PICS 22

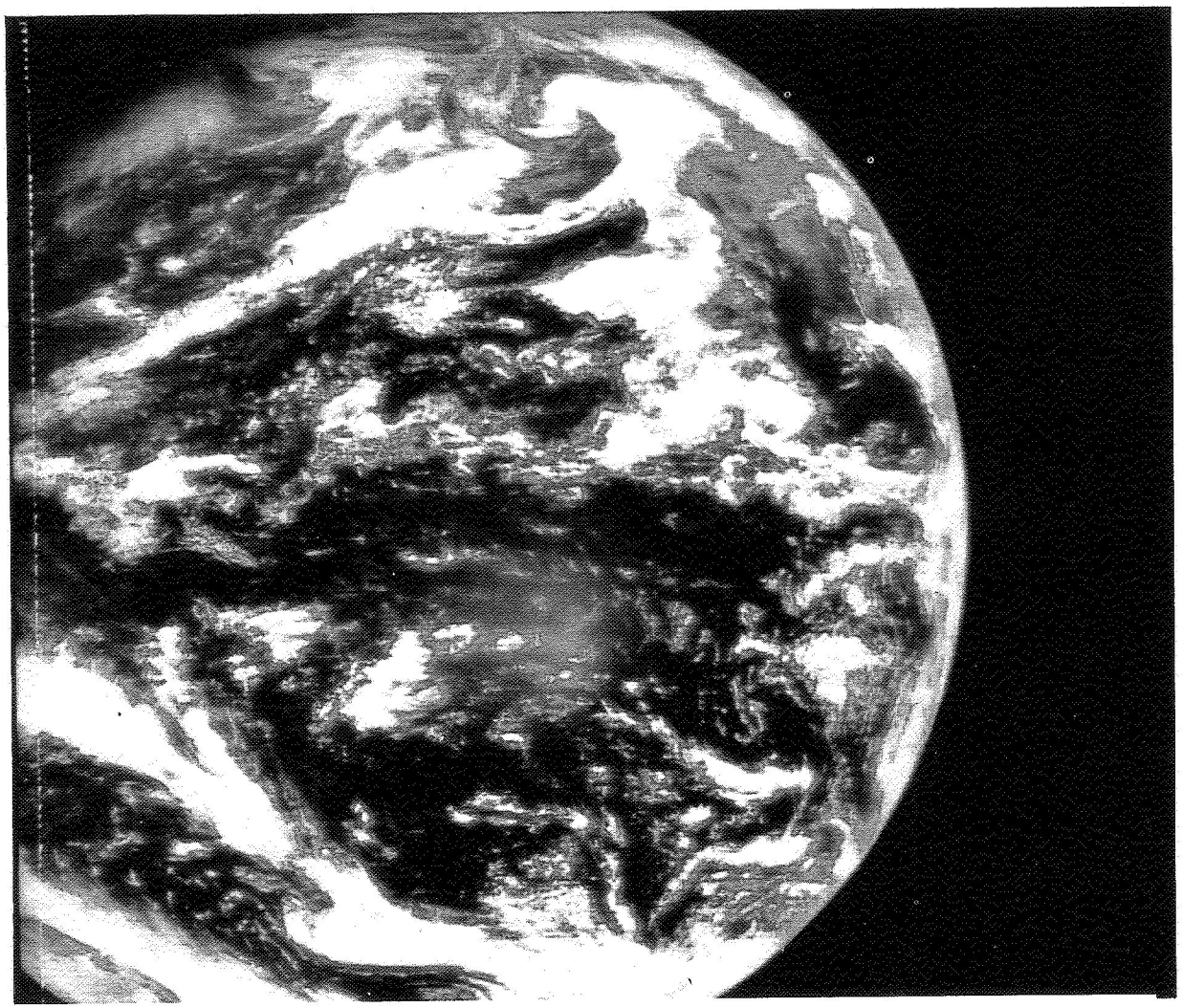
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 07 51	00	7000		
02	00 30 48	00	7000		
03	01 01 33	00	7000		
04	01 24 29	00	7000		
05	01 47 25	00	7000		
06	02 21 40	00	7000		
07	02 44 32	00	7000		
08	03 07 28	00	7000		
09	03 41 31	00	7000		
10	04 04 28	00	7000		
11	04 27 24	00	7000		
12	05 00 17	00	7000		
13	05 23 13	00	7000		
14	05 46 11	00	7000		
15	20 01 23	10	3000	2143B 2142A 2240G 1114F	
15	20 01 23	20	5000	2240A	
15	20 01 23	40	5002	5000A	
15	20 01 23	50	1000	1100G 2143D 2142A 4610F	
15	20 01 23	60	4000	2140A 2240A	
15	20 01 23	80	3000	1113A 2140A 4200A	AUSTRALIA
16	20 24 18	00	7000		
17	20 47 13	00	3000		
18	21 19 33	00	3000		
19	21 42 29	00	3000		
20	22 57 49	10	3000	2143J 1114C 2142A 2240G 1113C	
20	22 57 49	20	4001	2140A	
20	22 57 49	40	4000	2140A 2240A	
20	22 57 49	50	1000	11131 1114E 2142K 3100A	
20	22 57 49	60	5000	5000A	
20	22 57 49	80	3000	1113A 2140A 4200A	AUSTRALIA
21	23 20 47	00	7000		
22	23 25 54	00	3001		



ATS-I 29 JANUARY 1967 22 57 49 UT SEQ 20

30 JAN 67 SUBSATELLITE PT 149.27W 00.16N TOTAL PICS 12

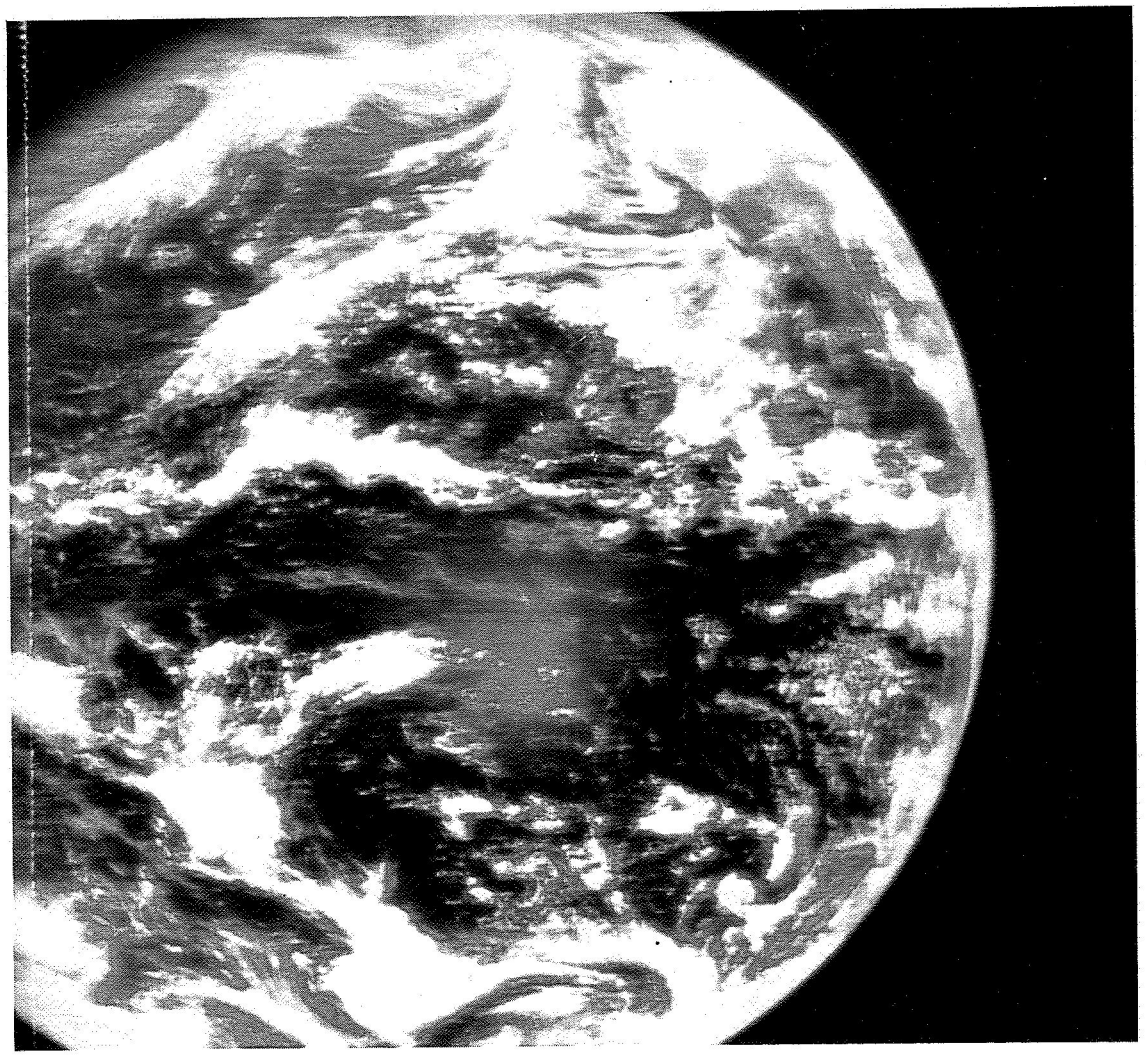
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	05 07 23	00	7000		
02	05 30 14	00	7000		
03	05 53 07	00	7000		
04	06 16 03	00	7000		
05	06 39 00	00	7000		
06	20 01 16	10	3000	2145B 2143A 2142A 2240G 4710H 3100C	PE MEXICO
06	20 01 16	20	3000	1100A 2240A 4200A	EE MEXICO
06	20 01 16	50	1000	1100G 2140A 4610F	PE
06	20 01 16	60	4000	2140A	PE
06	20 01 16	80	1000	2140A	PE
07	20 24 15	00	3000		PE
08	20 47 09	00	3000		PE
09	21 10 03	00	3000		PE
10	21 33 00	00	3000		PE
11	23 27 02	00	1001		PE
12	23 50 00	00	7000		



ATS-I 30 JANUARY 1967 20 01 16 UT SEQ 6

31 JAN 67 SUBSATELLITE PT 149.38W 00.16N TOTAL PICS 19

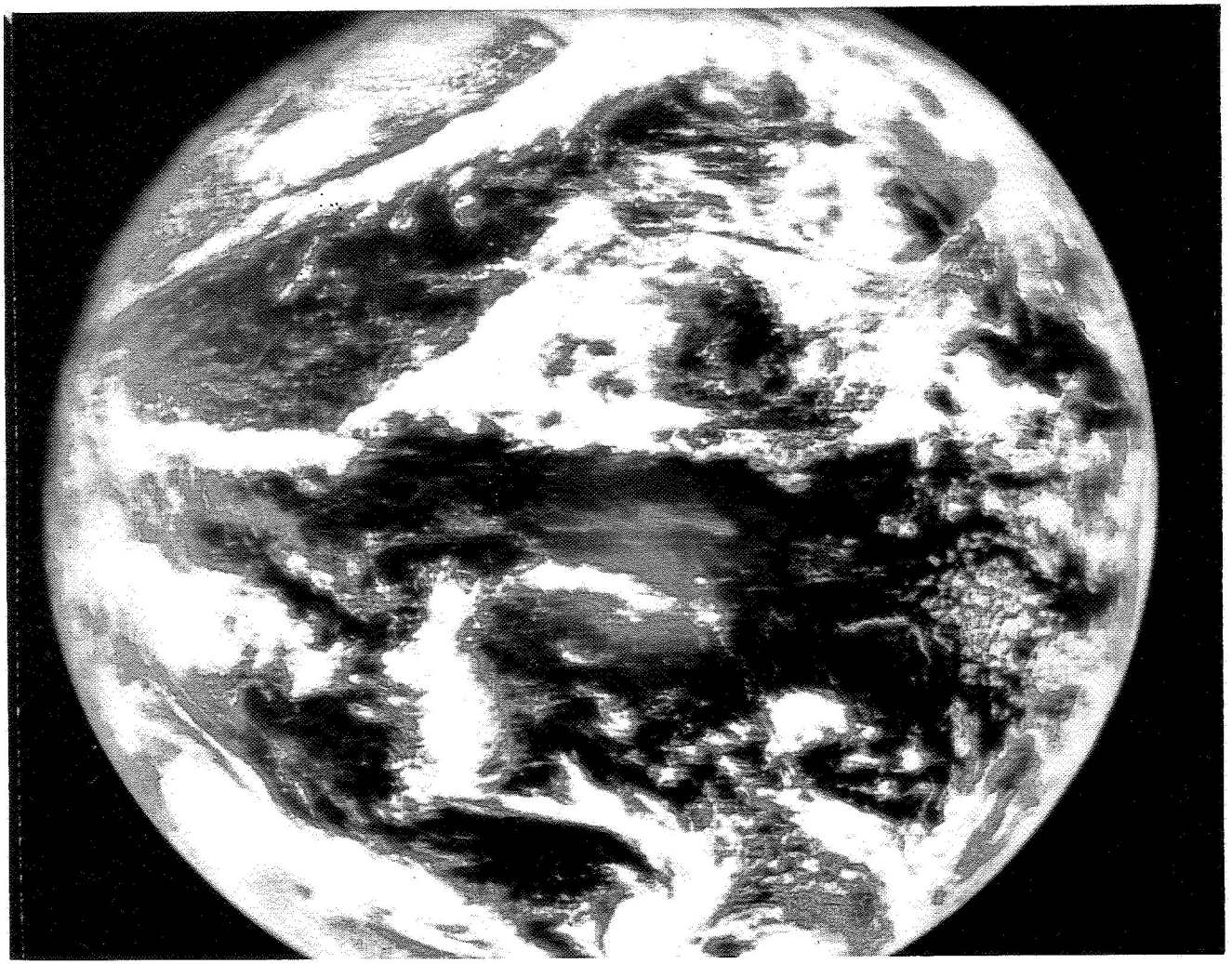
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 12 55	10	1001	1114B 2142A 1113C 2143A 2240G	PE
01	00 12 55	50	1000	1100G 2140K 4610C	
01	00 12 55	60	5001	5000A	
01	00 12 55	80	1000	2140A	PE
02	00 35 52	00	1001		PE
03	00 58 45	00	7000		
04	01 19 48	00	7000		
05	01 40 21	00	3001		
06	02 01 09	00	3001		
07	02 21 45	00	3001		
08	02 42 31	00	7000		
09	03 03 11	00	7000		
10	03 23 54	00	7000		
11	03 44 31	00	7000		
12	05 56 05	00	7000		
13	06 19 00	00	7000		
14	06 41 54	00	7000		
15	20 20 47	10	1000	1114B 1113C 2143C 2142A 2240G 4710H	MEXICO USA PE
15	20 20 47	20	3000	2240A 4200A	CNTRL AMERICA
15	20 20 47	50	1000	1100G 2140K 4610F	
15	20 20 47	60	1000	2140A	
15	20 20 47	80	1000	1100A 2140A	PE
16	20 43 46	00	3000		PE
17	21 06 42	00	3000		PE
18	21 30 08	00	3000		PE
19	21 52 30	00	3000		PE



ATS-I 31 JANUARY 1967 20 20 47 UT SEQ 15

1 FEB 67 SUBSATELLITE PT 149.48W 00.16N TOTAL PICS 6

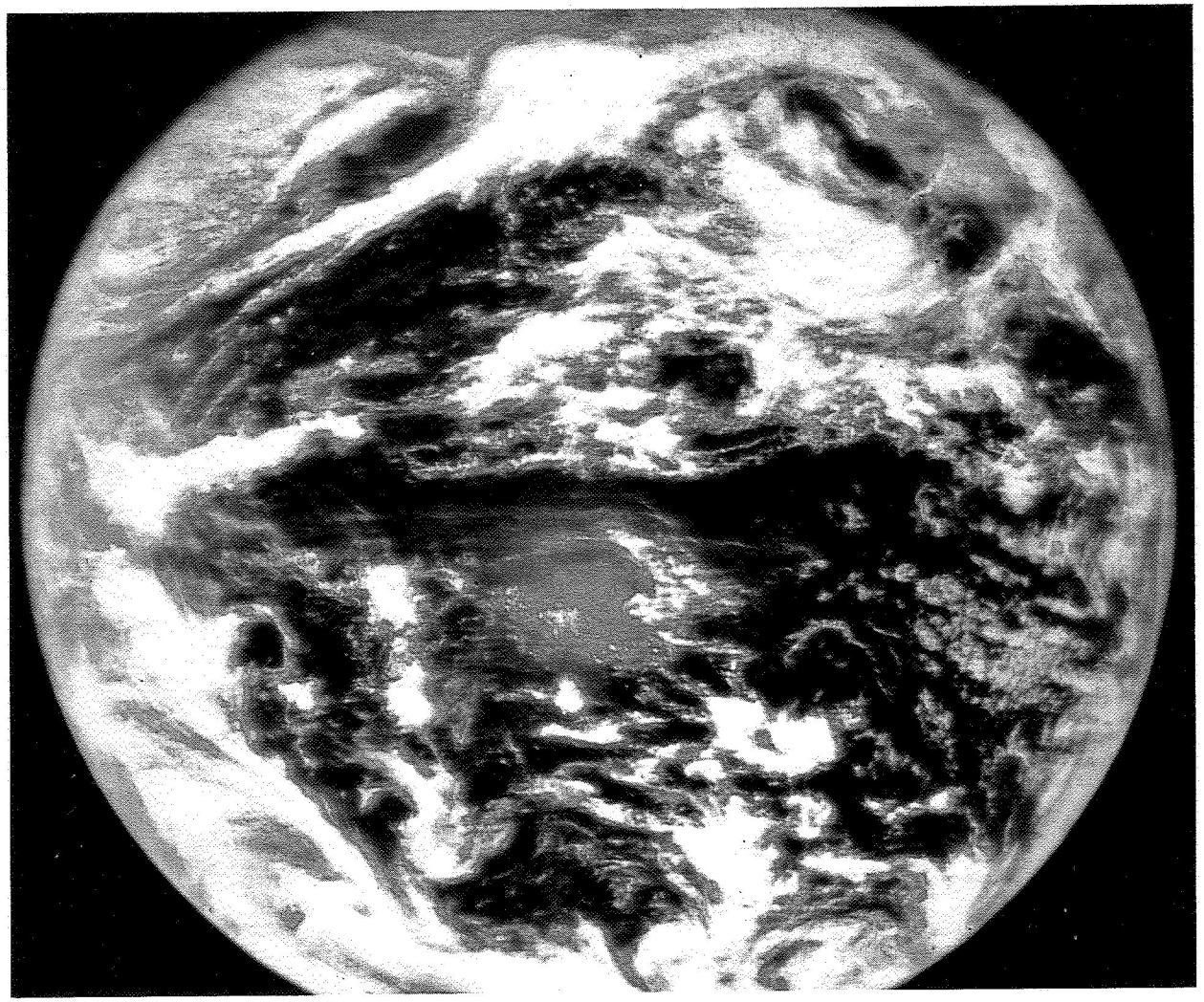
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	05 48 15	00	4001		
02	06 11 11	00	5001		
03	20 11 06	00	3002		
04	20 34 05	00	7000		
05	20 56 55	00	4002		EE PE
06	21 19 55	10	1000	1113F 2143F 2142J 2240G 4710H 3150F	MEXICO USA
06	21 19 55	20	3000	2140A 2240A	CNTRL AMERICA
06	21 19 55	40	4000	2142A 2240A	
06	21 19 55	50	1000	1100G 2140A 2230C 4610F	
06	21 19 55	60	4000	2140A 2230A	
06	21 19 55	80	3000	1100A 2140A 2230A	AUSTRALIA



ATS-I 1 FEBRUARY 1967 21 19 55 UT SEQ 6

2 FEB 67 SUBSATELLITE PT 149.59W 00.16N TOTAL PICS 8

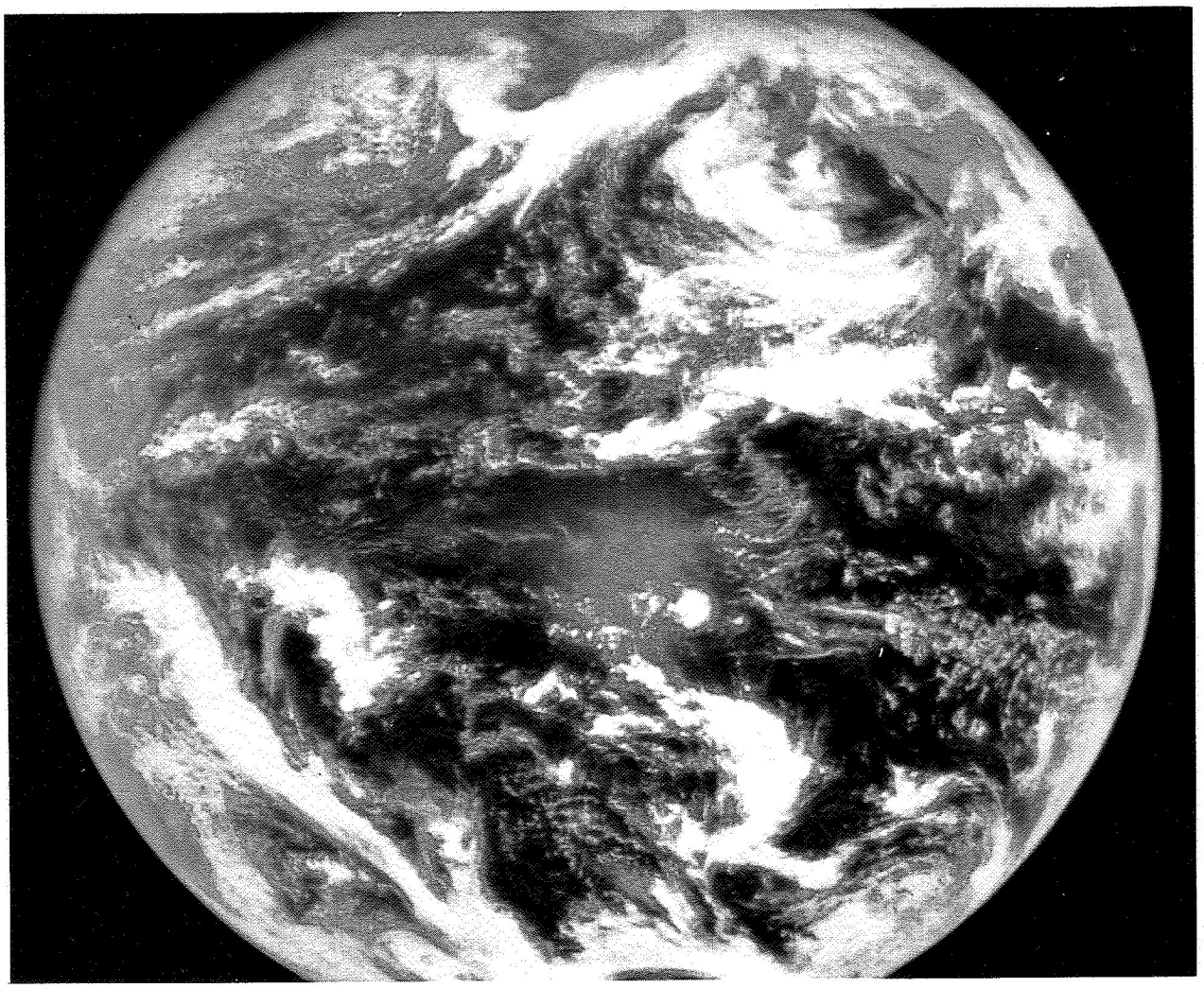
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	06 01 20	00	7000		
02	06 43 19	00	7000		
03	20 10 01	00	3002		
04	20 33 57	00	3002		
05	20 55 50	00	3000		
06	21 18 47	00	3000		
07	21 41 44	00	7000		
08	22 04 40	10	3000	2143C 2142H 2240G 2141F 1100F 4710H	MEXICO USA
08	22 04 40	20	3000	2140A 1100A 4200A	CNTRL AMERICA
08	22 04 40	40	4000	2140A 2240A	
08	22 04 40	50	1000	1100G 2143D 4610F	
08	22 04 40	60	4000	2140A	
08	22 04 40	80	3000	2140A 2240A 1100A 4200A	AUSTRALIA



ATS-I 2 FEBRUARY 1967 22 04 40 UT SEQ 8

3 FEB 67 SUBSATELLITE PT 149.69W 00.16N TOTAL PICS 5

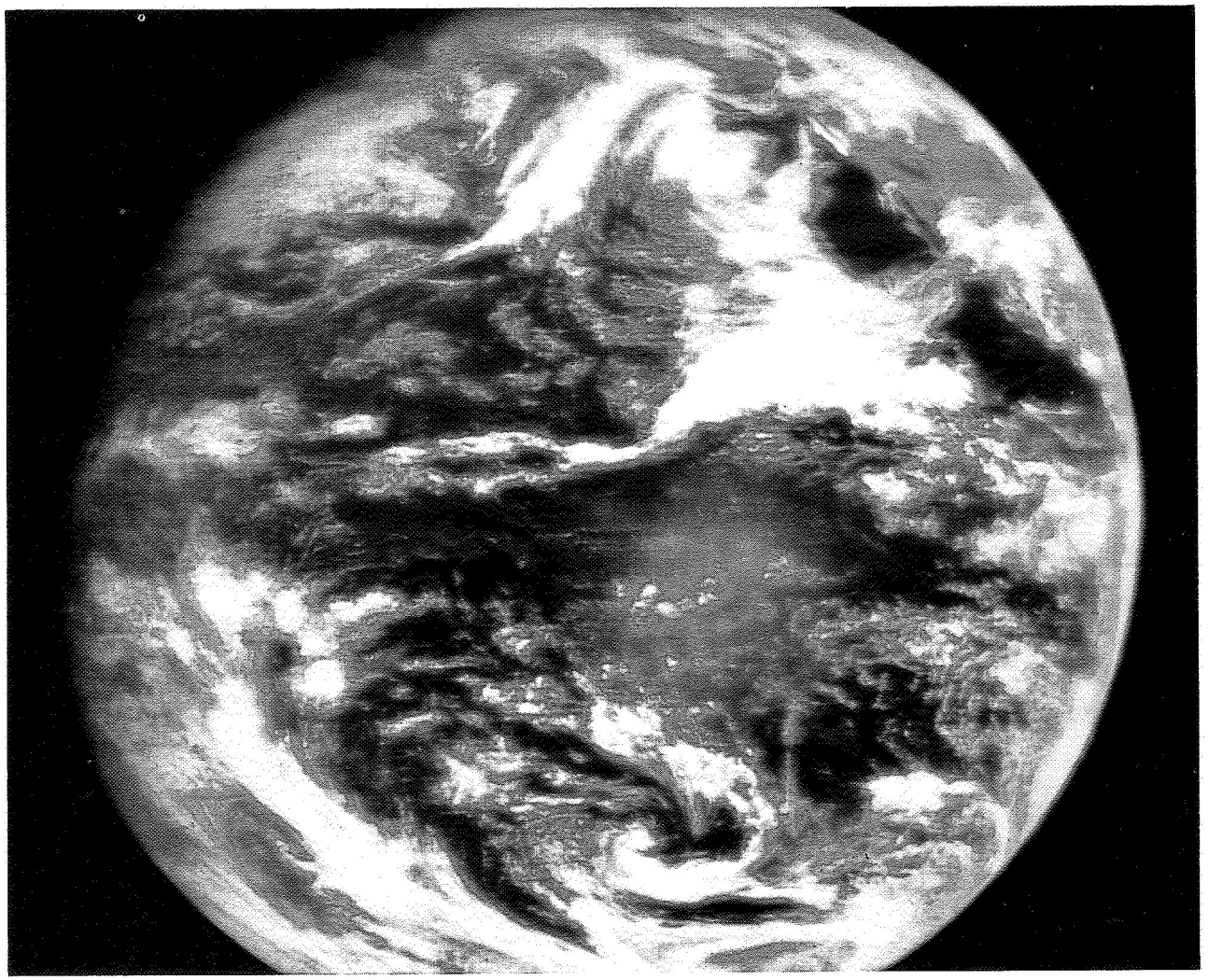
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	06 07 42	00	5001		PE EE
02	06 30 39	00	5001		
03	21 13 00	10	3000	2143F 2142J 2240G 3100G 4200H	MEXICO USA
03	21 13 00	20	4000	2240A 1100A 4200A	CNTRL AMERICA
03	21 13 00	40	5000	5000A	
03	21 13 00	50	1000	2140A 2230C 3100F 4610F	
03	21 13 00	60	4000	2140A	
03	21 13 00	80	1000	2140A 4200A	NEW ZEALAND
04	21 35 54	00	3000		
05	21 58 51	00	3500		



ATS-I 3 FEBRUARY 1967 21 35 54 UT SEQ 4

4 FEB 67 SUBSATELLITE PT 149.79W 00.16N TOTAL PICS 15

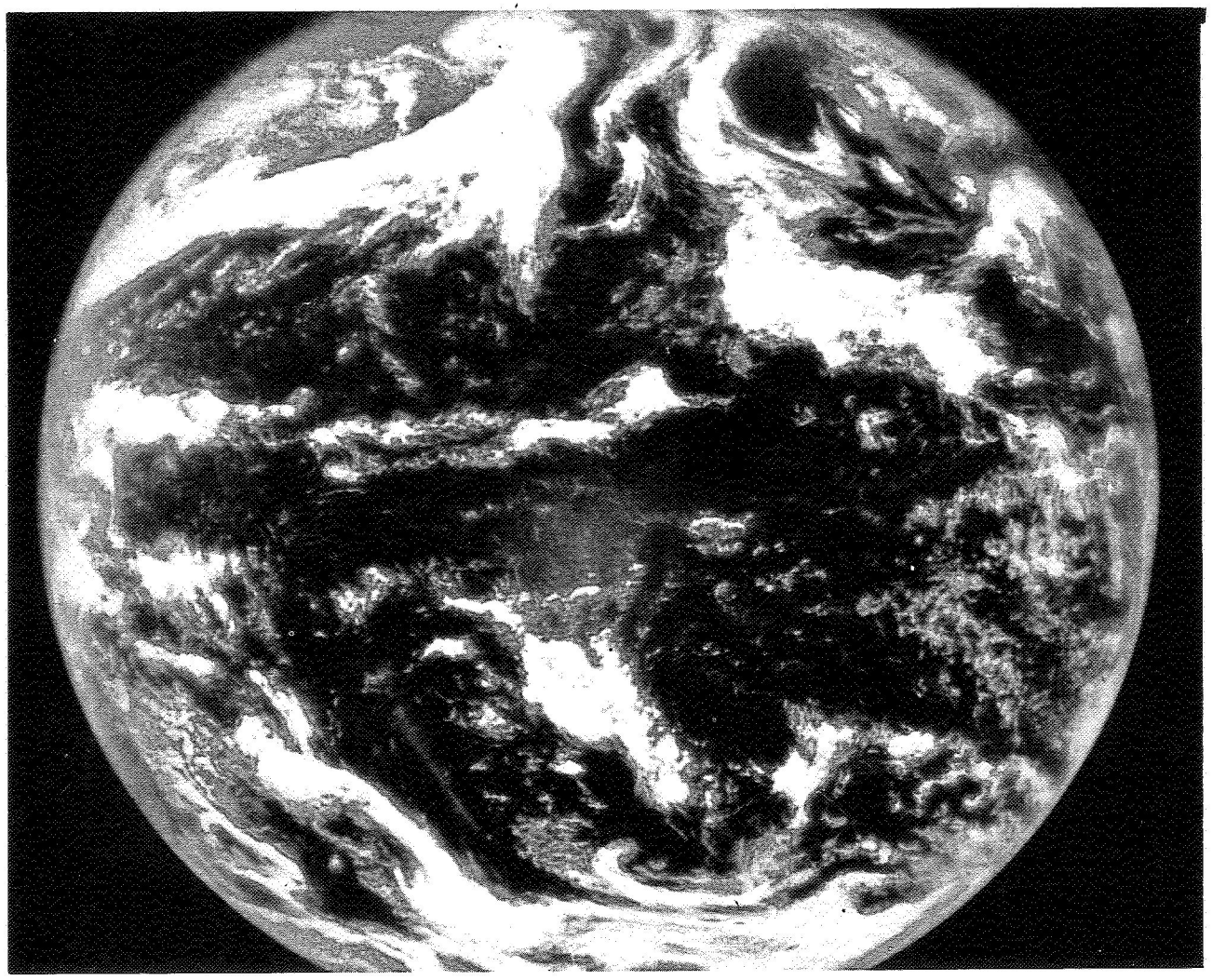
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 31 04	10	1001	1100C 2140I 2240D	
01	03 31 04	40	4000	1100A 2230A	
01	03 31 04	50	1001	2140I 2230C	
01	03 31 04	80	3000	2140A 2230A 4200A 4610A	NEW ZEALAND
02	03 53 57	00	3001		
03	05 32 14	00	4001		
04	05 55 16	00	5501		PE
05	06 18 17	00	5001		
06	06 41 01	00	5001		
07	07 03 57	00	5001		
08	07 26 53	00	5001		
09	07 49 49	00	5001		
10	20 14 32	10	1002	2145C 2142J 2240G 2230E 4710B 4200H	MEXICO USA
10	20 14 32	20	3000	2140A 1100A 4200A	CNTRL AMERICA
10	20 14 32	40	5002	5000A	
10	20 14 32	50	1000	1100G 2140K 4610F 2230C	
10	20 14 32	60	4000	2140A	
10	20 14 32	80	1002	2140A 4200A 2230A	AUSTRALIA
11	20 37 28	00	3000		
12	21 00 05	00	3000		EE
13	21 23 20	00	3500		
14	21 32 38	00	3000		
15	21 58 34	00	3000		



ATS-I 4 FEBRUARY 1967 20 14 32 UT SEQ 10

5 FEB 67 SUBSATELLITE PT 149.88W 00.16N TOTAL PICS 5

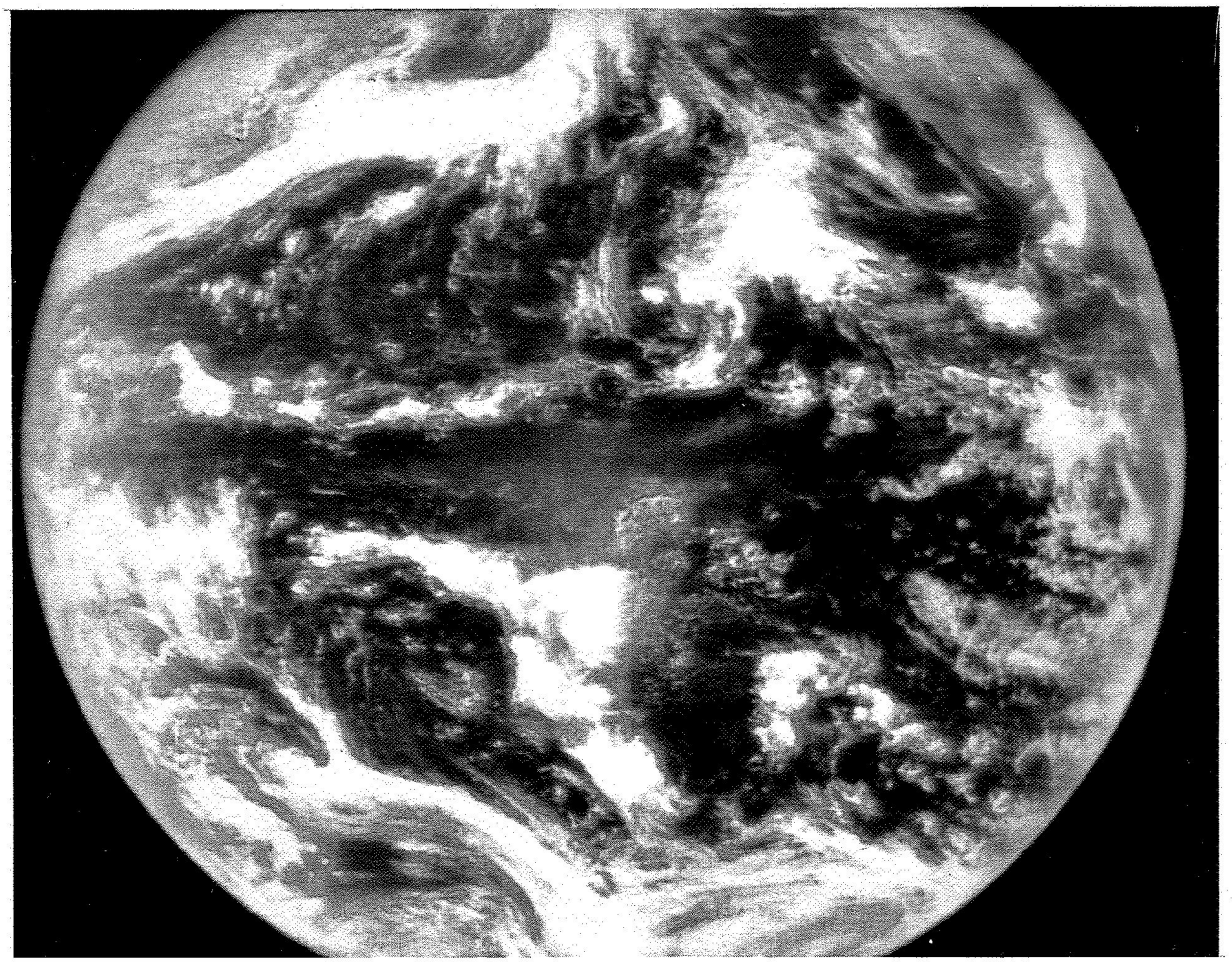
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	20 34 30	00	3002		
02	20 57 26	00	1500		
03	21 20 10	00	3000		
04	21 43 06	00	3000		
05	22 06 03	10	3000	1100C 2145C 2142A 2240G 4710H	MEXICO USA
05	22 06 03	20	3000	2140A 4200A	CNTRL AMERICA
05	22 06 03	40	1000	1100A 2140A 2240A	
05	22 06 03	50	1000	2140K 1100G	
05	22 06 03	60	4000	2140A	
05	22 06 03	80	3000	2140A 2230A 4200A	AUSTRALIA



ATS-I 5 FEBRUARY 1967 22 06 03 UT SEQ 5

6 FEB 67 SUBSATELLITE PT 149.98W 00.18N TOTAL PICS 10

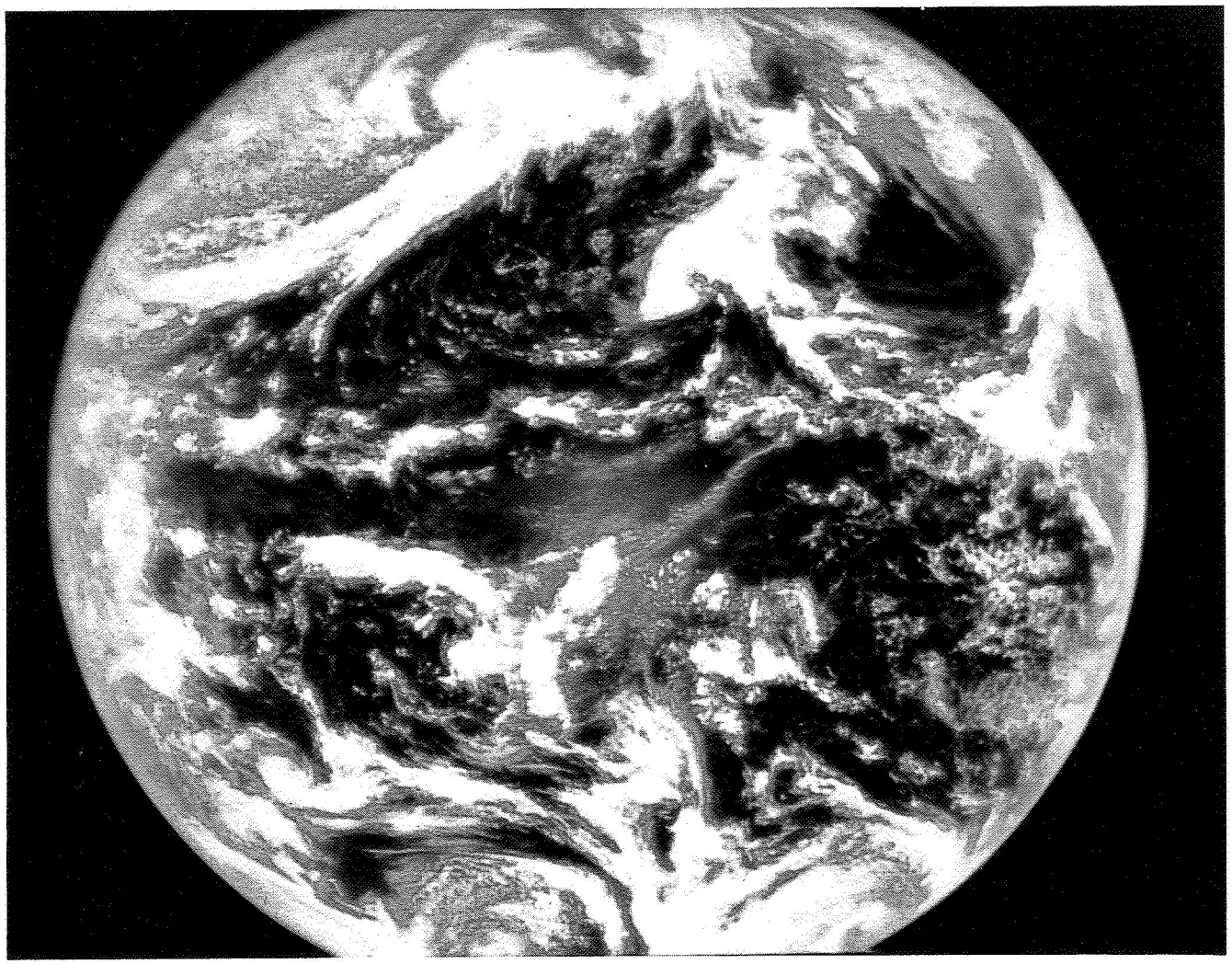
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 23 38	10	1001	2142I 2240D	
01	03 23 38	40	1000	2142A 2240A	
01	03 23 38	50	1001	1100I 2143D	
01	03 23 38	80	3000	1100A 2143A 2240A 4610A 4200A	AUSTRALIA
02	03 46 31	00	3001		
03	06 03 50	00	4501		
04	06 25 16	00	4001		
05	20 31 36	00	4002		EE PE
06	20 54 42	00	3000		EE PE
07	21 17 30	00	3000		
08	21 40 25	00	3000		
09	22 03 19	10	3000	1100C 2143I 2240G 4710H	MEXICO USA
09	22 03 19	20	3000	2140A 2240A 4200A	CNTRL AMERICA
09	22 03 19	40	4000	2142A 2240A	
09	22 03 19	50	1000	2143I 2142E 4610C	
09	22 03 19	60	4000	2140A	
09	22 03 19	80	3000	1100A 2141A 2230A 4200A	AUSTRALIA
10	23 40 38	00	3001		



ATS-I 6 FEBRUARY 1967 22 03 19 UT SEQ 9

7 FEB 67 SUBSATELLITE PT 150.08W 00.18N TOTAL PICS 13

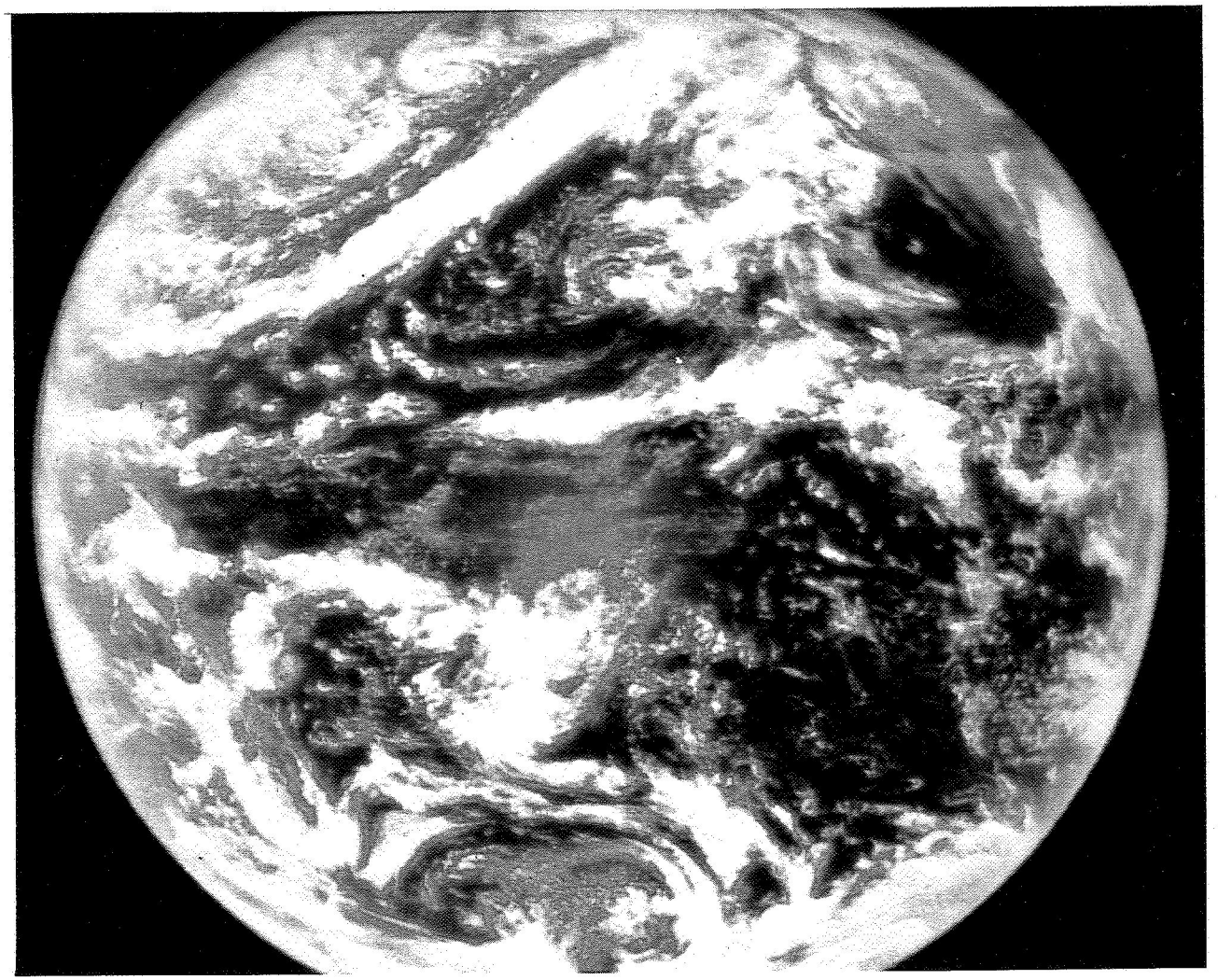
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 03 33	10	3001	1100C 2145C 2142I 2142J 2240G 4200H	MEXICO USA
01	00 03 33	20	5001	5000A	
01	00 03 33	40	4000	2140A 1100A	
01	00 03 33	50	1000	2143I 2142G 2141C 2230C	
01	00 03 33	60	5001	5000A	
01	00 03 33	80	3000	1100A 2240A 2140A 4200A	NEW ZEALAND
02	00 26 29	00	3001		
03	05 32 50	00	3001		
04	05 55 41	00	3001		
05	06 18 38	00	3001		EE PE
06	20 11 17	10	3002	1100F 2143C 2142F 2141F 2240G 4710H	MEXICO USA
06	20 11 17	20	3000	2140A 4200A	MEXICO
06	20 11 17	50	1000	2140A 2230C 4610F	
06	20 11 17	60	3000	2140A	
06	20 11 17	80	3002	2140A 1100A 4200A	NEW ZEALAND
07	20 34 14	00	3002		
08	20 57 12	00	3000		EE
09	21 20 03	00	3000		
10	21 42 59	00	3000		
11	22 05 52	00	3000		
12	23 21 49	10	1000	1100C 2142I 2240G 1114E 4710H	MEXICO USA
12	23 21 49	20	3001	2140A 4200A	CNTRL AMERICA
12	23 21 49	40	4000	2140A	
12	23 21 49	50	1000	1100G 2140K 2230C 4610C	
12	23 21 49	60	4001	2140A	
12	23 21 49	80	3000	1114A 2140A 4200A	AUSTRALIA
13	23 44 46	00	3001		



ATS-I 7 FEBRUARY 1967 21 42 59 UT SEQ 10

8 FEB 67 SUBSATELLITE PT 150.17W 00.18N TOTAL PICS 8

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 07 39	10	1001	1114E 1113C 2143F 21421 2240G	
01	00 07 39	40	4000	2140A 2240A	
01	00 07 39	50	1000	2140A 2230C	
01	00 07 39	60	5001	5000A	
01	00 07 39	80	3000	2140A 1100A 2240A 4200A	AUSTRALIA
02	15 47 10	10	4002	2140B 2240E 4710H	
02	15 47 10	20	4000	2140A	
02	15 47 10	50	1002	2140G 4610B	
02	15 47 10	60	4000	2140A 4610A	
03	20 15 52	00	3002		
04	20 38 49	00	3000		EE
05	21 01 48	00	3000		
06	21 24 42	00	3000		
07	21 47 35	00	3000		
08	22 10 31	10	3000	2142A 1114C 1125C 2240G 1114E 4710H	MEXICO USA
08	22 10 31	20	3000	2140A 4200A	USA MEXICO
08	22 10 31	40	4000	2140A	
08	22 10 31	50	1000	2140A 2230C 1100E	
08	22 10 31	60	4000	2140A	
08	22 10 31	80	3000	2140A 2230A 4200A	AUSTRALIA

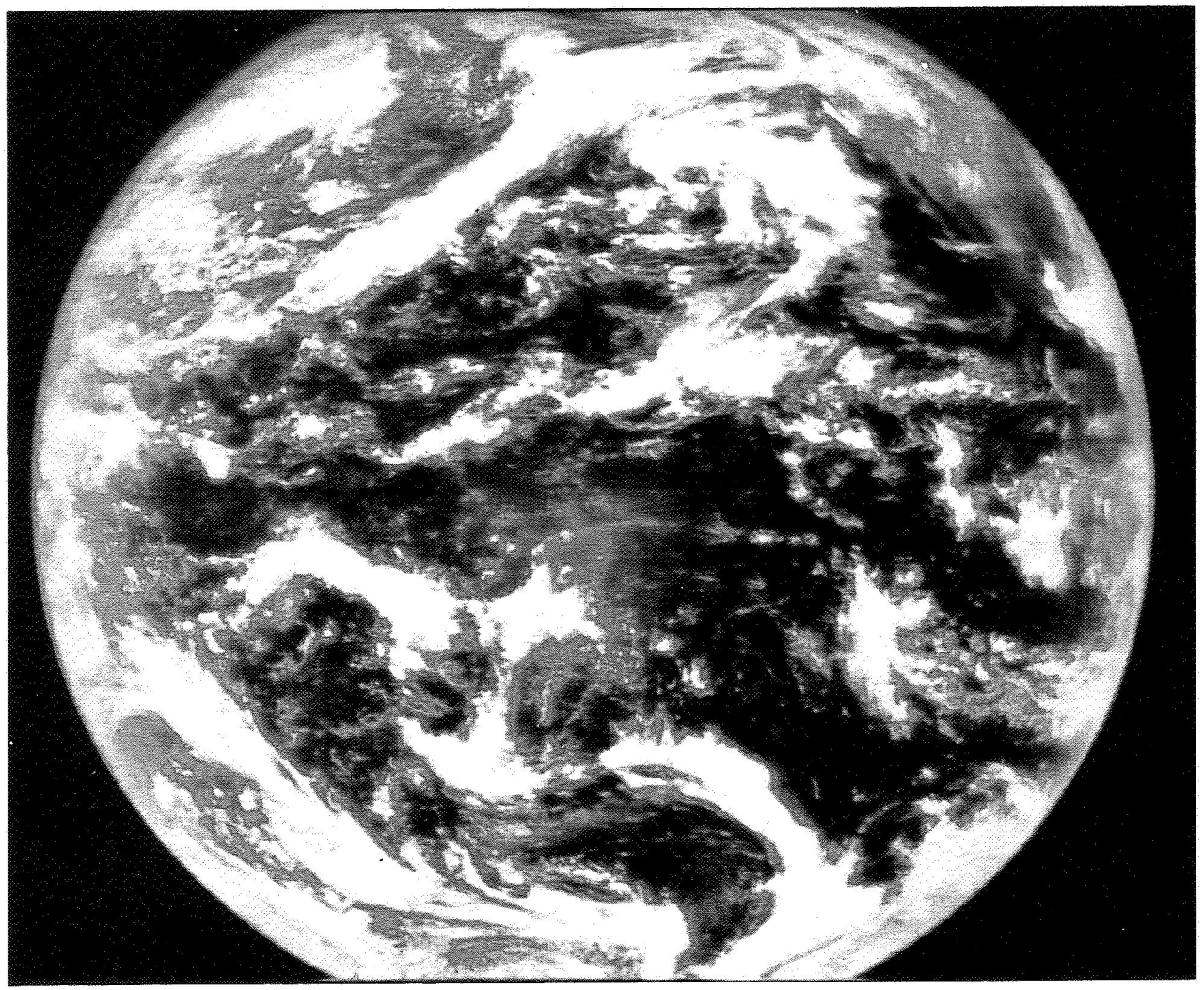


ATS-I 8 FEBRUARY 1967 22 10 31 UT SEQ 8

9 FEB 67 SUBSATELLITE PT 150.26W 00.18N TOTAL PICS 9

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	14 34 09	00	4002		EE
02	14 57 06	00	4002		EE
03	15 19 06	00	4002		
04	20 04 56	00	3002		
05	20 27 51	00	3002		
06	20 50 47	00	3002		
07	21 13 39	00	3000		
08	21 36 38	00	3000		
09	21 59 02	10	1000	1100F 2143B 2145C 21421 2220G 4710H	MEXICO USA
09	21 59 02	20	3000	2140A 4200A	GULF MEXICO
09	21 59 02	40	4000	2230A 2140A	
09	21 59 02	50	1000	2140A 2230F 4610F	
09	21 59 02	60	4000	2140A	
09	21 59 02	80	3000	2140A 4200A	AUSTRALIA

10 FEBRUARY 1967 NO DATA AVAILABLE

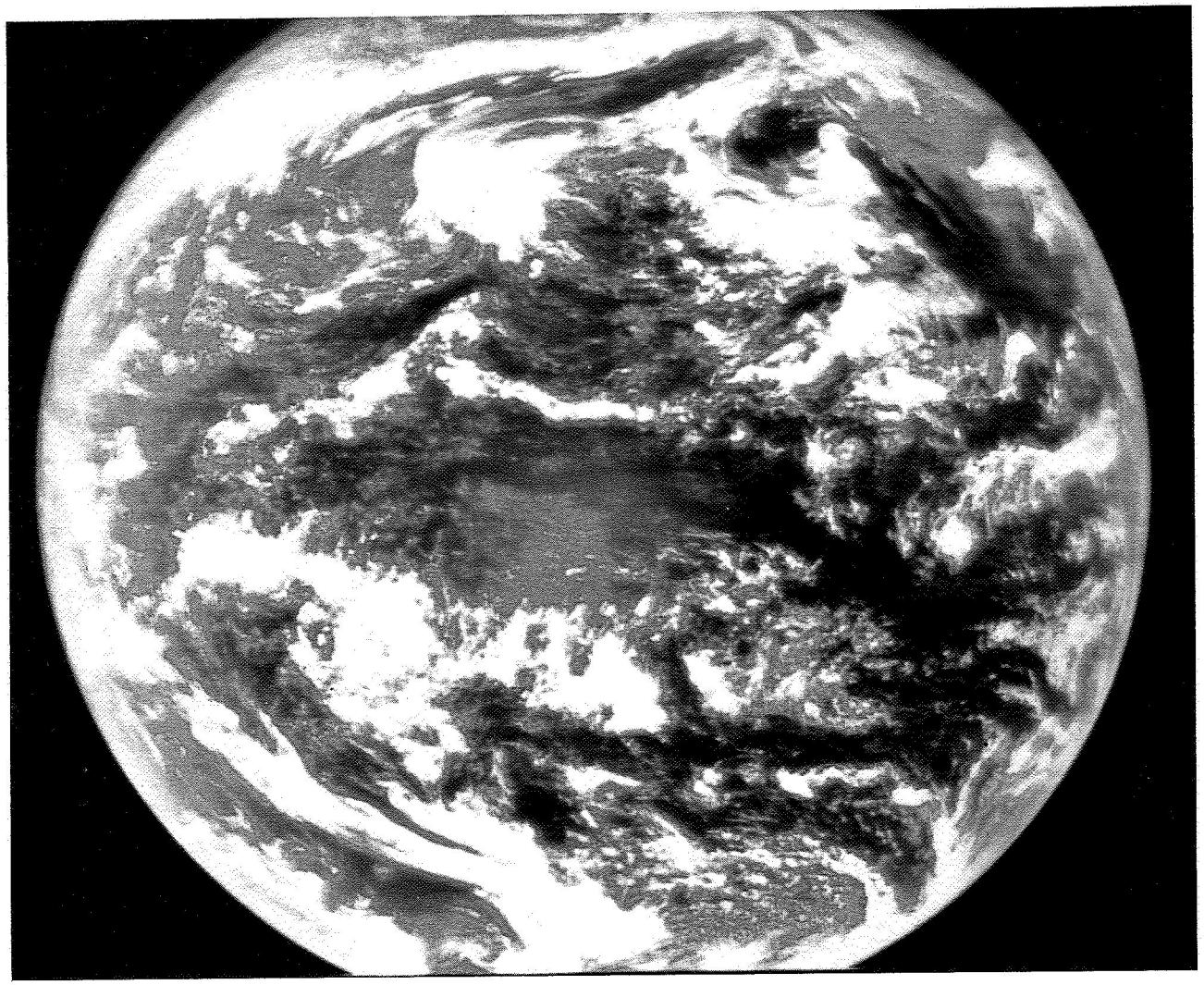


ATS-I 9 FEBRUARY 1967 21 59 02 UT SEQ 9

10 FEBRUARY 1967 NO DATA AVAILABLE

11 FEB 67 SUBSATELLITE PT 150.44W 00.18N TOTAL PICS 14

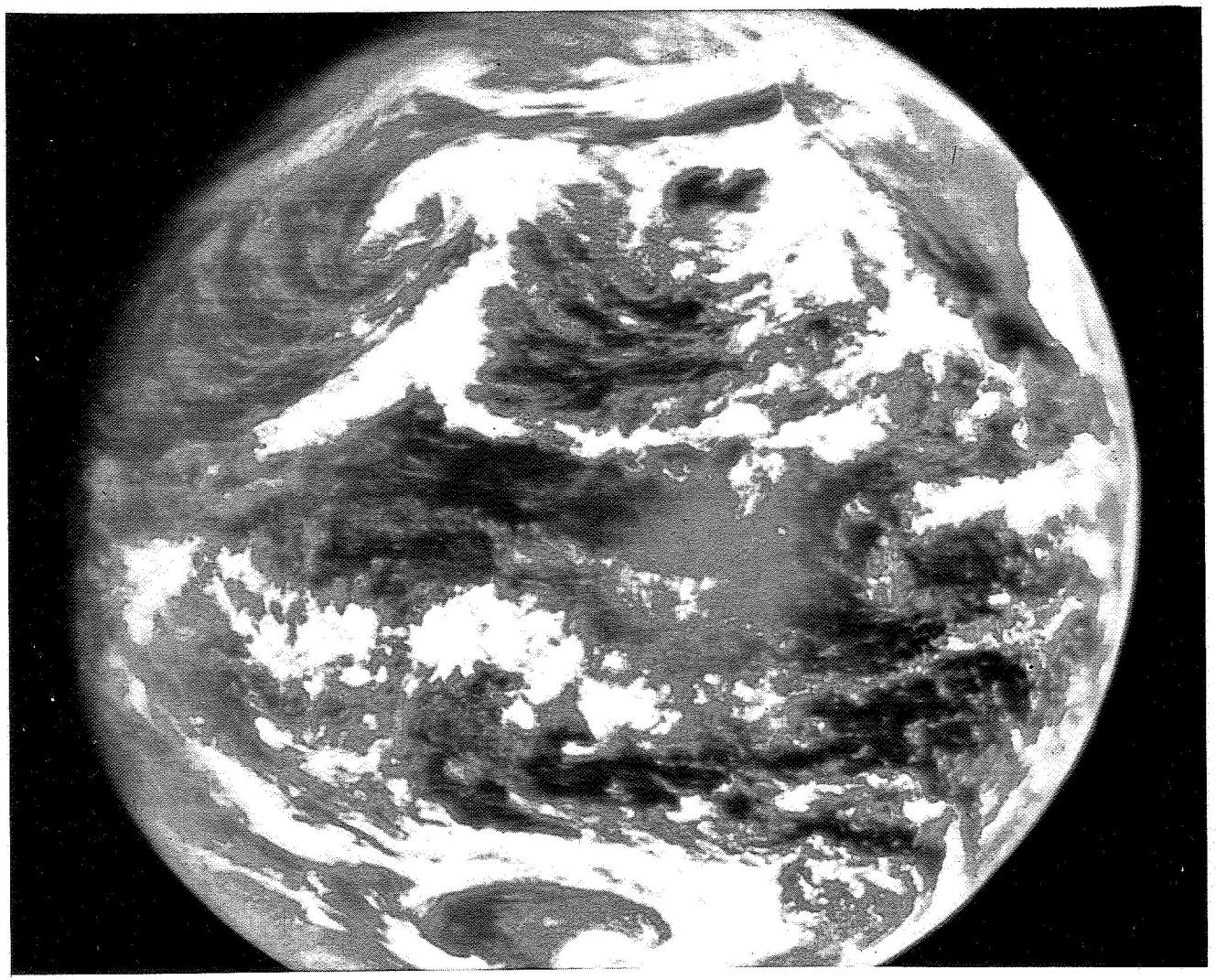
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	05 13 35	00	4001		
02	05 48 16	00	5001		
03	11 12 41	00	5002		
04	11 35 38	00	7000		
05	11 48 32	00	5002		
06	17 38 10	10	3002	1100H 2140H 2230E	
06	17 38 10	20	3000	1100A 2140A 4200A	CNTRL AMERICA
06	17 38 10	50	1002	2140A 2230B 4610B	
06	17 38 10	60	1000	2140A	
07	18 01 02	00	3002		
08	18 23 58	00	3002		
09	18 47 00	00	3002		
10	19 09 46	00	3002		EE
11	19 32 42	00	3002		
12	22 12 00	10	1000	1113B 1120I 2142F 2220G	
12	22 12 00	20	3000	1100A 2140A 4200A	CNTRL AMERICA
12	22 12 00	40	4000	2140A 2240A	
12	22 12 00	50	1000	2140A 1100D 2230C 4610C	
12	22 12 00	60	4000	2140A	
12	22 12 00	80	3000	2140A 2240A 4200A	AUSTRALIA
13	22 34 50	00	3000		
14	22 57 47	00	3501		



ATS-I 11 FEBRUARY 1967 22 12 00 UT SEQ 12

12 FEB 67 SUBSATELLITE PT 150.53W 00.16N TOTAL PICS 3

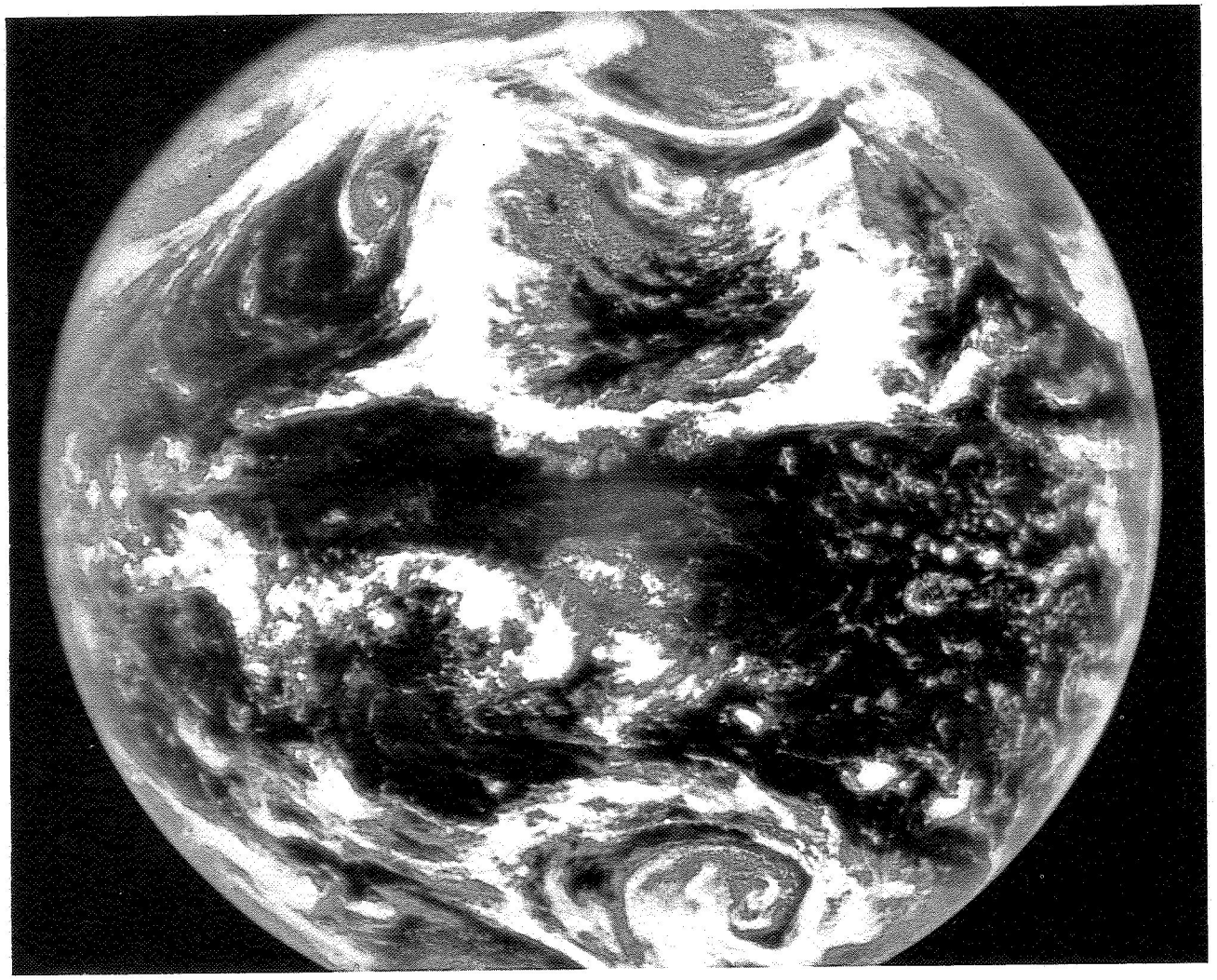
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	17 06 23	00	7000		
02	17 29 20	00	7000		
03	20 19 00	10	3000	1100J 2140A 3100G 4610E 4710H 2240G	US MEXICO
03	20 19 00	20	4000	2140A 2240A	
03	20 19 00	40	5002	5000A	
03	20 19 00	50	1000	1100D 2140G 2240F 4610F	
03	20 19 00	60	4000	2140A 2240A	
03	20 19 00	80	4002	2140A 2240A	



ATS-I 12 FEBRUARY 1967 20 19 00 UT SEQ 3

13 FEB 67 SUBSATELLITE PT 150.61W 00.16N TOTAL PICS 15

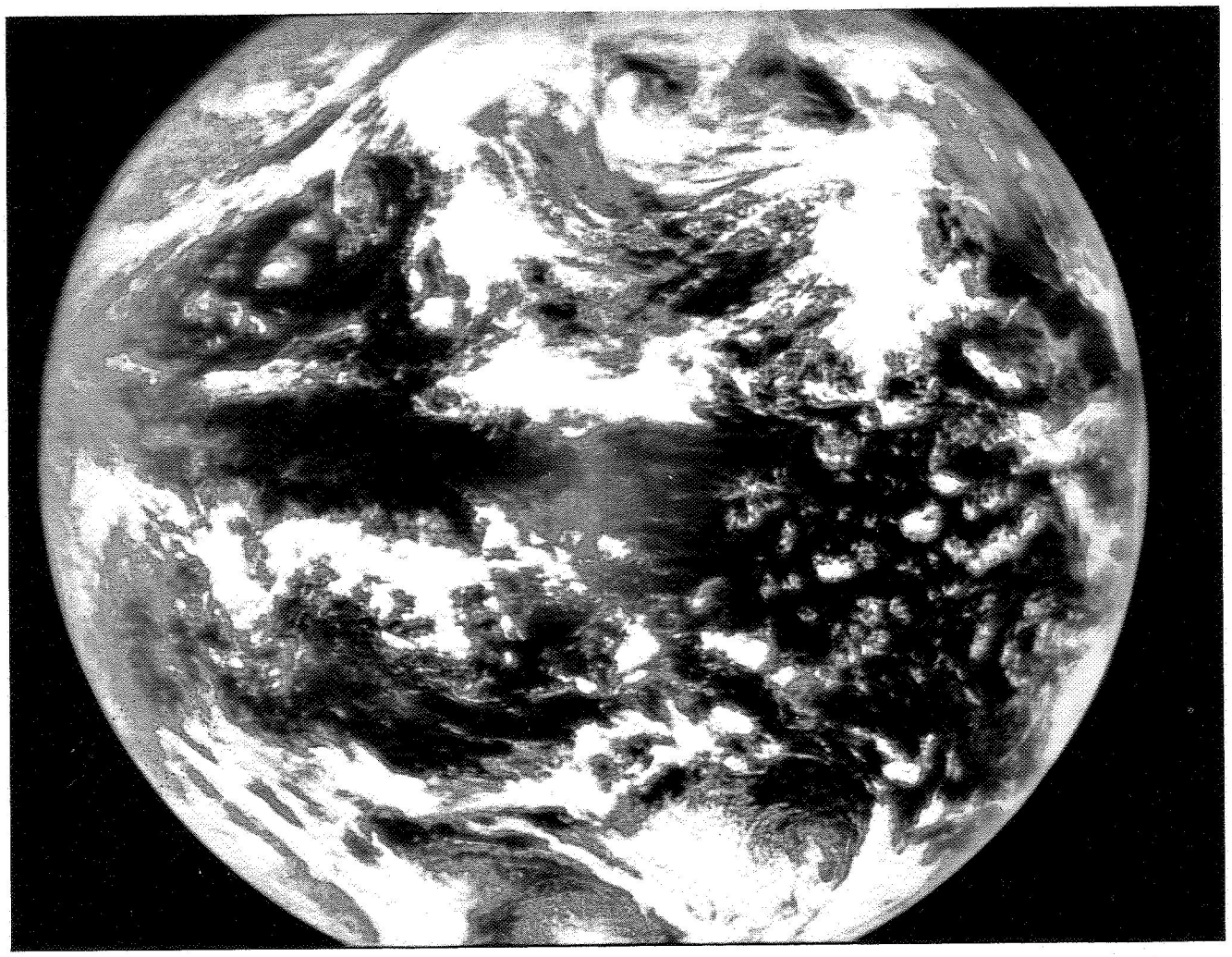
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 03 18	10	1001	11131 2143D 2142I 2141D	
01	03 03 18	40	1000	2140A 1100A 2230A	
01	03 03 18	50	1001	1100G 2140D	
01	03 03 18	80	3000	2140A 2240A 4610A 4200A	NEW ZEALAND
02	03 26 09	00	3001		
03	14 09 49	00	4002		
04	14 32 44	00	4002		
05	17 23 54	10	3002	1100B 2143B 2142H 2240G 4200H	MEXICO USA
05	17 23 54	20	3000	2140A 2220A 4200A	MEXICO USA
05	17 23 54	50	1002	2140G 1114G 4610B	
05	17 23 54	60	4000	2240A	
06	17 46 49	00	3002		
07	19 54 11	00	7000		
08	20 01 45	00	7000		
09	20 17 07	10	3002	1114D 1113F 2142A 2240G 4710H	MEXICO USA
09	20 17 07	20	3000	2140A 4200A	USA MEXICO
09	20 17 07	50	1000	2230C 1100G 2140A 4610C	
09	20 17 07	60	4000	2230A	
09	20 17 07	80	3002	2140A 4200A	NEW ZEALAND
10	20 40 01	00	3000		
11	21 02 57	00	3000		
12	21 25 53	00	3000		
13	21 48 46	00	3000		EE
14	23 25 11	10	3001	1113F 1114D 2142J 2143A 4710H 2240G	MEXICO USA
14	23 25 11	20	5001	5000A 2230A	
14	23 25 11	40	4000	2140A 1100A	
14	23 25 11	50	1000	2230C 1100G 2140A	
14	23 25 11	60	4000	2230A	
14	23 25 11	80	1000	2240A 2140A	
15	23 48 08	00	1001		



ATS-I 13 FEBRUARY 1967 21 48 46 UT SEQ 13

14 FEB 67 SUBSATELLITE PT 150.70W 00.17N TOTAL PICS 18

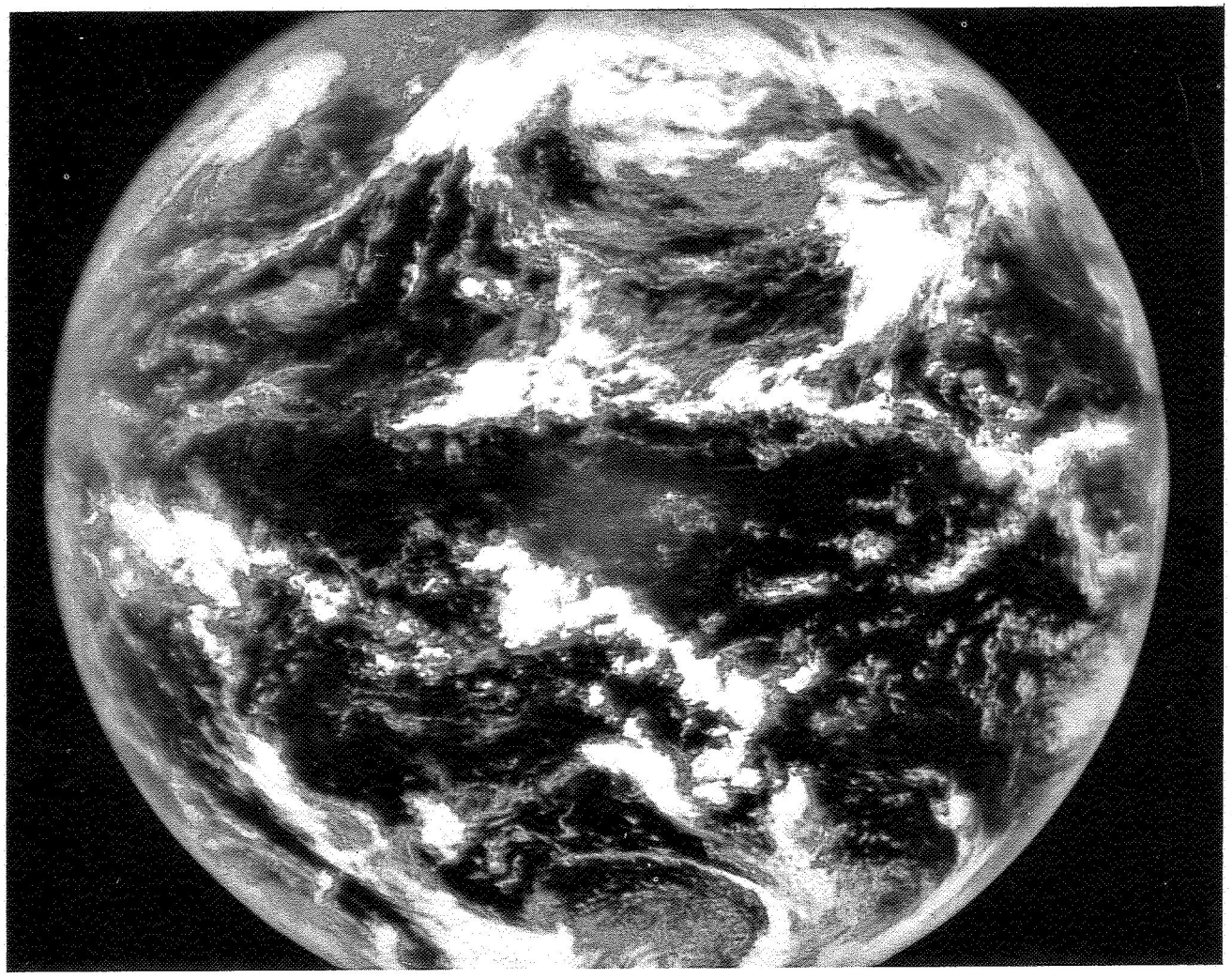
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 11 04	10	1001	1113F 1114D 2142A 2143D 3150H 2240G	USA
01	00 11 04	40	4000	1100A 2142A 2240A	
01	00 11 04	50	1000	1100G 2140A 2230C 4610C	
01	00 11 04	60	5001	5000A	
01	00 11 04	80	3000	1100A 2240A 4200A	AUSTRALIA
02	02 09 57	00	1500		
03	02 32 54	00	7000		
04	02 55 48	00	3001		
05	03 18 43	10	1001	21421 1114D 2143D 2240D 31501	
05	03 18 43	40	1000	2142A 2240A	
05	03 18 43	50	1001	1100G 21401 2230C	
05	03 18 43	80	3000	1100A 2140A 2240A 4200A	AUSTRALIA
06	03 41 40	00	7000		
07	16 45 29	00	3002		
08	17 08 26	00	3002		
09	17 31 18	10	4002	2140H 1100B 2240G	
09	17 31 18	20	4000	2140A	
09	17 31 18	50	1002	1100E 2140G 4610B	
09	17 31 18	60	1000	2140A	
10	17 54 15	00	3002		PE
11	18 17 12	00	3002		
12	20 43 19	00	3002		
13	21 06 16	00	3000		
14	21 29 10	00	3000		
15	21 52 50	10	3000	1100A 2140A 2240G 4710H	USA MEXICO
15	21 52 50	20	3000	2140A 2230A 4200A	MEXICO
15	21 52 50	40	1000	2140A	
15	21 52 50	50	1000	1100G 2140G 2230C 3150B 4610C	
15	21 52 50	60	1000	2140A 2230A	
15	21 52 50	80	3000	2140A 2240A 4200A	AUSTRALIA
16	22 15 04	00	3000		
17	23 18 05	00	3001		
18	23 40 55	00	3001		



ATS-I 14 FEBRUARY 1967 21 52 50 UT SEQ 15

15 FEB 67 SUBSATELLITE PT 150.78W 00.16N TOTAL PICS 15

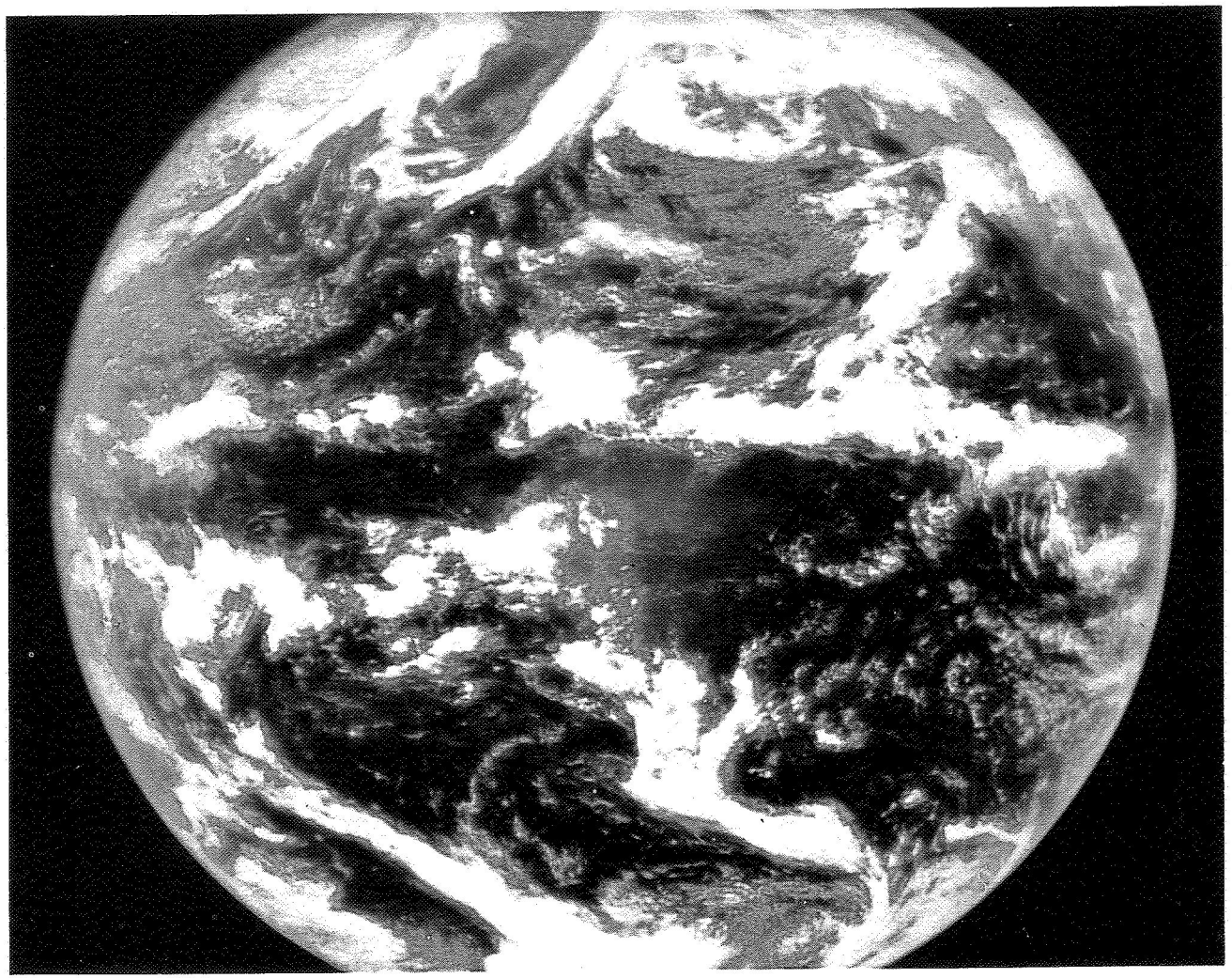
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 04 03	10	1001	1100I 2142I 2240G 3150H	
01	02 04 03	40	4000	1100A 2142A	
01	02 04 03	50	1001	1100G 2140K 2240C 4610C	
01	02 04 03	80	3000	1100A 2140A 4200A 4610A	AUSTRALIA
02	02 26 54	00	3001		
03	02 49 51	00	3001		
04	03 12 44	00	3001		
05	03 35 40	00	3001		
06	16 36 42	00	3002		
07	16 59 37	00	3002		
08	17 22 32	00	3002		
09	17 45 28	00	3002		
10	18 08 21	10	4002	1100B 2140H 2240G 4200H	MEXICO
10	18 08 21	20	3000	2140A 4200A	MEXICO
10	18 08 21	50	1002	2140A 2230C 4610B	
10	18 08 21	60	4000	2140A	
11	21 32 35	00	7000		
12	21 59 47	10	1000	2142F 2143F 2240G 1100C 4710H	MEXICO USA
12	21 59 47	20	3000	2140A 4200A	MEXICO
12	21 59 47	40	4000	2140A 2230A	
12	21 59 47	50	1000	2140A 4610C 2230C	
12	21 59 47	60	4000	2140A	
12	21 59 47	80	3000	2140A 2240A 4200A	NEW ZEALAND
13	22 53 05	00	3000		
14	23 16 10	00	3001		
15	23 38 59	00	3001		



ATS-I 15 FEBRUARY 1967 21 59 47 UT SEQ 12

16 FEB 67 SUBSATELLITE PT 150.86W 00.16N TOTAL PICS 16

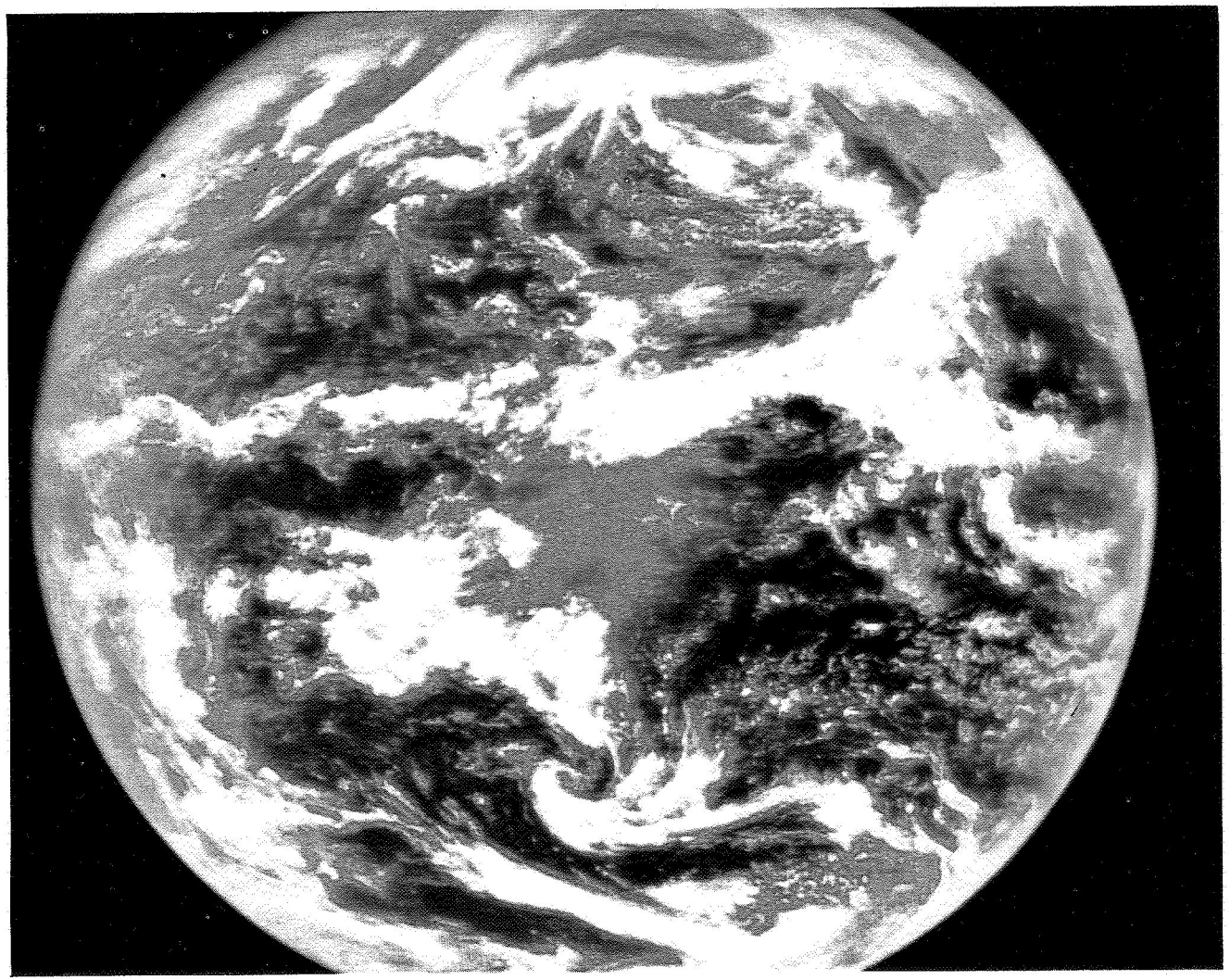
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	01 56 06	10	1001	2140J 1100C 2240G 3150G	
01	01 56 06	40	4000	1100A 2140A	
01	01 56 06	50	1001	1100D 2140A 2230C 4610C	
01	01 56 06	80	3000	2140A 2240A 4200A 4610A	NEW ZEALAND
02	02 19 02	00	7000		
03	02 41 56	00	1001		
04	03 04 51	00	7000		
05	03 27 48	00	3001		
06	16 37 43	00	3002		
07	17 00 40	10	1002	1100B 2140B 2240G 4710H	MEXICO USA
07	17 00 40	20	4000	1100A 2140A	
07	17 00 40	50	1002	2140K 2230C 4610B	
07	17 00 40	60	4000	2140A 2230A	
08	17 34 20	00	3002		
09	17 57 13	00	3002		
10	20 38 49	00	7000		
11	21 01 42	00	3002		
12	21 24 40	00	3000		
13	21 47 36	10	1000	2143B 2142I 1113C 2240G 0150G 4710H	MEXICO USA
13	21 47 36	20	3000	1100A	
13	21 47 36	40	4000	2140A 2230A	
13	21 47 36	50	1000	1100A 2140A 2230C 4610C	
13	21 47 36	60	4000	2140A	
13	21 47 36	80	3000	2140A 2230A 4200A	NEW ZEALAND
14	22 10 32	00	3000		
15	22 59 23	00	3001		
16	23 22 21	00	3001		



ATS-I 16 FEBRUARY 1967 21 47 36 UT SEQ 13

17 FEB 67 SUBSATELLITE PT 150.94W 00.16N TOTAL PICS 11

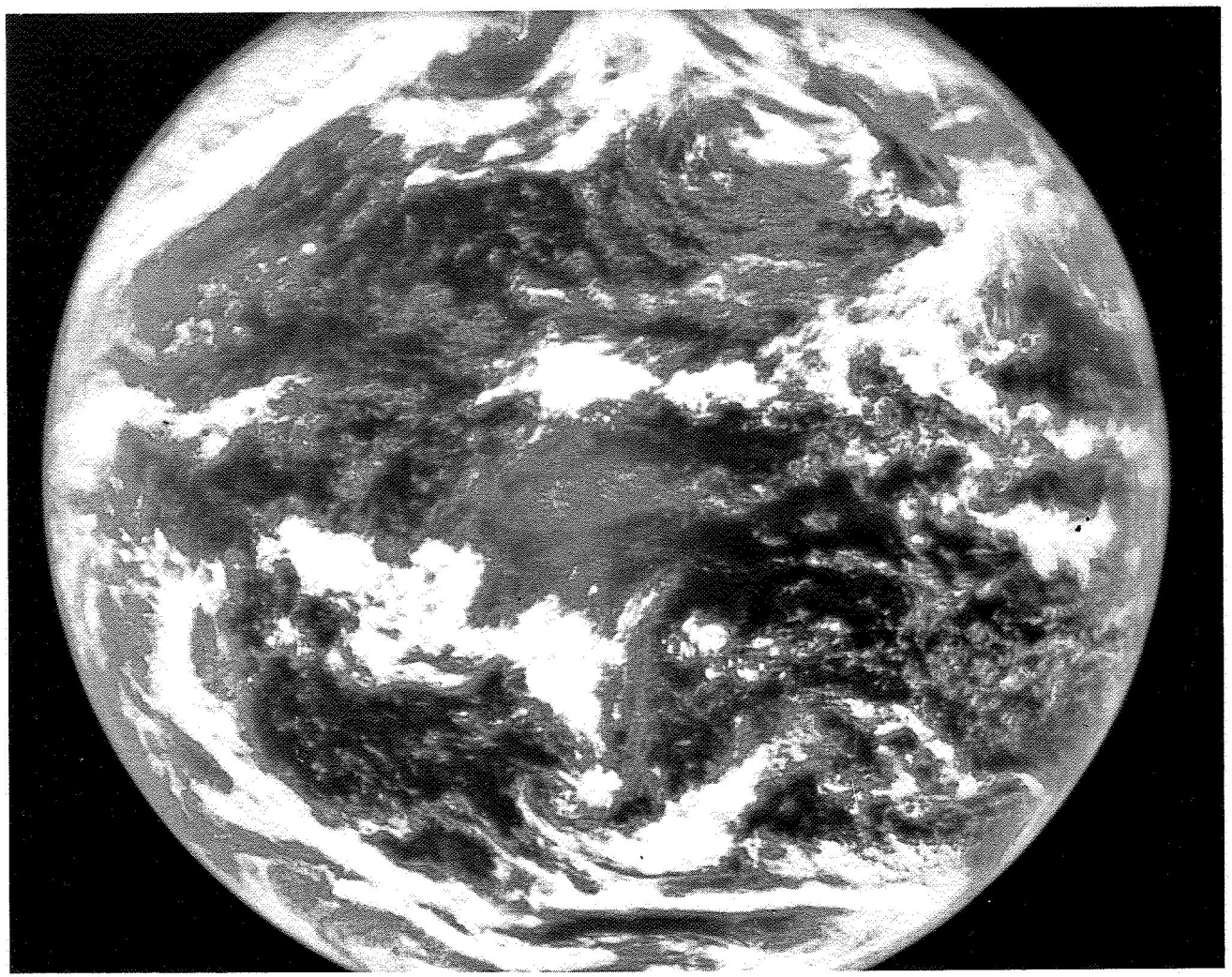
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 04 40	10	1001	1100C 2142I 2240G 3150G	
01	02 04 40	40	4000	2140A 1100A 2240A	
01	02 04 40	50	1001	1113G 1114A 2140G 2230C 4610C	
01	02 04 40	80	4000	2140A 4200A	NEW ZEALAND
02	16 46 03	00	3002		
03	17 09 00	00	3002		
04	17 31 54	10	1002	2145B 2143F 2240G 3150E 4710H	MEXICO USA
04	17 31 54	20	4000	2140A 1100A	
04	17 31 54	50	1002	1100I 2140A 2230B 4610B	
04	17 31 54	60	4000	2140A	
05	20 40 29	00	3002		
06	21 03 36	00	3000		
07	21 26 22	00	3000		
08	21 49 16	10	3000	1113C 2142F 2240G 4200H	MEXICO USA
08	21 49 16	20	3000	2140A 4200A 2230A	CNTRL AMERICA
08	21 49 16	40	1000	1100A 2140A	
08	21 49 16	50	1000	2140A 1100C 2230C	
08	21 49 16	60	4000	2140A 2230A	
08	21 49 16	80	3000	2140A 2240A 4200A	NEW ZEALAND
09	22 12 18	00	3000		
10	22 35 09	00	3000		
11	22 58 04	00	3000		



