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ELECTRON DENSITIES and SCALE HEIGHTS in the TOPSIDE IONOSPHERE: ALOUETTE I OBSERVATIONS RECORDED AT HAWAII

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ELECTRON DENSITIES and SCALE HEIGHTS in the TOPSIDE IONOSPHERE: Alouette I Observations Recorded at Hawaii

Winter 1962-1963, Summer 1963

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Introduction

This data book is one of a series of NASA Special Publications (refs. 1 to 4) presenting data on electron density (N) and plasma scale height (H) at various heights (h) and times (t) in the topside ionosphere. The data presented were computed and automatically plotted in the Computation and Analysis Branch of Ames Research Center from Alouette I topside sounder ionograms, made available by the World Data Center. The Alouette I satellite is in an almost circular orbit at an altitude of 1000 kilometers, with an inclination of 80.5° and an orbital period of 105.4 minutes (ref. 5).

The ionograms selected for analysis and publication in this volume are those telemetered to the South Point, Hawaii, tracking station. All scalable ionograms from all Alouette I passes recorded at that station during November and December 1962 and May, June, October, and November 1963 were processed. Both tabulations and graphs of the computed electron density and plasma scale height data are presented.

The number of ionograms analyzed and presented in this volume is summarized in table I. An index for the tabulations is presented in table II. The universal time, local time, geographic latitude, geographic longitude, and magnetic dip angle for the first and last ionograms of each Alouette I pass reduced are indexed. The number of ionograms in each pass is also indicated. A graphical form of index of data analyzed is shown in figures 1 and 2. The pass number, date, and period of data analyzed in universal time (fig. 1) and local time (fig. 2) are presented.

Table I.—Ionograms Analyzed

Month	Days	Passes	Ionograms
November 1962	20	20	534
December 1962	7	7	191
May 1963	16	16	372
June 1963	1	1	15
October 1963	3	3	46
November 1963	11	11	155
Total	58	58	1313

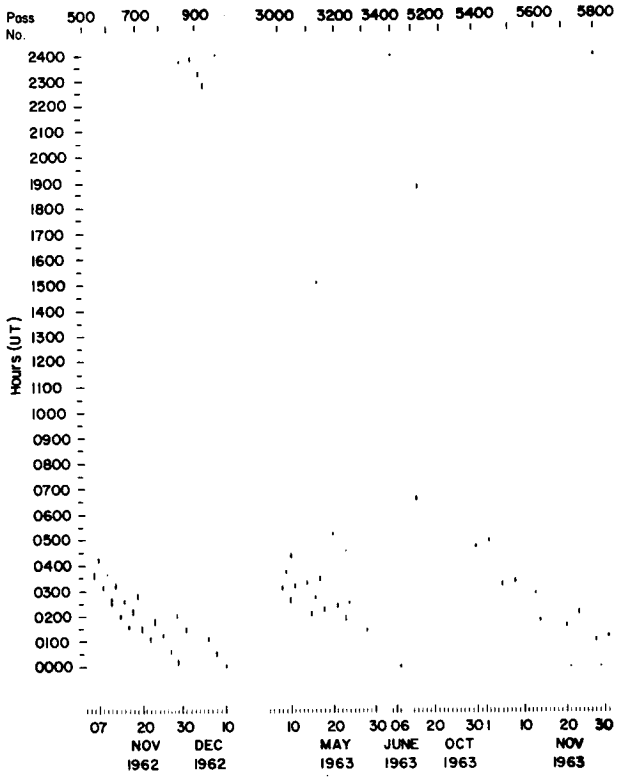

Figure 1

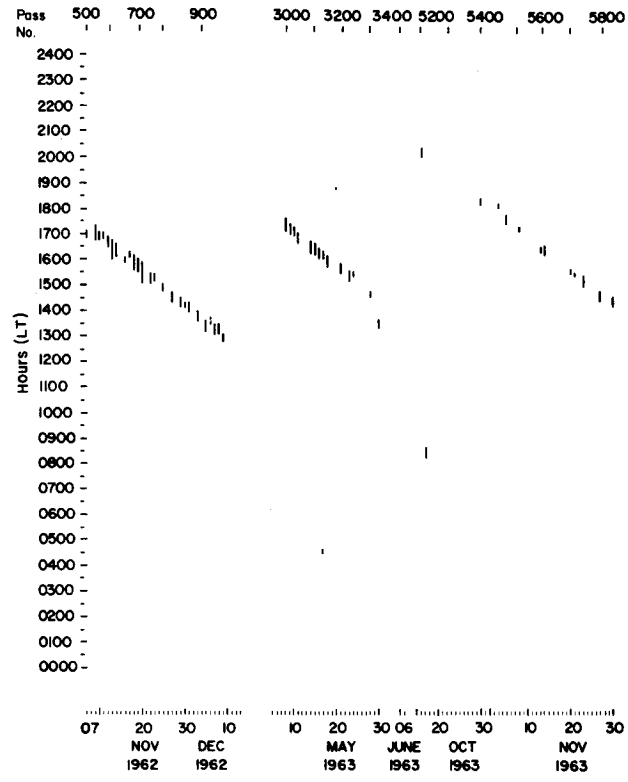

Figure 2

The authors wish to acknowledge the outstanding efforts of J.O. Thomas, formerly of Ames Research Center and currently at Imperial College, University of London, in establishing the Alouette I data reduction program at Ames. We wish also to acknowledge gratefully the continuing courtesy and cooperation of scientists at the Canadian Defence Research Telecommunications Establishment, Ottawa, Canada, particularly J.H. Chapman, E.S. Warren, and G.L. Nelms. We wish also to thank the World Data Center, Boulder, Colorado, particularly Patricia Smith, for providing the Alouette I ionograms.

Use of the Tabulations

The tabulated N(h,t) and H(h,t) data in table III were computed by the method of overlapping polynomials (refs. 6 and 7) using digitized h'(f) data measured along the leading edge of the extraordinary trace on the ionograms. The quantity H is defined as $H = -N/(dN/dh)$. The required satellite position data are obtained by linear interpolation of the corresponding orbital information listed at 1-minute intervals in Alouette Refined World Maps supplied by Goddard Space Flight Center. The required earth's magnetic field parameters were evaluated by means of a spherical harmonic expansion representation of the field with coefficients as computed by Jensen and Cain (ref. 8).

In table III, the electron densities (in units of 10^5 electrons per cm^3) and plasma scale heights (in units of km) are tabulated in groups of eight profiles per page with values given in altitude increments of 50 kilometers. The electron density table and corresponding plasma scale height table are listed one above the other. The profiles are listed sequentially in time from the beginning to the end of the pass. The times at the head of each column are the universal time (UT) and local time (LT) in hours, minutes, and seconds (to the nearest second) of occurrence of f_{xs}, the frequency at which the extraordinary trace has zero range for that particular ionogram. The corresponding satellite altitude (HS) and geographic latitude (LAT) and longitude (LONG), to the nearest 0.01°, for that time are listed below each column. The satellite typically travels some 80 kilometers during the production of a complete ionogram so that the positions listed are only strictly applicable to the electron density near 100 kilometers. Consecutive profiles in a pass are separated in time by an integral multiple of 18 ± 1 second, the nominal frame time for Alouette I. During this period of 18 seconds, the spacecraft moves about 120 kilometers in distance along its orbit. An approximation to the total electron content (NT) of the topside N(h) profile is listed at the foot of each profile (in units of 10^{13} per cm^2). This quantity is the numerical integration from the lowest altitude to the 1000-kilometer point, using the electron density values listed at 50-kilometer intervals. Also listed at the foot of each table are several factors which define the profile in magnetic coordinates: magnetic dip latitude (DIPL), invariant latitude (INVL), L shell number (l), magnetic dip angle (DIP), and electron gyro-frequency at the satellite (FHS). (See refs. 6 and 7 for definitions of these quantities.) The planetary magnetic activity index (KP) appropriate to the time of observation is also listed. The quality factor (QUAL) given at the bottom of each column is a subjective estimation of the quality and readability of the ionogram by the scaler at the time of scaling. The quality factor is described by the two-digit numbers 11, 21, 31, 12, 22, 32, 13, 23, and 33. The first digit indicates the quality of the ionogram, and the second digit, the readability of the value of f_xF_2. (A more complete description is given in the section entitled "Symbols, Abbreviations, and Units in Tables and Figures.") The sunlight indicator (SNL) indicates whether the satellite was solar-illuminated (1) or not (0) at the time of observation.

Each horizontal row of figures in the upper table gives the variation of electron density with time at a fixed height (N(t) data). Each vertical column of figures gives the variation of electron density with height at a fixed time (N(h) data). The row labeled SAT gives the electron density at the satellite altitude for each profile. Similarly, in the scale height tables below, each horizontal row of figures gives the variation of scale height with time at a fixed height (H(t) data); each vertical column of figures gives the variation of scale height with height at a fixed time (H(h) data).

The possible errors in reading and analyzing the records and the accuracy of the computed N(h, t) data have been discussed in references 6 and 7. For a good-quality ionogram (i.e., the first digit of the quality factor is 1 or 2) it is estimated that the height at which a given electron density is found is probably correct to ±10 kilometers, with the accuracy increasing with increasing height. The scale height is probably correct to ±10 percent at heights less than 800 kilometers, above which the accuracy decreases with increasing height.

In many cases, the ionogram trace does not extend to the critical frequency of the F_2 layer. In these circumstances, only the upper portion of the electron density profile is presented. It should be noted that the scale height at 1000 kilometers is omitted from the tabulations because of difficulties associated with ionogram scaling inaccuracies at frequencies just greater than f_{xs}. A blank column or space indicates that the missing profile or point was not considered accurate enough, upon final editing, to warrant inclusion in the data book.