ATS-I 17 FEBRUARY 1967 21 49 16 UT SEQ 8

18 FEB 67 SUBSATELLITE PT 151.02W 00.16N TOTAL PICS 28

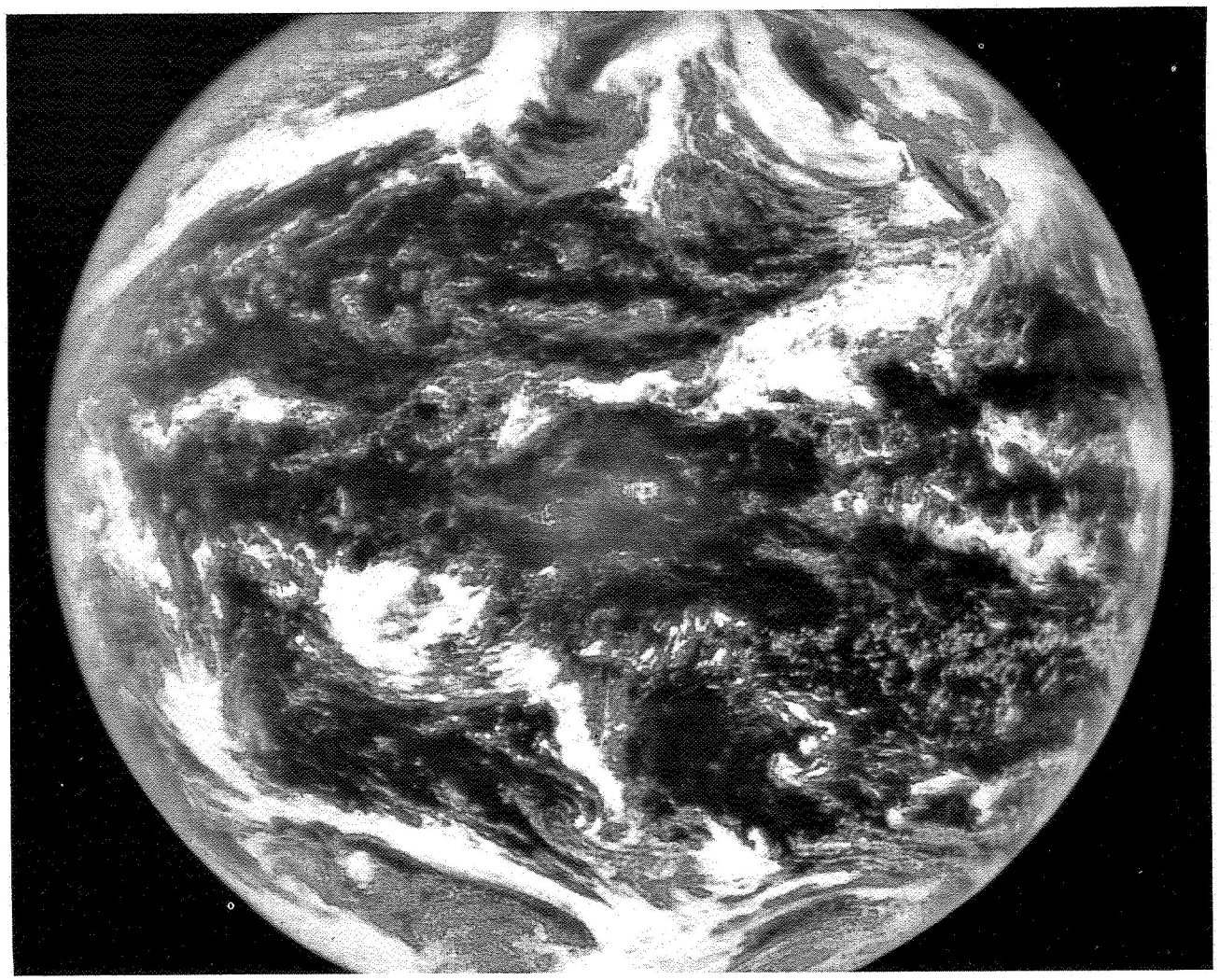
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	13 09 43	00	5002		
02	13 37 29	00	5002		
03	14 00 26	00	4002		
04	14 23 23	00	5002		
05	14 46 16	00	4002		
06	15 09 12	00	4002		
07	15 32 09	00	3002		
08	15 55 03	00	3002		
09	16 17 58	10	3002	1100H 2143E 2142E 2240E 4710H	MEXICO USA
09	16 17 58	20	3000	2140A 2230A 4200A	CNTRL AMERICA
09	16 17 58	50	1002	1114D 2140G 2240B 4610B	
09	16 17 58	60	4000	2140A 4610A	
10	16 40 51	00	3002		
11	17 03 49	00	3002		
12	17 26 41	00	3002		
13	17 49 38	00	3002		
14	18 12 31	00	3002		
15	18 35 27	00	3002		
16	19 04 40	10	3002	2143H 2240G 2142J 3150E 4710B	USA MEXICO
16	19 04 40	20	3000	4200A	CNTRL AMERICA
16	19 04 40	50	1000	11141 2140G 3150C 4610B	
16	19 04 40	60	1000	2140A	
16	19 04 40	80	1002	2140A	
17	19 27 34	00	3002		
18	19 50 30	00	3002		
19	20 13 24	00	3002		
20	20 36 20	00	3002		
21	20 59 17	00	3002		
22	21 23 55	00	3000		
23	21 56 54	00	3000		
24	22 19 00	10	1000	2142A 2240G 1113C 4710H	
24	22 19 00	20	3000	2140A 4200A	MEXICO
24	22 19 00	40	1000	2142A 2240A	
24	22 19 00	50	1000	11001 2140G 2230C 4610C	
24	22 19 00	60	1000	2140A	
24	22 19 00	80	1000	2140A 4200A	AUSTRALIA
25	22 42 44	00	3000		EE
26	23 05 38	00	3000		EE
27	23 28 33	00	3000		EE
28	23 51 27	00	3001		EE



ATS-I 18 FEBRUARY 1967 22 19 00 UT SEQ 24

19 FEB 67 SUBSATELLITE PT 151.09W 00.16N TOTAL PICS 46

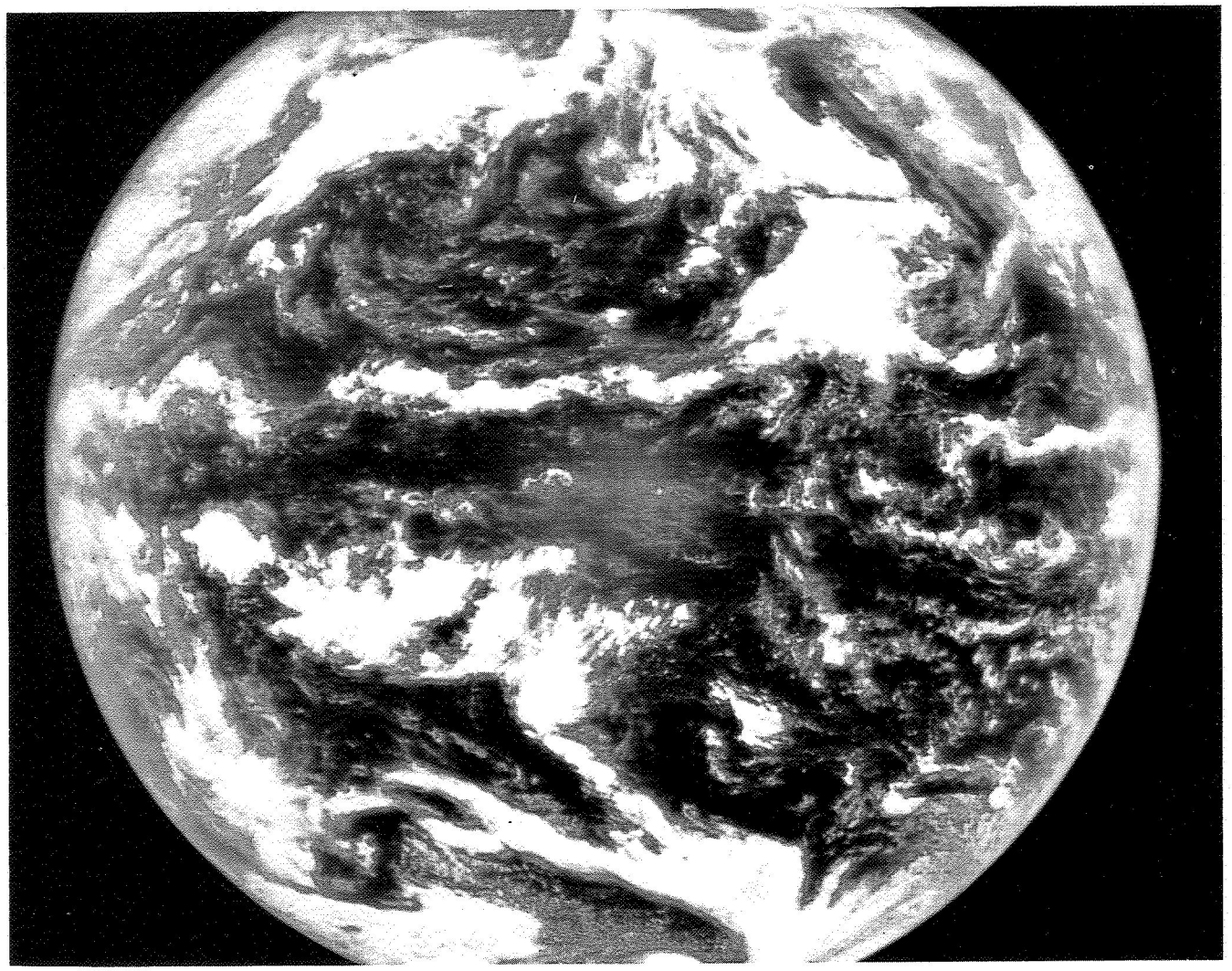
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 14 27	10	3001	1100J 2142J 2240G 4200H	USA MEXICO
01	00 14 27	40	4000	2142A 2240A	
01	00 14 27	50	1000	1114I 1113G 2140G 2230C 4610C	
01	00 14 27	60	5001	5000A	
01	00 14 27	80	3000	2140A 4200A	AUSTRALIA
02	00 37 18	00	3001		
03	01 00 12	00	3001		
04	01 23 10	00	3001		
05	01 46 02	00	3001		
06	02 08 58	00	3001		
07	02 40 05	00	3001		
08	03 02 54	10	1001	2144C 2141C 21421 2240D	
08	03 02 54	40	1000	2142A 2240A	
08	03 02 54	50	1001	2140D 2230C 4610C	
08	03 02 54	80	3000	2140A 4200A 4610A	AUSTRALIA
09	03 25 51	00	3001		
10	03 48 45	00	3001		
11	04 11 43	00	3001		
12	04 34 37	00	3001		
13	04 57 32	00	3001		
14	05 20 26	00	3001		
15	05 43 21	00	3001		
16	06 06 15	00	3001		
17	06 29 10	00	3001		
18	06 52 08	00	4001		
19	07 15 06	00	5001		
20	13 07 51	00	5002		
21	13 30 46	00	5002		
22	13 53 38	00	4002		
23	14 16 32	00	4002		
24	14 39 28	00	1002		
25	15 02 22	00	3002		
26	15 25 18	00	3002		
27	15 48 12	00	3002		
28	16 11 09	00	3002		
29	16 34 02	10	3002	1100B 2140H 2230E 4200H	USA MEXICO
29	16 34 02	20	4000	2140A 2230A	MEXICO
29	16 34 02	50	1002	2140E	
29	16 34 02	60	4000	2140A 2230A	
30	16 59 50	00	3002		
31	17 22 43	00	3002		
32	17 45 40	00	3002		
33	18 08 33	00	3002		
34	18 31 29	00	3002		
35	18 54 23	00	3002		
36	19 28 07	00	3002		
37	19 51 00	00	3002		
38	20 13 56	00	3002		
39	20 36 49	00	3002		
40	20 59 46	00	3000		
41	21 22 42	00	3000		
42	21 45 30	00	3000		
43	22 08 31	10	3000	2144C 2142J 1100F 2240G 4200H	USA MEXICO
43	22 08 31	20	3000	2140A 4200A	USA MEXICO
43	22 08 31	40	1000	2142A 2230A	
43	22 08 31	50	1000	1100G 2140G 2230C 4610F	
43	22 08 31	60	4000	2140A	
43	22 08 31	80	3000	1100A 2140A 4200A 2240A	AUSTRALIA
44	22 54 15	00	3000		
45	23 17 10	00	3000		
46	23 58 15	00	3001		



ATS-I 19 FEBRUARY 1967 22 08 31 UT SEQ 43

20 FEB 67 SUBSATELLITE PT 151.16W 00.15N TOTAL PICS 31

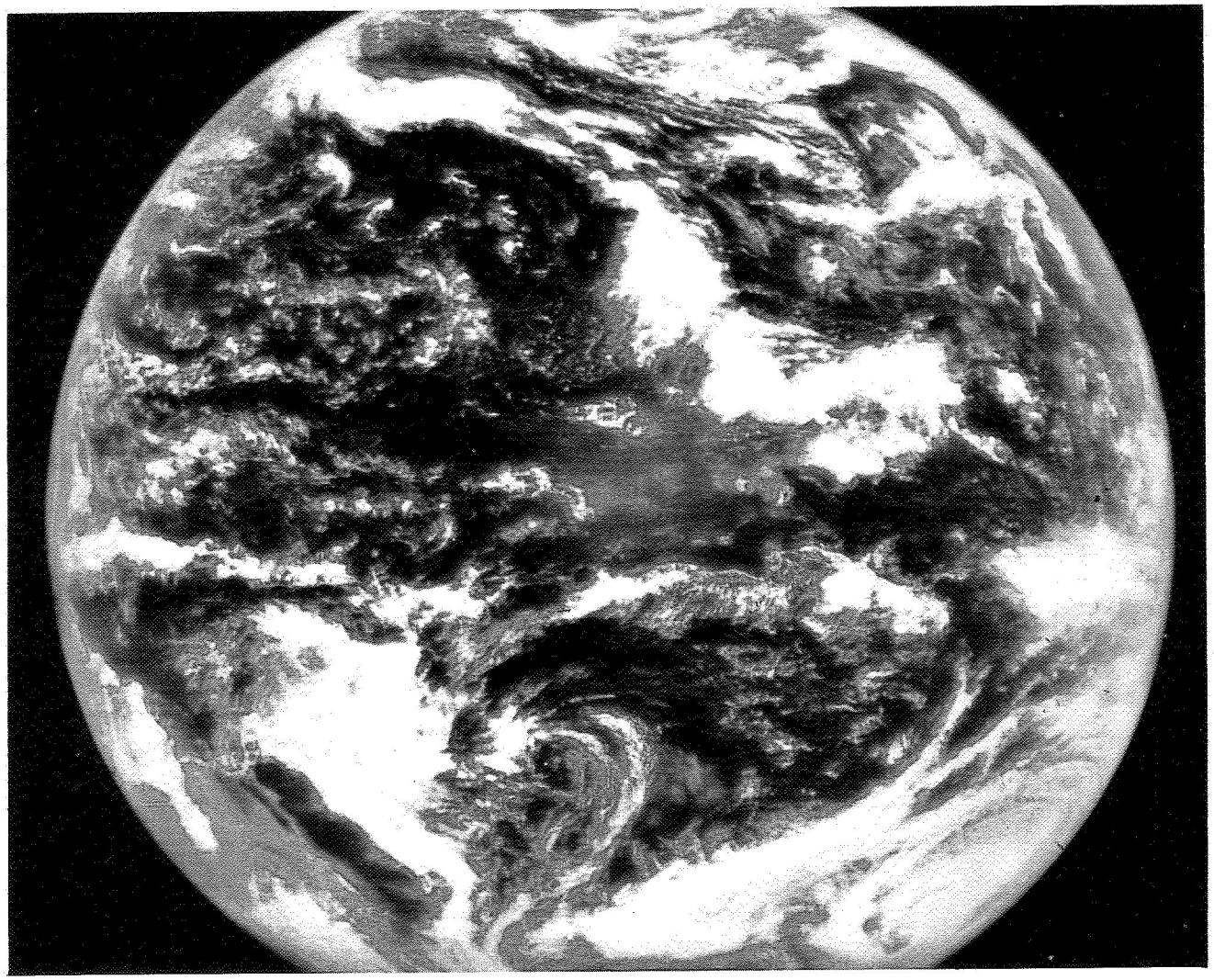
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 21 12	00	3501		
02	00 44 05	10	1001	2142F 2143C 1100C 2240G 3150A 4200C	HAWAII
02	00 44 05	40	4000	2142A 2230A	
02	00 44 05	50	1001	1100G 2140G 2230C 4610C	
02	00 44 05	80	3000	2140A 2240A 4200A	AUSTRALIA
03	01 07 00	00	3001		
04	01 29 54	00	3001		
05	01 52 53	00	3001		
06	02 15 47	00	3001		
07	02 38 39	00	3001		
08	03 01 37	10	1001	2143C 2240D 4200D	HAWAII
08	03 01 37	40	4000	2142A 2240A	
08	03 01 37	50	1001	1100D 2142D 2230C 4610C	
08	03 01 37	80	3000	1100A 2142A 4200A 4610A	AUSTRALIA
09	03 24 30	00	3001		
10	03 47 26	00	3001		
11	04 10 20	00	3001		
12	04 33 26	00	3001		
13	04 56 10	00	3001		
14	05 19 06	00	4001		
15	05 42 02	00	4001		
16	06 04 55	00	4001		
17	06 27 47	00	4001		
18	06 50 45	00	4001		
19	18 22 38	10	3002	1100B 2140M 2240G 4710H	
19	18 22 38	20	4000	1100A 2140A	
19	18 22 38	50	1002	1100G 2140G 2230C 4610B	
19	18 22 38	60	4000	2230A	
20	18 51 55	00	3002		
21	19 14 54	00	3002		
22	19 37 49	00	3002		
23	20 00 45	00	3002		
24	20 23 39	00	3002		
25	20 45 35	00	3002		
26	21 09 31	00	3002		
27	21 32 27	00	3000		
28	21 55 00	10	3000	1100M 2143F 2240G 4710H 4610G	MEXICO USA
28	21 55 00	20	3000	1100A 2140A 4200A	CNTRL AMERICA
28	21 55 00	40	4000	1100A 2140A	
28	21 55 00	50	1000	2140K 2230C 4610C	
28	21 55 00	60	4000	2230A	
28	21 55 00	80	3000	2140A 4200A 2230A	AUSTRALIA
29	22 18 18	00	3000		
30	22 41 10	00	3000		
31	23 04 12	00	3000		



ATS-I 20 FEBRUARY 1967 21 55 00 UT SEQ 28

21 FEB 67 SUBSATELLITE PT 151.24W 00.15N TOTAL PICS 8

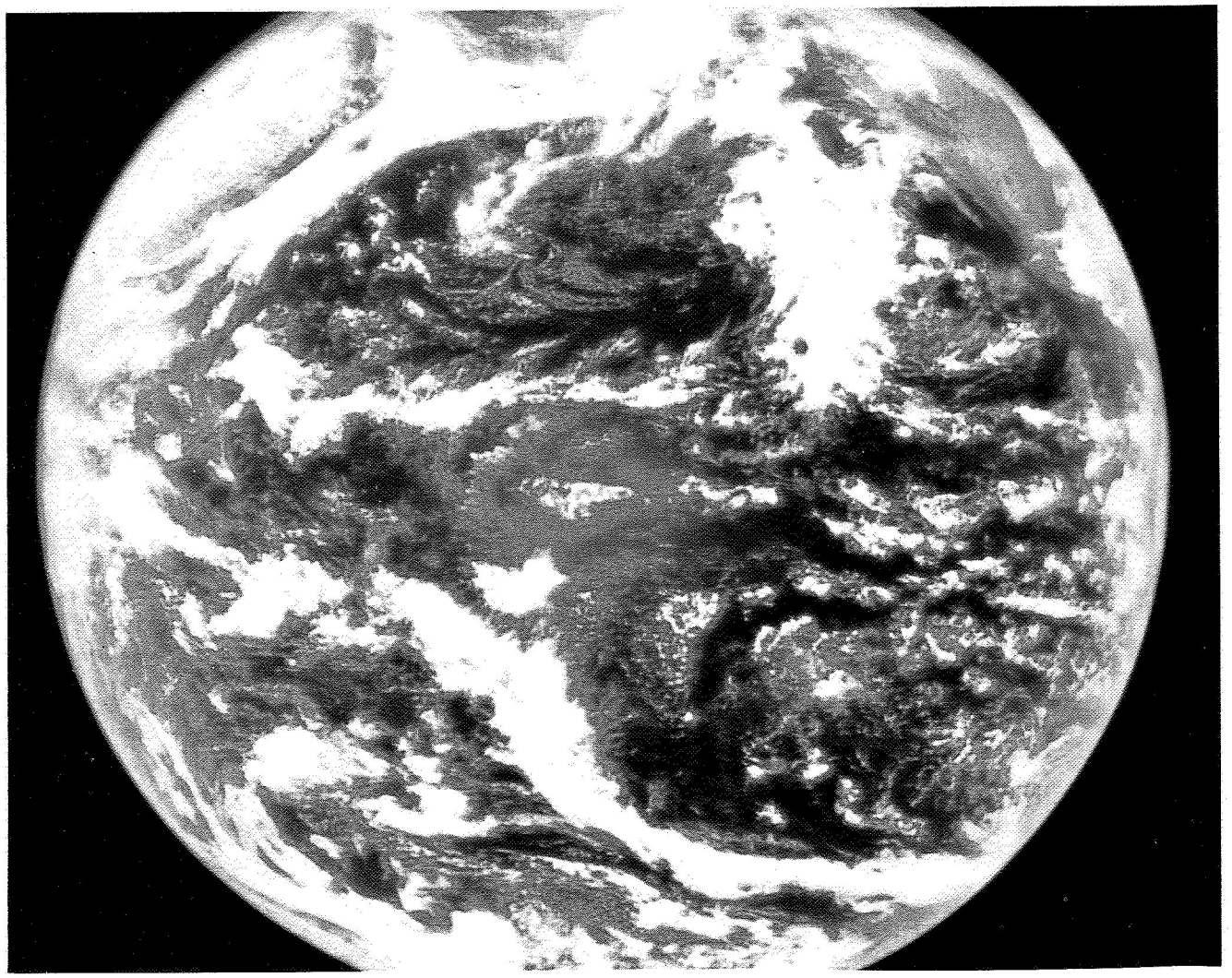
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	17 35 58	10	1002	1114E 2140A 2240G 4710H 4610E	MEXICO USA
01	17 35 58	20	4000	1100A 2140A 4200A 2240A	MEXICO
01	17 35 58	50	1002	2140K 4610B 2230C	
01	17 35 58	60	1000	2140A	
02	17 58 54	00	3002		
03	20 53 40	00	3002		
04	21 16 50	00	3002		
05	21 38 49	10	3000	1114E 1113C 2143C 2142I 2240G 4710H	MEXICO USA
05	21 38 49	20	3000	2140A 4200A 2240A	
05	21 38 49	40	4000	2140A 2240A	
05	21 38 49	50	1000	2140K 2230C 4610C	
05	21 38 49	60	4000	2140A	
05	21 38 49	80	3000	2140A 4200A	NEW ZEALAND
06	22 25 50	00	3000		
07	22 48 43	00	3000		
08	23 11 27	00	3000		



ATS-I 21 FEBRUARY 1967 22 25 50 UT SEQ 6

22 FEB 67 SUBSATELLITE PT 151.31W 00.15N TOTAL PICS 9

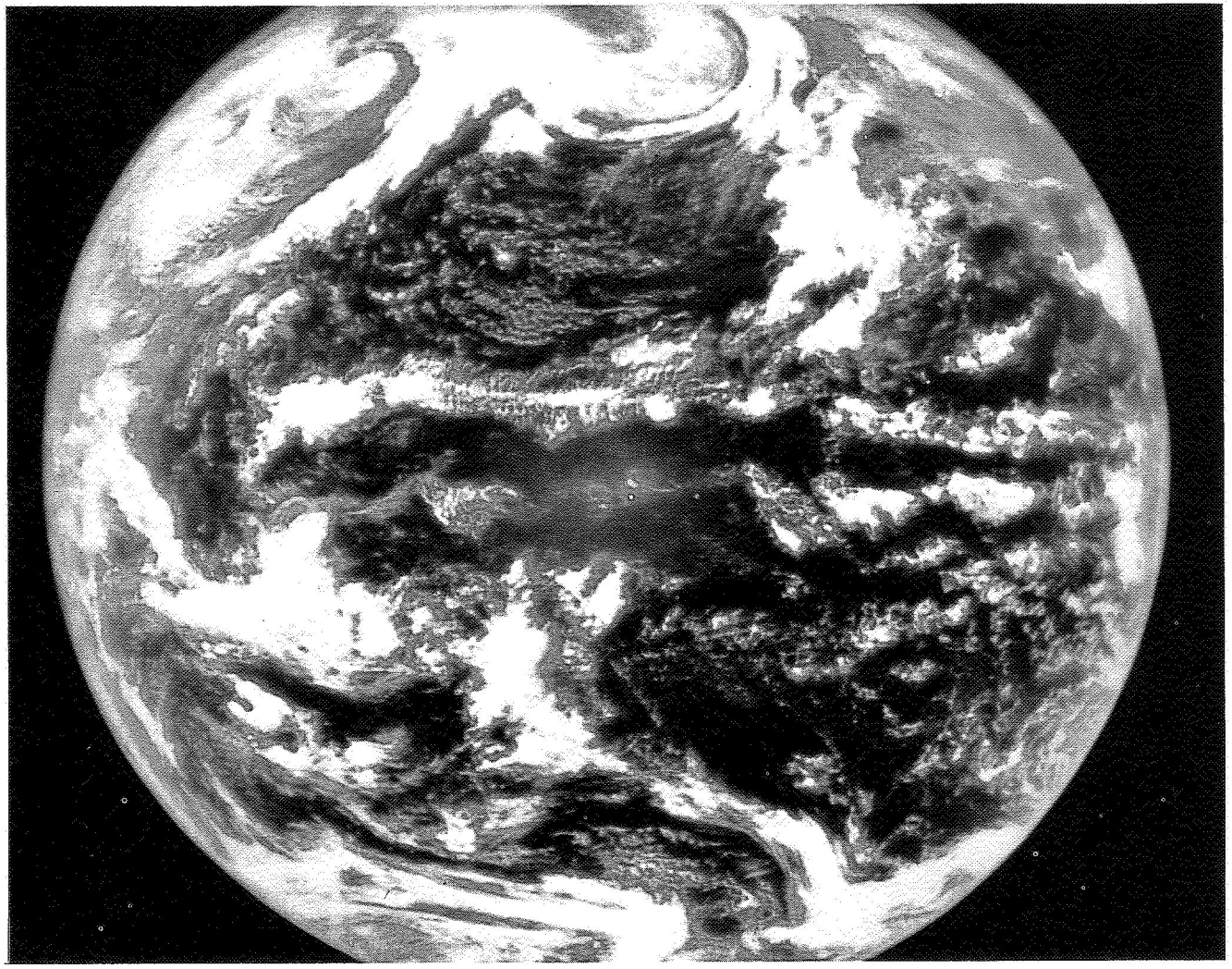
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	15 19 36	00	1002		EE
02	15 44 11	00	1002		
03	18 14 48	10	3002	2143B 2142F 2230E 2240G 3150A 4710A	MEXICO USA
03	18 14 48	20	3000	2140A 4200A	CNTRL AMERICA
03	18 14 48	50	1002	2140K 3150C 4610B	
03	18 14 48	60	4000	2140A	
04	20 59 02	00	3002		
05	21 21 59	00	3002		
06	21 44 53	00	3002		
07	22 07 51	10	3000	2230E 2240G 2143C 2142J 1113F 4710H	MEXICO USA
07	22 07 51	20	3000	2140A 4200A	MEXICO
07	22 07 51	40	1000	2142A 2230A 1100A	
07	22 07 51	50	1000	2140K 2230A 4610C	
07	22 07 51	60	1000	2140A 2230A	
07	22 07 51	80	3000	2140A 2240A 4200A	NEW ZEALAND
08	22 34 01	00	3000		
09	22 53 56	00	3000		



ATS-I 22 FEBRUARY 1967 22 07 51 UT SEQ 7

23 FEB 67 SUBSATELLITE PT 151.38W 00.15N TOTAL PICS 8

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	17 32 40	10	3002	2142B 1113B 2220G 3150G 2230E 4710H	MEXICO USA
01	17 32 40	20	4000	2140A 4200A	MEXICO
01	17 32 40	50	1002	2140K 2230B 4610B 31501	
01	17 32 40	60	4000	2140A 2230A 4610A	
02	17 55 32	00	3002		
03	18 18 30	00	3002		
04	21 22 10	00	3000		
05	21 45 00	00	3000		
06	22 07 56	10	3000	2145C 1114F 2143B 2230E 2240G 4710H	MEXICO USA
06	22 07 56	20	3000	2140A 2230A 4200A	MEXICO
06	22 07 56	40	4000	2140A 1100A 2230A	
06	22 07 56	50	1000	2143E 2142K 2230C 4610C	
06	22 07 56	60	4000	2140A 2230A	
06	22 07 56	80	3000	2140A 2240A 4200A	AUSTRALIA
07	22 30 52	00	3000		
08	22 53 44	00	3000		

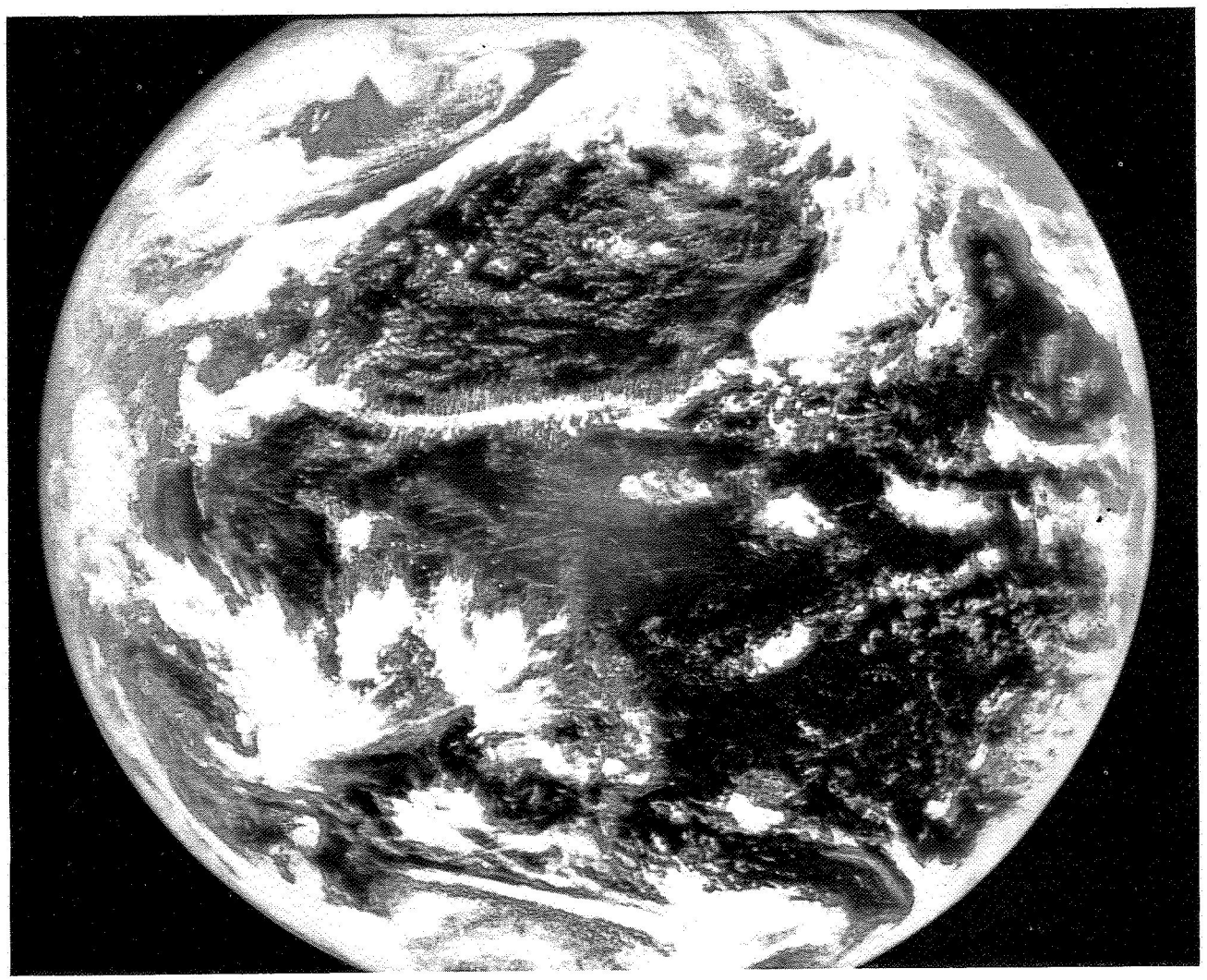


ATS-I 23 FEBRUARY 1967 22 07 56 UT SEQ 6

24 FEB 67 SUBSATELLITE PT 151.45W 00.15N TOTAL PICS 14

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	15 41 36	00	4002		
02	16 04 30	10	4002	1100B 2142H 2240A 4200H	MEXICO
02	16 04 30	20	4000	2140A 2230A 2230A 4200A	MEXICO
02	16 04 30	50	1002	2140G 2240B 4610B	
02	16 04 30	60	4000	2230A 4610A	
03	16 27 26	00	4002		
04	16 50 20	00	4002		
05	17 15 34	00	3002		
06	17 38 26	00	3002		
07	18 01 22	00	3002		
08	18 24 16	00	7000		
09	18 47 12	00	3002		
10	20 46 36	00	3002		
11	21 09 29	00	3002		
12	21 32 26	00	3002		
13	21 55 26	10	3000	2145F 1114C 2143D 2240G 3150G 4200E	MEXICO
13	21 55 26	20	4000	2140A 2230A 4200A	MEXICO
13	21 55 26	40	4000	1100A 2140A 2240A	
13	21 55 26	50	1000	2143E 2142K 2230C 3150C 4610C	
13	21 55 26	60	4000	2140A	
13	21 55 26	80	4000	2140A 2230A	
14	22 18 16	00	3000		

25 FEBRUARY 1967 NO DATA AVAILABLE

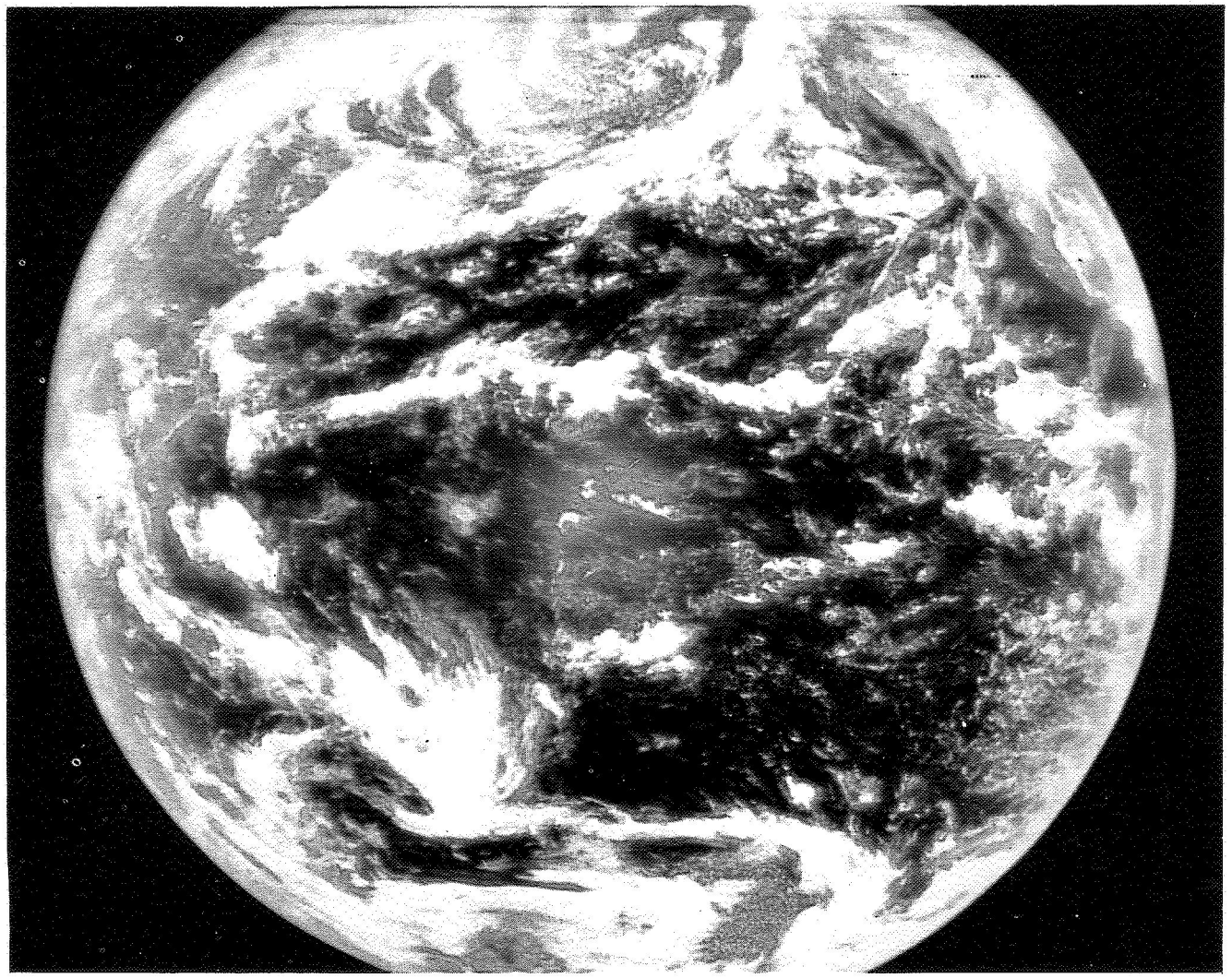


ATS-I 24 FEBRUARY 1967 21 55 26 UT SEQ 13

25 FEBRUARY 1967 NO DATA AVAILABLE

26 FEB 67 SUBSATELLITE PT 151.59W 00.16N TOTAL PICS 9

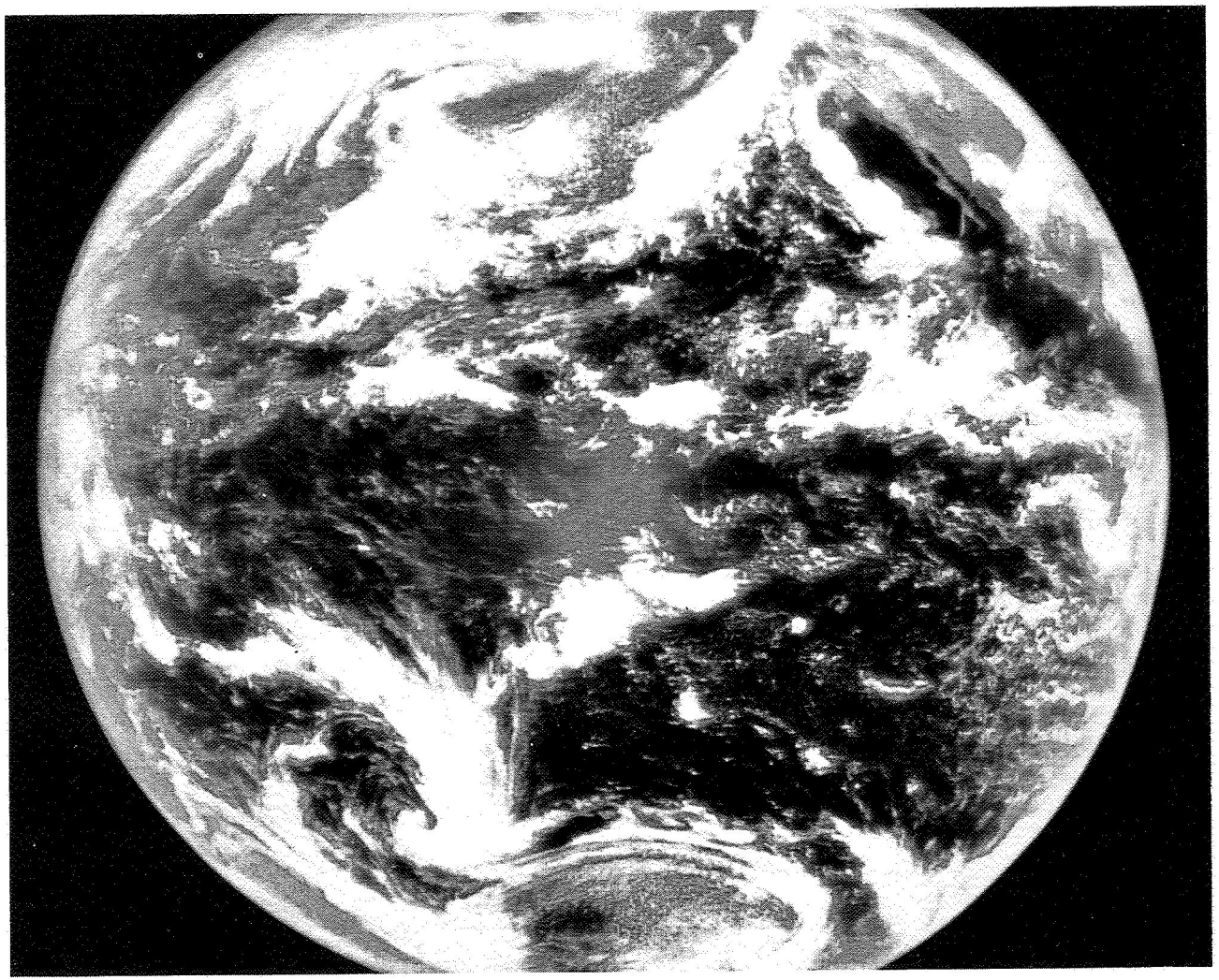
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	17 15 58	10	3002	1100B 2142K 2240G 4610E 4200H	MEXICO USA
01	17 15 58	20	4000	2140A	
01	17 15 58	50	1002	2140G 1100E 2230B 4610B	
01	17 15 58	60	4000	2230A	
02	17 38 51	00	3002		
03	18 01 50	00	3002		
04	18 24 42	00	3002		
05	21 18 13	00	4500		EE
06	21 41 08	00	3000		
07	22 04 05	10	3000	2142A 2143C 2240G 3150E 4200H	MEXICO USA
07	22 04 05	20	3000	2140A 2240A 4200A	MEXICO
07	22 04 05	40	4000	1100A 2140A 2230A	
07	22 04 05	50	1000	1113G 2142K 2230B 4610C	
07	22 04 05	60	4000	1100A 2140A 2230A	
07	22 04 05	80	3000	2140A 2230A 4200A	NEW ZEALAND
08	22 50 29	00	3000		
09	23 13 19	00	3001		



ATS-I 26 FEBRUARY 1967 22 04 05 UT SEQ 7

27 FEB 67 SUBSATELLITE PT 151.66W 00.16N TOTAL PICS 17

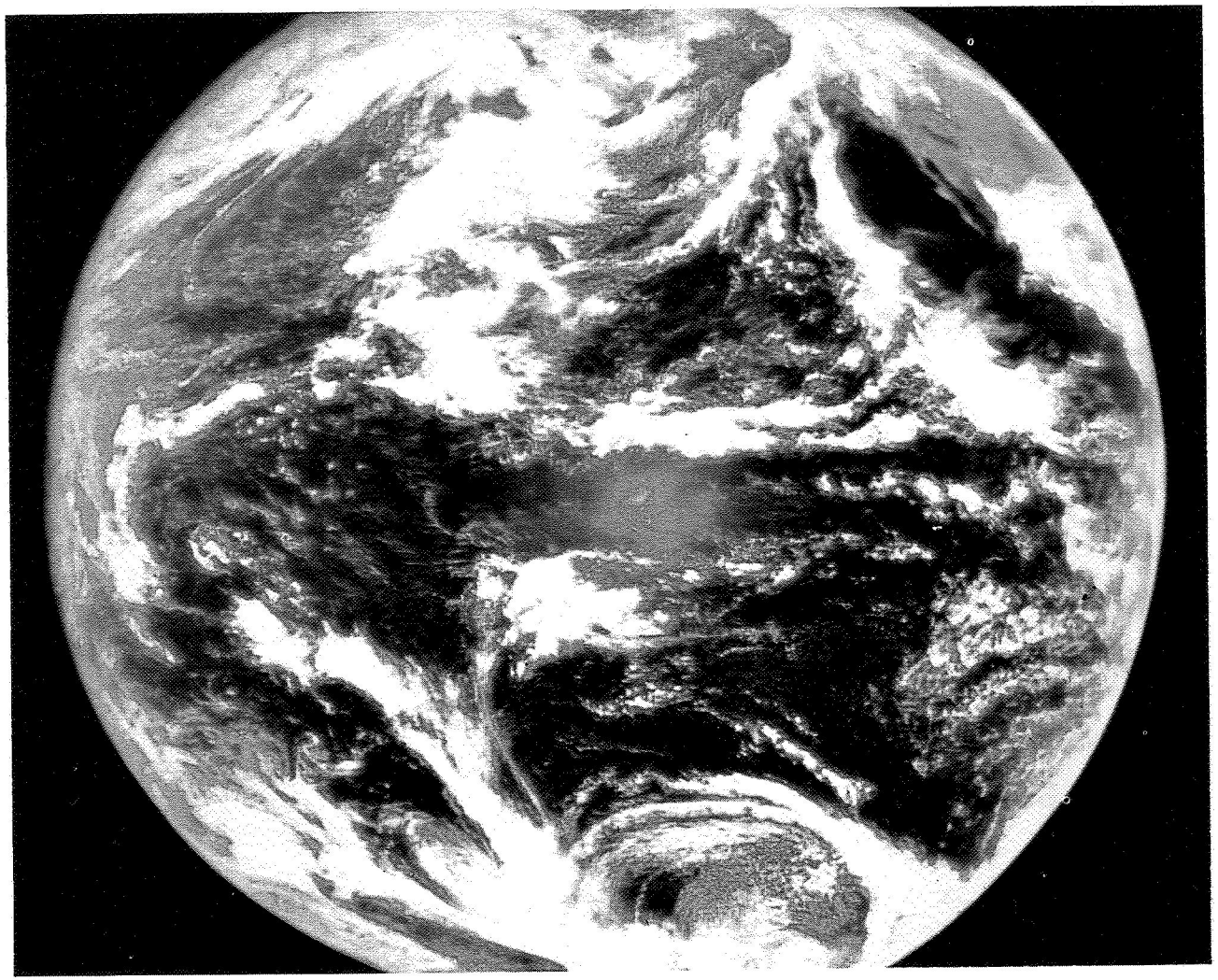
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	15 40 02	00	3002		
02	16 03 00	00	3002		
03	16 25 53	00	3002		
04	16 48 47	00	3002		
05	17 19 16	00	3002		EE
06	17 43 30	10	3002	1113B 2142L 2240G 4710H 4610E	MEXICO USA
06	17 43 30	20	3000	2142A 4200A	MEXICO USA
06	17 43 30	50	1002	2140G 2230F	
06	17 43 30	60	4000	2240A 2140A	
07	18 06 26	00	3002		EE PE
08	18 36 04	00	4002		EE PE
09	18 58 59	00	3002		
10	19 21 52	00	3002		
11	20 41 05	00	3002		
12	21 16 25	00	3000		
13	21 39 20	00	3000		
14	22 02 16	10	3000	2142A 1100C 2240G 4200H 4610G	MEXICO USA
14	22 02 16	20	3000	2142A 4200A	MEXICO USA
14	22 02 16	40	4000	2140A 2230A	
14	22 02 16	50	1000	1113G 2143I 2142K 2230C 4610C	
14	22 02 16	60	4000	2140A 2230A	
14	22 02 16	80	3000	2142A 2230A 4200A	AUSTRALIA
15	22 25 09	00	3000		
16	22 48 10	00	3000		
17	23 11 02	00	3001		



ATS-I 27 FEBRUARY 1967 22 02 16 UT SEQ 14

28 FEB 67 SUBSATELLITE PT 151.73W 00.15N TOTAL PICS 12

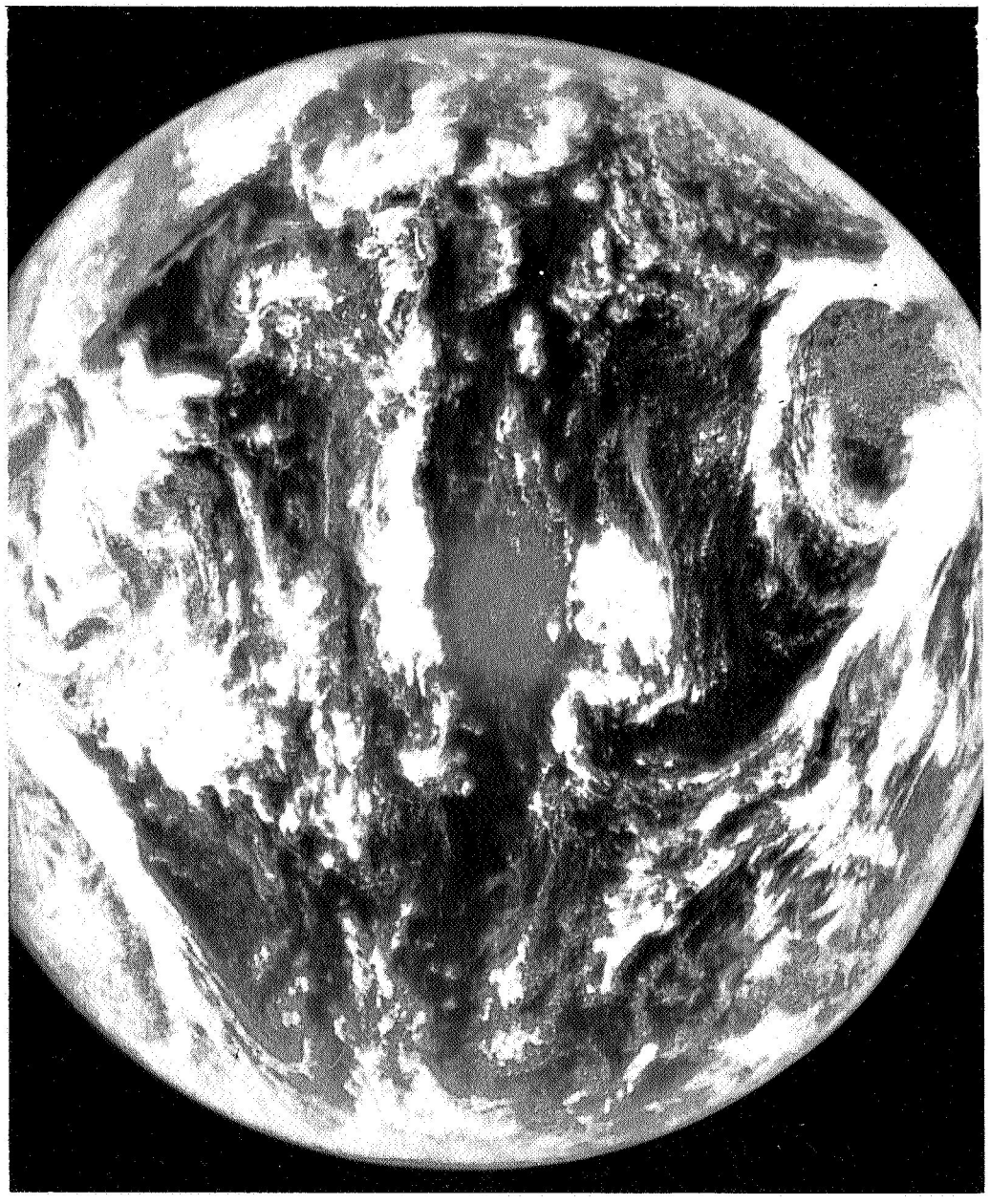
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	09 07 51	00	5000		
02	17 20 25	10	3002	2143B 2142H 2240G 4610E 4710H	MEXICO USA
02	17 20 25	20	3000	2140A 4200A	MEXICO
02	17 20 25	60	4000	2140A 2230A 4610A	
02	17 20 25	80	1000	2140A 2230C 4610B	
03	17 43 21	00	3002		
04	18 06 13	00	3002		
05	18 29 08	00	3002		
06	18 52 00	00	7000		
07	19 14 53	00	3002		
08	20 48 17	00	3002		
09	21 10 09	00	3002		
10	21 33 10	10	3000	2143F 2142A 2240G 4200H 4610E	MEXICO USA
10	21 33 10	20	4000	2140A	
10	21 33 10	40	4000	2140A 1100A	
10	21 33 10	50	1000	2142A 1114D 2230C 4610F	
10	21 33 10	60	4000	2140A 2230A	
10	21 33 10	80	3000	2140A 2230A 4200A	AUSTRALIA
11	22 43 23	00	3000		
12	23 06 19	00	3000		



ATS-I 28 FEBRUARY 1967 21 33 10 UT SEQ 10

1 MAR 67 SUBSATELLITE PT 151.79W 00.15N TOTAL PICS 6

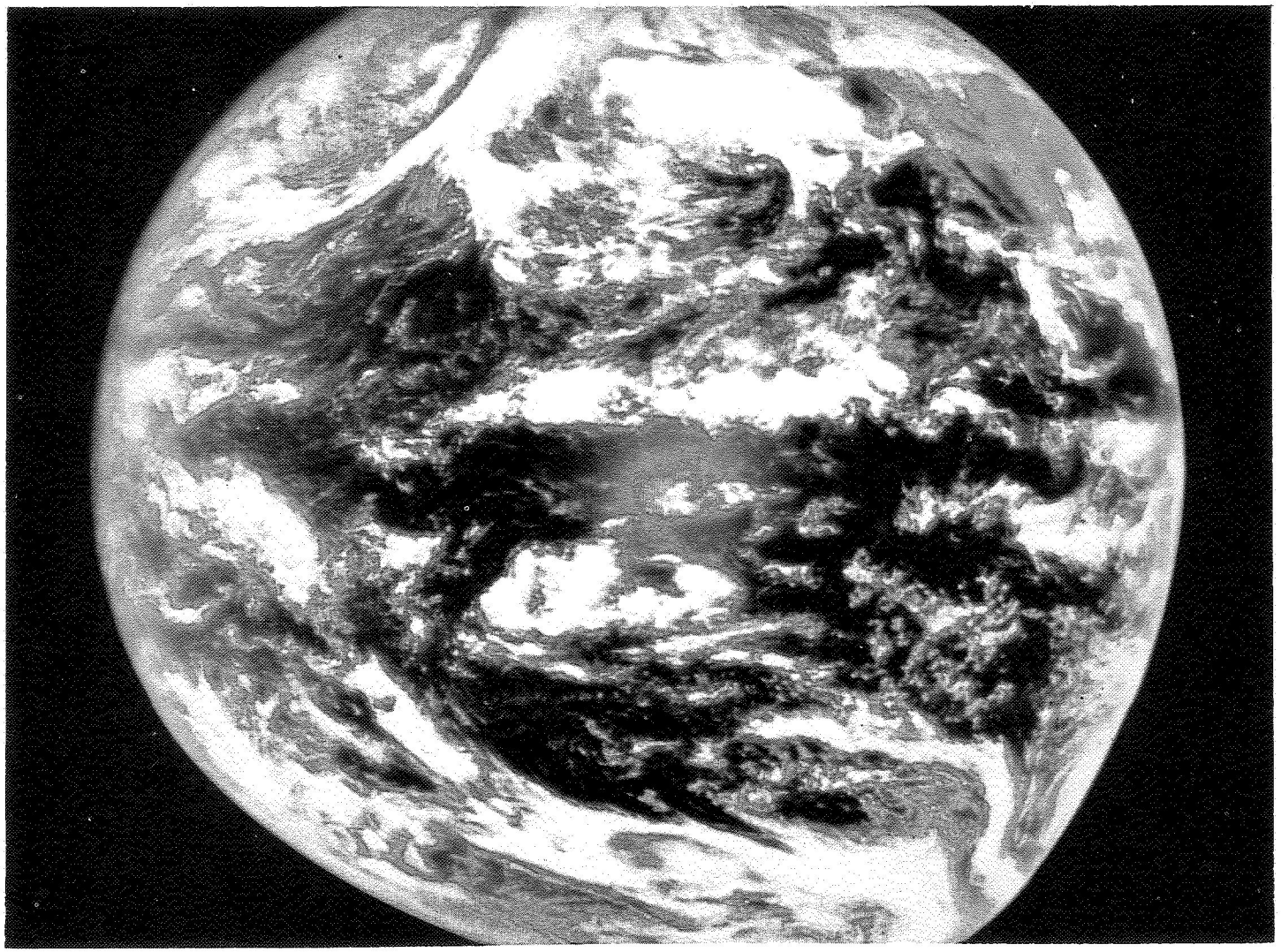
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	17 56 02	00	7000		
02	20 41 00	00	3002		
03	21 03 27	00	3002		
04	21 26 19	00	3000		
05	21 53 10	00	3000		
06	22 16 03	10	3000	1100F 21421 2240G 4710H 4610G	MEXICO USA
06	22 16 03	20	3000	2140A 2240A 4200A	MEXICO
06	22 16 03	40	4000	2140A 2240A	
06	22 16 03	50	1000	1113E 2143G 2142A 2230C 4610C	
06	22 16 03	60	4000	2140A 2230A	
06	22 16 03	80	4000	2140A 2230A 4200A	AUSTRALIA



ATS-I 1 MARCH 1967 22 16 03 UT SEQ 6

2 MAR 67 SUBSATELLITE PT 151.85W 00.15N TOTAL PICS 4

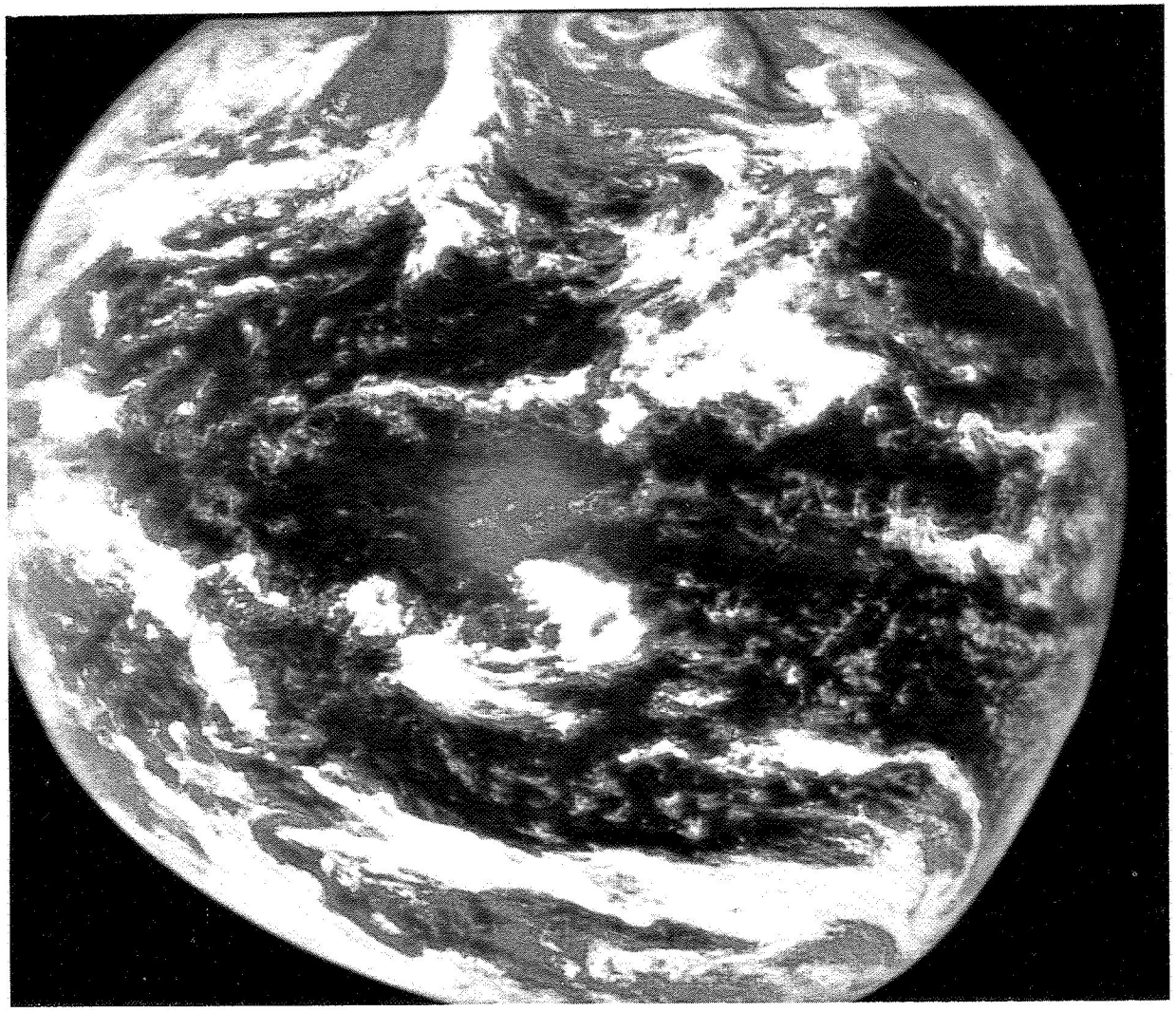
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	01 52 20	10	1001	21421 2240G 11001 4610D	PE
01	01 52 20	40	1000	2142A 2240A	
01	01 52 20	50	1001	2140G 2230C 4610C	
01	01 52 20	80	4000	2140A 2240A 4200A 4610A	PE
02	02 15 58	00	4001		PE
03	02 38 52	00	7000		
04	21 24 35	10	3000	21421 1113F 2240G 4710H	USA MEXICO
04	21 24 35	20	4000	2140A 4200A	MEXICO
04	21 24 35	40	4000	2140A 1100A 2240A	
04	21 24 35	50	1000	2140A 2230C 4610A	
04	21 24 35	60	4000	2140A 1100A	
04	21 24 35	80	4000	2140A 2240A	PE



ATS-I 2 MARCH 1967 21 24 35 UT SEQ 4

3 MAR 67 SUBSATELLITE PT 151.90W 00.14N TOTAL PICS 8

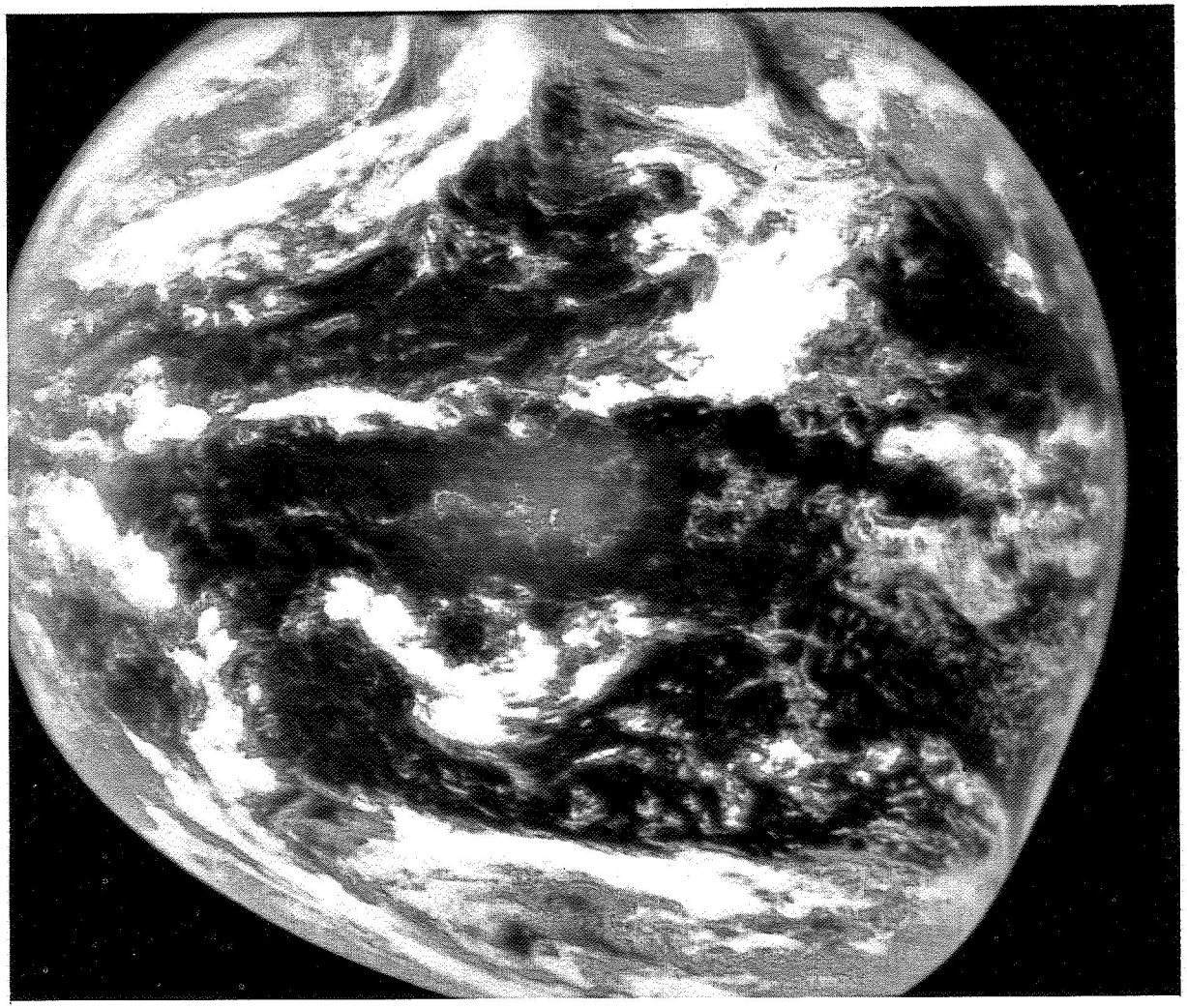
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	20 36 25	10	1000	1100F 2140A 2240G 4710H 4610E	MEXICO
01	20 36 25	20	4000	2230A 4200A	MEXICO
01	20 36 25	40	5002	2230A 2140A	
01	20 36 25	50	1000	2140A 2230C 4610F	
01	20 36 25	60	4000	2140A 1113A	PE
01	20 36 25	80	4002	2140A 2230A	PE
02	20 59 18	00	3002		PE
03	21 22 14	00	3000		PE
04	21 45 08	00	3000		PE
05	22 08 04	00	3000		PE
06	22 30 58	10	3000	1100F 2140A 2240G 4610D 4710H	
06	22 30 58	20	4000	2230A 4200A	MEXICO
06	22 30 58	40	4000	2140A 1100A 2230A	
06	22 30 58	50	1000	2140A 2230F	
06	22 30 58	60	4000	1113A 2140A	PE
06	22 30 58	80	4000	2140A 2240A 4200A	PE
07	22 53 52	00	3000		PE
08	23 16 47	00	3001		PE



ATS-I 3 MARCH 1967 22 30 58 UT SEQ 6

4 MAR 67 SUBSATELLITE PT 151.95W 00.14N TOTAL PICS 13

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	01 53 36	00	4001		PE
02	02 16 12	10	4001	2140I 1100D 2240G	
02	02 16 12	40	4000	2140A 2240A 1100A	
02	02 16 12	50	4001	2140A 2230C 4610A	
02	02 16 12	80	4000	2140A 2240A 4200A 4610A	PE
03	05 41 45	00	4001		PE
04	06 04 30	00	4001		PE
05	06 26 00	00	7000		
06	20 19 22	10	3000	1100F 2140J 2240G 4710H 4610E	PE
06	20 19 22	20	4000	2140A 4200A	MEXICO
06	20 19 22	40	5002	5000A	
06	20 19 22	50	1000	2140A 1125D 2230B 4610F	PE
06	20 19 22	60	4000	2140A	PE
06	20 19 22	80	4002	2140A 2230A	PE
07	20 42 32	00	3002		PE
08	21 04 32	00	3000		PE
09	21 26 56	00	3000		PE
10	21 51 15	00	3000		PE
11	22 14 09	00	3000		PE
12	22 37 02	00	7000		
13	22 59 57	00	7000		

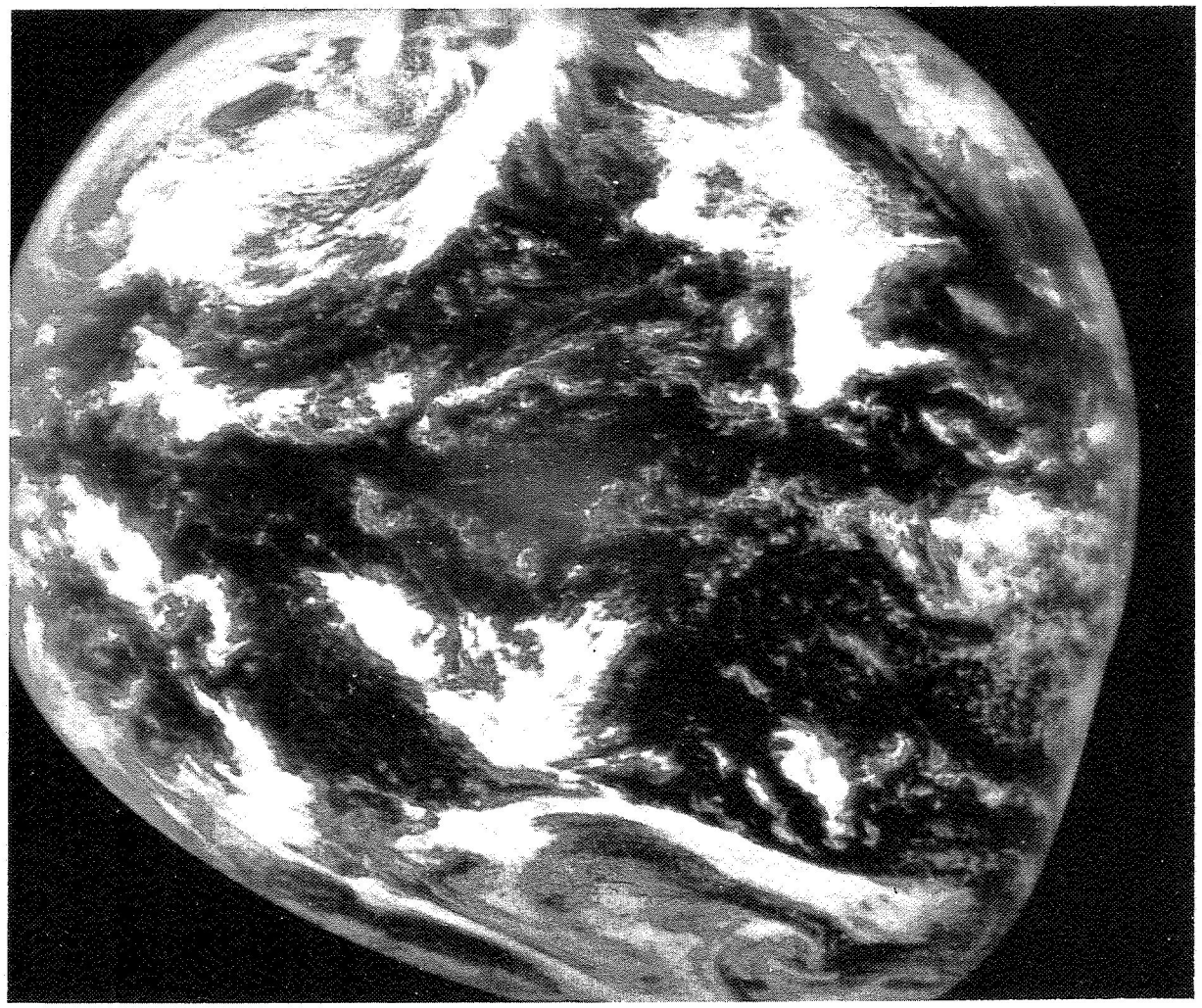


ATS-I 4 MARCH 1967 22 14 09 UT SEQ 11

5 MAR 67 SUBSATELLITE PT 152.00W 00.14N TOTAL PICS 14

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	01 45 41	00	4001		PE
02	02 08 36	10	1001	2142I 2240G 1100D 4610D	
02	02 08 36	40	4000	2140A 1100A 2230A	PE
02	02 08 36	50	1001	1100G 2140K 4610C	
02	02 08 36	80	4000	2140A 2230A	PE
03	02 31 32	00	4001		PE EE
04	05 46 49	00	4001		PE
05	06 08 45	00	5001		PE EE
06	06 31 42	00	5001		PE EE
07	20 23 33	00	3002		PE MEXICO USA
08	20 46 27	00	3002		PE MEXICO USA
09	21 09 20	00	3000		PE MEXICO USA
10	21 32 16	00	3000		PE MEXICO USA
11	21 55 09	00	3000		PE MEXICO USA
12	22 18 06	10	3000	1100J 2142J 2240G 4610G 4710E 4200B	PE MEXICO USA
12	22 18 06	20	4000	2140A 2230A 4200A	PE MEXICO
12	22 18 06	40	4000	1100A 2140A	PE
12	22 18 06	50	1000	2140A 1100G 2240B	PE
12	22 18 06	60	4000	2140A 2230A	PE
12	22 18 06	80	4000	2140A 2230A 1100A	PE
13	22 40 59	00	3000		PE MEXICO USA
14	23 03 55	00	3001		PE MEXICO USA

6 MARCH 1967 NO DATA AVAILABLE

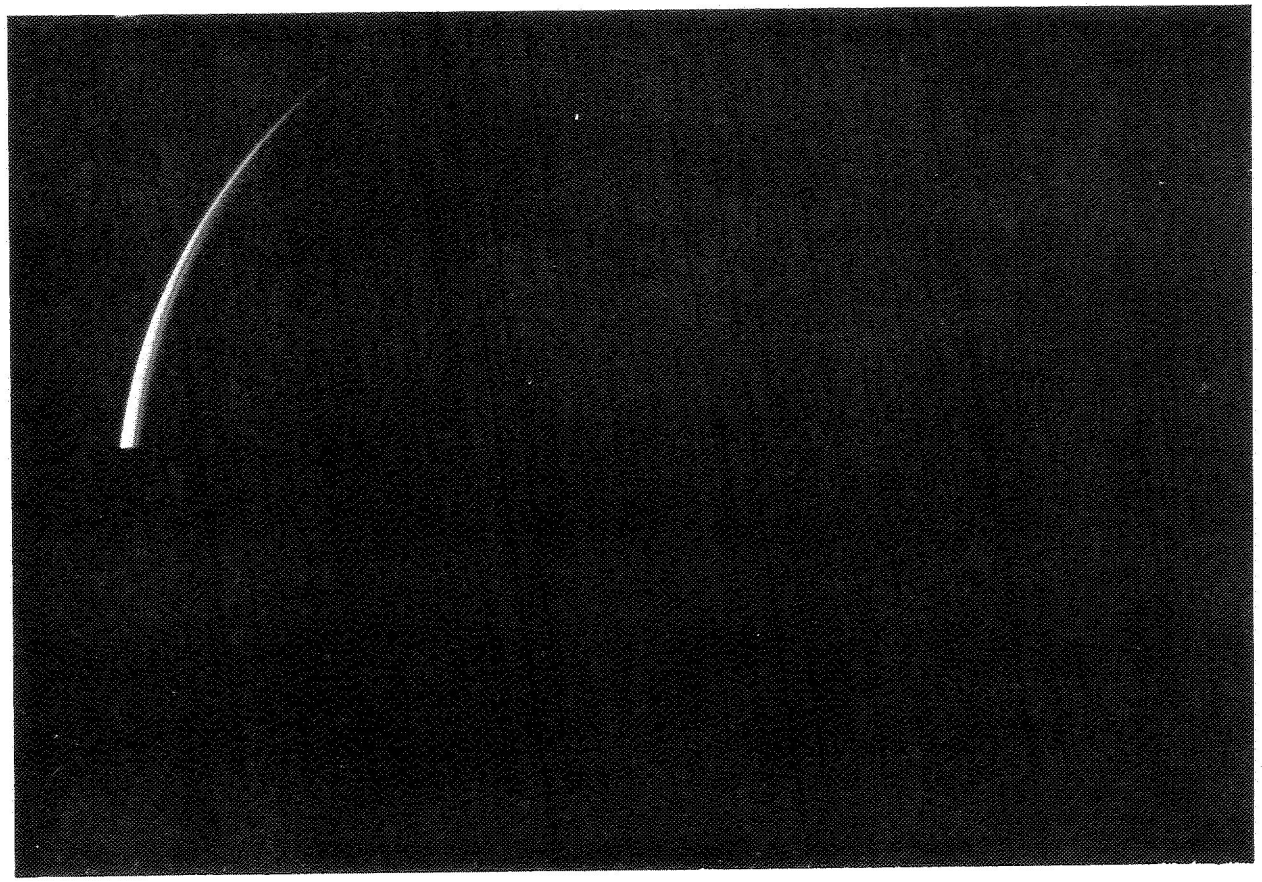


ATS-I 5 MARCH 1967 22 18 06 UT SEQ 12

6 MARCH 1967 NO DATA AVAILABLE

7 MAR 67 SUBSATELLITE PT 151.83W 00.14N TOTAL PICS 2

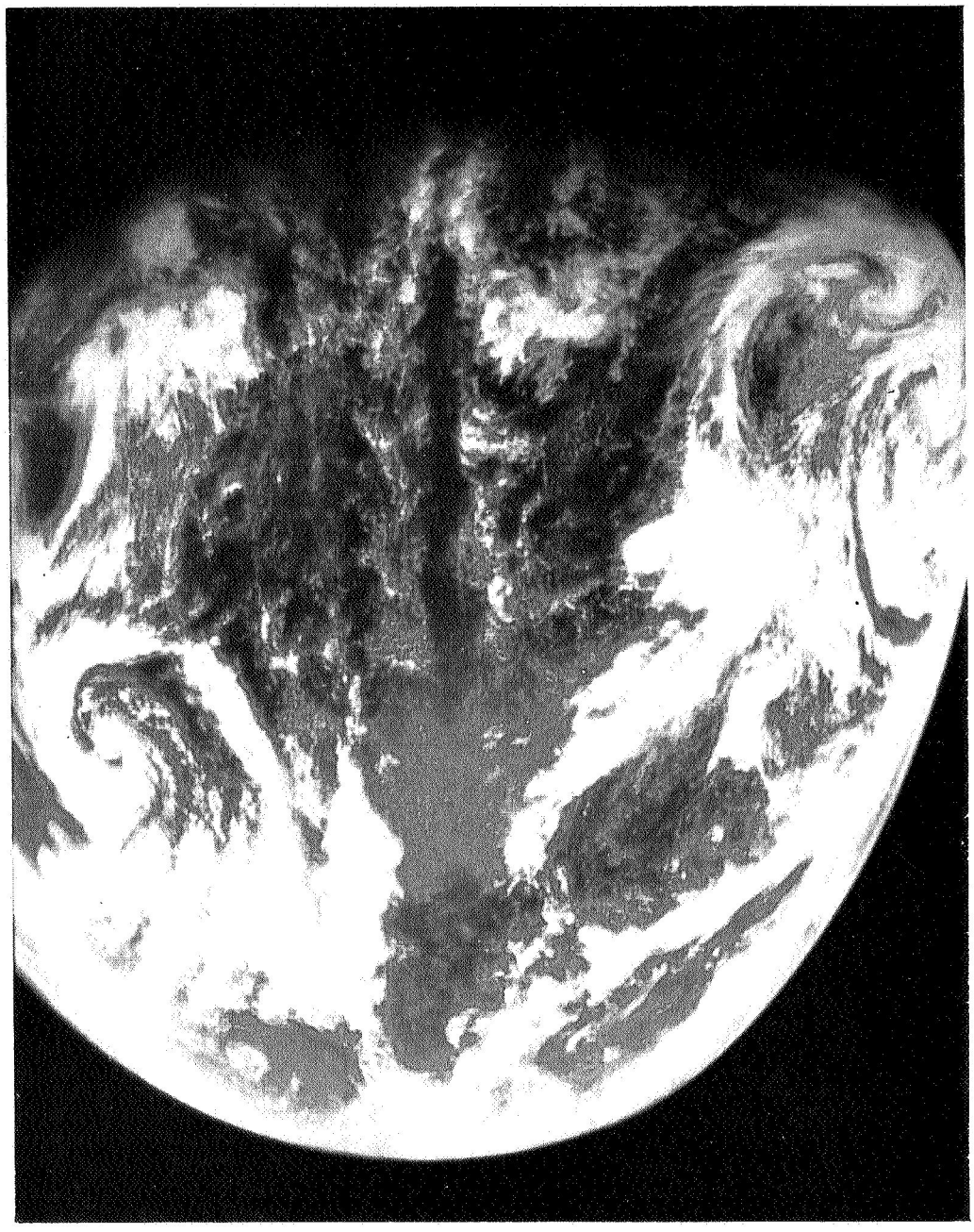
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	08 48 18	00	5501		
02	08 59 56	00	7000		



ATS-I 7 MARCH 1967 08 48 18 UT SEQ 1

8 MAR 67 SUBSATELLITE PT 151.73W 00.13N TOTAL PICS 11

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 06 31	00	4001		PE
02	00 29 26	10	1001	1113J 2143C 2142J 2240G 4200	PE
02	00 29 26	40	4000	2140A 1100A 2240	PE
02	00 29 26	50	1001	1100K 2143C 2142A 4610C 2230B	PE
02	00 29 26	80	4000	1100A 2140A 2230A	PE
03	00 52 27	00	4001		PE
04	01 15 17	00	4001		PE
05	09 01 04	00	7000		
06	09 24 40	00	7000		
07	09 48 16	00	7000		
08	10 10 28	00	7000		
09	10 33 20	00	7000		
10	10 56 00	00	7000		
11	23 53 07	00	7000		



ATS-I 8 MARCH 1967 00 29 26 UT SEQ 2

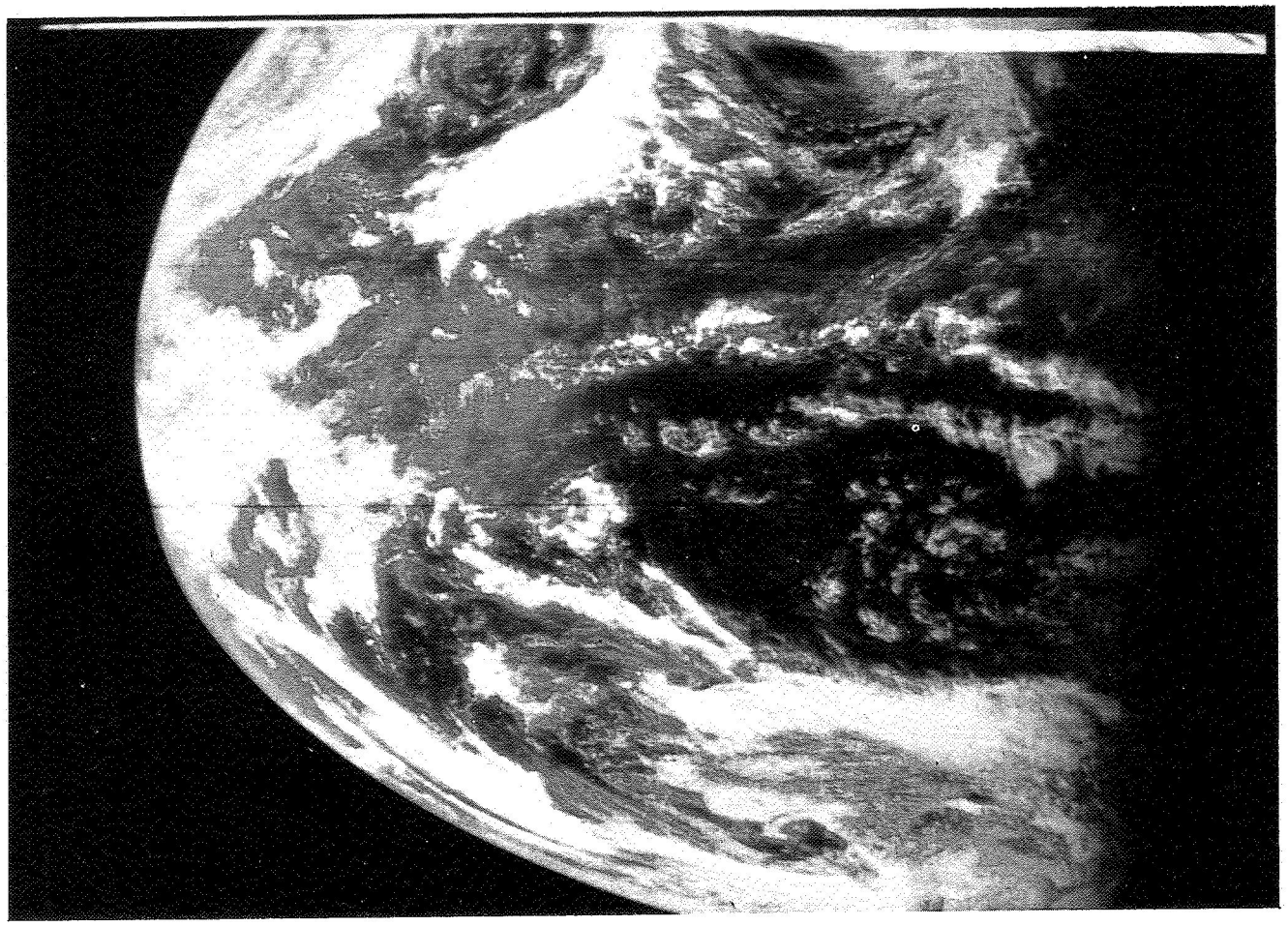
9 MAR 67 SUBSATELLITE PT 151.64W 00.13N TOTAL PICS 3

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 16 00	00	7000		
02	00 38 00	00	7000		
03	23 50 35	00	7000		

9 MARCH 1967
NO USABLE PICTURE

10 MAR 67 SUBSATELLITE PT 151.54W 00.13N TOTAL PICS 3

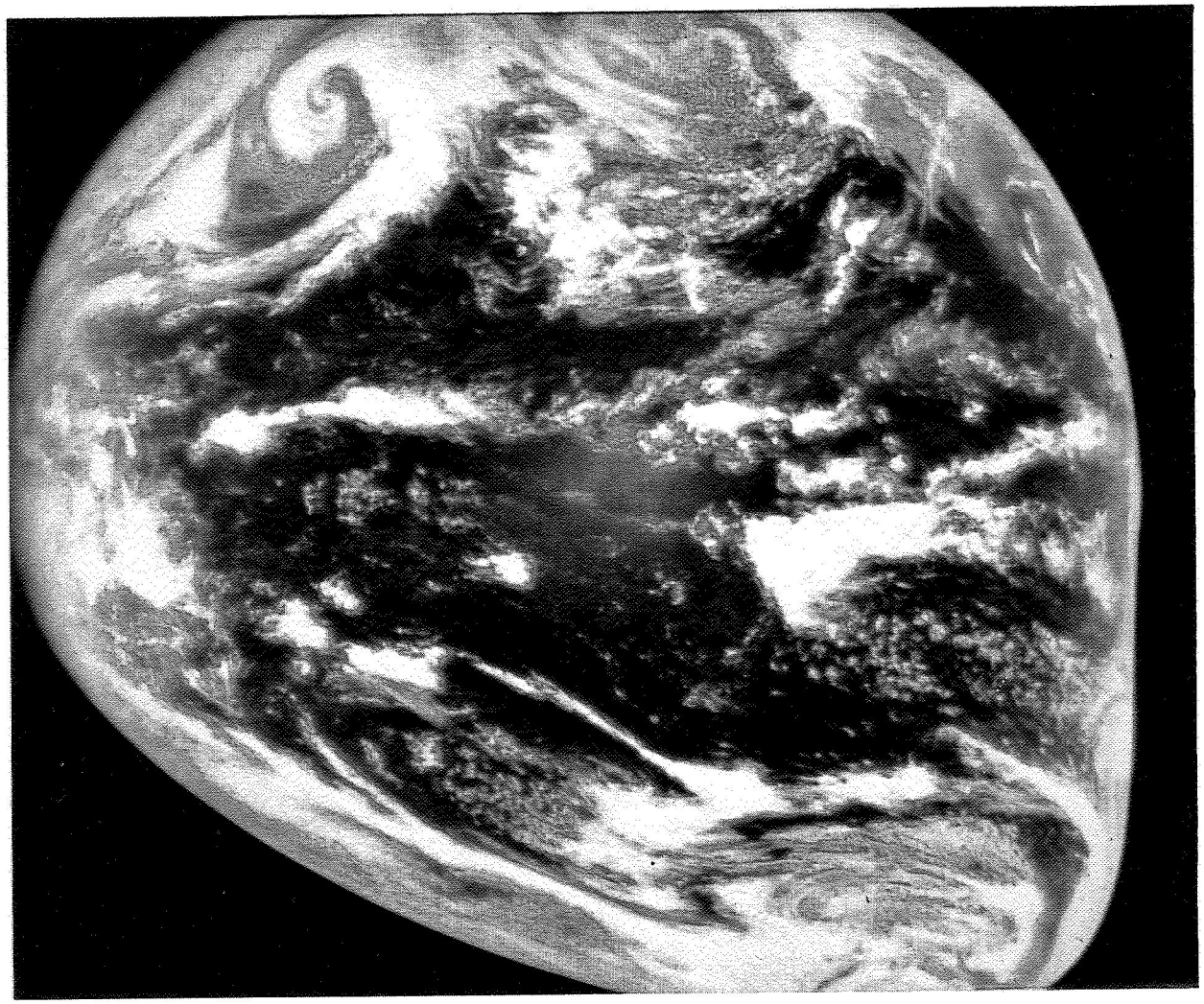
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 13 31	00	7000		
02	00 36 25	10	1501	2140A 2240G 3150E 4610D	EE PE
02	00 36 25	40	4000	2140A 2240A	
02	00 36 25	50	1001	1100G 2140A 2240F 4610C	PE
02	00 36 25	80	4000	1100A 2140A 4200A	PE ASTR
03	01 32 17	00	7000		



ATS-I 10 MARCH 1967 00 36 25 UT SEQ 2

11 MAR 67 SUBSATELLITE PT 151.44W 00.13N TOTAL PICS 8

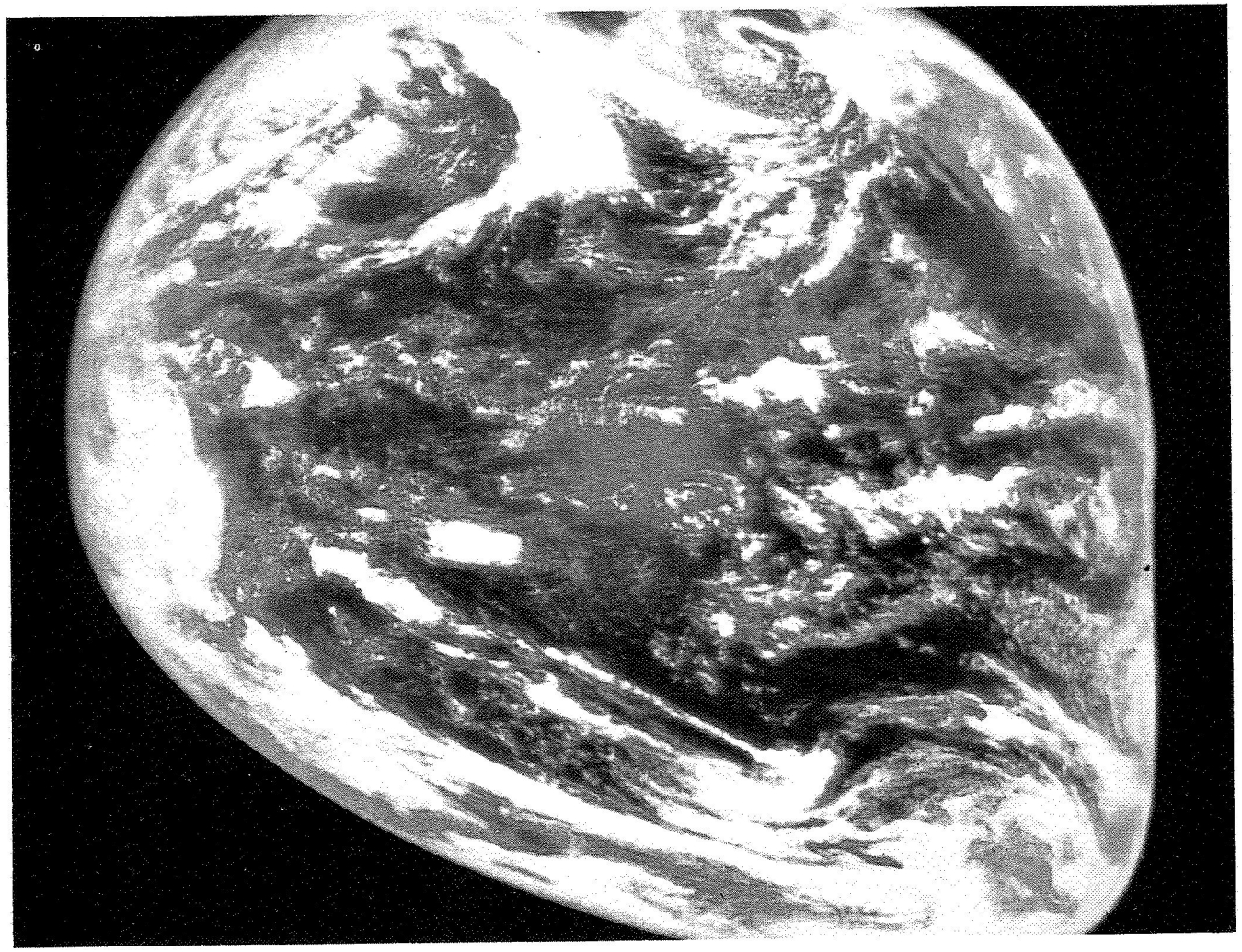
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	08 29 01	00	5001		EE
02	20 20 49	00	3002		EE PE
03	20 43 43	00	4002		EE PE
04	21 06 36	00	3000		EE PE
05	21 29 30	10	3000	1100I 2140J 2240G 4610G 4710H	MEXICO USA
05	21 29 30	20	4000	2240A 4200A	MEXICO
05	21 29 30	40	4000	1100A 2140A	
05	21 29 30	50	4000	1100G 2140G 2240B	PE
05	21 29 30	60	4000	2140A	PE
05	21 29 30	80	4000	2140A 2230A	PE
06	23 06 10	00	3001		PE
07	23 29 26	00	3001		PE
08	23 52 45	00	3001		PE



ATS-I 11 MARCH 1967 21 29 30 UT SEQ 5

12 MAR 67 SUBSATELLITE PT 151.34W 00.13N TOTAL PICS 10

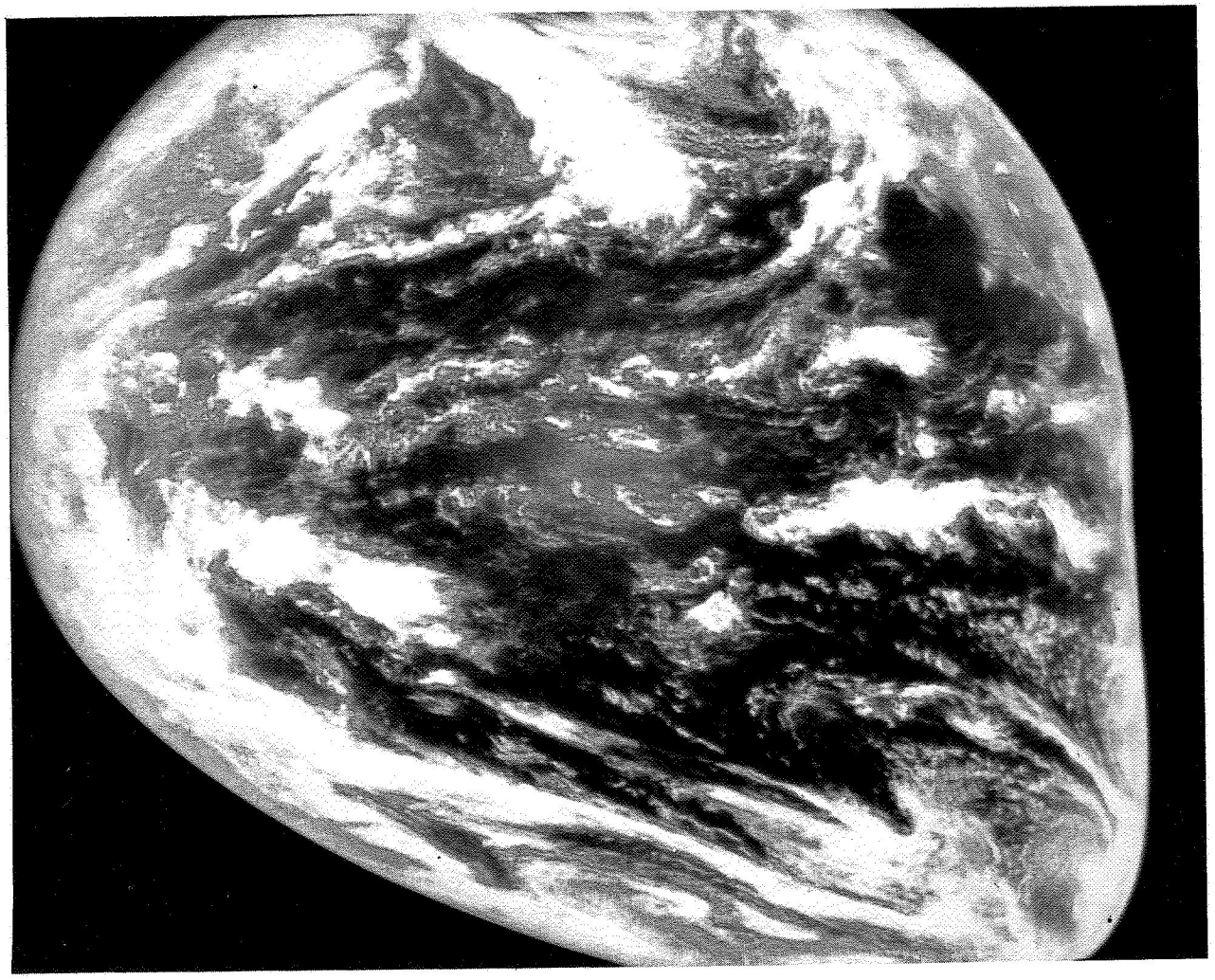
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 14 13	10	3001	1100I 2140A 2240G 4710H 3150A 4610D	PE EE MEXICO
01	00 14 13	40	4000	1100A 2140A 2240A	
01	00 14 13	50	1001	1100E 2140A 2240B 3150K	
01	00 14 13	80	4000	1100A 2140A 2240A 4200A	PE
02	01 40 21	00	4001		PE ASTR
03	08 16 59	00	5001		
04	20 16 10	00	4002		PE
05	20 51 13	00	4000		PE
06	21 14 06	00	4000		PE
07	21 37 00	10	1000	1100F 2140A 2240G 4710H 4610G	
07	21 37 00	20	4000	2240A 4200A	PE
07	21 37 00	40	4000	2240A 2140A	MEXICO
07	21 37 00	50	4000	2140A 1100G 2240F 4610C	PE
07	21 37 00	60	4000	1100A 2140A	PE
07	21 37 00	80	4000	2140A 2230A	PE
08	22 46 33	00	3000		PE
09	23 09 30	00	5000		PE EE
10	23 36 32	00	4001		PE



ATS-I 12 MARCH 1967 21 37 00 UT SEQ 7

13 MAR 67 SUBSATELLITE PT 151.24W 00.13N TOTAL PICS 7

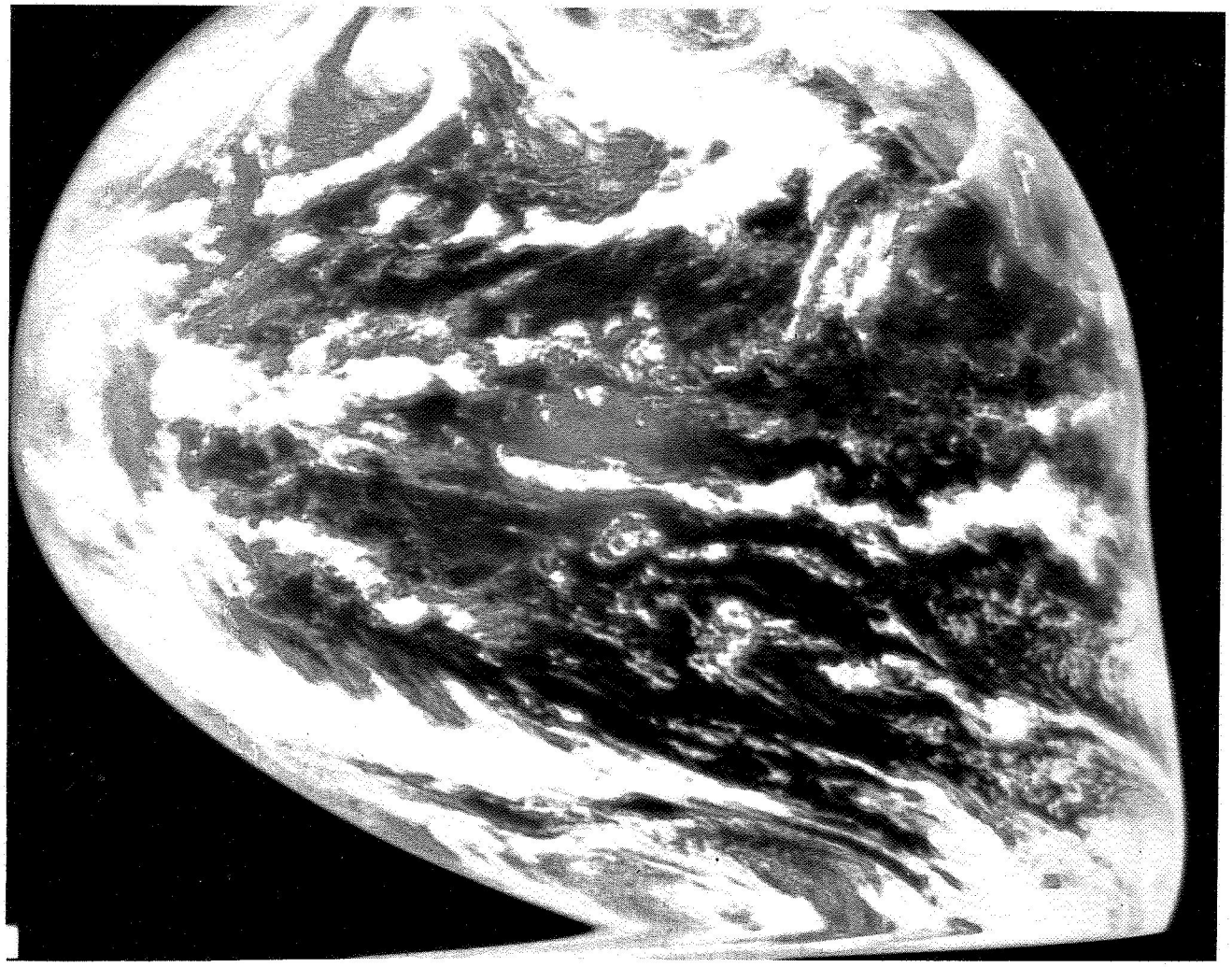
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	20 17 52	00	4002		PE
02	20 40 46	00	4002		PE
03	21 03 39	00	7000		
04	21 26 32	10	1000	1100F 2140A 2240G 3150A 4200H 4610G	MEXICO
04	21 26 32	20	4000	2220A 4200A	MEXICO
04	21 26 32	40	4000	2140A 2240A	
04	21 26 32	50	1000	1100G 2140A 3150F 2240F 4610C	PE
04	21 26 32	60	4000	2140A 1100A	PE
04	21 26 32	80	4000	2140A 2230A	PE
05	22 52 39	00	4501		PE
06	23 29 34	00	4001		PE
07	23 52 18	00	4001		PE



ATS-I 13 MARCH 1967 21 26 32 UT SEQ 4

14 MAR 67 SUBSATELLITE PT 151.13W 00.13N TOTAL PICS 21

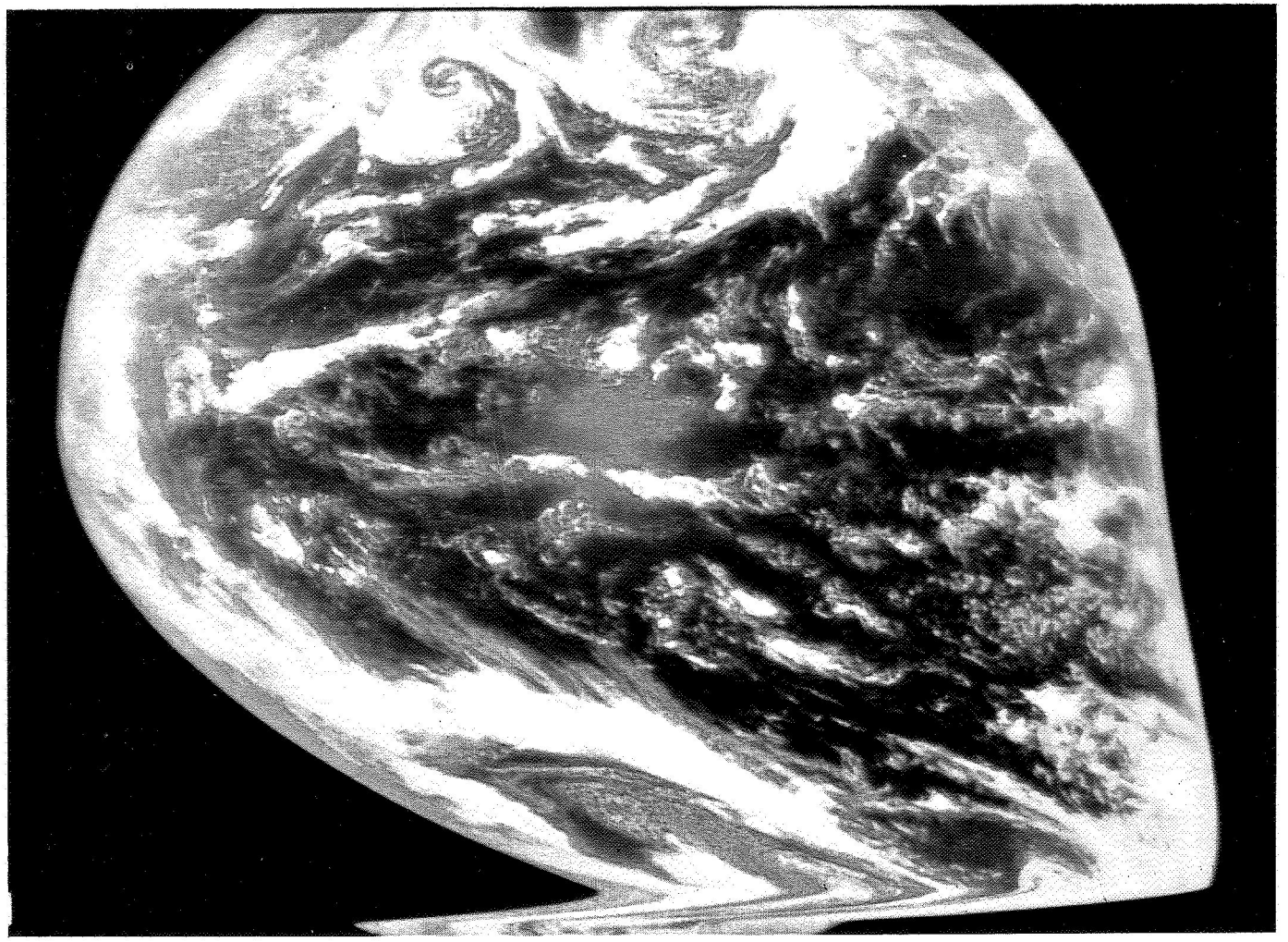
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 15 13	00	7000		
02	00 38 07	10	4001	2140A 2240G 3150G	
02	00 38 07	40	4000	2140A 2230A	PE
02	00 38 07	50	4001	2140A 1100G 2240F 4610C	PE
02	00 38 07	80	4000	2140A 2230A	PE
03	02 40 50	00	4001		PE
04	03 03 47	00	4001		PE
05	03 26 40	00	4001		PE
06	09 32 05	00	7000		
07	18 13 10	10	4002	1114F 2140A 2240G 3150G 4610E 4710H	PE MEXICO
07	18 13 10	20	4000	4200A 2140A	PE MEXICO
07	18 13 10	50	4002	2140A 1100E	PE
07	18 13 10	60	5000	2140A 1100A	PE
08	18 36 03	00	3002		PE
09	19 06 35	00	3002		PE
10	19 29 30	00	4502		PE
11	19 52 25	00	4002		PE
12	20 15 18	00	4002		PE
13	20 38 15	00	4002		PE
14	21 01 07	00	3000		PE
15	21 23 59	00	3000		PE
16	21 46 50	10	3000	1113C 1114B 2140A 2240D 4610G 4710H	MEXICO USA
16	21 46 50	20	4000	2140A 4200A	MEXICO
16	21 46 50	40	4000	2140A 2230A	
16	21 46 50	50	1000	2240F 2140A 1100G	PE
16	21 46 50	60	5000	2140A	PE
16	21 46 50	80	5000	2140A 2230A	PE
17	22 09 44	00	3000		PE
18	22 32 38	00	3000		PE
19	22 55 30	00	3000		PE
20	23 18 26	00	3001		PE
21	23 41 17	00	3001		PE



ATS-I 14 MARCH 1967 21 46 50 UT SEQ 16

15 MAR 67 SUBSATELLITE PT 151.03W 00.12N TOTAL PICS 19

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 04 14	10	4001	1113C 2140A 2240G 4200H 4610D	PE MEXICO USA
01	00 04 14	40	4000	2140A 2230A	
01	00 04 14	50	4000	2140A 1100G 2240F 4610C	PE
01	00 04 14	60	5001	2140A	PE
01	00 04 14	80	5000	2140A 2230A	PE
02	00 27 07	00	4001		PE
03	00 50 01	00	4001		PE
04	18 11 30	10	4002	1113B 1114C 2140A 2240G 4610E 4200H	MEXICO USA
04	18 11 30	20	4000	2140A 4200A	MEXICO
04	18 11 30	50	5002	2140A 2240F	PE EE
04	18 11 30	60	5000	2140A	PE EE
05	18 34 33	00	4002		PE EE
06	18 57 13	00	4002		PE EE
07	19 20 06	00	4002		PE EE
08	19 43 06	00	7000		
09	20 05 54	00	4002		PE EE
10	20 28 46	00	4002		PE EE
11	20 51 43	00	4002		PE EE
12	21 14 40	00	4000		PE EE
13	21 37 29	00	4000		PE EE
14	22 00 23	10	3000	1100F 2140A 2240G 3150H 4200H 4610G	MEXICO USA
14	22 00 23	20	4000	2240A 4200A	MEXICO
14	22 00 23	40	4000	2140A 2230A 1100A	
14	22 00 23	50	5000	2140A 2240F 3100C	PE EE
14	22 00 23	60	5000	2140A	PE EE
14	22 00 23	80	5000	2140A 2230A	PE EE
15	22 23 17	00	4000		PE EE
16	22 46 10	00	4000		PE EE
17	23 09 03	00	7000		
18	23 31 59	00	4001		PE EE
19	23 54 52	00	4001		PE EE



ATS-I 15 MARCH 1967 22 00 23 UT SEQ 14

16 MAR 67 SUBSATELLITE PT 150.92W 00.12N TOTAL PICS 31

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 17 45	00	7000		
02	00 40 39	00	7000		
03	01 03 32	00	7000		
04	01 26 26	00	7000		
05	01 49 19	00	7000		
06	02 12 15	00	7000		
07	02 35 11	00	7000		
08	02 58 03	00	7000		
09	03 20 56	00	7000		
10	08 39 11	00	7000		
11	09 04 24	00	7000		
12	09 25 05	00	7000		
13	09 47 51	00	7000		
14	10 10 50	00	7000		
15	10 33 45	00	7000		
16	18 11 31	00	7000		
17	18 34 25	00	7000		
18	18 57 18	00	7000		
19	19 20 06	00	7000		
20	19 43 05	00	7000		
21	20 05 59	00	7000		
22	20 28 52	00	7000		
23	20 51 45	00	7000		
24	21 14 38	00	7000		
25	21 37 29	00	7000		
26	22 00 18	00	7000		
27	22 23 14	00	7000		
28	22 46 06	00	7000		
29	23 09 00	00	7000		
30	23 31 53	00	7000		
31	23 54 44	00	7000		

16 MARCH 1967
NO USABLE PICTURE

17 MAR 67 SUBSATELLITE PT 150.81W 00.12N TOTAL PICS 11

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 17 38	00	7000		
02	00 40 30	00	7000		
03	01 03 24	00	7000		
04	01 26 18	00	7000		
05	01 49 11	00	7000		
06	02 12 03	00	7000		
07	02 34 56	00	7000		
08	02 57 50	00	7000		
09	20 14 38	00	7000		
10	20 45 27	00	7000		
11	21 08 20	00	7000		

17 MARCH 1967
NO USABLE PICTURE

18 MAR 67 SUBSATELLITE PT 150.70W 00.11N TOTAL PICS 7

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 27 09	00	7000		
02	00 50 00	00	7000		
03	02 55 24	00	7000		
04	03 18 20	00	7000		
05	23 18 43	00	7000		
06	23 31 12	00	7000		
07	23 53 51	00	7000		

18 MARCH 1967
NO USABLE PICTURE

19 MAR 67 SUBSATELLITE PT 150.58W 00.11N TOTAL PICS 7

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 16 48	00	7000		
02	00 39 38	00	7000		
03	21 18 20	00	7000		
04	21 41 14	00	7000		
05	22 58 36	00	7000		
06	23 21 32	00	7000		
07	23 44 23	00	7000		

19 MARCH 1967
NO USABLE PICTURE

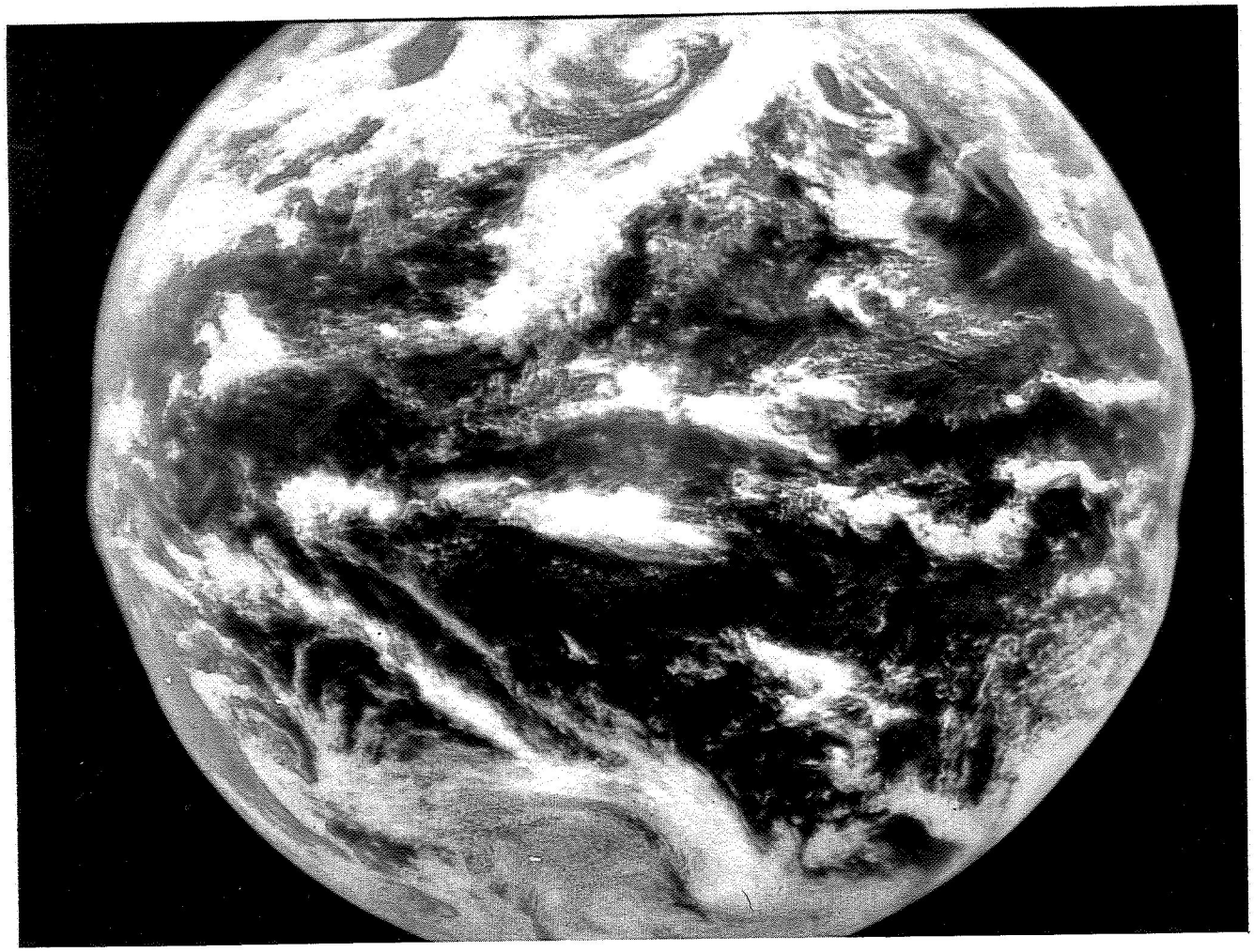
20 MAR 67 SUBSATELLITE PT 150.46W 00.10N TOTAL PICS 3

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 07 16	00	7000		
02	00 30 07	00	7000		
03	00 53 00	00	7000		

20 MARCH 1967
NO USABLE PICTURE

21 MAR 67 SUBSATELLITE PT 150.35W 00.10N TOTAL PICS 13

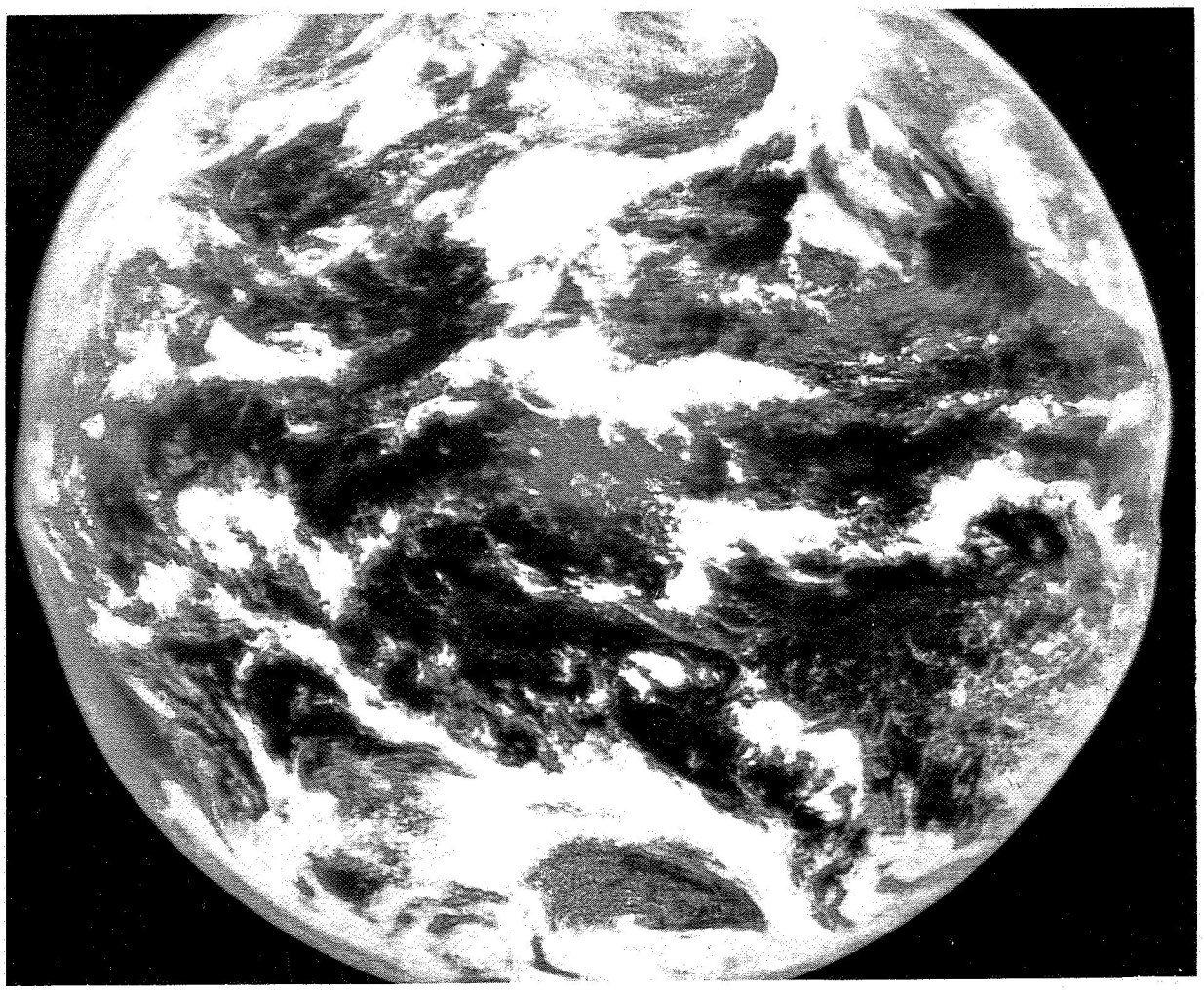
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	19 02 55	10	3002	1113F 2140A 2240G 4610E 4710H	MEXICO USA
01	19 02 55	20	4000	2140A 2240A	PE
01	19 02 55	50	1002	2140A 2240F	
01	19 02 55	60	4000	2140A	PE
02	19 25 40	00	3002		PE
03	19 47 20	00	3002		PE
04	20 37 00	00	3002		PE
05	20 59 41	00	3002		PE EE
06	21 22 00	00	4500		PE PC
07	21 30 45	00	4500		PE PC
08	21 50 57	10	3000	2140A 1113F 2240G 4610G 2230D 4200H	MEXICO USA
08	21 50 57	20	4000	2140A 4200A 2240A	MEXICO PE
08	21 50 57	40	4000	6618A 2140A 2240A	PE
08	21 50 57	50	1000	2140A 1100G 2240F 3150B	
08	21 50 57	60	4000	2140A	PE
08	21 50 57	80	4000	2140A 1100A 2240A	PE
09	22 13 05	00	3000		PE
10	22 36 43	00	3000		PE
11	22 59 37	00	3000		PE
12	23 22 32	00	3000		PE
13	23 45 22	00	3500		PE



ATS-I 21 MARCH 1967 21 50 57 UT SEQ 8

22 MAR 67 SUBSATELLITE PT 150.23W 00.09N TOTAL PICS 20

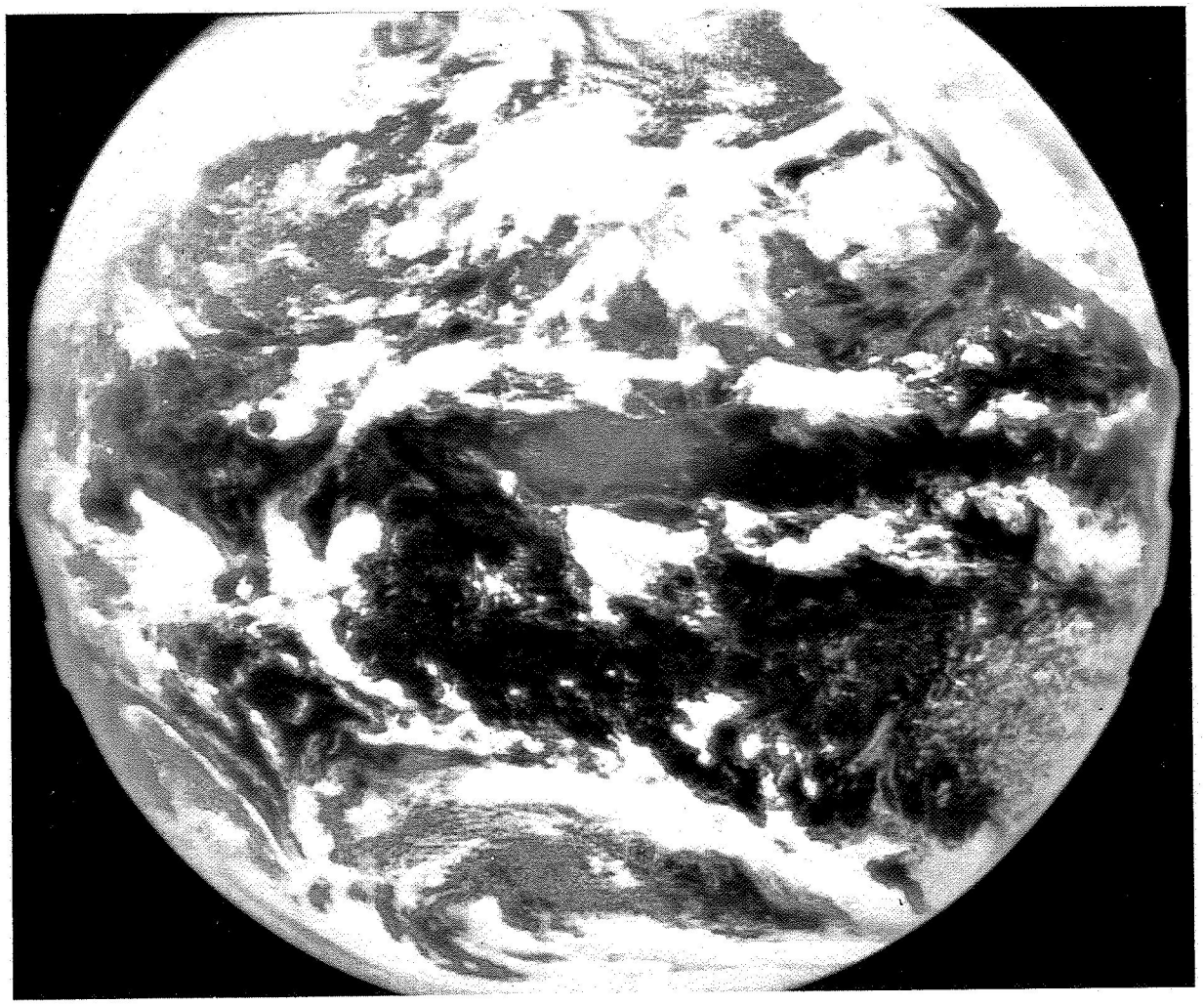
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 01 14	10	3000	2140A 2240G 4200H 4610D	PE MEXICO USA
01	00 01 14	20	5001	5000A	PE
01	00 01 14	40	1000	2140A 1100A 2240A 6618A	PE
01	00 01 14	50	1000	1100G 2140A 2240F	PE
01	00 01 14	60	5001	5000A	PE
01	00 01 14	80	1000	2140A 1100A 2240A	PE
02	00 25 04	00	1001		PE
03	00 47 03	00	1001		PE
04	02 39 55	00	1001		PE
05	02 58 36	00	1001		PE
06	18 05 17	10	3002	1100B 2140L 2240G 4710B 4610E	PE
06	18 05 17	20	5000	5000A	PE
06	18 05 17	50	1002	1100E 2140A 2240F	PE
06	18 05 17	60	1000	2140A	PE
07	18 28 10	00	3002		PE
08	18 51 22	00	7000		
09	19 13 57	00	3002		PE
10	19 36 50	00	3002		PE
11	19 59 47	00	3002		PE
12	20 22 41	00	3002		PE
13	20 58 40	00	3002		PE
14	21 21 36	00	3000		PE
15	21 44 26	10	3000	2140A 1100F 2240G 4200H 3150E 4610G	PE MEXICO USA
15	21 44 26	20	4000	2240A 4200A	PE
15	21 44 26	40	4000	2140A 1100A 2240A 6618A	PE
15	21 44 26	50	1000	1100G 2140A 2240F 3150F 4610C	PE
15	21 44 26	60	4000	2140A	PE
15	21 44 26	80	4000	1100A 2140A 2240A	PE
16	22 07 26	00	7000		
17	22 30 14	00	3000		PE
18	22 53 09	00	3000		PE
19	23 16 03	00	3000		PE EE
20	23 38 58	00	3001		PE



ATS-I 22 MARCH 1967 21 44 26 UT SEQ 15

23 MAR 67 SUBSATELLITE PT 150.13W 00.09N TOTAL PICS 16

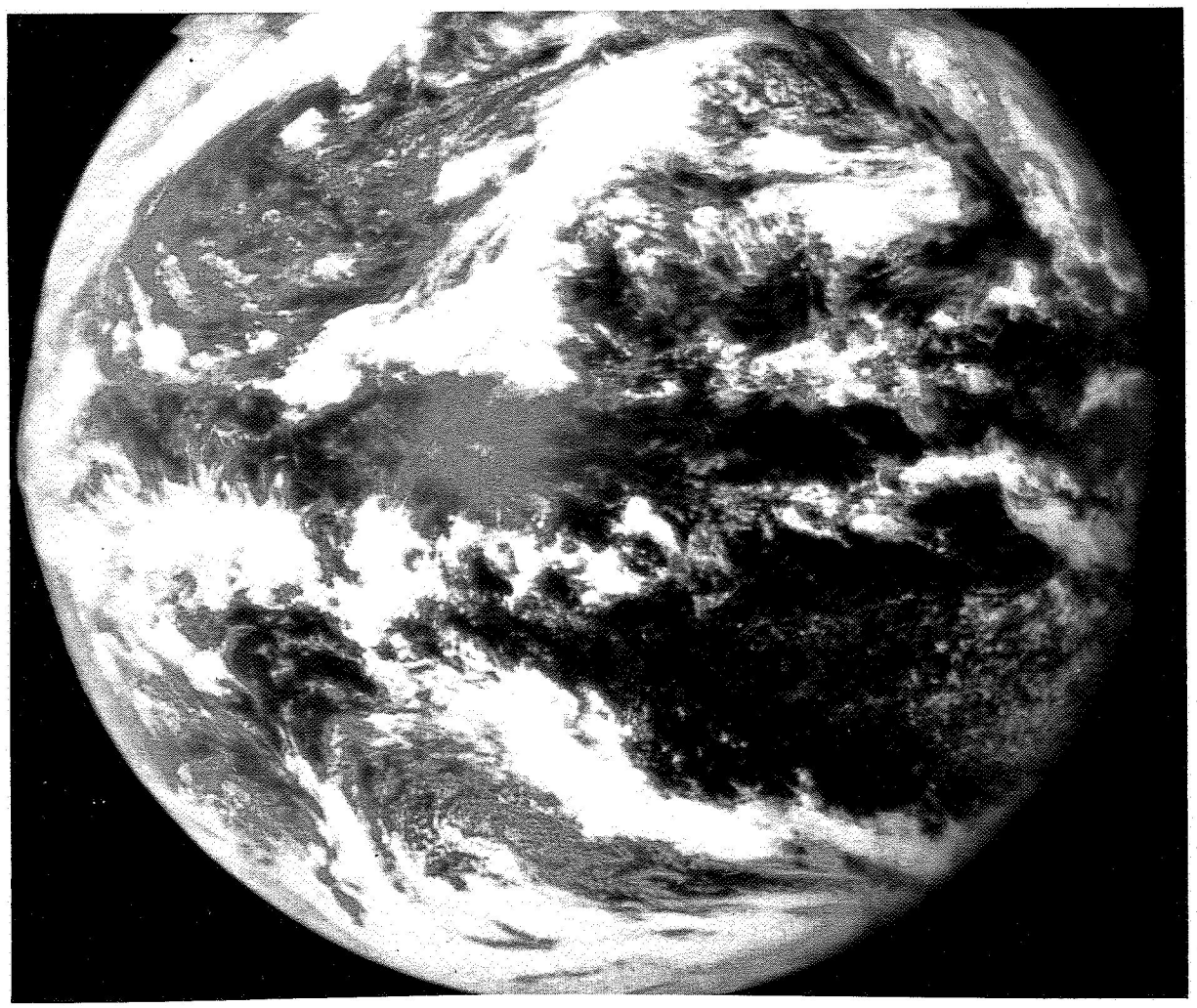
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 01 55	10	1000	1100C 2140A 2240G 4200H 4610D	PE MEXICO USA
01	00 01 55	20	5001	5000A	PE
01	00 01 55	40	4000	1100A 2140A 2240A 6618A	PE
01	00 01 55	50	1000	1100G 2140A 2240F 2230C 4610C	PE
01	00 01 55	60	5001	5000A	PE
01	00 01 55	80	4000	2140A 2230A 3150A	PE
02	00 24 45	00	1001		PE
03	00 47 37	00	1001		PE EE
04	01 10 33	00	1001		PE EE
05	01 33 28	00	1001		PE EE
06	01 56 25	00	1001		PE EE
07	02 19 16	00	1001		PE EE
08	02 42 09	00	1001		PE EE
09	03 05 08	10	4001	2140C 2230D 4610D	PE EE
09	03 05 08	40	4000	2140A 1100A 6618A	PE EE
09	03 05 08	50	4001	21401 1100D 2230C	PE EE
09	03 05 08	80	1000	2140A 1100A 2230A	PE EE
10	03 29 23	00	7000		
11	20 57 56	00	3500		PE EE
12	21 20 45	00	3000		PE EE
13	21 43 38	10	4000	2140A 1100A 3150E 2240G 4610G 4200H	PE MEXICO
13	21 43 38	20	4000	2140A 4200A	PE MEXICO
13	21 43 38	40	4000	2140A 1100A 6618A	PE
13	21 43 38	50	1000	2140A 2240F 2230C	PE
13	21 43 38	60	4000	2140A 2240A	PE
13	21 43 38	80	4000	2140A 2230A	PE
14	23 02 16	00	3000		PE
15	23 25 08	00	3001		PE
16	23 48 01	00	3001		PE



ATS-I 23 MARCH 1967 21 43 38 UT SEQ 13

24 MAR 67 SUBSATELLITE PT 150.14W 00.09N TOTAL PICS 13

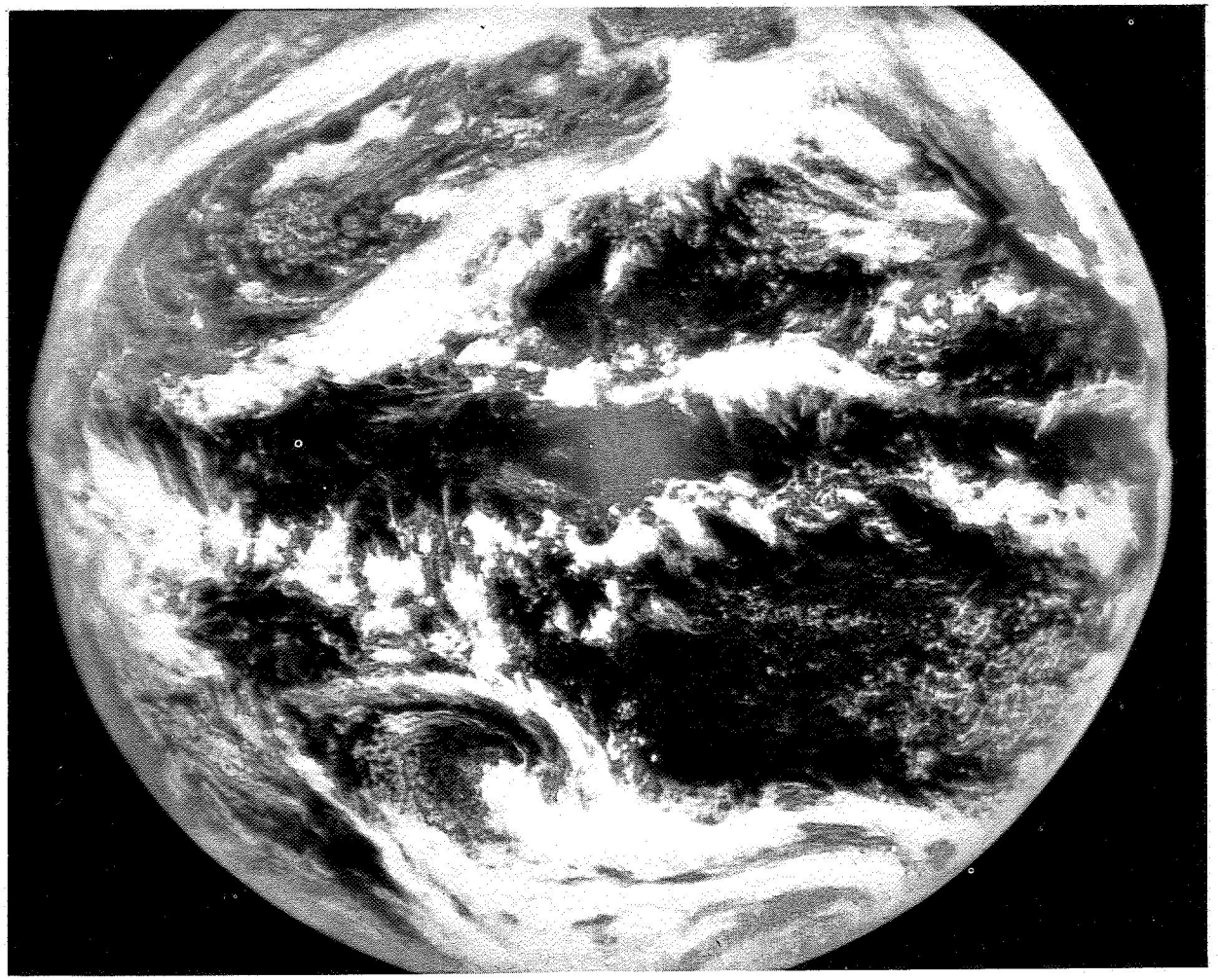
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 49 35	10	1001	2140I 2240G 1100C 4610D	
01	02 49 35	40	4000	6618A 2140A 2240A	PE
01	02 49 35	50	1001	2140I 2230C 4610C	
01	02 49 35	80	4000	2140A 2230A 4200A 4610A	PE AUSTRALIA
02	03 18 50	00	7000		
03	17 31 41	10	3002	2140A 1100F 2240G 4610E 4710H	MEXICO USA
03	17 31 41	20	4000	2140A 4200A	PE MEXICO
03	17 31 41	50	1002	2140K 2240F 4610B	
03	17 31 41	60	4000	2140A 2240A	PE
04	18 08 00	00	3002		PE
05	20 11 45	00	3002		PE
06	20 34 37	00	3002		PE
07	20 57 29	00	3000		PE
08	21 20 23	00	3000		PE
09	21 43 16	00	3500		PE
10	22 47 46	10	3000	2140A 1100C 2230D 2240G 4200H 4610D	MEXICO USA
10	22 47 46	20	4000	2140A 2240A	PE
10	22 47 46	40	4000	2140A 2230A	
10	22 47 46	50	1000	2140A 2240F 1100G	
10	22 47 46	60	4000	2140A 2240A	PE
10	22 47 46	80	4000	2140A 2240A	PE
11	23 10 37	00	3001		PE
12	23 33 31	00	3001		PE
13	23 55 23	00	3001		PE



ATS-I 24 MARCH 1967 23 10 37 UT SEQ 11

25 MAR 67 SUBSATELLITE PT 150.16W 00.09N TOTAL PICS 15

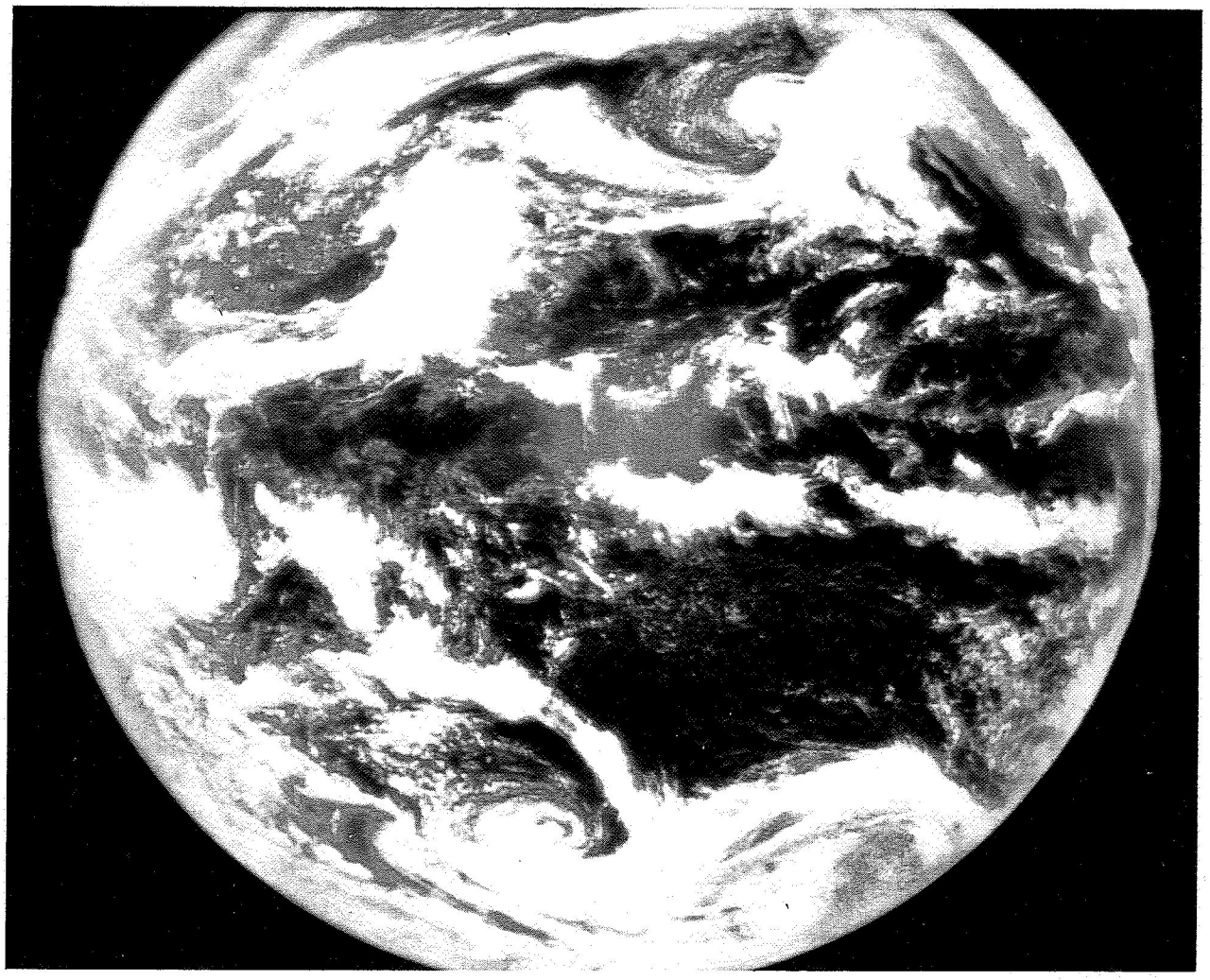
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 19 18	10	1001	2143A 2142C 2240G 3150K 4200H 4610D	
01	00 19 18	40	4000	2142A 2240A 2230A	PE
01	00 19 18	50	1001	2140J 2240F 1100D	
01	00 19 18	80	4000	2140A 2240A	PE
02	00 42 11	00	4001		PE
03	01 05 02	00	4001		PE
04	02 43 39	00	4001		PE
05	03 06 33	00	4001		PE
06	03 29 24	00	4001		PE
07	20 08 02	10	1000	2143J 2142C 2240G 4710H 4610E	MEXICO
07	20 08 02	20	4000	2140A 4200A	MEXICO PE
07	20 08 02	40	5002	5000A	PE
07	20 08 02	50	1000	2145I 2140K 2240F 3150C 4610F 1100G	
07	20 08 02	60	4000	2140A 2240A	PE
07	20 08 02	80	5002	2140A 2240A	PE
08	20 30 56	00	3002		PE
09	20 53 50	00	3000		PE
10	21 16 42	00	3000		PE PR
11	21 39 36	00	3000		PE
12	22 46 08	10	3000	2143L 2142I 2240G 4710H 4610G	MEXICO
12	22 46 08	20	4000	2140A 4200A	MEXICO PE
12	22 46 08	40	4000	2140A 2230A	PE
12	22 46 08	50	1000	2145D 2142G 2141C 2240G 4610C	
12	22 46 08	60	4000	2140A 2240A	PE
12	22 46 08	80	4000	2140A 2240A 4550A	PE NEW ZEALND
13	23 09 15	00	3001		PE
14	23 31 55	00	3001		PE
15	23 54 48	00	3001		PE



ATS-I 25 MARCH 1967 21 39 36 UT SEQ 11

26 MAR 67 SUBSATELLITE PT 150.17W 00.09N TOTAL PICS 17

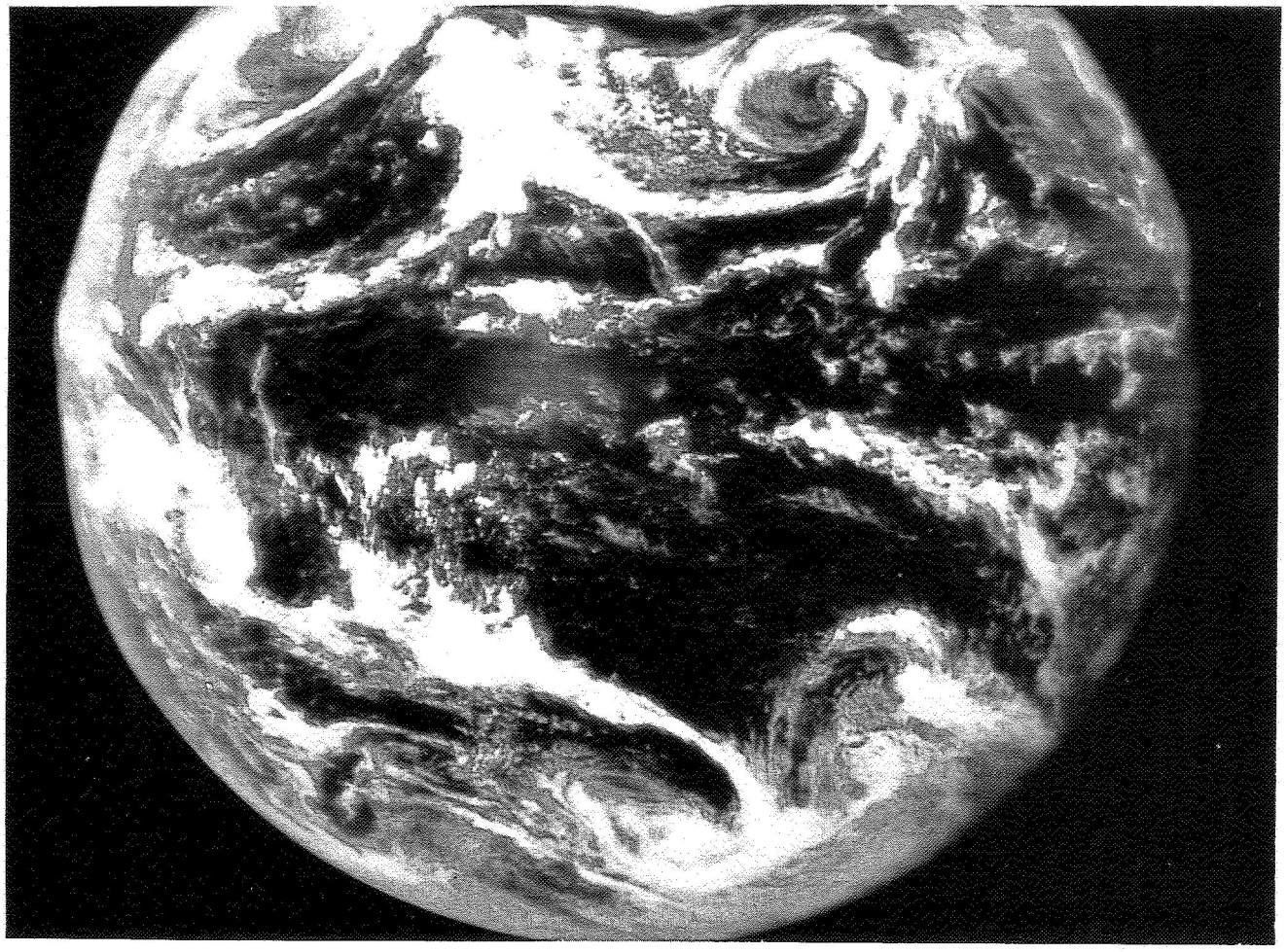
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 17 42	10	1001	2143L 2142I 2240G 3150G 4610D 4200H	MEXICO USA
01	00 17 42	40	4000	2140A 2230A	PE
01	00 17 42	50	1001	2145I 2142G 2240F 4610C 1100H	
01	00 17 42	80	4000	2140A 2240A 2230A	PE
02	00 40 35	00	4001		PE
03	02 43 18	00	4001		PE
04	03 06 12	10	1001	2143D 2142I 2240D 4610D	
04	03 06 12	40	4000	2140A 2240A	PE
04	03 06 12	50	1001	1100D 2140H 2230C	
04	03 06 12	80	4000	2140A 2240A 2230A 4550A	PE NEW ZEALND
05	03 29 01	00	4001		PE
06	17 27 44	00	4002		PE PR
07	17 50 38	10	3002	2145H 2143I 2240G 4610E 4710E 3150E	MEXICO
07	17 50 38	20	4000	2140A 4200A	PE MEXICO
07	17 50 38	50	1002	2145D 2140K 2240F	
07	17 50 38	60	4000	2140A 2240A	PE
08	18 13 30	00	3002		PE
09	18 36 24	00	3002		PE PR
10	20 01 04	00	4002		PE PR
11	20 23 56	00	3002		PE
12	20 46 49	00	3000		PE
13	21 09 45	00	4000		PE PR
14	21 32 36	10	3000	2145H 2143C 2230D 2240G 4610G 4710E	MEXICO
14	21 32 36	20	4000	2140A 2240A 4200A	PE MEXICO
14	21 32 36	40	4000	2140A 2240A	
14	21 32 36	50	1000	2145D 1114D 2142G 2141I 2240F 4610F	
14	21 32 36	60	4000	2140A 2240A	PE
14	21 32 36	80	4000	2140A 2240A 2230A	PE
15	22 57 38	00	3000		PE
16	23 20 26	00	3001		PE
17	23 43 20	00	3001		PE



ATS-I 26 MARCH 1967 21 32 36 UT SEQ 14

27 MAR 67 SUBSATELLITE PT 150.18W 00.08N TOTAL PICS 19

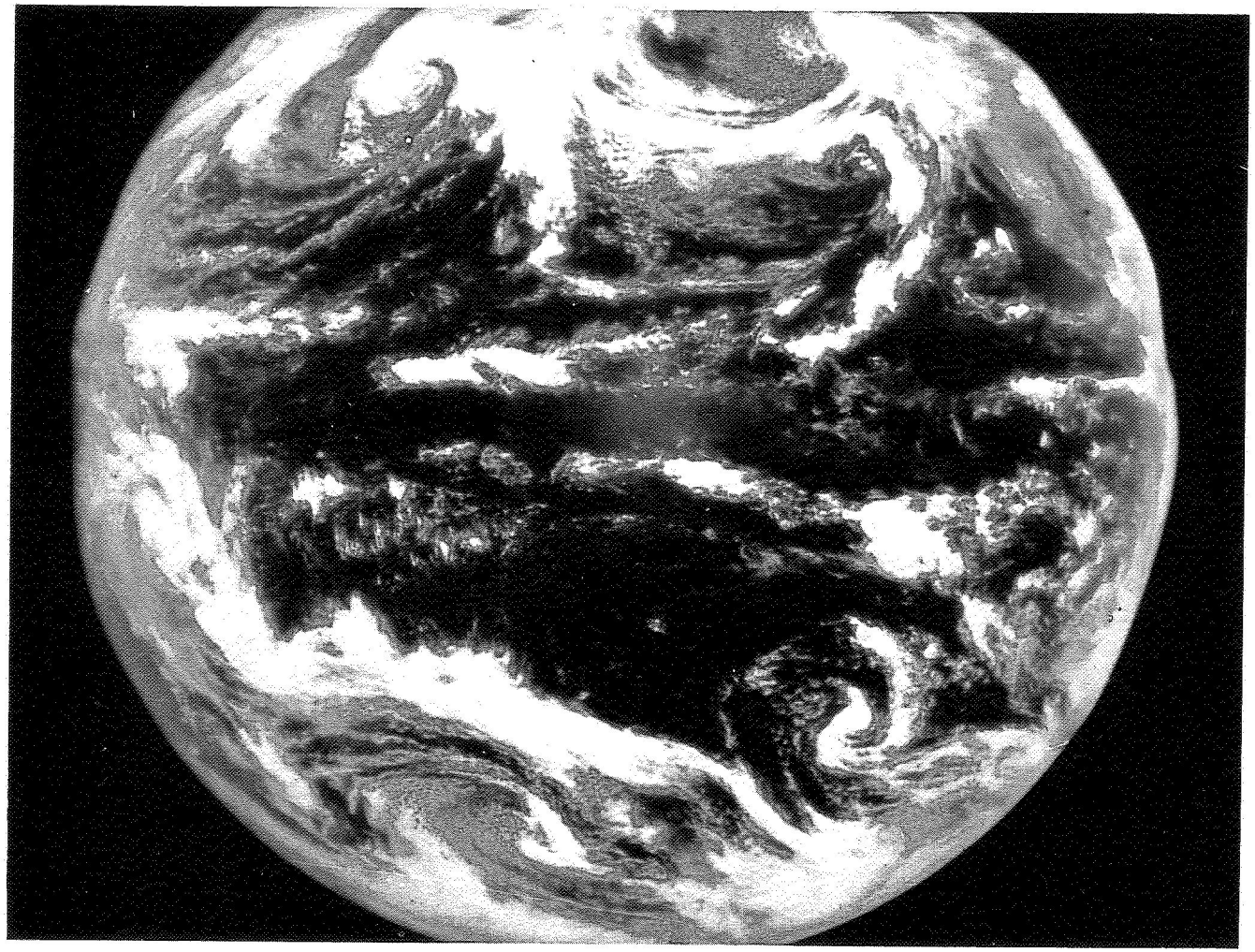
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 06 12	10	1001	2145B 2143C 2240G 2230D 4610D 4200H	MEXICO
01	00 06 12	40	4000	2140A 2240A 1100A	PE
01	00 06 12	50	1001	1100D 2145D 2240F 2230C 2140A	
01	00 06 12	80	1000	2140A 2230A 4200A	PE ASTR
02	00 29 06	00	1001		PE
03	00 51 59	00	1001		PE
04	02 42 17	00	4001		PE
05	03 05 09	00	4001		PE
06	14 52 47	00	4002		PE PR
07	15 15 42	00	4002		PE
08	15 38 34	00	4002		PE
09	17 20 24	00	5002		PE PR
10	17 43 20	10	1002	1114H 2140A 2240G 4710H 4610E	MEXICO
10	17 43 20	20	4000	2140A 2240A	PE MEXICO
10	17 43 20	50	1002	1100L 2140A 2240F 4610B	
10	17 43 20	60	4000	2140A 2240A	PE
11	18 06 11	00	4002		PE PR
12	19 52 41	00	4002		PE PR
13	20 38 28	00	3002		PE
14	21 01 21	00	3000		PE
15	21 24 14	00	3000		PE
16	21 47 10	00	3500		PE
17	22 52 04	10	3000	1114H 2140A 2240G 4710H 4610D	MEXICO
17	22 52 04	20	4000	2240A 4200A	PE MEXICO
17	22 52 04	40	4000	2140A 2240A 1100A	
17	22 52 04	50	1000	1100G 2140A 2240B	
17	22 52 04	60	4000	2140A 2240A	
17	22 52 04	80	4000	1100A 2230A 2240A 4550A 4200A	PE ASTR NZ
18	23 14 55	00	3001		PE
19	23 37 49	00	3001		PE



ATS-I 27 MARCH 1967 22 52 04 UT SEQ 17

28 MAR 67 SUBSATELLITE PT 150.18W 00.08N TOTAL PICS 15

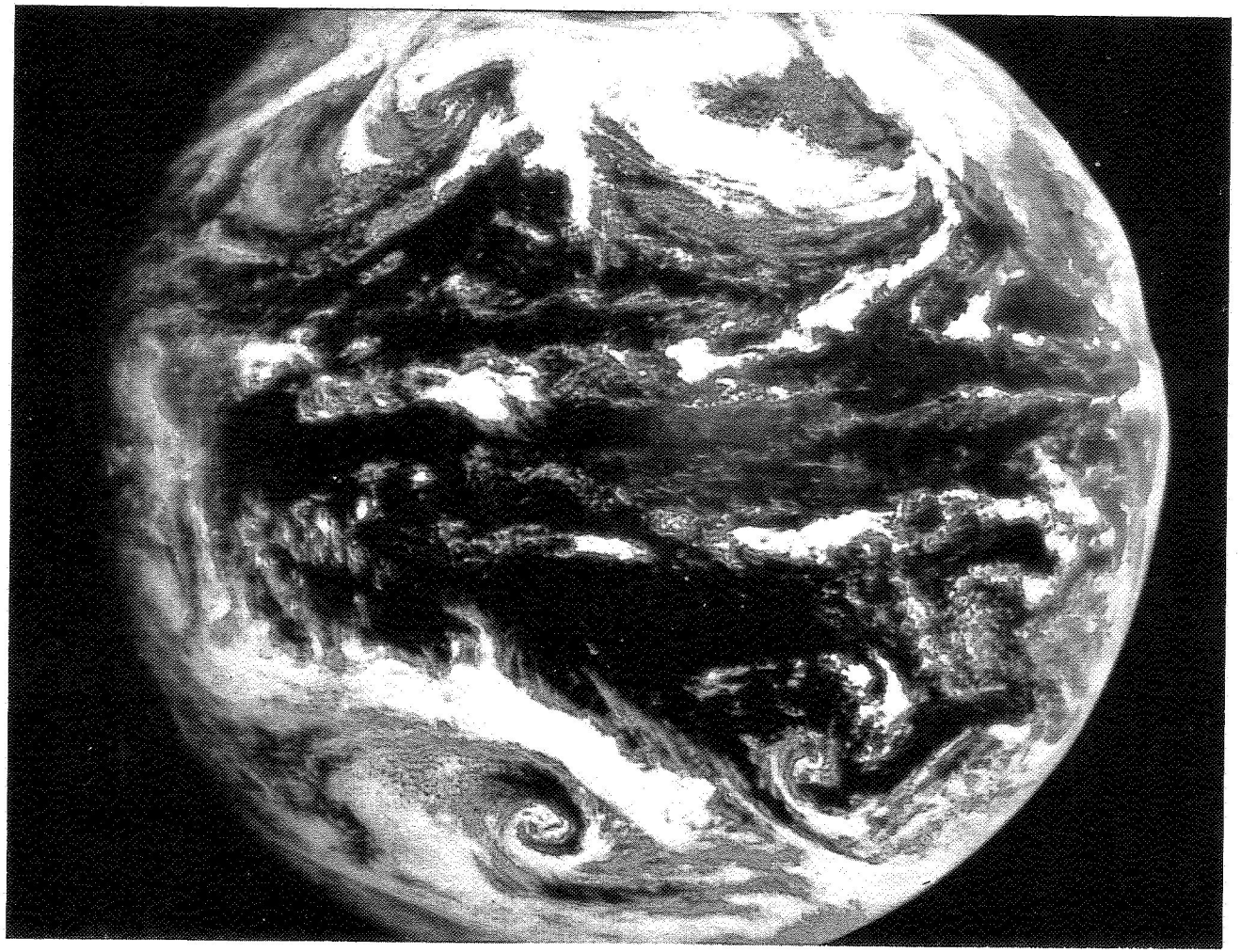
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 00 43	10	1000	1114H 11131 2140A 2240G 4610D 4710E	MEXICO
01	00 00 43	20	5001	5000A	
01	00 00 43	40	4000	2140A 1100A 2240A	PE
01	00 00 43	50	1000	1100G 2140A 2240F 3150C	
01	00 00 43	60	5001	5000A	
01	00 00 43	80	4000	2140A 2240A 2230A 4200A 4550A	PE ASTR NZ
02	00 23 40	00	4001		PE
03	00 46 33	00	4001		PE
04	01 09 25	00	4001		PE EE
05	01 32 18	00	4001		PE
06	17 23 08	00	3002		PE
07	17 46 02	00	3002		PE
08	18 08 56	10	3002	1100M 2140A 2240G 3150E 4610E 4710E	MEXICO
08	18 08 56	20	4000	2140A 2240A 4200A	PE MEXICO
08	18 08 56	50	1002	1100H 2140A 2240F 4610B	
08	18 08 56	60	4000	2140A	PE
09	20 05 36	00	3002		PE
10	20 28 26	00	3002		PE
11	20 51 19	00	3000		PE
12	21 14 12	00	3000		PE
13	21 37 11	10	3000	1100F 2140A 2240G 3150G 4610G 4710E	MEXICO
13	21 37 11	20	4000	2140A 4200A 2240A	PE MEXICO
13	21 37 11	40	4000	2140A 2240A 1100A	PE
13	21 37 11	50	1000	1100L 2140A 2240F 4610C	
13	21 37 11	60	4000	2140A	PE
13	21 37 11	80	3000	2140A 2230A 1200A 4550A	PE NZ ASTR
14	23 26 26	00	3001		PE
15	23 49 27	00	1001		PE



ATS-I 28 MARCH 1967 21 37 11 UT SEQ 13

29 MAR 67 SUBSATELLITE PT 150.18W 00.08N TOTAL PICS 5

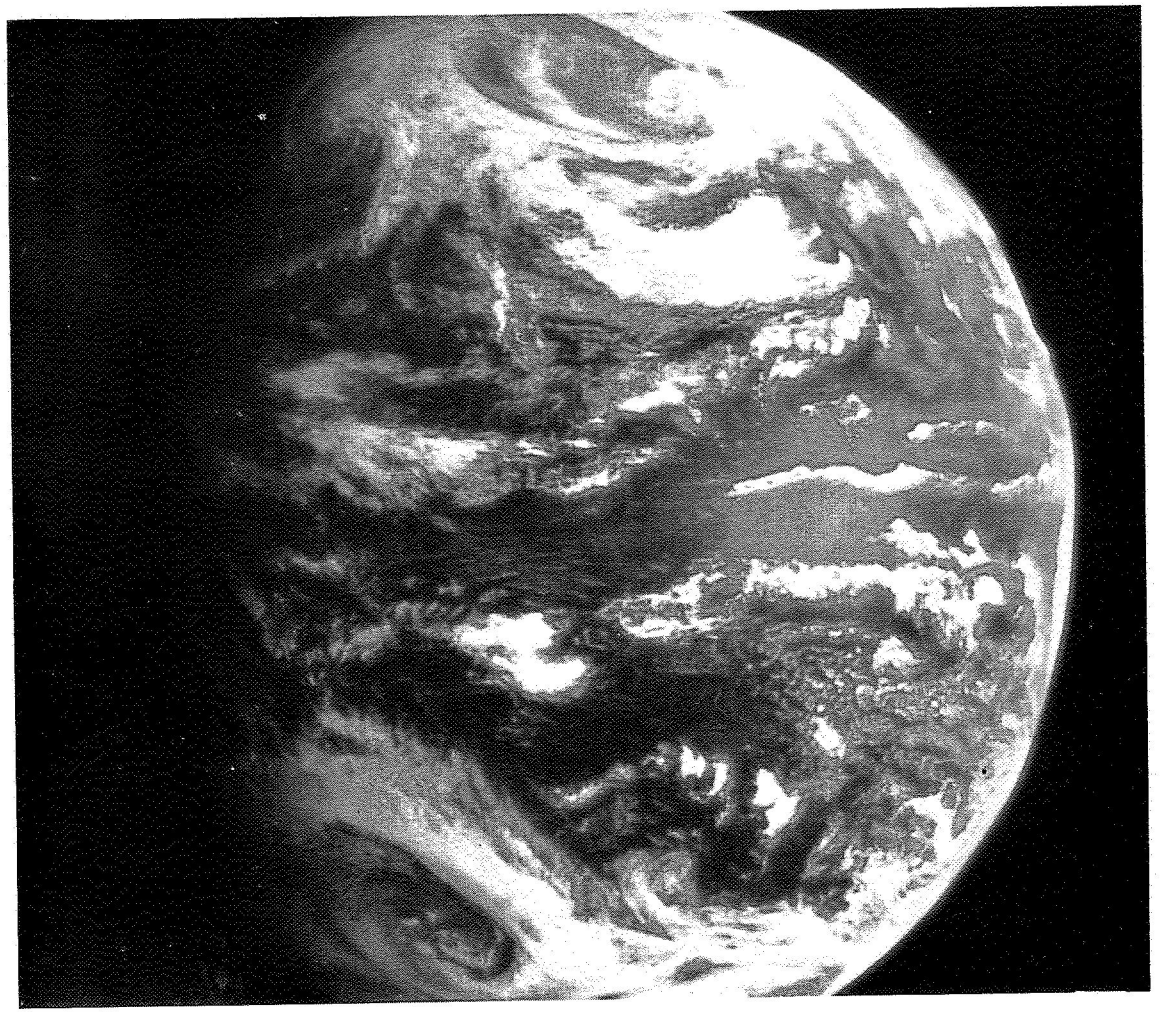
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	17 30 53	10	1002	1100F 2140A 2240G 4610B 4710E	MEXICO
01	17 30 53	20	4000	2140A 2240A 4200A	PE MEXICO
01	17 30 53	60	4000	2140A 2240A	PE
01	17 30 53	50	1002	1114B 1114D 2140A 2240F 4610B	
02	17 53 46	00	1002		PE
03	18 16 41	00	3002		PE
04	20 08 38	00	3002		PE
05	20 31 32	10	3000	1100F 2140A 2240G 3150G 4610E 4200H	MEXICO
05	20 31 32	20	3000	2140A 2240A 4200A	PE MEXICO
05	20 31 32	40	4002	2140A 2240A	
05	20 31 32	50	1000	1114B 1114D 2140A 2240F	
05	20 31 32	60	4000	2140A 2240A	PE
05	20 31 32	80	4002	2140A 2230A	



ATS-I 29 MARCH 1967 20 31 32 UT SEQ 5

30 MAR 67 SUBSATELLITE PT 150.18W 00.07N TOTAL PICS 6

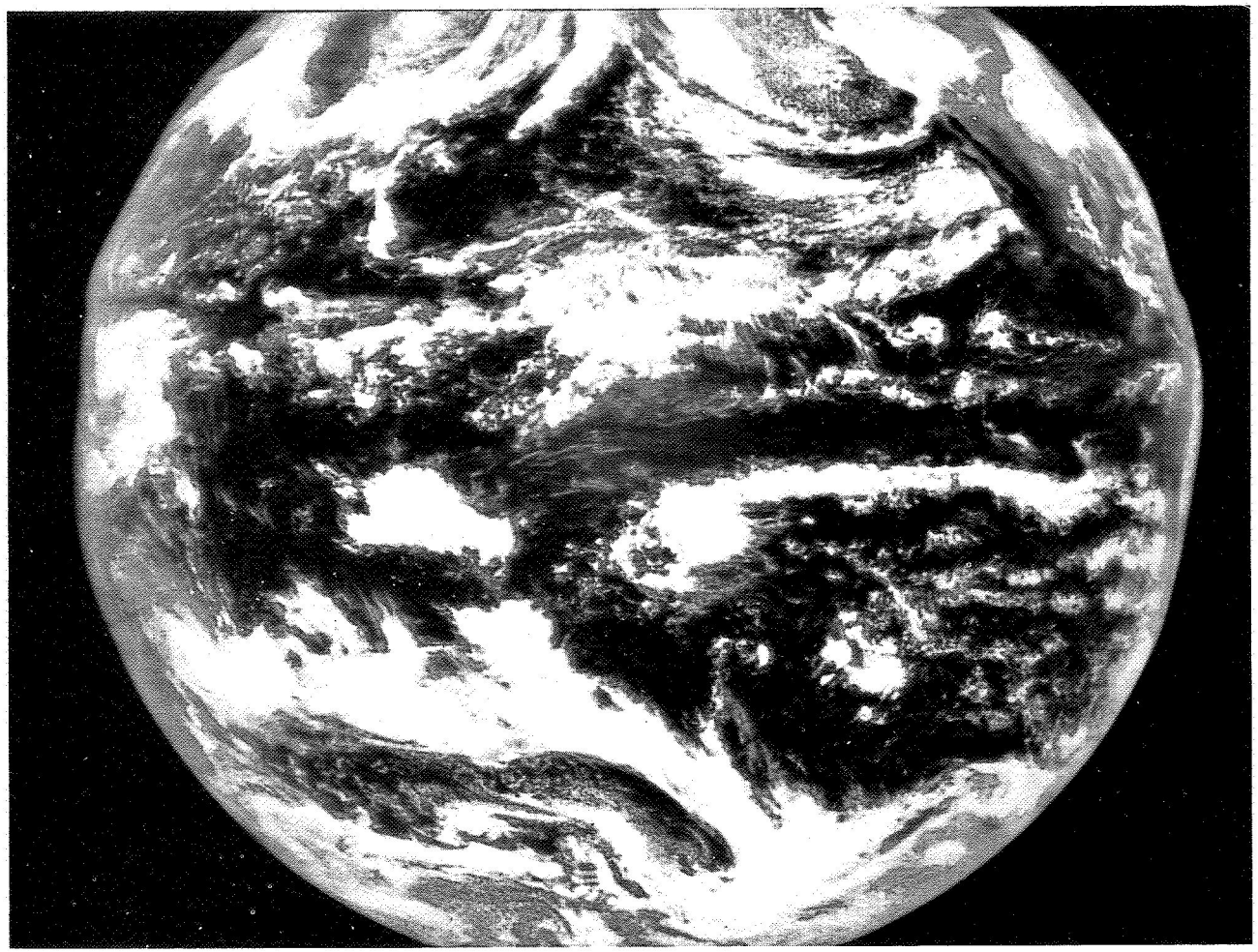
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 08 50	10	1000	2140A 1114C 2240G 3150E 2230D 4610H	HAWAII
01	00 08 50	20	5001	5000A	
01	00 08 50	40	4000	2240A 2140A	PE
01	00 08 50	50	1000	1114L 2140A 2240F	
01	00 08 50	60	5001	5000A	
01	00 08 50	80	4000	2140A 2230A 2240A 4200A	PE AUSTRALIA
02	02 49 50	00	4001		PE
03	03 12 48	00	4001		PE
04	03 35 42	00	4001		PE
05	17 49 20	10	1002	1114F 2140A 2240G 4610E 4710H	MEXICO
05	17 49 20	20	4000	2140A 2240A 4200A	PE MEXICO
05	17 49 20	50	1002	1114L 2140A 2240F 3150F 4610B	
05	17 49 20	60	4000	2140A	PE
06	23 38 29	00	4001		PE PR



ATS-I 30 MARCH 1967 17 49 20 UT SEQ 5

31 MAR 67 SUBSATELLITE PT 150.18W 00.07N TOTAL PICS 5

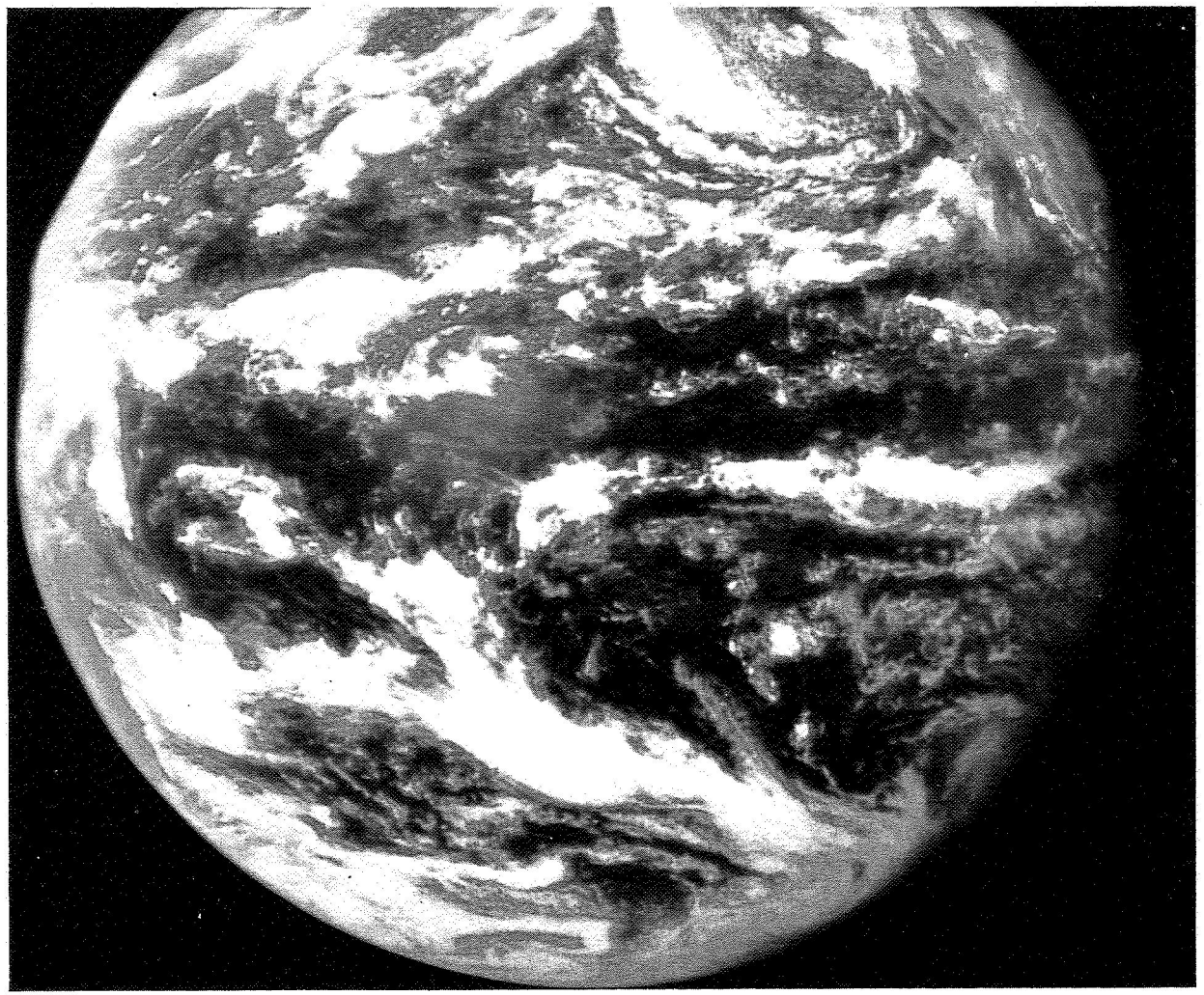
SEQ	START	ZONE	PICO	DATA CONTENT DESCRIPTORS	REMARKS
01	00 01 22	10	4000	2140A 2240G 3150G 4610D 4200	MEXICO
01	00 01 22	20	5001	5000A	PE
01	00 01 22	40	4000	2140A 2240A	
01	00 01 22	50	4001	1114G 2140L 2240F	
01	00 01 22	60	5000	5000A	
01	00 01 22	80	4000	1100A 2230A 2140A 4200A	PE AUSTRALIA
02	20 26 06	00	3002		PE
03	21 47 20	10	3000	1100F 2140A 2240G 3100G 4610G 4710H	
03	21 47 20	20	4000	1100A 2240A	PE
03	21 47 20	40	4000	1100A 2240A	PE
03	21 47 20	50	1000	1114D 2145G 2240F 3150C	
03	21 47 20	60	4000	2140A	PE
03	21 47 20	80	4000	2140A 1100A 4200A 2240A	PE
04	23 35 03	00	3001		PE
05	23 57 57	00	3001		PE



ATS-I 31 MARCH 1967 21 47 20 UT SEQ 3D

1 APR 67 SUBSATELLITE PT 150.17W 00.06N TOTAL PICS 12

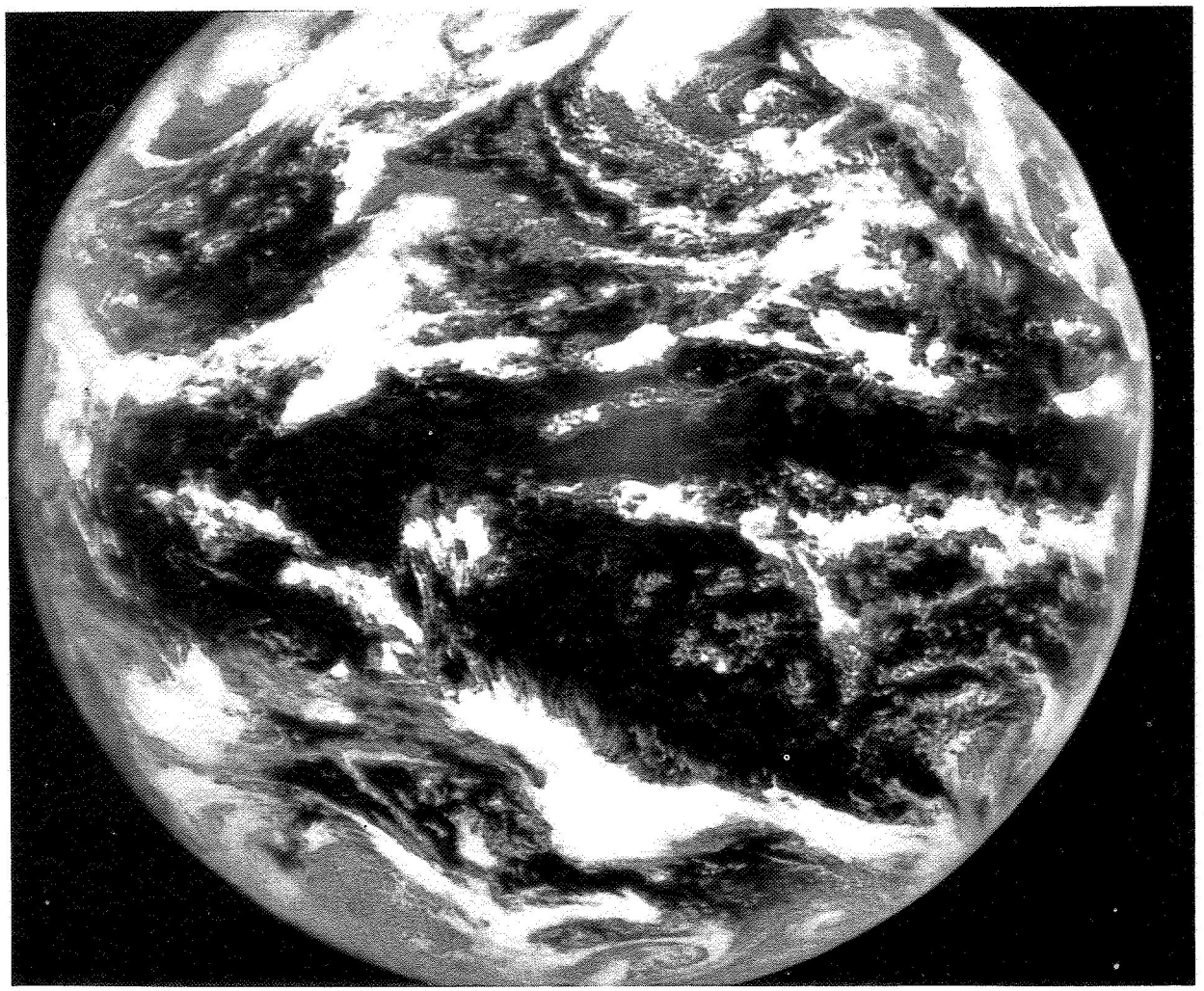
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 20 50	10	1001	2140A 2240G 1100C 4610D 4710E	MEXICO
01	00 20 50	40	4000	2140A 1100A 2240A	PE
01	00 20 50	50	1001	1100G 2140A 2240F	
01	00 20 50	80	4000	2140A 1200A 2240A 4200A	PE ASTR
02	02 49 36	00	1001		PE
03	03 12 30	00	1001		PE
04	03 35 23	00	1001		PE
05	14 43 37	00	4502		PE
06	15 27 00	00	4002		PE
07	17 11 11	00	1002		PE
08	17 34 05	00	1002		PE
09	17 57 00	10	1002	1100F 2140A 2240G 4610E 4200E	MEXICO
09	17 57 00	20	4000	2140A 2240A 4200A	MEXICO PE
09	17 57 00	50	1002	2140A 2240A 3150B	
09	17 57 00	60	4000	2140A	PE
10	18 19 52	00	3002		PE
11	23 30 05	10	3000	2140A 2240G 4710H 4610D	MEXICO
11	23 30 05	20	4001	2140A	PE
11	23 30 05	40	4000	2140A 2230A 1200A	
11	23 30 05	50	1000	2140A 2240F 1100D 4610C	
11	23 30 05	60	5001	5000A	
11	23 30 05	80	4000	2140A 2230A 4200A	ASTR PE
12	23 52 59	00	3001		PE



ATS-I 1 APRIL 1967 23 30 05 UT SEQ 11

2 APR 67 SUBSATELLITE PT 150.17W 00.06N TOTAL PICS 16

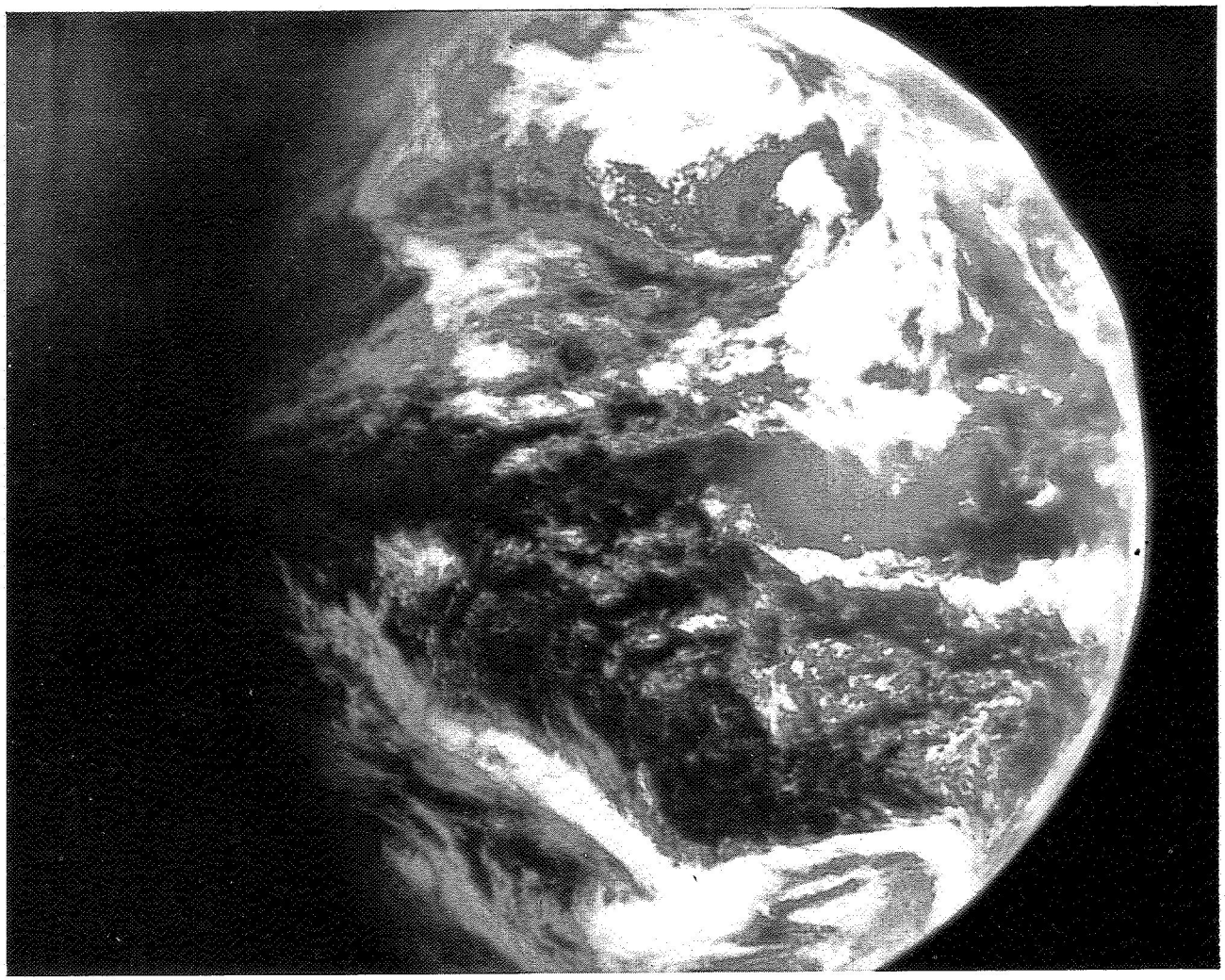
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 15 32	10	3001	2140A 1100C 2240G 4610D 4710H	MEXICO
01	00 15 32	20	5001	5000A	
01	00 15 32	40	4000	2140A 2230A	PE
01	00 15 32	50	1001	2140A 1100D 2240F	
01	00 15 32	60	5001	5000A	
01	00 15 32	80	4000	2140A 2230A 4200A	PE ASTR
02	02 48 00	00	4001		PE
03	03 10 53	00	4001		PE
04	03 33 44	00	4001		PE
05	14 57 24	00	4002		PE
06	15 20 20	00	4002		PE
07	17 32 50	00	3002		PE
08	17 55 50	00	3002		
09	18 18 38	10	3002	1100F 2140J 2240G 3150H 4610E 4710H	MEXICO
09	18 18 38	20	4000	2140A 4200A	PE MEXICO
09	18 18 38	50	1002	21431 2140A 2240F	
09	18 18 38	60	4000	2140A 2240A	PE
10	20 09 50	00	3002		PE
11	20 32 45	00	3002		PE
12	20 56 00	00	3000		PE
13	21 18 31	10	1000	2140A 3150H 2240G 4200H 4610E	MEXICO
13	21 18 31	20	4000	2140A 2240A 4200A	MEXICO PE
13	21 18 31	40	4000	2140A 1100A 2240A	PE
13	21 18 31	50	1000	2143D 2140J 1100G 2240F 4610C	
13	21 18 31	60	4000	2140A 2240A	PE
13	21 18 31	80	4000	2140A 2240A 4200A	PE ASTR
14	21 41 25	00	1500		PE
15	23 26 01	00	3001		PE
16	23 48 54	00	1001		PE



ATS-I 2 APRIL 1967 21 18 31 UT SEQ 13

3 APR 67 SUBSATELLITE PT 150.16W 00.05N TOTAL PICS 7

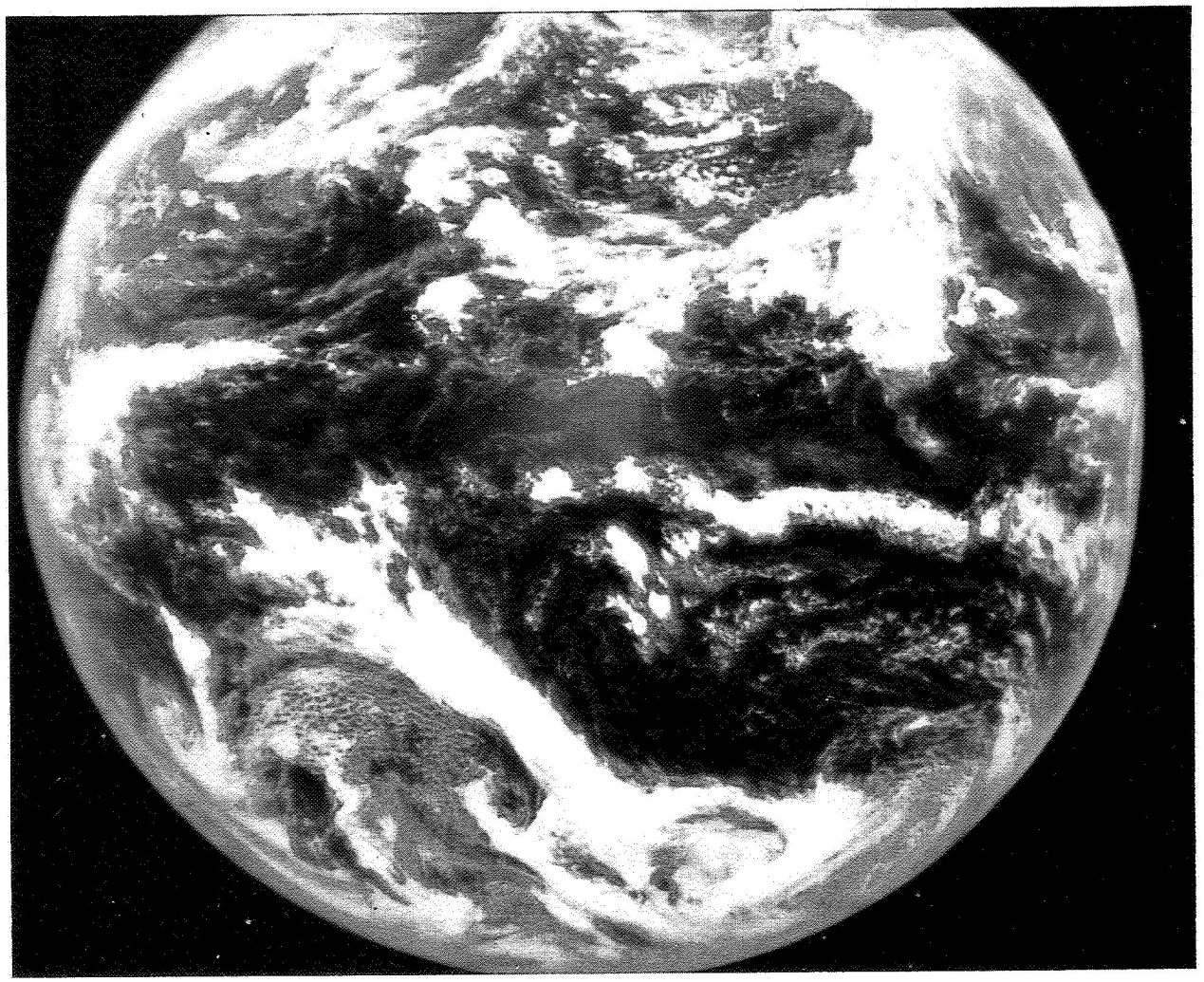
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 11 51	10	4001	2140I 2240G 2230D 4610D 4200H	MEXICO USA
01	00 11 51	20	5001	5000A	
01	00 11 51	40	4000	2140A 1100A 2240A 2230A	PE
01	00 11 51	50	4001	2143D 2140K 2240F 1100G	
01	00 11 51	60	5001	5000A	
01	00 11 51	80	4000	1100A 2240A 4200A	PE ASTR
02	14 55 06	00	4002		PE
03	15 18 07	00	4002		PE
04	17 05 54	00	1002		PE
05	17 29 07	10	1002	1113H 2140F 2240G 4200H 4610E	MEXICO USA
05	17 29 07	20	4000	2140A 4200A	PE MEXICO
05	17 29 07	50	1002	2145G 2142I 2240F 4610B	
05	17 29 07	60	4000	2240A 2140A	PE
06	17 51 45	00	1002		PE
07	18 14 40	00	1002		PE



ATS-I 3 APRIL 1967 18 14 40 UT SEQ 7

4 APR 67 SUBSATELLITE PT 150.15W 00.05N TOTAL PICS 12

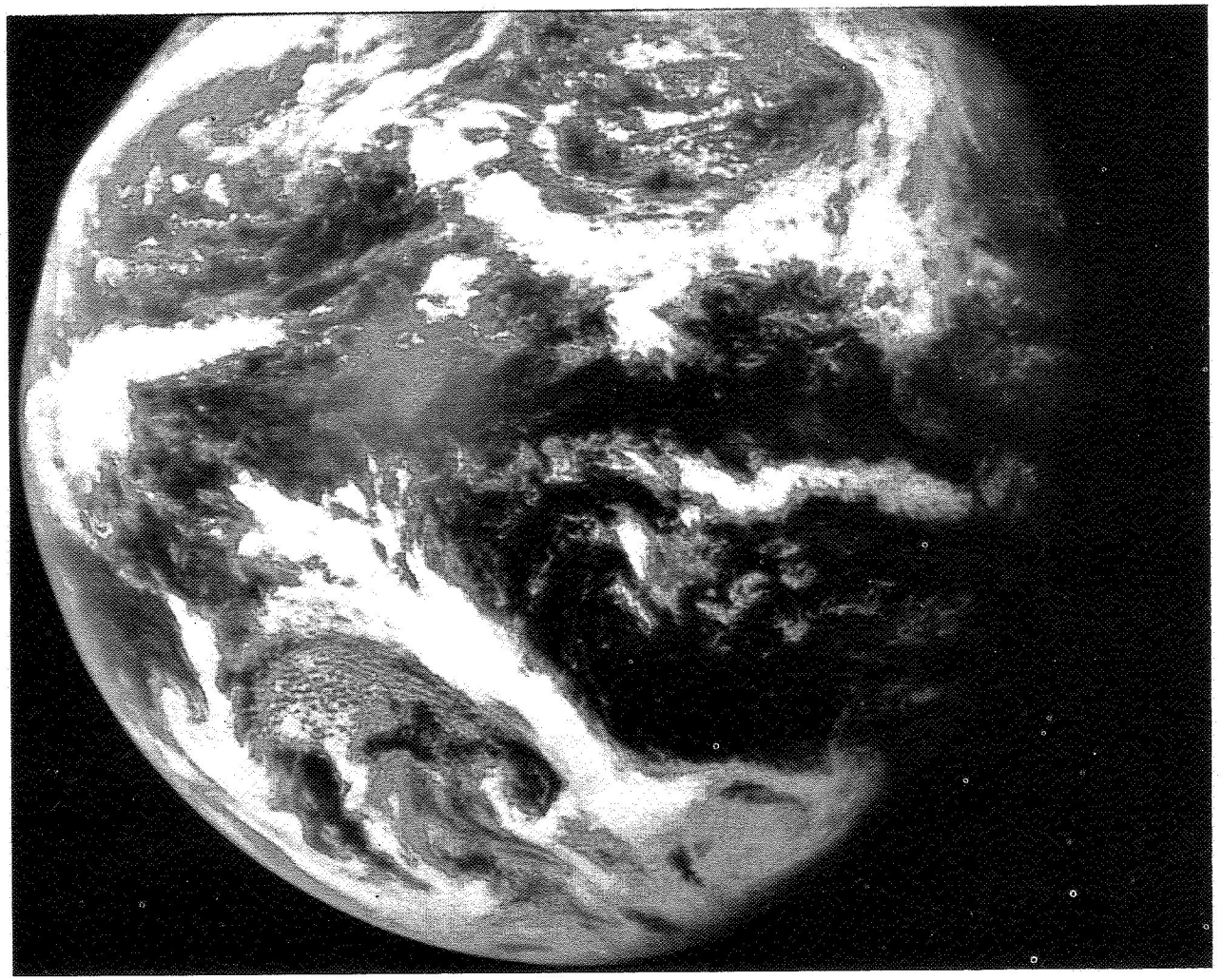
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	17 33 34	10	4002	1100H 2140K 2240E 4610E 4200H	MEXICO USA
01	17 33 34	20	4000	2140A 4200A	PE MEXICO
01	17 33 34	50	4002	2140K 1100G 2240F 4610B	
01	17 33 34	60	4000	2140A 2240A	
02	17 56 29	00	1002		PE
03	18 19 22	00	1002		
04	19 56 30	00	1002		PE
05	20 19 20	00	1002		PE
06	20 42 10	00	1002		PE
07	21 05 12	00	1002		PE
08	21 27 48	00	3500		PE
09	21 43 00	10	3000	2141A 1100B 2240G 4610G 4200E	MEXICO
09	21 43 00	20	4000	2140A 2240A 4200A	PE MEXICO
09	21 43 00	40	4000	2230A 2240A 2140A	PE
09	21 43 00	50	1000	1100G 2143G 2141I 2240F	
09	21 43 00	60	4000	2140A	
09	21 43 00	80	4000	2140A 1100A 2230A 4200A	PE ASTR
10	22 59 23	00	3000		PE
11	23 22 16	00	4000		PE
12	23 45 13	00	4001		PE