Use of the Graphs

Basically, three types of graphs are presented in this volume: (1) electron density at seven fixed altitudes (400, 500, 600, 700, 800, 900, and 1000 km) and scale height at three fixed altitudes (500, 700, 900 km) versus dip latitude for each of the Alouette I passes analyzed, (2) average winter and summer electron density and scale height at these altitudes versus dip latitude for 1-hour local time increments, and (3) average winter and summer electron density and scale height at these altitudes versus local time for 5° dip latitude increments. The electron density data and corresponding scale height data are presented one above the other on the same page to facilitate comparison. The order of presentation of these graphs is shown in table IV. No attempt was made to connect or smooth the individual points.

INDIVIDUAL PASSES

Each of these graphs (figs. 3 to 60) is an automatic machine plot of electron density (top) and scale height (bottom) data from table III versus dip latitude quantized to 1° for several fixed altitudes. The zeros for the altitudes in the electron density graphs have been suppressed, that is, 4 = 400 kilometers, 5 = 500 kilometers, etc. Note that 0 = 1000 kilometers. Actual values are located approximately at the center of each number. In the scale height graphs, squares are values at 900 kilometers, circles at 700 kilometers, and diamonds at 500 kilometers. Corresponding values of local time and geographic longitude and latitude are also shown at the top of each graph.

AVERAGE DATA

The tabulated data for all individual passes were separated into seasons (summer: May and June 1963; winter: November and December 1962 and October and November 1963), and then divided into 5° dip latitude intervals and 1-hour local time intervals. The data were then averaged in a computer, and automatic machine plots prepared (figs. 61 to 84). The format of the average dip latitude plots is similar to the individual pass dip latitude plots except that in the scale height plots circles represent 900 kilometers, squares 700 kilometers, and diamonds 500 kilometers. The larger integers at the top of each graph are the total number of data points available for the calculations of the plotted average, at each height. These numbers are provided to allow the reader to assess for himself the reasonableness of each average.

The format and symbolism on the average local time plots are similar to the average dip latitude plots. It is suggested that the diurnal variation graphs be used with caution. The orbit of the Alouette I satellite is such that a "diurnal" variation can be obtained only through the analysis of slightly more than 3 months of data from any station. Furthermore, all longitudes within the station's coverage must be included. Figure 2 illustrates the manner in which the summer and winter local time variations for South Point were evolved and indicates those dates on which data for each local time were recorded.

References

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7. Thomas, J. O.; Rycroft, M. J.; Covert, Margaret; Briggs, B. R.; and Colin, L.: Ionosphere Topside Sounder Studies—II - The Calculation of the Electron Density and the Magnetic Field Parameters at the Alouette I Orbit. NASA TN D-2921, 1965.
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Symbols, Abbreviations, and Units in Tables and Figures

N	electron density, 10^5 per cm^3
H	plasma scale height, km
h	real height above the ground, km
Pass	pass number of Alouette I
SPOINT	tracking station at South Point, Hawaii
UT	universal time given as $\underset{\text{hour}}{XX}, \underset{\text{minute}}{XX}, \underset{\text{second}}{XX}$; all zero digits on extreme left are suppressed
LT	local time given as $\underset{\text{hour}}{XX}, \underset{\text{minute}}{XX}, \underset{\text{second}}{XX}$; all zero digits on extreme left are suppressed
SAT	electron density at the altitude of the satellite
NT	integrated electron density in units of 10^{13} per cm^2
Date	given as $\underset{\text{year}}{XX}, \underset{\text{month}}{XX}, \underset{\text{day}}{XX}$; all zeros are suppressed
HS	satellite altitude, km
LONG	geographic longitude, deg; positive sign indicates longitude east of Greenwich; negative sign, west of Greenwich
LAT	geographic latitude, deg; positive sign indicates northern latitude, negative sign, southern lattitude
DIPL	magnetic dip latitude, deg; positive sign indicates northern magnetic latitude; negative sign, southern magnetic latitudes
INVL	magnetic invariant latitude, deg
L	magnetic L-shell number
DIP	magnetic dip angle, deg; positive sign indicates northern magnetic latitude; negative sign, southern magnetic latitude
FHS	electron gyro-frequency at the satellite, Mc/sec
KP	planetary magnetic activity index, 00, 0+, 1-, 10, 1+, ...
QUAL	quality factor for the ionogram, coded in two-digit numbers (11, 21, 31, 21, 22, 32, 13, 23, and 33) and defined as follows:

First Digit:

1 Excellent quality ionogram. Extraordinary trace is narrow, of high contrast, easily identifiable, possesses only small gaps and cannot be confused with ordinary trace, spreading or resonances anywhere along its extent. No spurious responses.

2 Good quality ionogram. Extraordinary trace is not too spread, of good contrast, fairly easily identifiable along most of its extent, any large gaps are

easily interpolated and no major confusion exists with the ordinary trace, spreading or resonances, or spurious responses.

3 Poor quality ionogram, but readable. Considerable spreading, lack of contrast, overlapping traces and resonances, spurious traces, etc. Cause somewhat questionable scaling accuracies.

Second Digit:

1 f_xF_2 clearly visible and read.

2 f_xF_2 not quite visible but highest visible frequency close to f_xF_2 or presence of ground reflections would allow an estimate of f_xF_2.

3 f_xF_2 not visible.

SNL sunlight indicator; 1 (satellite solar illuminated), 0 (satellite not solar illuminated)

Table II.—Index of Tabulations

STATION	PASS	MO	DD	YR	BEG UT	END UT	BEG LT	END LT	BEG DIP	END DIP	BEG LAT	BEG LONG	END LAT	END LONG	NO. ION
SPOINT	0531	NOV	07	62	0356	0401	1648	1708	59	41	44N	166W	25N	163W	19
SPOINT	0558	NOV	09	62	0328	0341	1646	1719	52	-22	34N	160W	12S	155W	27
SPOINT	0572	NOV	10	62	0409	0416	1647	1705	35	-09	21N	170W	03S	167W	19
SPOINT	0585	NOV	11	62	0304	0311	1648	1703	22	-21	10N	154W	12S	151W	21
SPOINT	0599	NOV	12	62	0337	0348	1628	1655	42	-23	26N	167W	11S	163W	21
SPOINT	0612	NOV	13	62	0224	0240	1557	1647	64	-17	47N	156W	11S	148W	40
SPOINT	0626	NOV	14	62	0305	0316	1609	1637	47	-16	30N	163W	08S	159W	25
SPOINT	0639	NOV	15	62	0155	0208	1556	1631	55	-14	35N	149W	09S	144W	33
SPOINT	0653	NOV	16	62	0233	0239	1550	1608	51	25	33N	160W	11N	157W	18
SPOINT	0666	NOV	17	62	0131	0137	1600	1614	27	-10	12N	142W	08S	140W	20
SPOINT	0680	NOV	18	62	0202	0216	1535	1608	51	-18	33N	156W	10S	151W	40
SPOINT	0694	NOV	19	62	0240	0253	1530	1600	46	-23	30N	167W	11S	163W	40
SPOINT	0707	NOV	20	62	0128	0143	1506	1550	62	-10	45N	155W	07S	148W	49
SPOINT	0734	NOV	22	62	0101	0110	1504	1528	52	09	32N	149W	02N	145W	30
SPOINT	0748	NOV	23	62	0143	0151	1509	1527	33	-16	18N	158W	09S	155W	25
SPOINT	0775	NOV	25	62	0110	0116	1447	1504	43	08	25N	155W	02S	153W	24
SPOINT	0802	NOV	27	62	0035	0044	1419	1445	57	18	39N	154W	07N	149W	32
SPOINT	0829	NOV	29	62	0007	0015	1412	1433	50	09	30N	148W	02N	145W	12
SPOINT	0830	NOV	29	62	0156	0204	1421	1439	28	-20	17N	173W	08S	171W	24
SPOINT	0856	NOV	30	62	2341	2345	1409	1419	31	04	14N	142W	00S	141W	16
SPOINT	0857	DEC	01	62	0122	0131	1357	1420	44	-07	28N	171W	02S	167W	20
SPOINT	0897	DEC	03	62	2344	2352	1336	1358	45	-03	26N	151W	03S	148W	29
SPOINT	0924	DEC	05	62	2311	2320	1314	1338	53	08	33N	149W	01N	145W	29
SPOINT	0925	DEC	06	62	0101	0109	1328	1345	26	-20	16N	173W	08S	170W	26
SPOINT	0951	DEC	07	62	2241	2250	1302	1324	50	05	30N	144W	00N	141W	29
SPOINT	0952	DEC	08	62	0027	0036	1302	1324	43	-03	28N	171W	00S	167W	28
SPOINT	0979	DEC	09	62	2355	0004	1243	1306	49	04	32N	167W	02N	164W	30
SPOINT	3014	MAY	08	63	0301	0310	1711	1733	51	07	30N	147W	01N	144W	15
SPOINT	3028	MAY	09	63	0338	0347	1701	1724	50	07	32N	159W	02N	155W	25
SPOINT	3041	MAY	10	63	0231	0240	1656	1719	50	03	29N	143W	01S	140W	29
SPOINT	3042	MAY	10	63	0417	0426	1658	1719	41	-06	26N	169W	02S	166W	25
SPOINT	3055	MAY	11	63	0306	0315	1640	1705	56	16	38N	156W	07N	152W	31
SPOINT	3096	MAY	14	63	0314	0323	1622	1645	49	04	32N	162W	02N	159W	32

STATION	PASS	MO	DD	YR	BEG UT	END UT	BEG LT	END LT	BEG DIP	END DIP	BEG LAT	BEG LONG	END LAT	END LONG	NO. ION
SPOINT	3109	MAY	15	63	0206	0215	1614	1638	53	08	33N	147W	01N	144W	32
SPOINT	3123	MAY	16	63	0243	0252	1605	1629	51	07	33N	159W	03N	155W	27
SPOINT	3137	MAY	17	63	0322	0331	1602	1625	43	-07	28N	169W	02S	166W	28
SPOINT	3144	MAY	17	63	1504	1507	0438	0445	44	53	26N	156W	34N	155W	06
SPOINT	3150	MAY	18	63	0211	0220	1545	1611	56	16	37N	156W	07N	152W	31
SPOINT	3185	MAY	20	63	0512	0515	1852	1849	52	43	34N	155W	25N	156W	10
SPOINT	3191	MAY	21	63	0219	0228	1528	1549	49	06	32N	162W	03N	159W	28
SPOINT	3218	MAY	23	63	0148	0157	1510	1534	51	07	33N	159W	02N	155W	32
SPOINT	3232	MAY	24	63	0232	0236	1520	1530	20	-07	12N	167W	02S	166W	10
SPOINT	3286	MAY	28	63	0126	0130	1438	1449	43	21	26N	161W	11N	160W	11
SPOINT	3408	JUN	06	63	2359	0006	1324	1343	48	12	30N	158W	05N	155W	15
SPOINT	5213	OCT	16	63	0633	0639	2005	2021	45	13	27N	156W	05N	154W	08
SPOINT	5234	OCT	17	63	1847	1856	0819	0842	17	55	08N	157W	36N	153W	27
SPOINT	5403	OCT	30	63	0442	0446	1812	1824	49	31	31N	157W	16N	155W	11
SPOINT	5444	NOV	02	63	0454	0458	1803	1812	23	-01	12N	162W	00S	161W	13
SPOINT	5484	NOV	05	63	0310	0316	1729	1743	48	22	27N	145W	08N	143W	08
SPOINT	5525	NOV	08	63	0319	0322	1711	1719	37	20	19N	151W	08N	150W	08
SPOINT	5593	NOV	13	63	0251	0255	1620	1632	51	36	33N	157W	19N	155W	10
SPOINT	5606	NOV	14	63	0144	0152	1618	1636	52	13	31N	141W	03N	138W	13
SPOINT	5688	NOV	20	63	0158	0201	1532	1540	44	31	25N	156W	16N	155W	10
SPOINT	5701	NOV	21	63	0050	0053	1526	1534	45	31	24N	140W	14N	139W	07
SPOINT	5729	NOV	23	63	0203	0212	1504	1527	47	01	31N	164W	00N	161W	24
SPOINT	5783	NOV	27	63	0100	0106	1429	1447	53	28	35N	157W	14N	154W	20
SPOINT	5796	NOV	27	63	2354	0002	1427	1447	50	11	29N	141W	02N	138W	26
SPOINT	5824	NOV	30	63	0109	0116	1414	1431	41	05	25N	163W	02N	161W	16

Table III.—Tabulation of Electron Density and Scale Height

PASS 531 AT SPOINT, 6211 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	35824 165825	35900 170031	35918 170128	35937 170228	35955 170325	40013 170419	40031 170513	40049 170607
HEIGHT								
SAT.	0.114	0.105	0.116	0.115	0.127	0.118	0.122	0.136
1000	0.127	0.110	0.122	0.122	0.133	0.126	0.129	0.145
950	0.140	0.121	0.132	0.134	0.142	0.138	0.141	0.158
900	0.153	0.134	0.143	0.147	0.153	0.150	0.154	0.173
850	0.170	0.150	0.162	0.163	0.173	0.167	0.170	0.192
800	0.192	0.171	0.187	0.188	0.206	0.192	0.196	0.217
750	0.219	0.198	0.219	0.220	0.243	0.221	0.231	0.253
700	0.260	0.237	0.257	0.261	0.282	0.256	0.277	0.307
650	0.318	0.301	0.313	0.312	0.325	0.325	0.340	0.375
600	0.388	0.380	0.407	0.380	0.388	0.420	0.416	0.459
550	0.499	0.479	0.530	0.517	0.541	0.548	0.515	0.584
500	0.689	0.666	0.724	0.705	0.739	0.734	0.723	0.799
450	0.982	0.933	1.002	0.966	1.019	1.007	0.995	1.123
400	1.450	1.408	1.471	1.400	1.481	1.447	1.424	1.587
350	2.229	2.108	2.284	2.134	2.248	2.150	2.140	2.272
300	3.923	3.799	4.013	3.652	3.808	3.550	3.550	3.573
250	6.517	6.642		5.940	5.853	5.582		
200								
NT	0.747	0.723	0.495	0.711	0.737	0.708	0.478	0.518
HEIGHT	SCALE HEIGHT, KM							
950	551.9	500.6	612.2	565.4	702.2	609.7	571.6	580.3
900	498.1	444.7	471.7	497.0	529.8	513.2	506.5	505.6
850	438.3	393.2	411.8	421.9	419.4	431.1	429.9	438.9
800	389.2	353.0	358.2	367.8	347.2	367.7	371.0	358.3
750	340.1	312.7	314.6	313.8	308.1	319.7	314.1	307.0
700	302.2	277.2	276.6	282.9	292.1	273.6	270.3	284.7
650	269.7	249.9	242.0	255.4	276.1	244.9	249.7	262.3
600	237.3	222.6	212.3	224.8	244.2	216.3	229.1	240.0
550	194.6	195.0	183.0	178.6	156.3	190.2	207.2	209.6
500	147.4	163.5	166.0	161.8	158.3	170.4	173.8	164.2
450	136.8	137.3	141.0	147.2	142.0	148.0	147.7	147.0
400	123.7	126.5	122.7	126.0	126.7	132.2	131.2	142.8
350	106.1	111.7	105.5	111.1	111.8	117.7	115.7	130.9
300	88.9	80.3	93.0	91.4	98.0	99.7	102.6	103.6
HS	1017.84	1017.00	1016.55	1016.07	1015.63	1015.20	1014.78	1014.36
LONG	-164.99	-164.62	-164.46	-164.29	-164.12	-163.97	-163.82	-163.67
LAT	36.46	34.45	33.44	32.38	31.37	30.36	29.35	28.34
DIPL	33.73	32.00	31.14	30.22	29.35	28.48	27.60	26.72
INVL	33.34	31.45	30.51	29.50	28.54	27.59	26.63	25.65
L	1.66	1.59	1.56	1.53	1.50	1.48	1.45	1.43
DIP	53.17	51.34	50.39	49.36	48.36	47.33	46.28	45.20
FHS	0.77	0.75	0.75	0.74	0.73	0.72	0.71	0.71
KP	4+	4+	4+	4+	4+	4+	4+	4+
QUAL	12	12	22	22	12	22	12	12
SNL	1	1	1	1	1	1	1	1

PASS 531 AT SPOINT, 6211 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	40107 170700	40125 170750	40143 170841
HEIGHT			
SAT.	0.135	0.136	0.155
1000	0.142	0.145	0.162
950	0.156	0.160	0.173
900	0.169	0.174	0.188
850	0.187	0.192	0.206
800	0.214	0.219	0.235
750	0.249	0.258	0.276
700	0.295	0.308	0.328
650	0.352	0.374	0.392
600	0.419	0.454	0.467
550	0.534	0.619	0.589
500	0.750	0.850	0.837
450	1.056	1.132	1.172
400	1.539	1.656	1.709
350	2.280	2.522	2.556
300	3.527	3.922	3.918
250	5.218		
200			
NT	0.720	0.548	0.558
HEIGHT	SCALE HEIGHT, KM		
950	596.3	569.4	642.7
900	521.0	513.2	558.2
850	437.9	446.0	473.8
800	371.1	383.1	391.4
750	315.2	323.5	309.5
700	293.1	273.8	281.1
650	270.9	245.1	261.8
600	248.8	216.3	242.5
550	208.9	187.6	206.0
500	146.7	163.2	145.3
450	139.4	151.3	138.5
400	132.4	133.3	132.5
350	123.8	119.3	123.7
300	121.4	136.1	147.0
HS	1013.94	1013.52	1013.10
LONG	-163.53	-163.39	-163.26
LAT	27.33	26.32	25.30
DIPL	25.84	24.95	24.06
INVL	24.67	23.70	22.72
L	1.40	1.38	1.36
DIP	44.08	42.94	41.76
FHS	0.70	0.69	0.68
KP	4+	4+	4+
QUAL	12	12	12
SNL	1	1	1