ATS-I 4 APRIL 1967 21 43 00 UT SEQ 9

5 APR 67 SUBSATELLITE PT 150.14W 00.05N TOTAL PICS 11

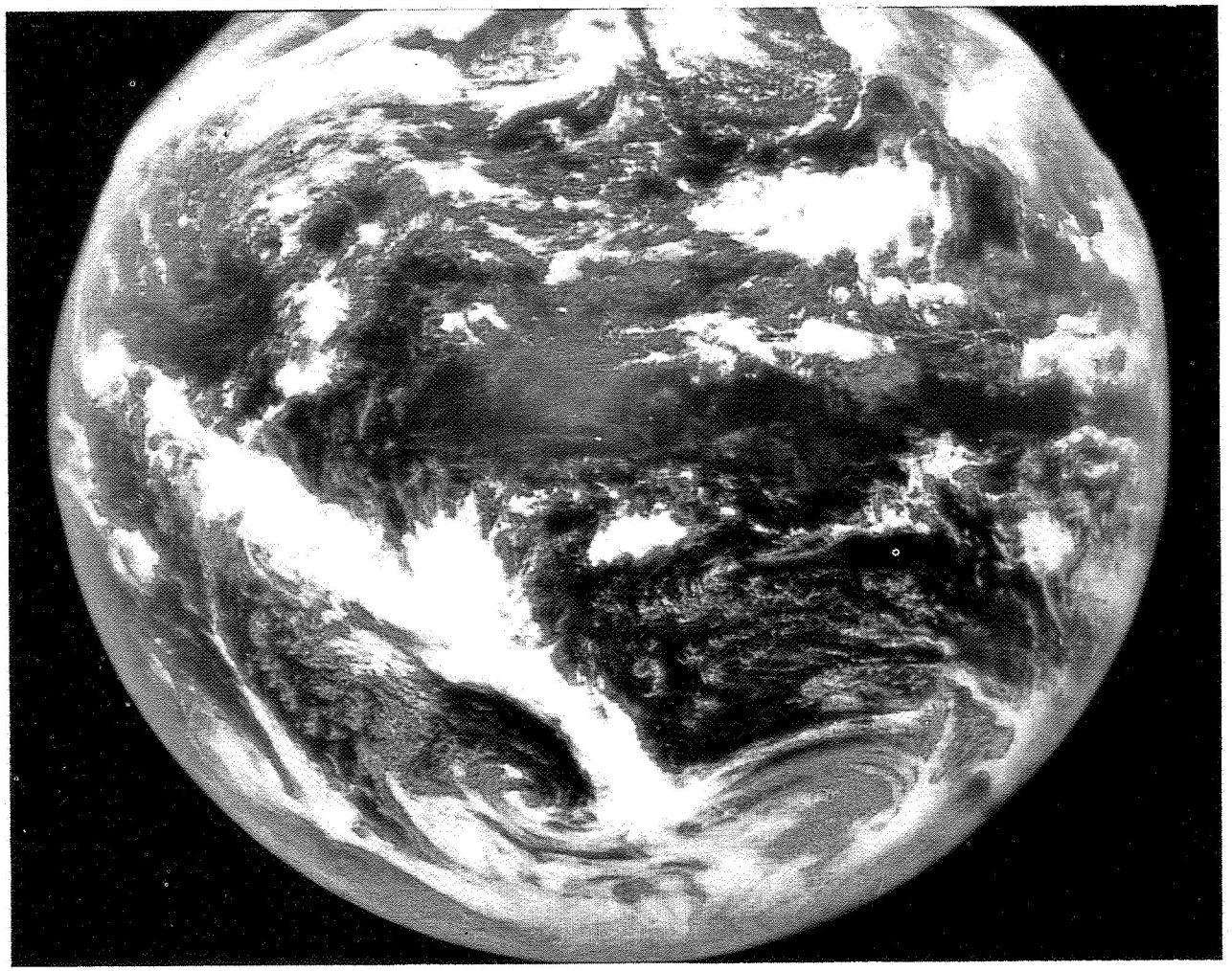
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 08 06	10	1000	2140A 2240G 4610D	
01	00 08 06	20	5001	5000A	
01	00 08 06	40	4000	2240A 2140A	PE
01	00 08 06	50	4001	2143G 1100G 2240F 2230C 31501	
01	00 08 06	80	4001	2140A 1100A 2240A 2230A 4200A	PE ASTR
02	00 30 59	00	4001		PE
03	00 53 53	00	4501		PE
04	02 39 23	00	4001		PE
05	03 02 16	00	4001		PE
06	03 25 10	00	4001		PE
07	18 18 02	10	4002	2140J 2240G 1114B 4200B 4610E	USA
07	18 18 02	20	4000	2140A 2240A 4200A	PE
07	18 18 02	50	1002	1100D 2140K 2240F	
07	18 18 02	60	4000	2240A 2140A	PE
08	18 40 56	00	3002		PE
09	19 03 49	00	3002		PE
10	19 26 41	00	3002		PE
11	19 49 37	00	3002		PE



ATS-I 5 APRIL 1967 00 08 06 UT SEQ 1

6 APR 67 SUBSATELLITE PT 150.12W 00.05N TOTAL PICS 5

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	22 16 39	10	3000	1100F 2140F 2240G 4200H 4610G	MEXICO USA
01	22 16 39	20	3000	2140A 4200A	MEXICO PE
01	22 16 39	40	4000	2140A 2230A	
01	22 16 39	50	1000	1100G 2140A 2240F 2230C	
01	22 16 39	60	4000	2140A	PE
01	22 16 39	80	4000	2140A 2230A 1100A 2240A 4200A	PE ASTR
02	22 39 32	00	3000		PE
03	23 02 24	00	3001		PE
04	23 25 18	00	3001		PE
05	23 48 12	00	3001		PE

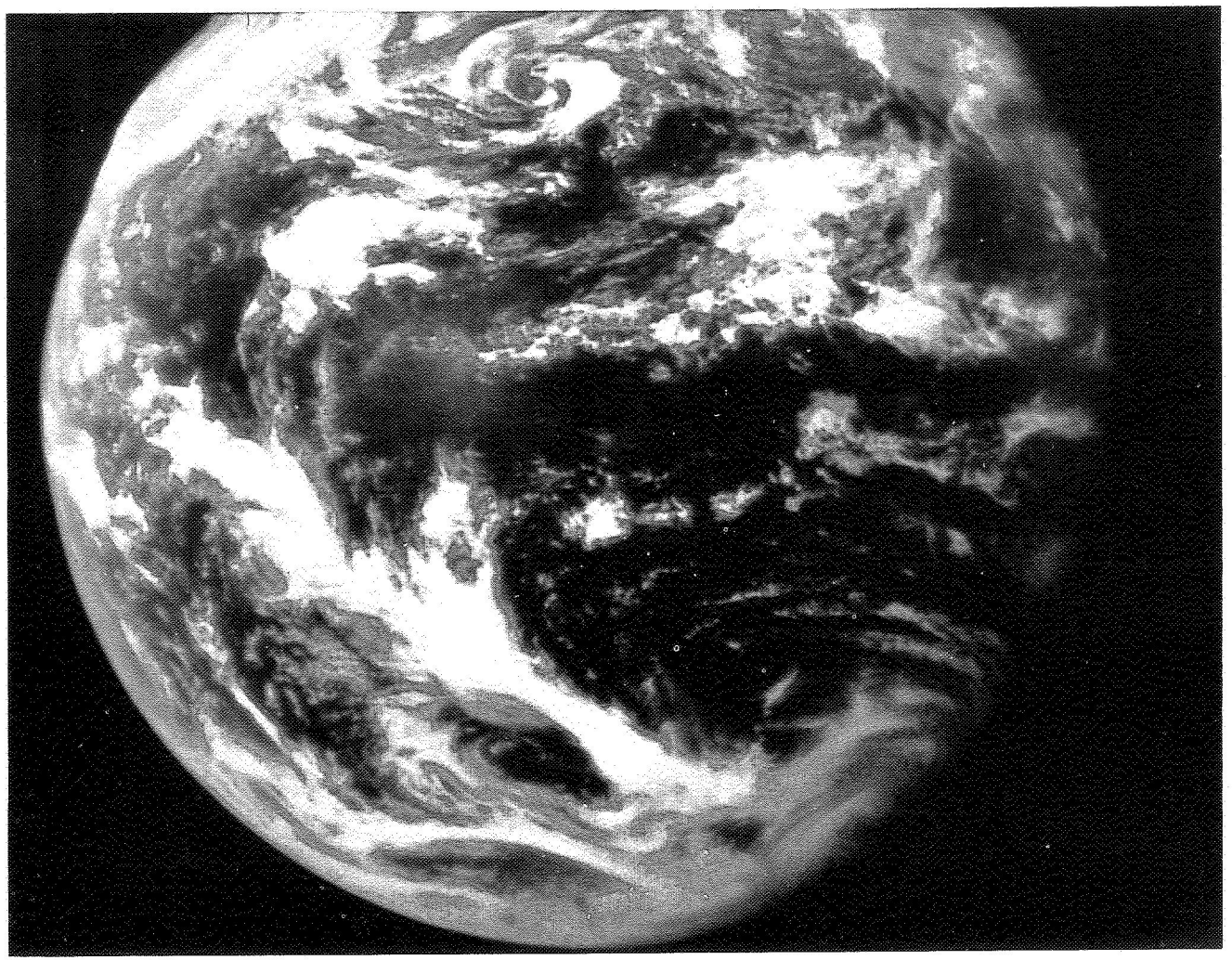


ATS-I 6 APRIL 1967 22 16 39 UT SEQ 1

4

7 APR 67 SUBSATELLITE PT 150.11W 00.04N TOTAL PICS 10

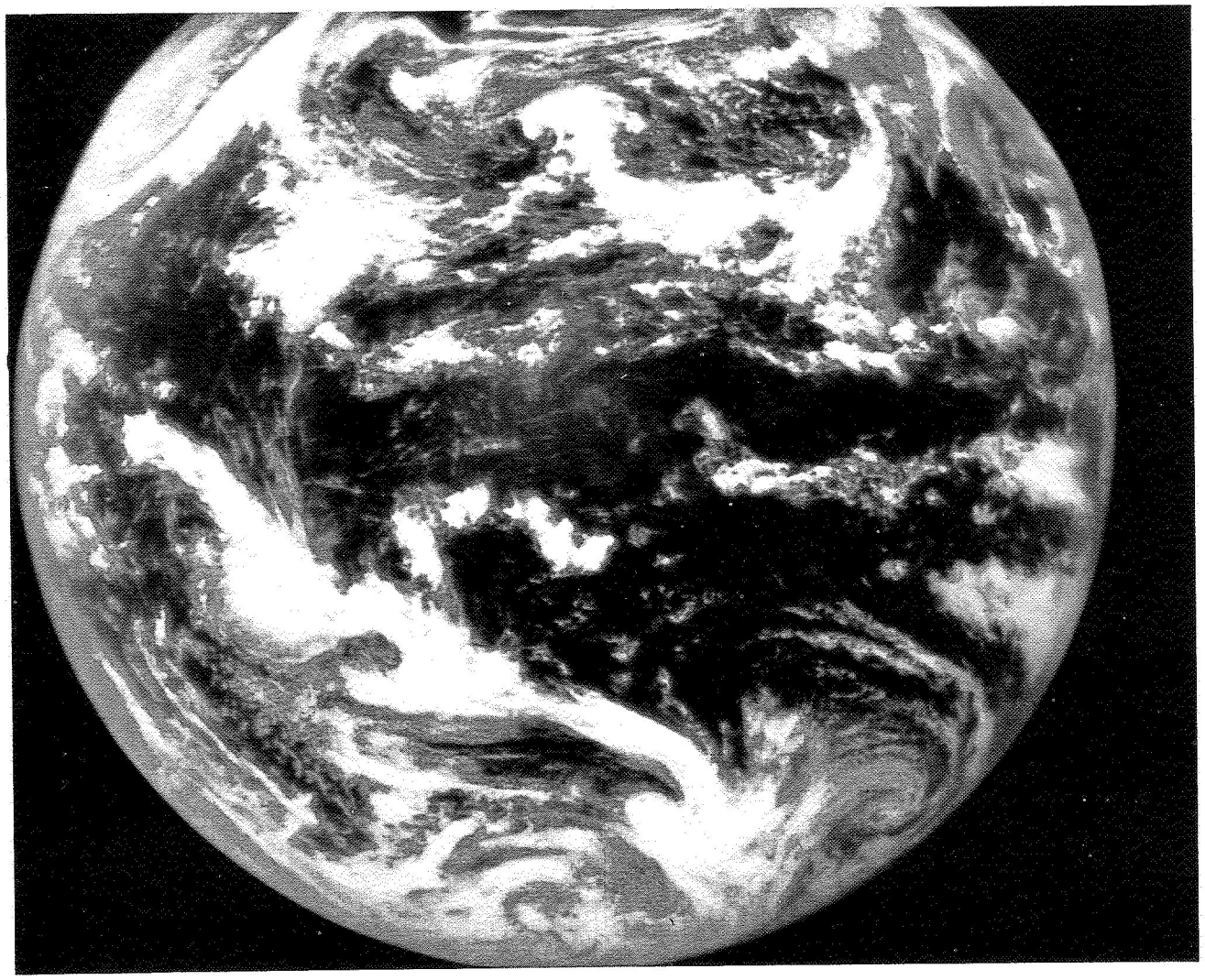
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 11 05	10	4001	1100C 2140F 2240G 2230D 4610D 4200H	MEXICO USA
01	00 11 05	20	5001	5000A	
01	00 11 05	40	4000	2140A 2230A	PE
01	00 11 05	50	1001	1100G 2140A 2230C 2240F	
01	00 11 05	80	4000	1100A 2140A 2230A 2240A 4200A	PE ASTR
02	02 28 28	00	1001		PE
03	02 51 22	00	1001		PE
04	03 14 14	00	1001		PE
05	03 37 08	00	4501		PE
06	20 02 16	10	3000	11141 2140J 2240G 4610E 4710H	MEXICO USA
06	20 02 16	20	4000	2140A 2240A 4200A	MEXICO PE
06	20 02 16	40	5002	5000A	
06	20 02 16	50	1000	1100G 2143C 2140A 2240F 2230C 4610B	
06	20 02 16	60	4000	2140A 2240A	PE
06	20 02 16	80	4002	2140A 2230A	
07	20 23 39	00	3002		PE
08	20 46 42	00	3000		PE
09	21 09 23	00	3000		PE
10	23 39 52	10	3000	11141 2140A 2240G 2230D 4610D 4710H	MEXICO USA
10	23 39 52	20	4001	2240A 2140A 4200A	PE MEXICO
10	23 39 52	40	4000	2140A 1100A 2240A	
10	23 39 52	50	1000	1100G 2143C 2140A 2240F 2230C 4610C	
10	23 39 52	60	5001	2140A	PE
10	23 39 52	80	1000	2140A 1100A 2230A 2240A 4200A	PE ASTR



ATS-I 7 APRIL 1967 23 39 52 UT SEQ 10

8 APR 67 SUBSATELLITE PT 150.09W 00.04N TOTAL PICS 21

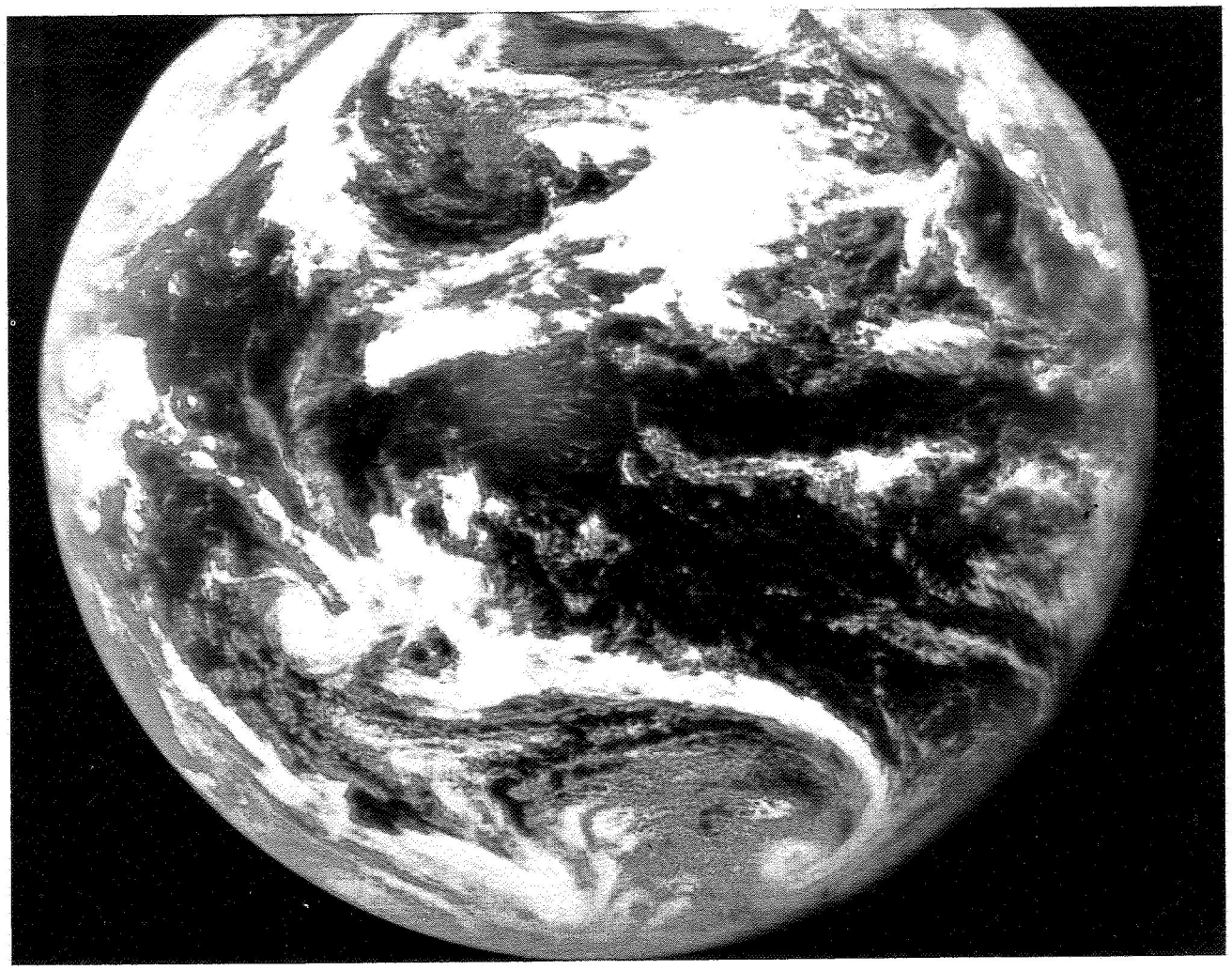
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 02 46	10	3000	11001 2140A 2240G 2230D 4610D 4200H	MEXICO USA
01	00 02 46	20	5001	5000A	
01	00 02 46	40	4000	2140A 1100A 2240A	PE
01	00 02 46	50	1000	1100G 2140A 2240F 1200C	
01	00 02 46	60	5001	5000A	
01	00 02 46	80	4000	2140A 1200A 1100A 2230A 4200A	PE ASTR
02	00 25 42	00	4001		PE
03	00 48 36	00	4001		PE
04	01 11 26	00	4001		PE
05	01 34 19	00	4001		PE
06	12 59 26	00	4502		PE
07	13 45 07	00	4002		PE
08	14 08 00	00	4002		PE
09	15 13 37	00	7000		
10	15 36 30	00	7000		
11	16 27 40	00	4002		PE EE
12	16 50 33	00	4002		PE
13	17 13 26	00	3002		PE
14	17 36 21	00	3002		PE
15	17 59 14	00	4002		PE PC
16	18 22 07	10	3002	1100A 2140A 2240G 4610E 4710H	MEXICO USA
16	18 22 07	20	4000	2140A 4200A	MEXICO
16	18 22 07	50	1002	1100G 2140A 2240F 4610B	
16	18 22 07	60	4000	2140A 2240A	
17	22 00 32	10	3000	1100A 2140A 2240G 2230D 4610G 4200H	MEXICO USA
17	22 00 32	20	4000	2140A 4200A	PE MEXICO
17	22 00 32	40	4000	2140A 1100A 2240A	PE
17	22 00 32	50	1000	1200C 2143J 2140A 2230C 2240F	
17	22 00 32	60	4000	2140A 2240A	PE
17	22 00 32	80	4000	1200A 2140A 2240A 4200A	PE ASTR
18	22 23 25	00	3000		PE
19	22 46 19	00	3000		PE
20	23 09 12	00	3001		PE
21	23 32 05	00	4001		PE



ATS-I 8 APRIL 1967 22 00 32 UT SEQ 17

9 APR 67 SUBSATELLITE PT 150.08W 00.04N TOTAL PICS 13

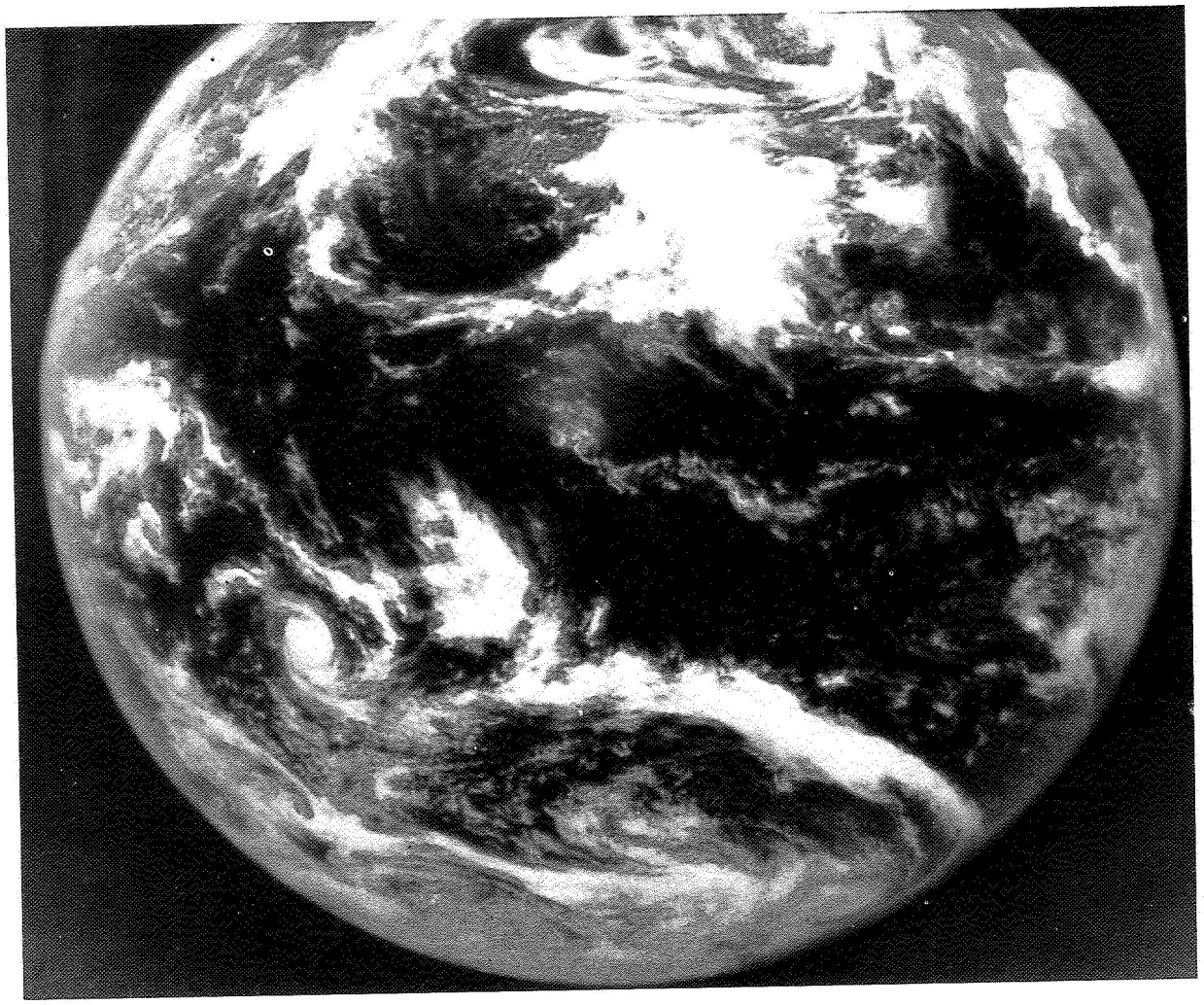
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 07 58	10	1001	1100A 2140A 2240G 2230D 4610D	EE
01	02 07 58	40	4000	2140A 2240A	PE EE
01	02 07 58	50	1001	1200C 2140A 2240C 1100D	
01	02 07 58	80	4000	1200A 2140A 2240A 2230A 4200A	PE ASTR
02	02 30 51	00	4001		PE
03	02 53 48	00	4001		PE
04	03 16 41	00	4000		PE EE
05	18 48 46	00	3002		PE
06	19 11 39	00	3002		PE
07	19 34 32	10	3002	2140A 2240G 1100M 4200H 4610E	MEXICO USA
07	19 34 32	20	4000	2140A 2240A 1100A 4200A	MEXICO
07	19 34 32	50	1002	2145K 1200C 2240F 4610B	
07	19 34 32	60	4000	2140A 2240A	PE
07	19 34 32	80	5002	2140A	
08	19 57 23	00	3002		PE
09	20 20 19	00	3002		PE
10	22 50 33	10	3000	1100E 2145I 4610D 4200H 2240G	MEXICO USA
10	22 50 33	20	4000	2140A 4200A 2240A	MEXICO
10	22 50 33	40	4000	2140A 2230A	PE
10	22 50 33	50	1000	1200C 2140A 2143C 2240F 4610C 1100G	
10	22 50 33	60	4000	2240A 2140A	
10	22 50 33	80	4000	1200A 2140A 2230A 4200A	PE ASTR
11	23 13 30	00	3001		PE
12	23 36 19	00	3001		PE
13	23 59 10	00	3001		PE



ATS-I 9 APRIL 1967 22 50 33 UT SEQ 10

10 APR 67 SUBSATELLITE PT 150.06W 00.04N TOTAL PICS 9

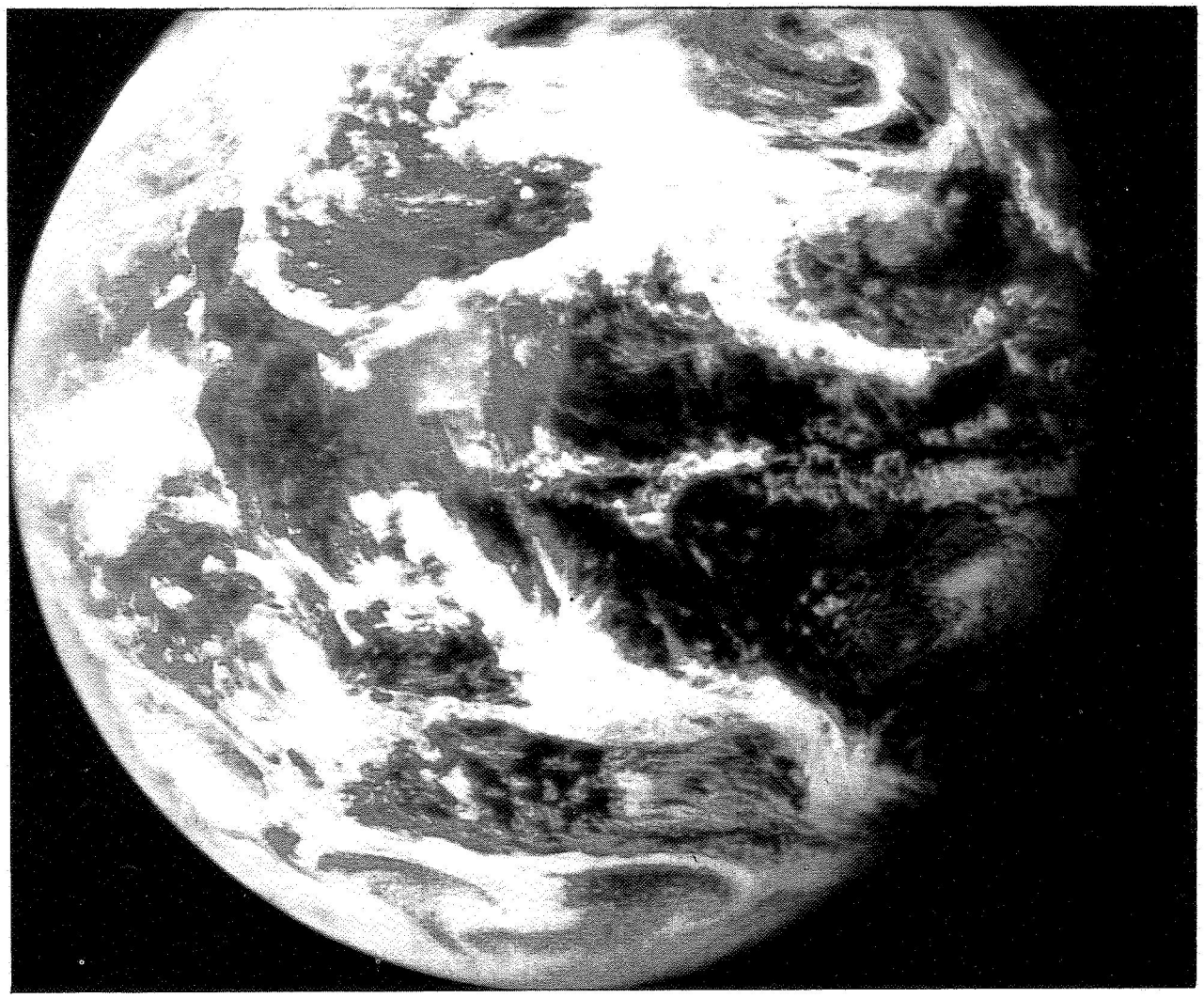
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 22 06	10	1001	2140A 2240G 4610D 4550D 3150B 4200H	NA HAWAII EE
01	00 22 06	40	4000	2140A 2240A	EE
01	00 22 06	50	1001	1200C 2145C 2140A 2240F 4610C	
01	00 22 06	80	4000	2140A 1200A 2230A 4200A	PE ASTR
02	02 35 30	00	4001		PE
03	02 58 30	00	4001		PE
04	03 21 10	00	4001		PE
05	20 45 22	10	3000	2140A 1100H 2240G 4610E 4200H	PE NA
05	20 45 22	20	4000	2140A	PE MEXICO
05	20 45 22	40	5002	2140A	
05	20 45 22	50	1000	1100G 1200C 2240F 2140A 4610F	
05	20 45 22	60	4000	2140A 2240A	PE
05	20 45 22	80	4002	2140A 2240A	
06	21 09 55	00	4000		PE PC
07	21 32 48	00	1000		PE
08	21 55 41	00	1000		PE
09	22 18 35	10	3000	2140A 1100H 2240G 4610G 4200H	NA
09	22 18 35	20	4000	2140A 4200A	PE MEXICO
09	22 18 35	40	4000	2140A 2240A	PE
09	22 18 35	50	1000	1200C 2140A 2240F 2230C 1100G	
09	22 18 35	60	4000	2140A 2240A	PE
09	22 18 35	80	4000	1200C 2240A 1100A 2240A 4200A	PE ASTR



ATS-I 10 APRIL 1967 22 18 35 UT SEQ 9

11 APR 67 SUBSATELLITE PT 150.09W 00.04N TOTAL PICS 8

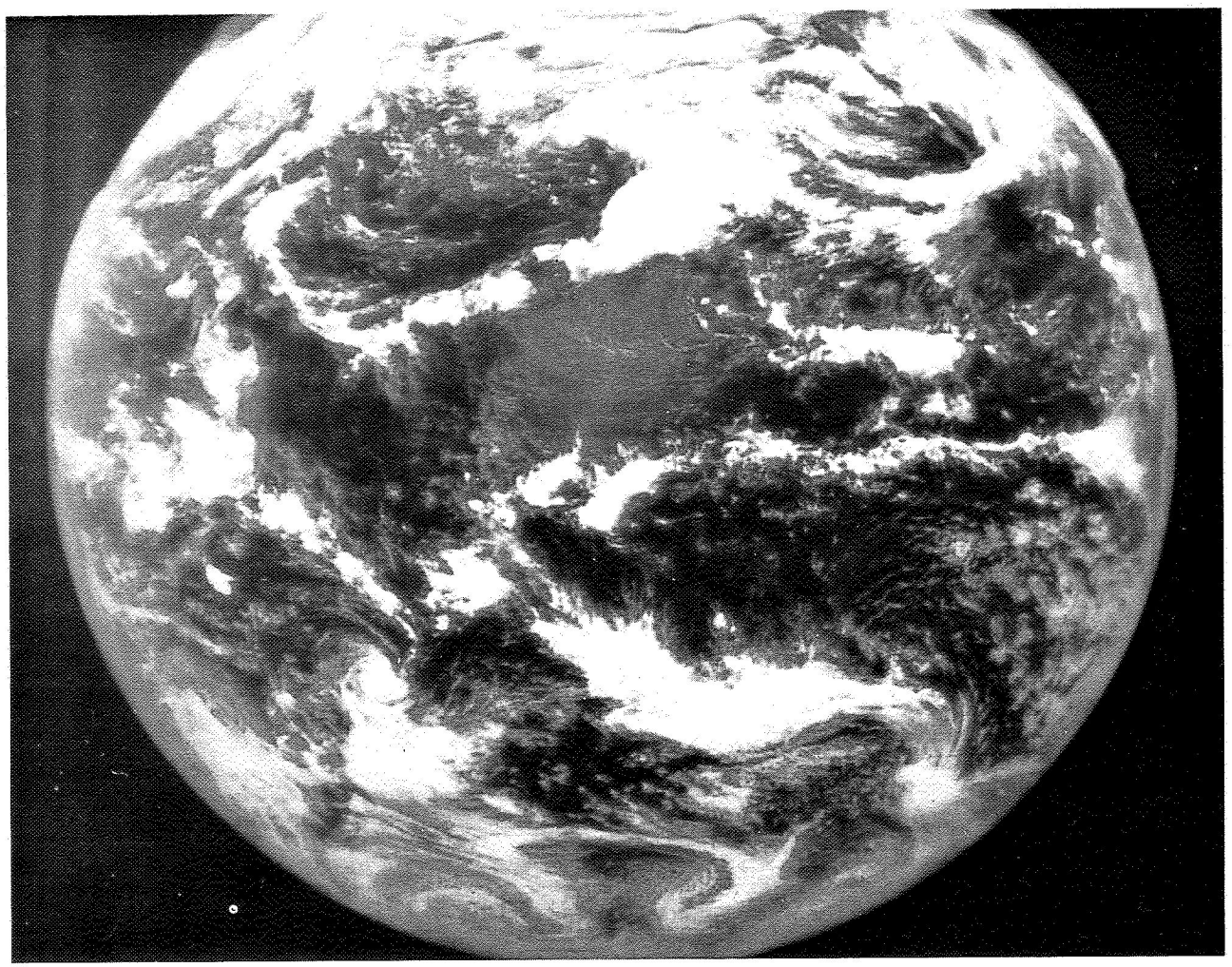
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 17 53	10	4001	2140A 2230D 4610D 3150D	
01	03 17 53	40	4000	2140A 2230A 4610D	
01	03 17 53	50	1001	1220C 2140D 2240C	
01	03 17 53	80	4000	1100A 2230A 2140A 4200A	ASTR
02	03 40 45	00	4001		
03	04 03 39	00	4001		PE EE
04	18 12 20	10	3002	2140A 1100B 2240E 4610E 4200H	MEXICO
04	18 12 20	20	4000	2140A 2240A 4200A	MEXICO
04	18 12 20	50	1002	2140M 2240F 2230C 3150B 4610B	
04	18 12 20	60	4000	2240A	
05	18 35 13	00	3002		PE
06	18 58 08	00	1002		PE
07	23 11 27	00	4001		PE
08	23 34 18	10	1000	1100F 2140A 2240G 4610D 4550D 4200H	EE HAWAII NA
08	23 34 18	20	4001	2140A 4200A	MEXICO
08	23 34 18	40	4000	2140A 2240A	
08	23 34 18	50	1000	2143A 1220C 3150B 2240F 2230C 4610C	
08	23 34 18	60	5001	5000A	
08	23 34 18	80	4000	2140A 1100A 2230A 2240A	



ATS-I 11 APRIL 1967 23 34 18 UT SEQ 8

12 APR 67 SUBSATELLITE PT 150.12W 00.03N TOTAL PICS 5

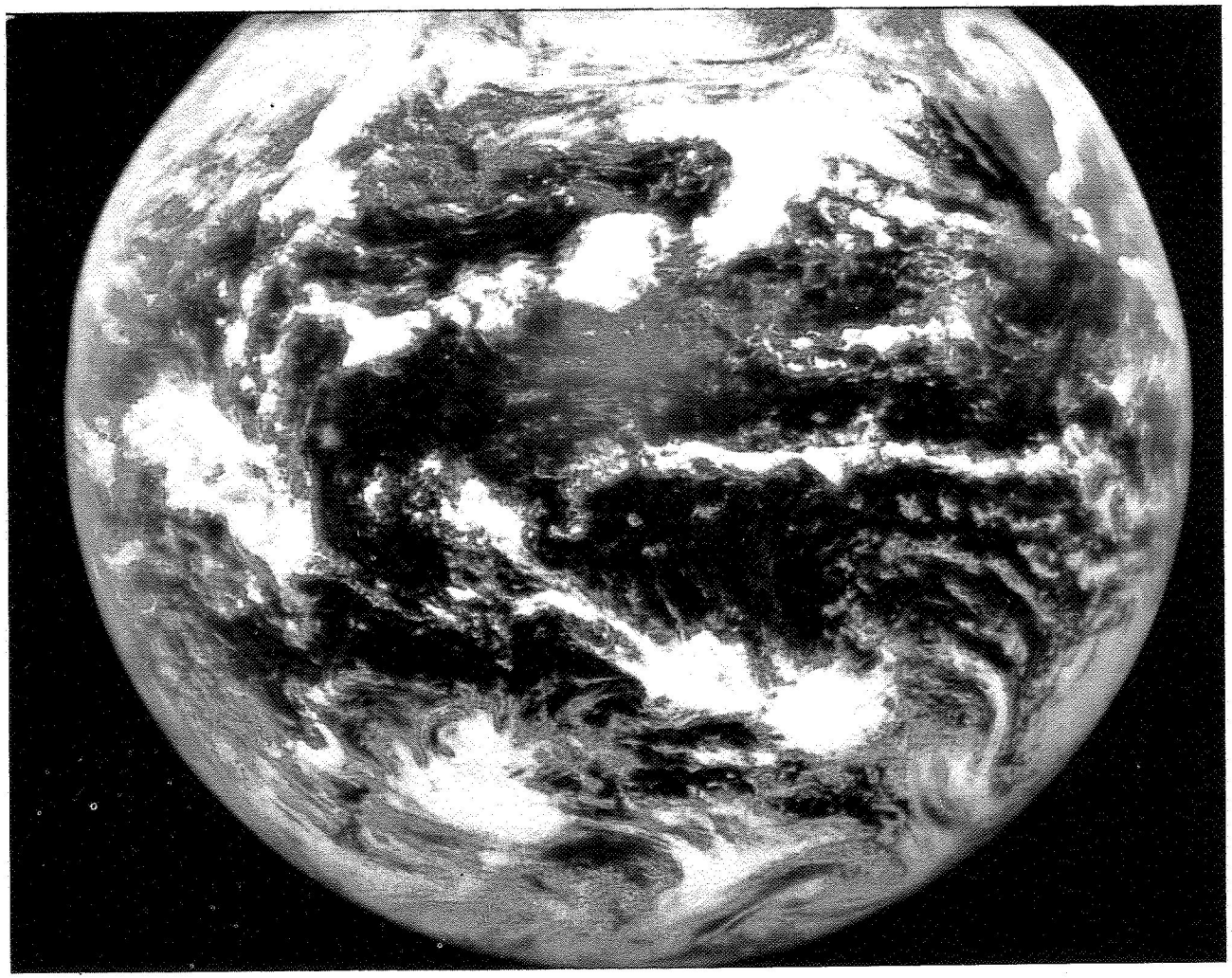
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 33 25	10	1001	2140A 11001 2230D 4610D	
01	02 33 25	40	4000	2140A	
01	02 33 25	50	1001	1200C 21401 1114D 2230C 4610C	
01	02 33 25	80	4000	2140A 2230A 4200A	ASTR
02	02 56 15	00	4001		
03	03 19 11	00	4001		EE
04	21 31 30	00	3002		
05	21 54 25	10	3000	1100A 2140A 2230E 4200H 4610G	MEXICO USA
05	21 54 25	20	4000	2140A 4200A	MEXICO
05	21 54 25	40	4000	2140A	
05	21 54 25	50	1000	1200C 2140A 1100G 2240F 4610C	
05	21 54 25	60	4000	2140A 2240A	
05	21 54 25	80	4000	2140A 2230A 4200A	ASTR



ATS-I 12 APRIL 1967 21 54 25 UT SEQ 5

13 APR 67 SUBSATELLITE PT 150.14W 00.03N TOTAL PICS 30

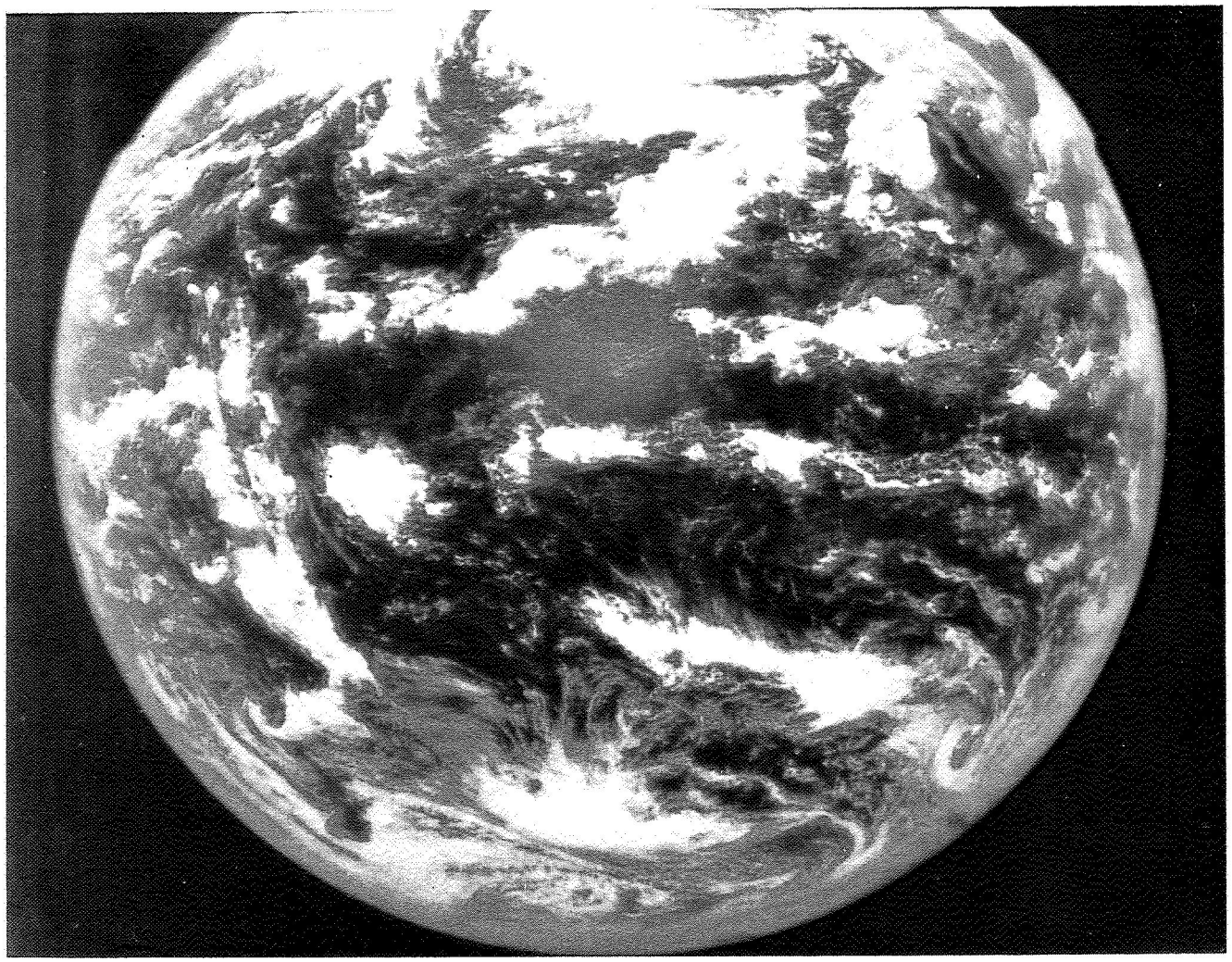
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 15 35	10	1001	2140A 2230D 4610D 1100D	
01	02 15 35	40	4000	2140A	
01	02 15 35	50	1001	1220C 2140I 1100D	
01	02 15 35	80	4000	2140A 2230A	
02	02 38 30	00	1001		
03	03 01 25	00	4001		
04	03 24 18	00	4001		
05	14 31 17	00	4002		
06	14 54 10	00	4002		
07	15 17 03	00	4002		
08	15 43 00	00	4002		
09	16 05 48	00	4002		
10	16 28 40	10	3002	2140H 2240E 4710E 4200H 4610E 3150E	MEXICO USA
10	16 28 40	20	4000	2140A 2240A	
10	16 28 40	50	1002	1100H 2140H 2240F 4610B 3150B	
10	16 28 40	60	4000	1100A 2240A	
11	16 51 34	00	3002		
12	17 14 29	00	3002		
13	17 37 20	00	3002		
14	18 00 14	00	3002		
15	18 23 08	00	3002		
16	18 46 02	00	3002		
17	19 08 55	00	3502		
18	19 22 10	10	3000	1100F 2140A 2240G 4610E 4710E 3150E	MEXICO
18	19 22 10	20	4000	2145A 2240A	
18	19 22 10	40	5002	5000A	
18	19 22 10	50	1000	1100G 2140A 1200C 3150B 2240F	
18	19 22 10	60	4000	2240A	
18	19 22 10	80	4002	2230A 2140A	
19	19 45 03	00	3002		
20	20 07 57	00	3002		
21	20 30 51	00	3002		
22	20 53 43	00	3502		
23	21 16 40	00	3000		EE
24	21 39 30	00	3000		
25	22 02 24	10	3000	2140A 2240G 4710H 4610G 2230D	MEXICO USA
25	22 02 24	20	4000	2140A 4200A	MEXICO
25	22 02 24	40	4000	2140A	
25	22 02 24	50	1000	12001 2140A 2240F	
25	22 02 24	60	4000	2140A	
25	22 02 24	80	4000	2240A 2140A 4200A	ASTR
26	22 25 19	00	3000		
27	22 48 16	00	3000		
28	23 11 10	00	3000		
29	23 34 03	00	3001		
30	23 57 58	00	3001		



ATS-I 13 APRIL 1967 22 02 24 UT SEQ 25

14 APR 67 SUBSATELLITE PT 150.16W 00.03N TOTAL PICS 46

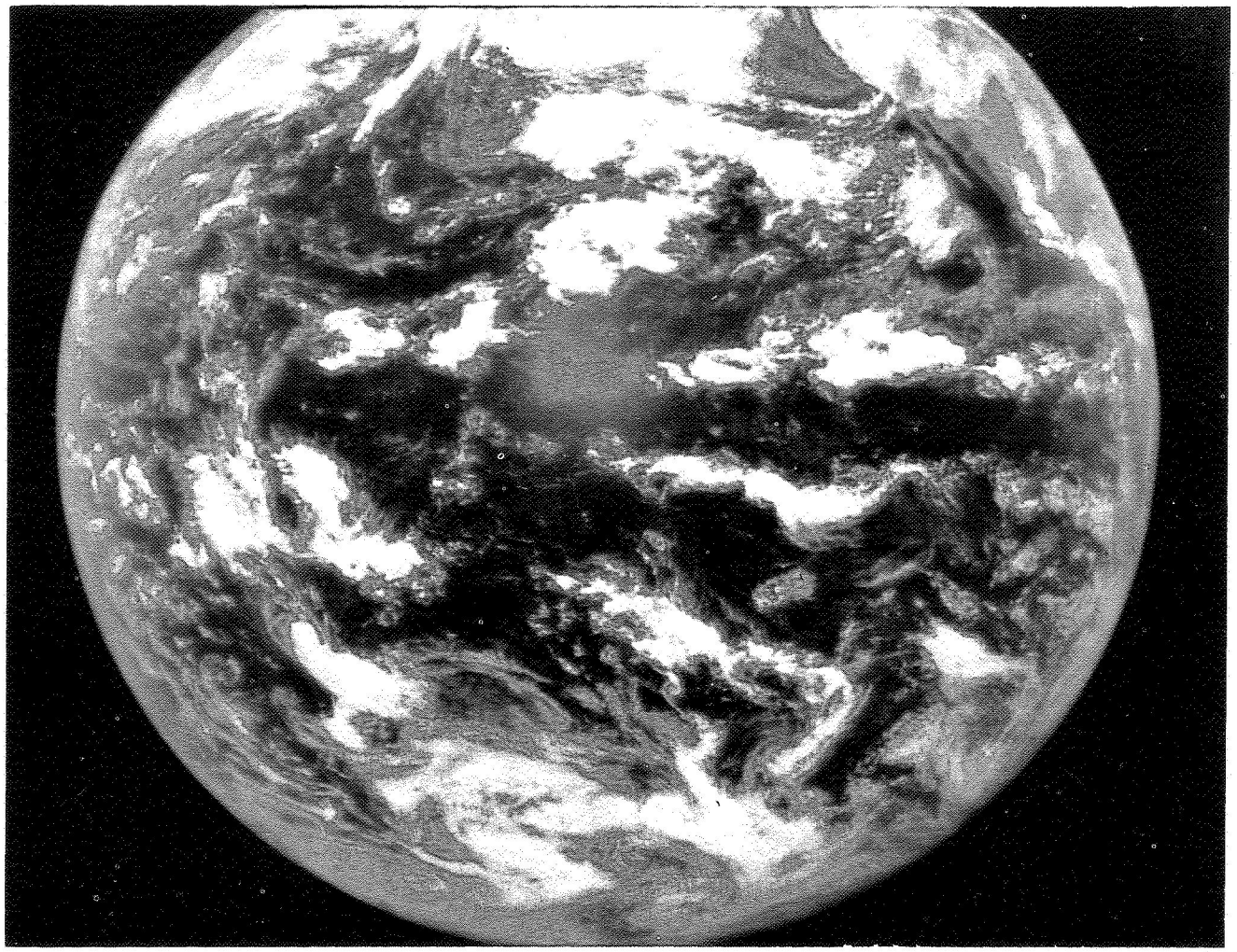
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 19 52	00	4001		EE PE
02	01 03 50	10	1001	2140A 1100G 2240G 2230D 4610D 4200B	USA
02	01 03 50	40	4000	2140A	
02	01 03 50	50	1001	1200I 2140A 1100D 2240F	
02	01 03 50	80	4000	2140A 2230A 4200A	ASTR
03	01 26 42	00	4001		
04	01 49 35	00	7000		
05	02 11 30	00	1001		PE
06	02 35 25	00	1001		
07	02 58 18	00	1001		
08	03 21 12	00	1001		
09	03 44 07	00	1001		
10	04 06 59	00	1001		
11	04 29 52	00	1001		
12	04 52 46	00	4001		
13	05 15 40	00	7000		
14	05 23 56	00	7000		
15	05 46 07	00	4001		
16	06 08 57	00	4001		
17	06 31 50	00	5001		
18	13 11 39	00	5002		
19	13 34 33	00	5002		
20	13 57 23	00	5002		
21	14 20 20	00	5002		
22	14 43 14	00	5002		
23	15 06 06	00	4002		
24	15 29 00	00	4002		
25	15 51 53	00	4002		
26	16 14 47	10	4002	2240E 2140B 1100H 4710H 4610E	MEXICO USA
26	16 14 47	20	4000	2140A 1100A	
26	16 14 47	50	4002	2140A 2230B 2240F 1100E	
26	16 14 47	60	4000	2140A 2240A	
27	16 37 43	00	3002		
28	17 00 36	00	3002		
29	17 23 33	00	3002		
30	17 46 30	00	3002		
31	18 09 20	00	3002		
32	18 32 16	00	3002		
33	18 55 09	00	3002		
34	19 18 06	10	3000	1100F 2140J 2240G 4710H 4610E	
34	19 18 06	20	4000	2140A 4200A	MEXICO
34	19 18 06	50	1000	2230F 2140A 1100G 2240F	
34	19 18 06	60	4000	2140A	
34	19 18 06	80	4002	2140A 2230A	
35	19 40 59	00	3002		
36	20 03 52	00	3002		
37	20 26 49	00	3002		PE EE
38	20 49 49	00	3002		PE EE
39	21 12 36	00	3002		PE
40	21 35 30	00	3002		PE
41	21 58 26	10	3000	1100F 2140J 2240G 2230G 4710E 4610G	MEXICO USA
41	21 58 26	20	4000	2140A 4200A	PE MEXICO
41	21 58 26	40	4000	1100A 2140A	PE
41	21 58 26	50	1000	1100G 2230F 2240F	
41	21 58 26	60	4000	2140A	
41	21 58 26	80	4000	1100A 2140A 2230A 4200A	ASTR
42	22 21 21	00	3000		PE
43	22 44 13	00	3000		PE
44	23 07 06	00	3000		PE
45	23 30 04	00	3000		PE
46	23 52 56	00	3000		PE



ATS-I 14 APRIL 1967 21 58 26 UT SEQ 41

15 APR 67 SUBSATELLITE PT 150.20W 00.29N TOTAL PICS 35

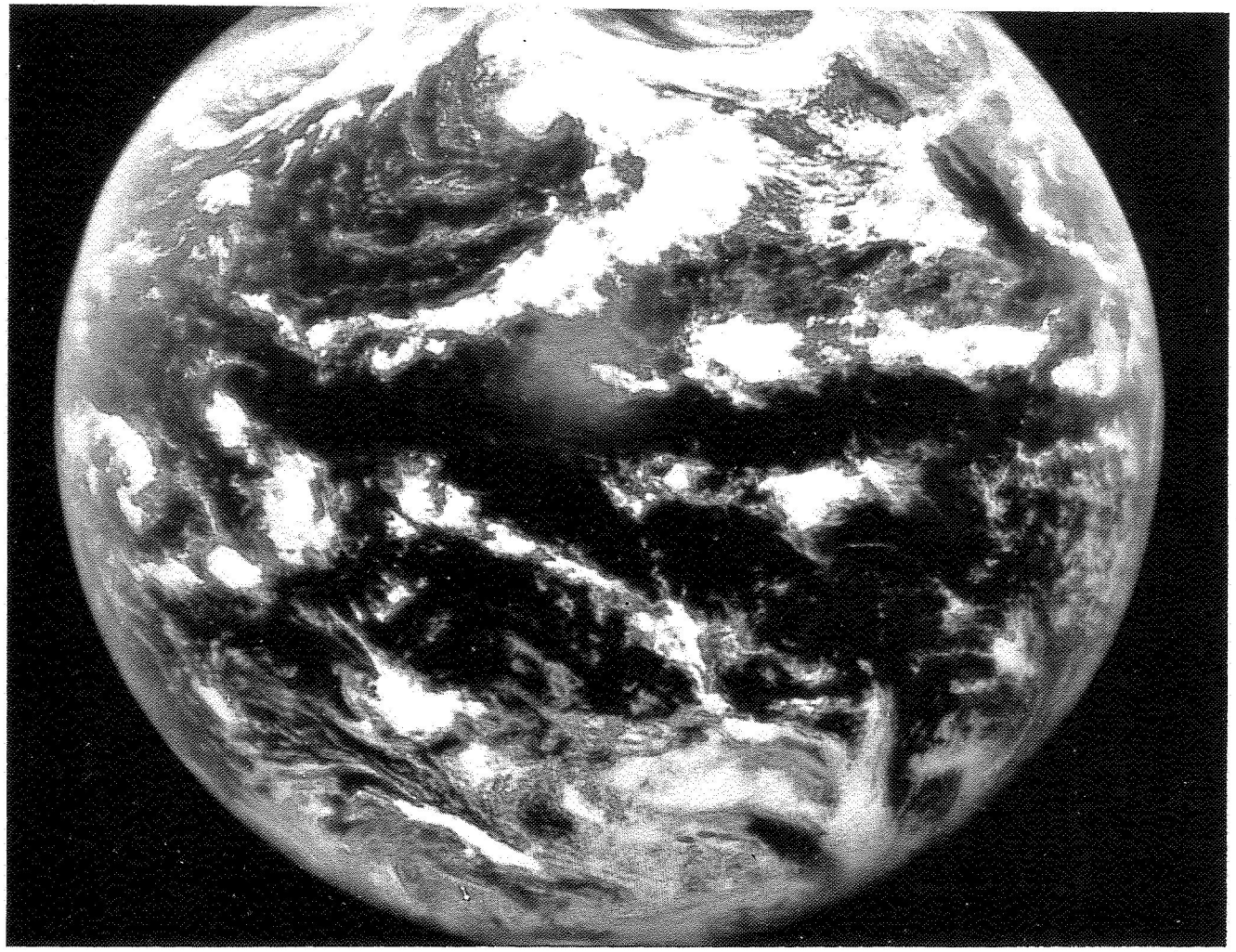
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 15 50	00	4501		
02	00 32 24	10	4001	2140A 2240G 2230D 4200A 4610D	MEXICO
02	00 32 24	40	4000	1100A 2140A	
02	00 32 24	50	1001	2240F 1100D 2140D 2230C	
02	00 32 24	80	4000	1200A 2140A 2230A 2240A 4550A 4200A	NZ ASTR
02	00 32 24	90	5000	5000A	
03	00 55 18	00	1001		
04	01 18 13	00	1001		
05	01 41 06	00	1001		
06	02 03 00	00	1501		
07	02 22 30	00	4001		
08	02 48 29	00	4001		
09	03 11 22	00	4001		
10	03 34 18	00	4001		
11	03 57 13	00	4001		
12	04 20 06	00	4001		
13	04 42 59	00	4001		
14	05 05 56	00	4001		
15	05 28 50	00	4001		EE
16	05 50 10	00	4001		
17	06 14 36	00	4001		
18	06 37 32	00	5001		
19	13 09 11	00	5002		
20	13 32 04	00	7000		
21	14 47 14	00	4002		
22	15 10 27	00	4002		
23	15 33 44	00	4002		
24	16 29 35	10	3002	1100B 2140J 2240E 4710E 2230E 4610E	MEXICO
24	16 29 35	20	4000	2140A	
24	16 29 35	50	1002	2240F 2230B	
24	16 29 35	60	4000	2140A	
25	16 52 50	00	3002		
26	17 16 04	00	3002		
27	17 57 33	00	3002		
28	18 20 47	00	3002		
29	18 44 01	00	3002		
30	19 38 04	10	3000	1100F 2140A 2240G 2230E 4710E 4610E	MEXICO
30	19 38 04	20	4000	2140A 2240A	
30	19 38 04	40	5002	5000A	
30	19 38 04	50	1000	2230C 1200C 1100G 2140A 2240F	
30	19 38 04	80	5002	2230A	
31	20 01 17	00	3002		
32	20 24 31	00	3002		
33	21 18 48	00	3002		
34	21 42 02	00	3000		
35	22 05 17	10	3000	2140J 2240G 2230G 4710H 1100C 4610F	MEXICO
35	22 05 17	20	4000	4200A	MEXICO
35	22 05 17	40	4000	2140A	
35	22 05 17	50	1000	1200C 2230C 2240F 1100G 2140A 4610C	
35	22 05 17	60	4000	2140A	
35	22 05 17	80	4000	2230A 2140A 4200A	ASTR



ATS-I 15 APRIL 1967 22 05 17 UT SEQ 35

16 APR 67 SUBSATELLITE PT 150.17W 00.28N TOTAL PICS 39

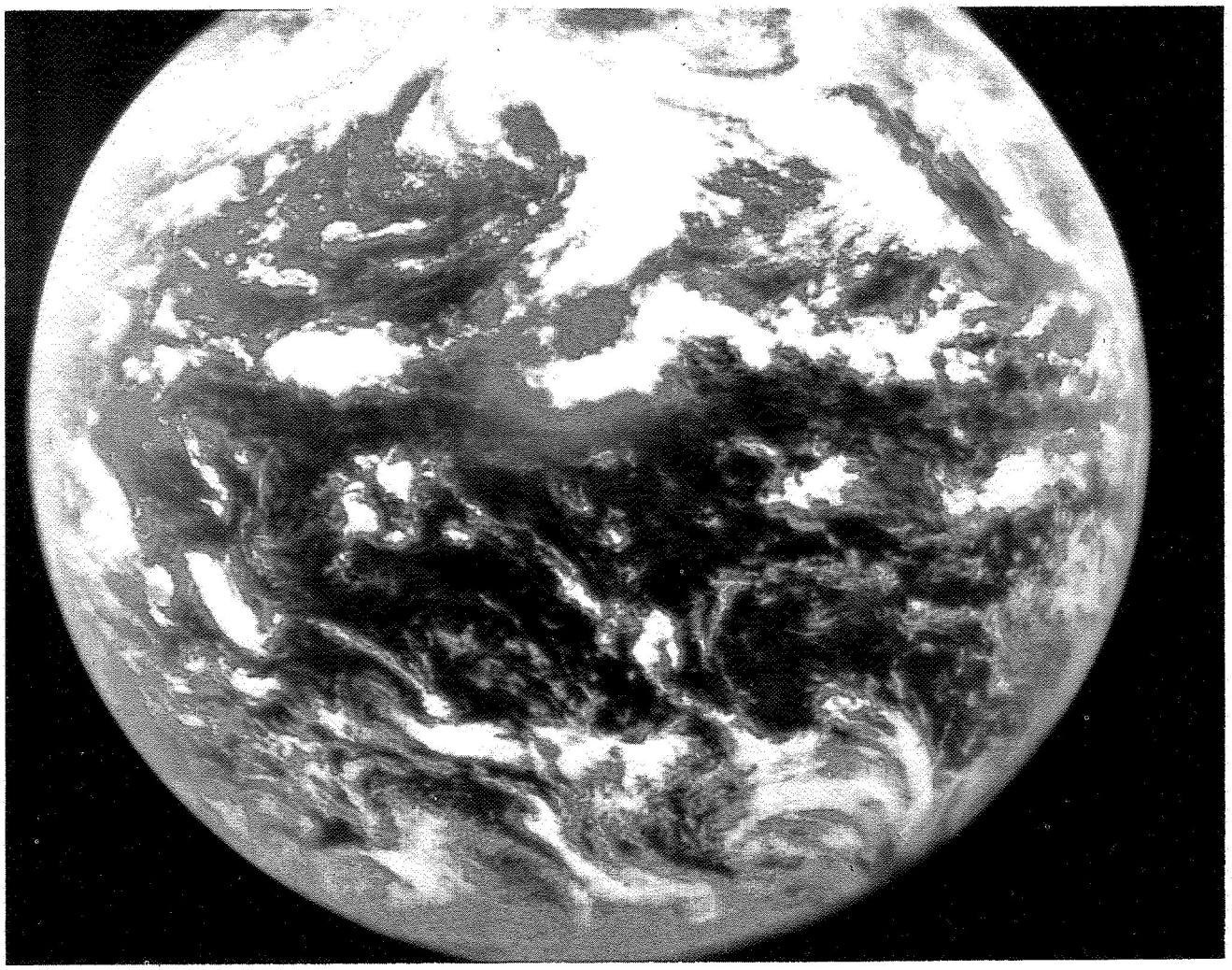
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 48 50	10	1001	1100C 2140J 2240G 4610D	
01	00 48 50	40	4000	2140A	PE
01	00 48 50	50	1001	1200C 2240F 1100D 2230C	
01	00 48 50	80	4000	1200A 2240A 4200A	ASTR
02	01 12 05	00	1001		PE
03	01 35 20	00	1001		PE
04	02 31 43	00	1001		
05	02 54 57	00	4001		
06	03 18 10	00	4001		
07	04 57 01	00	4001		
08	05 20 16	00	4001		PE
09	05 43 29	00	4001		PE
10	06 06 43	00	5001		PE
11	06 30 02	00	5001		
12	13 14 15	00	5002		
13	13 37 29	00	5002		EE
14	14 00 43	00	5002		
15	14 23 57	00	4002		
16	14 47 12	00	4002		EE
17	15 10 26	00	3002		EE
18	15 33 33	00	3002		
19	15 56 56	00	3002		
20	16 20 12	00	3002		
21	16 43 26	10	3002	1100B 2140A 2240E 4610E 4710H	MEXICO USA
21	16 43 26	20	4000	2140A 2240A	
21	16 43 26	50	1002	1100E 2140M 2240F	
21	16 43 26	60	4000	2140A	
22	17 06 40	00	3002		
23	17 29 54	00	3002		EE
24	17 53 11	00	3002		
25	18 16 25	00	3002		
26	18 39 39	00	3002		
27	19 02 55	00	3002		
28	19 26 09	10	3000	1100J 2140F 2240G 4610E 4710H 2230D	MEXICO USA
28	19 26 09	20	4000	2140A 2240A 4200A	MEXICO
28	19 26 09	40	5002	5000A	
28	19 26 09	50	1000	1100E 2140L 2240F 2230C	
28	19 26 09	60	4000	2140A	
28	19 26 09	80	4002	2230A 2140A	
29	19 49 21	00	3002		
30	20 12 38	00	3002		
31	20 35 53	00	3002		
32	20 59 07	00	3002		
33	21 22 21	00	3000		
34	21 45 36	00	3000		
35	22 08 55	10	3000	1113J 2140J 2240G 4610G 4710H 2230D	MEXICO USA
35	22 08 55	20	4000	2140A 2240A 4200A	MEXICO
35	22 08 55	40	4000	2140A	
35	22 08 55	50	1000	1100G 2140G 2240F 2230C 4610C	
35	22 08 55	60	4000	2140A 2240A	
35	22 08 55	80	4000	2140A 2240A 2230A 4200A	ASTR
36	22 32 07	00	3000		
37	22 55 21	00	3000		
38	23 18 36	00	3001		
39	23 41 53	00	4001		



ATS-I 16 APRIL 1967 22 08 55 UT SEQ 35

17 APR 67 SUBSATELLITE PT 150.14W 00.28N TOTAL PICS 45

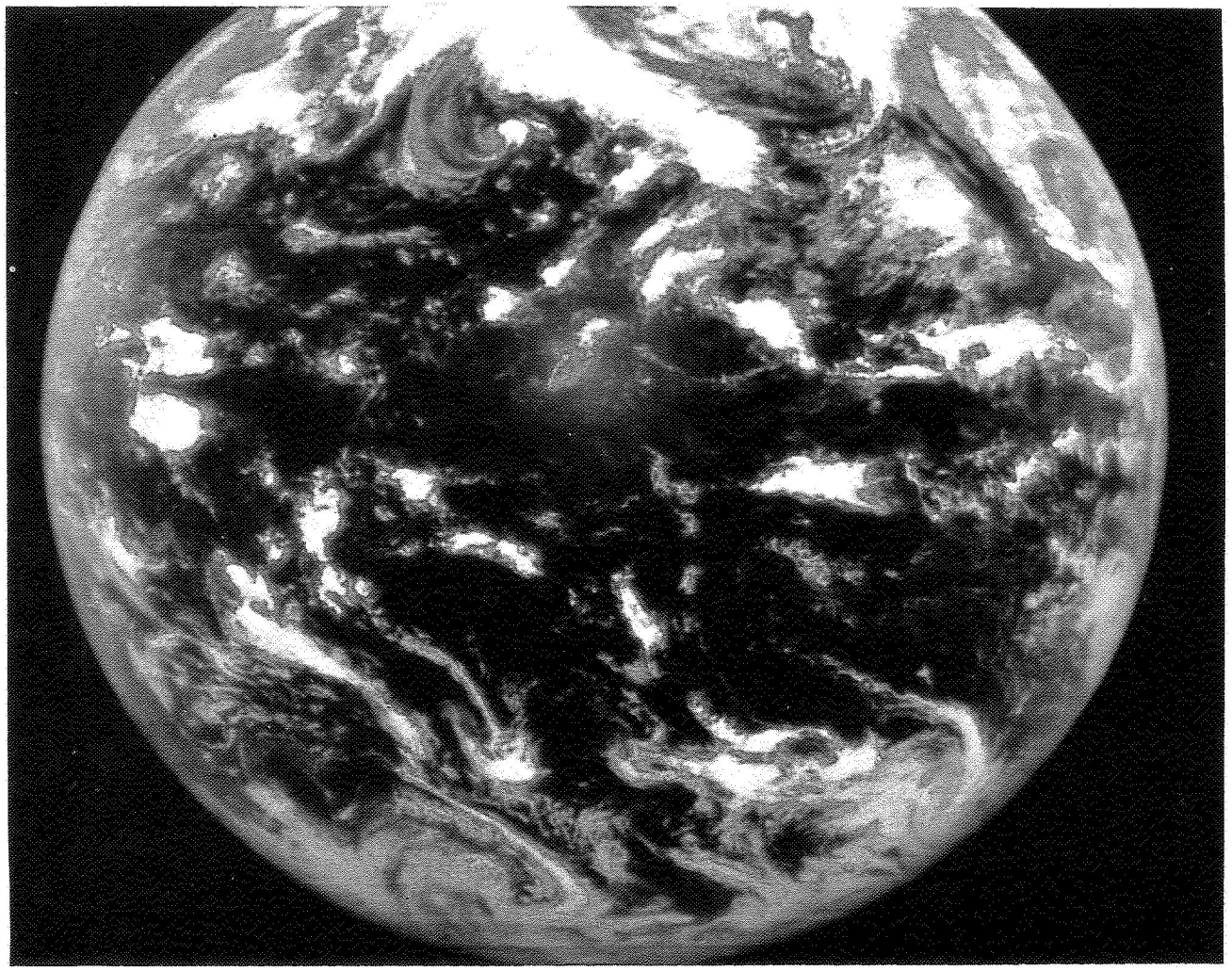
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 05 06	10	3000	1200I 2140A 2240G 2230G 4550D 1100C	MEXICO HAW US
01	00 05 06	20	5001	2140A	
01	00 05 06	40	4000	1100A 2140A	
01	00 05 06	50	1001	1100G 2140G 2240F 2230I	
01	00 05 06	80	4000	1100A 2140A 2230A 4200A	ASTR
02	00 28 21	00	1001		
03	00 51 39	00	1001		
04	01 14 51	00	1001		
05	01 38 05	00	1001		
06	02 01 21	00	1001		
07	02 24 34	00	1001		
08	02 47 52	00	4001		
09	03 11 05	10	1001	1100C 1200I 2140I 2240G 4610D 4550D	HAW
09	03 11 05	40	4000	1100A	
09	03 11 05	50	1001	2230C 2140I	
09	03 11 05	80	4000	1100A 2140A 2230A 4200A	ASTR
10	03 34 19	00	1001		
11	03 57 34	00	1001		
12	04 20 48	00	4001		
13	04 44 03	00	4001		
14	05 07 20	00	4001		
15	05 30 34	00	4001		
16	05 53 48	00	4001		
17	06 17 02	00	5001		
18	06 40 17	00	5001		
19	13 09 57	00	5002		
20	13 32 11	00	5002		EE
21	13 55 26	00	5502		
22	14 34 12	00	4002		
23	14 57 25	00	4002		
24	15 20 43	00	4002		
25	15 43 56	00	4002		
26	16 18 49	10	3002	1114B 2140A 2240E 2230E 4610E 4710H	MEXICO US
26	16 18 49	20	4000	2140A 2240A	
26	16 18 49	50	1002	2140E 2240B	
26	16 18 49	60	4000	2140A 2240A	
27	16 42 02	00	3002		
28	17 05 19	00	3002		
29	17 28 33	00	3002		
30	17 51 44	00	3002		
31	18 15 02	00	3002		
32	18 38 16	00	7000		
33	19 01 40	10	3000	1200I 1114B 2140A 2240G 2230G 4710H	MEXICO US
33	19 01 40	20	4000	2140A 4200A	MEXICO
33	19 01 40	40	5002	5000A	
33	19 01 40	50	1000	1100E 2140A 2240F 2230C 4610B	
33	19 01 40	60	4000	2140A	
33	19 01 40	80	4002	2140A	
34	19 24 47	00	3002		
35	19 48 02	00	3002		
36	20 11 15	00	3002		
37	20 34 30	00	3002		
38	20 58 05	00	3002		
39	21 21 01	00	3002		
40	21 44 15	00	3000		
41	22 07 35	10	3000	1200I 2140A 2240G 2230B 4550D 4710H	MEXICO US HAW
41	22 07 35	20	4000	2140A 4200A	MEXICO
41	22 07 35	40	4000	2140A	
41	22 07 35	50	1000	1100G 2140A 2240F 2230C 4610C	
41	22 07 35	60	4000	2140A 2240A	
41	22 07 35	80	4000	2230A 2140A 4200A	ASTR
41	22 07 35	90	5000	5000A	
42	22 30 46	00	3000		
43	22 54 00	00	3000		
44	23 17 15	00	3001		
45	23 40 29	00	3001		



ATS-I 17 APRIL 1967 22 07 35 UT SEQ 41

18 APR 67 SUBSATELLITE PT 150.11W 00.27N TOTAL PICS 47

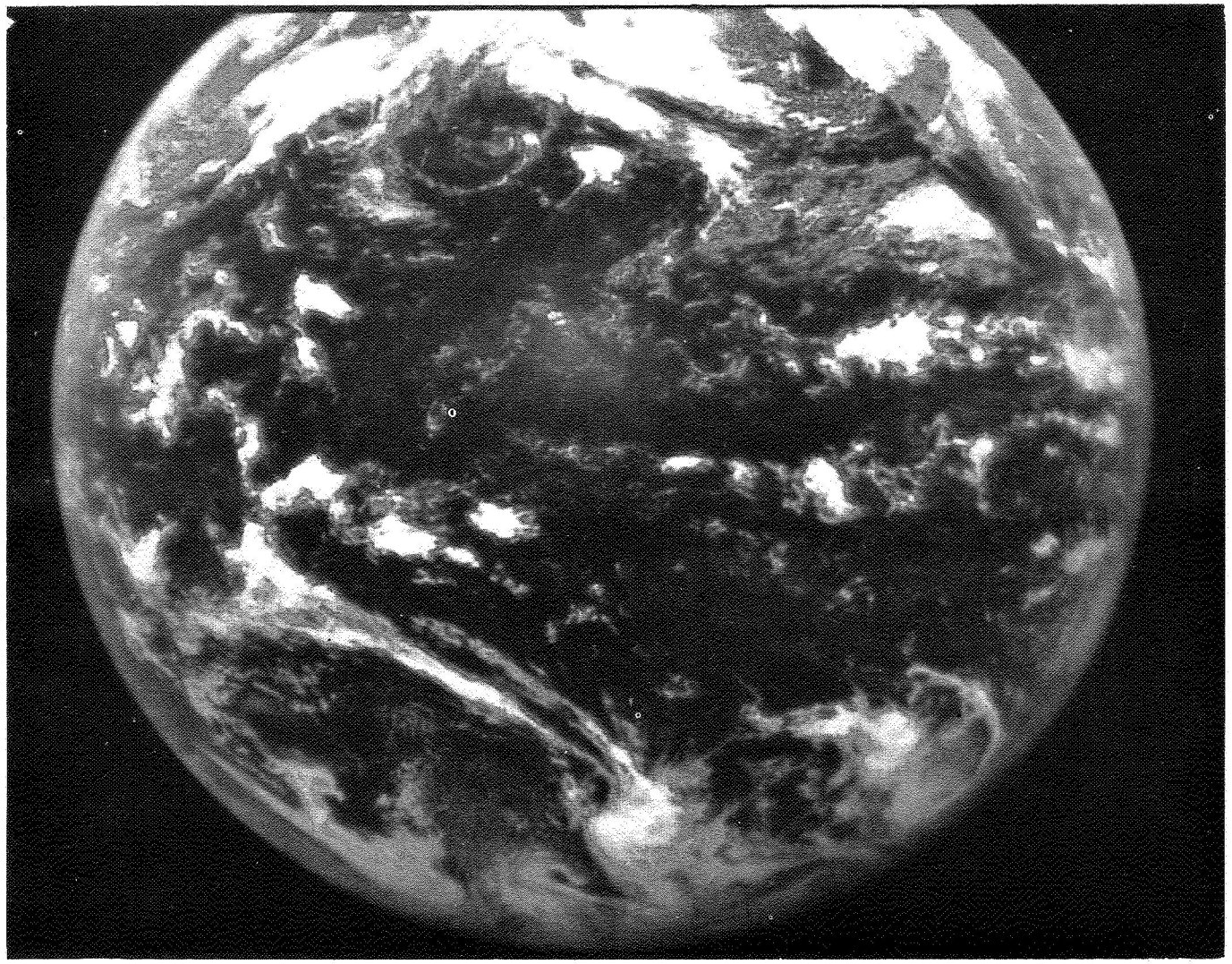
SEQ	START	ZONE	PICO	DATA CONTENT DESCRIPTORS	REMARKS
01	00 03 45	10	3000	1200I 2140A 2240G 4610D 4710H 4550D	MEXICO US HAW
01	00 03 45	20	4001	2140A	
01	00 03 45	40	4000	2140A	
01	00 03 45	50	1000	1100G 2140A 2240F 4610C	
01	00 03 45	60	5001	5000A	
01	00 03 45	80	4000	2230A 4200A 4550A	ASTR NZ
01	00 03 45	90	5000	5000A	
02	00 27 01	00	4001		
03	00 50 15	00	4001		
04	01 13 31	00	4001		
05	01 36 46	00	4001		EE
06	01 59 59	00	4001		
07	02 23 14	00	4001		
08	02 46 30	00	4001		
09	03 09 47	00	7000		
10	03 14 50	00	4001		
11	03 37 29	00	4001		
12	04 00 43	00	4001		
13	04 24 01	00	4001		
14	04 47 14	00	4001		
15	05 10 29	00	4001		
16	05 33 42	00	4001		
17	05 57 00	00	4001		EE
18	06 20 14	00	4001		
19	06 43 30	00	5001		
20	13 26 56	00	5502		
21	13 48 04	00	4002		
22	14 11 17	00	4002		
23	14 34 32	00	4002		
24	14 57 45	00	4002		
25	15 20 59	00	4002		
26	15 42 17	00	4002		
27	16 07 32	05	5000	5000A	
27	16 07 32	10	1002	1100B 2140H 4610E 4710H 2240E	MEXICO
27	16 07 32	20	4000	2140A 4200A	US
27	16 07 32	50	1002	2140A 1100E 2240B	
27	16 07 32	60	4000	2140A 2240A	
28	16 30 45	00	3002		EE
29	16 54 00	00	3002		
30	17 17 16	00	3002		
31	17 40 30	00	3002		
32	18 11 28	00	3002		
33	18 34 41	00	7000		
34	18 47 28	00	3002		EE
35	19 10 42	10	3000	1200D 1100F 2140A 2240G 4710H 4610E	MEXICO
35	19 10 42	20	4000	2140A 4200A	MEXICO
35	19 10 42	40	5002	5000A	
35	19 10 42	50	1000	1100A 2140A 2240F 4610B 2230C	
35	19 10 42	60	4000	2240A 2140A	
35	19 10 42	80	4002	2140A 2240A	
36	19 33 59	00	3002		
37	19 57 10	00	3002		
38	20 20 23	00	3002		
39	20 43 43	00	3002		
40	21 07 00	00	3002		
41	21 30 13	00	3000		
42	21 56 32	10	3000	1200D 1100F 2140A 2240G 4610G 4200H	MEXICO
42	21 56 32	20	4000	2140A 4200A	MEXICO
42	21 56 32	40	4000	2140A	
42	21 56 32	50	1000	1100G 2140A 2240F 2230C 4610C	
42	21 56 32	60	4000	2140A 2240A	
42	21 56 32	80	4000	2140A 2230A 4200A	ASTR
42	21 56 32	90	5000	5000A	
43	22 19 48	00	3000		
44	22 43 02	00	3000		
45	23 06 16	00	3001		
46	23 29 40	00	3001		
47	23 52 47	00	3001		



ATS-I 18 APRIL 1967 21 56 32 UT SEQ 42

19 APR 67 SUBSATELLITE PT 150.08W 00.26N TOTAL PICS 45

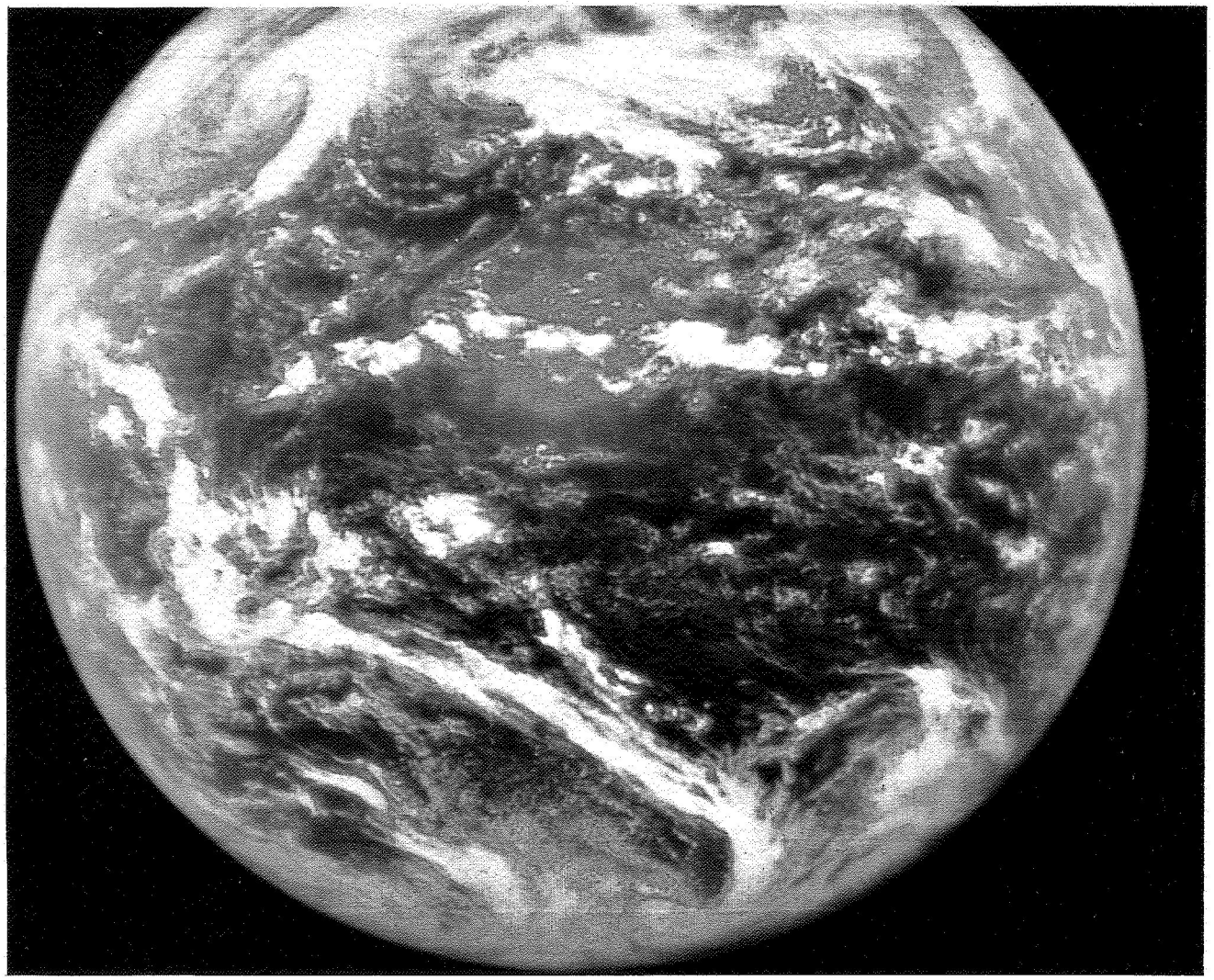
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 16 15	10	3001	1200D 1100B 2240G 2140A 2230E 4710H	MEXICO US
01	00 16 15	20	5001	5000A	
01	00 16 15	40	4000	2140A 2240A	
01	00 16 15	60	5000	5000A	
01	00 16 15	50	1001	1100G 2140A 4610C 2240F	
01	00 16 15	80	4000	2140A 2230A 2140A 4200A	ASTR
01	00 16 15	90	5000	5000A	
02	00 39 18	00	4001		
03	01 02 34	00	4001		
04	01 25 49	00	1001		
05	01 49 03	00	1001		
06	02 12 18	00	1001		EE
07	02 35 35	00	1001		
08	02 58 49	00	1001		
09	03 22 06	00	1001		
10	03 45 20	00	4001		EE
11	04 08 40	00	4001		PE
12	04 31 51	00	4001		EE
13	04 55 08	00	4001		
14	05 18 26	00	4001		EE
15	05 41 40	00	4001		
16	06 04 58	00	4001		EE
17	06 28 11	00	5001		
18	13 09 15	00	4002		EE
19	13 32 29	00	4002		PR
20	13 55 45	00	4002		PE
21	14 26 15	00	7000		
22	14 49 30	00	4002		
23	15 12 45	00	1002		
24	15 36 00	00	100		PE
25	15 59 15	05	5002	5000A	
25	15 59 15	10	1000	1100B 2140H 2230E 2240E 4710E 4610E	MEXICO
25	15 59 15	20	4000	2140A 4200A	MEXICO
25	15 59 15	50	1002	1100E 2140H 2240B	
25	15 59 15	60	4000	2140A 2240A	
26	16 22 29	00	1002		
27	16 45 43	00	1002		
28	17 09 00	00	3002		
29	17 32 17	00	3002		
30	17 55 21	00	3002		
31	18 18 49	00	3002		
32	18 42 03	00	3002		
33	19 05 20	10	3002	1100F 2140A 2240G 2230E 1200D 4200H	MEXICO US
33	19 05 20	20	4000	2140A 2240A	
33	19 05 20	40	5002	5000A	
33	19 05 20	50	1000	1100G 2140A 2240F	
33	19 05 20	60	4000	2240A 2140A	
33	19 05 20	80	4002	2140A	
34	19 28 33	00	3002		
35	19 51 51	00	3002		
36	20 15 05	00	3002		
37	20 38 23	00	3002		
38	21 01 50	00	3002		
39	21 24 55	00	3000		
40	21 48 10	00	3000		
41	22 11 26	10	3000	1200D 2230D 2240E 2140A 1100C 4710H	MEXICO US
41	22 11 26	20	4000	2140A 2240A 4200A	MEXICO
41	22 11 26	40	4000	2140A 2230A	
41	22 11 26	50	1000	1100G 2140A 2240A	
41	22 11 26	60	4000	2140A 2240A	
41	22 11 26	80	4000	1100A 2140A 2230A 4200A	ASTR
41	22 11 26	90	5000	5000A	
42	22 34 39	00	3000		
43	22 58 55	00	3000		
44	23 21 12	00	3001		
45	23 44 24	00	3001		



ATS-I 19 APRIL 1967 22 11 26 UT SEQ 41

20 APR 67 SUBSATELLITE PT 150.05W 00.25N TOTAL PICS 44

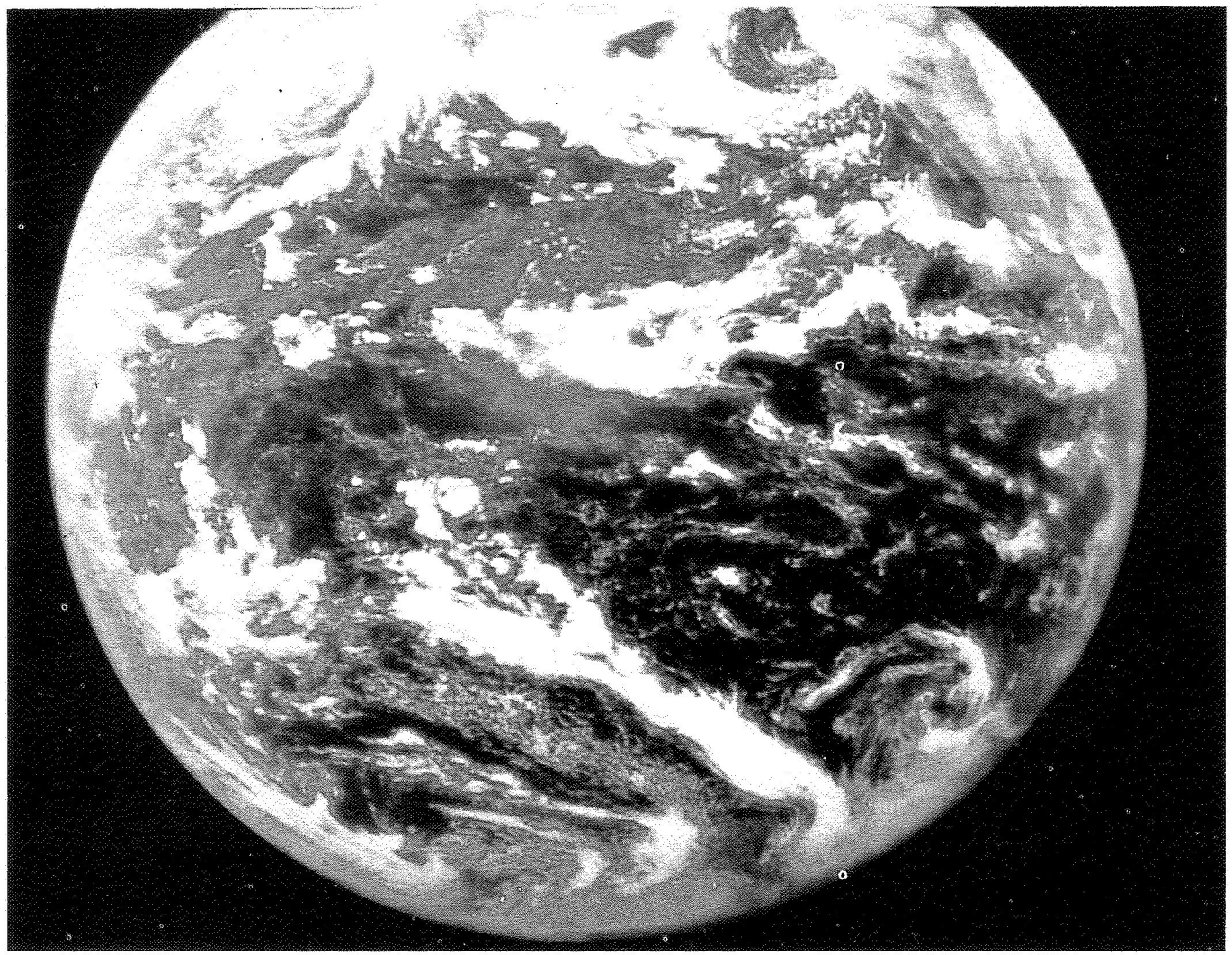
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 07 42	00	4001		PE
02	00 30 56	10	3001	1200D 1100C 2140A 2240G 4710H 4610D	MEXICO US
02	00 30 56	20	5001	5000A	
02	00 30 56	40	4000	2140A 2230A	
02	00 30 56	50	1001	1100D 21401 2230C 2240F	
02	00 30 56	80	4000	2140A 2230A 4200A	ASTR
02	00 30 56	90	5001	5000A	
03	00 54 13	00	1001		
04	01 17 27	00	1001		
05	01 40 02	00	1001		
06	02 03 59	00	4001		PE
07	03 13 44	00	4001		PE
08	03 36 58	00	1001		
09	04 00 12	00	1001		PE
10	04 23 30	00	1001		
11	04 46 44	00	4001		PE
12	05 09 00	00	4001		
13	05 33 17	00	4001		
14	05 56 32	00	4001		
15	06 19 46	00	5001		
16	06 43 01	00	5001		
17	13 12 00	00	5002		
18	13 35 13	00	5002		
19	13 58 30	00	4002		
20	14 21 49	00	4002		
21	14 45 02	00	4002		
22	15 08 16	00	4002		
23	15 31 32	00	4002		
24	15 54 47	00	4002		PE
25	16 18 04	05	5000	5000A	
25	16 18 04	10	4002	1100B 2140H 2240E 4200H 4610E	MEXICO US
25	16 18 04	20	4000	2140A 2240A 4200A	MEXICO
25	16 18 04	50	4002	1100E 2140H 2240B 4610B	
25	16 18 04	60	4000	2140A 2240A 4610A	
26	16 41 25	00	3002		EE
27	17 04 32	00	3002		
28	17 27 50	00	3002		
29	17 51 03	00	3002		
30	18 14 21	00	3002		
31	18 37 38	00	3002		
32	19 00 50	10	3002	1100I 2140A 2240G 4710H 4610E 2230E	MEXICO US
32	19 00 50	20	4000	2140A 2240A 4200A	MEXICO US
32	19 00 50	40	5002	5000A	
32	19 00 50	50	1000	1100G 2140A 2240F 4610B	
32	19 00 50	60	4000	2140A 2240A	
32	19 00 50	80	4002	2230A 2140A	
33	19 24 10	00	3002		
34	19 47 28	00	3002		
35	20 10 42	00	3002		
36	20 34 58	00	3002		
37	20 57 13	00	3000		
38	21 20 29	00	3000		
39	21 43 46	00	3000		
40	22 07 00	10	3000	1100F 2145C 2240G 4710H 4610G	MEXICO US
40	22 07 00	20	4000	2140A 2240A 4200A	MEXICO US
40	22 07 00	40	4000	2140A 2230A	
40	22 07 00	50	1000	1100G 2140A 2230C 2240B	
40	22 07 00	60	4000	2140A 2240A	
40	22 07 00	80	4000	2140A 2230A 4200A 4550A	ASTR NZ
40	22 07 00	90	5000	5000A	
41	22 30 17	00	3000		
42	22 53 32	00	3000		
43	23 16 49	00	3001		
44	23 40 06	00	3001		