PASS 558 AT SPOINT, 6211 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	32846 164641	32904 164738	32922 164832	32940 164926	33223 165658	33241 165744	33259 165831	33537 170452
HEIGHT								
SAT.	0.091	0.100	0.101	0.105	0.139	0.149	0.156	0.274
1000	0.095	0.106	0.107	0.108	0.145	0.153	0.160	0.278
950	0.103	0.115	0.115	0.115	0.155	0.167	0.175	0.310
900	0.111	0.124	0.122	0.122	0.167	0.181	0.191	0.363
850	0.121	0.134	0.131	0.132	0.183	0.198	0.210	0.429
800	0.133	0.148	0.146	0.145	0.204	0.221	0.234	0.511
750	0.150	0.165	0.165	0.161	0.227	0.250	0.264	0.636
700	0.170	0.186	0.190	0.184	0.266	0.288	0.308	0.819
650	0.203	0.220	0.222	0.219	0.317	0.335	0.363	1.058
600	0.246	0.264	0.260	0.263	0.406	0.414	0.461	1.455
550	0.313	0.327	0.312	0.336	0.530	0.561	0.620	2.124
500	0.411	0.426	0.422	0.435	0.756	0.783	0.884	3.386
450	0.565	0.586	0.577	0.594	1.115	1.165	1.396	5.265
400	0.784	0.816	0.800	0.829	1.605	1.875		7.699
350	1.135	1.191	1.180	1.214	2.419	3.082		
300	1.854	1.955	1.911	2.013	4.378	5.742		
250	3.319	3.575	3.524	3.561				
200								
NT	0.400	0.425	0.418	0.430	0.531	0.623	0.224	1.017
HEIGHT	SCALE HEIGHT, KM							
950	691.8	711.9	792.0	896.6	757.8	621.6	565.1	393.6
900	624.1	649.9	701.8	715.0	611.9	572.8	529.0	307.4
850	543.5	550.6	570.3	552.8	517.3	505.6	487.1	284.9
800	466.5	477.3	486.5	489.9	443.6	439.6	429.3	262.4
750	403.9	424.7	412.6	427.5	380.8	379.3	372.2	229.5
700	341.3	372.1	351.2	366.8	318.1	334.2	320.9	194.2
650	294.7	321.0	317.1	307.9	255.3	289.1	269.7	174.9
600	248.8	270.3	283.0	249.0	214.8	234.4	209.0	151.2
550	208.3	220.8	243.5	213.6	178.0	164.5	157.7	124.4
500	171.7	173.8	176.8	181.2	131.7	140.7	133.1	110.8
450	161.2	161.2	156.7	160.4	129.2	112.6	98.5	123.0
400	145.4	143.3	141.5	140.4	124.8	106.3		137.4
350	119.2	117.6	116.4	119.6	107.4	93.5		
300	98.6	96.2	97.2	96.9	78.6	72.2		
HS	1014.75	1014.24	1013.52	1012.80	1009.74	1009.38	1009.02	1006.57
LONG	-160.52	-160.36	-160.21	-160.06	-158.85	-158.73	-158.62	-157.68
LAT	34.65	31.24	30.35	29.46	20.42	19.40	18.39	9.45
DIPL	32.94	29.92	29.15	28.37	20.31	19.38	18.44	9.97
INVL	32.44	29.14	28.30	27.46	18.59	17.54	16.49	5.47
L	1.63	1.52	1.50	1.47	1.29	1.27	1.26	1.17
DIP	52.34	49.01	48.12	47.21	36.51	35.12	33.69	19.38
FHS	0.77	0.74	0.73	0.72	0.66	0.65	0.65	0.61
KP	2-	2-	2-	2-	2-	2-	2-	2-
QUAL	12	12	12	23	13	13	23	23
SNL	1	1	1	1	1	1	1	1

PASS 558 AT SPOINT, 6211 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	33555	33614	33632	33708	33726	33744	33802	33820
LT	170536	170619	170659	170820	170901	170942	171023	171104
HEIGHT								
SAT.	0.286	0.298	0.322	0.356	0.365	0.378	0.387	0.395
1000	0.293	0.306	0.331	0.363	0.372	0.385	0.395	0.403
950	0.341	0.361	0.385	0.423	0.442	0.453	0.469	0.477
900	0.409	0.432	0.456	0.498	0.519	0.529	0.543	0.553
850	0.499	0.525	0.549	0.592	0.603	0.610	0.628	0.639
800	0.609	0.636	0.654	0.694	0.708	0.712	0.730	0.757
750	0.736	0.764	0.785	0.829	0.838	0.867	0.898	0.941
700	0.920	0.943	0.974	1.021	1.066	1.102	1.125	1.195
650	1.178	1.209	1.262	1.376	1.437	1.501	1.567	1.657
600	1.640	1.732	1.849	2.052	2.059	2.102	2.186	2.316
550	2.379	2.611	2.754	2.964	3.036	3.112	3.247	3.399
500	3.766		4.089	4.264	4.433	4.605		5.000
450	5.654		5.952	6.150	6.421	6.750		
400	8.121			8.760	9.182	9.650		
350						12.383		
300								
250								
200								
NT	1.117	0.403	0.845	1.271	1.317	1.919	0.498	0.732
HEIGHT	SCALE HEIGHT, KM							
950	293.8	287.0	319.7	312.8	300.9	316.5	318.8	319.6
900	280.0	279.4	300.0	310.2	310.8	328.4	335.1	338.5
850	266.1	270.8	285.8	305.1	313.4	326.4	315.9	305.2
800	253.0	263.9	281.4	286.0	285.9	283.2	281.7	263.4
750	240.2	255.4	250.8	253.9	255.6	239.9	236.9	227.3
700	213.9	222.1	206.9	211.0	202.2	196.5	192.9	192.7
650	180.1	166.1	168.8	172.0	163.1	166.6	168.2	167.5
600	152.4	141.3	140.9	137.7	139.5	142.8	142.1	144.7
550	126.7	111.4	129.0	138.0	133.0	130.4	100.2	131.4
500	116.9		130.5	137.5	134.4	129.7		131.9
450	131.5		137.6	139.1	137.0	135.8		
400	137.5			145.3	148.7	158.9		
350						301.1		
300								
HS	1006.36	1006.16	1005.98	1005.65	1005.53	1005.41	1005.29	1005.23
LONG	-157.58	-157.48	-157.38	-157.20	-157.10	-157.01	-156.91	-156.82
LAT	8.43	7.36	6.34	4.31	3.29	2.27	1.25	0.23
DIPL	8.99	7.94	6.95	4.95	3.94	2.94	1.92	0.91
INVL	3.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.16	1.16	1.15	1.14	1.14	1.14	1.14	1.13
DIP	17.55	15.59	13.69	9.82	7.85	5.86	3.85	1.83
FHS	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
KP	2-	2-	2-	2-	2-	2-	2-	2-
QUAL	23	23	23	13	13	12	23	13
SNL	1	1	1	1	1	1	1	1

PASS 558 AT SPOINT, 6211 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	33838	33856	33915	33933	33951	34009	34027	34045
LT	171144	171224	171307	171348	171429	171511	171553	171634
HEIGHT								
SAT.	0.408	0.403	0.403	0.416	0.424	0.404	0.413	0.421
1000	0.415	0.412	0.410	0.423	0.431	0.411	0.422	0.428
950	0.486	0.493	0.490	0.506	0.517	0.495	0.516	0.514
900	0.567	0.578	0.585	0.606	0.623	0.608	0.621	0.630
850	0.657	0.673	0.684	0.711	0.746	0.741	0.751	0.781
800	0.772	0.801	0.819	0.842	0.891	0.891	0.912	0.967
750	0.917	0.958	0.982	1.032	1.088	1.091	1.135	1.189
700	1.187	1.239	1.273	1.306	1.379	1.399	1.500	1.556
650	1.665	1.819	1.801	1.793	1.841	1.896	1.975	2.056
600	2.375	2.631	2.584	2.546	2.593	2.679	2.745	2.906
550	3.420	3.816	3.816	3.823		3.970	4.021	4.279
500	5.109	5.656	5.746	5.858		6.118	6.181	6.549
450	7.601	8.303	8.537	8.625			9.242	9.865
400								
350								
300								
250								
200								
NT	1.058	1.151	1.163	1.177	0.430	0.852	1.260	1.329
HEIGHT	SCALE HEIGHT, KM							
950	323.5	295.0	285.2	284.3	270.6	254.5	256.4	256.3
900	323.6	306.7	289.3	298.6	276.7	255.1	261.1	244.0
850	310.8	293.7	286.7	295.8	276.3	259.3	256.7	236.5
800	283.8	263.7	259.0	263.3	257.6	251.1	232.0	226.0
750	251.4	233.6	231.3	229.6	234.4	221.3	210.5	211.4
700	170.3	199.1	199.3	196.5	199.5	193.1	194.1	190.4
650	154.5	156.9	162.5	165.2	162.1	166.2	177.6	168.6
600	142.2	136.7	137.2	137.8	129.4	141.6	149.9	143.5
550	132.6	131.5	125.9	120.8		122.3	124.2	124.1
500	126.7	129.6	125.4	124.2		112.2	119.9	118.9
450	127.2	132.6	131.4	136.5			130.4	127.1
400								
350								
300								
HS	1005.17	1005.11	1005.10	1005.10	1005.10	1005.13	1005.19	1005.25
LONG	-156.72	-156.63	-156.53	-156.43	-156.34	-156.24	-156.14	-156.04
LAT	-0.79	-1.80	-2.88	-3.89	-4.91	-5.81	-6.59	-7.37
DIPL	-0.10	-1.11	-2.19	-3.21	-4.23	-5.13	-5.91	-6.69
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.13	1.13	1.14	1.14	1.14	1.14	1.15	1.15
DIP	-0.20	-2.23	-4.37	-6.39	-8.41	-10.18	-11.70	-13.21
FHS	0.60	0.60	0.60	0.61	0.61	0.61	0.62	0.62
KP	2-	2-	2-	2-	2-	2-	2-	2-
QUAL	33	13	13	13	33	23	33	13
SNL	1	1	1	1	1	1	1	1

PASS 558 AT SPOINT, 6211 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	34103 171716	34122 171801	34158 171926
HEIGHT			
SAT.	0.420	0.418	0.404
1000	0.428	0.425	0.411
950	0.517	0.512	0.488
900	0.636	0.635	0.601
850	0.810	0.799	0.757
800	1.026	1.021	0.960
750	1.305	1.323	1.221
700	1.734	1.761	1.716
650	2.332	2.360	2.412
600	3.244	3.219	3.420
550	4.800	4.517	5.006
500	7.215	6.597	
450			
400			
350			
300			
250			
200			
NT	1.011	0.983	0.714