ATS-I 20 APRIL 1967 22 07 00 UT SEQ 40

21 APR 67 SUBSATELLITE PT 150.02W 00.25N TOTAL PICS 46

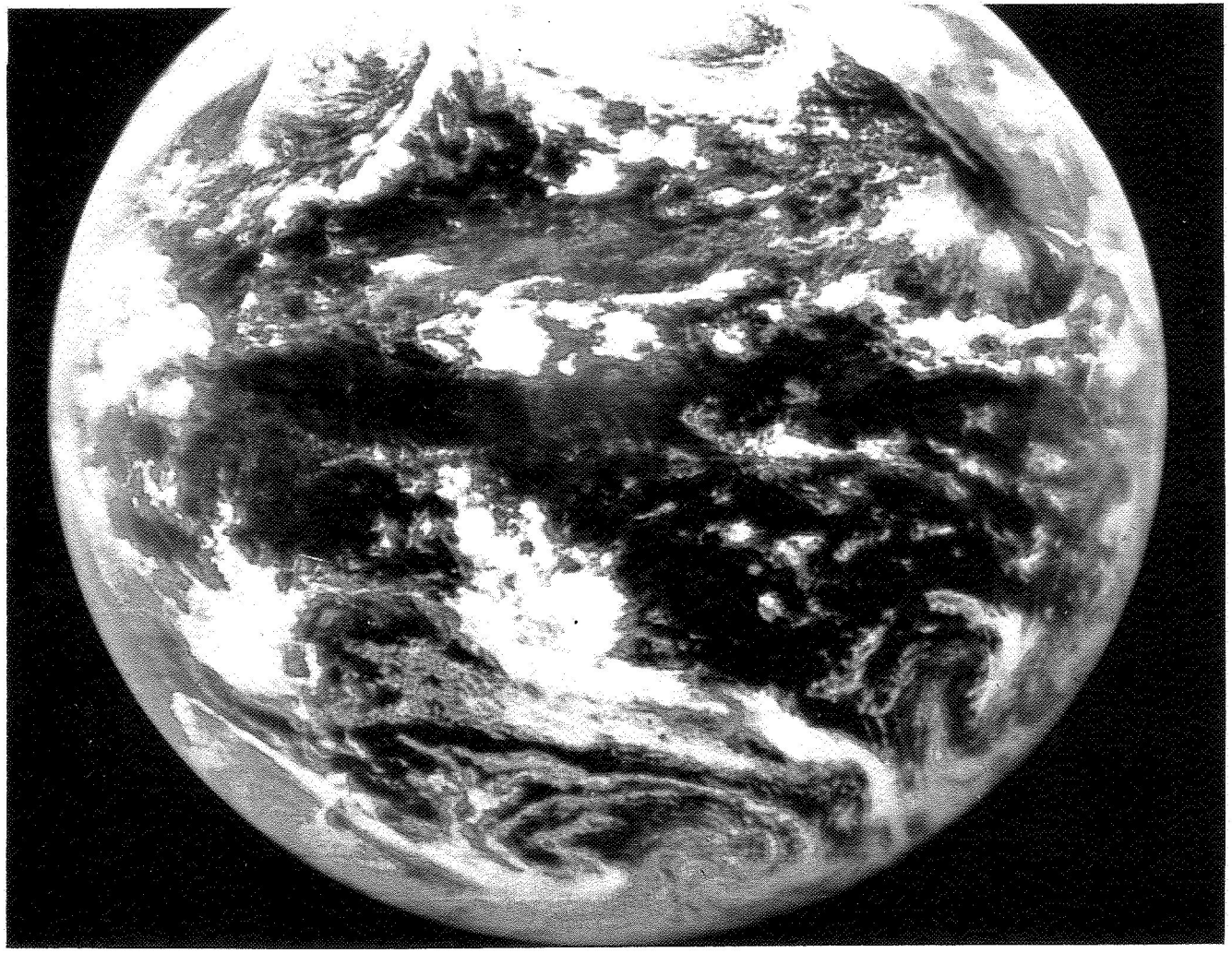
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 03 22	10	3000	1100C 2140A 2240G 4710H 4610D 2230D	MEXICO US
01	00 03 22	20	5001	2140A	
01	00 03 22	40	4000	2230A 2140A	
01	00 03 22	50	1001	1100G 2140A 2230C 2240F 4610C	
01	00 03 22	60	5001	5000A	
01	00 03 22	80	4000	2230A 2140A 4550A 4200A	ASTR NZ
01	00 03 22	90	5001	5000A	
02	00 26 33	00	3001		
03	00 49 51	00	1001		
04	01 13 05	00	1001		
05	01 36 20	00	1001		
06	01 59 37	00	1001		
07	02 22 50	00	1501		PE
08	02 46 10	00	4001		
09	03 09 23	00	4001		
10	03 32 36	00	4001		
11	03 55 54	00	4001		
12	04 19 08	00	4001		
13	04 42 25	00	4001		
14	05 05 39	00	4001		
15	05 28 53	00	4001		EE
16	05 52 10	00	4001		
17	06 15 26	00	4001		PR
18	06 38 41	00	5001		
19	13 08 04	00	5002		
20	13 31 27	00	5002		
21	13 54 36	00	5002		
22	14 17 53	00	4002		PE
23	14 41 07	00	4002		PE
24	15 04 24	00	4002		PE
25	15 27 39	00	4002		PE
26	15 50 55	00	1002		
27	16 14 12	05	5000	5000A	
27	16 14 12	10	3002	1100B 2140A 2240E 4710H 4610E	MEXICO US
27	16 14 12	20	4000	2140A 2240A	
27	16 14 12	50	1002	1114E 2140A 4610B	
27	16 14 12	60	4000	2140A	
28	16 37 27	00	3002		PE
29	17 00 44	00	3002		PE
30	17 24 00	00	3002		
31	17 47 15	00	3002		
32	18 10 29	00	3002		
33	18 33 46	00	3002		
34	18 57 01	00	3002		PE
35	19 20 17	10	3000	1100F 2140A 2240G 4610E 4710H	MEXICO US
35	19 20 17	20	4000	2140A 2240A	
35	19 20 17	40	5002	5000A	
35	19 20 17	50	1000	1114H 2140A 2240F 4610B	
35	19 20 17	60	4000	2140A 2240A	
35	19 20 17	80	4002	2140A	
36	19 43 31	00	3002		
37	20 06 46	00	3002		
38	20 30 03	00	3002		EE
39	20 53 27	00	3502		EE
40	21 23 38	00	3000		
41	21 46 47	00	3000		EE
42	22 10 07	10	3000	1100F 2140A 2240G 3150E 4610G 4710H	MEXICO US
42	22 10 07	20	4000	2140A 4200A	MEXICO
42	22 10 07	40	4000	2140A 2230A	
42	22 10 07	50	1000	2140A 1100G 2240F 2230C 4610C	
42	22 10 07	60	4000	2140A 2240A	
42	22 10 07	80	4000	2140A 2230A 4200A 4550A	ASTR NZ
42	22 10 07	90	5000	5000A	
43	22 33 24	00	3000		
44	22 56 40	00	3001		PE
45	23 20 01	00	3001		EE
46	23 43 09	00	3001		EE



ATS-I 21 APRIL 1967 22 10 07 UT SEQ 42

22 APR 67 SUBSATELLITE PT 149.99W 00.24N TOTAL PICS 45

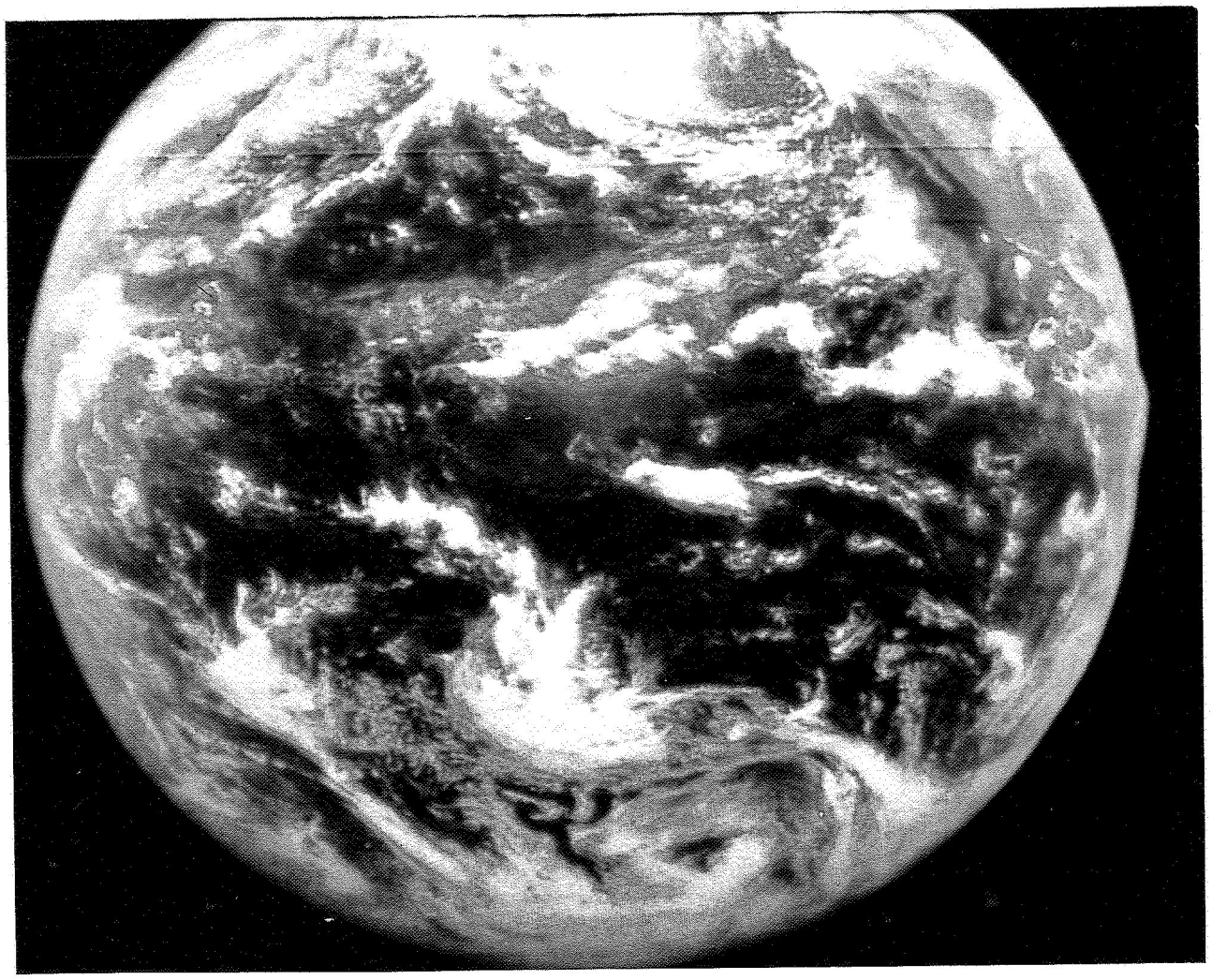
SEQ	START	ZONE	PICO	DATA CONTENT DESCRIPTORS	REMARKS
01	00 06 23	10	3001	1114F 2140A 2240G 4610D 4710H	MEXICO US
01	00 06 23	20	5001	5000A	
01	00 06 23	40	4000	2140A 2230A	
01	00 06 23	50	1001	2140A 2230C	
01	00 06 23	60	5000	5000A	
01	00 06 23	80	4000	2230A 2140A 4200A	ASTR
01	00 06 23	90	5000	5000A	
02	00 29 41	00	4001		PE
03	00 52 56	00	4001		
04	01 16 12	00	1001		
05	01 39 27	00	1001		EE
06	02 02 40	00	1001		EE
07	02 25 58	00	1001		EE
08	02 49 11	00	1001		
09	03 12 25	10	4001	1114C 2140A 2230G 4610D	
09	03 12 25	40	4000	2230A 2140A 4610A	
09	03 12 25	50	4001	2130C 21401	
09	03 12 25	80	4000	1200A 2140A 2230A 4200A	ASTR
09	03 12 25	90	5001	5000A	
10	03 35 42	00	4001		
11	03 58 57	00	4001		
12	04 22 11	00	4001		
13	04 45 28	00	4001		
14	05 08 43	00	4001		
15	05 31 57	00	4001		
16	05 55 14	00	5001		
17	06 18 28	00	5001		
18	06 41 43	00	5001		
19	13 26 36	00	4002		
20	13 50 00	00	4002		
21	14 20 36	00	4502		EE
22	14 43 53	00	4002		EE
23	15 07 11	00	4002		EE
24	15 30 24	00	3002		
25	15 53 39	00	3002		EE
26	16 16 55	05	5002	5000A	
26	16 16 55	10	3002	1100B 2140K 2230E 2240G 4610E 4710H	MEXICO US
26	16 16 55	20	4000	2140A 2230A	
26	16 16 55	50	1002	2140H 1100H 2240F	
26	16 16 55	60	4000	2140A	
27	16 40 13	00	3002		
28	17 03 29	00	3002		
29	17 26 43	00	3002		EE
30	17 50 01	00	3002		
31	18 13 14	00	3002		
32	18 36 33	00	3002		
33	18 59 49	00	3002		EE
34	19 23 03	10	3000	1114F 2140A 2230D 2240G 4610E 4710H	MEXICO US
34	19 23 03	20	4000	2140A 2240A 4200A	MEXICO
34	19 23 03	40	5002	5000A	
34	19 23 03	50	1000	1100G 2140A 2230C 2240F	
34	19 23 03	60	4000	2140A 2240A	
34	19 23 03	80	4002	2230A 2140A	
35	19 46 20	00	3002		
36	20 09 40	00	3002		
37	20 32 51	00	3002		
38	20 56 09	00	3002		EE
39	21 19 26	00	3000		EE
40	21 42 43	00	3000		
41	22 05 58	10	3000	1100F 2140A 2240D 2230G 4710G 4710H	MEXICO US
41	22 05 58	20	4000	2140A 2240A	
41	22 05 58	40	4000	2140A 2230A	
41	22 05 58	50	1000	1100G 2140A 2230C 2240B	
41	22 05 58	60	4000	2240A 2140A	
41	22 05 58	80	4000	1200A 2140A 2230A 4200A	ASTR
41	22 05 58	90	5000	5000A	
42	22 29 14	00	3000		
43	22 52 32	00	4001		
44	23 15 46	00	4001		
45	23 39 02	00	4501		



ATS-I 22 APRIL 1967 22 05 58 UT SEQ 41

23 APR 67 SUBSATELLITE PT 149.84W 00.23N TOTAL PICS 42

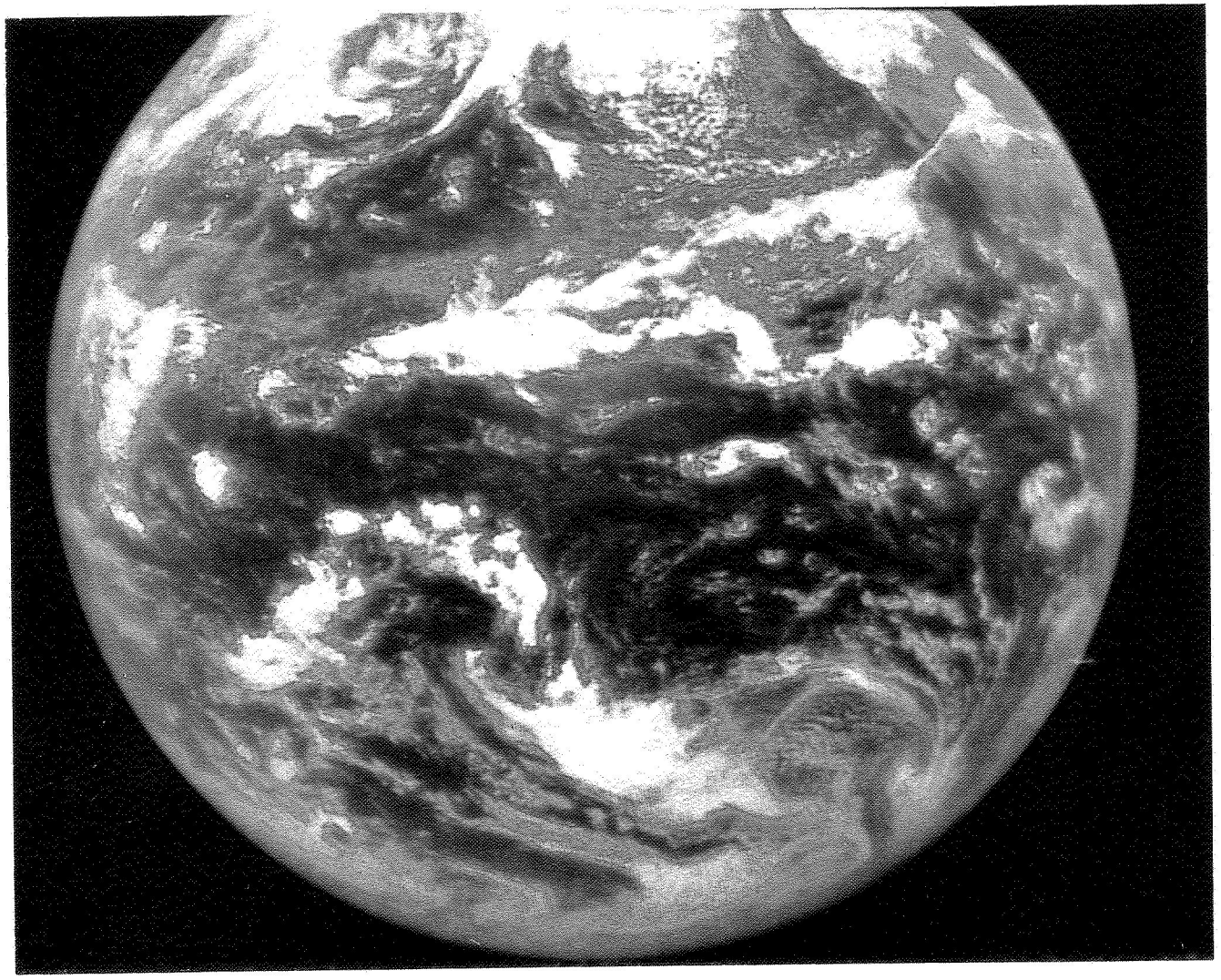
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 18 18	10	3001	2140A 1100C 2240G 2230D 4610D 4710H	MEXICO US
01	00 18 18	20	5001	5000A	
01	00 18 18	40	4000	2240A 2230A 2140A	
01	00 18 18	50	1001	2230C 2140A 1100E 2240F	
01	00 18 18	80	4000	1200A 2140A 4200A	ASTR
01	00 18 18	90	5001	5000A	
02	00 41 36	00	4001		
03	01 08 10	00	4001		
04	01 31 21	00	4001		
05	01 54 40	00	4001		
06	02 17 57	00	4001		
07	02 41 13	00	4001		
08	03 04 30	10	1001	1100C 2140A 2240G 4610D 2230D	
08	03 04 30	40	4000	2230A 2140A	
08	03 04 30	50	4001	2230C 2140I	
08	03 04 30	80	4000	1200A 2230A 2140A 4200A	ASTR
08	03 04 30	90	5001	5000A	
09	03 37 01	00	4001		
10	04 00 10	00	4001		
11	04 23 30	00	4001		EE
12	04 46 45	00	4001		
13	05 10 00	00	4001		
14	05 33 17	00	5001		EE
15	05 56 33	00	5001		
16	06 19 49	00	5001		
17	06 43 05	00	5001		
18	12 55 44	00	5002		
19	13 18 05	00	5002		
20	13 41 22	00	4002		
21	14 04 37	00	4002		EE
22	14 39 32	00	4002		
23	15 02 46	00	4502		
24	15 25 00	00	4002		
25	15 49 20	00	4502		EE
26	16 12 39	05	5002	5000A	
26	16 12 39	10	4002	2140A 1100B 2230E 2240E 4610E 4710H	MEXICO US PE
26	16 12 39	20	4000	2240A 2140A	PE
26	16 12 39	50	4002	2140A 2240F 4610B	
26	16 12 39	60	4000	2140A	
27	16 35 54	00	3502		
28	18 30 33	00	3002		
29	18 53 47	00	3002		PE EE
30	19 17 04	10	4000	1100F 2140A 2240G 4610E 4710H	MEXICO US
30	19 17 04	20	4000	2140A 4200A	MEXICO
30	19 17 04	40	5002	5000A	
30	19 17 04	50	1000	1100G 2140A 2240F 4610B	EE
30	19 17 04	60	4000	2140A 2240A	EE
30	19 17 04	80	4002	2140A	EE
31	19 40 22	00	3002		EE
32	20 03 35	00	3002		
33	20 26 52	00	3002		MOON VSBL SW
34	20 50 09	00	3002		
35	21 13 27	00	3000		
36	21 36 40	00	3000		MOON VSBL SE
37	21 59 59	10	3000	2140A 2240G 4610G 4710H	MEXICO US
37	21 59 59	20	4000	2140A 4200A	MEXICO
37	21 59 59	40	4000	2140A 2230A	
37	21 59 59	50	1000	2140A 2230C 1100G 2240F 4610C	
37	21 59 59	60	4000	2240A	
37	21 59 59	80	4000	2140A 2230A 1100A 4200A	ASTR
37	21 59 59	90	5000	5000A	
38	22 23 17	00	3000		PE
39	22 46 29	00	3000		EE
40	23 09 46	00	3001		EE
41	23 33 03	00	3001		EE
42	23 56 17	00	3001		EE



ATS-I 23 APRIL 1967 21 36 40 UT SEQ 36

24 APR 67 SUBSATELLITE PT 149.92W 00.25N TOTAL PICS 36

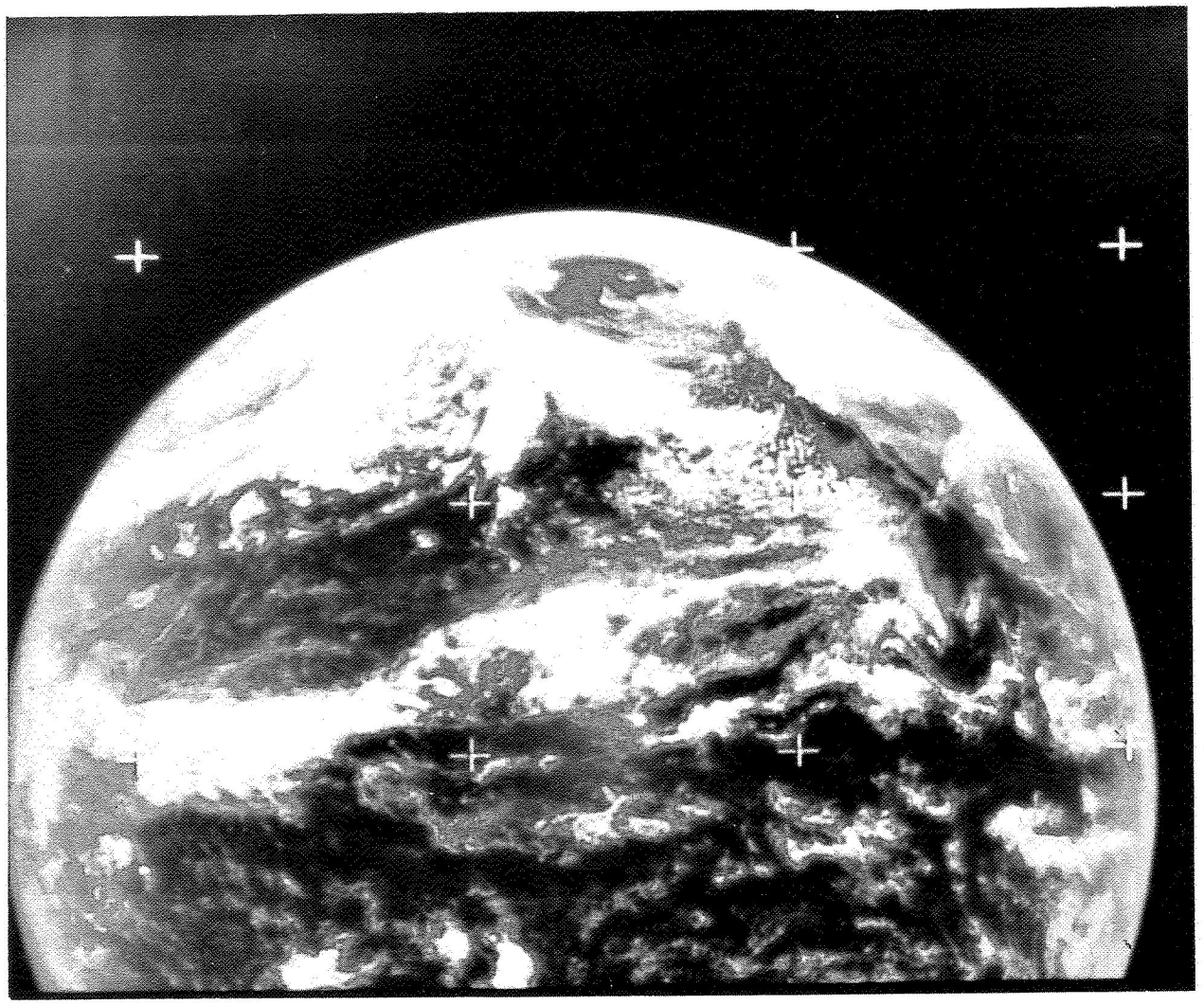
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 19 35	10	3001	2140A 2240G 4610D 4710H 2230D	MEXICO US
01	00 19 35	20	5001	5000A	
01	00 19 35	40	4000	2140A 2230A	
01	00 19 35	50	1001	2140A 2230C 2240F	
01	00 19 35	80	4000	2230A 2140A 4200A	ASTR
01	00 19 35	90	5001	5000A	
02	00 42 49	00	4001		
03	01 06 05	00	4001		
04	01 29 20	00	4001		EE
05	01 52 37	00	4001		EE
06	02 15 51	00	4001		EE
07	02 39 05	00	4501		EE
08	02 53 14	00	7000		
09	03 02 49	10	4001	2140A 2240G 4610D	
09	03 02 49	40	4000	2140A 2230A 4610A	
09	03 02 49	50	4001	21401 2230C	
09	03 02 49	80	4000	2140A 2230A 4200A	ASTR
09	03 02 49	90	5001	5000A	
10	03 26 10	00	4001		EE
11	03 49 18	00	4001		EE
12	04 12 21	00	4001		EE
13	04 35 50	00	4001		
14	04 59 01	00	4001		EE
15	05 22 20	00	4001		PE
16	05 45 34	00	5001		EE
17	06 08 41	00	5001		
18	06 32 05	00	5001		
19	13 03 51	00	5002		
20	13 27 07	00	5002		
21	13 50 23	00	4002		
22	14 13 39	00	4002		
23	14 36 54	00	4002		
24	15 00 12	00	4002		
25	15 23 24	00	4002		
26	15 46 41	00	3002		
27	16 09 49	05	5002	5000A	
27	16 09 49	10	3002	1100B 2140K 2240E 2230E 4610E 4710H	MEXICO US
27	16 09 49	20	4000	2140A 2240A 4610A	
27	16 09 49	50	1002	1100E 2140H 2240F 4610B	
27	16 09 49	60	4000	2140A 2240A 4610A	
28	16 33 02	00	3002		
29	16 56 30	00	3002		
30	17 19 48	00	3002		
31	20 39 00	00	3000		EE NOISY TAPE
32	21 02 17	00	3000		EE
33	21 48 28	10	3000	2140A 1114C 2240G 4610G 4710H 2230D	MEXICO US
33	21 48 28	20	4000	2140A 4200A	MEXICO
33	21 48 28	40	4000	2140A 2230A	
33	21 48 28	50	1000	2140A 2240F 1100G 3150H	
33	21 48 28	60	4000	2140A 2240A	
33	21 48 28	80	4000	2140A 2230A 4550A 4200A	NZ ASTR
33	21 48 28	90	5000	5000A	
34	22 50 49	00	3000		
35	23 15 00	00	3001		
36	23 38 34	00	3001		



ATS-I 24 APRIL 1967 21 48 28 UT SEQ 33

25 APR 67 SUBSATELLITE PT 149.94W 00.25N TOTAL PICS 36

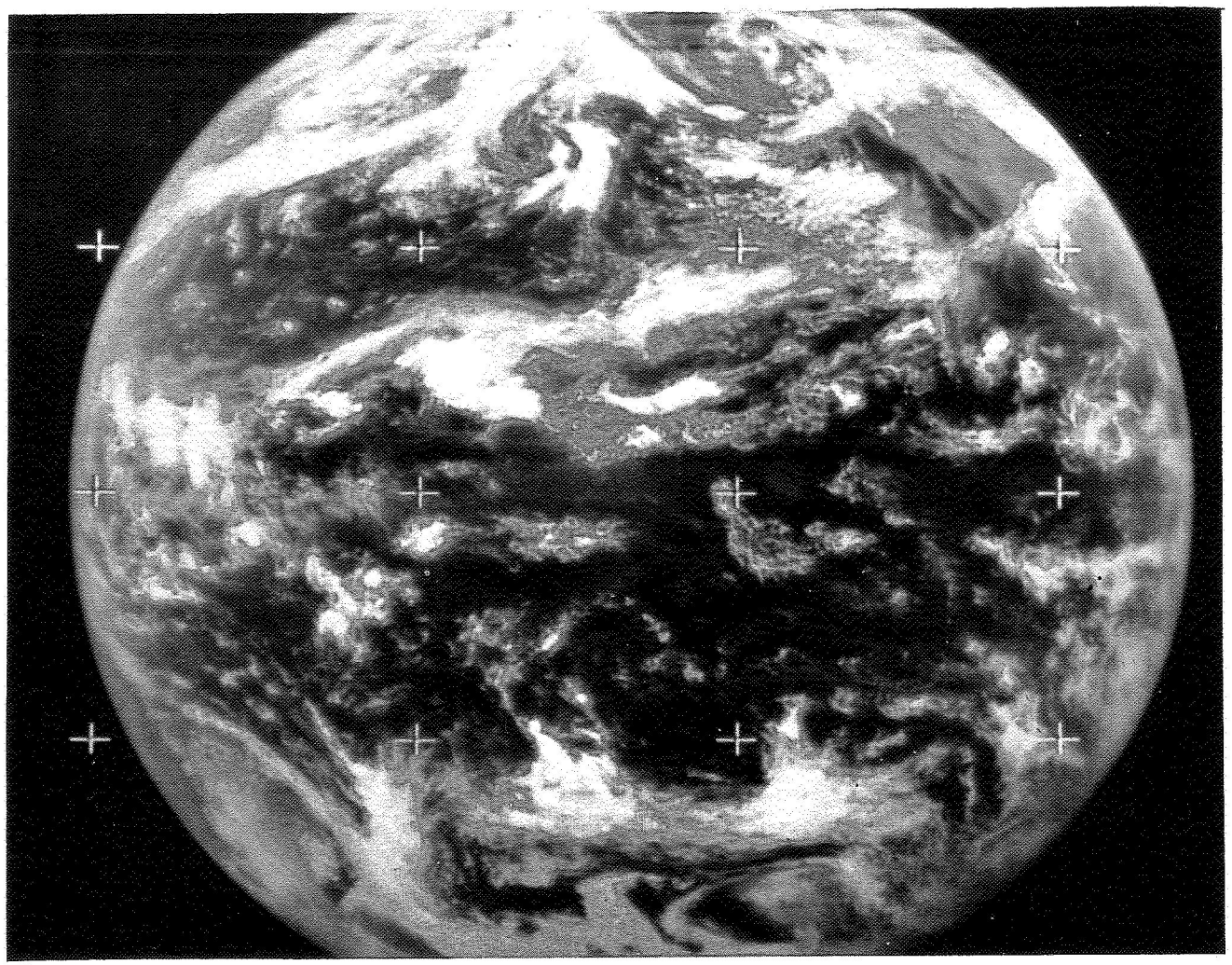
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 02 00	10	3000	2140A 2240G 2230D 4610D 4710H	MEXICO US
01	00 02 00	20	5001	5000A	
01	00 02 00	40	4000	2140A 2230A	
01	00 02 00	50	1001	1110G 2140K 2240F 2230C	
01	00 02 00	80	4000	2140A 2230A 4200A	ASTR
01	00 02 00	90	5001	5000A	
02	00 25 06	00	3001		
03	00 48 23	00	4001		
04	01 11 40	00	4001		
05	01 34 57	00	4001		
06	01 58 12	00	4001		
07	02 21 29	00	4001		
08	02 44 48	00	4001		
09	04 00 59	00	4001		
10	04 23 12	00	4001		EE
11	04 48 41	00	4001		EE
12	05 11 57	00	4001		EE
13	05 52 02	00	4001		
14	06 15 19	00	5001		EE
15	06 38 37	00	5001		EE
16	13 12 12	00	5002		EE
17	13 35 28	00	5002		EE
18	13 58 45	00	5002		EE
19	14 22 02	00	5002		EE
20	15 55 08	00	3002		
21	16 18 01	10	3002	1100B 2140M 2240E 2230E 4610E 4710H	MEXICO US
21	16 18 01	20	4000	1100A 2140A 2240A 4610A	
21	16 18 01	50	1002	1100E 2140H 2240B 4610B	
21	16 18 01	60	4000	1100A 2140A 2240A 4610A	
22	16 41 15	00	4002		EE PE
23	17 18 46	00	3002		
24	17 42 00	00	3502		
25	18 41 49	00	3002		
26	19 04 50	05	5000	5000A	
26	19 04 50	10	3002	1113C 2140A 2240G 4610E 4710H	MEXICO US
26	19 04 50	20	4000	2140A 1100A 2240A	
26	19 04 50	40	5002	5000A	
26	19 04 50	50	1000	2240F 2140H	
26	19 04 50	60	4000	2140A 2240A	
26	19 04 50	80	4002	2240A	
27	19 43 40	00	3002		
28	20 06 52	00	3002		
29	20 30 05	00	3000		
30	20 53 25	00	3000		
31	21 16 48	00	3000		
32	21 39 00	00	7000		
33	22 30 00	05	5000	5000A	
33	22 30 00	10	4000	2140A 2240A 4610G 4710H	MEXICO US
33	22 30 00	20	4000	2140A 2240A 4200A	MEX PICOFFSET
33	22 30 00	40	4000	1100A 2140A 2240A	
33	22 30 00	50	1000	2240F 2230C	
33	22 30 00	60	4000	2240A	
33	22 30 00	80	4000	2230A	PIC OFFSET
34	22 53 18	00	4000		PIC OFFSET
35	23 16 34	00	3001		PIC OFFSET
36	23 39 52	00	3001		PIC OFFSET



ATS-I 25 APRIL 1967 21 16 48 UT SEQ 31

26 APR 67 SUBSATELLITE PT 149.98W 00.22N TOTAL PICS 31

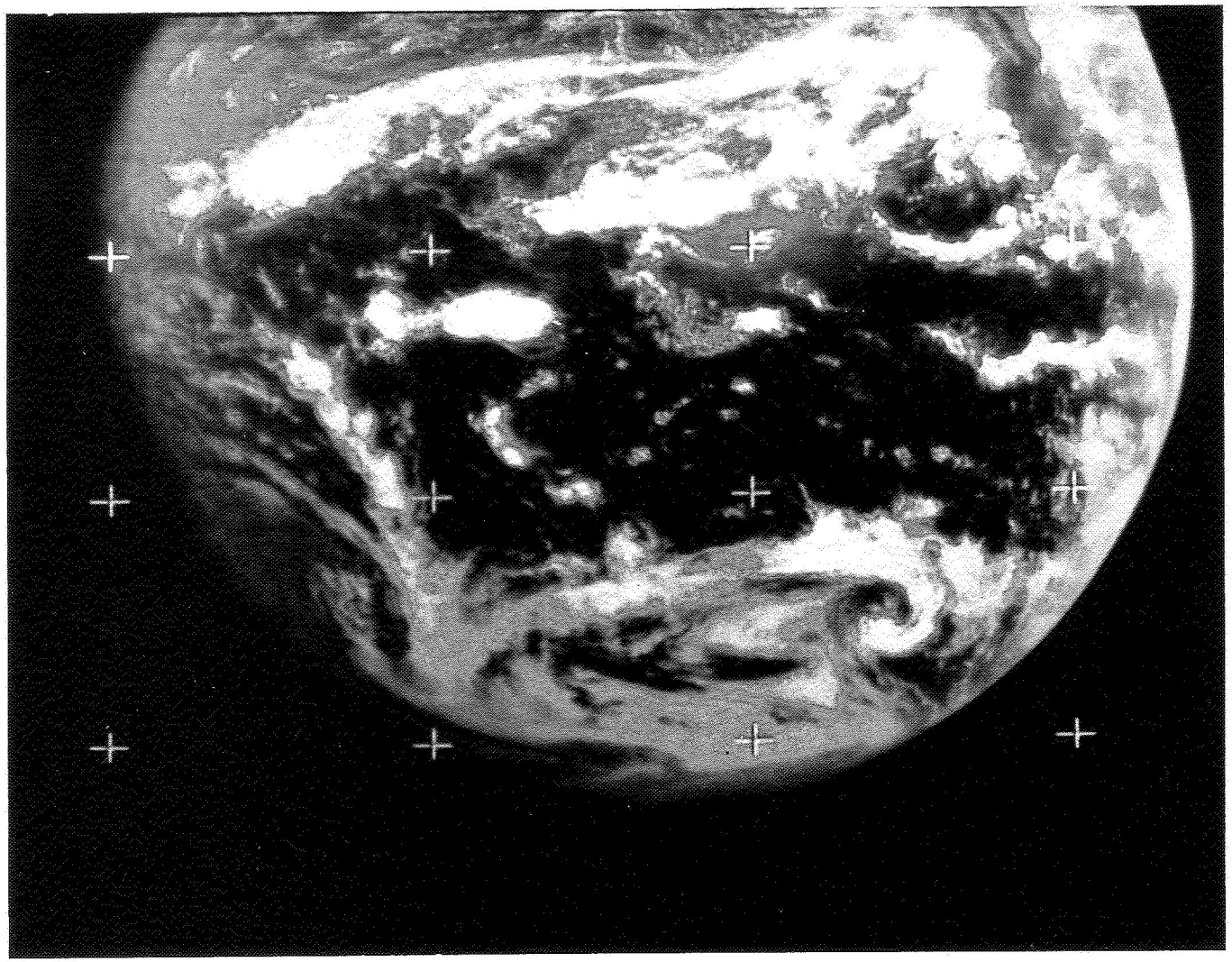
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 03 09	05	5000	5000A	
01	00 03 09	10	3000	1113C 2140J 2240G 4610D 4710H	MEXICO US
01	00 03 09	20	5001	2140A	
01	00 03 09	40	4000	1100A 2140A 2230A	
01	00 03 09	50	1000	2240F 2230C	
01	00 03 09	80	4000	2230A 4200A	ASTR
02	00 26 28	00	3001		
03	02 27 30	00	4001		
04	02 50 49	00	4001		
05	03 14 05	00	4001		
06	03 37 23	00	4001		
07	05 03 08	00	4001		
08	05 26 23	00	5001		
09	13 13 58	00	5002		
10	13 37 23	00	5002		
11	14 00 33	00	5002		
12	14 24 04	00	4002		EE
13	14 47 03	00	4002		
14	15 28 41	00	4002		PE EE
15	15 51 56	10	4002	2140M 2240E 4610E 4710H	MEXICO US
15	15 51 56	20	4000	2140A 2240A 4610A	
15	15 51 56	50	1002	2240B 2140E 2230B	
15	15 51 56	60	4000	2240A	
16	16 15 18	00	7000		
17	16 41 27	00	3002		
18	17 50 59	00	3002		
19	18 14 21	00	3002		
20	18 57 22	10	3002	1100J 2140A 2240G 3150E 4610E 4710H	MEXICO US
20	18 57 22	20	4000	2140A 2240A 4200A	MEXICO
20	18 57 22	50	1000	2240F 2140A	
20	18 57 22	60	4000	2240A	
20	18 57 22	80	5002	5000A	
21	19 20 40	00	4002		PE EE
22	20 03 58	00	3002		
23	20 27 00	00	3002		
24	20 50 00	00	3000		
25	21 13 53	00	3000		
26	21 37 12	00	3000		EE
27	22 00 29	10	3000	1100F 2140A 2240G 3100G 4710H 2230D	MEXICO US
27	22 00 29	20	3000	2140A 2240A 4200A	MEXICO US
27	22 00 29	40	4000	2140A 2240A	
27	22 00 29	50	1000	2240F 2140A 2230F	
27	22 00 29	60	4000	2240A	
27	22 00 29	80	4000	2140A 2240A 4200A	ASTR
28	22 23 47	00	3000		
29	22 47 04	00	3000		
30	23 33 40	00	3001		EE
31	23 57 00	00	3001		



ATS-I 26 APRIL 1967 22.00 29 UT SEQ 27

27 APR 67 SUBSATELLITE PT 150.02W 00.27N TOTAL PICS 30

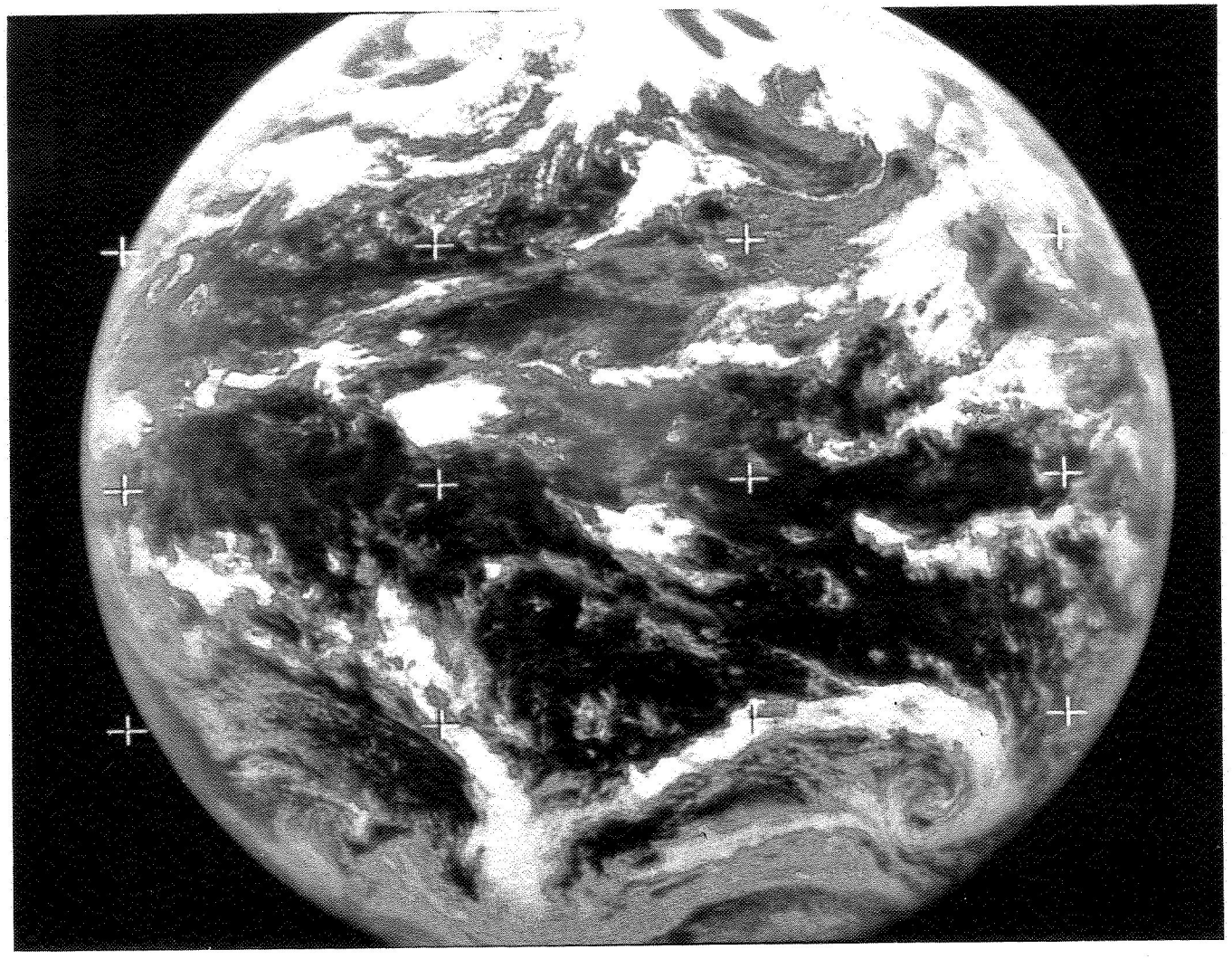
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 43 36	10	3001	1100A 2140A 2240G 2230D 4610D 4710H	MEXICO US
01	00 43 36	40	4000	2140A 2240A	
01	00 43 36	50	1001	2240F 2140G	EE
01	00 43 36	80	4000	2230A 2240A 2140A 1100A 4200A	ASTR
02	01 06 52	00	7000		
03	01 14 08	00	4001		
04	01 37 28	00	4001		
05	02 00 43	00	4001		
06	02 24 03	00	4001		EE
07	02 47 19	00	4001		
08	03 29 09	00	4001		
09	03 52 26	00	4001		
10	04 32 05	00	4001		
11	04 55 15	00	4001		
12	14 12 27	00	5002		
13	14 35 45	00	4002		
14	14 59 01	00	4002		
15	15 22 18	00	4002		
16	15 45 36	00	4002		
17	16 08 52	05	5002	5000A	
17	16 08 52	10	3002	1114B 2140M 2240G 4610E 4710H	MEXICO US
17	16 08 52	20	4000	1100A 4610A	
17	16 08 52	50	1002	1100E 2140H 2240B 4610B	
17	16 08 52	60	4000	2240A 4610A	
18	16 32 12	00	3002		
19	16 55 30	00	3002		PE
20	17 36 11	00	4002		PE
21	17 59 33	00	4002		PE
22	18 22 50	00	3002		
23	18 46 07	00	3002		
24	19 09 29	10	3000	1103E 1114C 2140A 2240G 4610E 4710H	MEXICO US
24	19 09 29	20	4000	2140A 2240A	
24	19 09 29	40	5002	5000A	
24	19 09 29	50	1000	1100G 2140A 2240F 4610B	
24	19 09 29	60	4000	2140A 2240A	
24	19 09 29	80	4002	2140A 2230A	
24	19 09 29	90	5002	5000A	
25	19 32 46	00	3002		
26	19 56 05	00	3002		
27	20 19 22	00	3002		PE
28	22 46 36	10	1500	2240G 2230D 4610D	
28	22 46 36	20	4500	2240A	
28	22 46 36	40	4500	2240A	
28	22 46 36	50	1000	1100G 2140A 2240F 2230C	
28	22 46 36	60	4001	2240A	
28	22 46 36	80	4000	2240A 2140A 4200A	ASTR
28	22 46 36	90	5000		
29	23 08 48	00	4001		ASTR
30	23 48 32	00	4001		PE ASTR



ATS-I 27 APRIL 1967 20 19 22 UT SEQ 27

28 APR 67 SUBSATELLITE PT 150.01W 00.28N TOTAL PICS 35

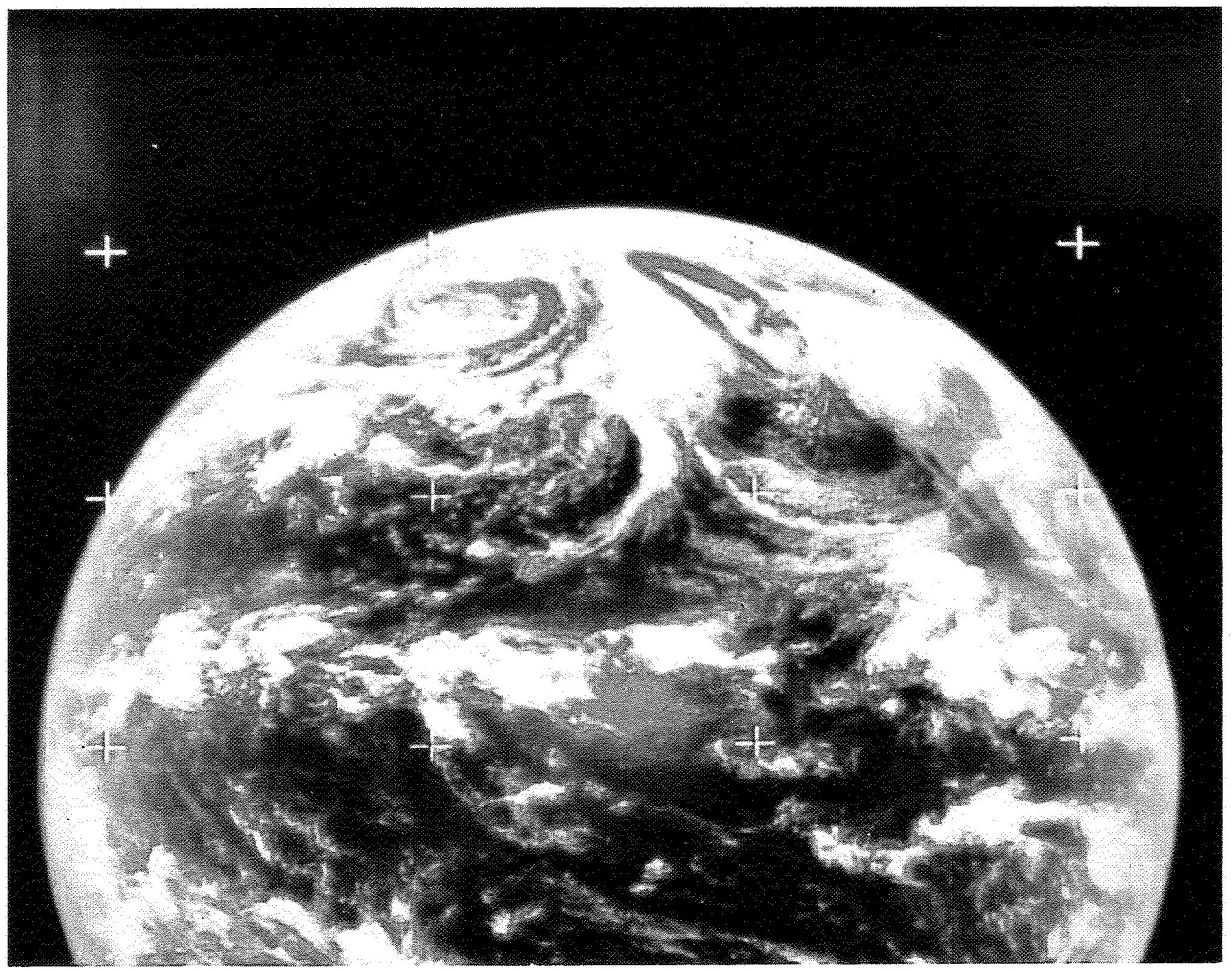
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 06 56	10	1501	2240G 4610D	
01	00 06 56	20	5500	5000A	
01	00 06 56	40	4500	2240A	
01	00 06 56	50	1001	1100G 2145D 2230C 2240F 4610C	
01	00 06 56	80	4000	2140A 2230A 4200A	ASTR
01	00 06 56	90	5001		
02	00 26 08	00	1501		EE
03	00 49 24	00	4501		
04	01 12 45	00	4501		
05	01 36 06	00	1501		
06	01 59 18	00	1501		
07	02 22 38	00	1501		
08	02 45 58	00	1501		PE
09	03 09 15	00	1501		
10	03 32 33	00	1501		
11	03 55 50	00	4501		
12	04 19 12	00	4501		
13	04 42 27	00	4501		
14	14 05 22	00	4502		
15	14 28 35	00	4502		
16	14 52 00	00	4502		
17	15 15 15	00	4502		PE
18	15 38 00	00	4502		PE
19	16 01 50	05	5000	5000A	
19	16 01 50	10	1002	1114B 2140H 2240E 4610E 4200H	MEXICO US
19	16 01 50	20	4000	2240A	
19	16 01 50	50	1502	2240B 1114H 2140H 4610B	
19	16 01 50	60	4500	2240A	
20	16 25 08	00	4502		
21	16 48 28	00	7000		
22	17 11 44	00	1502		EE
23	17 35 05	00	1502		
24	17 58 25	00	1502		
25	18 21 42	00	1502		
26	18 45 03	00	1502		
27	19 08 25	05	5000	5000A	
27	19 08 25	10	3002	1100F 2140A 2240A 3100G 4610E 4200H	MEXICO US
27	19 08 25	20	4000	2240A 4200A	MEXICO
27	19 08 25	50	1502	2140A 1114H 2240F 3150F 4610B	
27	19 08 25	60	4500	2240A 2140A	
27	19 08 25	80	5502	2140A	
28	19 31 50	00	4002		PE RETRACE
29	20 01 33	00	3002		
30	20 24 52	00	3002		
31	20 48 16	00	3002		
32	21 11 31	00	4002		
33	21 34 51	00	4002		
34	21 58 09	10	3000	1100F 2140A 2240G 4610G 4710H 3100E	MEXICO US
34	21 58 09	20	4000	2240A	
34	21 58 09	40	4000	2140A 1100A 2240A	
34	21 58 09	50	1000	2145D 1114H 2240F 2140A	
34	21 58 09	60	4000	2140A 2240A	
34	21 58 09	80	4000	2140A 2240A 4200A	ASTR
35	22 21 29	00	3000		



ATS-I 28 APRIL 1967 21 58 09 UT SEQ 34

29 APR 67 SUBSATELLITE PT 149.95W 00.3IN TOTAL PICS 18

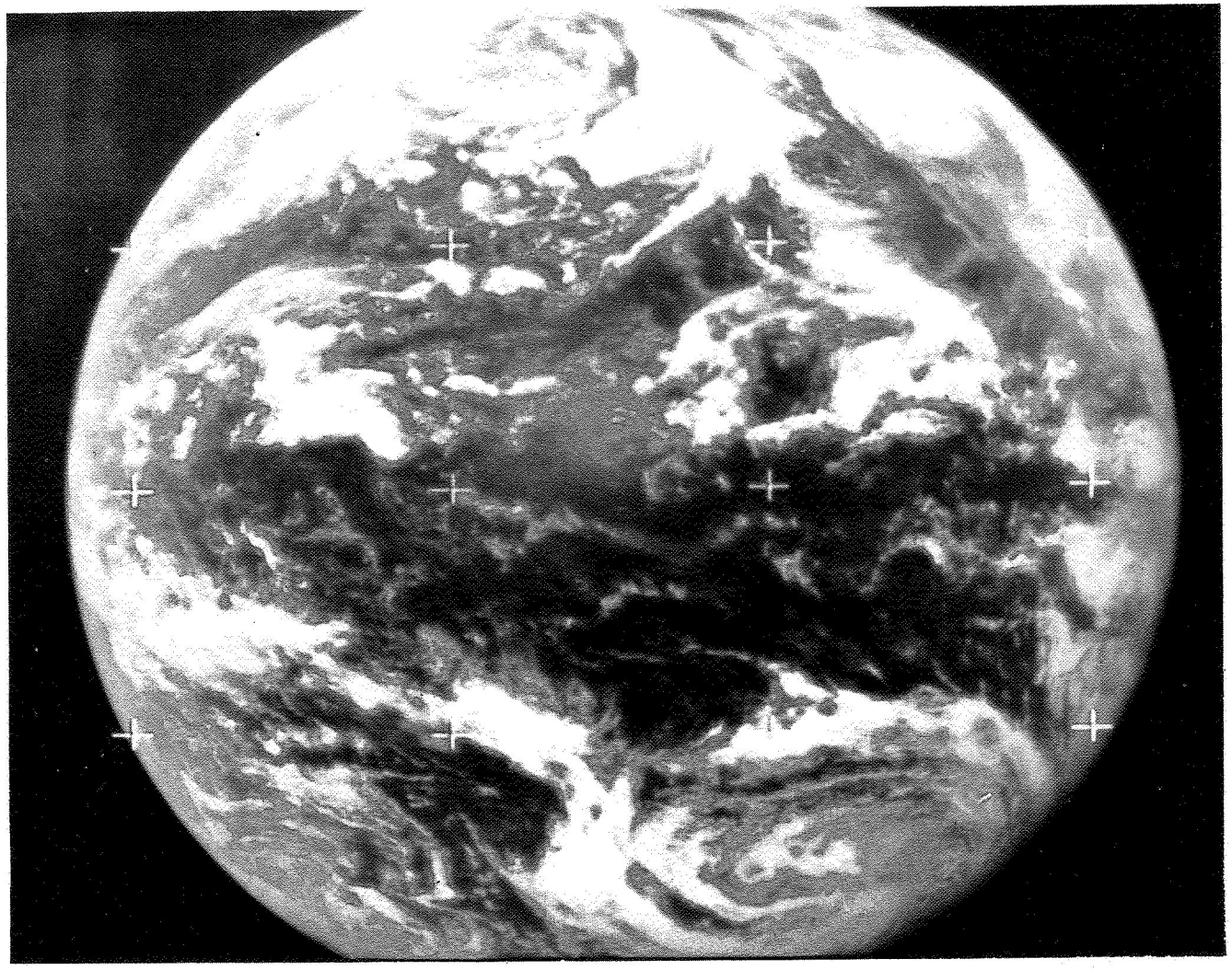
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 24 14	10	3501	1100F 2140A 2240G 4610D 4550D 4200B	HAW MEXICO
01	00 24 14	20	5001	5000A	
01	00 24 14	40	4500	1100A 2140A 2240A	
01	00 24 14	50	1000	2145D 2240F 4610C	
01	00 24 14	80	4000	2240A 2140A 1100A 4200A	ASTR
02	00 47 34	00	1501		
03	04 28 13	00	4501		
04	06 27 26	00	5501		
05	12 51 45	00	5002		
06	13 16 08	00	5002		EE
07	13 38 26	00	5002		EE
08	14 01 42	00	4002		
09	15 54 22	00	4002		
10	16 17 39	05	5000	5000A	
10	16 17 39	10	4002	1100B 2140A 2240G 4610E 4200H	MEXICO US
10	16 17 39	20	4000	2240A 4610A	
10	16 17 39	50	1502	2240B 2140B	
10	16 17 39	60	4500	2240A	
11	16 41 59	00	4502		
12	17 04 18	00	4502		PE
13	17 27 40	00	3502		
14	17 51 05	00	3502		
15	18 14 20	00	3502		
16	21 39 47	05	5000	5000A	
16	21 39 47	10	3000	2140A 1100F 2240G 3100E 4610G 4200H	MEXICO US
16	21 39 47	20	4000	2140A 4200A 2240A	MEXICO US
16	21 39 47	40	4000	2140A 2240A	
16	21 39 47	50	1000	2140C 2240F 4610C	
16	21 39 47	60	4000	2240A	
16	21 39 47	80	4000	2240A	
17	22 03 07	00	3500		PP
18	22 20 59	00	3000		



ATS-I 29 APRIL 1967 21 39 47 UT SEQ 16

30 APR 67 SUBSATELLITE PT 150.02W 00.29N TOTAL PICS 21

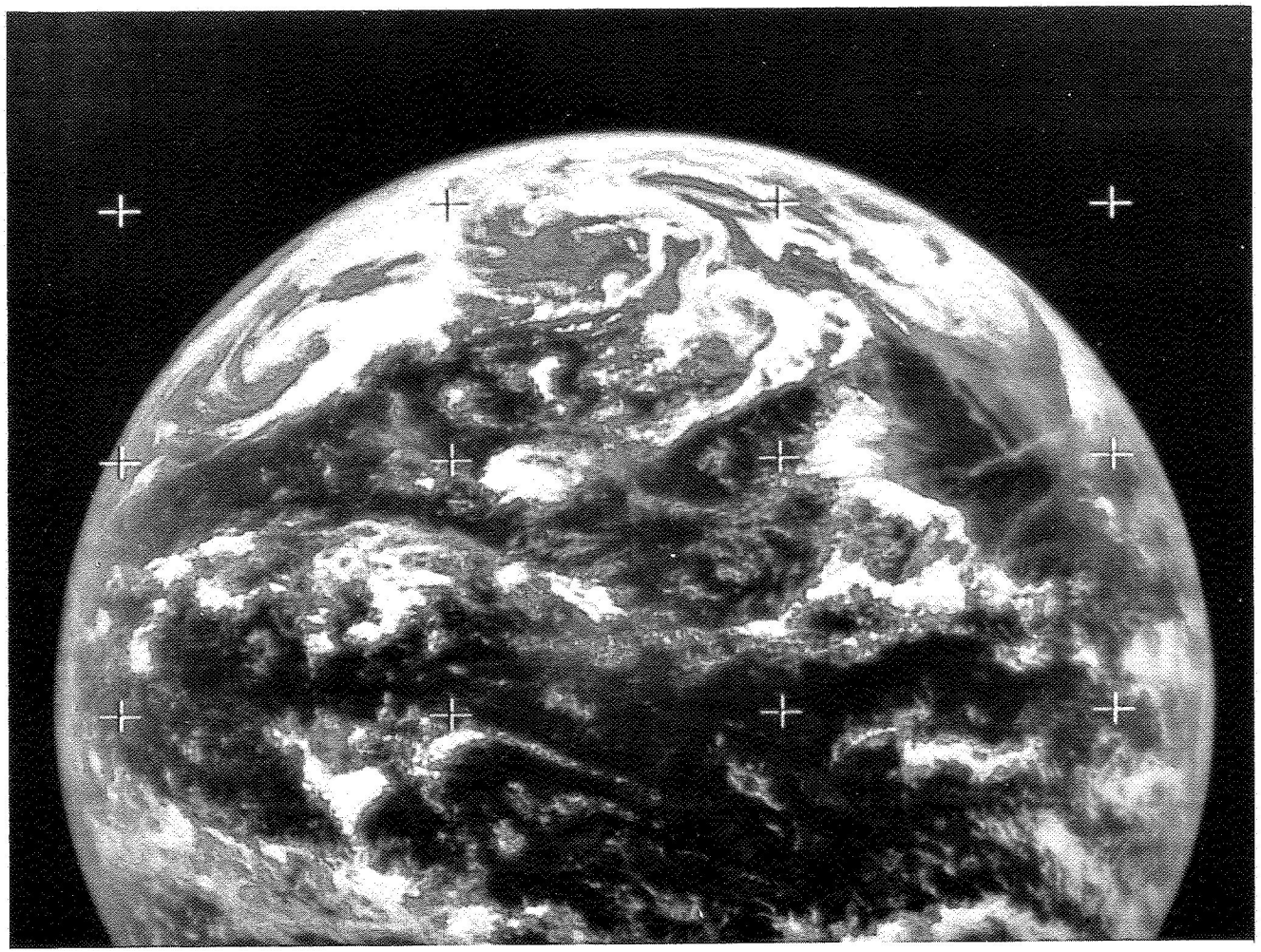
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 46 45	05	5000	5000A	
01	00 46 45	10	3001	2140A 1100F 2240G 4610D 4200H	MEXICO US
01	00 46 45	40	4000	2140A 2240A	
01	00 46 45	50	1501	2140A 2240F	
01	00 46 45	80	4500	2140A 2240A	
02	01 10 03	00	1001		
03	03 41 16	00	4001		
04	04 04 35	00	4001		PE
05	06 38 38	00	5501		
06	07 01 55	00	5501		
07	12 41 15	00	5502		FILM SCRATCH
08	13 04 35	00	5502		
09	15 41 20	00	4002		PE
10	16 07 22	05	5000	5000A	
10	16 07 22	10	3002	1100B 2140A 2240E 4610E 4710H	MEXICO US
10	16 07 22	20	4000	2240A 4610A	
10	16 07 22	50	1502	2140H 2240B 4610B	
10	16 07 22	60	4500	2240A 2140A	
11	16 30 39	00	3002		
12	16 53 59	00	7000		
13	17 17 19	00	3002		
14	17 40 39	00	3002		
15	18 04 00	00	3002		
16	18 27 19	00	3002		EE
17	18 50 46	00	3002		
18	19 14 04	05	5000	5000A	
18	19 14 04	10	3000	1100F 2140A 2240G 3100E 4610E 4710H	MEXICO US
18	19 14 04	20	4000	2140A 2240A	
18	19 14 04	40	5002	5000A	
18	19 14 04	50	1000	1100H 2140A 2240F	
18	19 14 04	60	4000	2240A 2140A	
18	19 14 04	80	4002	2140A	
19	21 39 13	00	3000		
20	22 02 32	00	3000		PE
21	22 25 57	10	3000	2140A 1100F 2240G 4610G 4710H	MEXICO US
21	22 25 57	20	4000	2140A 4200A 2240A	C A MEX
21	22 25 57	40	4000	2140A 2240A	
21	22 25 57	50	1000	1100E 2143K 2142B 2240F 4610C	
21	22 25 57	60	4000	2140A 2240A	
21	22 25 57	80	4000	2140A 2240A 4550A 4200A	NZ ASTR



ATS-I 30 APRIL 1967 22 25 57 UT SEQ 21

1 MAY 67 SUBSATELLITE PT 150.03W 00.32N TOTAL PICS 19

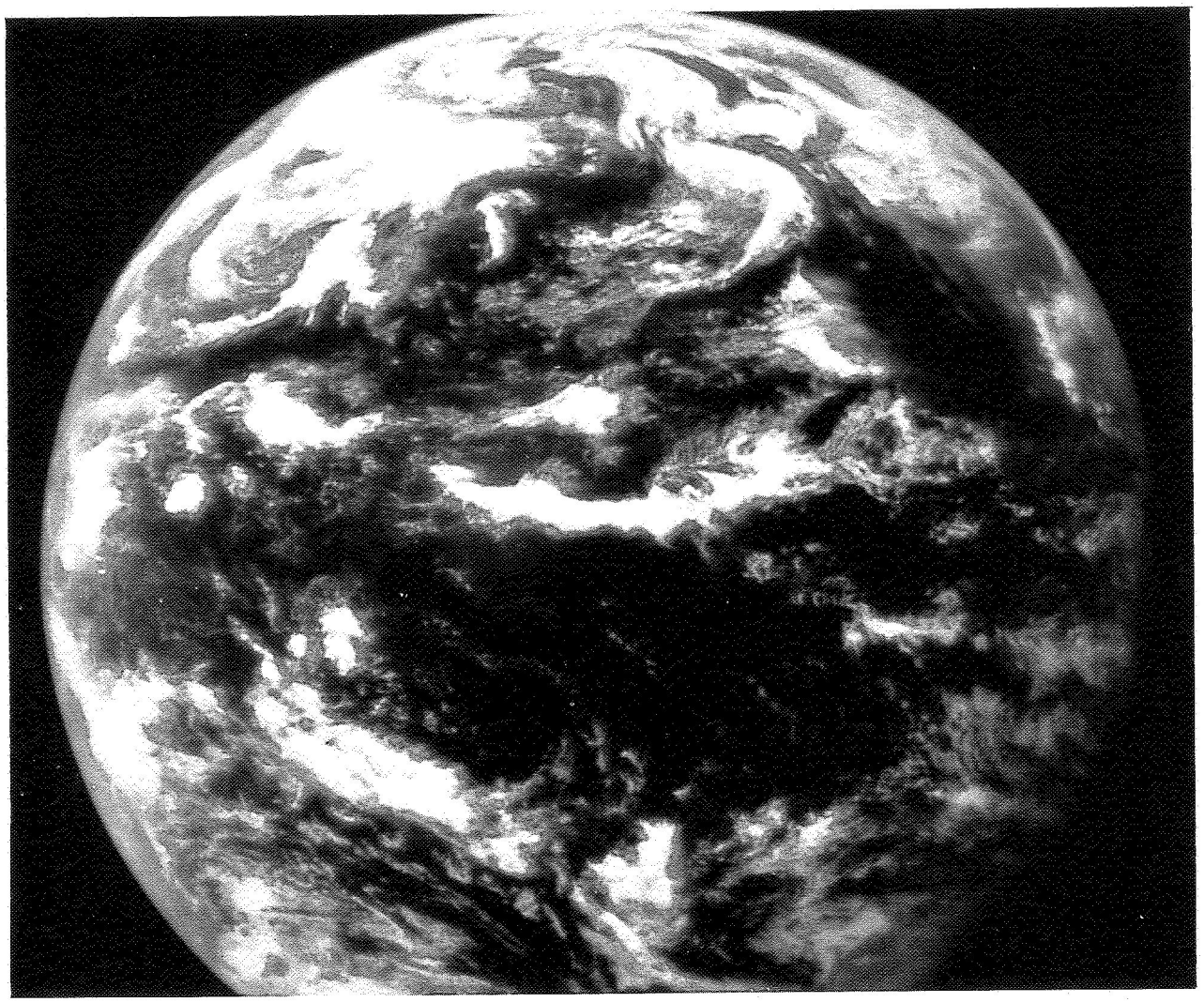
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 35 59	10	3001	1113F 2140A 2240G 4610D 4710H	MEXICO US
01	00 35 59	20	5001	5000A	
01	00 35 59	40	4000	2140A 2240A	
01	00 35 59	50	1001	1100G 2140A 2240F	
01	00 35 59	80	4000	2140A 2230A 4200A 4550A	ASTR NZ
02	00 59 16	00	1001		
03	03 34 00	00	1001		
04	03 57 12	00	4001		
05	06 25 03	00	5001		
06	06 48 22	00	5001		
07	07 11 42	00	5001		
08	12 41 21	00	5002		
09	13 04 44	00	5002		
10	15 20 23	00	4002		
11	15 43 43	00	4002		
12	16 07 03	05	5002	5000A	
12	16 07 03	10	3002	1113B 2140H 2230E 3100E 4610E 4710H	US MEXICO
12	16 07 03	20	4000	2140A 4610A 2240A	
12	16 07 03	50	1502	2140B 2240B 4610B	
12	16 07 03	60	4500	2140A 2240A	
13	17 00 00	00	3502		
14	17 23 23	00	3502		
15	17 46 43	00	3502		
16	18 10 07	00	3502		
17	21 47 50	05	5000	5000A	
17	21 47 50	10	3000	1100F 2140A 2230D 2240G 4610G 4710H	US MEXICO
17	21 47 50	20	4000	2140A 2240A 4200A	US MEXICO
17	21 47 50	40	4000	2140A 2240A	
17	21 47 50	50	1500	2140F 2240F	
17	21 47 50	60	4500	2140A 2240A	
17	21 47 50	80	4500	2140A 4200A	ASTR
18	22 11 08	00	3500		
19	22 34 27	00	3500		



ATS-I 1 MAY 1967 21 47 50 UT SEQ 17

2 MAY 67 SUBSATELLITE PT 150.07W 00.3IN TOTAL PICS 15

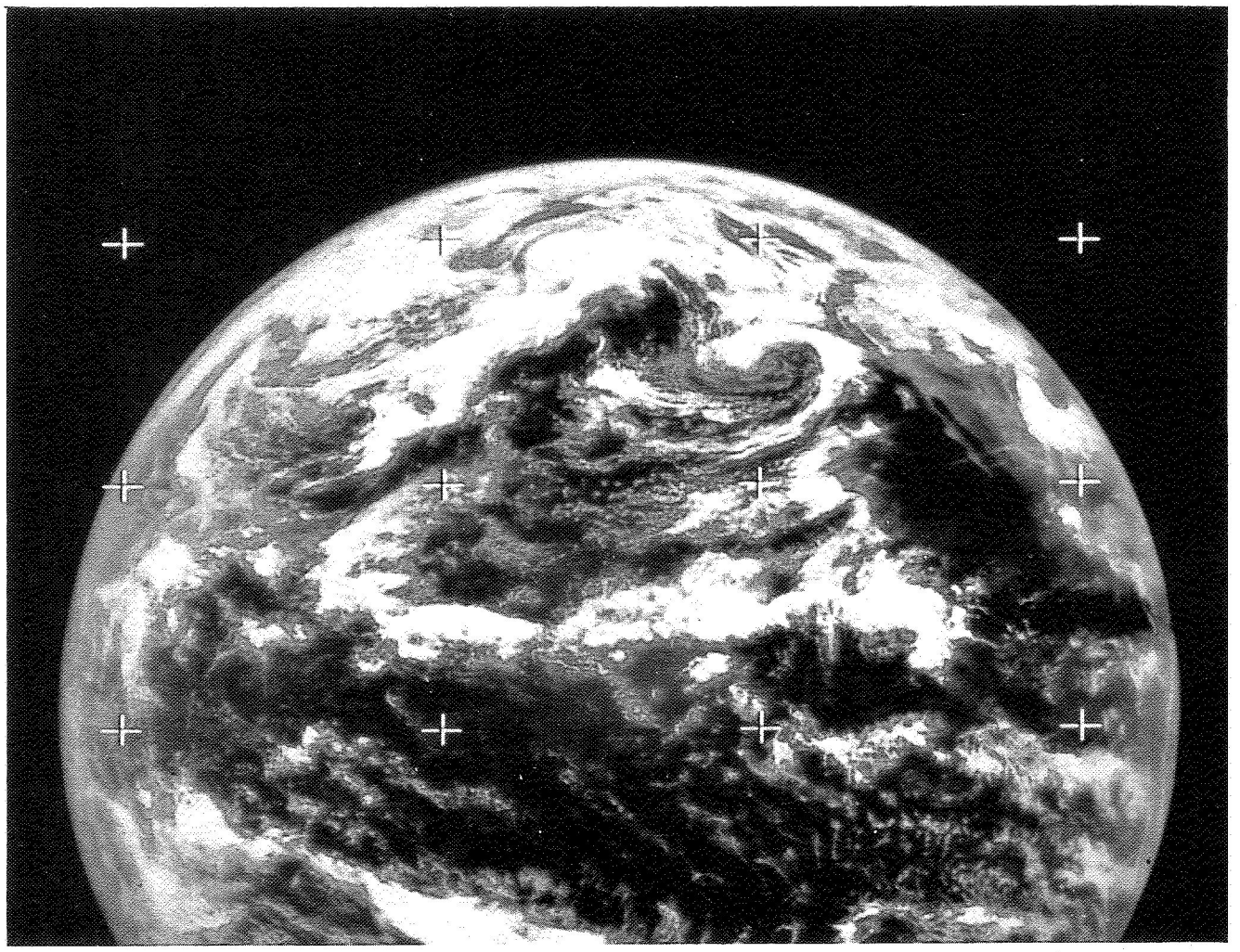
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 39 15	00	7000		
02	01 04 30	05	5000	5000A	
02	01 04 30	10	4001	1100F 2140A 2240G 2230D 4610D 4200H	MEXICO
02	01 04 30	40	4000	2140A 2240A	
02	01 04 30	50	1501	2140I 1100D 2240F	
02	01 04 30	80	4500	2140A 2240A 1100A 4550A 4200A	ASTR NZ
03	03 42 40	00	4501		PE EE
04	04 06 51	00	4501		EE
05	06 39 20	00	5501		
06	07 02 43	00	5501		EE
07	12 48 56	00	5502		PE EE
08	13 12 08	00	5502		EE
09	15 21 40	00	4502		PE EE
10	15 46 37	00	4002		PE
11	19 38 51	05	5000	5000A	
11	19 38 51	10	3000	1100F 2140A 2240G 3150E 4610E 4710H	MEXICO US
11	19 38 51	20	4000	2140A 4200A	MEXICO
11	19 38 51	40	4002	2140A 2240A	
11	19 38 51	50	1500	2240A 2140A	
11	19 38 51	60	4500	2140A 2240A	
11	19 38 51	80	4502	2140A	
12	20 02 14	00	3002		
13	20 25 34	00	3002		
14	22 46 52	05	5000	5000A	
14	22 46 52	10	3000	1100F 2140A 2240G 4610D 4710H	MEXICO US
14	22 46 52	20	4001	2140A 4200A 2240A	MEXICO
14	22 46 52	40	4000	2140A 2240A	
14	22 46 52	50	1500	2140A 2240B 2240C	
14	22 46 52	60	4501	2140A	
14	22 46 52	80	4500	2140A 2230A 4200A	ASTR
15	23 10 15	00	3501		



ATS-I 2 MAY 1967 22 46 52 UT SEQ 14

3 MAY 67 SUBSATELLITE PT 150.09W 00.30N TOTAL PICS 15

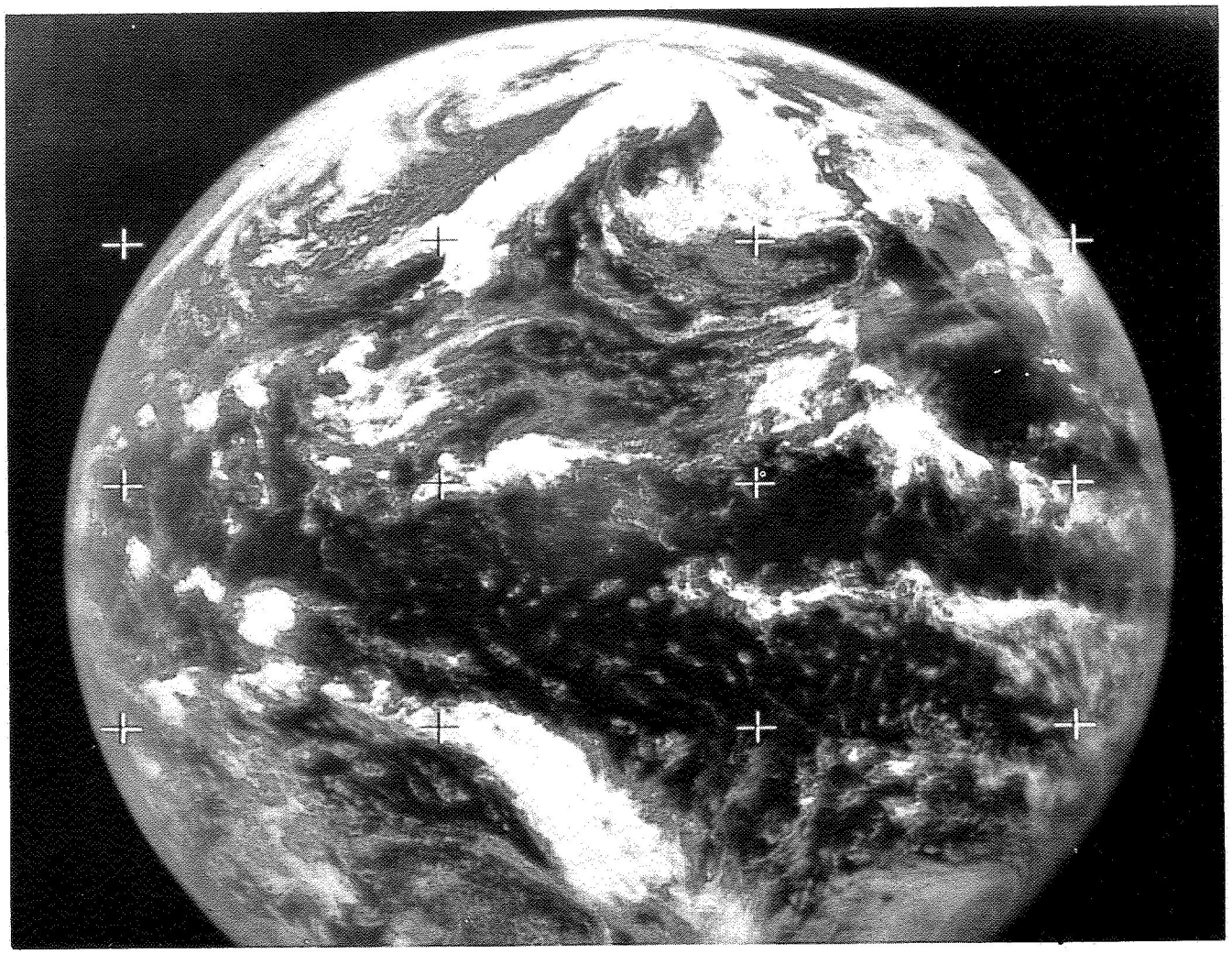
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 47 07	10	3001	1100J 2140A 2240G 4610D 4710H 2230D	MEXICO US
01	00 47 07	40	4000	2230A 2140A	
01	00 47 07	50	1001	1100D 2140A 2240F	
01	00 47 07	80	4000	2230A 2140A 4200A	ASTR
02	01 10 24	00	1001		
03	03 49 20	00	4001		
04	04 12 38	00	4001		
05	06 32 50	00	5001		
06	06 56 11	00	5001		
07	12 35 20	00	5002		
08	12 58 42	00	5002		
09	15 16 26	00	4002		
10	15 44 20	05	5000	5000A	
10	15 44 20	10	3002	1100B 2140H 2240E 4610E 4710H	MEXICO US
10	15 44 20	20	4000	2140A 2240A 4610A	
10	15 44 20	50	1002	2240B 1100E 2140H	
10	15 44 20	60	4000	2240A 2140A	
11	18 07 50	00	3502		
12	18 31 04	00	3502		EE
13	18 54 40	05	5000	5000A	
13	18 54 40	10	3002	1100J 2140A 2240G 4610E 4710H	MEXICO US
13	18 54 40	20	4000	2140A 4200A	MEXICO
13	18 54 40	50	4500	2240F 2140C	
13	18 54 40	60	4500	2240A	
13	18 54 40	80	5500	2240A	
14	21 36 42	00	3500		
15	22 00 07	05	5000	5000A	
15	22 00 07	10	3000	1100J 2140A 2240G 3100G 4610G 4710H	MEXICO US
15	22 00 07	20	4000	2140A 2240A	
15	22 00 07	40	4000	2140A 2240A	
15	22 00 07	50	1500	2240F 2140F	EE
15	22 00 07	60	4500	2240A	EE
15	22 00 07	80	4500	2140A 2230A 4200A	EE ASTR



ATS-I 3 MAY 1967 21 36 42 UT SEQ 14

4 MAY 67 SUBSATELLITE PT 150.11W 00.31N TOTAL PICS 12

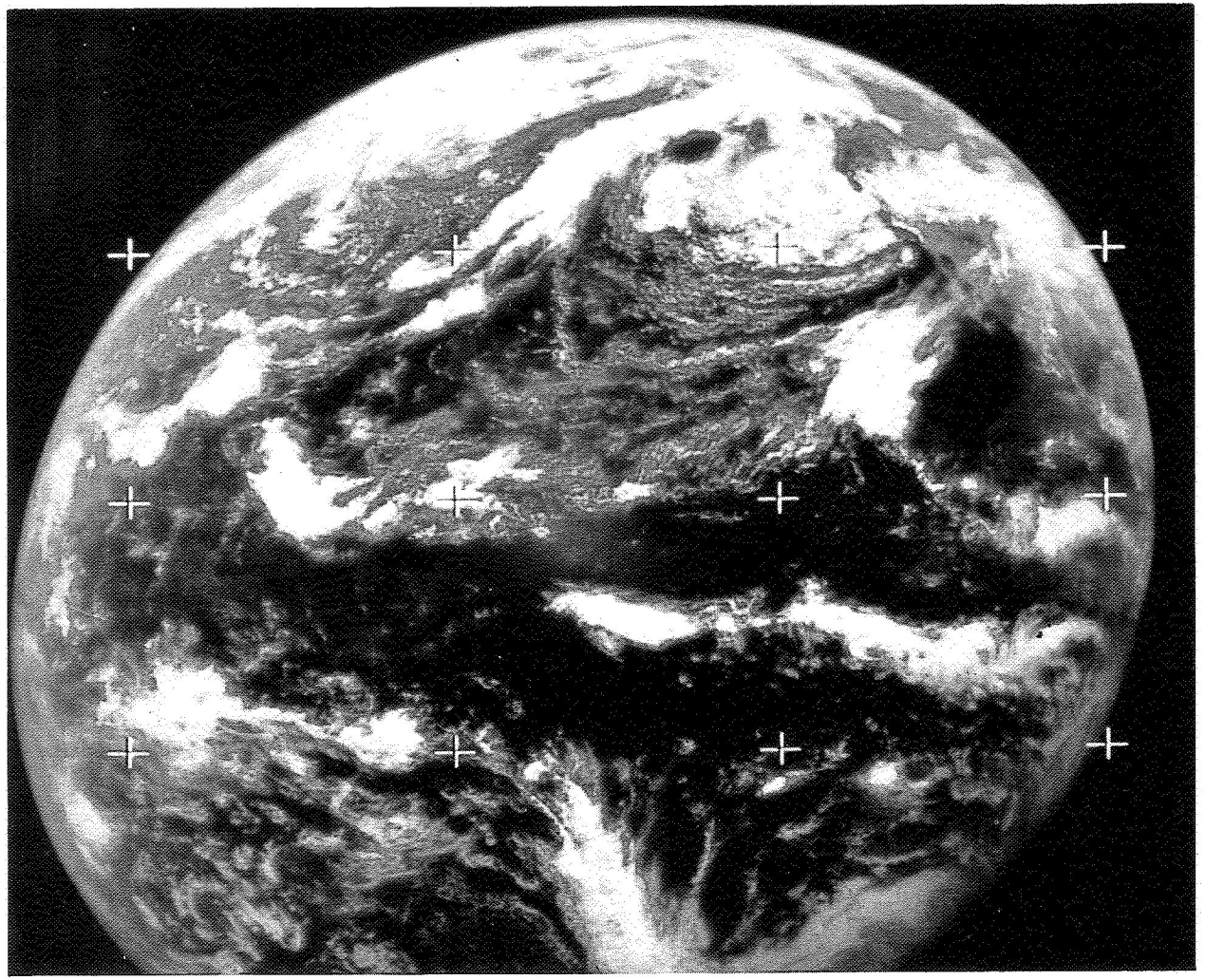
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	01 07 02	05	5000	5000A	
01	01 07 02	10	4001	1100J 2140A 2240G 2230D 4610D 4200A	US
01	01 07 02	40	4000	2230A 2140A	
01	01 07 02	50	1501	1100D 2140A 2240F	
01	01 07 02	80	4500	2140A 2230A 4200A 4550A	ASTR NZ
02	03 33 10	00	4501		EE
03	03 56 32	00	4501		
04	12 54 05	00	5502		
05	13 17 30	00	5502		
06	13 40 57	00	5502		
07	15 01 05	00	4502		
08	15 44 08	00	4502		PE
09	17 18 02	05	5000	5000A	
09	17 18 02	10	3002	1100F 2140A 2240G 2230E 4610E 4710H	MEXICO US
09	17 18 02	20	4000	2140A 2240A 4200A	MEXICO
09	17 18 02	50	1502	2240F 2140A 4610B	
09	17 18 02	60	4500	2240A	
10	21 37 52	00	7000		
11	22 01 17	05	5000	5000A	
11	22 01 17	10	3000	1100F 2140A 2240G 3100F 4610G 4710H	MEXICO US
11	22 01 17	20	4000	2140A 2240A 4200A	MEXICO
11	22 01 17	40	4000	2140A	
11	22 01 17	50	1500	2140K 2240F 3100A 1100E	
11	22 01 17	60	4500	2240A 1100A	
11	22 01 17	80	4500	2230A 4200A	ASTR
12	22 24 40	00	3000		



ATS-I 4 MAY 1967 22 01 17 UT SEQ 11

5 MAY 67 SUBSATELLITE PT 150.15W 00.30N TOTAL PICS 14

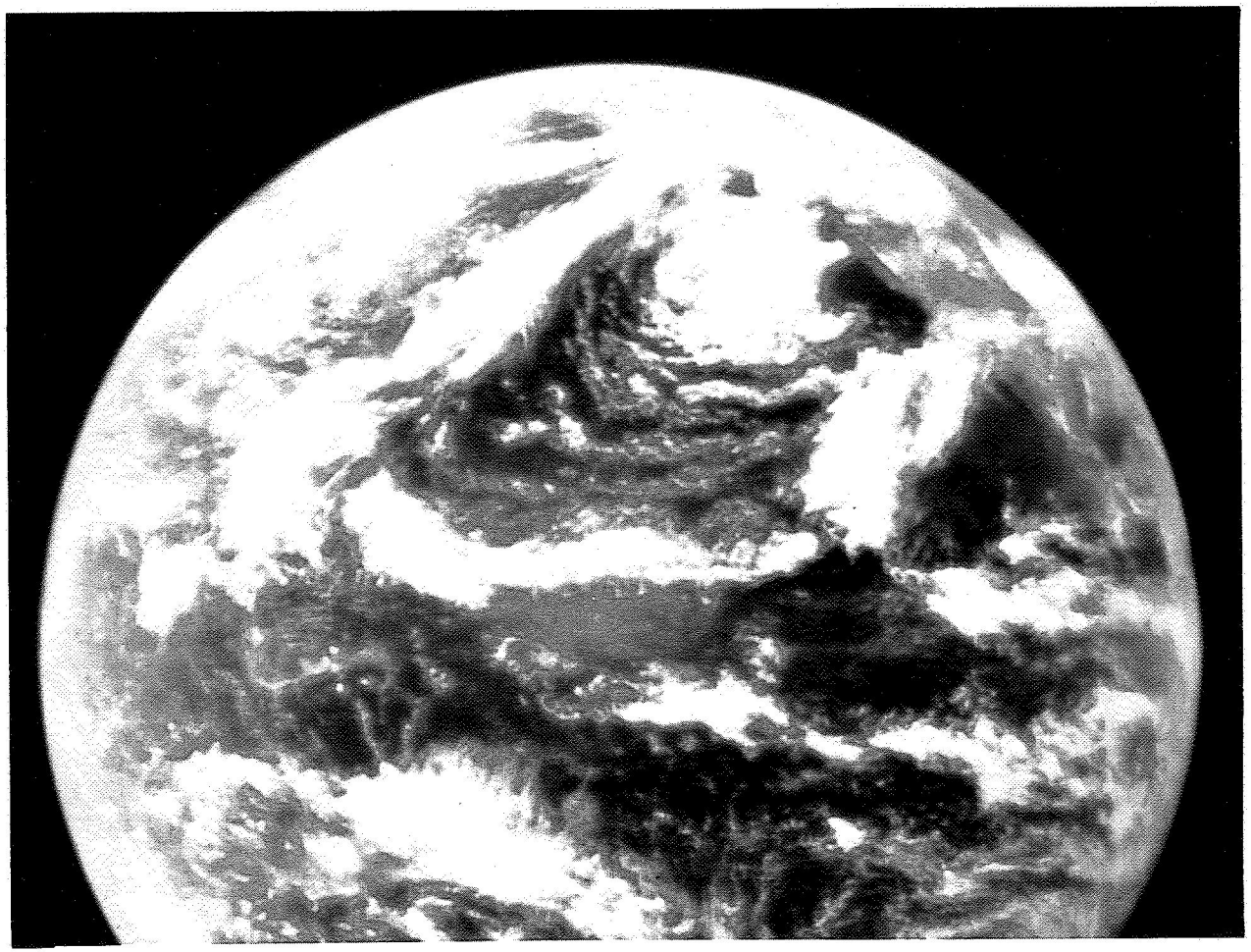
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 38 50	10	3001	1100F 2140A 2240G 3100E 4610D 4200H	MEXICO US
01	00 38 50	20	5001	5000A	
01	00 38 50	40	4000	2140A 2240A	
01	00 38 50	50	1001	2240F 2140K 1100D	
01	00 38 50	80	4000	2230A 2140A 2240A 4200A	ASTR
02	01 02 16	00	1001		
03	04 05 06	00	7000		
04	04 28 02	00	4501		
05	06 01 49	00	4501		
06	06 25 12	00	5501		
07	06 48 35	00	5501		
08	07 12 02	00	5501		
09	07 35 24	00	5501		PE EE
10	15 16 38	00	4002		
11	15 38 32	00	4002		
12	22 01 54	00	3000		UG EE
13	22 25 04	00	3500		UG EE
14	22 36 40	05	5000	5000A	
14	22 36 40	10	3000	1100F 2140A 2240G 2230E 4610D 4200H	MEXICO US
14	22 36 40	20	5000	2140A	PIC OFFSET
14	22 36 40	40	4000	2140A 2240A	
14	22 36 40	50	1500	2240F 2140A 2230C	
14	22 36 40	60	5500	2140A	PIC OFFSET
14	22 36 40	80	4500	2230A 2140A 4200A	ASTR



ATS-I 5 MAY 1967 22 01 54 UT SEQ 12

6 MAY 67 SUBSATELLITE PT 150.19W 00.30N TOTAL PICS 22

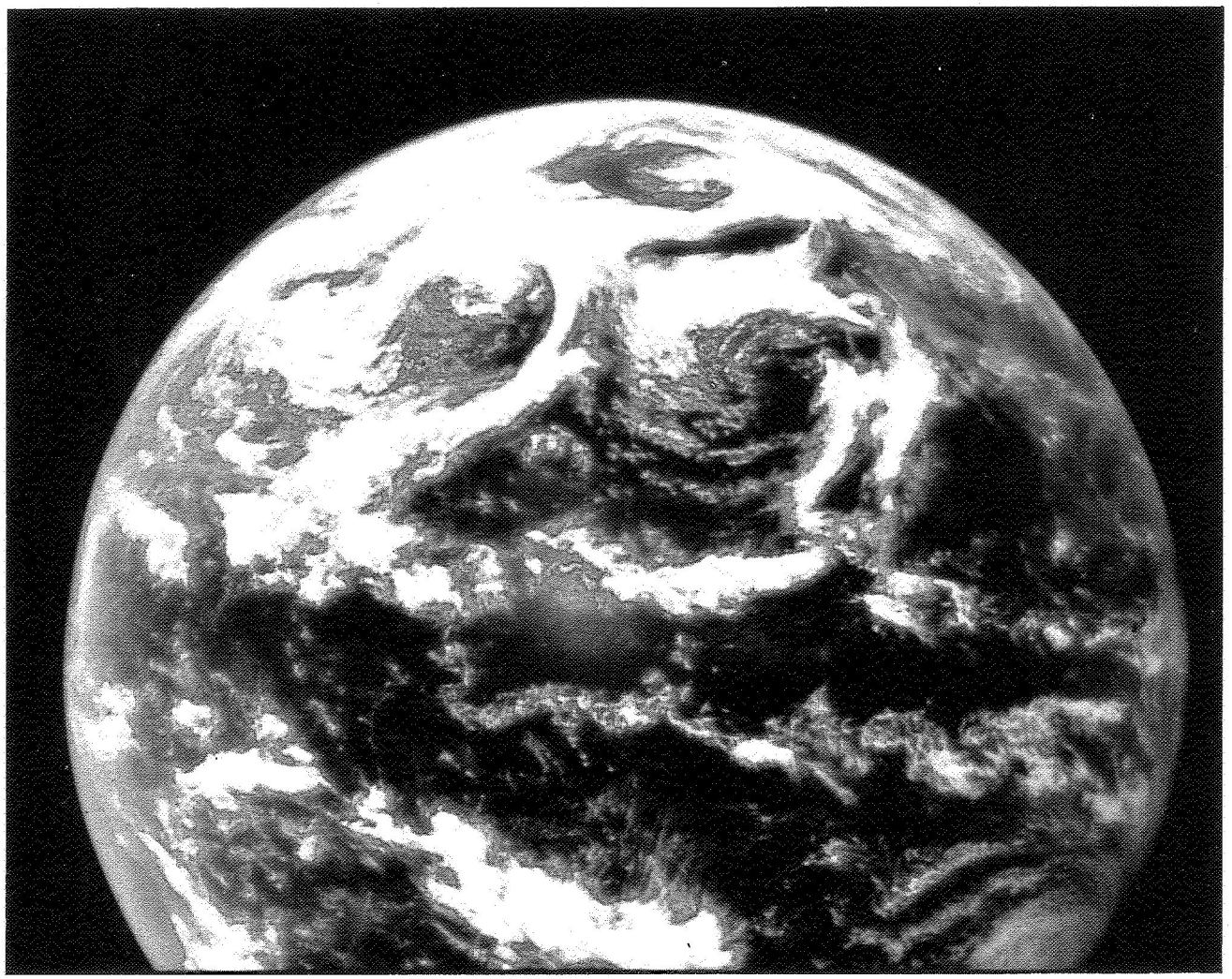
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 28 42	10	1001	1100F 2140A 2240G 2230D 3100E 4610D	US EE
01	00 28 42	20	5001	2140A	EE
01	00 28 42	40	4000	2140A 2240A	EE
01	00 28 42	50	1001	2140A 2240F 3100C	
01	00 28 42	80	4000	2140A 2240A 2230A	
02	00 52 07	00	1001		
03	01 15 30	00	1001		
04	03 36 33	00	7000		
05	03 45 31	00	4001		
06	04 09 57	00	4001		
07	06 43 48	00	5001		
08	07 07 26	00	5001		
09	12 41 11	00	5002		
10	13 04 33	00	5002		
11	15 04 03	00	4002		
12	15 27 26	00	4002		
13	16 26 59	00	7000		
14	17 37 37	05	5000	5000A	
14	17 37 37	10	3002	1100B 2140A 2240G 3100G 4610E 4200H	US MEXICO
14	17 37 37	20	4000	2140A 2240A	
14	17 37 37	50	1502	2240F 2140F	
14	17 37 37	60	4500	2240F	
15	18 01 01	00	4502		
16	18 24 25	00	4502		
17	19 01 41	00	4502		
18	21 39 23	00	7000		
19	22 02 48	05	5000	5000A	
19	22 02 48	10	3000	1100F 2140A 2240G 2230D 4610G 4200H	US MEXICO
19	22 02 48	20	4000	2140A 2240A	
19	22 02 48	40	4000	2140A 2240A	
19	22 02 48	50	1500	2240F 2140C 4610C	
19	22 02 48	60	4500	2240A	
19	22 02 48	80	4500	2240A	
20	22 26 05	00	3500		
21	22 49 28	00	3500		
22	23 12 52	00	7000		