HEIGHT	SCALE HEIGHT, KM		
950	246.1	248.6	263.3
900	230.3	228.7	233.3
850	217.5	213.6	211.6
800	204.7	201.5	197.6
750	191.8	187.1	183.0
700	178.6	174.2	162.3
650	163.2	166.3	146.7
600	142.4	152.[illegible]	138.9
550	126.6	141.6	131.5
500	124.2	135.[illegible]	
450			
400			
350			
300			

HS	1005.32	1005.45	1005.69
LONG	-155.94	-155.84	-155.63
LAT	-8.23	-9.56	-12.08
DIPL	-7.56	-8.91	-11.48
INVL	0.00	4.02	8.38
L	1.16	1.16	1.18
DIP	-14.87	-17.41	-22.10
FHS	0.63	0.63	0.65
KP	2-	2-	2-
QUAL	13	23	23
SNL	1	1	1

PASS 572 AT SPOINT, 621110

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	40918 164742	40936 164828	40954 164915	41012 165001	41048 165132	41106 165216	41125 165302	41143 165345
HEIGHT								
SAT.	0.119	0.131	0.132	0.135	0.151	0.154	0.167	0.171
1000	0.123	0.134	0.136	0.140	0.154	0.159	0.172	0.175
950	0.130	0.145	0.148	0.152	0.166	0.173	0.189	0.192
900	0.137	0.153	0.157	0.162	0.175	0.185	0.204	0.209
850	0.145	0.161	0.166	0.172	0.186	0.200	0.223	0.230
800	0.156	0.174	0.180	0.187	0.202	0.220	0.246	0.256
750	0.169	0.191	0.198	0.205	0.232	0.246	0.275	0.292
700	0.185	0.210	0.220	0.232	0.261	0.283	0.331	0.344
650	0.212	0.233	0.245	0.265	0.294	0.331	0.403	0.418
600	0.249	0.267	0.279	0.306	0.360	0.416	0.515	0.555
550	0.305	0.337	0.354	0.386	0.469	0.558	0.703	0.771
500	0.404	0.445	0.473	0.523	0.681	0.823	1.077	1.131
450	0.556	0.610	0.649	0.744	1.026	1.289	1.602	1.633
400	0.777	0.852	0.900	1.046	1.631	1.982	2.308	2.364
350	1.084	1.189	1.286	1.585	2.634	3.021	3.556	3.814
300	1.675	1.867	2.012	2.720	4.295	4.950	6.111	6.722
250	2.828	3.142	3.643	5.833	7.763	9.210		
200		5.528						
NT	0.383	0.640	0.458	0.584	0.829	0.968	0.739	0.783
HEIGHT	SCALE HEIGHT, KM							
950	1043.9	879.4	865.2	744.1	818.5	773.3	609.0	583.9
900	894.0	877.7	869.9	769.1	814.2	673.6	573.6	541.3
850	752.6	769.4	736.8	669.0	694.9	586.3	511.5	482.8
800	636.1	632.7	596.8	575.8	560.2	496.1	442.7	418.9
750	561.6	523.1	496.5	482.5	404.9	402.2	374.8	355.7
700	483.8	468.3	446.5	419.3	378.9	338.6	314.9	293.3
650	373.6	413.5	396.5	361.6	339.5	280.4	254.9	234.1
600	282.3	328.9	332.0	303.9	219.8	218.8	198.6	185.8
550	217.2	198.4	190.2	212.5	162.9	154.2	147.7	144.6
500	175.4	175.4	169.6	155.9	122.2	128.8	124.0	131.0
450	150.9	160.0	158.7	141.0	116.2	107.4	127.2	131.2
400	151.9	147.7	145.9	132.5	109.9	118.4	127.2	123.1
350	130.8	130.7	126.0	112.6	104.9	112.9	105.6	96.8
300	111.5	109.7	104.3	79.7	96.3	92.8	87.6	88.6
HS	1009.64	1009.28	1008.92	1008.58	1007.92	1007.60	1007.28	1006.98
LONG	-170.40	-170.28	-170.16	-170.04	-169.82	-169.70	-169.59	-169.49
LAT	21.96	20.95	19.93	18.91	16.88	15.86	14.79	13.77
DIPL	19.71	18.79	17.87	16.94	15.07	14.12	13.12	12.16
INVL	17.76	16.71	15.62	14.53	12.23	11.02	9.69	8.32
L	1.28	1.26	1.25	1.24	1.21	1.20	1.19	1.18
DIP	35.62	34.24	32.82	31.35	28.30	26.71	24.99	23.32
FHS	0.65	0.65	0.64	0.64	0.63	0.62	0.62	0.61
KP	2-	2-	2-	2-	2-	2-	2-	2-
QUAL	12	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 572 AT SPOINT, 621110

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	41201 165428	41313 165718	41331 165759	41349 165841	41444 170047	41502 170128	41520 170209	41538 170250
HEIGHT								
SAT.	0.168	0.207	0.228	0.246	0.263	0.271	0.270	0.277
1000	0.172	0.212	0.233	0.250	0.268	0.275	0.275	0.283
950	0.192	0.242	0.268	0.290	0.315	0.322	0.329	0.333
900	0.209	0.277	0.311	0.338	0.366	0.370	0.381	0.386
850	0.231	0.321	0.362	0.394	0.418	0.420	0.432	0.441
800	0.262	0.375	0.423	0.456	0.465	0.465	0.480	0.495
750	0.306	0.440	0.493	0.519	0.521	0.520	0.546	0.564
700	0.366	0.523	0.565	0.595	0.593	0.620	0.630	0.662
650	0.448	0.628	0.667	0.713	0.762	0.803	0.835	0.924
600	0.600	0.768	0.805	0.948	1.174	1.118	1.233	1.345
550	0.832	1.072	1.160	1.361	1.642	1.679	1.716	1.851
500	1.171	1.595	1.702	2.034	2.545	2.534	2.502	2.809
450	1.722	2.397	2.580	3.255	3.903	4.306		4.430
400	2.599	3.858	4.191	5.141	6.166	6.564		
350	4.212	6.263	6.745		9.942			
300								
250								
200								
NT	0.557	0.787	0.851	0.680	1.199	0.813	0.398	0.608
HEIGHT	SCALE HEIGHT, KM							
950	554.9	372.6	349.4	328.3	320.3	338.0	311.9	321.3
900	515.3	346.6	335.6	330.8	358.9	379.7	369.3	359.7
850	439.7	332.9	331.0	345.7	425.5	447.7	438.5	411.6
800	359.6	321.8	332.7	371.9	436.4	465.7	408.0	394.6
750	312.1	306.8	349.8	367.6	373.1	377.5	345.4	326.5
700	271.0	282.9	319.1	315.4	306.0	216.3	282.9	248.3
650	227.5	249.3	269.8	235.7	214.9	177.8	190.3	177.4
600	173.1	207.5	219.8	155.3	132.9	137.3	131.4	138.5
550	150.9	144.7	125.4	133.8	130.1	124.7	132.6	135.8
500	139.3	124.0	122.3	115.6	116.6	115.2	77.0	116.5
450	130.7	116.6	113.2	108.8	114.2	106.5		109.3
400	115.8	105.2	106.7	107.7	106.6	101.2		
350	99.2	102.4	97.8		103.0			
300								
HS	1006.69	1005.77	1005.59	1005.41	1005.01	1004.89	1004.83	1004.77
LONG	-169.38	-168.98	-168.88	-168.78	-168.49	-168.39	-168.29	-168.20
LAT	12.75	8.68	7.66	6.64	3.53	2.51	1.49	0.47
DIPL	11.20	7.31	6.32	5.33	2.27	1.27	0.26	-0.75
INVL	6.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.17	1.15	1.14	1.14	1.13	1.13	1.13	1.13
DIP	21.61	14.38	12.49	10.56	4.54	2.53	0.52	-1.50
FHS	0.61	0.60	0.60	0.60	0.60	0.60	0.61	0.61
KP	2-	2-	2-	2-	2-	2-	2-	2-
QUAL	13	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 572 AT SPOINT, 621110

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	41614	41632	41650
LT	170412	170452	170532
HEIGHT			
SAT.	0.295	0.271	0.281
1000	0.299	0.276	0.286
950	0.352	0.327	0.335
900	0.414	0.390	0.404
850	0.481	0.468	0.486
800	0.552	0.549	0.578
750	0.638	0.640	0.681
700	0.756	0.773	0.818
650	0.985	1.003	1.057
600	1.427	1.476	1.482
550	2.046	2.251	2.251
500	3.366	3.674	3.740
450	5.318	5.911	6.083
400	8.473	9.237	9.531
350			
300			
250			
200			
NT	1.036	1.111	1.141

HEIGHT	SCALE HEIGHT, KM		
950	309.5	282.3	292.6
900	327.4	292.8	280.0
850	352.9	304.6	284.9
800	343.4	300.7	297.8
750	303.0	286.3	286.6
700	251.2	236.2	237.7
650	182.0	170.4	161.6
600	131.5	124.2	141.1
550	123.0	113.7	105.6
500	105.3	105.1	102.1
450	108.0	106.7	106.2
400	114.4	124.0	117.4
350			
300			

HS	1004.70	1004.70	1004.70
LONG	-168.01	-167.91	-167.82
LAT	-1.56	-2.58	-3.59
DIPL	-2.78	-3.80	-4.82
INVL	0.00	0.00	0.00
L	1.13	1.14	1.14
DIP	-5.55	-7.57	-9.58
FHS	0.61	0.62	0.62
KP	2-	2-	2-
QUAL	13	13	13
SNL	1	1	1

PASS 585 AT SPOINT, 621111

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	30433 164826	30452 164918	30510 165003	30528 165044	30546 165125	30604 165206	30622 165247	30641 165331
HEIGHT								
SAT.	0.307	0.326	0.342	0.355	0.377	0.386	0.419	0.410
1000	0.312	0.338	0.347	0.360	0.383	0.391	0.425	0.415
950	0.354	0.381	0.398	0.411	0.434	0.440	0.477	0.465
900	0.407	0.439	0.456	0.466	0.488	0.491	0.529	0.517
850	0.469	0.505	0.522	0.528	0.550	0.551	0.591	0.581
800	0.540	0.575	0.595	0.598	0.634	0.631	0.679	0.662
750	0.627	0.661	0.691	0.702	0.754	0.746	0.800	0.800
700	0.735	0.777	0.827	0.836	0.908	0.929	1.013	1.007
650	0.895	0.998	0.996	1.080	1.176	1.207	1.333	1.340
600	1.181	1.394	1.502	1.488	1.668	1.703	1.878	1.896
550	1.719	2.127	2.282	2.139	2.457	2.480	2.755	2.788
500	2.774	3.387	3.463	3.424	3.694	3.791	4.117	4.120
450	4.600	5.470	5.416		5.486	5.590	6.035	5.941
400	7.225	8.163	7.777		7.959	8.031	8.477	8.380
350							11.386	11.191
300								
250								
200								
NT	0.963	1.048	1.060	0.507	1.121	1.138	1.729	1.715
HEIGHT	SCALE HEIGHT, KM							
950	376.1	414.0	368.3	389.5	429.2	439.6	464.6	455.1
900	364.2	339.9	372.9	395.2	420.2	443.0	450.9	432.9
850	353.4	375.9	366.1	376.1	368.6	389.8	398.5	383.9
800	343.8	373.8	338.5	349.4	322.3	333.4	333.7	332.1
750	318.7	342.9	301.0	301.4	285.7	275.5	264.2	262.2
700	284.2	244.2	255.6	251.7	248.2	221.3	213.7	202.1
650	227.0	178.3	210.1	188.8	171.0	170.6	170.9	161.7
600	155.4	130.3	162.5	148.9	145.7	149.2	147.6	144.8
550	120.2	109.6	122.4	127.0	130.4	130.2	131.2	132.8
500	102.1	107.1	116.2	110.1	125.7	124.4	128.4	133.3
450	103.3	105.9	126.0		130.4	134.2	139.1	141.2
400	124.3	137.1	144.6		142.3	138.0	157.6	157.1
350							195.0	207.7
300								
HS	1005.66	1005.41	1005.22	1005.07	1004.92	1004.78	1004.69	1004.59
LONG	-154.03	-153.89	-153.78	-153.68	-153.58	-153.49	-153.39	-153.29
LAT	10.42	9.34	8.32	7.30	6.28	5.26	4.25	3.17
DIPL	11.47	10.44	9.45	8.46	7.46	6.46	5.46	4.41
INVL	8.12	6.60	4.88	2.58	0.00	0.00	0.00	0.00
L	1.18	1.17	1.17	1.16	1.15	1.15	1.15	1.14
DIP	22.09	20.23	18.41	16.56	14.68	12.77	10.83	8.76
FHS	0.61	0.61	0.60	0.60	0.60	0.60	0.60	0.59
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	23	23	33	23	33	23	12	12
SNL	1	1	1	1	1	1	1	1

PASS 585 AT SPOINT, 621111

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	30659 165412	30717 165453	30734 165531	30754 165617	30812 165658	30830 165739	30848 165820	30906 165901
HEIGHT								
SAT.	0.405	0.410	0.423	0.396	0.391	0.377	0.381	0.380
1000	0.410	0.413	0.429	0.401	0.395	0.382	0.387	0.385
950	0.458	0.456	0.475	0.454	0.448	0.436	0.448	0.444
900	0.511	0.504	0.531	0.512	0.511	0.506	0.521	0.519
850	0.575	0.564	0.602	0.580	0.587	0.592	0.607	0.611
800	0.668	0.657	0.687	0.687	0.680	0.692	0.711	0.722
750	0.808	0.798	0.847	0.840	0.828	0.844	0.870	0.884
700	1.016	1.011	1.106	1.038	1.066	1.066	1.102	1.133
650	1.359	1.347	1.481	1.488	1.441	1.479	1.496	1.542
600	1.963	1.949	2.063	2.092	2.018	2.126	2.113	2.145
550		2.843	3.052	3.029	2.963	3.236		3.171
500		4.176	4.433	4.463	4.395	4.911		4.776
450			6.367	6.502	6.518	7.420		
400				9.232	9.398	10.757		
350								
300								
250								
200								
NT	0.329	0.621	0.934	1.325	1.317	1.444	0.350	0.688
HEIGHT	SCALE HEIGHT, KM							
950	456.7	496.5	465.3	418.8	384.0	347.8	340.3	327.4
900	434.2	444.6	414.0	387.4	365.7	334.5	332.1	314.1
850	369.0	383.7	362.3	331.5	333.0	313.0	310.7	293.6
800	311.9	318.0	310.5	287.0	291.7	278.9	280.4	267.7
750	260.5	248.7	257.0	245.2	246.9	238.0	241.3	233.3
700	204.1	199.2	202.5	203.6	199.5	194.0	190.4	190.5
650	157.9	162.5	164.6	175.2	166.5	161.0	154.2	164.2
600	139.4	142.5	143.8	146.8	145.4	133.0	137.7	144.0
550		134.0	137.2	135.4	131.7	121.2		128.0
500		135.5	137.3	130.9	127.4	121.3		118.1
450			141.9	138.5	132.3	126.7		
400				145.9	151.3	159.1		
350								
300								
HS	1004.50	1004.44	1004.39	1004.32	1004.32	1004.35	1004.38	1004.43
LONG	-153.20	-153.10	-153.01	-152.90	-152.81	-152.71	-152.61	-152.52
LAT	2.16	1.14	0.18	-0.95	-1.97	-2.99	-4.01	-5.03
DIPL	3.40	2.40	1.44	0.32	-0.69	-1.71	-2.73	-3.75
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
DIP	6.78	4.78	2.89	0.64	-1.39	-3.42	-5.45	-7.47
FHS	0.59	0.59	0.60	0.60	0.60	0.60	0.60	0.61
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	13	13	33	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 585 AT SPOINT, 621111

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	30942 170023	31000 170104	31036 170228	31054 170310	31113 170355
HEIGHT					
SAT.	0.327	0.342	0.311	0.298	0.258
1000	0.331	0.347	0.315	0.304	0.262
950	0.364	0.400	0.354	0.335	0.295
900	0.457	0.472	0.418	0.393	0.336
850	0.551	0.564	0.495	0.462	0.386
800	0.666	0.684	0.607	0.546	0.457
750	0.815	0.889	0.777	0.695	0.568
700	1.066	1.175	1.019	0.942	0.765
650	1.456	1.588	1.400	1.360	1.068
600	2.028	2.116	2.029	2.067	1.726
550	3.076	3.167	3.197	3.035	2.745
500	4.727	4.779		4.641	4.192
450	7.298	7.209		7.104	6.521
400					
350					
300					
250					
200					
NT	0.952	0.981	0.443	0.909	0.796
HEIGHT	SCALE HEIGHT, KM				
950	302.0	319.8	364.0	517.0	413.0
900	281.0	292.6	305.5	338.5	369.0
850	262.3	260.2	267.1	295.8	323.2
800	245.5	227.1	233.6	259.0	267.1
750	223.8	199.5	203.8	205.1	199.1
700	182.1	176.0	173.4	153.3	172.8
650	157.4	165.5	147.9	130.9	129.2
600	141.3	154.7	128.0	128.1	109.0
550	120.7	126.0	107.8	125.7	115.1
500	117.2	122.6		114.9	115.4
450	116.1	125.0		131.4	114.9
400					
350					
300					
HS	1004.61	1004.70	1004.94	1005.06	1005.23
LONG	-152.33	-152.23	-152.03	-151.93	-151.82
LAT	-7.07	-8.09	-10.12	-11.14	-12.22
DIPL	-5.80	-6.83	-8.88	-9.91	-10.99
INVL	0.00	0.00	4.42	6.30	7.92
L	1.15	1.15	1.16	1.17	1.18
DIP	-11.48	-13.46	-17.35	-19.25	-21.23
FHS	0.61	0.62	0.63	0.64	0.64
KP	1+	1+	1+	1+	1+
QUAL	13	13	13	23	33
SNL	1	1	1	1	1