ATS-I 6 MAY 1967 22 02 48 UT SEQ 19

7 MAY 67 SUBSATELLITE PT 150.23W 00.29N TOTAL PICS 18

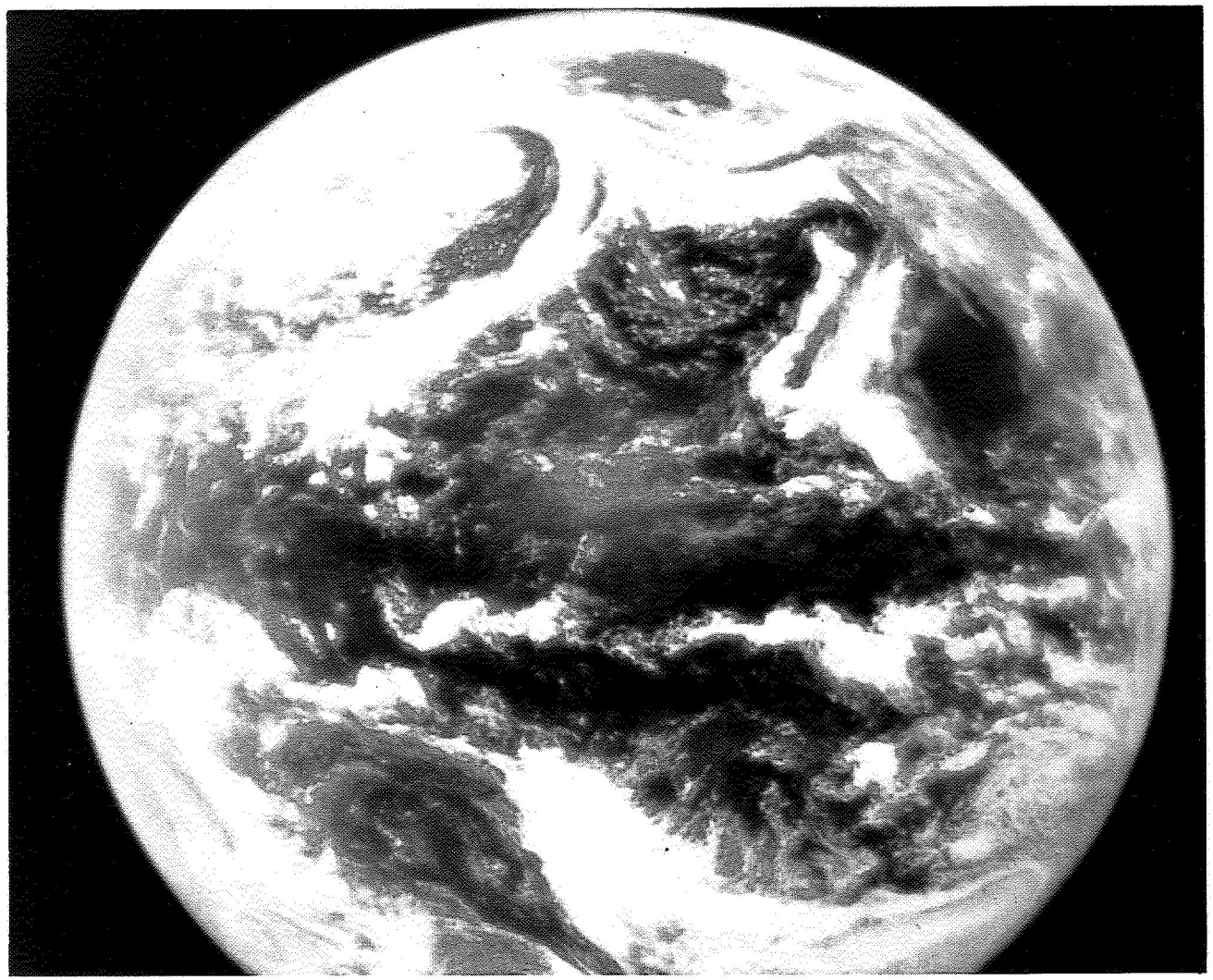
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 39 57	05	5000	5000A	
01	00 39 57	10	1001	1100F 2140A 2240G 2230D 3100G 4610D	US
01	00 39 57	40	4000	2140A 2230A	
01	00 39 57	50	1501	2140A 2240F	
01	00 39 57	80	4500	2140A 2240A	
02	01 03 17	00	1001		
03	03 33 38	00	1001		
04	03 57 03	00	4001		
05	06 31 13	00	5501		
06	06 54 37	00	5501		
07	12 37 16	00	5502		
08	13 00 39	00	5502		
09	15 11 54	00	4502		
10	15 35 18	00	4502		EE
11	15 58 31	05	5000	5000A	
11	15 58 31	10	1002	1100F 2140A 2240E 4610E 4200B	US
11	15 58 31	20	4000	1100A 2140A 2240A 4610A	
11	15 58 31	50	1502	1100H 2240F 4610B	
11	15 58 31	60	4500	1100A 2240A 4610A	
12	16 43 48	00	4002		
13	18 06 55	00	3502		
14	18 30 10	00	3502		
15	18 53 44	00	3502		
16	21 28 11	00	3502		
17	21 51 28	00	3500		
18	22 14 51	05	5000	5000A	
18	22 14 51	10	3000	1100F 2140A 2240G 3100H 4610A 4710H	US MEXICO
18	22 14 51	20	4000	2240A	
18	22 14 51	40	4000	1100A 2140A 2240A	
18	22 14 51	50	1500	2240F 2140F 3100B	
18	22 14 51	60	4500	2240A	
18	22 14 51	80	4500	2140A 2240A 2230A 4200A	ASTR



ATS-I 7 MAY 1967 22 14 51 UT SEQ 18

8 MAY 67 SUBSATELLITE PT 150.26W 00.30N TOTAL PICS 4

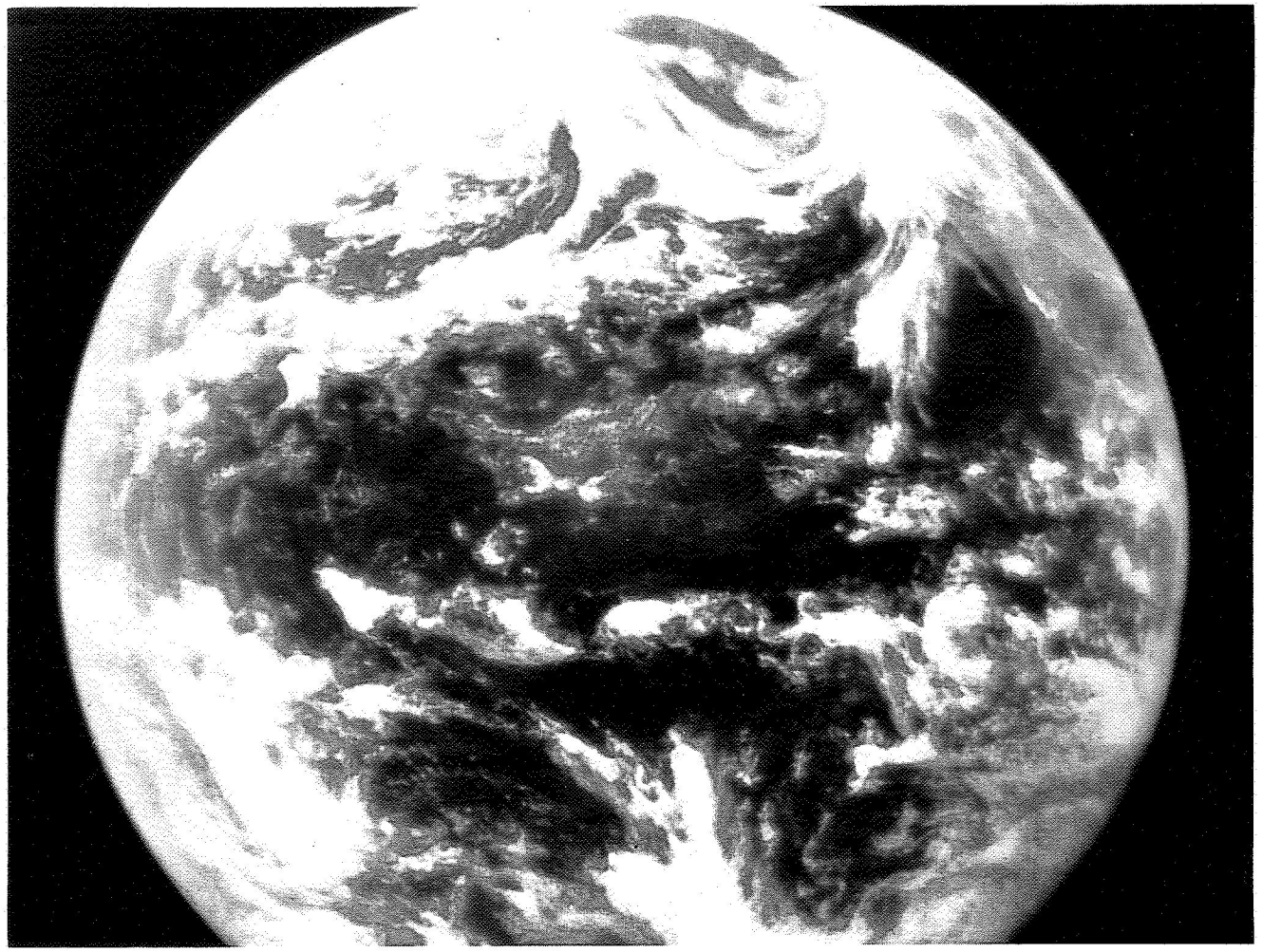
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	04 53 47	00	5001		
02	21 52 15	05	5000	5000A	
02	21 52 15	10	3000	1100F 2145C 2142J 2240G 4610G 4200H	US MEXICO
02	21 52 15	20	4000	2240A 4200A	MEXICO
02	21 52 15	40	4000	2140A 2230A	
02	21 52 15	50	1000	2240F 2140A	
02	21 52 15	60	4000	2140A 2240A	
02	21 52 15	80	4000	2140A 2240A 4200A	ASTR
03	22 15 41	00	3000		
04	22 39 08	00	3000		



ATS-I 8 MAY 1967 21 52 15 UT SEQ 2

9 MAY 67 SUBSATELLITE PT 150.30W 00.30N TOTAL PICS 10

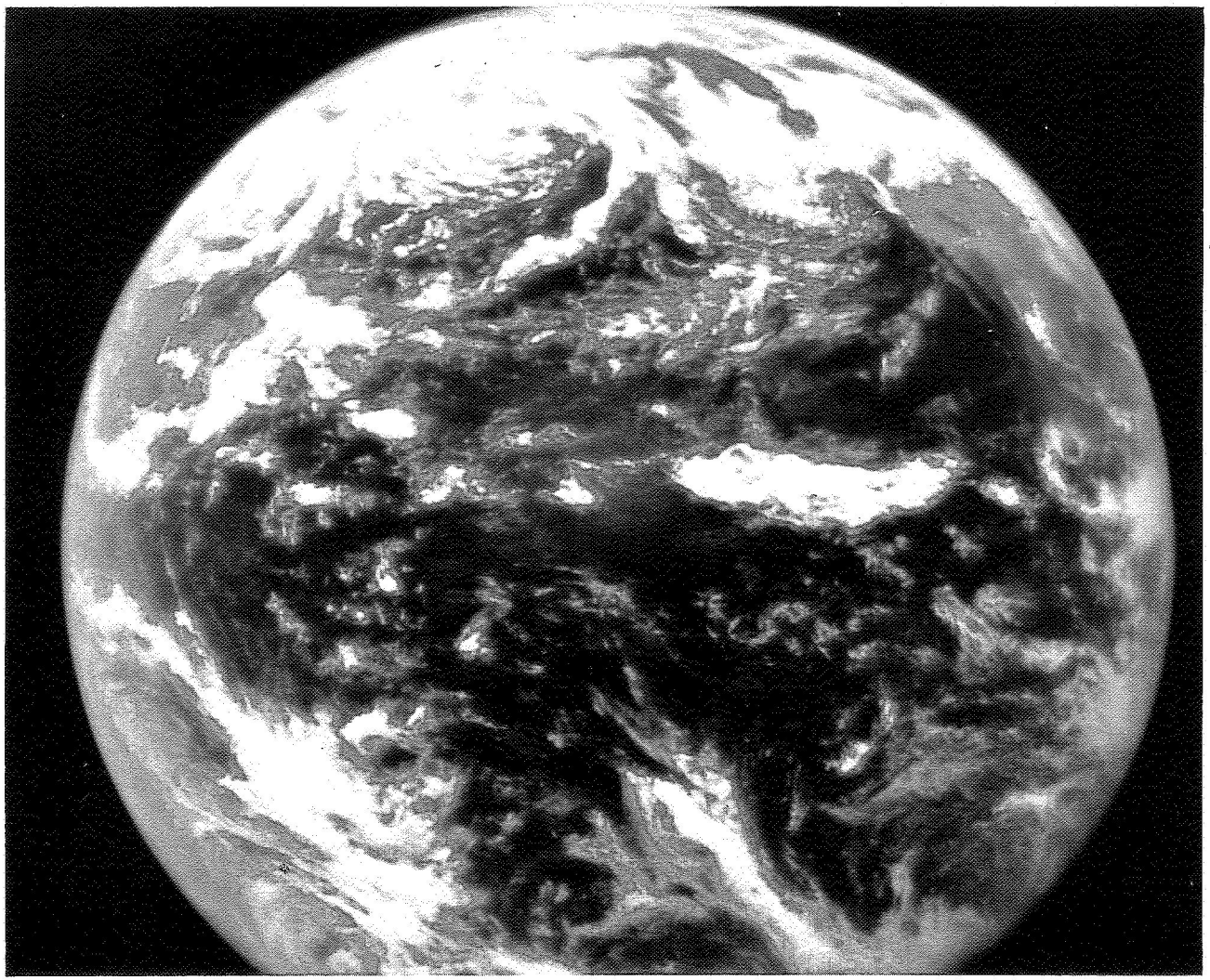
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 47 36	10	3001	1100A 2145C 2142J 2230D 4610D 4200H	US MEXICO
01	00 47 36	20	5001	5000A	
01	00 47 36	40	4000	2140A 2240A	
01	00 47 36	50	1001	2140K 2240F	
01	00 47 36	80	4000	2140A 2230A 4200A	ASTR
02	01 11 00	00	1001		EE
03	03 40 27	00	4001		
04	04 11 22	00	4001		
05	06 45 36	00	5001		
06	07 08 56	00	7000		
07	21 35 24	00	3000		
08	22 03 02	05	5000	5000A	
08	22 03 02	10	3000	1114F 2140A 2240G 4610G 4200H	MEXICO
08	22 03 02	20	4000	2240A	MEXICO
08	22 03 02	40	4000	2140A 2240A	
08	22 03 02	50	1000	2140A 2240F	
08	22 03 02	60	4000	2240A	
08	22 03 02	80	4000	2140A 2240A 4200A	ASTR
09	22 58 06	00	3000		
10	23 21 32	00	3001		



ATS-I 9 MAY 1967 22 03 02 UT SEQ 8

10 MAY 67 SUBSATELLITE PT 150.34W 00.27N TOTAL PICS 5

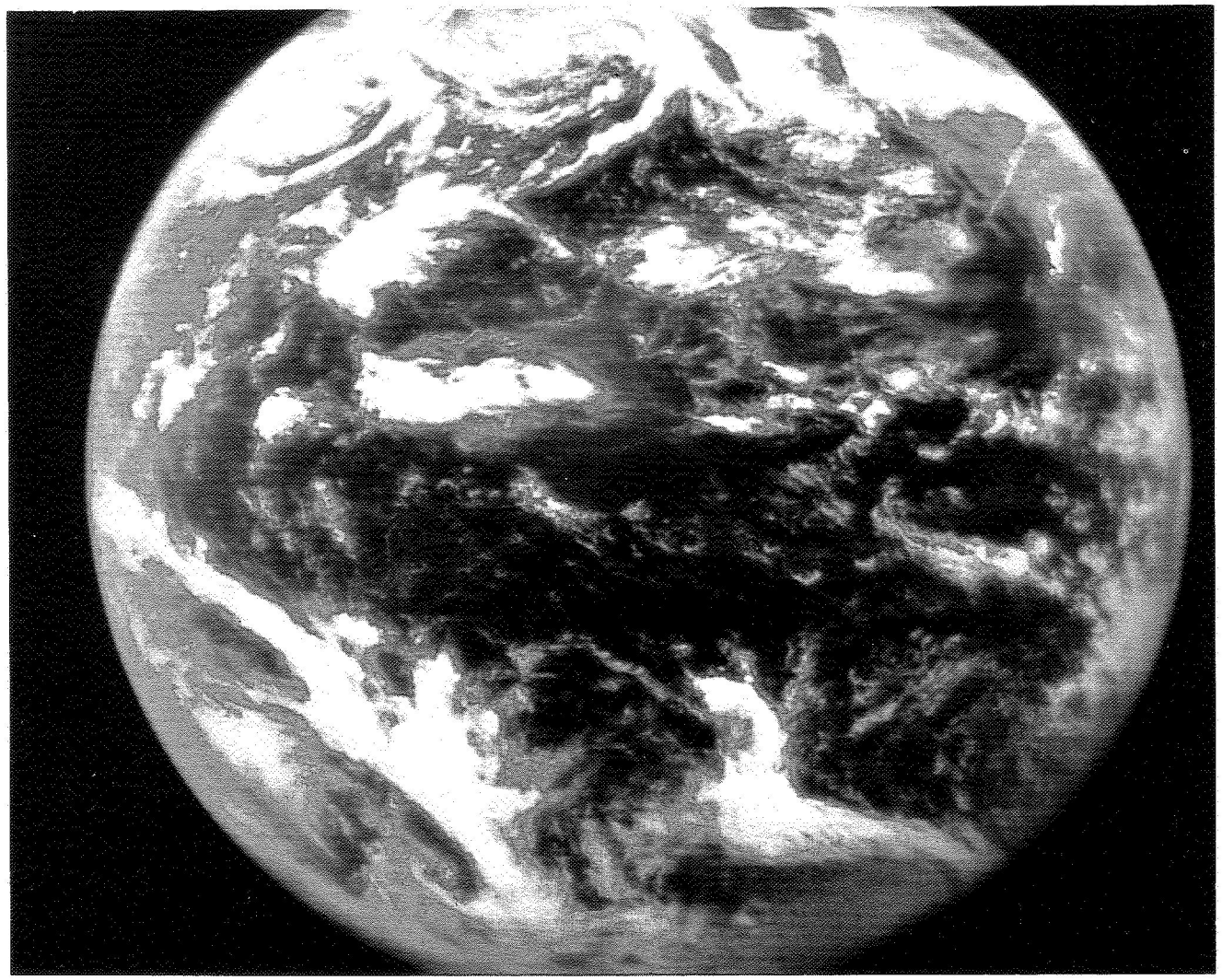
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 12 39	00	1001		
02	03 41 05	00	1001		
03	21 12 43	00	3000		
04	21 34 21	00	7000		
05	21 59 41	05	5000	5000A	
05	21 59 41	10	3000	2140A 1100C 2240G 4610G 4710H	US MEXICO
05	21 59 41	20	4000	2240A 4200A	MEXICO
05	21 59 41	40	4000	2140A 2240A	
05	21 59 41	50	1000	2140A 2240A	
05	21 59 41	60	4000	2240A	
05	21 59 41	80	4000	2230A 2140A 4200A	ASTR



ATS-I 10 MAY 1967 21 59 41 UT SEQ 5

11 MAY 67 SUBSATELLITE PT 150.37W 00.27N TOTAL PICS 11

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 37 55	10	3001	1100C 2140J 2240G 2230D 4200H 4610D	MEXICO US
01	00 37 55	40	4000	2140A 1100A 2240A	
01	00 37 55	50	1001	1100D 2140A 2240F	
01	00 37 55	80	4000	2140A 4200A	ASTR
02	01 01 21	00	1001		
03	03 49 41	00	4001		
04	04 13 07	00	4501		
05	07 02 24	00	5501		
06	07 25 50	00	5501		
07	20 57 04	00	3002		PE
08	21 20 30	00	3000		PE
09	21 44 59	00	7000		
10	21 46 31	00	3000		
11	22 09 53	10	3000	1100C 2140A 2240G 4610D 4710H	MEXICO US
11	22 09 53	20	4000	2140A 2240A 4200A	MEXICO
11	22 09 53	40	4000	1100A 2140A 2240A	
11	22 09 53	50	1000	2143A 1100D 2240F 3100B	
11	22 09 53	60	4000	2140A 2240A	
11	22 09 53	80	4000	2140A 2240A 4200A	ASTR

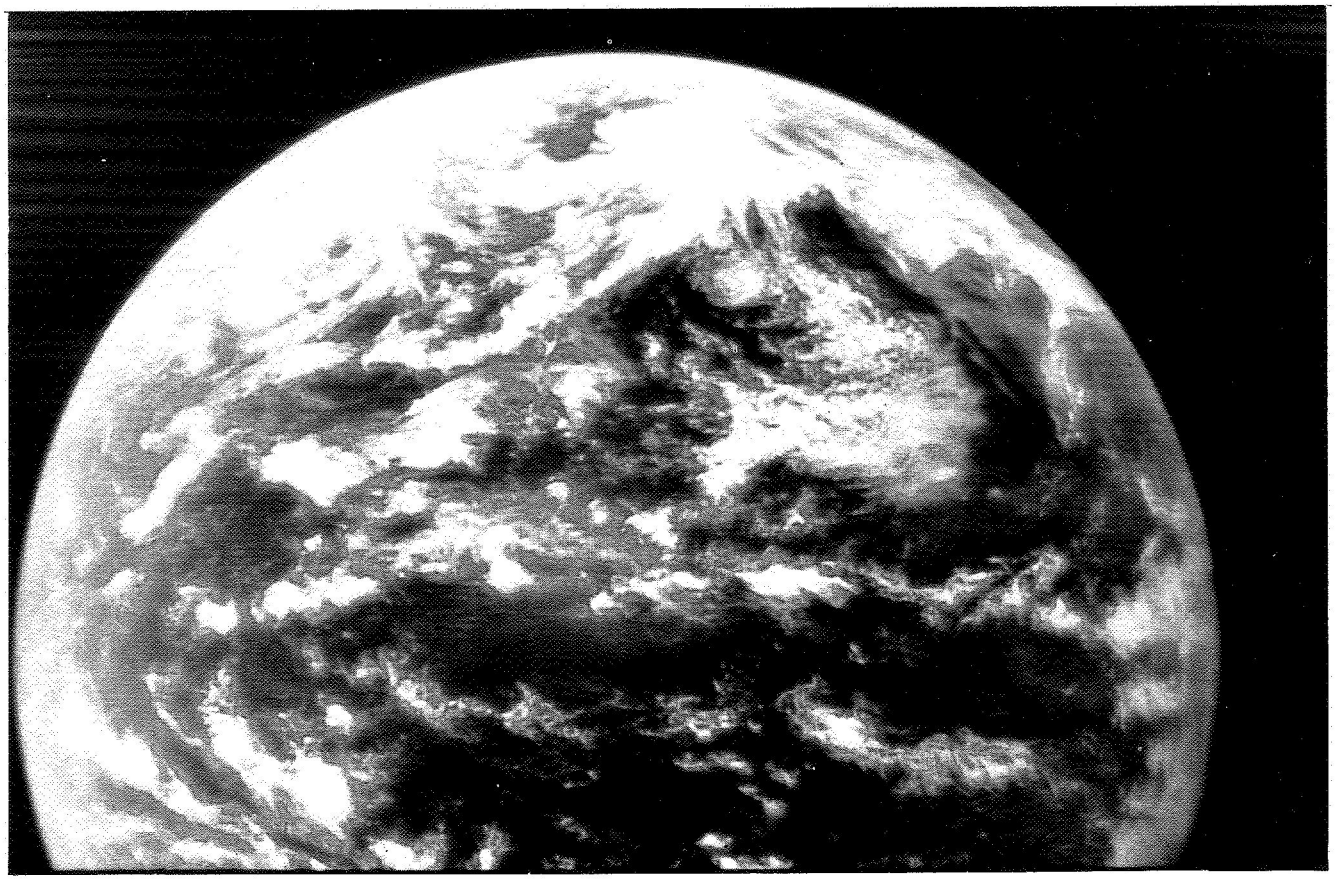


ATS-I 11 MAY 1967 22 09 53 UT SEQ 11

4

12 MAY 67 SUBSATELLITE PT 150.39W 00.26N TOTAL PICS 10

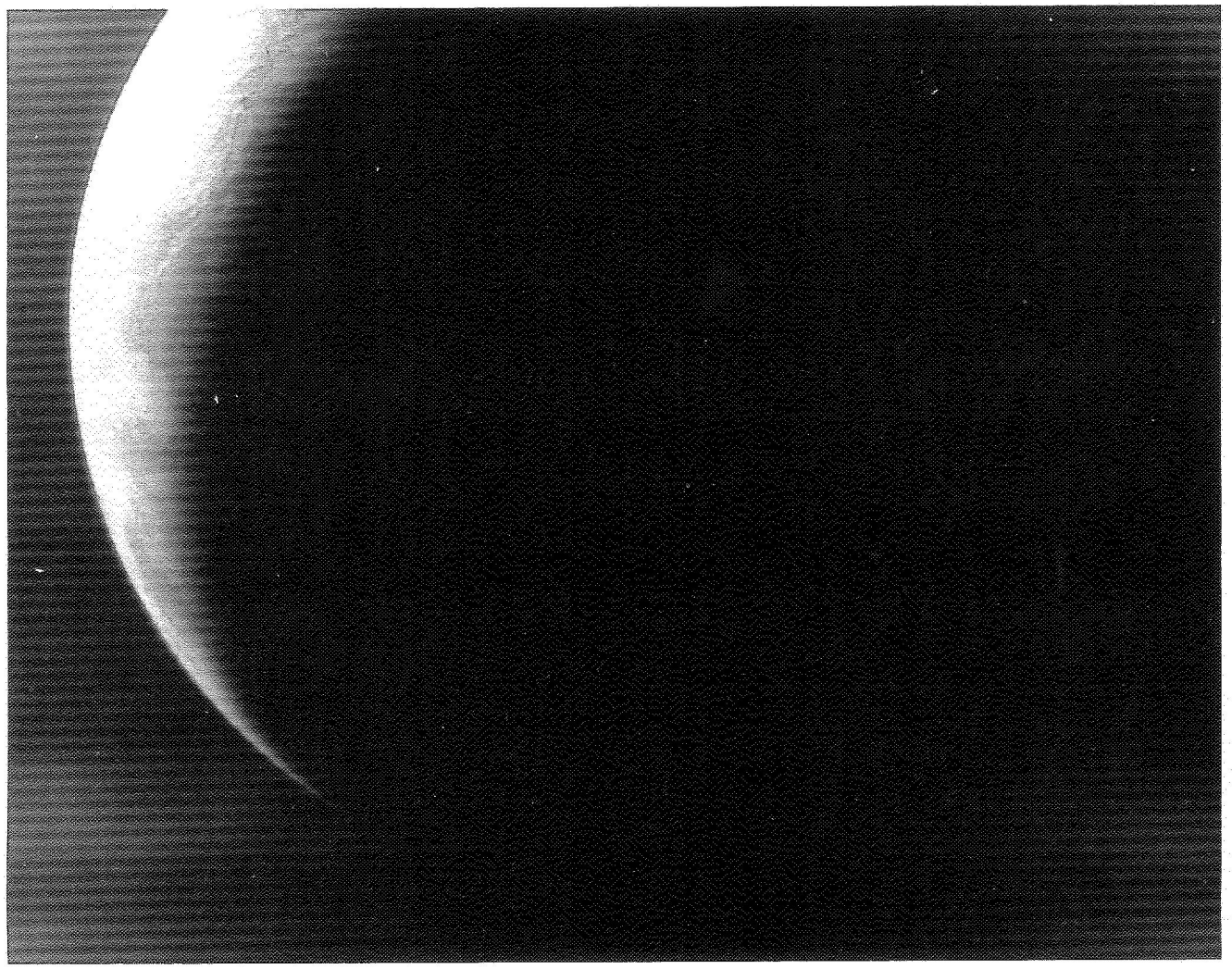
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 57 37	10	4501	1114C 2140A 2240G 2230D 4610D 4200H	US MEXICO EE
01	00 57 37	20	5501	5000A	EE
01	00 57 37	40	4500	2140A 2240A	EE
01	00 57 37	50	1001	1100A 2140A 2240F	EE
01	00 57 37	80	4000	2140A 2240A 4200A	ASTR EE
02	01 01 03	00	4001		EE
03	04 36 39	00	4001		EE
04	05 00 11	00	5001		EE
05	07 21 38	00	5001		EE
06	07 45 05	00	5001		EE
07	21 07 30	00	7000		
08	21 30 59	00	3002		EE
09	21 54 27	00	3002		EE PE
10	22 18 00	05	5000	5000A	EE
10	22 18 00	10	3000	1100F 2140A 2240G 4610G 4710H	EE
10	22 18 00	20	4000	2140A 2240A	EE
10	22 18 00	40	4000	2140A	EE
10	22 18 00	50	1500	2240F 2230C	EE
10	22 18 00	60	4500	2240A	EE
10	22 18 00	80	4500	2240A	EE



ATS-I 12 MAY 1967 22 18 00 UT SEQ 10

13 MAY 67 SUBSATELLITE PT 150.42W 00.25N TOTAL PICS 2

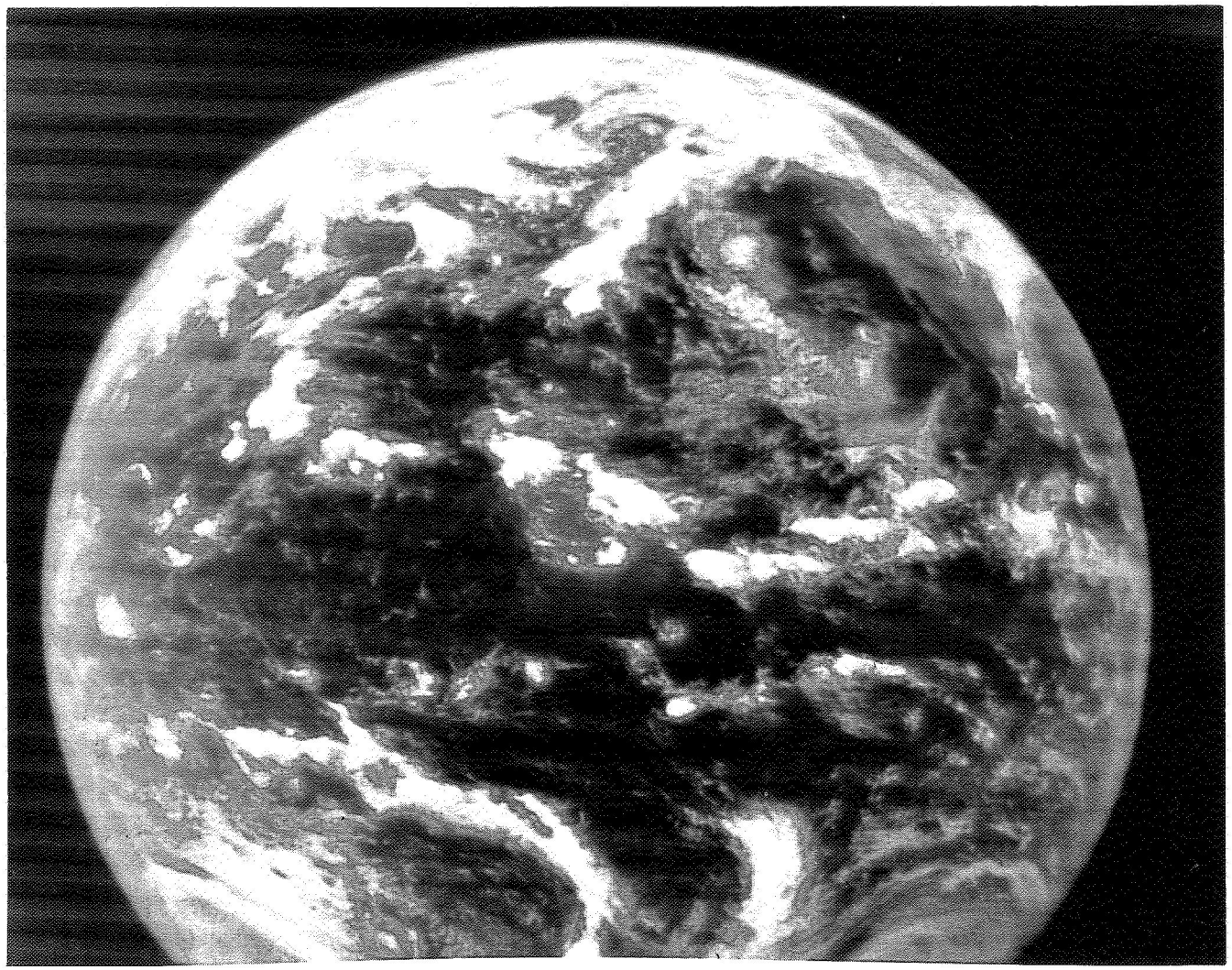
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	06 34 54	00	5501		EE
02	06 58 29	00	5501		EE



ATS-I 13 MAY 1967 06 34 54 UT SEQ 1

14 MAY 67 SUBSATELLITE PT 150.45W 00.34N TOTAL PICS 4

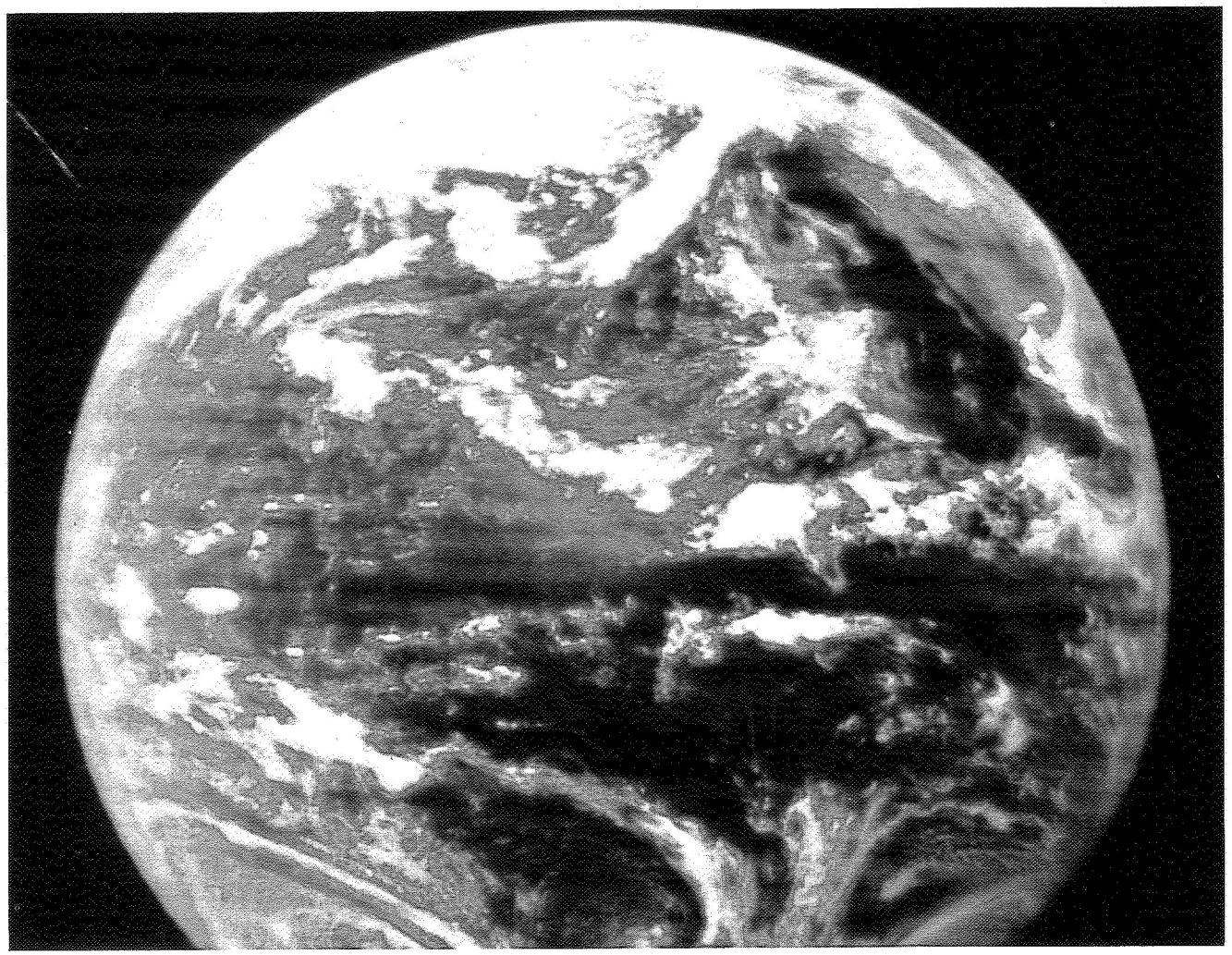
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 25 38	00	7000		
02	21 47 43	05	5000	5000A	
02	21 47 43	10	3000	1100F 2140A 2240G 4610G 4710H	MEXICO US
02	21 47 43	20	4000	2140A 2240A 4200A	MEXICO
02	21 47 43	40	4000	2140A 2240A	
02	21 47 43	50	1500	2240F 2140A 3100H	
02	21 47 43	60	4500	2240A 3100A	
02	21 47 43	80	4500	2140A 2240A	
03	22 11 14	00	3000		EE
04	22 34 47	00	3000		EE



ATS-I 14 MAY 1967 21 47 43 UT SEQ 2

15 MAY 67 SUBSATELLITE PT 150.49W 00.33N TOTAL PICS 8

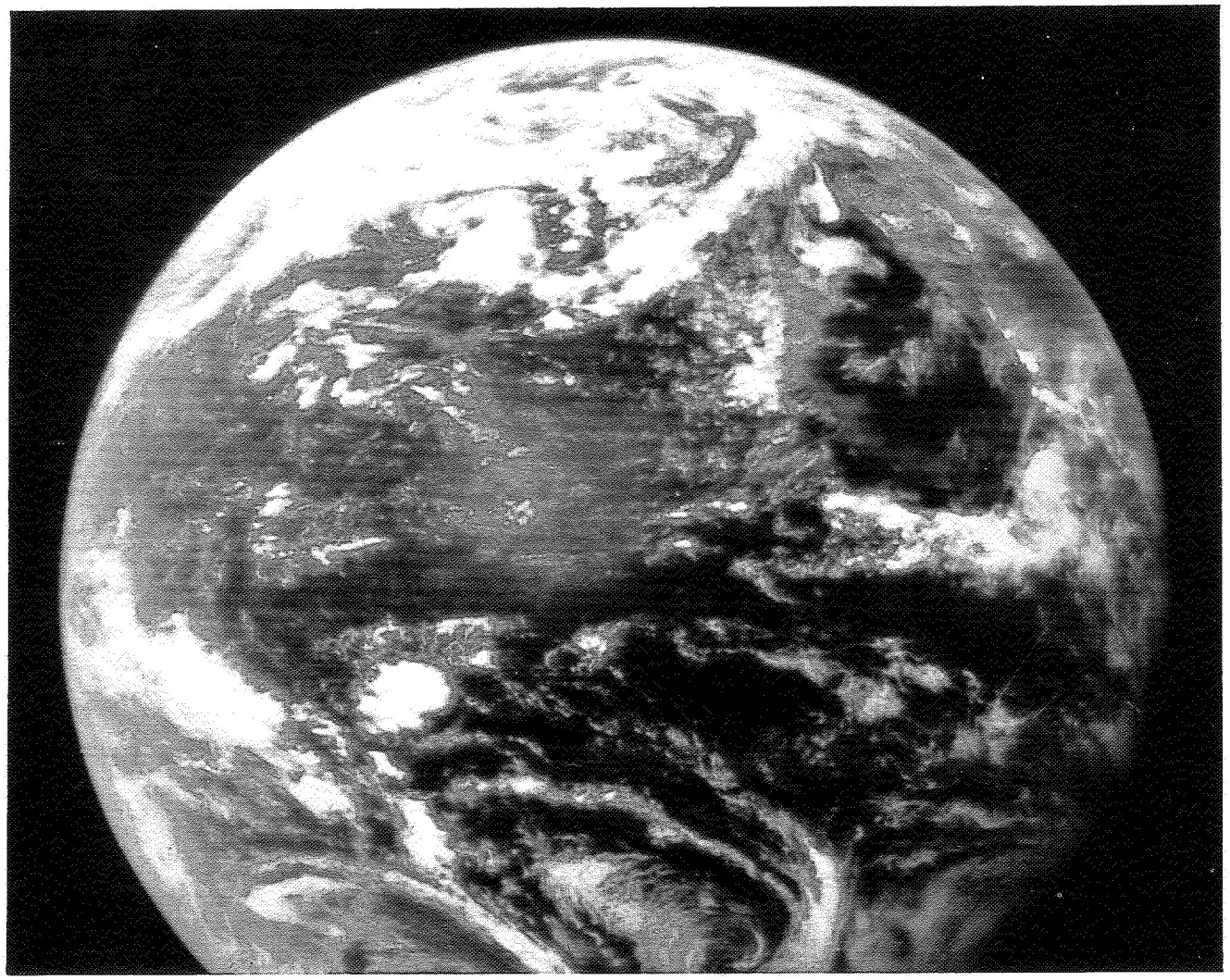
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 58 00	00	4001		EE
02	03 21 29	00	4001		EE
03	03 45 02	00	4001		EE
04	16 22 00	00	7000		
05	16 46 06	00	7000		
06	21 38 08	00	3000		EE
07	22 01 37	05	5000	5000A	EE
07	22 01 37	10	3000	1100F 2140A 2240G 4610G 4200H 4550C	US MEXICO HAW
07	22 01 37	20	4000	2140A 2240A 4200A	MEXICO
07	22 01 37	40	4000	2140A	
07	22 01 37	50	1500	2240F 2140A 2230C 1114I	
07	22 01 37	60	4500	2140A	
07	22 01 37	80	4500	2140A 2230A 1114A	
08	22 25 05	00	3000		



ATS-I 15 MAY 1967 22 01 37 UT SEQ 7

16 MAY 67 SUBSATELLITE PT 150.52W 00.32N TOTAL PICS 9

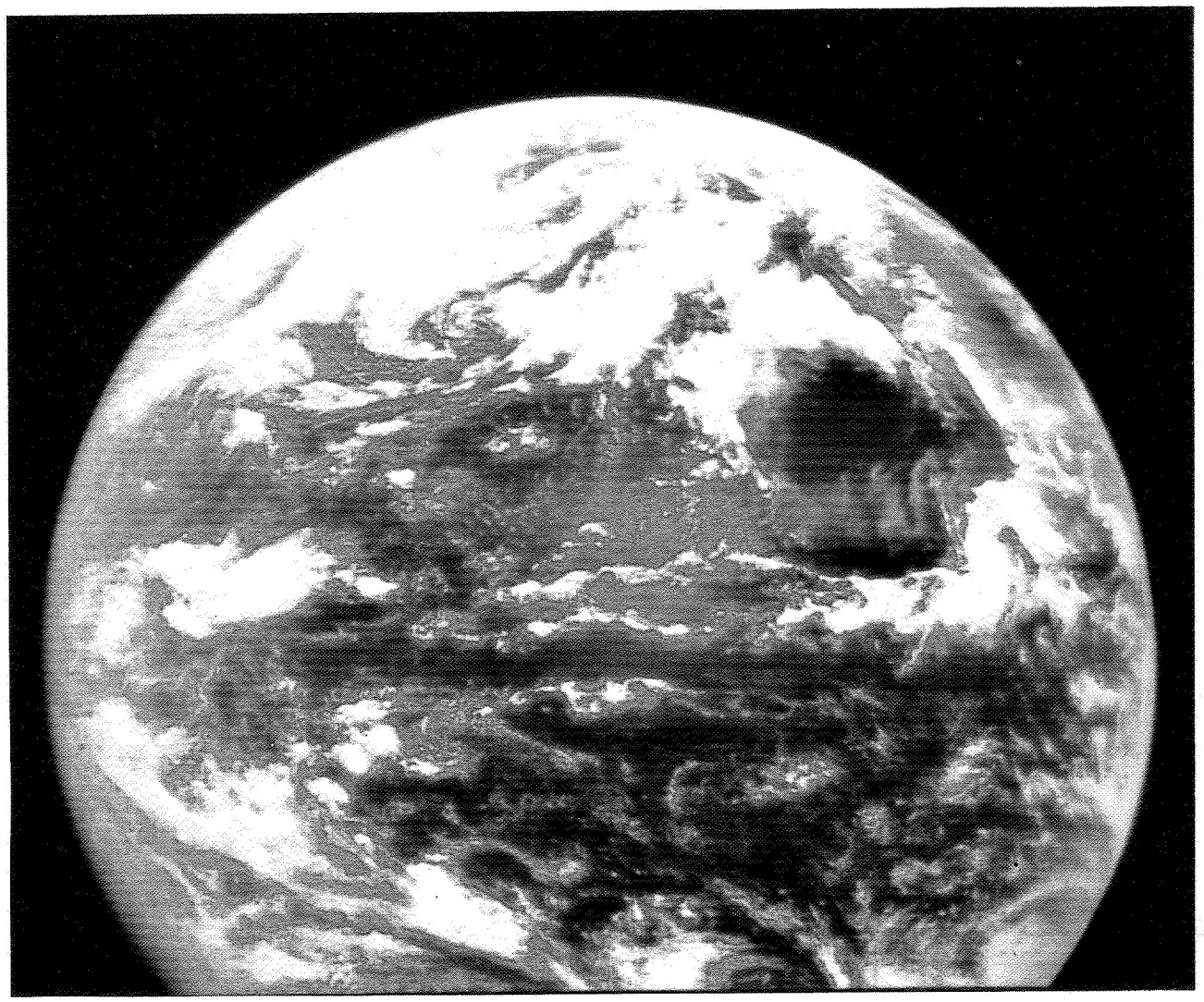
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 34 22	00	4001		EE
02	02 57 46	00	4001		EE
03	03 21 18	00	4001		EE
04	03 44 46	00	4001		EE
05	17 34 50	00	7000		
06	17 58 15	00	7000		
07	21 49 11	00	3000		EE
08	22 12 50	00	7000		
09	22 36 14	05	5000	5000A	EE
09	22 36 14	10	3000	1100F 2140A 2240G 4550D 4610G 4200H	HAW US MEXICO
09	22 36 14	20	4000	2140A 2240A	
09	22 36 14	40	4000	2140A 2240A	
09	22 36 14	50	1500	1114A 2140A 2230C 2240F 4610C	
09	22 36 14	60	4500	2140A 2240A	
09	22 36 14	80	4500	2230A 2140A 2240A	



ATS-I 16 MAY 1967 22 36 14 UT SEQ 9

17 MAY 67 SUBSATELLITE PT 150.56W 00.3IN TOTAL PICS 7

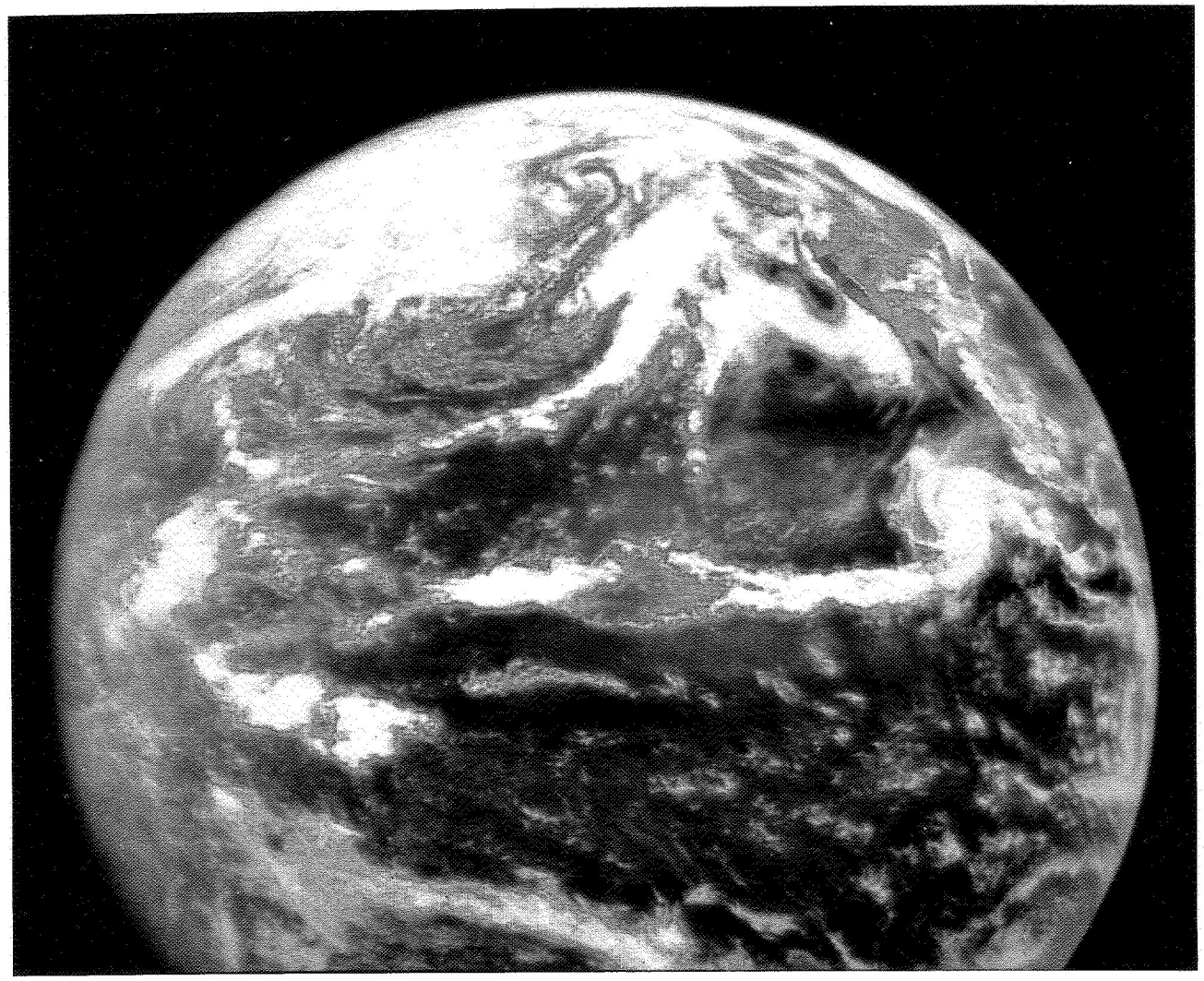
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 09 05	00	7000		
02	02 32 33	00	4001		EE
03	02 56 07	00	4001		EE
04	17 35 00	10	4002	1100F 2140M 2240G 4610E 4200H	US MEXICO
04	17 35 00	20	4000	2240A	
04	17 35 00	50	4002	2140F	
04	17 35 00	60	4000	2140A 2240A	
05	17 58 50	00	4502		PE EE
06	20 36 06	00	3002		EE
07	20 59 38	05	5000	5000A	
07	20 59 38	10	3000	1100F 2140A 2240G 2230G 3150E 4610G	EE US MEXICO
07	20 59 38	20	4000	2140A 2240A	
07	20 59 38	40	4000	2140A 2240A	
07	20 59 38	50	1500	2140A 2240F	
07	20 59 38	60	4500	2140A 2240A	
07	20 59 38	80	4500	2140A 2240A 2230A	



ATS-I 17 MAY 1967 20 59 38 UT SEQ 7

18 MAY 67 SUBSATELLITE PT 150.60W 00.3IN TOTAL PICS 12

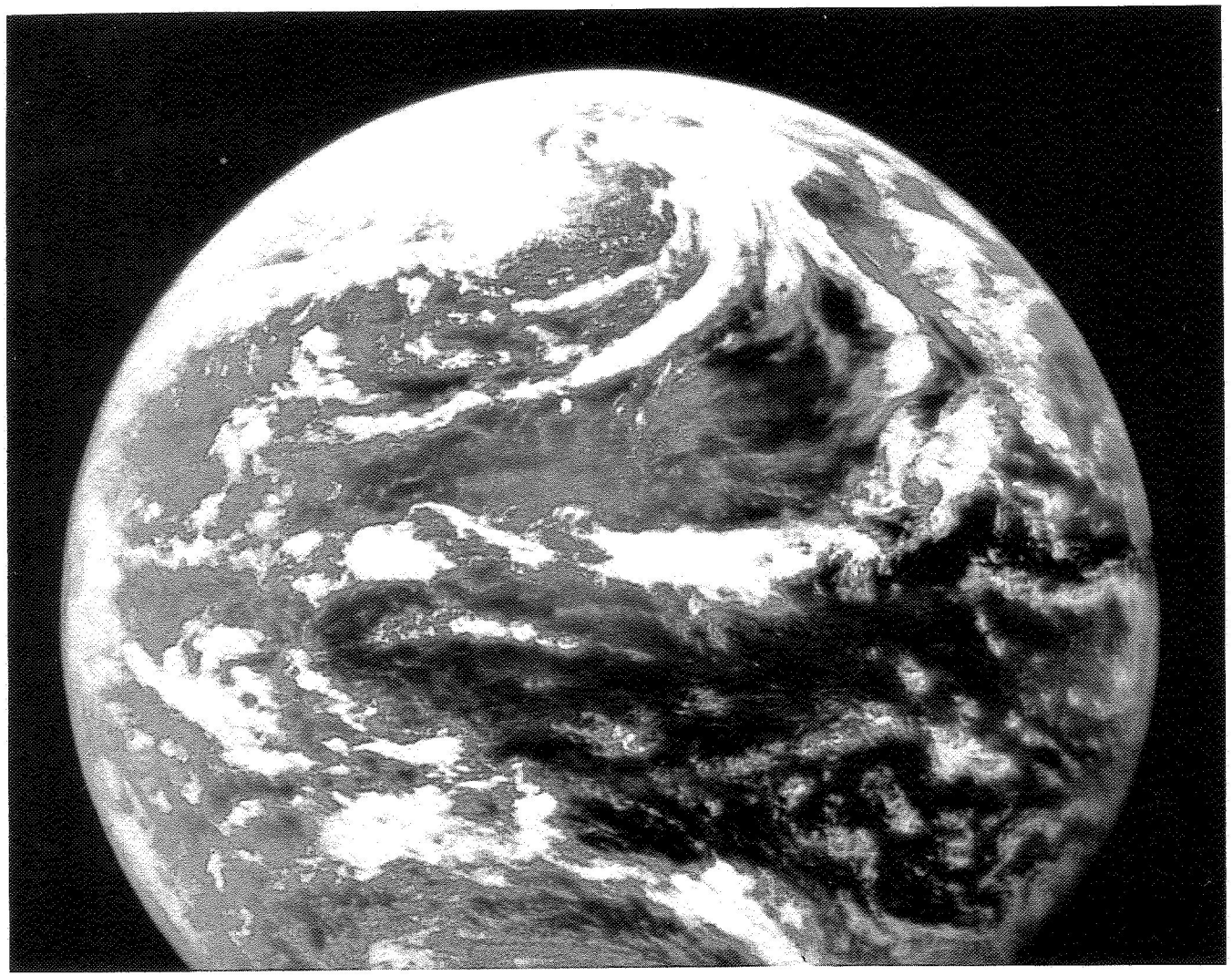
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 26 03	00	4001		EE
02	03 49 36	00	4001		EE
03	04 13 05	00	4001		EE
04	15 27 12	00	7000		
05	15 50 45	00	7000		
06	16 48 15	05	5000	5000A	
06	16 48 15	10	4002	1100F 2140A 2240G 2230E 4610E 4200H	US MEXICO EE
06	16 48 15	20	4000	2240A 2140A	EE
06	16 48 15	50	1502	2140A	EE
06	16 48 15	60	4500	2240A 2140A	EE
07	17 48 35	00	7000		
08	18 10 55	00	4502		EE
09	18 34 37	00	4502		EE
10	18 57 33	00	7000		
11	20 19 10	00	3002		EE
12	20 42 45	05	5000	5000A	
12	20 42 45	10	3000	1100F 2140A 2240G 1200E 4610E 4200H	US MEXICO
12	20 42 45	20	4000	2240A 4200A	MEXICO
12	20 42 45	40	4000	2140A 2240A	
12	20 42 45	50	1500	2140C 2240F 3100F	
12	20 42 45	60	4500	2240A	
12	20 42 45	80	4500	2140A 2240A	



ATS-I 18 MAY 1967 20 42 45 UT SEQ 12

19 MAY 67 SUBSATELLITE PT 150.63W 00.30N TOTAL PICS 10

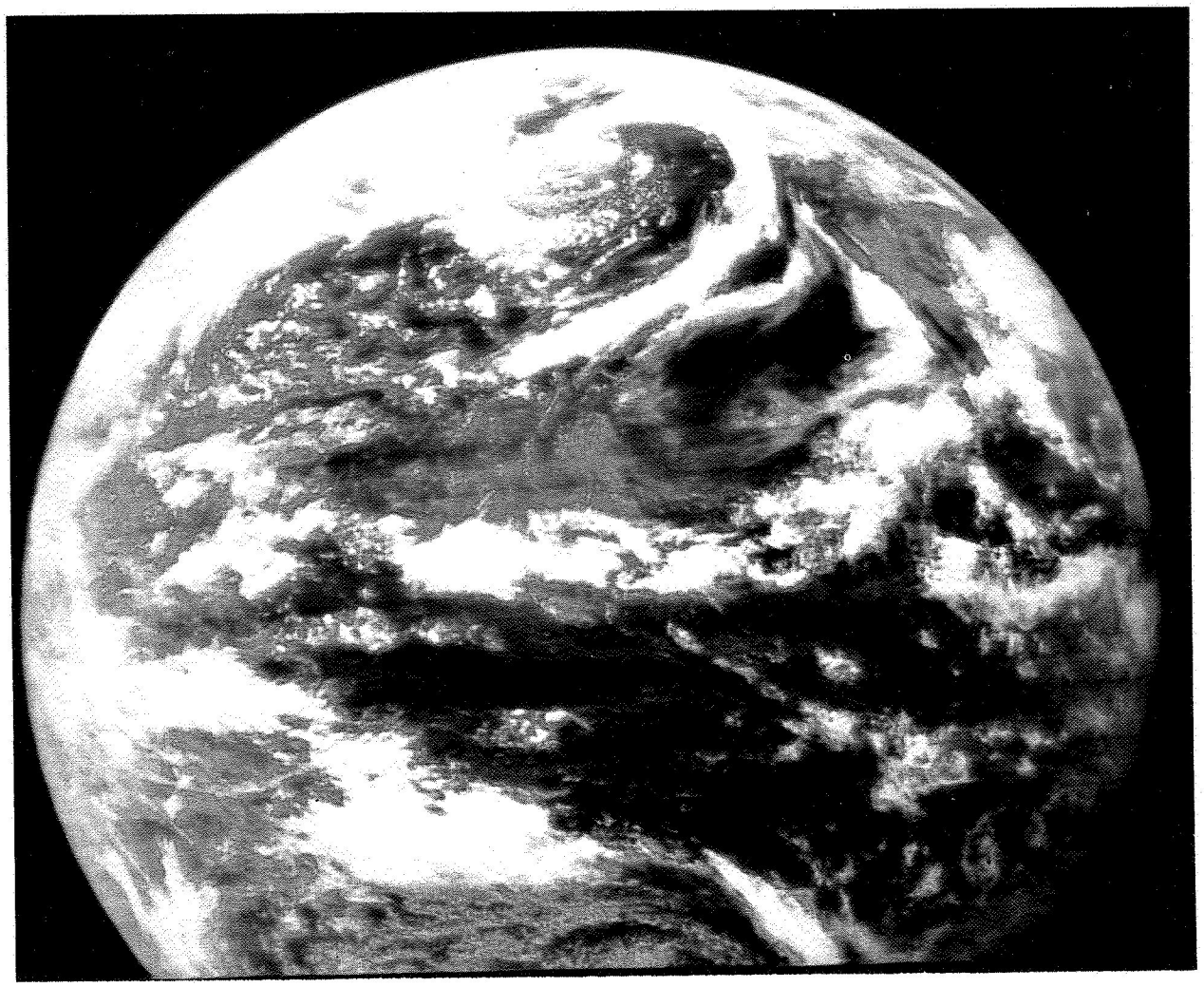
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 32 29	00	4001		EE
02	03 55 29	00	4001		EE
03	04 18 58	00	4001		EE
04	06 40 36	00	5001		EE
05	07 04 06	00	5001		EE
06	16 14 12	00	7000		
07	16 36 35	00	4002		
08	17 00 05	05	5000	5000A	
08	17 00 05	10	4002	1100F 2140A 1210E 2240G 4610E 4200H	US MEXICO
08	17 00 05	20	4000	2240A	
08	17 00 05	50	4502	2140A	
08	17 00 05	60	4500	2140A	
09	22 03 51	05	5000	5000A	
09	22 03 51	10	3000	1100F 2140A 2240G 1211E 4610G 4200H	US MEXICO
09	22 03 51	20	4000	2240A 4200A	MEXICO
09	22 03 51	40	4000	2140A 2240A	
09	22 03 51	50	1500	2140A 2240C 3150F	
09	22 03 51	60	4500	2240A	
09	22 03 51	80	4500	2240A	
10	22 27 24	00	3000		



ATS-I 19 MAY 1967 22 03 51 UT SEQ 9

20 MAY 67 SUBSATELLITE PT 150.67W 00.30N TOTAL PICS 5

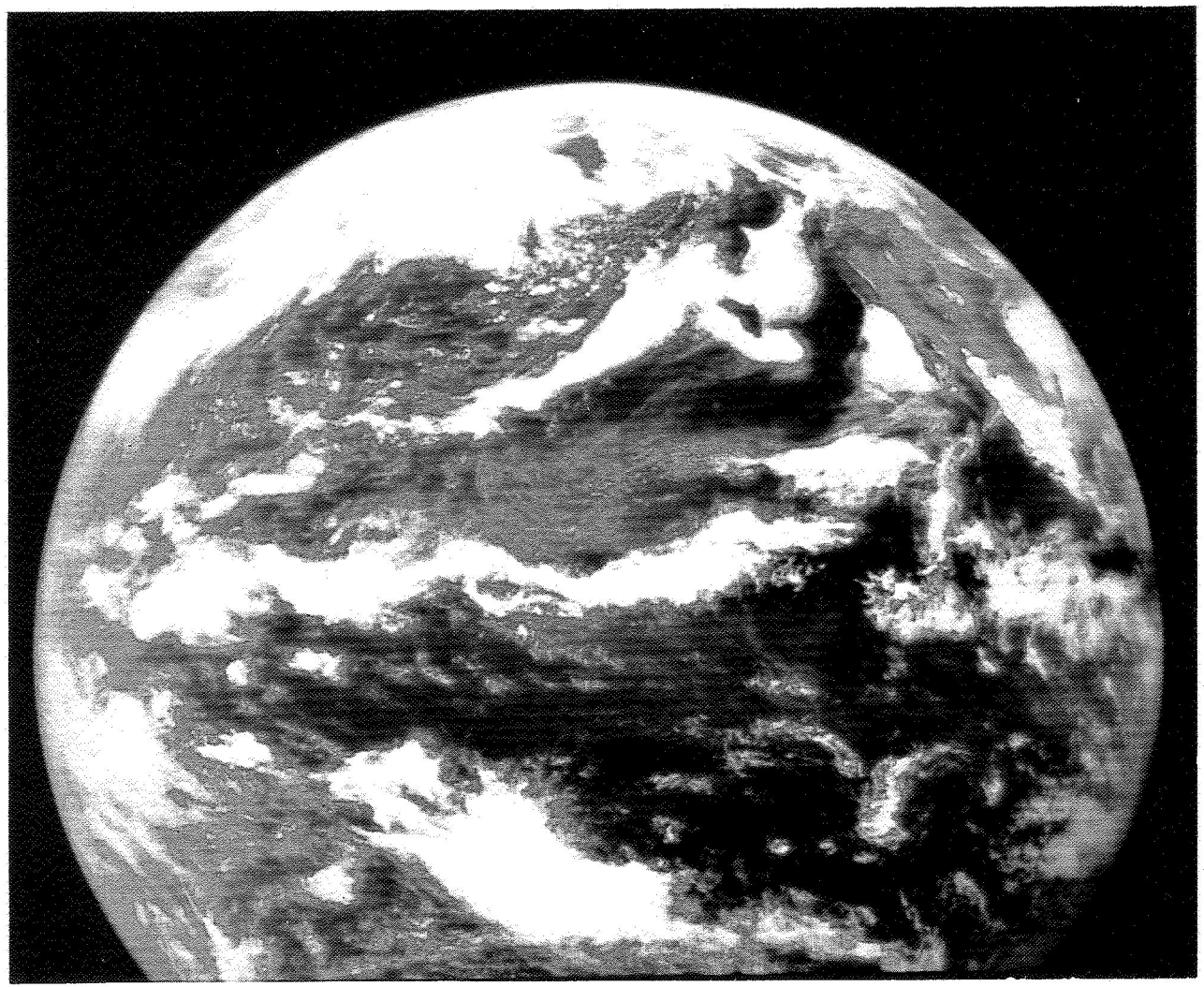
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 50 11	00	4001		EE
02	03 13 46	00	4001		EE
03	03 37 15	00	4001		EE
04	22 22 39	05	5000	5000A	
04	22 22 39	10	3000	1100F 2140A 2240G 3100E 4610G 4710H	US MEXICO
04	22 22 39	20	4000	2140A 2240A 4200A	MEXICO
04	22 22 39	40	4000	2140A	
04	22 22 39	50	1500	2140M 2240F	
04	22 22 39	60	4500	2240A 3100C	
04	22 22 39	80	4500	2140A 2240A 3100A	
05	22 46 12	00	3500		



ATS-I 20 MAY 1967 22 22 39 UT SEQ 4

21 MAY 67 SUBSATELLITE PT 150.69W 00.27N TOTAL PICS 3

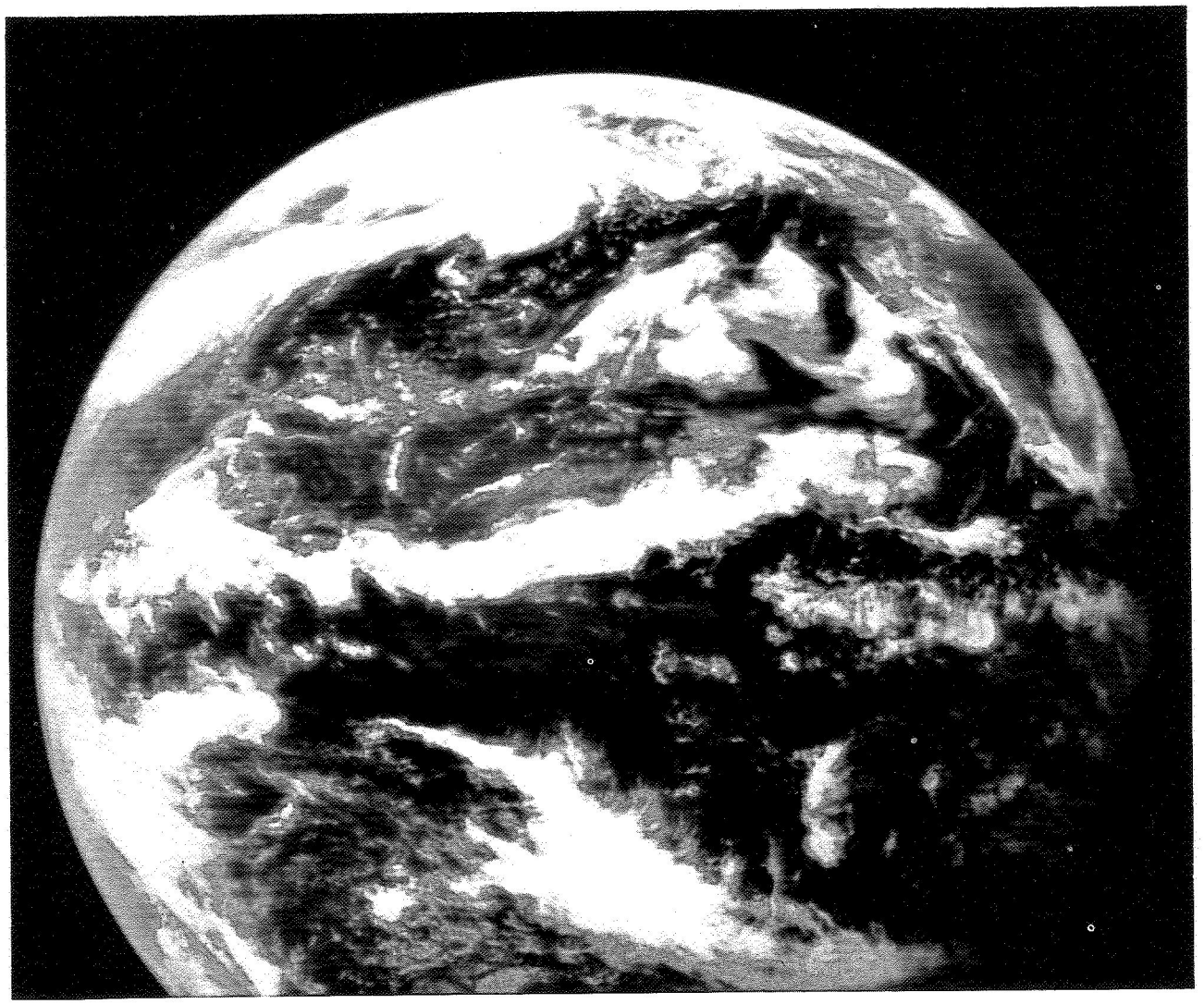
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	22 00 23	05	5000	5000A	
01	22 00 23	10	3000	1100F 2140A 2240G 3100G 4610G 4710H	US MEXICO
01	22 00 23	20	4000	2140A 2240A 4200A	MEXICO
01	22 00 23	40	4000	2140A 2240A	
01	22 00 23	50	1500	2140A 2240F	
01	22 00 23	60	4500	2240A	
01	22 00 23	80	4500	2140A 2240A 3100A	
02	22 23 47	00	7000		
03	22 47 20	00	3500		



ATS-I 21 MAY 1967 22 00 23 UT SEQ 1

22 MAY 67 SUBSATELLITE PT 150.73W 00.27N TOTAL PICS 1

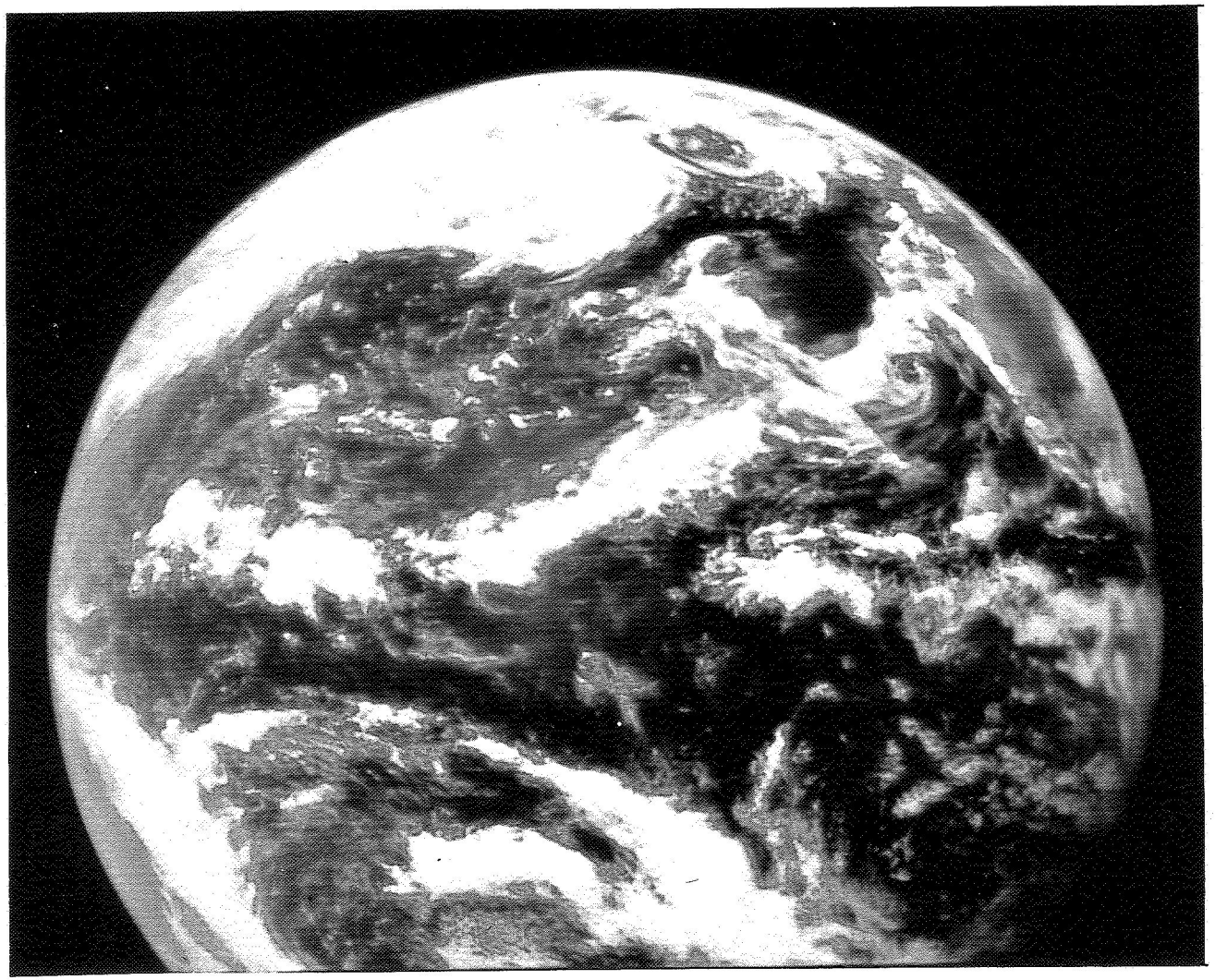
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	22 39 01	05	5000	5000A	
01	22 39 01	10	3000	1100F 2140A 2240G 4610G 4200H	US MEXICO
01	22 39 01	20	4000	2140A 2240A	
01	22 39 01	40	4000	2140A 2240A	
01	22 39 01	50	1500	2140A	
01	22 39 01	60	4500	2240A	
01	22 39 01	80	4500	2140A 2230A	



ATS-I 22 MAY 1967 22 39 01 UT SEQ 1

23 MAY 67 SUBSATELLITE PT 150.78W 00.27N TOTAL PICS 8

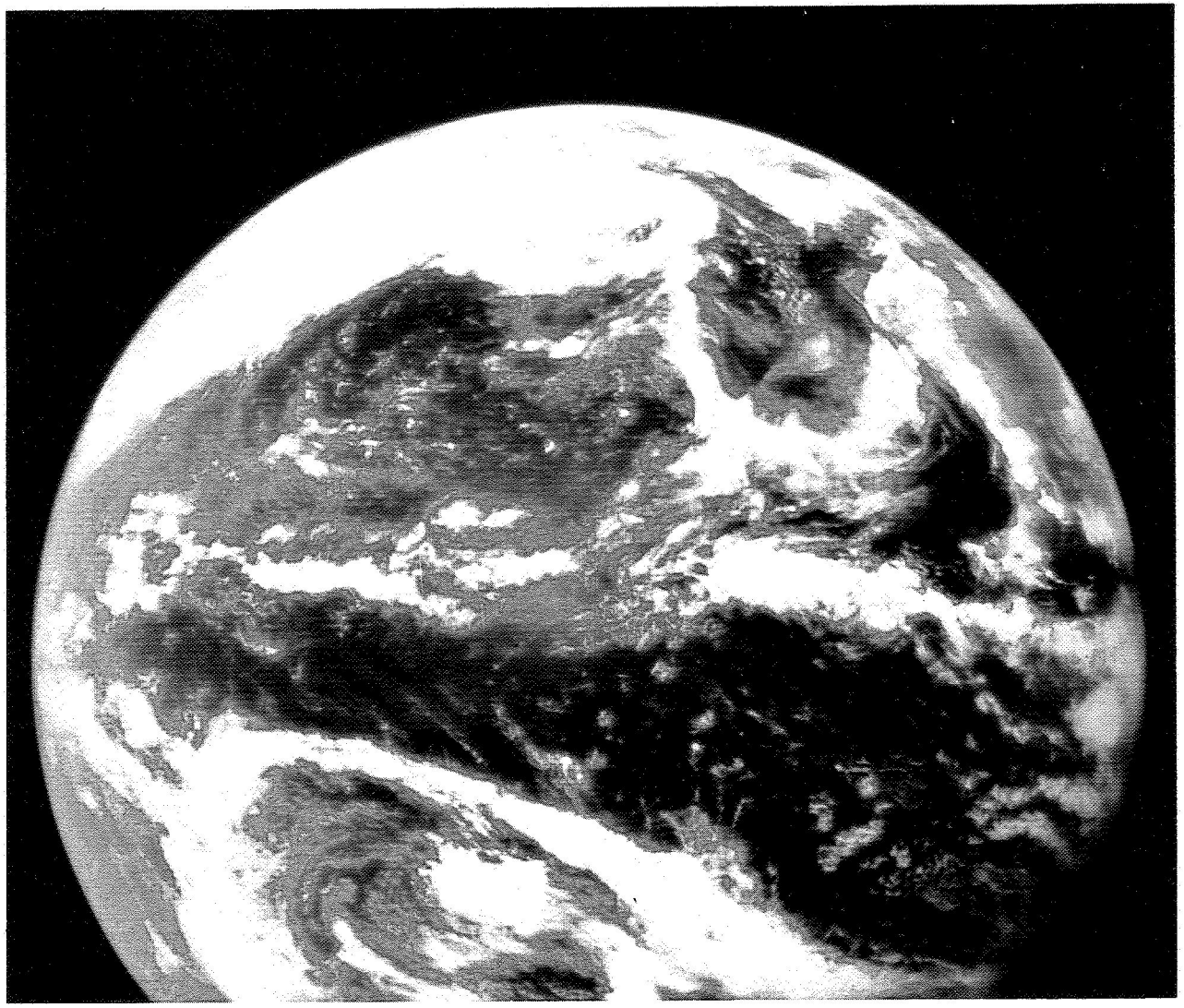
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 46 47	00	4501		EE PE
02	03 10 26	00	4501		EE
03	03 33 58	00	4501		EE
04	16 21 40	05	5000	5000A	
04	16 21 40	10	4002	1100M 2140F 2240E 4610E	US MEXICO
04	16 21 40	20	4000	2240A 2140A 1100A 4610A	
04	16 21 40	50	4502	2140F	
04	16 21 40	60	4500	2240A	
05	16 45 15	00	7000		
06	21 53 53	00	3000		
07	22 17 26	05	5000	5000A	
07	22 17 26	10	3000	2143F 1100M 2240G 3100E 4610G 4200H	US MEXICO
07	22 17 26	20	4000	2240A	
07	22 17 26	40	4000	2140A	
07	22 17 26	50	1500	2140A	
07	22 17 26	60	4000	2240A	
07	22 17 26	80	4000	2140A 4200A	ASTR
08	22 40 58	00	3000		



ATS-I 23 MAY 1967 22 17 26 UT SEQ 7

24 MAY 67 SUBSATELLITE PT 150.79W 00.26N TOTAL PICS 6

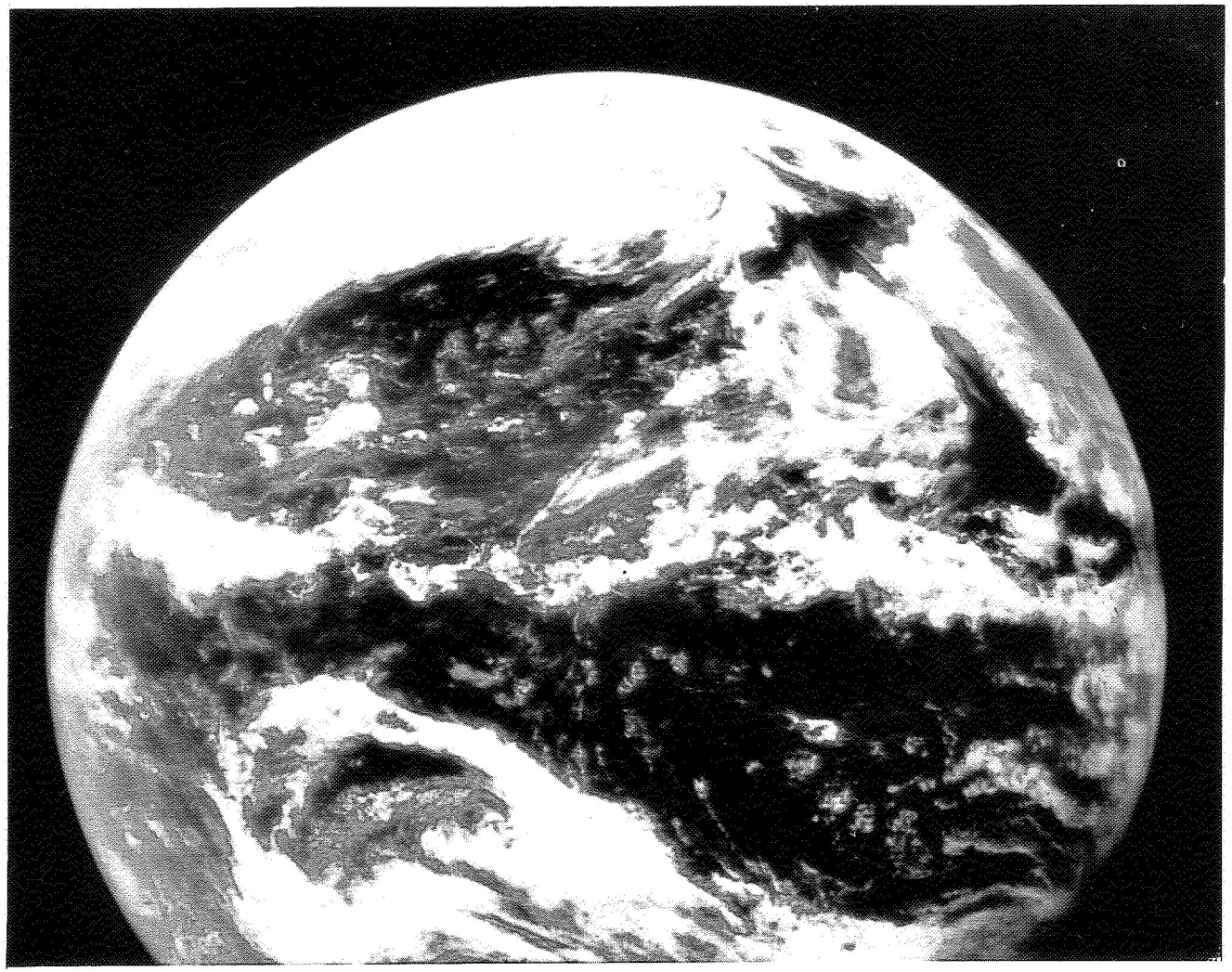
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 05 08	00	4001		EE
02	03 28 41	00	4001		EE
03	03 52 14	00	4001		EE
04	17 38 09	05	5000	5000A	
04	17 38 09	10	3002	1100M 2140A 2240G 4610E 4200H	US MEXICO EE
04	17 38 09	20	4000	2240A	EE
04	17 38 09	50	4502	2140F 2240B	EE
04	17 38 09	60	4000	2240A	PE
05	22 14 30	05	5000	5000A	
05	22 14 30	10	3000	2143C 2140A 1100F 2240G 4610G 4200H	US MEXICO EE
05	22 14 30	20	4000	2240A	EE
05	22 14 30	40	4000	2140A 2240A	EE
05	22 14 30	50	1500	2140A	EE
05	22 14 30	60	4001	2240A	EE
05	22 14 30	80	4000	2140A 2240A 4200A	ASTR EE
06	22 41 02	00	3001		



ATS-I 24 MAY 1967 22 14 30 UT SEQ 5

25 MAY 67 SUBSATELLITE PT 150.79W 00.26N TOTAL PICS 8

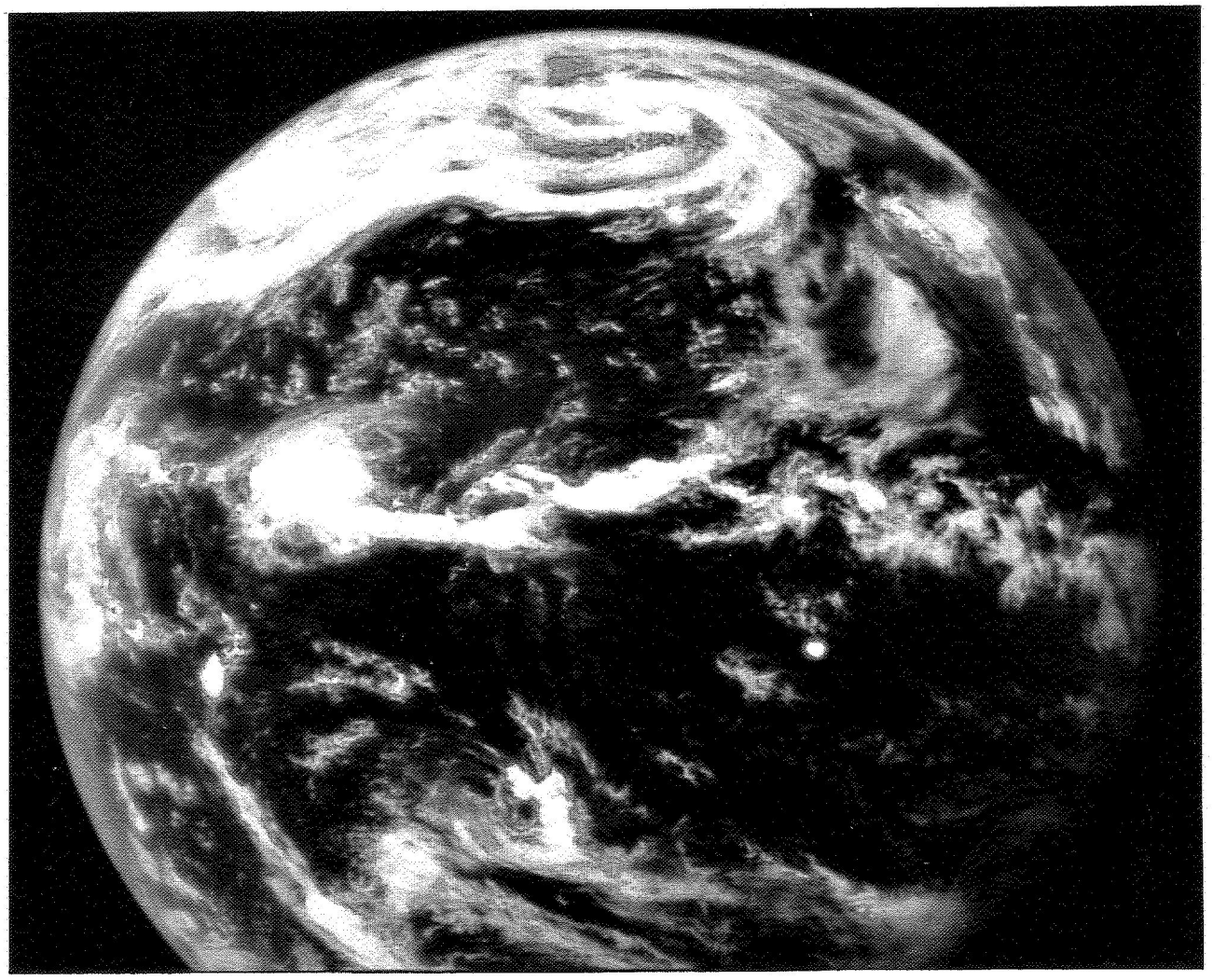
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 06 40	10	1501	2140A 2240G 4610D	EE
01	02 06 40	40	4500	2140A 2240A	EE
01	02 06 40	50	1001	2140I 1200C	EE
01	02 06 40	80	4000	2140A 2230A 2240A 4200A	ASTR EE
02	02 30 14	00	4501		
03	17 19 20	00	7000		
04	17 42 50	05	5000	5000A	
04	17 42 50	10	4002	1100F 2140M 2240G 4610E 4200H	US MEXICO EE
04	17 42 50	20	4000	2240A	EE
04	17 42 50	50	4502	2140C	EE
04	17 42 50	60	4500	2240A	EE
05	18 06 10	00	4502		EE
06	21 58 28	05	5000	5000A	
06	21 58 28	10	4000	2143F 2140A 1100M 2240G 4610G 4200H	US MEXICO
06	21 58 28	20	4000	2240A	
06	21 58 28	40	4000	2140A 2240A	
06	21 58 28	50	1500	1200C 2140J	
06	21 58 28	60	4500	2240A 2140A	
06	21 58 28	80	4500	2140A 2240A 4200A	ASTR
07	22 22 00	00	7000		
08	22 45 32	00	3001		



ATS-I 25 MAY 1967 21 58 28 UT SEQ 6

26 MAY 67 SUBSATELLITE PT 150.79W 00.25N TOTAL PICS 8

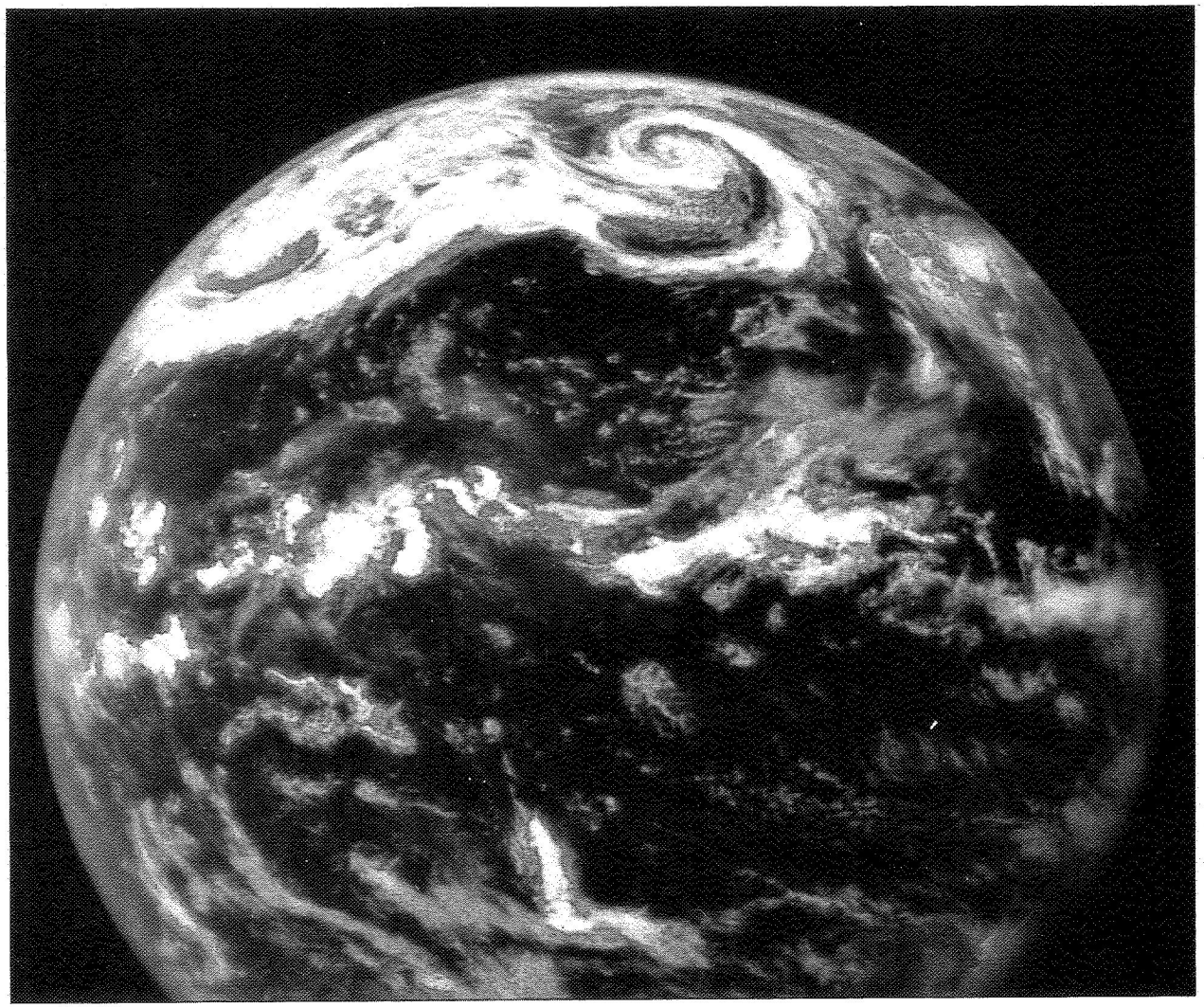
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 50 34	00	4501		EE
02	03 14 08	00	4501		EE
03	03 37 41	00	4501		EE
04	15 06 07	00	5502		EE PR
05	15 30 39	00	4502		EE PR
06	15 54 10	05	5000	5000A	PR
06	15 54 10	10	4002	1100F 2240E 2140M 4610E 4200H	US MEXICO PR
06	15 54 10	20	4000	2240A	PR
06	15 54 10	50	4502	2240A	PR
06	15 54 10	60	4500	2240A	PR
07	22 39 00	05	5000	5000A	
07	22 39 00	10	3000	1100F 2143C 2142A 2240G 2230D 4200H	US MEXICO
07	22 39 00	20	4001	2240A	
07	22 39 00	40	4000	2140A 1100A 2240A	
07	22 39 00	50	1500	2140A 11001	PR
07	22 39 00	60	4001	2140A	
07	22 39 00	80	4000	2140A 2230A 4200A	ASTR
08	23 02 33	00	3001		



ATS-I 26 MAY 1967 22 39 00 UT SEQ 7

27 MAY 67 SUBSATELLITE PT 150.78W 00.24N TOTAL PICS 6

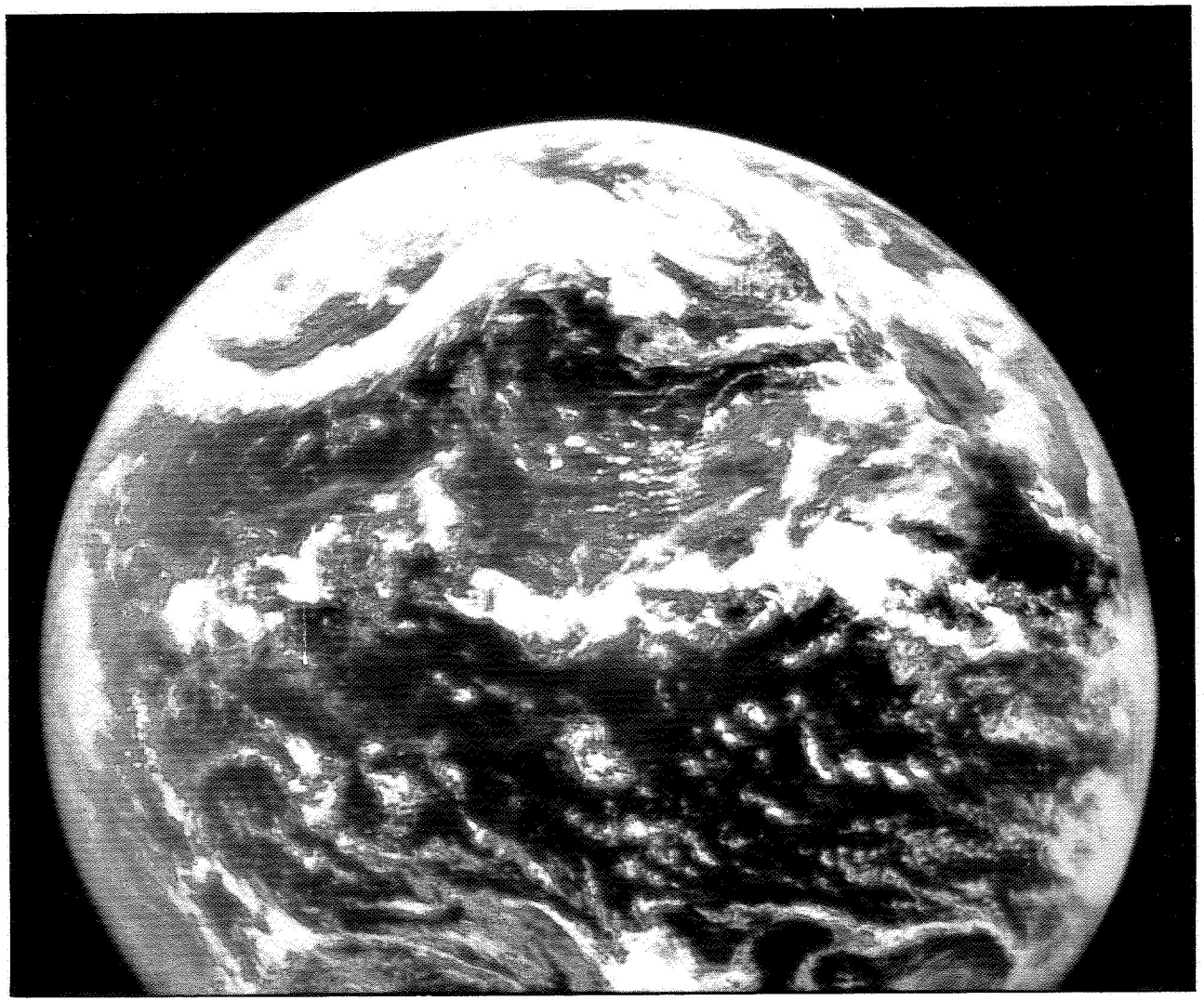
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 52 22	00	4501		
02	03 16 58	00	4501		
03	03 40 30	00	4501		
04	21 53 15	00	1000		PE
05	22 16 47	05	5000	5000A	
05	22 16 47	10	3000	1114B 2143C 2140A 2240G 3100H 4200H	US MEXICO
05	22 16 47	20	4000	2240A	
05	22 16 47	40	4000	2140A 2240A	
05	22 16 47	50	1500	2140J 2240F	
05	22 16 47	60	4501	2240A	
05	22 16 47	80	4500	2140A 2240A 4200A	ASTR
06	22 40 21	00	3001		