PASS 599 AT SPOINT, 621112

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	33710 162827	33730 162922	33749 163015	33825 163151	33843 163239	34013 163626	34032 163713	34050 163757
HEIGHT								
SAT.	0.124	0.120	0.134	0.153	0.157	0.193	0.220	0.231
1000	0.128	0.124	0.139	0.157	0.161	0.198	0.225	0.235
950	0.136	0.136	0.149	0.169	0.172	0.217	0.247	0.256
900	0.144	0.145	0.158	0.179	0.181	0.234	0.268	0.277
850	0.156	0.155	0.169	0.191	0.195	0.253	0.292	0.303
800	0.171	0.169	0.184	0.208	0.213	0.281	0.323	0.337
750	0.187	0.189	0.204	0.229	0.233	0.317	0.364	0.387
700	0.203	0.215	0.230	0.259	0.266	0.371	0.438	0.463
650	0.238	0.248	0.263	0.298	0.313	0.439	0.539	0.565
600	0.284	0.288	0.303	0.346	0.381	0.538	0.710	0.763
550	0.355	0.351	0.398	0.444	0.486	0.765	0.997	1.103
500	0.451	0.470	0.538	0.593	0.644	1.143	1.604	1.876
450	0.650	0.633	0.720	0.805	0.902	1.908	2.737	3.129
400	0.964	0.873	0.988	1.134	1.291	3.319	4.559	4.974
350	1.420	1.269	1.433	1.718	1.938	5.958	7.086	7.539
300	2.098	2.065	2.236	2.883	3.364	9.728		
250	3.963	3.715	4.329	5.950	7.168			
200								
NT	0.475	0.456	0.510	0.625	0.712	1.035	0.837	0.916
HEIGHT	SCALE HEIGHT, KM							
950	1004.5	693.0	877.5	863.5	987.1	688.9	596.8	610.1
900	765.0	754.2	766.5	763.5	814.8	629.1	576.8	569.9
850	633.4	635.4	645.6	666.2	645.1	550.7	509.4	495.3
800	546.9	544.1	554.7	567.1	527.6	452.8	438.7	413.3
750	496.1	461.8	481.6	466.1	450.0	369.6	367.4	343.0
700	445.3	386.7	409.8	392.6	378.3	322.7	292.4	284.0
650	358.2	341.0	343.5	338.8	307.4	275.8	220.8	225.2
600	270.9	295.2	277.2	285.1	250.2	222.4	178.9	169.0
550	221.6	244.5	223.1	224.3	209.0	134.5	130.7	112.3
500	180.3	185.1	173.9	170.4	171.1	110.9	102.2	99.0
450	157.8	162.3	166.0	156.2	144.1	98.4	96.7	103.5
400	141.6	143.7	147.0	132.1	128.7	87.5	106.3	115.9
350	125.5	121.8	124.5	114.2	113.2	94.7	114.1	116.0
300	107.1	98.2	99.3	85.0	78.9	101.6		
HS	1010.08	1009.65	1009.24	1008.50	1008.14	1006.50	1006.22	1005.95
LONG	-167.18	-167.03	-166.89	-166.64	-166.52	-165.94	-165.83	-165.72
LAT	26.54	25.41	24.34	22.31	21.29	16.21	15.13	14.11
DIPL	24.47	23.48	22.53	20.72	19.80	15.14	14.13	13.18
INVL	23.17	22.05	21.00	18.95	17.90	12.40	11.15	9.90
L	1.37	1.35	1.33	1.29	1.28	1.21	1.20	1.19
DIP	42.31	40.98	39.69	37.11	35.76	28.41	26.73	25.09
FHS	0.69	0.68	0.67	0.66	0.65	0.63	0.62	0.62
KP	2+	2+	2+	2+	2+	2+	2+	2+
QUAL	13	13	23	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 599 AT SPOINT, 621112

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	34108 163840	34126 163922	34144 164005	34238 164211	34256 164253	34503 164742	34521 164823	34539 164904
HEIGHT								
SAT.	0.236	0.261	0.281	0.322	0.322	0.407	0.429	0.414
1000	0.240	0.266	0.286	0.326	0.327	0.411	0.434	0.421
950	0.265	0.292	0.315	0.368	0.369	0.476	0.505	0.503
900	0.290	0.325	0.355	0.424	0.427	0.552	0.592	0.593
850	0.320	0.363	0.411	0.497	0.504	0.635	0.688	0.697
800	0.355	0.411	0.480	0.588	0.594	0.730	0.792	0.806
750	0.431	0.493	0.562	0.698	0.706	0.869	0.934	0.953
700	0.532	0.601	0.694	0.858	0.860	1.085	1.124	1.146
650	0.682	0.791	0.914	1.157	1.088	1.616	1.611	1.571
600	0.896	1.086	1.213	1.623	1.570	2.361	2.362	2.318
550	1.386	1.618	1.747	2.292		3.227	3.222	3.250
500	2.216	2.472	2.587	3.313		4.591	4.553	4.694
450		3.765	3.935	4.877			6.303	6.592
400		5.656	5.982	7.136			8.591	8.934
350			8.770	10.153				11.352
300								
250								
200								
NT	0.319	0.759	1.186	1.453	0.275	0.703	1.360	1.897
HEIGHT	SCALE HEIGHT, KM							
950	545.4	508.3	506.1	367.1	375.0	339.8	323.5	289.5
900	501.7	457.1	433.4	342.6	337.9	347.4	329.3	308.6
850	438.4	400.9	360.8	318.2	308.8	358.2	342.8	325.9
800	375.1	344.5	319.5	289.2	293.8	315.1	318.6	307.5
750	310.3	286.6	279.4	259.1	272.2	252.5	270.0	267.9
700	245.6	228.6	234.4	221.1	236.9	191.1	214.7	224.9
650	197.2	186.4	184.1	165.2	181.7	163.7	170.7	175.9
600	159.5	142.2	154.0	150.7	101.0	146.8	145.3	138.4
550	109.0	124.1	140.1	142.7		151.5	153.0	143.0
500	118.3	120.8	127.0	134.2		145.2	150.2	142.2
450		121.7	119.6	131.4			157.8	156.2
400		125.1	126.8	136.3			174.0	186.7
350			128.6	152.4				269.3
300								
HS	1005.71	1005.50	1005.29	1004.72	1004.54	1004.00	1004.03	1004.06
LONG	-165.61	-165.51	-165.41	-165.11	-165.01	-164.33	-164.24	-164.14
LAT	13.10	12.08	11.06	8.01	6.99	-0.20	-1.22	-2.24
DIPL	12.22	11.25	10.28	7.33	6.34	-0.75	-1.77	-2.79
INVL	8.56	7.11	5.42	0.00	0.00	0.00	0.00	0.00
L	1.18	1.18	1.17	1.15	1.15	1.13	1.13	1.13
DIP	23.41	21.69	19.93	14.43	12.53	-1.50	-3.54	-5.57
FHS	0.61	0.61	0.61	0.60	0.60	0.61	0.61	0.61
KP	2+	2+	2+	2+	2+	2+	2+	2+
QUAL	23	23	33	23	23	23	33	12
SNL	1	1	1	1	1	1	1	1

PASS 599 AT SPOINT, 621112

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	34557 164945	34729 165316	34746 165356	34804 165438	34822 165520
HEIGHT					
SAT.	0.404	0.349	0.369	0.372	0.348
1000	0.409	0.354	0.375	0.376	0.354
950	0.482	0.415	0.438	0.435	0.417
900	0.580	0.500	0.517	0.510	0.491
850	0.698	0.613	0.628	0.609	0.591
800	0.819	0.761	0.781	0.744	0.725
750	0.972	0.996	0.971	0.955	0.894
700	1.200	1.365	1.365	1.306	1.201
650	1.661	1.872	1.990	1.791	1.717
600	2.345	2.617	2.789	2.569	2.545
550	3.296	3.770	3.965	3.866	3.870
500	4.843	5.663	5.824	5.730	5.679
450	6.794	8.340	8.594		
400	9.316				
350					
300					
250					
200					
NT	1.428	1.146	1.188	0.792	0.773
HEIGHT	SCALE HEIGHT, KM				
950	283.0	286.3	302.2	323.2	297.7
900	283.5	264.1	275.3	294.0	283.1
850	295.1	242.3	241.9	263.7	259.2
800	300.0	206.1	217.0	229.9	236.0
750	254.8	172.2	192.1	188.8	210.8
700	195.4	164.6	170.3	156.1	151.8
650	169.7	160.4	149.6	149.3	139.4
600	149.1	147.4	145.1	135.6	127.5
550	140.1	131.1	136.6	126.0	125.9
500	139.5	126.9	130.5	126.4	137.2
450	153.4	130.6	129.7		
400	178.7				
350					
300					
HS	1004.09	1004.49	1004.61	1004.74	1004.92
LONG	-164.05	-163.55	-163.46	-163.36	-163.26
LAT	-3.26	-8.46	-9.43	-10.45	-11.47
DIPL	-3.81	-9.08	-10.06	-11.10	-12.14
INVL	0.00	3.50	5.65	7.39	8.94
L	1.14	1.16	1.17	1.18	1.19
DIP	-7.60	-17.72	-19.53	-21.42	-23.28
FHS	0.62	0.64	0.65	0.66	0.66
KP	2+	2+	2+	2+	2+
QUAL	22	13	13	23	23
SNL	1	1	1	1	1