ATS-I 27 MAY 1967 22 16 47 UT SEQ 5

28 MAY 67 SUBSATELLITE PT 150.78W 00.25N TOTAL PICS 7

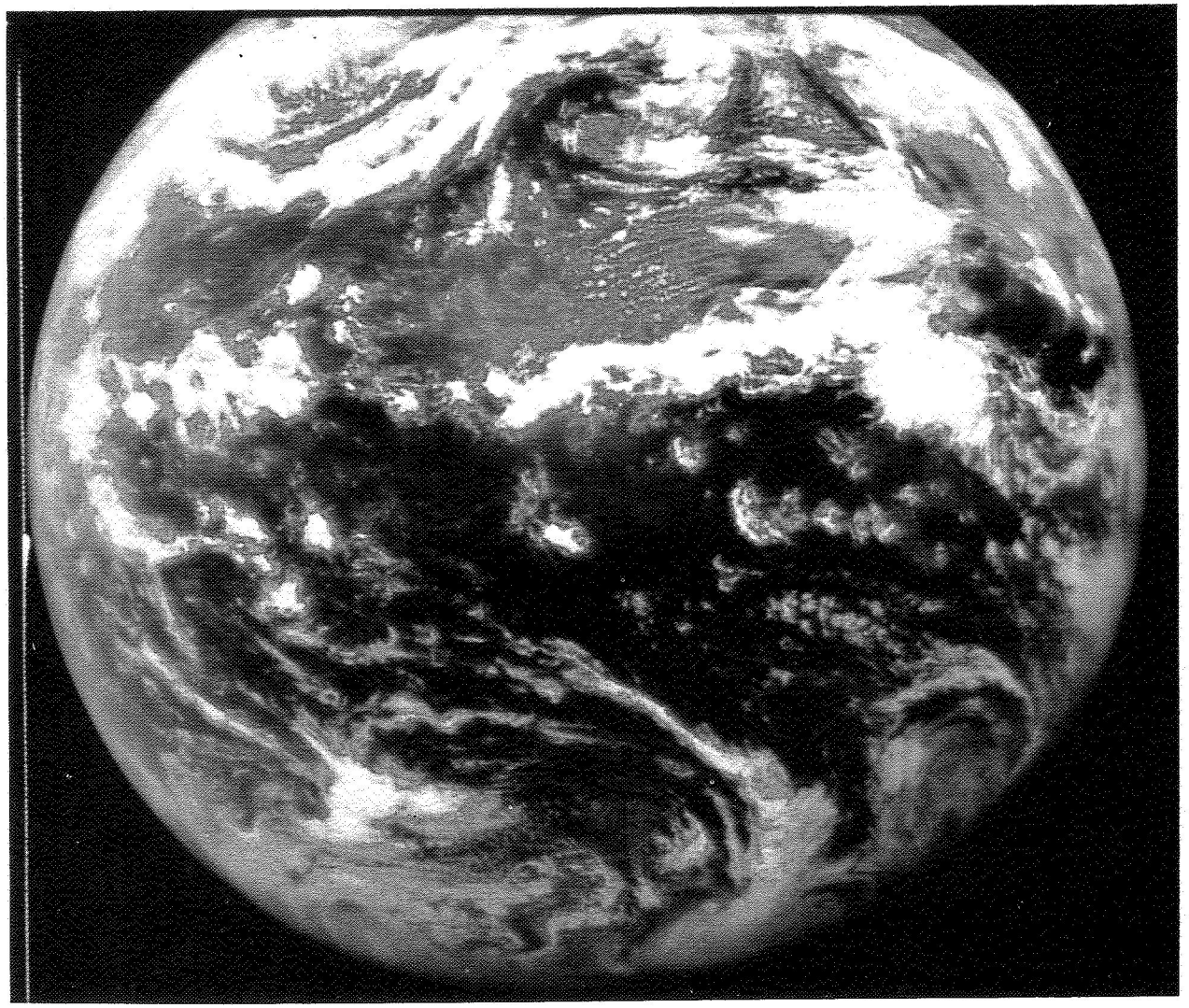
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 43 35	00	4001		
02	13 29 37	00	5002		
03	15 34 30	00	4002		
04	17 26 40	05	5000	5000A	
04	17 26 40	10	3002	2143F 2142J 2240G 2230E 3150E 4200H	US MEXICO
04	17 26 40	20	4000	2240A	
04	17 26 40	50	1502	2240F	
04	17 26 40	60	4500	2240A	
05	19 38 04	00	7000		
06	21 26 02	05	5000	5000A	
06	21 26 02	10	3000	1100C 2143F 2240G 2230E 3150E 4200H	US MEXICO
06	21 26 02	20	4000	2240A	
06	21 26 02	40	4000	2140A 2240A	
06	21 26 02	50	1500	2240F 2140F 4610C	
06	21 26 02	60	4500	2240A 2140A	
06	21 26 02	80	4500	2140A 2240A 4200A	ASTR
07	23 33 05	00	3001		



ATS-I 28 MAY 1967 21 26 02 UT SEQ 6

29 MAY 67 SUBSATELLITE PT 150.77W 00.24N TOTAL PICS 8

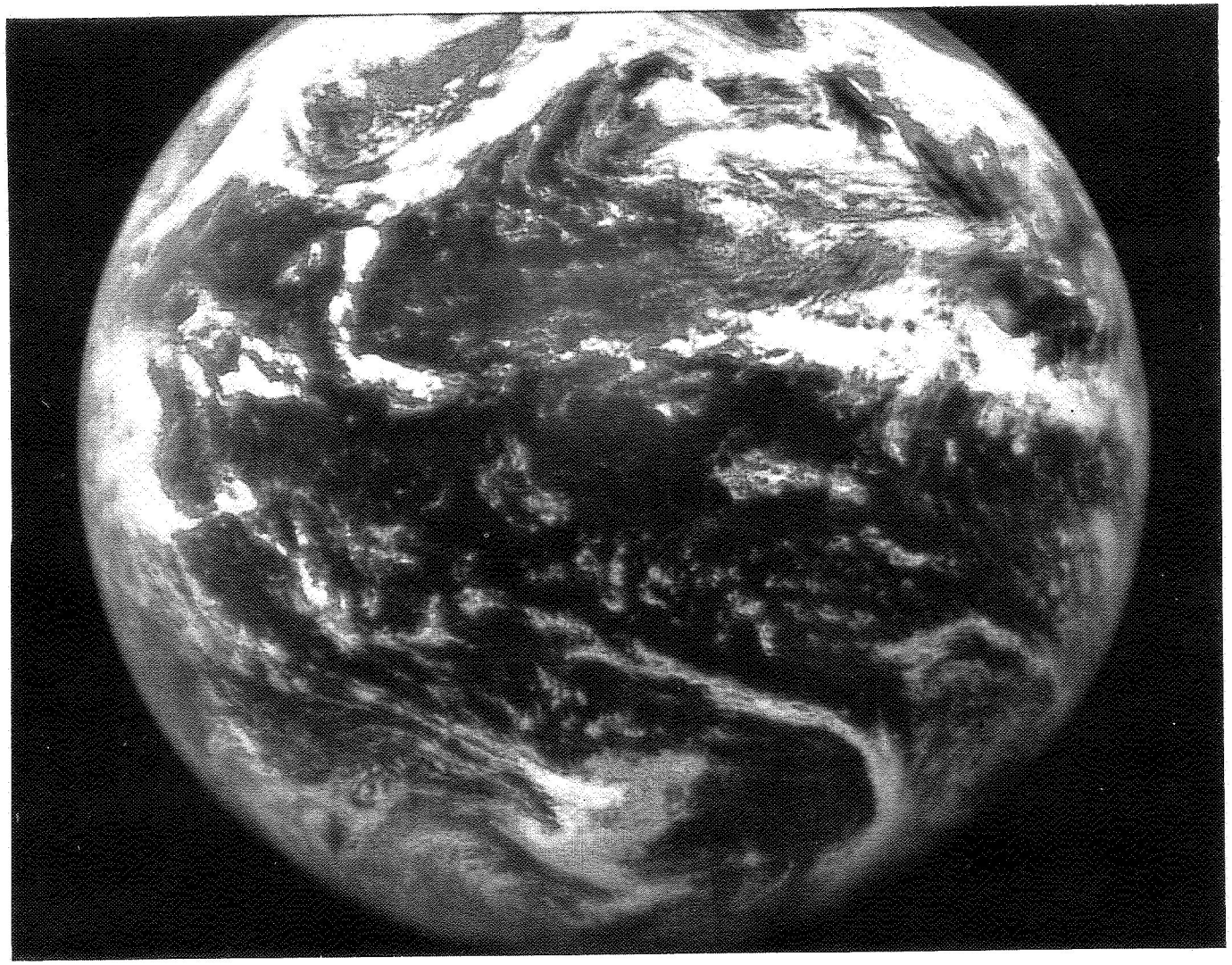
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 24 08	10	1501	2140A 2240G 2230D 4610D	
01	02 24 08	40	4500	2140A 2230A 4610A	
01	02 24 08	50	1001	2140I 2240C	
01	02 24 08	80	4000	2140A 2230A 4200A	ASTR
02	03 21 44	00	4001		
03	16 37 10	00	4002		
04	17 00 32	00	4002		PE
05	17 24 03	05	5000	5000A	
05	17 24 03	10	3002	1100F 2140A 2240G 2230E 3150E 4200H	MEXICO
05	17 24 03	20	4000	2240A 2140A	
05	17 24 03	50	1502	2240B	
05	17 24 03	60	4502	2240A	
06	21 52 00	00	3002		
07	22 15 22	10	3000	2140A 2240G 2230E 3150E 4610G 4200H	US MEXICO
07	22 15 22	20	4000	2240A 4200A	MEXICO
07	22 15 22	40	4000	1100A 2140A 2240A	
07	22 15 22	50	1000	1100G 2140A 2240F	
07	22 15 22	60	4000	2240A 2140A	
07	22 15 22	80	4000	2140A 2240A	
07	22 15 22	90	5000	5000A	
08	22 38 57	00	3001		



ATS-I 29 MAY 1967 22 15 22 UT SEQ 7

30 MAY 67 SUBSATELLITE PT 150.76W 00.23N TOTAL PICS 6

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 53 52	00	4501		
02	18 21 05	05	5000	5000A	
02	18 21 05	10	3002	1100F 2140A 2240G 3150E 4610E 4200H	US MEXICO
02	18 21 05	20	4000	2240A 4200A	MEXICO
02	18 21 05	50	1002	2140A 2240B	
02	18 21 05	60	4000	2240A 2140A	
03	18 44 40	00	3002		
04	21 57 49	10	3000	2143B 2240G 2230D 3150E 4200H 4610G	US MEXICO
04	21 57 49	20	4000	2240A	
04	21 57 49	40	4000	1100A 2140A 2240A	
04	21 57 49	50	1000	2140A 1100G 2240B	
04	21 57 49	60	4000	2140A	
04	21 57 49	80	4000	2240A 2140A	
04	21 57 49	90	5000	5000A	
05	22 21 20	00	3000		
06	22 44 54	00	3001		

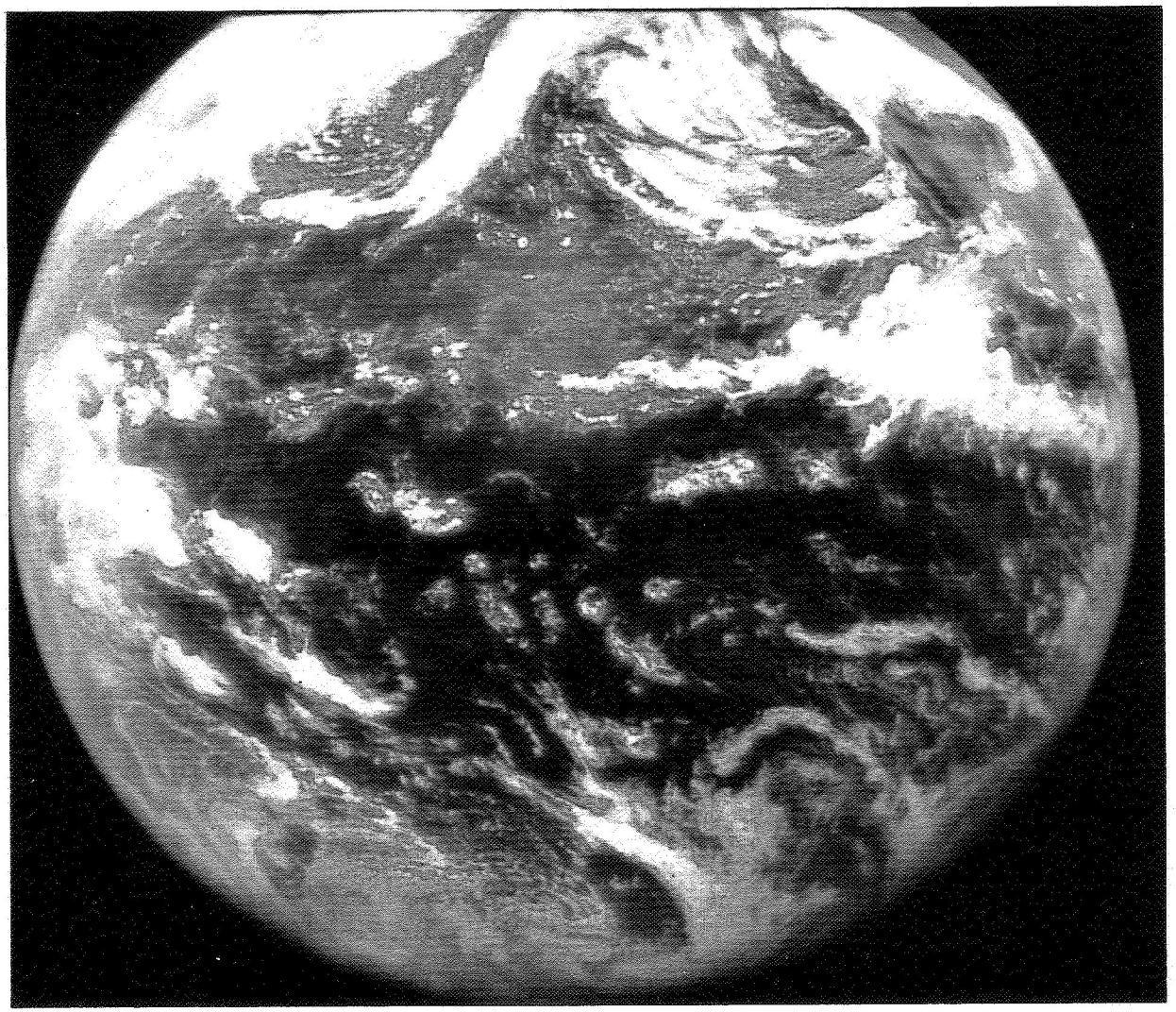


ATS-I 30 MAY 1967 21 57 49 UT SEQ 4

31 MAY 67 SUBSATELLITE PT 150.75W 00.23N TOTAL PICS 6

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 58 04	00	4001		
02	03 21 32	00	4001		
03	03 45 11	00	4001		EE
04	18 46 04	05	5000	5000A	
04	18 46 04	10	3002	1100F 2140A 3150H 2240G 4610E 4710H	US MEXICO
04	18 46 04	20	4000	2140A 2240A	
04	18 46 04	40	5002	5000A	
04	18 46 04	50	1002	2140A 2240A 3150B	
04	18 46 04	60	4000	2140A 2240A	
04	18 46 04	80	5002	5000A	
05	22 01 10	10	3000	2140A 2240G 2230E 3150H 4550D 4710H	US MEXICO HAW
05	22 01 10	20	4000	2240A 4200A	MEXICO
05	22 01 10	40	4000	1100A 2140A 2230A	
05	22 01 10	50	1000	1100G 2140A 2240F	
05	22 01 10	60	4000	2240A 2140A	
05	22 01 10	80	4000	2230A 2140A	
05	22 01 10	90	5000		
06	22 24 40	00	3000		

1 JUNE 1967 NO DATA AVAILABLE

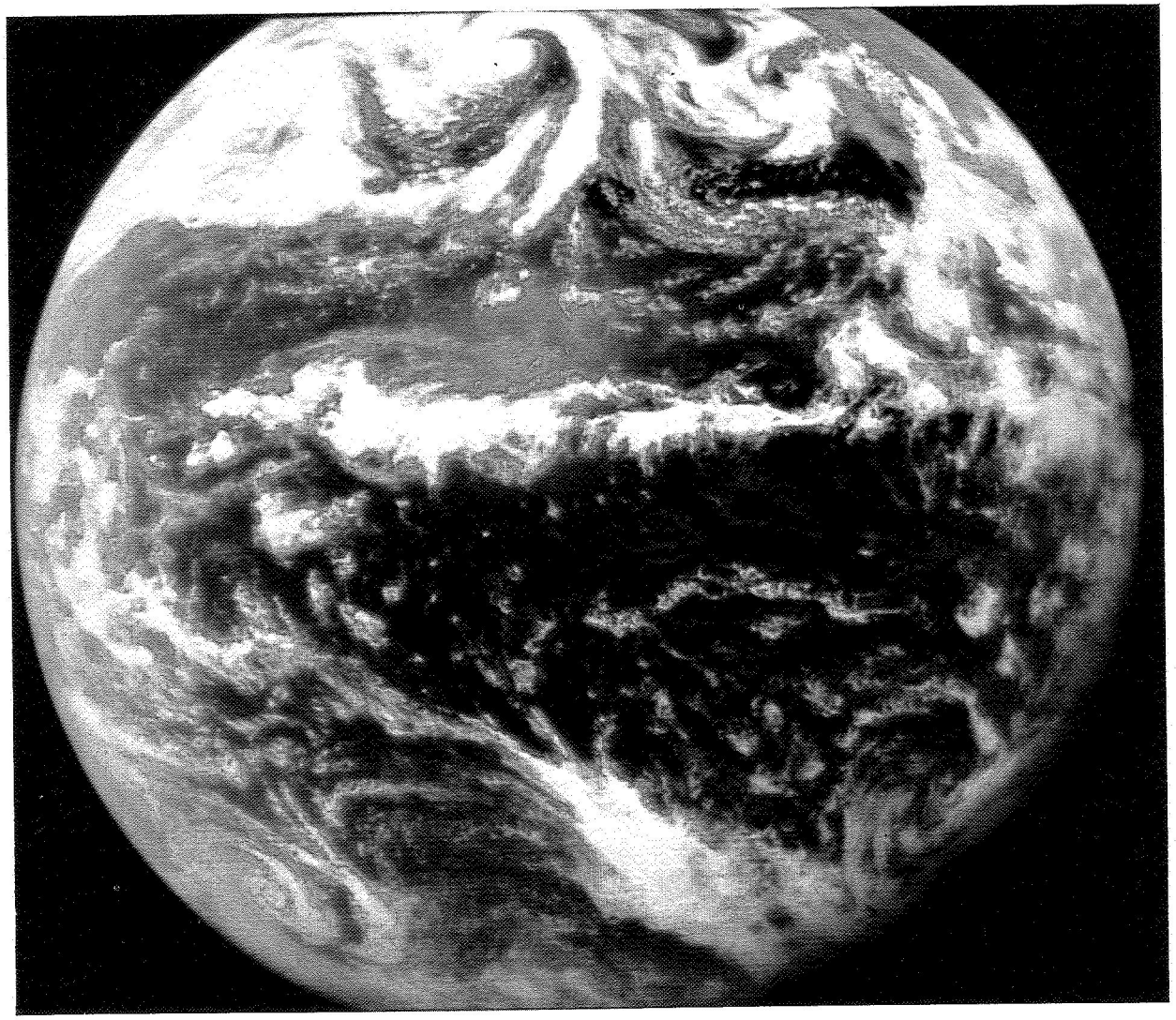


ATS-I 31 MAY 1967 22 01 10 UT SEQ 5

1 JUNE 1967 NO DATA AVAILABLE

2 JUN 67 SUBSATELLITE PT 150.72W 00.22N TOTAL PICS 5

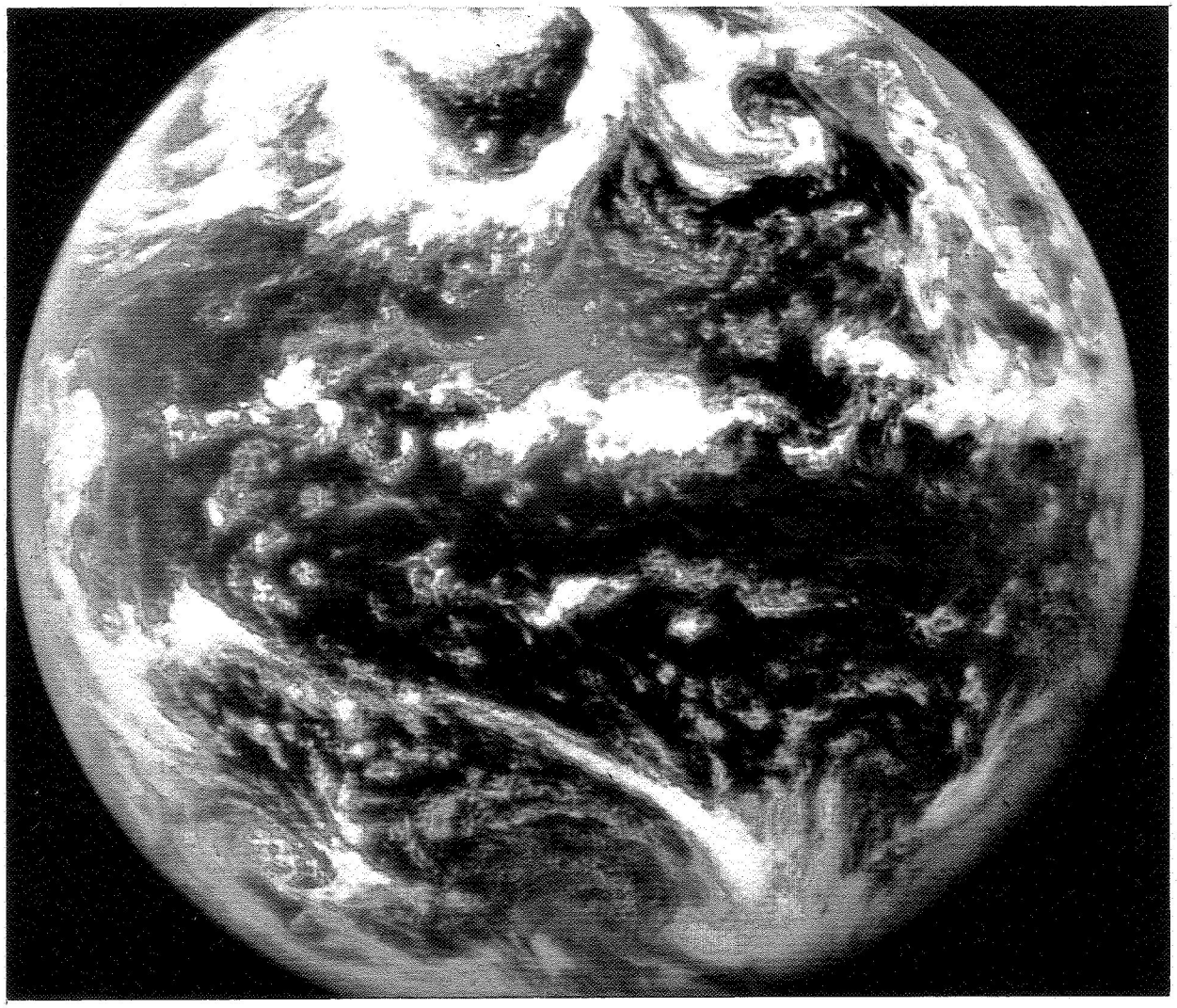
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 47 56	00	4001		
02	04 11 30	00	4001		
03	22 06 00	00	4500		PE
04	22 28 12	10	3000	1100F 2140A 2240G 2230E 3150E 4200H	US MEXICO
04	22 28 12	20	4000	2240A	
04	22 28 12	40	4000	2240A 2140A	
04	22 28 12	50	1000	2140K 2240F 1114H	
04	22 28 12	60	4000	2240A	
04	22 28 12	80	4000	1100A 2140A 2230A 2240A	
05	22 51 47	00	3001		



ATS-I 2 JUNE 1967 22 28 12 UT SEQ 4

3 JUN 67 SUBSATELLITE PT 150.7IW 00.2IN TOTAL PICS 8

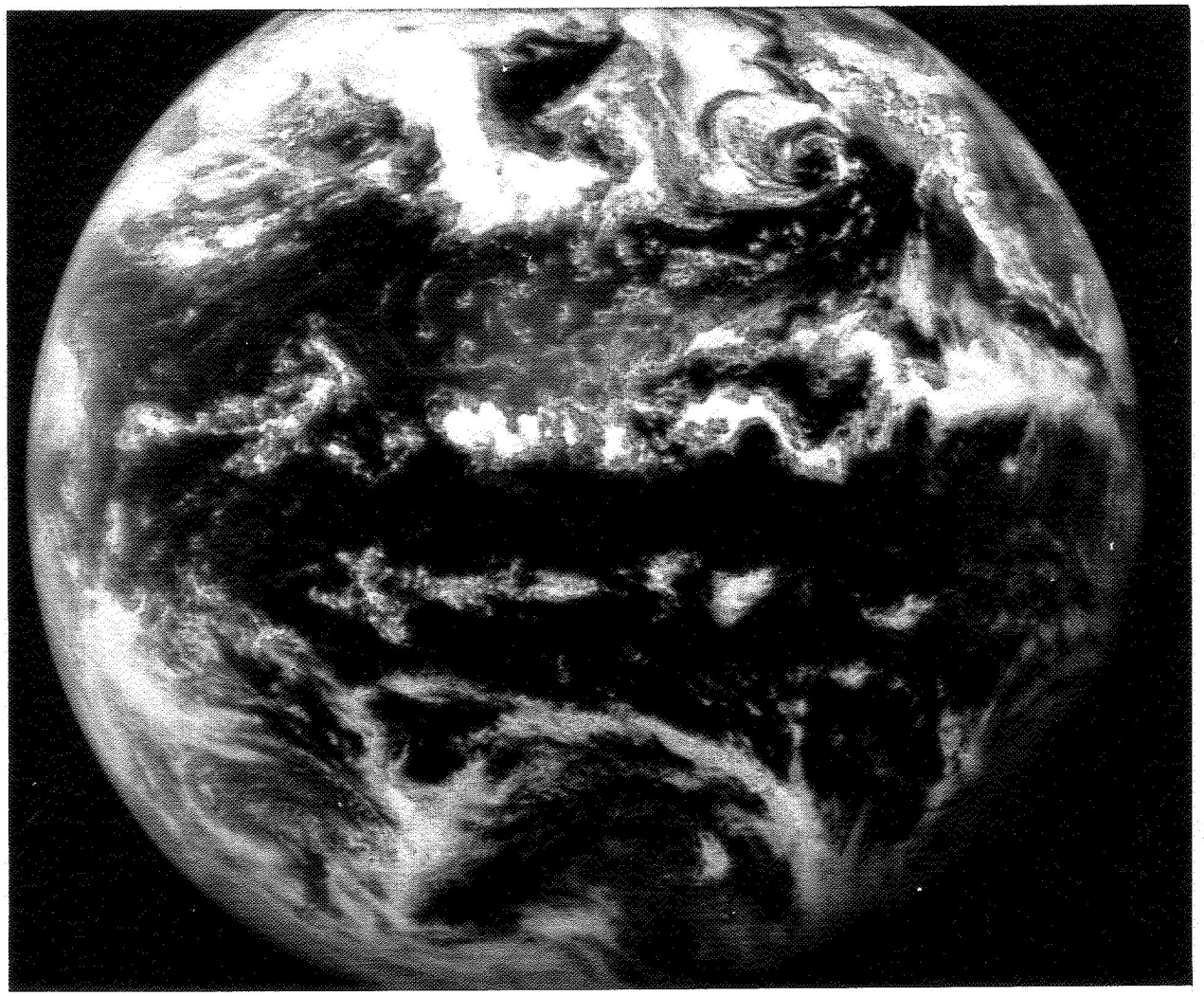
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 20 10	00	4001		EE
02	03 43 42	00	4001		EE
03	04 07 13	00	4001		EE
04	18 12 53	10	1002	1100F 2140A 2240G 2230E 4610E 4200H	US MEXICO
04	18 12 53	20	4000	2240A 2140A 4200A	MEXICO
04	18 12 53	50	1002	1100E 2140M	SCRATCHED NEG
04	18 12 53	60	4000	2140A 2240A	
05	18 36 27	00	1002		PE EE
06	21 41 15	00	3000		
07	22 04 50	10	3000	1100F 2140A 2240G 2230E 4610G 4200H	US MEXICO
07	22 04 50	20	4000	2240A 4200A	US MEXICO
07	22 04 50	40	4000	2140A 2230A	
07	22 04 50	50	1000	1100E 2140A 2240F	
07	22 04 50	60	4000	2140A	
07	22 04 50	80	4000	1114A 2240A 2140A	
08	22 28 22	00	3000		EE



ATS-I 3 JUNE 1967 22 04 50 UT SEQ 7

4 JUN 67 SUBSATELLITE PT 150.69W 00.21N TOTAL PICS 8

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 50 17	00	4001		EE
02	03 13 53	00	4001		EE
03	03 37 24	00	4001		EE
04	18 07 56	00	3002		
05	18 31 27	10	3002	1100A 2140A 2240G 2230E 4610E 4200H	US MEXICO
05	18 31 27	20	4000	2140A 2240A 4200A	US MEXICO
05	18 31 27	50	1002	1100E 2140A 2240F	
05	18 31 27	60	4000	2140A 2240A	
06	21 56 14	00	3000		
07	22 19 48	10	3000	1100A 2140A 2240G 1200E 4610G 4200H	US MEXICO HAW
07	22 19 48	20	4000	2240A 4200A	MEXICO
07	22 19 48	40	4000	2140A 2240A	
07	22 19 48	50	1000	1100E 2140A 2240F	
07	22 19 48	60	4000	2240A 2140A	
07	22 19 48	80	4000	2230A 2140A	
08	22 43 21	00	3000		EE

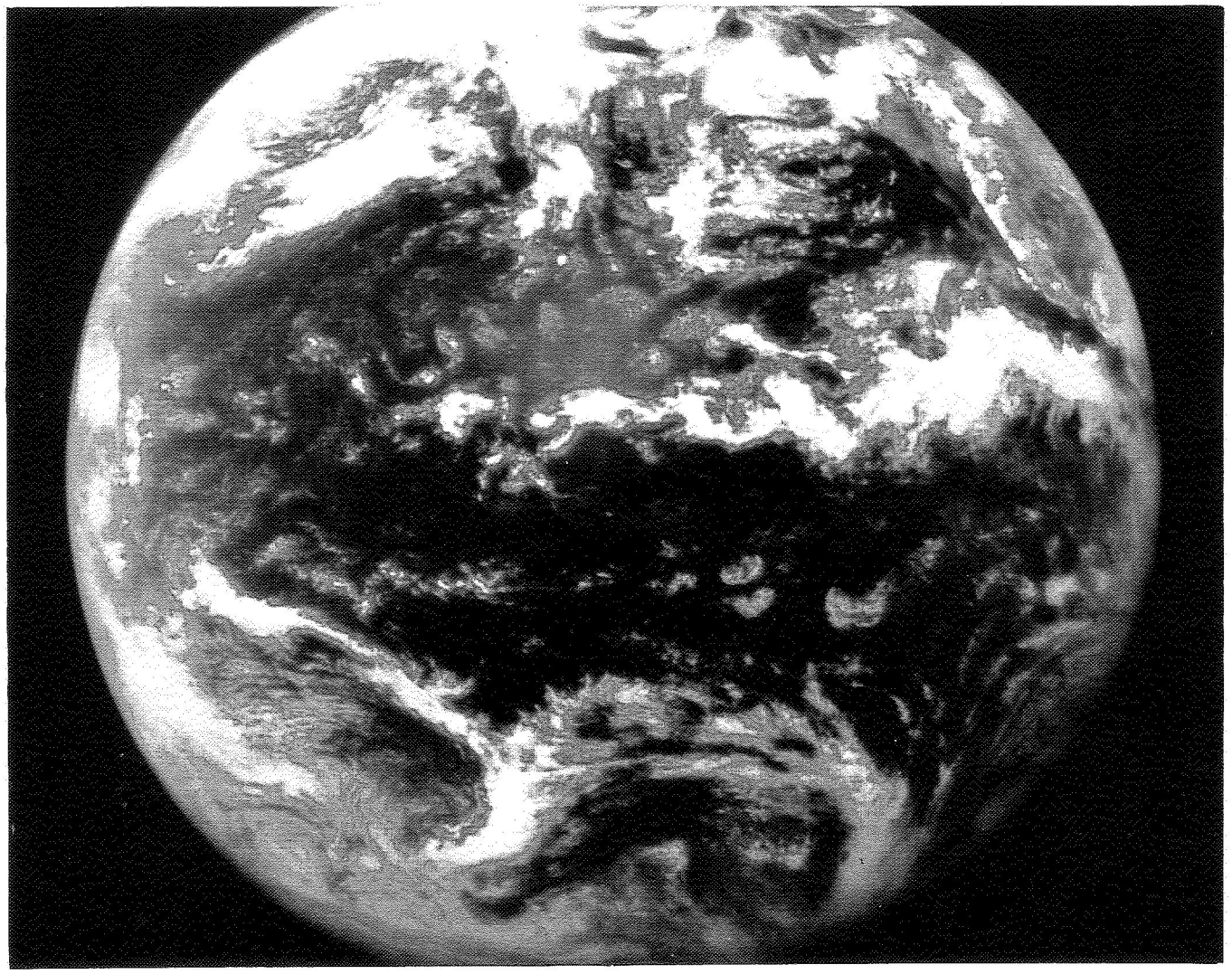


ATS-I 4 JUNE 1967 22 19 48 UT SEQ 7

5 JUN 67 SUBSATELLITE PT 150.67W 00.21N TOTAL PICS 5

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	18 24 24	10	3002	1100F 2140A 2240A 1200E 4610E 4200H	US MEXICO
01	18 24 24	20	4000	2240A 2140A 4200A	US MEXICO
01	18 24 24	50	1002	2140A 2240F	
01	18 24 24	60	4000	2140A	
02	18 47 56	00	3002		
03	22 12 28	10	3000	1100F 2140A 2240A 1200E 4610G 4200H	US MEXICO
03	22 12 28	20	4000	2240A 4200A	US MEXICO
03	22 12 28	40	4000	2140A 2240A	
03	22 12 28	50	1000	1100G 2140A 2240F	
03	22 12 28	60	4000	2140A	
03	22 12 28	80	4000	2140A 1100A 2230A	
04	22 36 03	00	3000		EE
05	22 59 34	00	3000		PE EE

6 JUNE 1967 NO DATA AVAILABLE

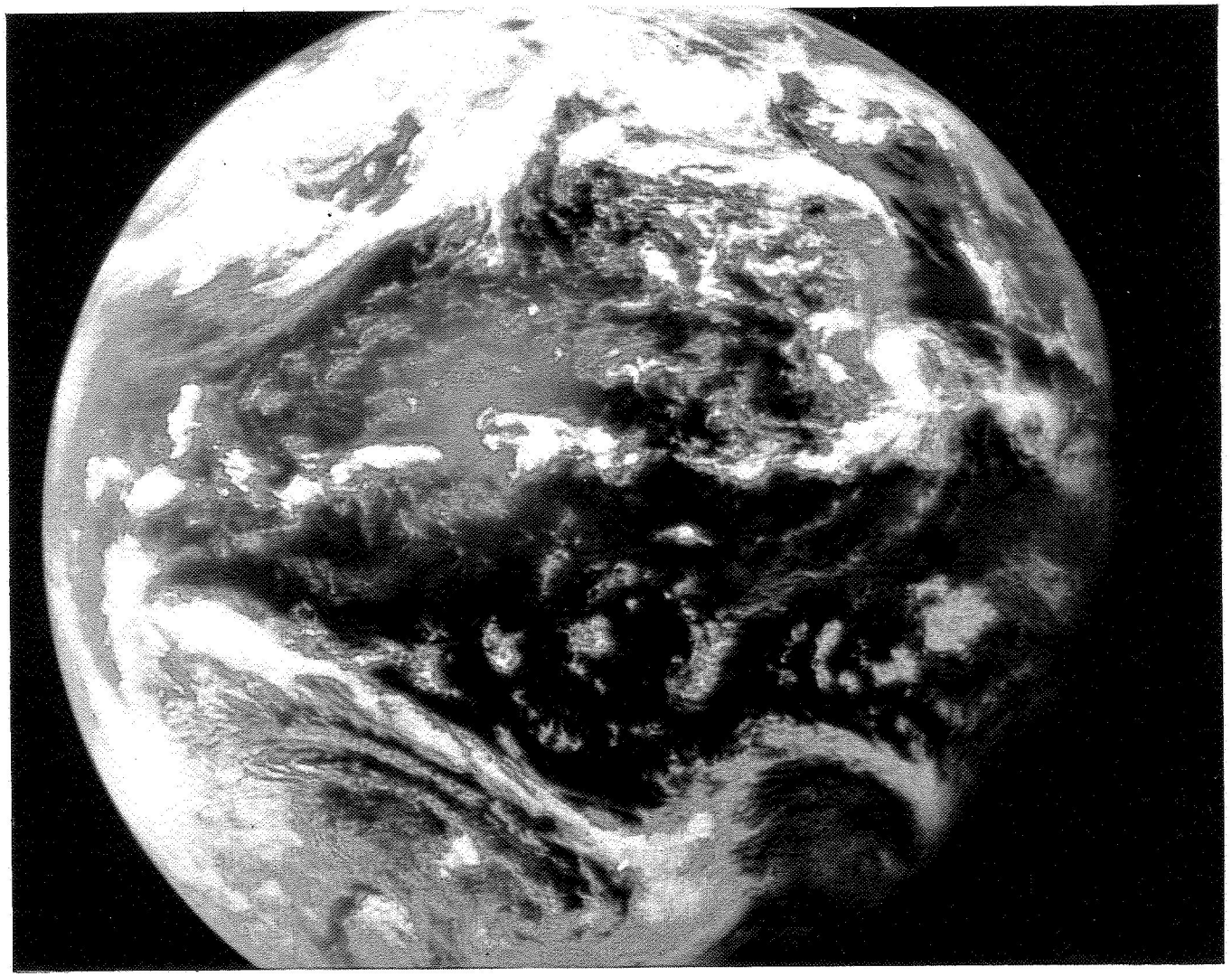


ATS-I 5 JUNE 1967 22 12 28 UT SEQ 3

6 JUNE 1967 NO DATA AVAILABLE

7 JUN 67 SUBSATELLITE PT 150.68W 00.19N TOTAL PICS 2

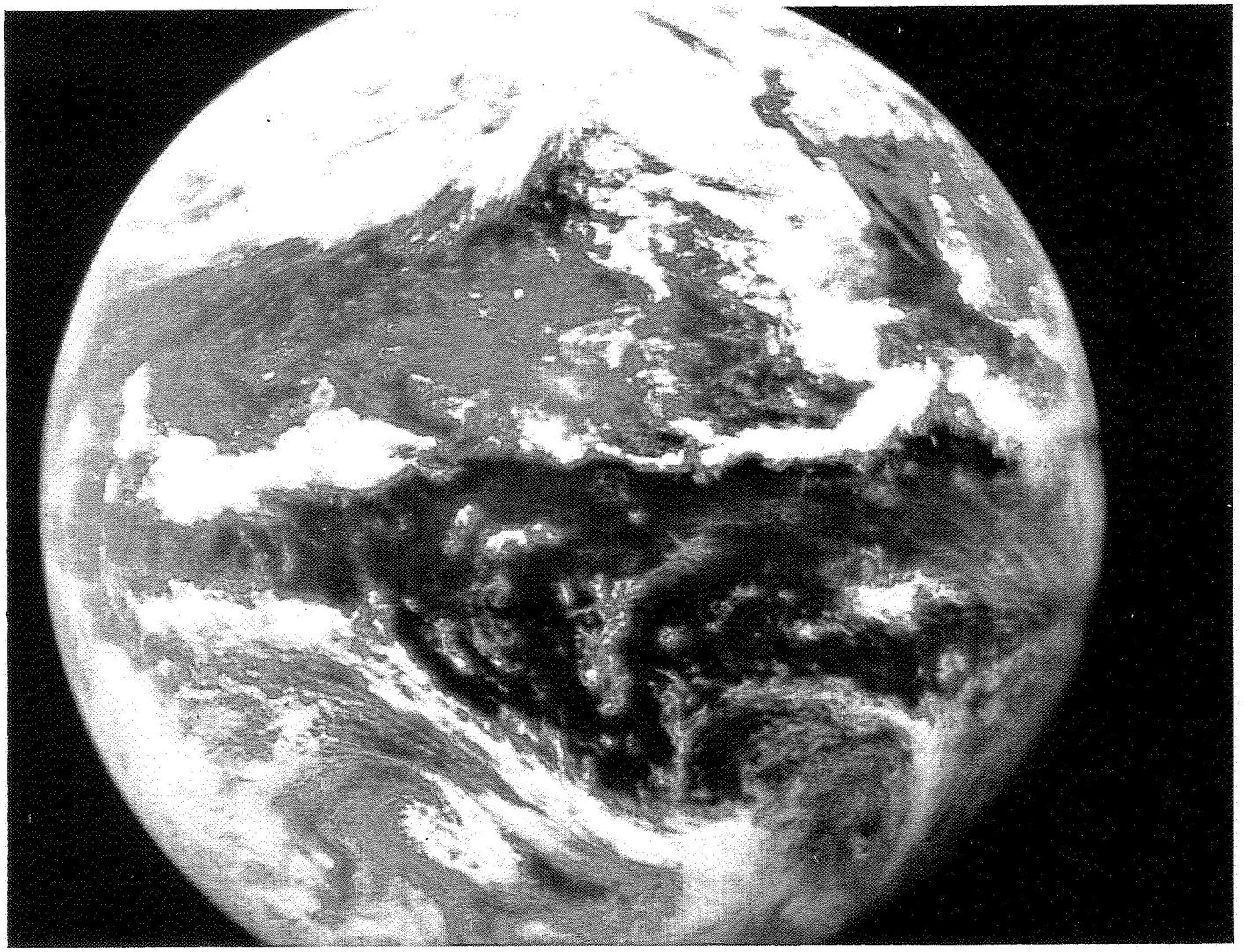
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	23 08 17	10	3000	1100F 2140A 6040E 2240G 4610D 4710H	US MEXICO
01	23 08 17	20	4001	2240A	
01	23 08 17	40	4000	2140A 1100A 2240A	
01	23 08 17	50	1000	1100G 2140A 2240A	
01	23 08 17	60	4001	2240A	
01	23 08 17	80	4000	2140A 2230A	
02	23 31 52	00	3001		



ATS-I 7 JUNE 1967 23 08 17 UT SEQ 1

8 JUN 67 SUBSATELLITE PT 150.71W 00.19N TOTAL PICS 8

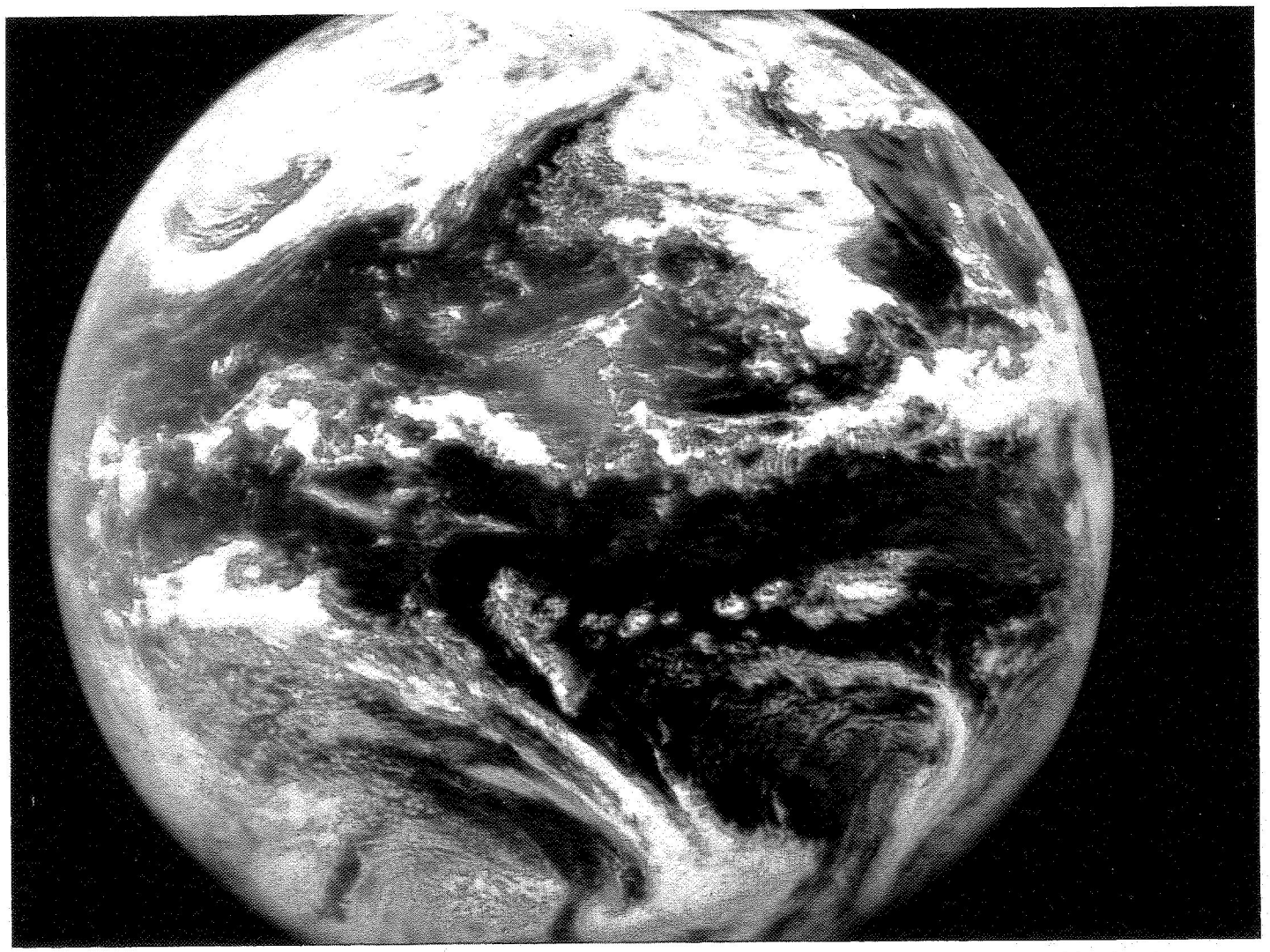
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 57 59	00	4001		
02	03 20 34	00	4001		
03	03 44 09	00	4001		
04	18 07 36	10	3002	1100F 2140A 6040E 2240G 3150E 4710H	US MEXICO
04	18 07 36	20	4000	2240A 2140A 4200A	US MEXICO
04	18 07 36	50	1002	1100G 2140A 2240B	
04	18 07 36	60	4000	2140A 2240A	
05	18 31 12	00	4002		EE
06	18 54 49	00	4002		EE
07	22 21 10	10	3000	1100F 2140A 6040E 2240G 4610G 4710H	US MEXICO HAW
07	22 21 10	20	4000	2240A 2140A 4200A	US MEXICO
07	22 21 10	40	4000	1100A 2140A 2240A	
07	22 21 10	50	1000	1100G 2140A 2240F 3100B	
07	22 21 10	60	4000	2140A 3100A	
07	22 21 10	80	4000	2140A 2240A 1100A	
08	22 44 26	00	3001		



ATS-I 8 JUNE 1967 22 21 10 UT SEQ 7

9 JUN 67 SUBSATELLITE PT 150.73W 00.18N TOTAL PICS 5

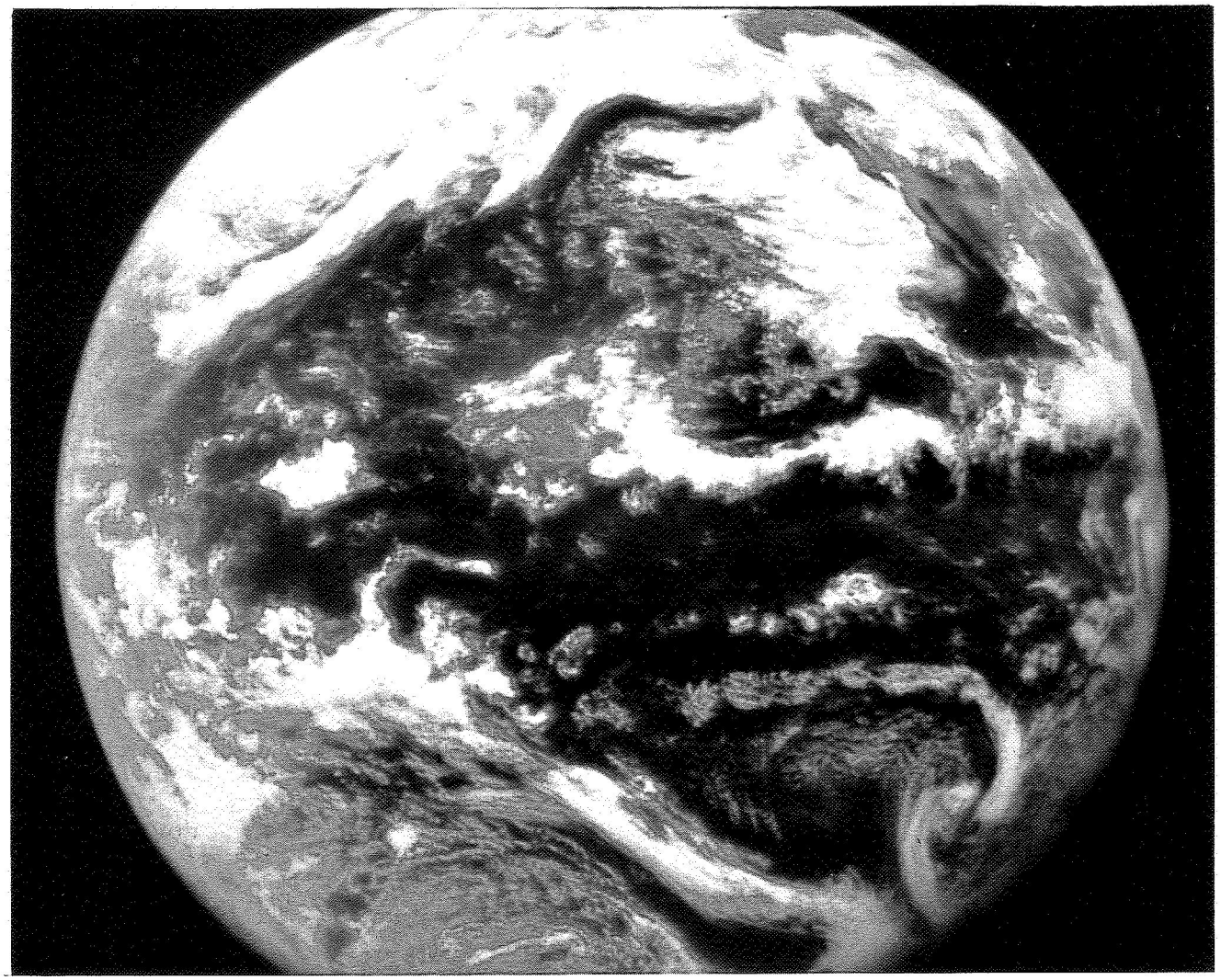
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 18 47	00	4001		EE
02	03 42 22	00	4001		EE
03	04 05 54	00	4001		PE
04	21 18 05	00	3000		EE
05	21 41 43	10	3000	1100F 2140A 6040E 2240G 3100E 4710H	US MEXICO
05	21 41 43	20	4000	2240A 4200A	US MEXICO
05	21 41 43	40	4000	1100A 2140A 2240A	
05	21 41 43	50	1000	1100G 2140A 2240F	
05	21 41 43	60	4000	2140A	
05	21 41 43	80	4000	2140A 2240A	



ATS-I 9 JUNE 1967 21 41 43 UT SEQ 5

10 JUN 67 SUBSATELLITE PT 150.75W 00.18N TOTAL PICS 8

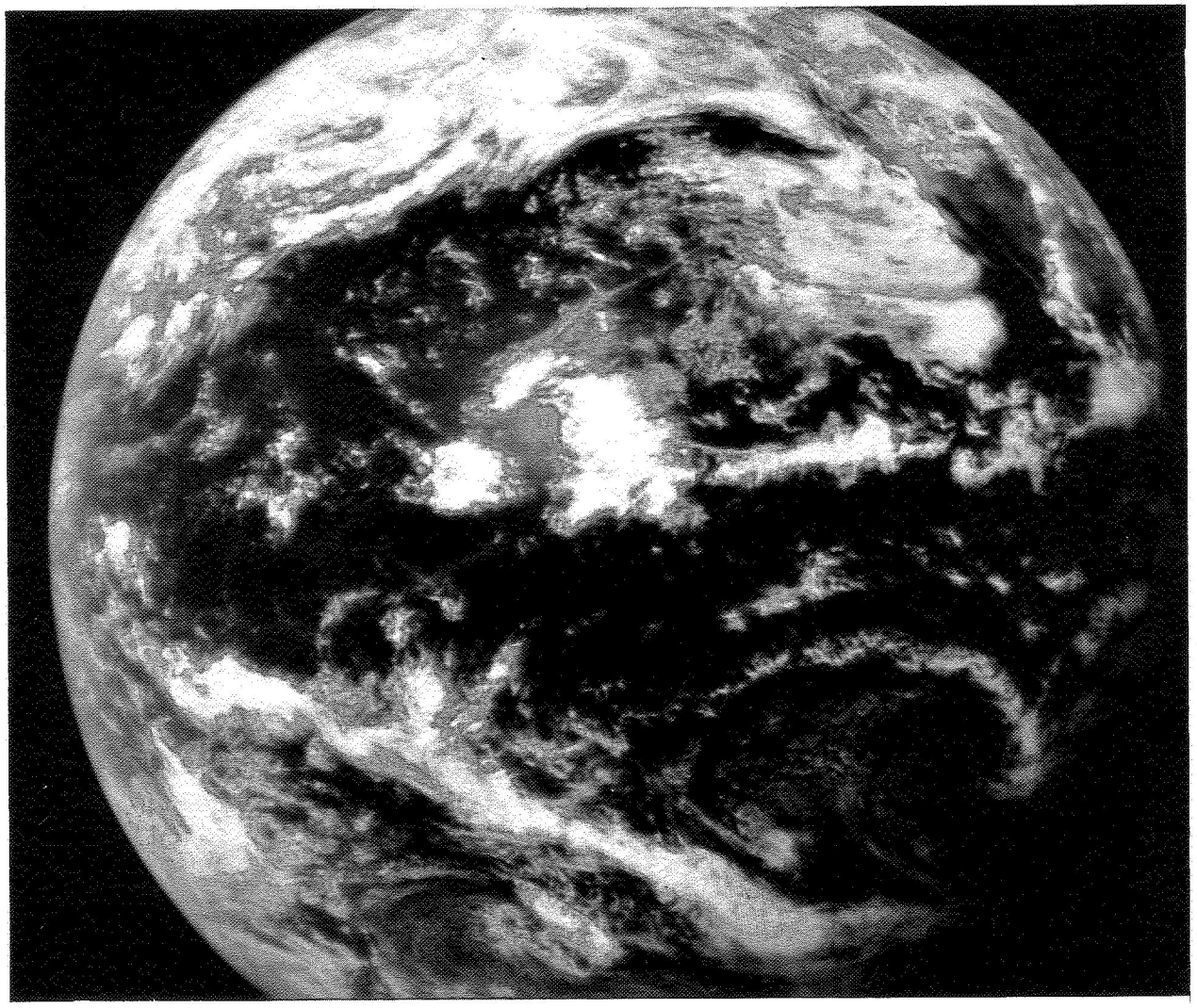
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 05 54	00	4001		
02	03 29 31	00	4001		
03	18 03 52	00	3002		PE
04	18 27 26	00	3002		PE
05	18 51 01	10	3002	2143F 21421 2240G 6040E 4710H 4610E	US MEXICO
05	18 51 01	20	4000	2240A 2230A 4200A	MEXICO US
05	18 51 01	40	5002	5000A	
05	18 51 01	50	1002	1100H 2140A 2240F	
05	18 51 01	60	4000	2140A	
05	18 51 01	80	5002	5000A	
06	22 08 26	10	3000	2143F 21401 2240G 3100H 6040E 4710H	US MEXICO
06	22 08 26	20	4000	2230A 2140A 4200A	MEXICO
06	22 08 26	40	4000	2140A	
06	22 08 26	50	1000	1114B 2140A 2240B 2230C 3100D	
06	22 08 26	60	4000	2240A	
06	22 08 26	80	4000	2140A 2230A	
07	22 32 00	00	3001		
08	22 55 34	00	3001		PE



ATS-I 10 JUNE 1967 22 08 26 UT SEQ 6

11 JUN 67 SUBSATELLITE PT 150.77W 00.17N TOTAL PICS 7

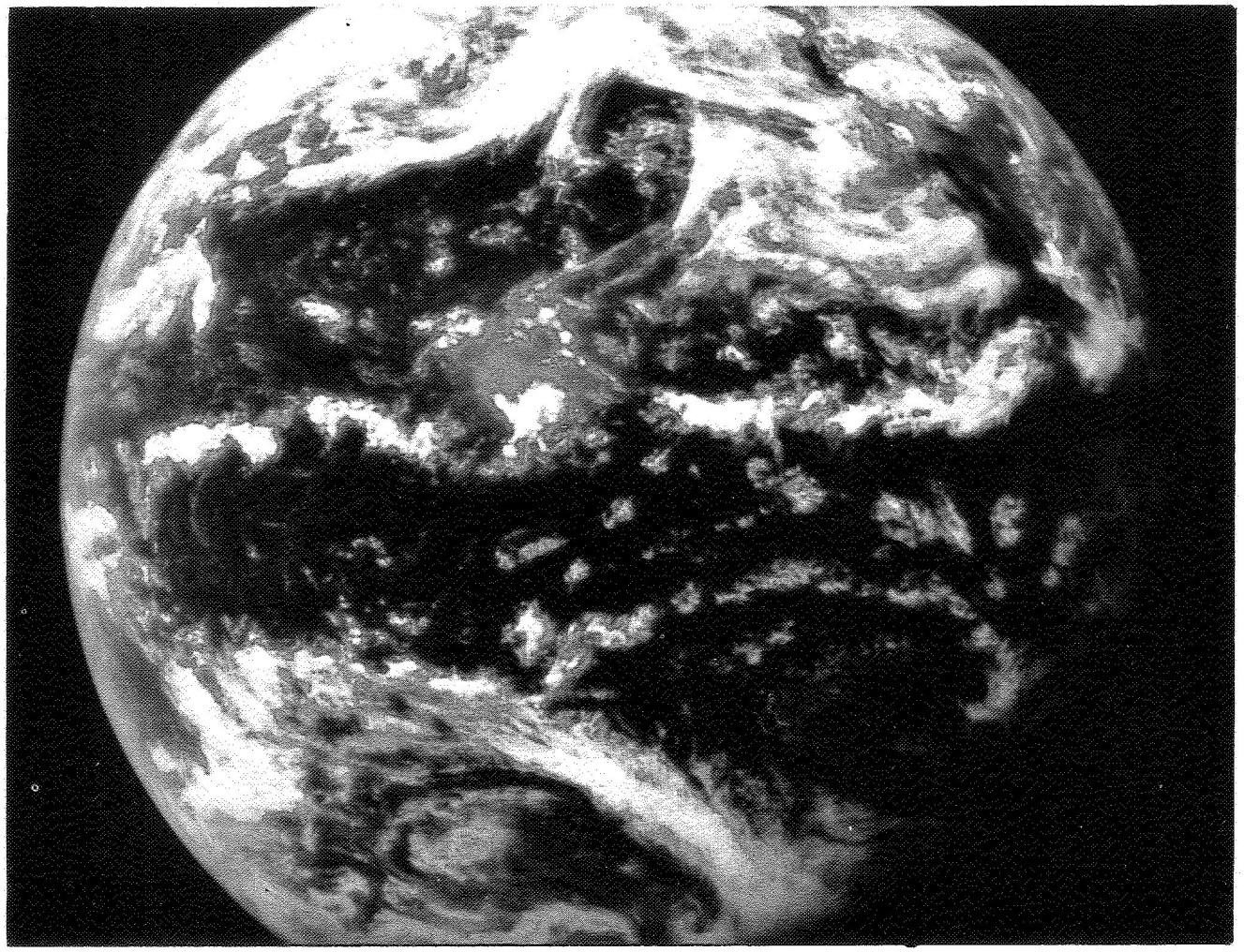
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 01 05	00	4001		
02	03 24 44	00	4001		
03	03 48 20	00	4001		
04	18 18 34	10	3002	2143F 2240G 2230G 4610E 4710H	US MEXICO
04	18 18 34	20	4000	2230A 2140A 4200A	US MEXICO
04	18 18 34	50	1002	2140A 1100H 2240F 2230C	
04	18 18 34	60	4000	2140A 2240A	
05	18 42 08	00	3002		
06	22 46 34	10	3000	2140A 2240G 2230G 1100F 4610D 4710H	US MEXICO
06	22 46 34	20	4000	2230A 2140A 4200A	MEXICO
06	22 46 34	40	4000	2140A 1100A	
06	22 46 34	50	1000	1100K 2140A 2240F 2230C	
06	22 46 34	60	4001	2140A	
06	22 46 34	80	4000	2140A 2230A	
07	23 10 09	00	3001		



ATS-I 11 JUNE 1967 22 46 34 UT SEQ 6

12 JUN 67 SUBSATELLITE PT 150.78W 00.16N TOTAL PICS 8

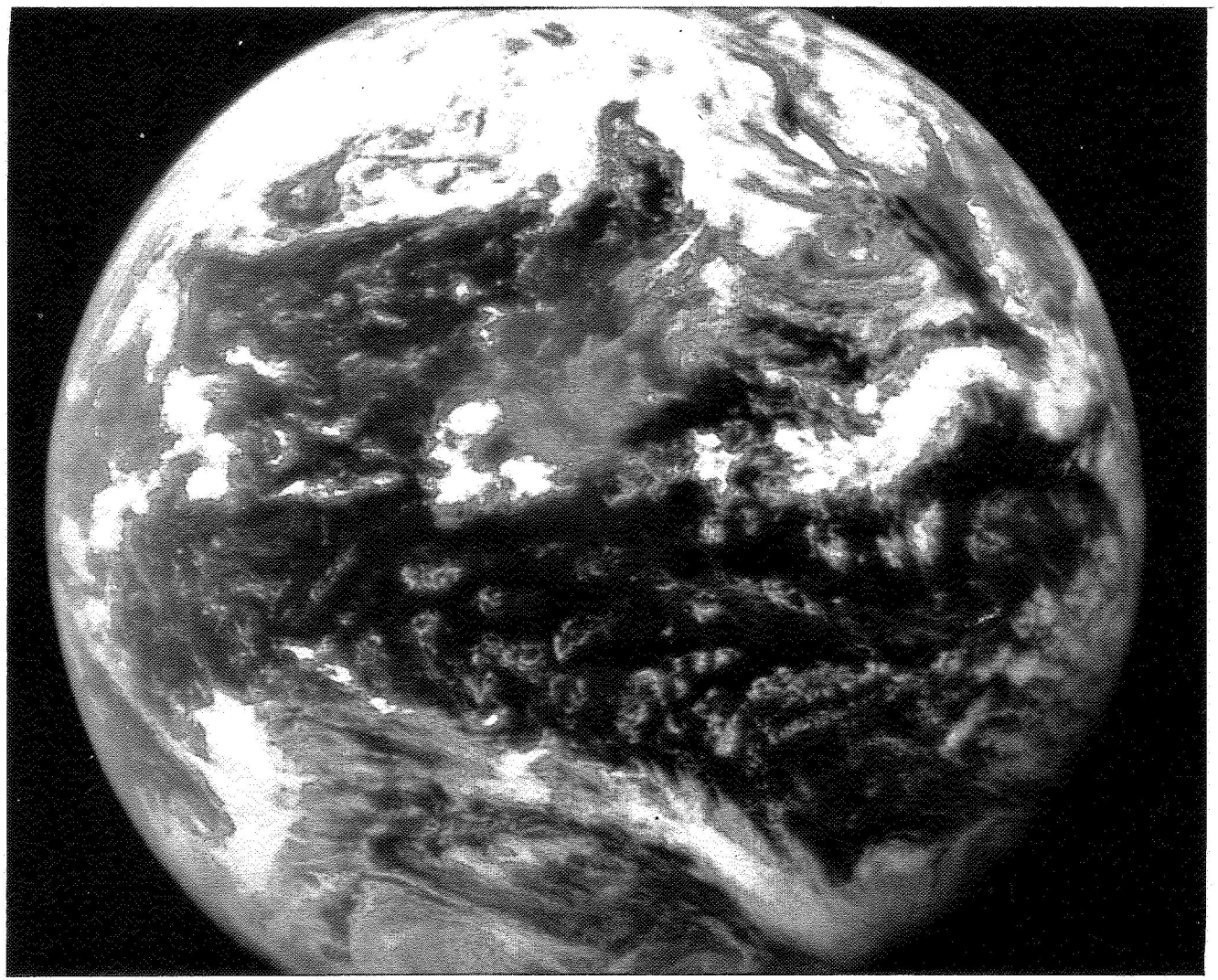
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 39 58	00	4001		
02	03 03 34	00	4001		
03	03 27 08	00	4001		
04	18 17 11	00	4001		PE
05	18 40 46	10	3002	2143F 2142A 3100A 2240G 1100F 4710H	US MEXICO
05	18 40 46	20	4000	2230A 2240A 2140A	
05	18 40 46	40	5002	5000A	
05	18 40 46	50	1002	1113D 1114B 2140A 2240F	
05	18 40 46	60	4000	2140A 2240A	
06	22 58 38	00	3500		
07	23 04 24	10	3000	2143F 2142A 3100H 2240A 4610D 4710H	US MEXICO
07	23 04 24	20	4001	2230A	
07	23 04 24	40	4000	2140A	
07	23 04 24	50	1000	1100K 2140A 2240F	
07	23 04 24	60	4001	2140A 2240A	
07	23 04 24	80	4000	2140A 2230A 2240A 4200A	ASTR
08	23 27 57	00	3001		



ATS-I 12 JUNE 1967 23 04 24 UT SEQ 7

13 JUN 67 SUBSATELLITE PT 150.80W 00.16N TOTAL PICS 11

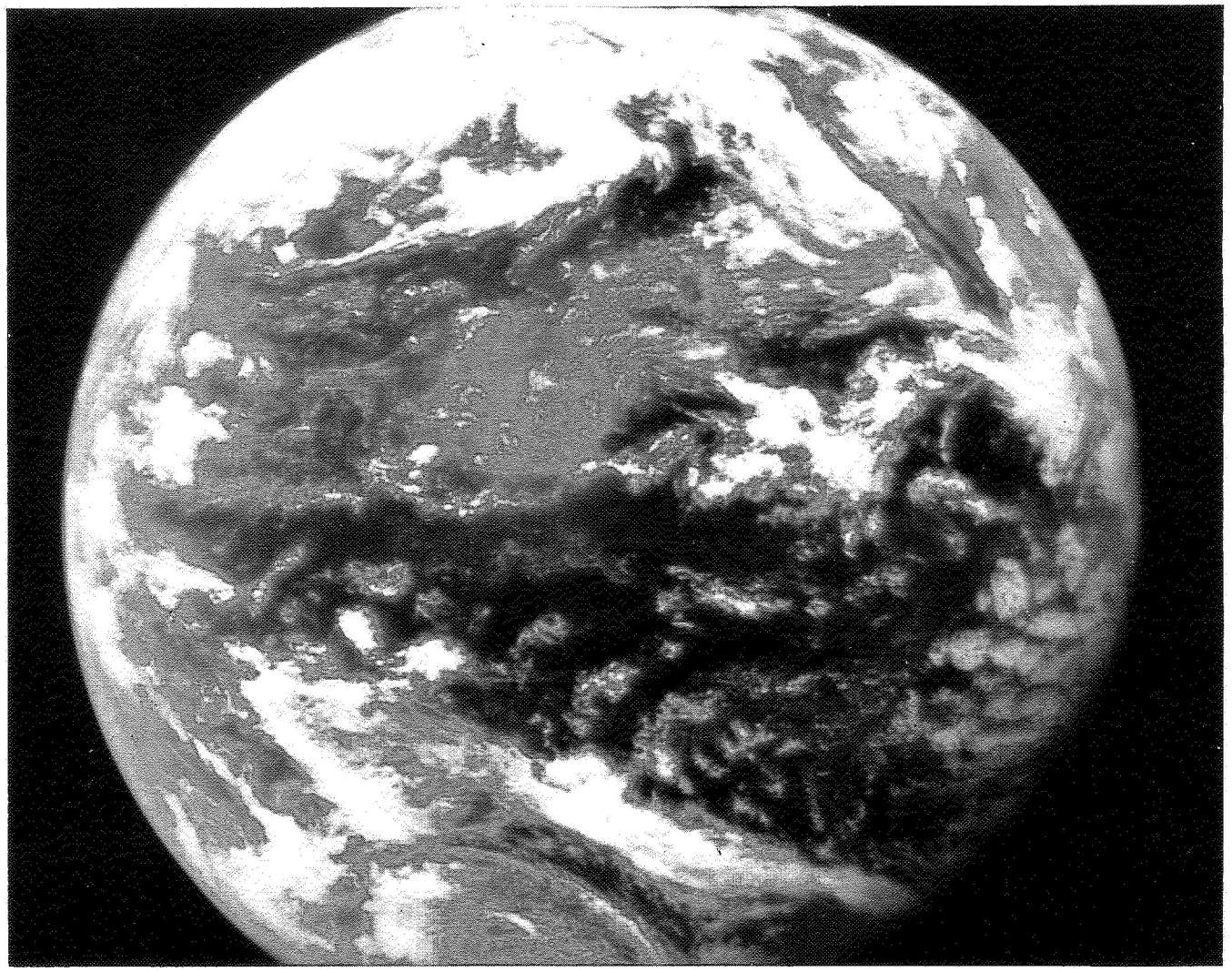
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 59 39	00	4001		PE
02	04 23 15	00	4001		
03	04 46 49	00	4001		
04	05 10 24	00	4001		
05	05 33 59	00	5001		
06	18 09 43	00	3002		PE
07	18 33 17	10	3002	1100F 2140A 2240G 2230E 4200H 4610E	US MEXICO
07	18 33 17	20	4000	2140A 2230A 2240A 4200A	US
07	18 33 17	40	5002	5000A	
07	18 33 17	50	1002	1100G 2140A 2240F	
07	18 33 17	60	4000	2140A 2240A	
07	18 33 17	80	5002	5000A	
08	18 56 53	00	3002		
09	21 49 34	00	3000		
10	22 13 08	10	3000	1100F 2140A 2240G 2230G 4200H 4610G	US MEXICO
10	22 13 08	20	4000	2230A 2240A 4200A	US MEXICO
10	22 13 08	40	4000	1100A 2140A 2230A	
10	22 13 08	50	1000	2140A 1100G 2240F	
10	22 13 08	60	4000	2240A 2140A	
10	22 13 08	80	4000	2140A 2230A 1100A 2240A 4200A	ASTR
11	22 36 43	00	3001		



ATS-I 13 JUNE 1967 22 13 08 UT SEQ 10

14 JUN 67 SUBSATELLITE PT 150.82W 00.15N TOTAL PICS 9

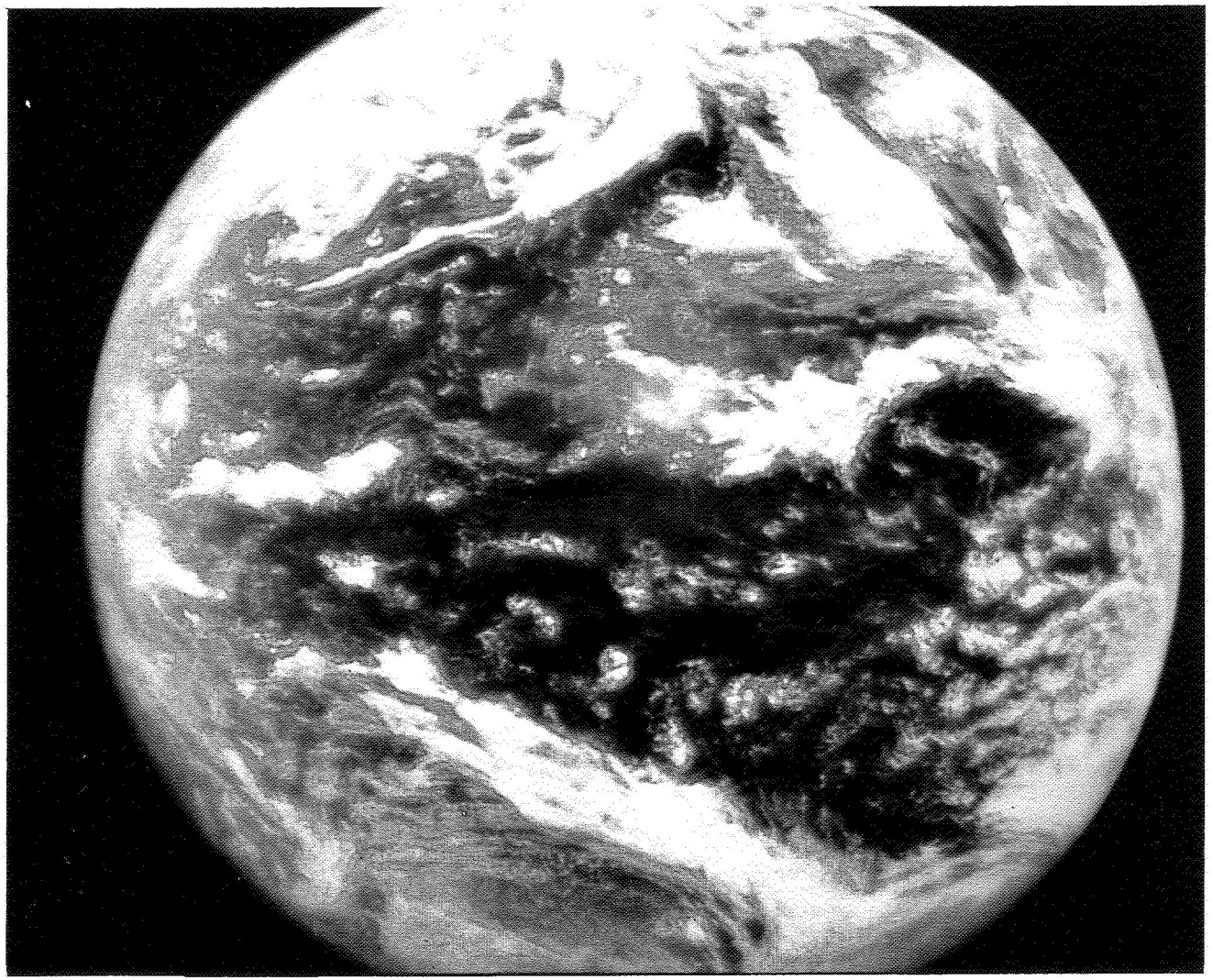
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	04 20 42	00	4001		
02	04 44 18	00	4001		
03	05 07 53	00	4001		
04	18 49 06	00	3002		
05	19 12 39	10	3000	1100F 2140A 6041E 2240G 4200H 4610E	US MEXICO
05	19 12 39	20	4000	6041A 2240A 2140A 4200A	US MEXICO
05	19 12 39	40	5002	5000A	
05	19 12 39	50	1002	1100G 2140A 2240F	
05	19 12 39	60	4000	2140A 2240A	
05	19 12 39	80	5002	2140A 2240A	
06	19 36 12	00	3502		
07	22 47 07	10	3000	1100F 2140A 3100E 2240A 6041E 4200H	US MEXICO
07	22 47 07	20	4000	6041A 2240A 2140A	
07	22 47 07	40	4000	1100A 2140A 2230A	
07	22 47 07	50	1000	1100G 2140A 2240F	
07	22 47 07	60	4001	2240A	
07	22 47 07	80	4000	2140A 1100A 2230A 4200A	ASTR
08	23 10 41	00	3001		
09	23 34 17	00	3001		



ATS-I 14 JUNE 1967 22 47 07 UT SEQ 7

15 JUN 67 SUBSATELLITE PT 150.83W 00.15N TOTAL PICS 9

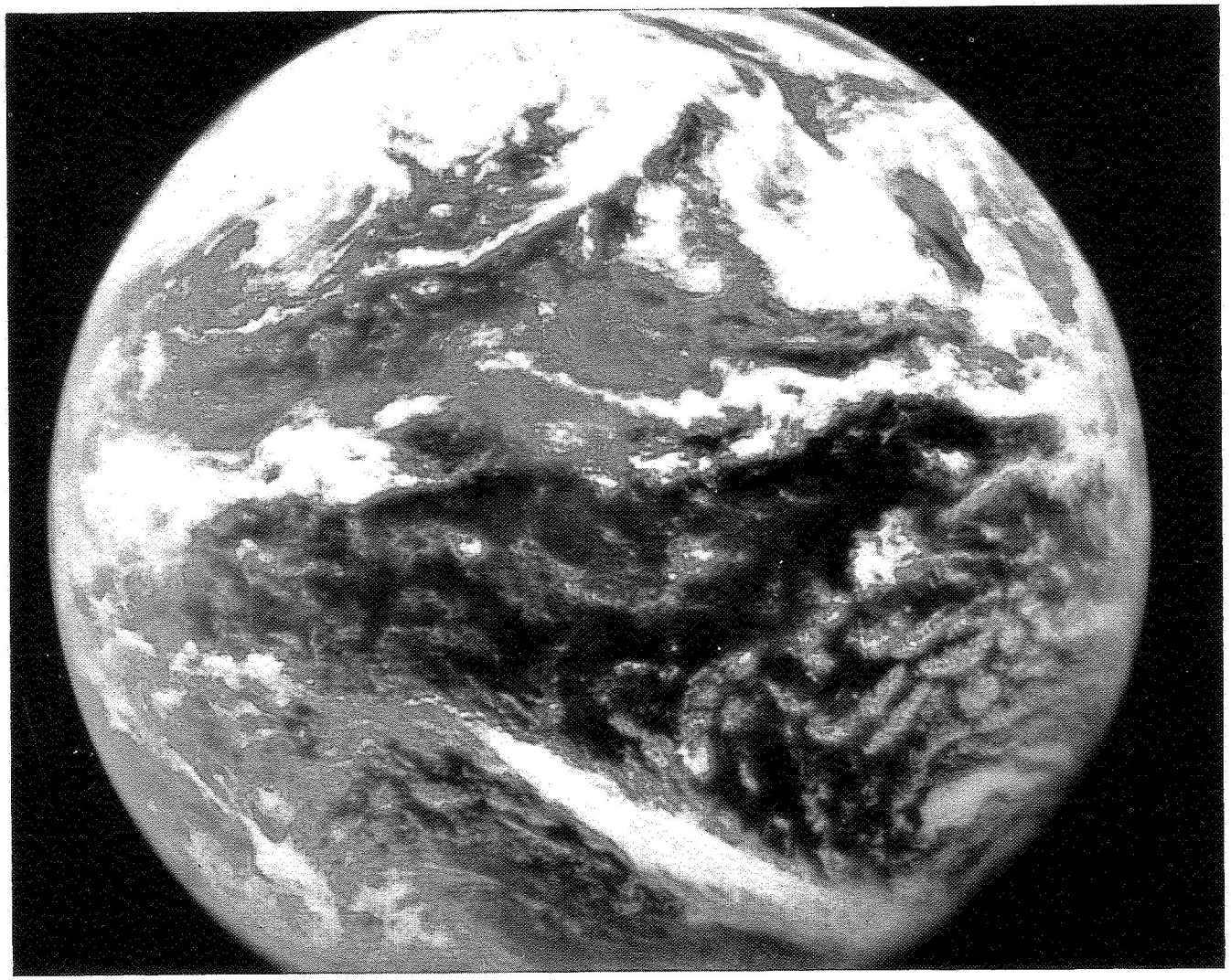
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 38 03	00	4001		
02	04 01 37	00	4001		
03	04 25 12	00	4001		EE
04	18 15 00	00	4002		
05	18 38 34	10	3002	1100F 2140A 6041E 2240G 3100E 4200H	US MEXICO
05	18 38 34	20	4000	6041A 2140A 2240A	
05	18 38 34	40	5002	5000A	
05	18 38 34	50	1002	2140A 1100E 2240F	
05	18 38 34	60	4000	2240A 2140A	
05	18 38 34	80	5002	5000A	
06	19 02 10	00	3002		
07	20 55 09	00	3002		
08	21 18 43	10	3002	1100F 2140A 2240G 6041E 3100E 4200H	US MEXICO
08	21 18 43	20	4000	6041A 2240A 2140A	
08	21 18 43	40	4000	2140A 2240A	
08	21 18 43	50	1000	2143E 21421 2141E 2240F 3100D	
08	21 18 43	60	4000	2140A 3100A	
08	21 18 43	80	4000	2140A 2230A	
09	21 42 20	00	4000		EE



ATS-I 15 JUNE 1967 21 18 43 UT SEQ 8

16 JUN 67 SUBSATELLITE PT 150.84W 00.14N TOTAL PICS 7

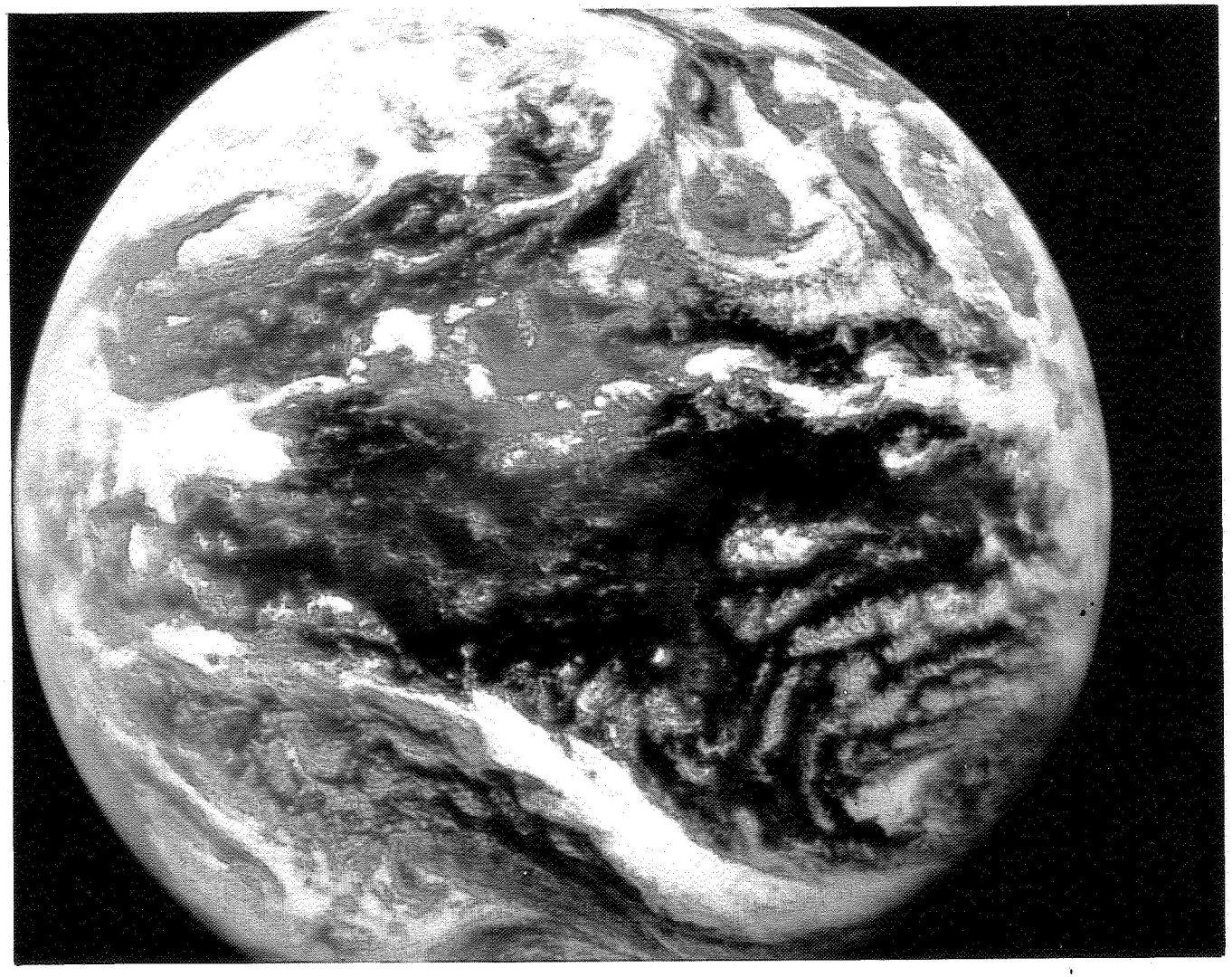
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 30 45	00	4001		
02	18 05 53	00	4002		
03	18 29 29	00	3002		
04	18 52 58	10	3002	1100F 2140A 2240G 6041E 2230E 4200H	US MEXICO
04	18 52 58	20	4000	2230A 2240A 6041A 2140A	
04	18 52 58	40	5002	5000A	
04	18 52 58	50	1002	2140A 3100K 2240F	
04	18 52 58	60	4000	2140A 2240A	
04	18 52 58	80	5002	5000A	
05	21 22 42	00	3000		
06	21 46 17	00	3000		
07	22 09 52	10	3000	1100F 2140A 6041E 2240G 2230E 4200H	US MEXICO
07	22 09 52	20	4000	2230A 2140A	
07	22 09 52	40	4000	2140A 2240A 2230A	
07	22 09 52	50	1000	2140A 2240F	
07	22 09 52	60	4000	2140A	
07	22 09 52	80	4000	2140A 1100A 2240A 4200A	ASTR



ATS-I 16 JUNE 1967 22 09 52 UT SEQ 7

17 JUN 67 SUBSATELLITE PT 150.86W 00.14N TOTAL PICS 9

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 35 06	00	4001		
02	02 58 42	00	4001		
03	03 22 18	00	4001		
04	18 02 49	00	3002		
05	18 26 24	00	3002		
06	18 49 59	10	3002	1100F 2140A 2240G 2230G 4200H 4610E	US MEXICO
06	18 49 59	20	4000	2230A 2140A 2240A	
06	18 49 59	40	5002	5000A	
06	18 49 59	50	1002	2140A 2240B 3100G	
06	18 49 59	60	4000	2140A 2240A	
06	18 49 59	80	5002	5000A	
07	21 38 40	00	3000		
08	22 02 15	10	3000	1100F 2140A 2240G 2230G 4200H 4710G	US MEXICO
08	22 02 15	20	4000	2230A 2240A 2140A 4200A	US MEXICO
08	22 02 15	40	4000	1100A 2140A 2240A	
08	22 02 15	50	1000	2140A 2240B 3100B	
08	22 02 15	60	4000	2240A	
08	22 02 15	80	4000	2140A 2240A 1114A 4200A	ASTR
09	22 25 00	00	3000		

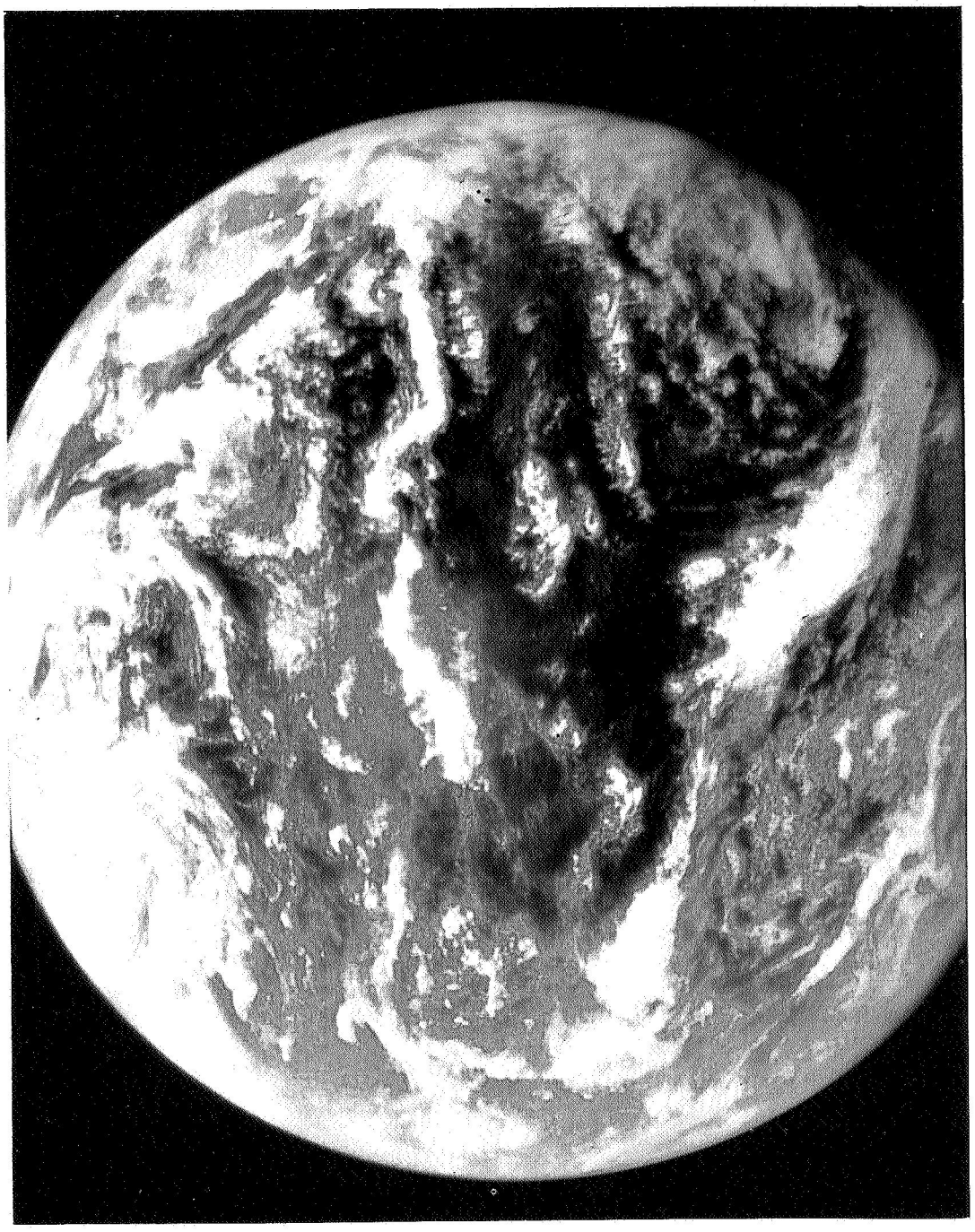


ATS-I 17 JUNE 1967 22 02 15 UT SEQ 8

Q

18 JUN 67 SUBSATELLITE PT 150.86W 00.14N TOTAL PICS 9

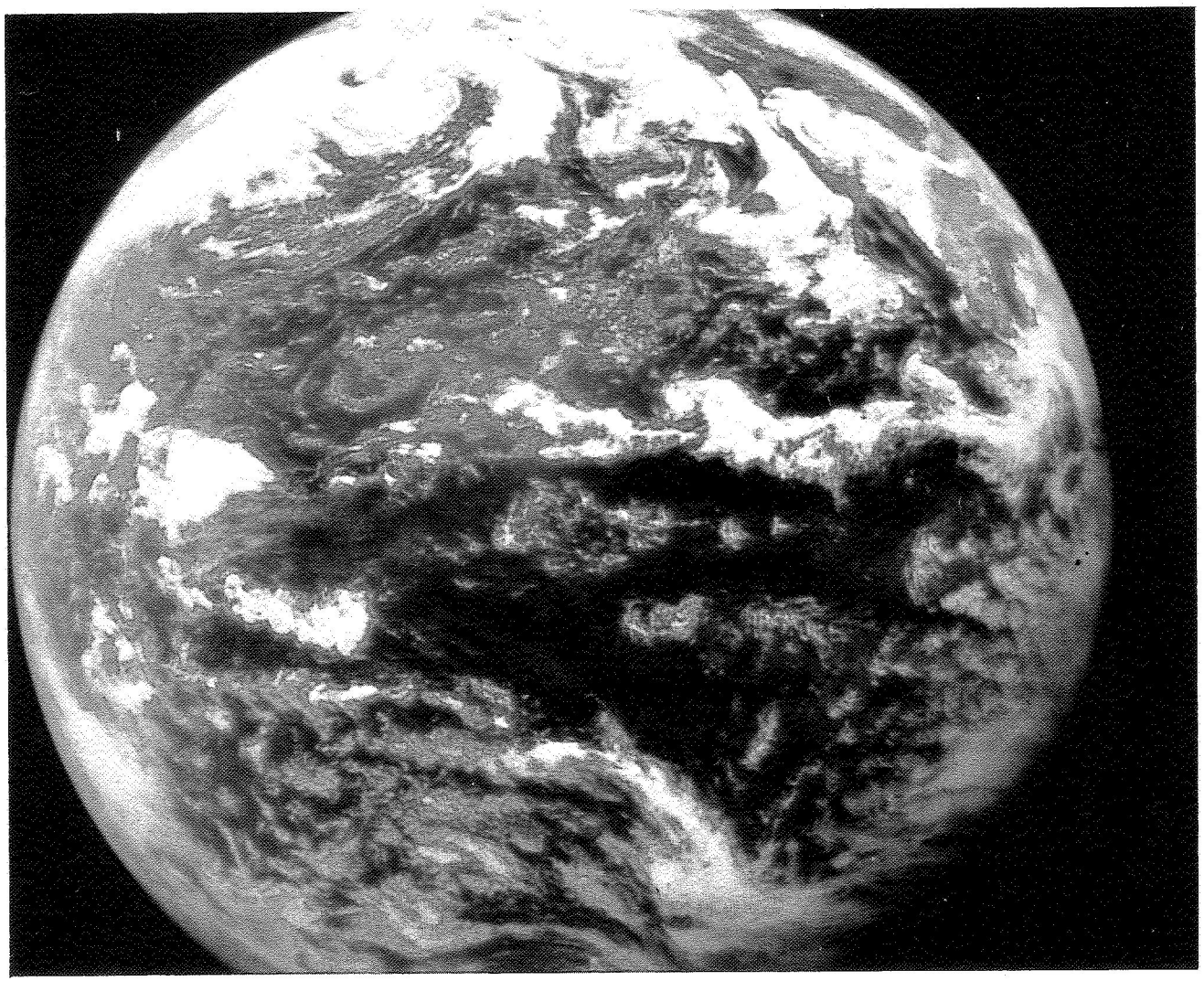
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 53 09	00	4001		
02	03 16 44	00	4001		
03	03 40 19	00	4001		
04	18 11 31	00	4002		
05	18 35 06	00	4002		
06	18 58 42	10	1002	1100F 2140A 2240G 3100G 4200H 4610E	US MEXICO
06	18 58 42	20	4000	2230A 2240A 4200A	US MEXICO
06	18 58 42	40	5002	5000A	
06	18 58 42	50	1002	2140A 2240F	
06	18 58 42	60	4000	2240A	
06	18 58 42	80	5002	2140A	
07	22 14 13	10	3000	1100F 2140A 2240G 2230E 3100A 4200H	US MEXICO
07	22 14 13	20	4000	2230A 4200A	US MEXICO
07	22 14 13	40	4000	2140A 1100A	
07	22 14 13	50	1000	2140A 2240F 2230C	
07	22 14 13	60	4000	2240A	
07	22 14 13	80	4000	2230A 2140A 1114A 4200A	ASTR
08	22 37 48	00	3001		
09	23 01 23	00	3001		



ATS-I 18 JUNE 1967 22 14 13 UT SEQ 7

19 JUN 67 SUBSATELLITE PT 150.87W 00.13N TOTAL PICS 9

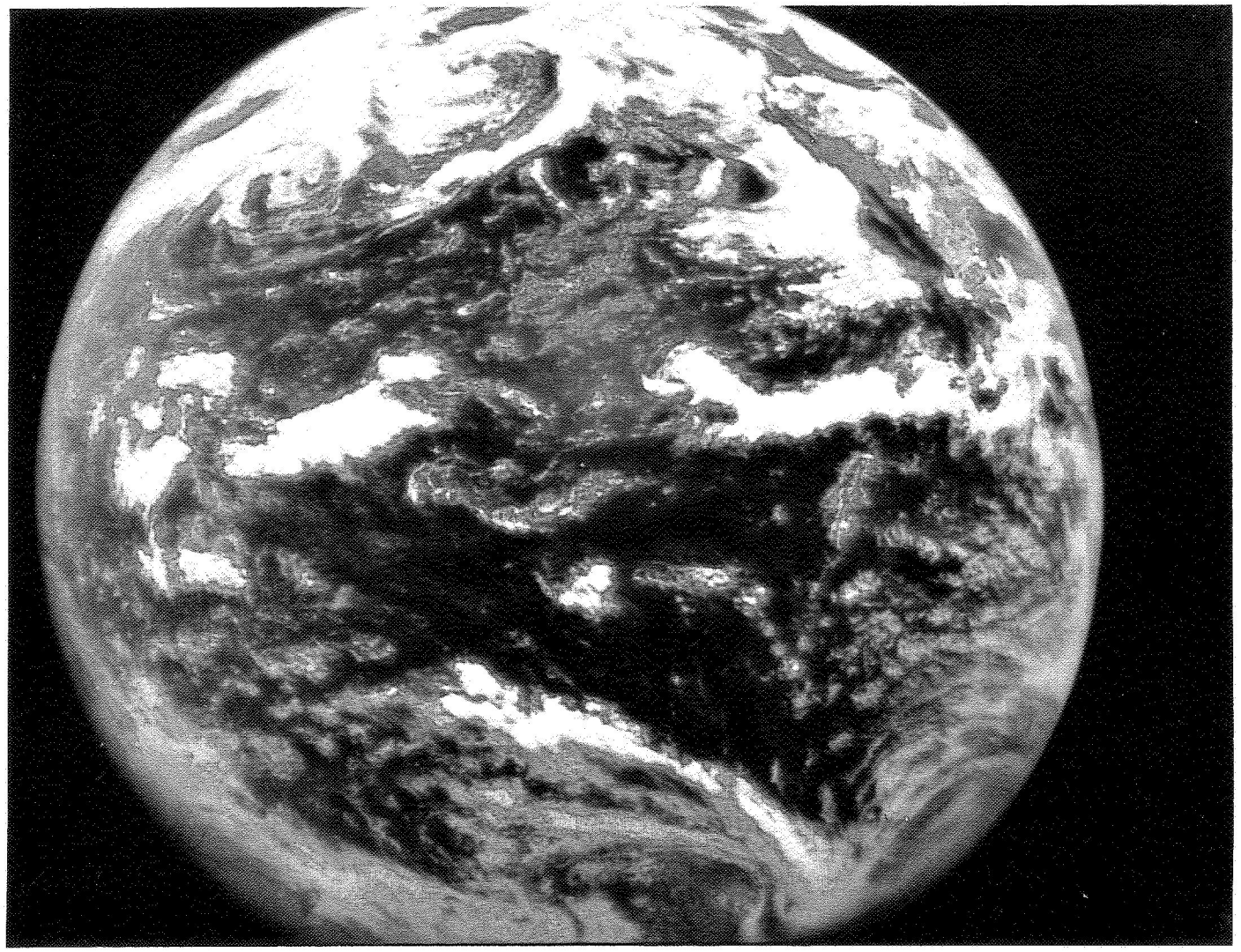
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 44 33	10	1001	1100F 2140A 2240G 3100D 4610D	
01	02 44 33	40	4000	1100A 2140A 2240A	
01	02 44 33	50	1001	21401	
01	02 44 33	80	4000	2140A 1114A 2230A 2240A 4200A	ASTR
02	03 08 07	00	4001		
03	03 31 45	00	4001		
04	18 11 38	00	7000		
05	18 35 16	00	3002		
06	18 59 49	10	3000	1100F 2140A 2240G 2230E 3100A 4200H	US MEXICO
06	18 59 49	20	4000	2230A 2240A 4200A	US MEXICO
06	18 59 49	40	5002	5000A	
06	18 59 49	50	1002	2143E 2240F 2140A	
06	18 59 49	60	4000	2140A 2240A	
06	18 59 49	80	5002	5000A	
07	22 27 24	10	3000	1100F 2140A 3100A 2240G 2230E 4200H	US MEXICO
07	22 27 24	20	4000	2230A 2240A 4200A	US MEXICO
07	22 27 24	40	4000	2140A 2240A	
07	22 27 24	50	1000	2140A 2240F	
07	22 27 24	60	4000	2140A 2240A	
07	22 27 24	80	4000	2140A 2240A 4200A	ASTR
08	22 51 00	00	3001		
09	23 14 34	00	3001		



ATS-I 19 JUNE 1967 22 27 24 UT SEQ 7

20 JUN 67 SUBSATELLITE PT 150.88W 00.13N TOTAL PICS 24

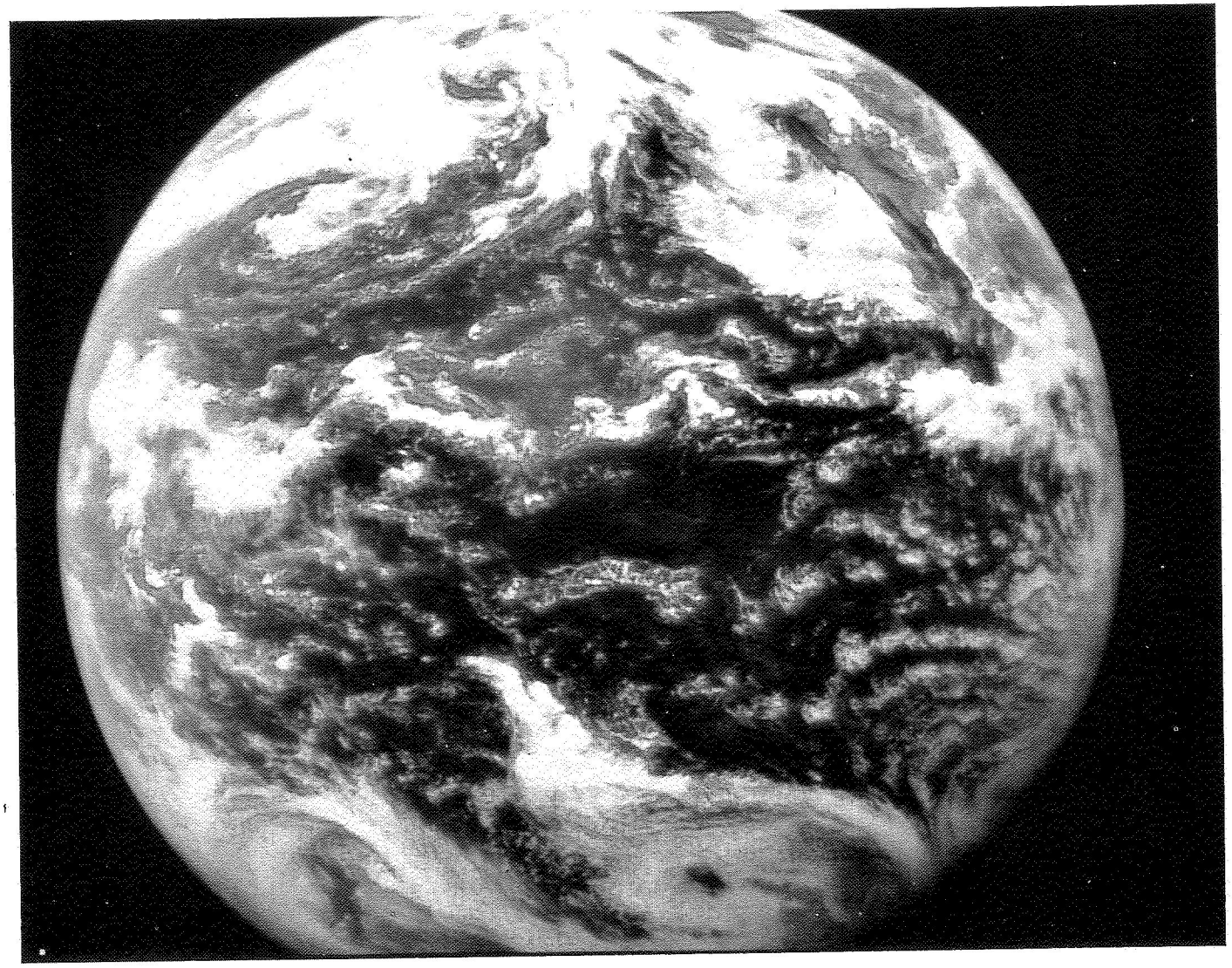
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 12 52	00	4001		
02	03 36 27	00	4001		
03	13 09 50	00	5002		
04	13 33 25	00	5002		
05	13 57 00	00	5002		
06	14 20 36	00	5002		
07	14 44 10	00	5002		
08	15 07 48	00	4002		EE
09	15 31 20	00	4002		
10	15 54 57	00	4002		
11	16 18 33	10	3002	1100F 2140A 2240E 2230E 4710H 4610E	US MEXICO
11	16 18 33	20	4000	2230A 2240A 4200A	US MEXICO
11	16 18 33	50	1002	1100H 2140H	
11	16 18 33	60	4000	1100A 2140A	
11	16 18 33	90	5002	5000A	
12	16 42 07	00	3002		
13	17 05 43	00	3002		
14	17 29 17	00	3002		
15	17 52 52	00	3002		
16	18 16 27	00	3002		
17	18 40 08	00	3002		
18	19 03 40	10	3002	1100F 2140A 2240A 2230E 4610E 4200H	US MEXICO
18	19 03 40	20	4000	2230A 2240A 2140A 4200A	US MEXICO
18	19 03 40	40	5002	5000A	
18	19 03 40	50	1002	2143E 2140A 1100L 2240F	
18	19 03 40	60	4000	2140A 1100A	
18	19 03 40	80	5002	5000A	
19	19 27 15	00	3002		
20	19 50 50	00	3002		
21	20 14 24	00	3002		
22	20 37 59	00	3002		
23	21 01 34	00	3002		
24	21 25 10	10	3000	1100F 2140A 2240G 2230E 4610G 4200H	US MEXICO
24	21 25 10	20	4000	2230A 2240A 2140A 4200A	
24	21 25 10	40	4000	2140A	
24	21 25 10	50	1000	2143E 2140A 2240F	
24	21 25 10	60	4000	2140A	
24	21 25 10	80	4000	2140A 2240A	



ATS-I 20 JUNE 1967 21 25 10 UT SEQ 24

21 JUN 67 SUBSATELLITE PT 150.88W 00.13N TOTAL PICS 39

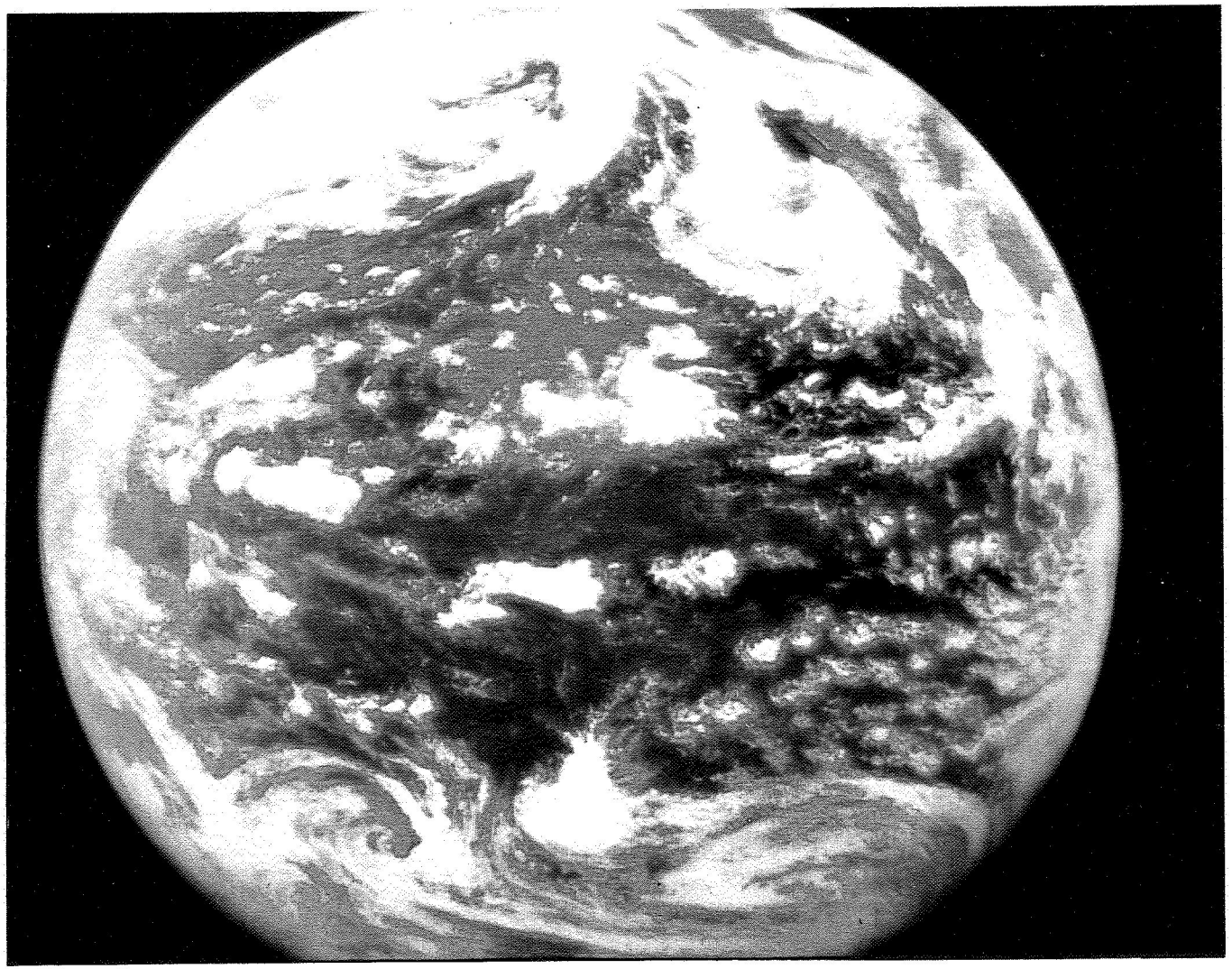
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 35 09	10	4001	1100F 2140F 2240G 2230D 4200H 4610D	US MEXICO
01	00 35 09	20	5001	2140A	
01	00 35 09	40	4000	1100A 2140A	
01	00 35 09	50	1001	2140A 2240F	
01	00 35 09	80	4000	2140A 2230A 4200A	ASTR
02	00 58 47	00	4001		
03	01 22 22	00	4001		
04	01 45 58	00	4001		
05	02 09 32	00	4001		
06	02 33 10	00	4001		
07	02 56 42	00	4001		
08	03 20 20	00	4001		
09	03 41 54	00	4001		
10	04 07 29	00	4001		
11	04 31 09	00	4001		
12	13 12 42	00	5002		
13	13 36 17	00	5002		
14	13 59 51	00	5002		EE
15	14 23 30	00	5002		
16	14 47 01	00	4002		
17	15 10 40	00	4002		
18	15 34 14	00	4002		
19	15 57 50	00	4002		
20	16 21 27	10	4002	2140M 2240W 2230E 4610E 4200E	US MEXICO
20	16 21 27	20	4000	2140A 2230A 2240A	
20	16 21 27	50	4002	2140H 2240B	
20	16 21 27	60	4000	2140A 2240A	
21	16 45 02	00	4002		EE
22	17 08 37	00	4002		EE
23	17 32 15	00	4002		EE
24	17 55 50	00	4002		EE
25	18 19 25	00	4002		EE
26	18 43 00	00	4002		EE
27	19 06 35	10	4002	1100F 2140A 2240G 2230E 4610E 4200H	US MEXICO EE
27	19 06 35	20	4000	2230A 2240A 2140A 4200A	US MEXICO EE
27	19 06 35	40	5002	2140A	EE
27	19 06 35	50	1000	1100G 2140A 2240F	EE
27	19 06 35	60	4000	2140A 2240A	EE
27	19 06 35	80	5002	2140A	EE
28	19 30 10	00	3002		
29	19 53 45	00	3002		EE
30	20 17 23	00	3002		EE
31	20 41 58	00	3002		EE
32	21 04 33	00	3002		EE
33	21 28 07	00	3002		EE
34	21 51 43	00	3000		EE
35	22 15 20	10	3000	1100F 2140A 2240G 2230G 4610G 4200H	US MEXICO EE
35	22 15 20	20	4000	2230A 2240A 4200A	US MEXICO EE
35	22 15 20	40	4000	2140A 2230A	EE
35	22 15 20	50	1000	1100G 2140A 2240F	EE
35	22 15 20	60	4000	2140A	EE
35	22 15 20	80	4000	2140A 2240A 1100A 4200A	ASTR EE
36	22 38 55	00	7000		
37	23 02 31	00	3001		EE
38	23 26 06	00	3001		EE
39	23 49 32	00	3001		EE



ATS-I 21 JUNE 1967 22 15 20 UT SEQ 35

22 JUN 67 SUBSATELLITE PT 150.88W 00.12N TOTAL PICS 15

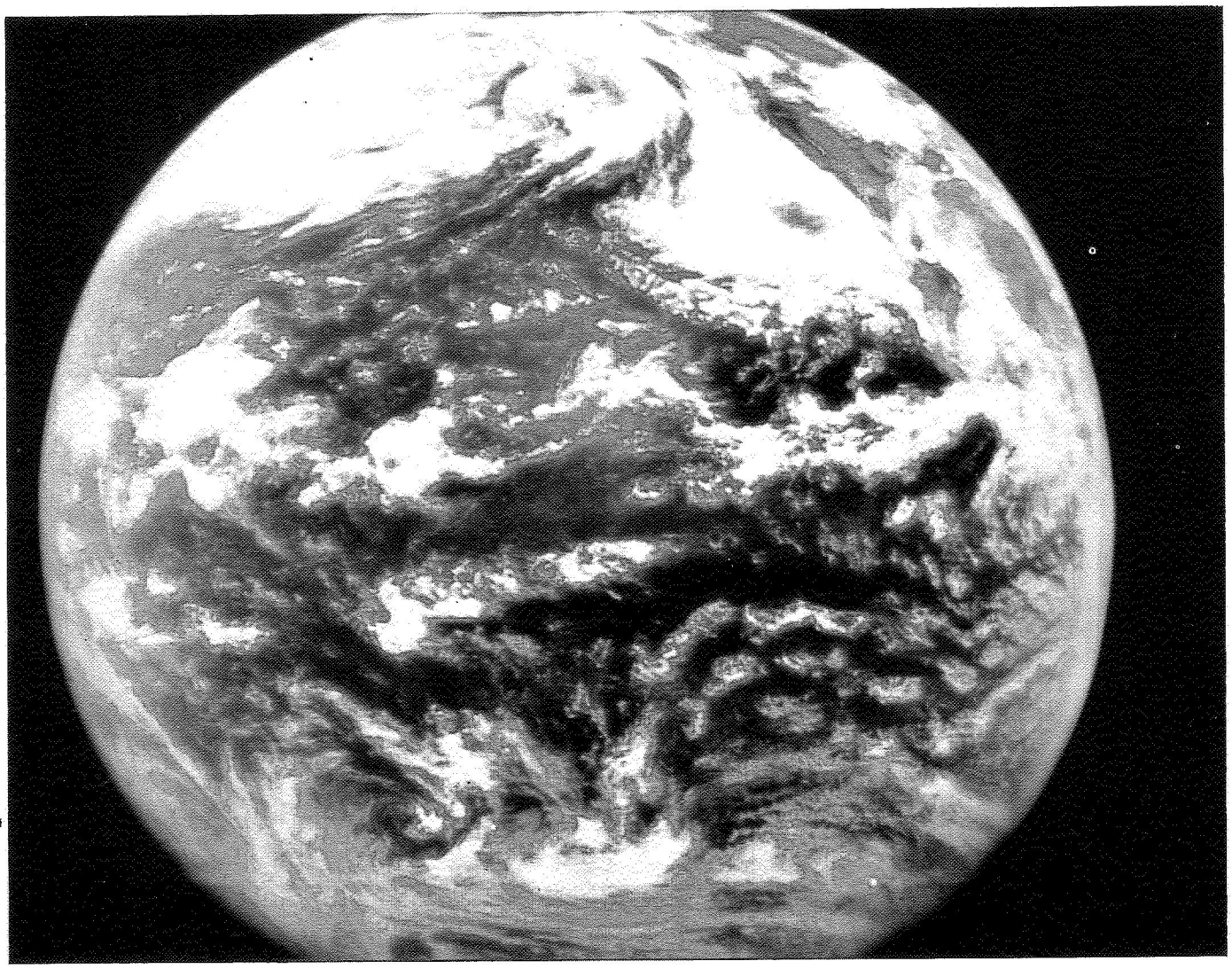
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	00 13 12	10	3000	1100F 2140A 2240G 2230G 4610D 4200H	US MEXICO
01	00 13 12	20	5001	2140A	
01	00 13 12	40	4000	2140A 2230A	
01	00 13 12	50	1001	2140A 1100G 2240F	
01	00 13 12	80	4000	2140A 1100A 2230A 4200A	ASTR
02	00 36 50	00	4001		
03	01 00 28	00	4001		
04	01 24 02	00	4001		
05	01 47 37	00	4001		EE
06	02 11 07	00	4001		
07	02 34 47	00	4001		
08	02 58 22	00	4001		
09	03 22 00	00	4001		
10	03 45 35	00	4001		
11	04 09 10	00	4001		
12	04 32 45	00	4001		
13	21 04 14	00	3000		
14	21 27 46	00	3000		
15	21 51 21	10	3000	1100F 2140A 2240G 2230G 4610G 4200H	US MEXICO
15	21 51 21	20	4000	2230A 2240A 2140A	
15	21 51 21	40	4000	2230A 2140A 1100A	
15	21 51 21	50	1000	1100G 2140A 2240G	
15	21 51 21	60	4000	2140A	
15	21 51 21	80	4000	2140A 2240A 4200A	ASTR



ATS-I 22 JUNE 1967 21 51 21 UT SEQ 15

23 JUN 67 SUBSATELLITE PT 150.88W 00.12N TOTAL PICS 5

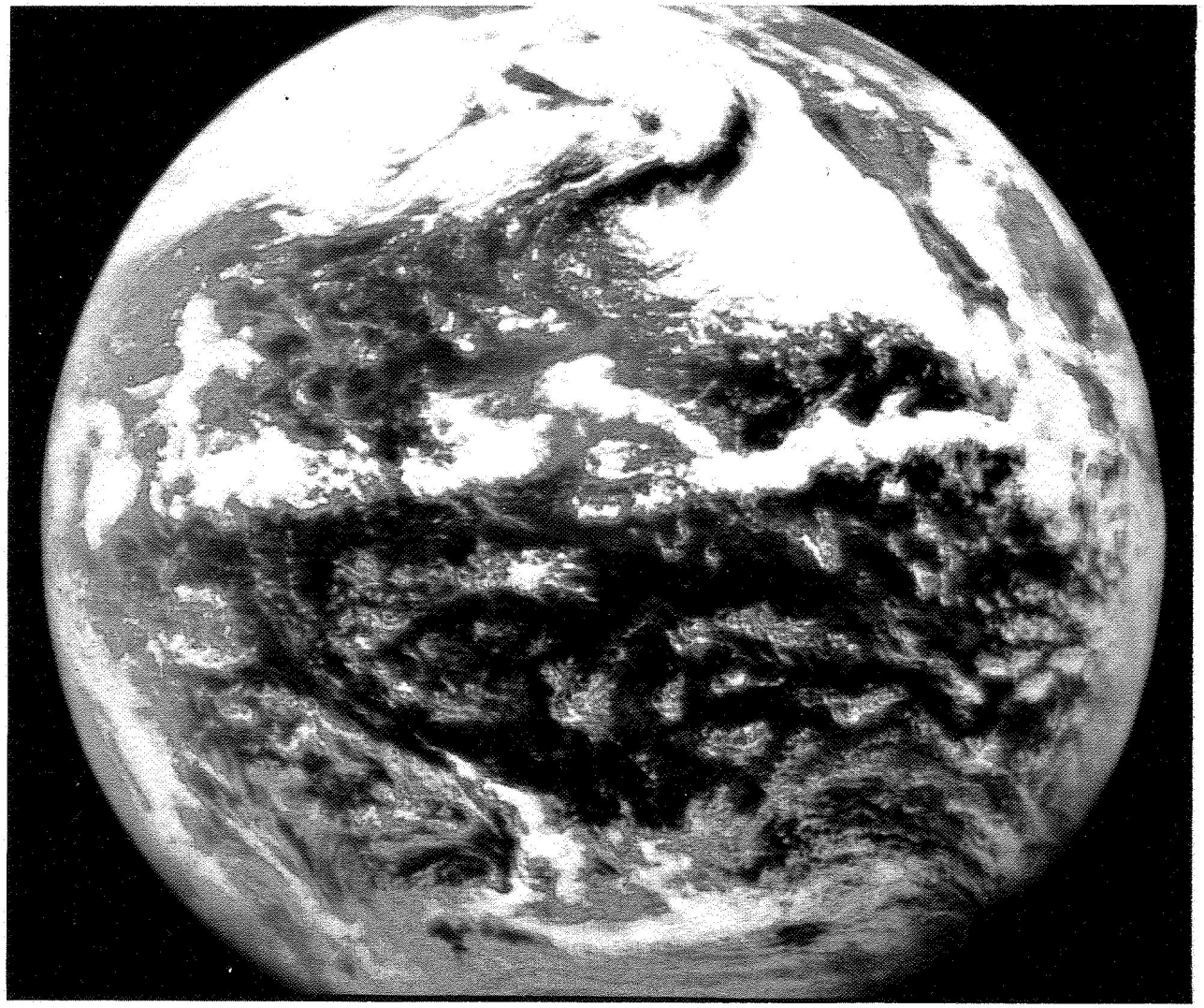
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	18 37 16	10	4002	1100F 2140A 2240G 6042E 4610E 4200H	US MEXICO
01	18 37 16	20	4000	6042A 2230A 2140A 4200A	US MEXICO
01	18 37 16	40	5000	5000A	
01	18 37 16	50	1002	1100G 2140A 2240F	
01	18 37 16	60	4000	2140A 2240A	
01	18 37 16	80	5002	5000A	
02	19 00 50	00	4002		
03	21 04 36	00	4000		
04	21 28 20	00	4500		
05	21 37 03	10	3000	1100F 2140A 2240G 6042E 2230E 4200H	US MEXICO
05	21 37 03	20	4000	2230A 2140A 4200A	US MEXICO
05	21 37 03	40	4000	2140A 2230A	
05	21 37 03	50	1000	1100D 2140A 2240F	
05	21 37 03	60	4000	2140A	
05	21 37 03	80	4000	2140A 2230A	



ATS-I 23 JUNE 1967 21 37 03 UT SEQ 5

24 JUN 67 SUBSATELLITE PT 150.87W 00.11N TOTAL PICS 7

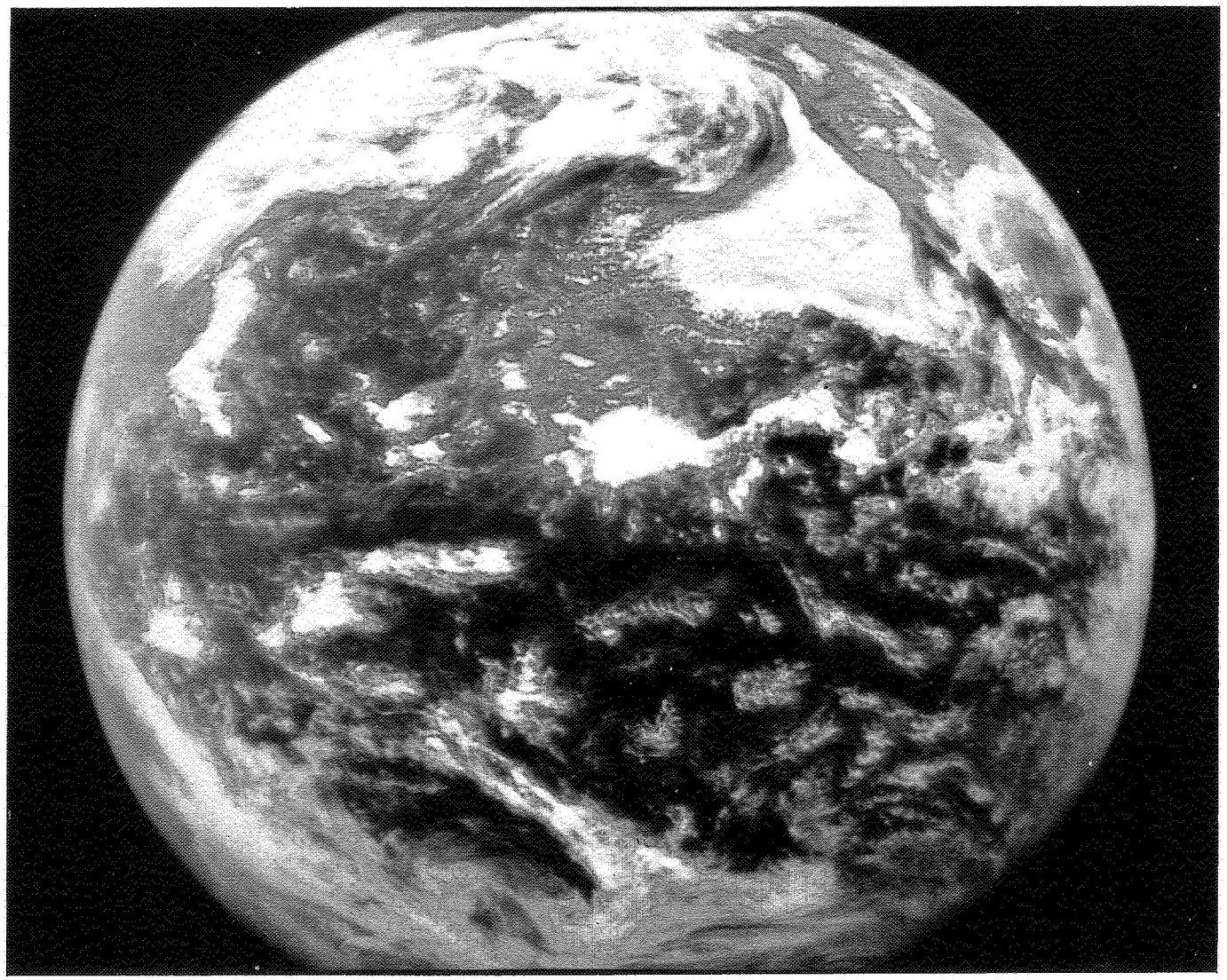
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 30 57	10	4001	1100F 2140A 2240G 2230D 4610D	
01	02 30 57	40	4000	2140A 2230A	
01	02 30 57	50	1001	21401 2240C	
01	02 30 57	80	4000	2140A 1100A 2230A 2240A	
02	02 54 32	00	7000		
03	03 02 42	00	4001		
04	21 47 41	00	7000		
05	21 52 23	10	3000	1100F 2140A 6042E 2240G 2230E 4200H	US MEXICO
05	21 52 23	20	4000	2230A 2140A	
05	21 52 23	40	4000	2140A 2230A	
05	21 52 23	50	1000	1100G 2140A 2240F	
05	21 52 23	60	4000	2240A 2140A	
05	21 52 23	80	4000	2140A 1100A 2240A	
06	22 15 58	00	3000		
07	22 39 36	00	3001		



ATS-I 24 JUNE 1967 21 52 23 UT SEQ 5

25 JUN 67 SUBSATELLITE PT 150.87W 00.11N TOTAL PICS 6

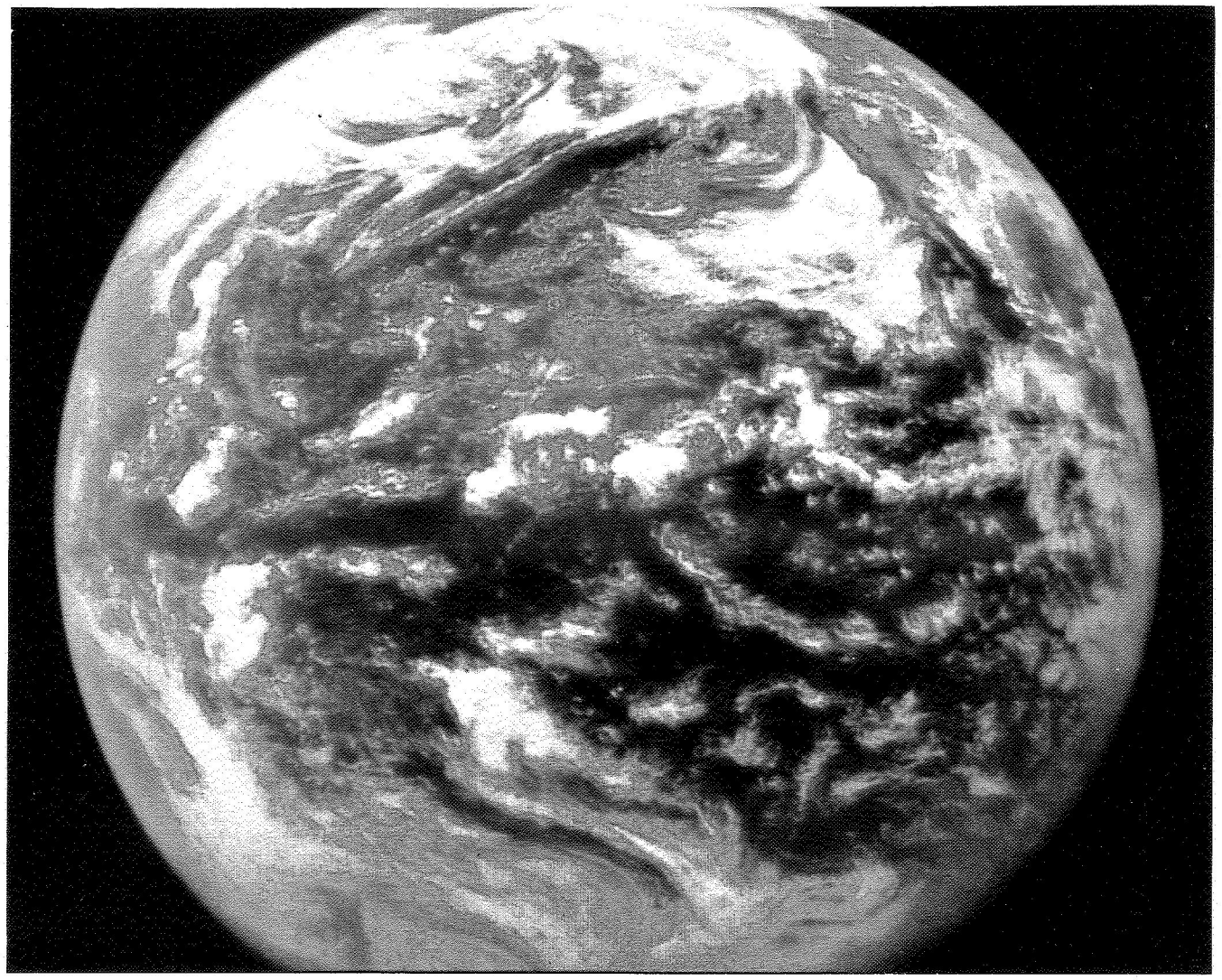
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 40 46	00	4001		EE
02	03 04 22	00	4001		EE
03	03 27 56	00	4001		EE
04	21 58 03	10	3000	1100F 2140A 2240G 2230G 6042E 4200H	US MEXICO EE
04	21 58 03	20	4000	2140A 2240A	US MEXICO EE
04	21 58 03	40	4000	2140A 2230A	EE
04	21 58 03	50	1000	2140A 2240F 1100D	EE
04	21 58 03	60	4000	2240A	EE
04	21 58 03	80	4000	2140A 2240A	EE
05	22 21 33	00	3000		EE
06	22 45 08	00	3000		EE



ATS-I 25 JUNE 1967 21 58 03 UT SEQ 4

26 JUN 67 SUBSATELLITE PT 150.86W 00.10N TOTAL PICS 9

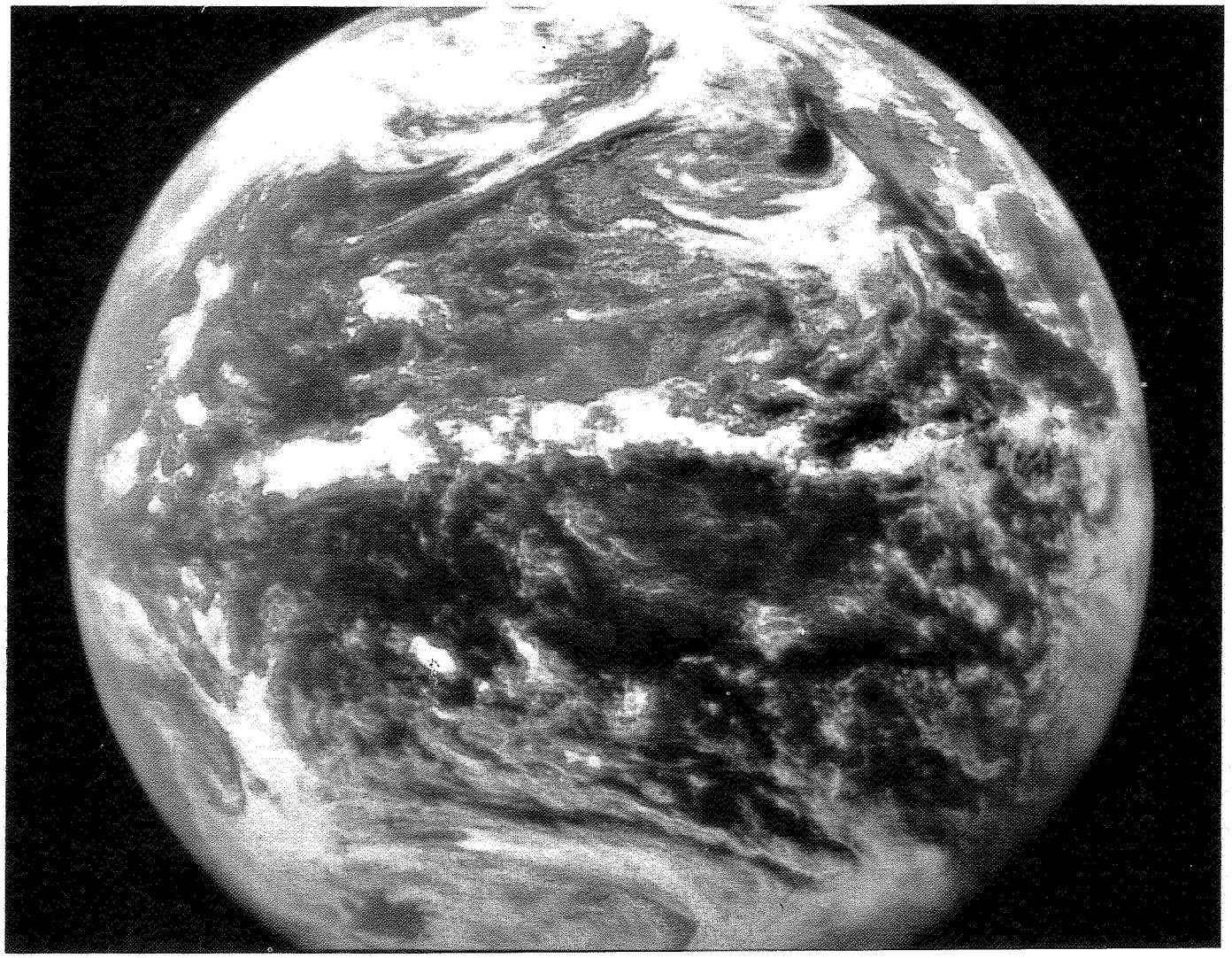
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	02 34 38	00	4001		
02	02 58 12	00	4001		
03	03 21 47	00	4001		
04	18 17 22	00	3002		
05	18 40 57	00	3002		
06	19 04 29	10	3002	6042E 1100F 2140A 2240G 2230E 4200H	US MEXICO
06	19 04 29	20	4000	2140A 2230A 4200A	US MEXICO
06	19 04 29	40	5002	5000A	
06	19 04 29	50	1002	1100G 2140K 2240F	
06	19 04 29	60	4000	2240A	
06	19 04 29	80	5002	2240A	
07	21 51 59	00	3000		
08	22 15 31	10	3000	6042E 2230E 1100F 2240G 2140A 4200H	US MEXICO
08	22 15 31	20	4000	2140A 2240A 4200A	US MEXICO
08	22 15 31	40	4000	2140A 1100A	
08	22 15 31	50	1000	2140K 2240F 1100G 2230C	
08	22 15 31	60	4000	2240A	
08	22 15 31	80	4000	2140A 2230A 1100A	
09	22 39 06	00	3000		



ATS-I 26 JUNE 1967 22 15 31 UT SEQ 8

27 JUN 67 SUBSATELLITE PT 150.84W 00.09N TOTAL PICS 9

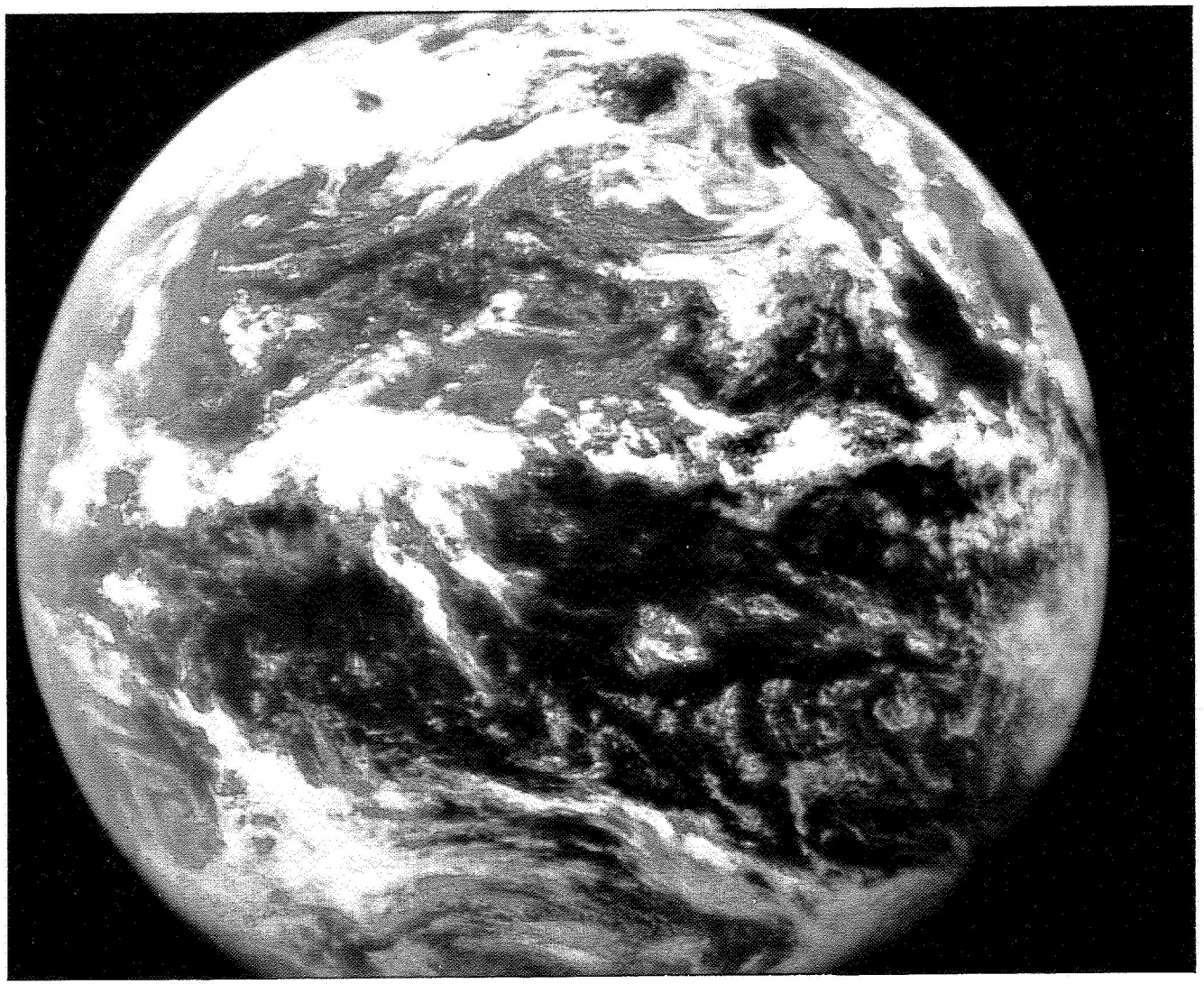
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 42 33	00	4001		
02	18 07 34	10	3002	1100F 2140A 2240G 2230E 4200H 4610E	US MEXICO
02	18 07 34	20	4000	2240A 2140A 4200A	US MEXICO
02	18 07 34	40	5002	5000A	
02	18 07 34	50	1002	1100D 2140A 2240B	
02	18 07 34	60	4000	2240A	
02	18 07 34	80	5002	5000A	
03	20 48 47	00	3002		EE
04	21 12 22	00	3000		EE
05	21 36 58	00	3000		EE
06	21 59 30	05	5000	5000A	EE
06	21 59 30	10	3000	1100A 2140A 2240G 2230E 4610G 4200H	US MEXICO EE
06	21 59 30	20	4000	2140A 2230A 4200A	US MEXICO EE
06	21 59 30	40	4000	2140A 2230A	EE
06	21 59 30	50	1500	2140A 2240B 1100D	EE
06	21 59 30	60	4500	2240A	EE
06	21 59 30	80	4500	2140A 2230A	EE
07	22 23 05	00	3000		EE
08	22 46 36	00	3001		EE
09	23 10 11	00	3001		EE



ATS-I 27 JUNE 1967 21 59 30 UT SEQ 6

28 JUN 67 SUBSATELLITE PT 150.83W 00.09N TOTAL PICS 9

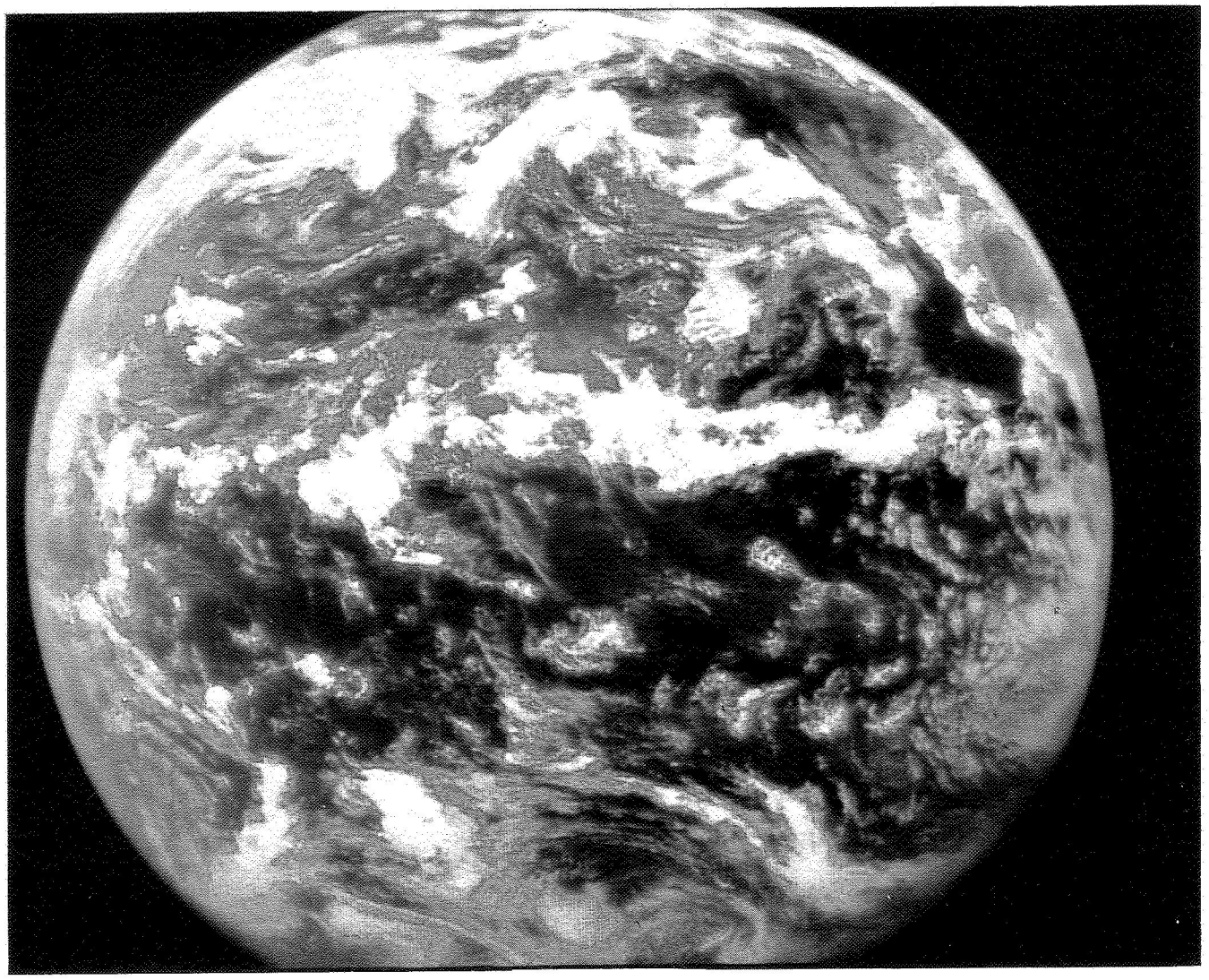
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 50 32	00	4001		
02	17 30 36	00	4002		
03	17 54 08	00	3002		
04	18 17 42	10	3002	1100F 2140A 2240G 3100A 4610E 4710H	US MEXICO EE
04	18 17 42	20	4000	2240A 2230A 2140A 4200A	US MEXICO EE
04	18 17 42	40	5002	5000A	
04	18 17 42	50	1002	1100E 2140A 2240F	
04	18 17 42	60	4000	2140A 2240A	
05	20 24 49	00	7000		
06	20 48 26	00	4002		EE PE
07	21 11 56	00	3000		EE
08	21 35 30	00	3000		EE
09	21 59 03	10	3000	1100F 2140A 2230D 2240G 3100E 4710H	US MEXICO EE
09	21 59 03	20	4000	2240A 4200A	US MEXICO EE
09	21 59 03	40	4000	2140A 2230A	
09	21 59 03	50	1000	1100G 2140A 2240F	
09	21 59 03	60	4000	2240A 2140A	
09	21 59 03	80	4000	2140A 2230A	



ATS-I 28 JUNE 1967 21 59 03 UT SEQ 9

29 JUN 67 SUBSATELLITE PT 150.82W 00.08N TOTAL PICS 9

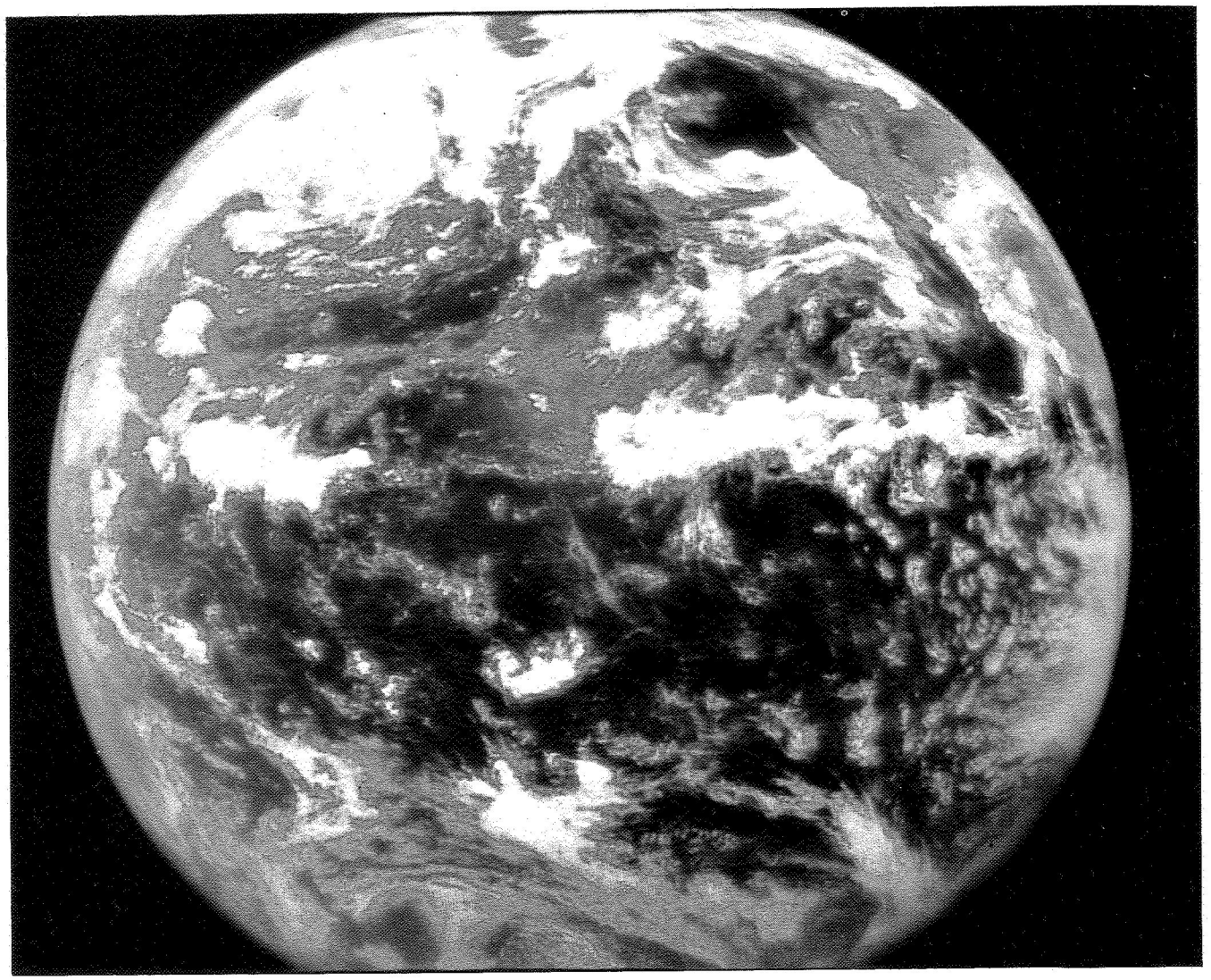
SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 27 55	00	4001		
02	18 06 47	10	3002	1100F 2140A 3100H 2230G 2240G 4200H	US MEXICO
02	18 06 47	20	4000	2240A 2230A 4200A	US MEXICO
02	18 06 47	40	5000	5000A	
02	18 06 47	50	1002	1100G 2140A 2240F	
02	18 06 47	60	4000	2140A 2240A	
03	20 49 47	00	3002		
04	21 13 21	00	3000		
05	21 36 56	00	3000		
06	22 00 31	05	5000	5000A	
06	22 00 31	10	3000	2143F 2230G 2240G 3100H 4710B 4200H	US MEXICO
06	22 00 31	20	4000	2230A 2240A 4200A	US MEXICO
06	22 00 31	40	4000	2140A 2230A	
06	22 00 31	50	1000	1100G 2140A 2240F	
06	22 00 31	60	4000	2140A 2240A	
06	22 00 31	80	4000	2140A 1100A 2240A 4200A	ASTR
07	22 24 06	00	3001		
08	22 47 41	00	3001		
09	23 11 16	00	3001		



ATS-I 29 JUNE 1967 22 00 31 UT SEQ 6

30 JUN 67 SUBSATELLITE PT 150.80W 00.08N TOTAL PICS 9

SEQ	START	ZONE	PICQ	DATA CONTENT DESCRIPTORS	REMARKS
01	03 19 45	00	4001		
02	18 03 03	10	3002	2140A 2240G 2230E 3100E 4610E 4200H	EE US MEXICO
02	18 03 03	20	4000	2140A 2230A 4200A	EE MEXICO US
02	18 03 03	40	5002	5000A	EE
02	18 03 03	50	1002	1100E 2140A	EE
02	18 03 03	60	4000	2140A 2240A	EE
03	20 44 50	00	3002		
04	21 02 25	00	3000		
05	21 31 59	00	3000		
06	21 55 34	10	3000	1100F 2140A 2240G 3100H 4610G 4200H	US MEXICO
06	21 55 34	20	4000	2140A 2240A 4200A	US MEXICO
06	21 55 34	40	4000	2140A 2240A	
06	21 55 34	50	1000	1100G 2140A 2230C	
06	21 55 34	60	4000	2240A 2140A	
06	21 55 34	80	4000	2140A 4200A	ASTR
07	22 19 10	00	3000		
08	22 42 44	00	3001		
09	23 06 19	00	3001		



ATS-I 30 JUNE 1967 21 55 34 UT SEQ 6

PRECEDING PAGE BLANK NOT FILMED.

SECTION 4

SSCC TAPE LISTING

The listings of Analog and Digital Tape Data were compiled by the University of Wisconsin.

Variations can be noted between picture time and tape time of seemingly identical data. This comes about due to the identification, archival selection (Sections 4.1 and 4.2, Part I), and the tape processes. In many instances, the times listed in the Meteorological Data Log are Rosman picture start times, while the analog times are always Mojave tape start times.

For information relative to format and availability of these data, contact:

Dr. Verner E. Suomi
Space Science and Engineering Center
601 East Main Street
Madison, Wisconsin 53706

ATS-1 ANALOG DATA

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
073	18	13	10	M7	08	13	March 14
073	18	36	03	M8	08	36	March 14
073	21	46	50	M16	11	46	March 14
073	22	09	44	M17	12	09	March 14
073	22	32	38	M18	12	32	March 14
073	22	55	30	M19	12	55	March 14
073	23	18	26	M20	13	18	March 14
073	23	41	17	M21	13	41	March 14
074	23	54	52	M19	13	54	March 15
075	00	17	45	M1	14	17	March 15
075	00	40	39	M2	14	40	March 15
075	01	03	32	M3	15	03	March 15
075	01	26	26	M4	15	26	March 15
075	01	49	19	M5	15	49	March 15
075	02	12	15	M6	16	12	March 15
075	02	35	11	M7	16	35	March 15
075	02	58	03	M8	16	58	March 15
075	03	20	56	M9	17	20	March 15
075	18	11	31	M16	08	11	March 16
075	18	34	25	M17	08	34	March 16
075	18	57	18	M18	08	57	March 16
075	19	20	06	M19	09	20	March 16
075	20	05	59	M21	10	05	March 16
075	20	28	52	M22	10	28	March 16
075	20	51	45	M23	10	51	March 16
075	21	14	38	M24	11	14	March 16
075	21	37	29	M25	11	37	March 16
075	22	00	18	M26	12	00	March 16
075	22	23	14	M27	12	23	March 16
075	22	46	06	M28	12	46	March 16
075	23	09	00	M29	13	09	March 16
075	23	31	53	M30	13	31	March 16
075	23	54	44	M31	13	54	March 16
076	00	40	30	M2	14	40	March 16
076	01	03	24	M3	15	03	March 16
076	01	26	18	M4	15	26	March 16

DAY	TIME HR.	MIN.	SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	MIN.	DATE
076	01	49	11	M5	15	49	March 16
076	02	12	03	M6	16	12	March 16
076	02	34	56	M7	16	34	March 16
076	02	57	50	M8	16	57	March 16
076	20	14	38	M9	10	14	March 17
076	20	45	27	M10	10	45	March 17
076	21	08	20	M11	11	08	March 17
077	00	27	09	M1	14	27	March 17
077	00	50	00	M2	14	50	March 17
077	02	55	24	M3	16	55	March 17
077	03	18	20	M4	17	18	March 17
077	23	18	43	M5	13	18	March 18
077	23	31	12	M6	13	31	March 18
077	23	53	51	M7	13	53	March 18
078	00	16	48	M1	14	16	March 18
078	00	39	38	M2	14	39	March 18
078	21	18	20	M3	11	18	March 19
078	21	41	14	M4	11	41	March 19
078	22	58	36	M5	12	58	March 19
078	23	21	32	M6	13	21	March 19
078	23	44	23	M7	13	44	March 19
079	00	07	16	M1	14	07	March 19
079	00	30	07	M2	14	30	March 19
079	00	53	00	M3	14	53	March 19
081	20	58	45	M1	10	58	March 22
081	21	21	30	M2	11	21	March 22
081	21	44	30	M3	11	44	March 22
081	22	07	26	M4	12	07	March 22
081	22	30	13	M5	12	30	March 22
081	22	53	06	M6	12	53	March 22
081	23	16	02	M7	13	16	March 22
081	23	38	56	M8	13	38	March 22
082	00	01	50	M1	14	01	March 22
082	00	24	43	M2	14	24	March 22
082	02	22	19	M4	16	22	March 22
082	02	42	10	M5	16	42	March 22

DAY	TIME			SEQ. #	LOCAL TIME @ 150°W		
	HR.	MIN.	SEC.		HR.	MIN.	DATE
082	03	05	02	M6	17	05	March 22
082	03	29	23	M7	17	29	March 22
082	20	57	56	M8	10	57	March 23
082	21	20	45	M9	11	20	March 23
082	21	43	38	M10	11	43	March 23
082	23	02	16	M11	13	02	March 23
082	23	25	08	M12	13	25	March 23
082	23	48	01	M13	13	48	March 23
083	02	49	35	M1	16	49	March 23
083	03	18	50	M2	17	18	March 23
083	20	11	45	M3	10	11	March 24
083	20	34	37	M4	10	34	March 24
083	20	57	29	M5	10	57	March 24
083	21	20	23	M6	11	20	March 24
083	21	43	16	M7	11	43	March 24
083	23	10	37	M8	13	10	March 24
083	23	33	30	M9	13	33	March 24
083	23	55	23	M10	13	55	March 24
084	00	19	18	M1	14	19	March 24
084	01	05	02	M3	15	05	March 24
084	02	43	39	M4	16	43	March 24
084	20	08	03	M7	10	08	March 25
084	20	30	55	M8	10	30	March 25
084	20	53	52	M9	10	53	March 25
084	21	16	40	M10	11	16	March 25
084	21	39	37	M11	11	39	March 25
084	22	46	08	M12	12	46	March 25
084	23	09	15	M13	13	09	March 25
084	23	31	55	M14	13	31	March 25
084	23	54	48	M15	13	54	March 25
085	00	17	42	M1	14	17	March 25
085	00	40	35	M2	14	40	March 25
085	02	43	18	M3	16	43	March 25
085	03	06	11	M4	17	06	March 25
085	03	29	01	M5	17	29	March 25

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
085	20	23	56	M7	10	23	March 26
085	20	46	49	M8	10	46	March 26
085	21	09	43	M9	11	09	March 26
085	21	32	36	M10	11	32	March 26
085	22	57	38	M11	12	57	March 26
085	23	20	26	M12	13	20	March 26
085	23	43	20	M13	13	43	March 26
086	00	06	12	M1	14	06	March 26
086	00	29	06	M2	14	29	March 26
086	00	51	59	M3	14	51	March 26
086	02	42	17	M4	16	42	March 26
086	03	05	09	M5	17	05	March 26
086	21	01	20	M6	11	01	March 27
086	21	24	14	M7	11	24	March 27
086	21	47	10	M8	11	47	March 27
086	22	45	57	M9	12	45	March 27
086	22	52	02	M10	12	52	March 27
086	23	14	55	M11	13	14	March 27
086	23	37	49	M12	13	37	March 27
087	00	00	43	M1	14	00	March 27
087	00	46	21	M3	14	46	March 27
087	01	09	25	M4	15	09	March 27
087	01	32	18	M5	15	32	March 27
088	20	33	40	M1	10	33	March 29
089	00	08	50	M1	14	08	March 29
089	23	38	29	M2	13	38	March 30
090	00	01	22	M1	14	01	March 30
090	20	26	08	M2	10	26	March 31
090	21	47	20	M3	11	47	March 31
090	23	35	03	M4	13	35	March 31
090	23	57	56	M5	13	57	March 31
091	00	20	49	M1	14	20	March 31
091	02	49	35	M2	16	49	March 31
091	03	12	29	M3	17	12	March 31
091	03	35	22	M4	17	35	March 31

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
091	23	30	05	M5	13	30	April 1
091	23	53	00	M6	13	53	April 1
092	00	15	51	M1	14	15	April 1
092	03	10	53	M2	17	10	April 1
092	03	33	49	M3	17	33	April 1
092	20	32	44	M4	10	32	April 2
092	20	55	37	M5	10	55	April 2
092	21	18	33	M6	11	18	April 2
098	15	13	37	M1	05	13	April 8
098	15	36	30	M2	05	36	April 8
098	16	50	33	M4	06	50	April 8
098	17	13	26	M5	07	13	April 8
098	17	36	20	M6	07	36	April 8
098	22	00	32	M8	12	00	April 8
098	22	23	25	M9	12	32	April 8
098	22	46	19	M10	12	46	April 8
098	23	09	15	M11	13	09	April 8
099	02	07	58	M1	16	07	April 8
099	02	30	51	M2	16	30	April 8
099	02	53	48	M3	16	53	April 8
099	03	16	41	M4	17	16	April 8
099	22	50	48	M5	12	50	April 9
099	23	13	26	M6	13	13	April 9
099	23	36	19	M7	13	36	April 9
099	23	59	13	M8	13	59	April 9
100	00	22	06	M1	14	22	April 9
100	02	35	32	M2	16	35	April 9
100	02	58	12	M3	16	58	April 9
100	03	21	16	M4	17	21	April 9
100	20	47	58	M5	10	47	April 10
100	21	09	56	M6	11	09	April 10
100	21	32	48	M7	11	32	April 10
100	21	55	42	M8	11	55	April 10
101	23	11	27	M1	13	11	April 11
101	23	34	18	M2	13	34	April 11

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
102	02	33	23	M1	16	33	April 11
102	02	56	17	M2	16	56	April 11
102	03	19	11	M3	17	19	April 11
103	21	39	33	M1	11	39	April 13
103	22	02	26	M2	12	02	April 13
104	23	30	02	M1	13	30	April 14
104	23	52	56	M2	13	52	April 14
105	20	01	17	M1	10	01	April 15
105	21	10	43	M2	11	10	April 15
105	21	18	49	M3	11	18	April 15
106	00	02	18	M1	14	02	April 15
106	00	25	32	M2	14	25	April 15
106	00	48	49	M3	14	48	April 15
106	01	12	04	M4	15	12	April 15
106	01	35	21	M5	15	35	April 15
106	22	08	52	M6	12	08	April 16
106	22	32	09	M7	12	32	April 16
106	22	55	21	M8	12	55	April 16
109	00	39	18	M1	14	39	April 18
109	01	02	32	M2	15	02	April 18
109	01	25	49	M3	15	25	April 18
109	22	11	25	M4	12	11	April 19
109	22	34	39	M5	12	34	April 19
109	23	21	12	M6	13	21	April 19
114	03	02	49	M1	17	02	April 23
114	03	26	03	M2	17	26	April 23
114	03	49	17	M3	17	49	April 23
114	04	12	34	M4	18	12	April 23
114	04	35	39	M5	18	35	April 23
114	04	59	03	M6	18	59	April 23
114	05	22	22	M7	19	22	April 23
114	05	45	34	M8	19	45	April 23
114	06	08	49	M9	20	08	April 23
114	06	32	06	M10	20	32	April 23

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
114	20	38	58	M11	10	38	April 24
114	21	02	12	M12	11	02	April 24
114	21	48	28	M13	11	48	April 24
114	22	11	46	M14	12	11	April 24
116	02	27	30	M1	16	27	April 25
116	02	50	47	M2	16	50	April 25
116	03	14	05	M3	17	14	April 25
116	03	37	22	M4	17	37	April 25
117	22	01	36	M1	12	01	April 27
119	04	28	12	M1	18	28	April 28
120	03	41	20	M1	17	41	April 29
120	04	04	34	M2	18	04	April 29
120	04	27	54	M3	18	27	April 29
120	21	39	15	M4	11	39	April 30
120	22	02	32	M5	12	02	April 30
120	22	26	05	M6	12	26	April 30
121	00	59	16	M1	14	59	April 30
122	03	43	30	M1	17	43	May 1
122	04	06	50	M2	18	06	May 1
122	22	46	52	M3	12	46	May 2
122	23	10	15	M4	13	10	May 2
123	03	49	20	M1	17	49	May 2
123	04	12	38	M2	18	12	May 2
125	00	39	00	M1	14	39	May 4
125	01	02	00	M2	15	02	May 4
126	00	28	42	M1	14	28	May 5
126	00	52	07	M2	14	52	May 5
126	01	15	30	M3	15	15	May 5
126	03	36	33	M4	17	36	May 5
126	03	45	31	M5	17	45	May 5
126	04	09	57	M6	18	09	May 5

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
126	12	41	11	M7	02	41	May 6
126	13	04	33	M8	03	04	May 6
126	15	04	03	M9	05	04	May 6
126	17	37	37	M12	07	37	May 6
126	18	01	01	M13	08	01	May 6
126	18	24	25	M14	08	24	May 6
126	19	01	41	M15	09	10	May 6
126	21	39	23	M16	11	39	May 6
126	22	02	48	M17	12	02	May 6
126	22	26	05	M18	12	26	May 6
126	22	49	28	M19	12	49	May 6
126	23	12	52	M20	13	12	May 6
127	00	39	57	M1	14	39	May 6
127	01	03	17	M2	15	03	May 6
127	03	33	38	M3	17	33	May 6
127	03	57	03	M4	17	57	May 6
127	06	31	13	M5	20	31	May 6
127	06	54	37	M6	20	54	May 6
127	12	37	16	M7	02	37	May 7
127	13	00	39	M8	03	00	May 7
127	15	11	54	M9	05	11	May 7
127	15	35	18	M10	05	35	May 7
127	15	58	31	M11	05	58	May 7
127	16	43	48	M12	06	43	May 7
127	18	06	55	M13	08	06	May 7
127	18	30	10	M14	08	30	May 7
127	18	53	44	M15	08	53	May 7
127	21	28	11	M16	11	28	May 7
127	22	14	51	M18	12	14	May 7
128	04	53	47	M1	18	53	May 7
128	21	52	15	M2	11	52	May 8
128	22	15	41	M3	12	15	May 8
128	22	39	08	M4	12	39	May 8
129	00	47	36	M1	14	47	May 8
129	01	11	00	M2	15	11	May 8
129	03	40	27	M3	17	40	May 8
129	04	11	22	M4	18	11	May 8
129	06	45	36	M5	20	45	May 8
129	07	08	56	M6	21	08	May 8

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
129	21	35	24	M7	11	35	May 9
129	22	03	02	M8	12	03	May 9
129	22	58	06	M9	12	58	May 9
129	23	21	32	M10	13	21	May 9
130	03	12	39	M1	17	12	May 9
130	03	41	05	M2	17	41	May 9
130	21	12	43	M3	11	12	May 10
130	21	34	21	M4	11	34	May 10
130	21	59	41	M5	11	59	May 10
131	00	37	55	M1	14	37	May 10
131	01	01	21	M2	15	01	May 10
131	03	49	41	M3	17	49	May 10
131	04	13	07	M4	18	13	May 10
131	07	02	24	M5	21	02	May 10
131	07	25	50	M6	21	25	May 10
131	20	57	04	M7	10	57	May 11
131	21	20	30	M8	11	20	May 11
131	21	44	59	M9	11	44	May 11
131	21	46	31	M10	11	46	May 11
131	22	09	53	M11	12	09	May 11
132	00	57	37	M1	14	57	May 11
132	01	01	03	M2	15	01	May 11
132	04	36	39	M3	18	36	May 11
132	05	00	11	M4	19	00	May 11
132	07	21	38	M5	21	21	May 11
132	07	45	05	M6	21	45	May 11
132	21	07	30	M7	11	07	May 12
132	21	30	59	M8	11	30	May 12
132	21	54	27	M9	11	54	May 12
132	22	18	00	M10	12	18	May 12
133	06	34	54	M1	20	34	May 12
133	06	58	29	M2	20	58	May 12
134	03	25	38	M1	17	25	May 13
134	21	47	43	M2	11	47	May 14
134	22	11	14	M3	12	11	May 14
134	22	34	47	M4	12	34	May 14

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
135	02	58	00	M1	16	58	May 14
135	03	21	29	M2	17	21	May 14
135	03	45	02	M3	17	45	May 14
135	21	38	08	M4	11	38	May 15
135	22	01	37	M5	12	01	May 15
135	22	25	05	M6	12	25	May 15
136	02	34	22	M1	16	34	May 15
136	02	57	46	M2	16	57	May 15
136	03	21	18	M3	17	21	May 15
136	03	44	46	M4	17	44	May 15
136	21	49	11	M5	11	49	May 16
136	22	36	14	M6	12	36	May 16
137	02	09	05	M1	16	09	May 16
137	02	56	07	M3	16	56	May 16
137	20	36	06	M4	10	36	May 17
137	20	59	38	M5	10	59	May 17
138	03	26	03	M1	17	26	May 17
138	03	49	36	M2	17	49	May 17
138	04	13	05	M3	18	13	May 17
138	20	19	10	M4	10	19	May 18
138	20	42	45	M5	10	42	May 18
139	03	32	59	M1	17	32	May 18
139	03	55	29	M2	17	55	May 18
139	04	18	58	M3	18	18	May 18
139	06	40	36	M4	20	40	May 18
139	07	04	06	M5	21	04	May 18
139	22	03	51	M6	12	03	May 19
139	22	27	24	M7	12	27	May 19
140	02	50	11	M1	16	50	May 19
140	03	13	46	M2	17	13	May 19
140	03	37	15	M3	17	37	May 19
140	22	22	39	M4	12	22	May 20
140	22	46	12	M5	12	46	May 20

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
141	22	00	23	M1	12	00	May 21
141	22	23	47	M2	12	23	May 21
141	22	47	20	M3	12	47	May 21
142	22	39	04	M1	12	39	May 22
143	02	46	47	M1	16	46	May 22
143	03	10	26	M2	17	10	May 22
143	03	33	58	M3	17	33	May 22
143	21	53	53	M4	11	53	May 23
143	22	17	26	M5	12	17	May 23
143	22	40	58	M6	12	40	May 23
144	03	05	08	M1	17	05	May 23
144	03	28	41	M2	17	28	May 23
144	03	52	14	M3	17	52	May 23
144	22	17	30	M4	12	17	May 24
144	22	41	02	M5	12	41	May 24
145	02	06	40	M1	16	06	May 24
145	02	30	14	M2	16	30	May 24
145	21	58	28	M3	11	58	May 25
145	22	22	06	M4	12	22	May 25
145	22	45	32	M5	12	45	May 25
146	02	50	34	M1	16	50	May 25
146	03	14	08	M2	17	14	May 25
146	03	37	41	M3	17	37	May 25
146	22	39	00	M4	12	39	May 26
146	23	02	33	M5	13	02	May 26
147	02	52	22	M1	16	52	May 26
147	03	16	58	M2	17	16	May 26
147	21	53	15	M4	11	53	May 27
147	22	16	47	M5	12	16	May 27
147	22	40	21	M6	12	40	May 27
148	02	43	35	M1	16	43	May 27
148	13	29	37	M2	03	29	May 28
148	15	34	30	M3	05	34	May 28

DAY	TIME HR.	MIN.	SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	MIN.	DATE
148	17	26	40	M4	07	26	May 28
148	19	38	04	M5	09	38	May 28
148	21	26	02	M6	11	26	May 28
148	23	33	05	M7	13	33	May 28
149	02	24	08	M1	16	24	May 28
149	03	21	44	M2	17	21	May 28
149	21	52	00	M3	11	52	May 29
149	22	15	22	M4	12	15	May 29
149	22	38	57	M5	12	38	May 29
150	02	53	52	M1	16	53	May 29
150	18	21	05	M2	08	21	May 30
150	18	44	40	M3	08	44	May 30
150	21	57	49	M4	11	57	May 30
150	22	21	20	M5	12	21	May 30
150	22	44	54	M6	12	44	May 30
151	02	58	04	M1	16	58	May 30
151	03	21	32	M2	17	21	May 30
151	03	45	11	M3	17	45	May 30
151	18	46	04	M4	08	46	May 31
151	22	01	10	M5	12	01	May 31
151	22	24	40	M6	12	24	May 31
153	03	47	56	M1	17	47	June 1
153	04	11	30	M2	18	11	June 1
153	22	28	12	M4	12	28	June 2
153	22	51	47	M5	12	51	June 2
154	03	20	10	M1	17	20	June 2
154	03	43	42	M2	17	43	June 2
154	04	07	13	M3	18	07	June 2
154	18	12	53	M4	08	12	June 3
154	18	36	27	M5	08	36	June 3
154	21	41	15	M6	11	41	June 3
154	22	04	50	M7	12	04	June 3
154	22	28	22	M8	12	28	June 3
155	02	50	17	M1	16	50	June 3

DAY	TIME HR.	MIN.	SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	MIN.	DATE
155	03	13	53	M2	17	13	June 3
155	03	37	24	M3	17	37	June 3
155	18	07	56	M4	08	07	June 4
155	18	31	27	M5	08	31	June 4
155	21	56	14	M6	11	56	June 4
155	22	19	48	M7	12	19	June 4
155	22	43	21	M8	12	43	June 4
156	18	24	24	M1	08	24	June 5
156	18	47	56	M2	08	47	June 5
156	22	12	28	M3	12	12	June 5
156	22	36	03	M4	12	36	June 5
156	22	59	34	M5	12	59	June 5
158	23	08	17	M1	13	08	June 7
158	23	31	52	M2	13	31	June 7
159	02	57	59	M1	16	57	June 7
159	03	20	34	M2	17	20	June 7
159	03	44	09	M3	17	44	June 7
159	18	07	36	M4	08	07	June 8
159	18	31	12	M5	08	31	June 8
159	18	54	49	M6	08	54	June 8
159	22	21	10	M7	12	21	June 8
159	22	44	46	M8	12	44	June 8
160	03	18	47	M1	17	18	June 8
160	03	42	22	M2	17	42	June 8
160	04	05	54	M3	18	05	June 8
160	21	18	05	M4	11	18	June 9
160	21	41	43	M5	11	41	June 9
161	03	05	54	M1	17	05	June 9
161	03	29	31	M2	17	29	June 9
161	18	03	52	M3	08	03	June 10
161	18	27	26	M4	08	27	June 10
161	18	51	01	M5	08	51	June 10
161	22	08	26	M6	12	08	June 10
161	22	32	00	M7	12	32	June 10

DAY	TIME HR.	MIN.	SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	MIN.	DATE
161	22	55	34	M8	12	55	June 10
162	03	01	05	M1	17	01	June 10
162	03	24	44	M2	17	24	June 10
162	03	48	20	M3	17	48	June 10
162	18	18	34	M4	08	18	June 11
162	18	42	08	M5	08	42	June 11
162	22	46	34	M6	12	46	June 11
162	23	10	09	M7	13	10	June 11
163	02	39	58	M1	16	39	June 11
163	03	03	34	M2	17	03	June 11
163	03	27	08	M3	17	27	June 11
163	18	17	11	M4	08	17	June 12
163	18	40	46	M5	08	40	June 12
163	22	58	38	M6	12	58	June 12
163	23	07	24	M7	13	07	June 12
163	23	27	57	M8	13	27	June 12
164	03	59	39	M1	17	59	June 12
164	04	23	15	M2	18	23	June 12
164	04	46	49	M3	18	46	June 12
164	05	10	24	M4	19	10	June 12
164	05	33	59	M5	19	33	June 12
164	18	09	43	M6	08	09	June 13
164	18	33	17	M7	08	33	June 13
164	18	56	53	M8	08	56	June 13
164	21	49	34	M9	11	49	June 13
164	22	13	08	M10	12	13	June 13
164	22	36	43	M11	12	36	June 13
165	04	20	42	M1	18	20	June 13
165	04	44	18	M2	18	44	June 13
165	05	07	53	M3	19	07	June 13
165	18	49	06	M4	08	49	June 14
165	19	12	39	M5	09	12	June 14
165	19	36	12	M6	09	36	June 14
165	22	47	07	M7	12	47	June 14
165	23	10	41	M8	13	10	June 14
165	23	34	17	M9	13	34	June 14

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
166	03	38	03	M1	17	38	June 14
166	04	01	37	M2	18	01	June 14
166	04	25	12	M3	18	25	June 14
166	18	15	00	M4	08	15	June 15
166	18	38	34	M5	08	38	June 15
166	19	02	10	M6	09	02	June 15
166	20	55	09	M7	10	55	June 15
166	21	18	43	M8	11	18	June 15
166	21	42	20	M9	11	42	June 15
167	03	30	45	M1	17	30	June 15
167	18	05	53	M2	08	05	June 16
167	18	29	29	M3	08	29	June 16
167	18	52	58	M4	08	52	June 16
167	21	22	42	M5	11	22	June 16
167	21	46	17	M6	11	46	June 16
167	22	09	52	M7	12	09	June 16
168	02	35	06	M1	16	35	June 16
168	02	58	42	M2	16	58	June 16
168	03	22	18	M3	17	22	June 16
168	18	02	49	M4	08	02	June 17
168	18	26	24	M5	08	26	June 17
168	18	49	59	M6	08	49	June 17
168	21	38	40	M7	11	38	June 17
168	22	02	15	M8	12	02	June 17
168	22	25	50	M9	12	25	June 17
169	02	53	09	M1	16	53	June 17
169	03	16	44	M2	16	16	June 17
169	03	40	19	M3	17	40	June 17
169	18	11	31	M4	08	11	June 18
169	18	35	06	M5	08	35	June 18
169	18	58	42	M6	08	58	June 18
169	22	14	13	M7	12	14	June 18
169	22	37	48	M8	12	37	June 18
169	23	01	23	M9	13	01	June 18
170	02	44	33	M1	16	44	June 18
170	03	08	07	M2	17	08	June 18
170	03	31	45	M3	17	31	June 18

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
170	18	11	38	M4	08	11	June 19
170	18	35	16	M5	08	35	June 19
170	18	59	49	M6	08	59	June 19
170	22	27	24	M7	12	27	June 19
170	22	51	00	M8	12	51	June 19
170	23	14	34	M9	13	14	June 19
171	03	12	52	M1	17	12	June 19
171	03	36	27	M2	17	36	June 19
171	13	09	50	M3	03	09	June 20
171	13	33	25	M4	03	33	June 20
171	13	57	00	M5	03	57	June 20
171	14	20	36	M6	04	20	June 20
171	14	44	10	M7	04	44	June 20
171	15	07	48	M8	05	07	June 20
171	15	31	20	M9	05	31	June 20
171	15	54	57	M10	05	54	June 20
171	16	18	33	M11	06	18	June 20
171	17	05	43	M13	07	05	June 20
171	17	29	17	M14	07	29	June 20
171	17	52	52	M15	07	52	June 20
171	18	16	27	M16	08	16	June 20
171	18	40	08	M17	08	40	June 20
171	19	03	40	M18	09	03	June 20
171	19	27	15	M19	09	27	June 20
171	19	50	50	M20	09	50	June 20
171	20	14	24	M21	10	14	June 20
171	21	01	34	M23	11	01	June 20
171	21	25	10	M24	11	25	June 20
172	00	35	09	M1	14	35	June 20
172	00	58	47	M2	14	58	June 20
172	01	22	22	M3	15	22	June 20
172	01	45	58	M4	15	45	June 20
172	02	09	32	M5	16	09	June 20
172	02	33	10	M6	16	33	June 20
172	02	56	42	M7	16	56	June 20
172	03	46	54	M9	17	46	June 20
172	04	07	29	M10	18	07	June 20
172	04	31	09	M11	18	31	June 20

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
172	13	12	42	M12	03	12	June 21
172	13	36	17	M13	03	36	June 21
172	13	59	51	M14	03	59	June 21
172	14	23	30	M15	04	23	June 21
172	14	47	01	M16	04	47	June 21
172	15	10	40	M17	05	10	June 21
172	15	34	14	M18	05	34	June 21
172	16	21	27	M20	06	21	June 21
172	16	45	02	M21	06	45	June 21
172	17	08	37	M22	07	08	June 21
172	17	32	15	M23	07	32	June 21
172	17	55	50	M24	07	55	June 21
172	18	19	25	M25	08	19	June 21
172	18	43	00	M26	08	43	June 21
172	19	06	35	M27	09	06	June 21
172	19	30	10	M28	09	30	June 21
172	19	53	45	M29	09	53	June 21
172	20	41	58	M31	10	41	June 21
172	21	04	33	M32	11	04	June 21
172	21	28	07	M33	11	28	June 21
172	21	51	43	M34	11	51	June 21
172	22	15	20	M35	12	15	June 21
172	22	38	55	M36	12	38	June 21
172	23	02	31	M37	13	02	June 21
172	23	26	06	M38	13	26	June 21
172	23	49	32	M39	13	49	June 21
173	00	13	12	M1	14	13	June 21
173	01	00	28	M3	15	00	June 21
173	01	24	02	M4	15	24	June 21
173	01	47	37	M5	15	47	June 21
173	02	11	07	M6	16	11	June 21
173	02	34	47	M7	16	34	June 21
173	02	58	22	M8	16	58	June 21
173	03	22	00	M9	17	22	June 21
173	03	45	35	M10	17	45	June 21
173	04	09	10	M11	18	09	June 21
173	04	32	45	M12	18	32	June 21
173	21	04	14	M13	11	04	June 22
173	21	27	46	M14	11	27	June 22

DAY	TIME HR.	TIME MIN.	TIME SEC.	SEQ. #	LOCAL TIME @ 150°W HR.	LOCAL TIME @ 150°W MIN.	LOCAL TIME @ 150°W DATE
174	18	37	16	M1	08	37	June 23
174	19	00	50	M2	09	00	June 23
174	21	04	36	M3	11	04	June 23
174	21	28	20	M4	11	28	June 23
174	21	37	03	M5	11	37	June 23
175	02	30	57	M1	16	30	June 23
175	02	54	32	M2	16	54	June 23
175	03	02	42	M3	17	02	June 23
175	21	47	41	M4	11	47	June 24
175	21	52	23	M5	11	52	June 24
175	22	15	58	M6	12	15	June 24
175	22	39	36	M7	12	39	June 24
176	02	40	46	M1	16	40	June 24
176	03	04	22	M2	17	04	June 24
176	03	27	56	M3	17	27	June 24
177	02	34	38	M1	16	34	June 25
177	02	58	12	M2	16	58	June 25
177	03	21	47	M3	17	21	June 25
177	18	17	22	M4	08	17	June 26
177	18	40	57	M5	08	40	June 26
177	19	04	29	M6	09	04	June 26
177	21	51	59	M7	11	51	June 26
177	22	15	31	M8	12	15	June 26
177	22	39	06	M9	12	39	June 26
178	03	42	33	M1	17	42	June 26
178	18	07	34	M2	08	07	June 27
178	20	48	47	M3	10	48	June 27
178	21	12	22	M4	11	12	June 27
178	21	36	58	M5	11	36	June 27
178	21	59	30	M6	11	59	June 27
178	22	23	05	M7	12	23	June 27
178	22	46	36	M8	12	46	June 27
178	23	10	11	M9	13	10	June 27
179	03	50	32	M1	17	50	June 27

DAY	TIME			SEQ. #	LOCAL TIME @ 150°W		
	HR.	MIN.	SEC.		HR.	MIN.	DATE
179	17	30	36	M2	07	30	June 28
179	17	54	08	M3	07	54	June 28
179	18	17	42	M4	08	17	June 28
179	20	24	49	M5	10	24	June 28
179	20	48	26	M6	10	48	June 28
179	21	11	56	M7	11	11	June 28
179	21	35	30	M8	11	35	June 28
179	21	59	03	M9	11	59	June 28
180	03	27	55	M1	17	27	June 28
180	18	06	47	M2	08	06	June 29
180	20	49	47	M3	10	49	June 29
180	21	13	21	M4	11	13	June 29
180	21	36	56	M5	11	36	June 29
180	22	24	06	M7	12	24	June 29
180	22	47	41	M8	12	47	June 29
180	23	11	16	M9	13	11	June 29
181	03	19	45	M1	17	19	June 29
181	18	03	03	M2	08	03	June 30
181	20	44	50	M3	10	44	June 30
181	21	02	25	M4	11	02	June 30
181	21	31	59	M5	11	31	June 30
181	21	55	34	M6	11	55	June 30
181	22	19	10	M7	12	19	June 30
181	23	06	19	M9	13	06	June 30
183	19	50	17	M3	09	50	July 2
183	20	13	52	M4	10	13	July 2
183	20	37	27	M5	10	37	July 2
183	21	01	02	M6	11	01	July 2
183	21	24	37	M7	11	24	July 2
183	21	48	12	M8	11	48	July 2
184	18	13	44	M2	08	13	July 3
184	19	08	19	M3	09	08	July 3
184	19	31	53	M4	09	31	July 3
184	19	55	29	M5	09	55	July 3
184	20	19	03	M6	10	19	July 3
184	20	42	41	M7	10	42	July 3
184	21	06	17	M8	11	06	July 3
184	21	29	52	M9	11	29	July 3

ATS-1 DIGITAL DATA

DAY	PICTURE START TIME			SEQ. #	LOCAL STANDARD, 150°W		
	HR.	MIN.	SEC.		HR.	MIN.	DATE
081	20	58	40	13	10	58	March 22
081	21	21	36	14	11	21	March 22
081	21	44	26	15	11	44	March 22
081	22	30	14	16	12	36	March 22
081	22	53	09	17	12	53	March 22
081	23	38	58	19	13	58	March 22
082	00	01	55	01	14	01	March 22
082	00	24	45	02	14	24	March 22
082	00	47	37	03	14	47	March 22
082	01	10	33	04	15	10	March 22
082	01	33	28	05	15	33	March 22
082	01	56	25	06	15	56	March 22
082	02	19	16	07	16	19	March 22
082	02	42	09	08	16	42	March 22
082	03	05	08	09	17	05	March 22
105	20	24	31	32	10	24	April 15
105	21	18	48	33	11	18	April 15
105	21	42	02	34	11	42	April 15
105	22	05	17	35	12	05	April 15
106	00	48	50	01	14	48	April 15
106	20	12	38	30	10	12	April 16
106	20	35	53	31	10	35	April 16
106	20	59	07	32	10	59	April 16
106	21	22	21	33	11	22	April 16
106	21	45	36	34	11	45	April 16
106	22	08	55	35	12	08	April 16
106	22	32	07	36	12	32	April 16
106	22	55	21	37	12	55	April 16
106	23	18	36	38	13	18	April 16
106	23	41	53	39	13	41	April 16
107	20	34	30	37	10	34	April 17
107	20	58	05	38	10	58	April 17
107	21	21	01	39	11	21	April 17
107	21	44	15	40	11	44	April 17
107	22	07	35	41	12	07	April 17
107	22	30	46	42	12	30	April 17

DAY	PICTURE START TIME			SEQ. #	LOCAL STANDARD, 150°W		
	HR.	MIN.	SEC.		HR.	MIN.	DATE
107	22	54	00	43	12	54	April 17
107	23	17	15	44	13	17	April 17
108	00	03	45	01	14	03	April 17
108	20	20	23	38	10	20	April 18
108	20	43	43	39	10	43	April 18
108	21	07	00	40	11	07	April 18
108	21	30	13	41	11	30	April 18
108	21	56	32	42	11	56	April 18
108	22	19	48	43	12	19	April 18
108	22	43	02	44	12	43	April 18
108	23	06	16	45	13	06	April 18
108	23	29	40	46	13	29	April 18
109	20	38	23	37	10	38	April 19
109	21	01	50	38	11	01	April 19
109	21	48	10	40	11	48	April 19
109	22	11	26	41	12	11	April 19
109	22	34	39	42	12	34	April 19
109	22	58	55	43	12	58	April 19
109	23	21	12	44	13	19	April 19
109	23	44	24	45	13	44	April 19
110	00	07	42	01	14	07	April 19
110	20	34	58	36	10	34	April 20
110	20	57	13	37	10	57	April 20
110	21	20	29	38	11	20	April 20
110	21	43	46	39	11	43	April 20
110	22	07	00	40	12	07	April 20
110	22	30	17	41	12	30	April 20
110	22	53	32	42	12	53	April 20
110	23	16	49	43	13	16	April 20
110	23	40	06	44	13	40	April 20
111	00	03	22	01	14	03	April 20
111	13	08	04	19	03	08	April 21
111	13	31	27	20	03	31	April 21
111	14	17	53	22	04	17	April 21
111	15	27	39	25	05	27	April 21

DAY	PICTURE START TIME			SEQ. #	LOCAL STANDARD, 150°W		
	HR.	MIN.	SEC.		HR.	MIN.	DATE
111	15	50	55	26	05	50	April 21
111	16	37	27	28	06	37	April 21
111	17	00	44	29	07	00	April 21
111	17	47	15	31	07	47	April 21
111	18	10	29	32	08	10	April 21
111	18	57	01	34	08	57	April 21
111	19	43	31	36	09	43	April 21
111	20	06	46	37	10	06	April 21
111	20	30	03	38	10	30	April 21
111	20	53	27	39	10	53	April 21
111	21	23	38	40	11	23	April 21
111	21	46	47	41	11	46	April 21
111	22	10	07	42	12	10	April 21
111	22	33	24	43	12	33	April 21
111	22	56	40	44	12	56	April 21
111	23	20	01	45	13	20	April 21
111	23	43	09	46	13	43	April 21
112	00	29	41	02	14	29	April 21
112	01	39	27	05	15	39	April 21
112	02	02	40	06	16	02	April 21
112	03	12	25	09	17	12	April 21
112	03	35	42	10	17	35	April 21
112	04	22	11	12	18	24	April 21
112	04	45	28	13	18	45	April 21
112	05	31	57	15	19	31	April 21
112	05	55	14	16	19	55	April 21
112	06	41	43	18	20	41	April 21
112	20	09	40	36	10	09	April 22
112	20	32	51	37	10	32	April 22
112	20	56	09	38	10	56	April 22
112	21	19	26	39	11	19	April 22
112	21	42	43	40	11	42	April 22
112	22	05	58	41	12	05	April 22
112	22	29	14	42	12	29	April 22
112	22	52	32	43	12	52	April 22
112	23	15	46	44	13	15	April 22
112	23	39	02	45	13	39	April 22

DAY	PICTURE START TIME			SEQ. #	LOCAL STANDARD, 150°W		
	HR.	MIN.	SEC.		HR.	MIN.	DATE
113	20	03	35	32	10	03	April 23
113	20	26	52	33	10	26	April 23
113	20	50	09	34	10	50	April 23
113	21	13	27	35	11	13	April 23
113	21	36	40	36	11	36	April 23
113	21	59	59	37	11	59	April 23
113	22	23	17	38	12	23	April 23
113	23	09	46	40	13	09	April 23
113	23	33	03	41	13	33	April 23
113	23	56	17	42	13	56	April 23
114	20	39	00	31	10	39	April 24
114	21	48	28	33	11	48	April 24
114	22	50	49	34	12	50	April 24
114	23	15	00	35	13	15	April 24
114	23	38	34	36	13	38	April 24
115	00	02	00	01	14	02	April 24
115	01	34	57	05	15	34	April 24
115	15	55	08	20	05	55	April 25
115	17	42	00	24	07	42	April 25
115	20	30	05	29	10	30	April 25
115	20	53	25	30	10	53	April 25
115	21	16	48	31	11	16	April 25
115	22	30	00	33	12	30	April 25
115	22	53	18	34	12	53	April 25
115	23	16	34	35	13	16	April 25
115	23	39	52	36	13	37	April 25
116	00	26	28	02	14	26	April 25
116	02	50	49	04	16	50	April 25
116	05	26	23	08	19	26	April 25
116	13	13	58	09	03	13	April 26
116	13	37	23	10	03	37	April 26
116	14	24	04	12	04	24	April 26
116	16	15	18	16	06	15	April 26
116	17	50	59	18	07	50	April 26
116	18	14	21	19	08	14	April 26
116	20	03	58	22	10	03	April 26

DAY	PICTURE START TIME			SEQ. #	LOCAL STANDARD, 150°W		
	HR.	MIN.	SEC.		HR.	MIN.	DATE
116	20	27	00	23	10	27	April 26
116	20	50	00	24	10	50	April 26
116	21	13	53	25	11	13	April 26
116	21	37	12	26	11	37	April 26
116	22	00	29	27	12	00	April 26
116	22	47	04	29	12	47	April 26
116	23	57	00	31	13	57	April 26
117	00	43	36	01	14	43	April 26
117	02	00	43	05	16	00	April 26
117	03	52	26	09	17	52	April 26
117	04	55	15	11	18	55	April 26