PASS 612 AT SPOINT, 621113

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	22440 160631	22610 161204	22628 161305	22705 161508	22723 161604	22741 161700	22759 161756
HEIGHT							
SAT.	0.097	0.088	0.085	0.094	0.096	0.095	0.099
1000	0.103	0.093	0.088	0.099	0.101	0.102	0.102
950	0.113	0.103	0.098	0.109	0.113	0.115	0.112
900	0.124	0.114	0.109	0.120	0.124	0.125	0.122
850	0.137	0.128	0.122	0.134	0.137	0.139	0.134
800	0.154	0.145	0.138	0.154	0.156	0.156	0.150
750	0.178	0.168	0.160	0.179	0.181	0.178	0.170
700	0.212	0.195	0.185	0.212	0.211	0.204	0.194
650	0.259	0.228	0.222	0.253	0.254	0.235	0.226
600	0.325	0.287	0.274	0.303	0.307	0.289	0.278
550	0.420	0.364	0.337	0.382	0.369	0.358	0.346
500	0.552	0.461	0.425	0.522	0.482	0.470	0.458
450	0.727	0.628	0.601	0.730	0.653	0.634	0.617
400	1.010	0.873	0.841	1.031	0.909	0.882	0.867
350	1.504	1.331	1.263	1.686	1.407	1.342	1.345
300	2.448	2.254	2.214	2.752	2.486	2.360	2.335
250	4.736			5.003	4.868	4.493	
200							
NT	0.529	0.310	0.296	0.556	0.514	0.489	0.312
HEIGHT	SCALE HEIGHT, KM						
950	559.2	489.3	465.4	524.4	513.0	539.6	637.8
900	534.6	457.1	437.4	466.6	480.1	505.0	569.8
850	460.6	422.7	407.4	404.9	431.2	459.2	495.2
800	386.3	377.7	375.2	368.1	386.1	420.4	426.4
750	314.1	331.3	341.1	331.4	343.4	381.1	378.9
700	269.8	299.4	307.1	299.5	300.6	337.8	339.6
650	233.3	267.5	278.8	272.9	280.0	295.2	298.3
600	209.8	244.2	254.3	246.3	259.4	258.5	254.3
550	195.7	221.1	229.8	212.6	238.9	221.8	212.7
500	182.8	197.6	196.1	169.5	190.2	189.2	186.1
450	169.9	169.3	146.7	143.6	158.5	161.6	160.3
400	143.2	137.2	136.0	126.1	134.8	136.5	132.2
350	116.7	109.5	112.0	110.2	106.8	108.0	106.1
300	94.4	80.4	92.1	96.2	83.2	84.5	83.5
HS	1015.70	1013.45	1013.00	1012.08	1011.66	1011.24	1010.82
LONG	-154.54	-153.52	-153.34	-152.99	-152.83	-152.67	-152.51
LAT	41.13	36.11	35.10	33.03	32.02	31.01	30.01
DIPL	39.98	35.57	34.69	32.86	31.97	31.08	30.19
INVL	39.89	35.20	34.25	32.30	31.34	30.39	29.44
L	1.97	1.74	1.70	1.62	1.59	1.56	1.53
DIP	59.19	55.04	54.15	52.26	51.31	50.33	49.32
FHS	0.84	0.80	0.79	0.77	0.76	0.75	0.75
KP	1+	1+	1+	1+	1+	1+	1+
QUAL	23	13	13	32	12	13	13
SNL	1	1	1	1	1	1	1

PASS 612 AT SPOINT, 621113

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	22817	22853	22929	22947	23005	23042	23138
LT	161849	162034	162215	162304	162354	162531	162753
HEIGHT							
SAT.	0.107	0.123	0.118	0.122	0.139	0.151	0.178
1000	0.111	0.129	0.122	0.127	0.143	0.153	0.180
950	0.117	0.141	0.135	0.144	0.152	0.164	0.196
900	0.125	0.149	0.144	0.153	0.162	0.176	0.214
850	0.138	0.162	0.157	0.166	0.176	0.191	0.236
800	0.155	0.176	0.174	0.182	0.193	0.211	0.271
750	0.172	0.198	0.195	0.202	0.214	0.236	0.315
700	0.196	0.233	0.221	0.228	0.241	0.277	0.383
650	0.241	0.277	0.259	0.272	0.288	0.329	0.478
600	0.301	0.329	0.317	0.334	0.348	0.414	0.624
550	0.381	0.417	0.389	0.411	0.451	0.545	0.928
500	0.484	0.547	0.504	0.539	0.609	0.782	1.495
450	0.648	0.728	0.682	0.741	0.898	1.208	2.495
400	0.900	0.986	0.966	1.052	1.342	1.968	4.376
350	1.351	1.434	1.450	1.608	1.981	3.763	7.489
300		2.222	2.366	2.765	3.670	7.846	
250		3.809	5.132				
200		7.424					
NT	0.229	0.779	0.529	0.374	0.448	0.713	0.792
HEIGHT	SCALE HEIGHT, KM						
950	906.9	933.9	686.9	699.8	812.9	697.1	576.3
900	652.4	808.5	637.8	678.6	690.0	621.1	510.5
850	530.9	582.2	552.1	594.0	578.5	543.1	428.6
800	439.8	491.1	472.9	515.2	491.3	469.4	368.3
750	386.8	413.1	408.7	430.4	429.9	396.4	308.0
700	336.1	342.7	350.1	344.4	368.3	334.8	259.6
650	291.2	292.4	306.0	303.1	305.8	273.3	216.6
600	246.2	256.0	271.0	268.0	243.3	218.3	172.9
550	215.2	195.8	236.1	233.0	193.4	168.1	127.3
500	193.5	180.4	194.6	188.5	153.3	130.3	106.9
450	170.2	172.7	154.0	148.4	135.6	105.3	95.1
400	142.0	149.4	137.4	132.2	122.0	93.9	91.3
350	99.8	127.4	117.1	111.8	111.2	75.4	94.2
300		108.4	88.3	56.8	71.2	61.6	
HS	1010.40	1009.56	1008.82	1008.46	1008.10	1007.36	1006.37
LONG	-152.36	-152.08	-151.81	-151.68	-151.55	-151.29	-150.94
LAT	28.99	26.96	24.94	23.92	22.91	20.82	17.66
DIPL	29.28	27.47	25.63	24.71	23.79	21.87	18.92
INVL	28.46	26.52	24.53	23.55	22.57	20.47	17.23
L	1.50	1.45	1.40	1.38	1.36	1.32	1.27
DIP	48.28	46.11	43.82	42.63	41.40	38.75	34.44
FHS	0.74	0.72	0.70	0.70	0.69	0.67	0.65
KP	1+	1+	1+	1+	1+	1+	1+
QUAL	23	33	13	23	23	13	13
SNL	1	1	1	1	1	1	1

PASS 612 AT SPOINT, 621113

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	23156 162838	23234 163010	23250 163050	23308 163133	23326 163215	23345 163300	23421 163424	23439 163506
HEIGHT								
SAT.	0.192	0.225	0.254	0.270	0.298	0.343	0.434	0.459
1000	0.196	0.228	0.258	0.274	0.302	0.349	0.438	0.464
950	0.217	0.254	0.288	0.310	0.348	0.415	0.497	0.509
900	0.238	0.289	0.333	0.366	0.410	0.496	0.550	0.550
850	0.264	0.335	0.392	0.440	0.479	0.584	0.608	0.604
800	0.300	0.393	0.466	0.523	0.554	0.669	0.692	0.684
750	0.380	0.462	0.554	0.619	0.655	0.765	0.804	0.808
700	0.488	0.543	0.701	0.743	0.777	0.891	0.955	0.973
650	0.636	0.707	0.895	0.935	0.974	1.040	1.226	1.182
600	0.826	0.999	1.127	1.289	1.358	1.450	1.698	1.711
550	1.288	1.405	1.571	1.802	1.919	2.360	2.436	2.495
500	2.152	1.930	2.296	2.687	2.888	3.281	3.659	3.566
450		3.130	3.715	4.231			5.419	5.112
400		5.108	5.848	6.537			7.571	7.050
350		8.000	9.165	9.843			10.198	9.440
300								
250								
200								
NT	0.290	0.983	1.145	1.277	0.453	0.524	1.572	1.510
HEIGHT	SCALE HEIGHT, KM							
950	537.7	430.4	392.6	351.9	323.1	285.0	443.4	602.4
900	473.5	372.6	343.2	313.2	325.8	307.1	497.0	551.7
850	402.1	329.2	303.3	294.4	320.3	341.3	413.6	469.4
800	333.3	304.6	279.9	295.1	305.2	344.7	366.2	385.3
750	278.8	280.0	256.4	270.3	280.5	326.3	322.1	299.4
700	224.3	255.4	232.2	242.2	255.7	286.1	268.4	246.8
650	185.2	214.9	207.3	199.2	204.8	245.9	173.9	201.1
600	156.4	159.4	180.0	149.3	144.2	183.5	155.2	160.3
550	131.5	141.4	152.0	139.9	137.0	122.3	136.9	138.7
500	112.8	133.4	124.7	121.5	101.4	131.0	126.3	140.6
450		99.6	109.1	113.1			139.4	148.2
400		107.7	108.8	118.6			159.3	163.8
350		111.0	117.1	126.9			173.8	176.4
300								
HS	1006.07	1005.55	1005.33	1005.11	1004.90	1004.67	1004.36	1004.24
LONG	-150.82	-150.60	-150.50	-150.39	-150.29	-150.18	-149.98	-149.89
LAT	16.65	14.49	13.59	12.57	11.55	10.48	8.44	7.42
DIPL	17.97	15.93	15.07	14.09	13.12	12.08	10.11	9.12
INVL	16.19	13.88	12.87	11.70	10.51	9.20	6.42	4.72
L	1.26	1.23	1.22	1.21	1.20	1.19	1.17	1.17
DIP	32.97	29.72	28.30	26.66	24.98	23.17	19.62	17.79
FHS	0.65	0.63	0.63	0.62	0.62	0.61	0.61	0.60
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	13	33	23	23	23	13	23	13
SNL	1	1	1	1	1	1	1	1

PASS 612 AT SPOINT, 621113

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	23457 163548	23516 163631	23534 163712	23552 163753	23610 163834	23628 163914	23646 163955	23704 164035
HEIGHT								
SAT.	0.484	0.480	0.461	0.476	0.457	0.462	0.472	0.467
1000	0.488	0.484	0.466	0.482	0.462	0.468	0.477	0.469
950	0.525	0.525	0.510	0.535	0.515	0.531	0.530	0.522
900	0.572	0.577	0.565	0.595	0.575	0.591	0.592	0.585
850	0.630	0.639	0.632	0.670	0.653	0.668	0.671	0.667
800	0.704	0.732	0.735	0.760	0.747	0.769	0.767	0.765
750	0.869	0.874	0.910	0.889	0.908	0.943	0.915	0.928
700	1.093	1.082	1.148	1.104	1.163	1.190	1.161	1.186
650	1.403	1.389	1.497	1.450	1.523	1.556	1.526	1.567
600	1.788	1.876	1.935	1.935	1.986	2.022	2.010	2.063
550	2.402	2.669	2.718	2.728	2.783	2.872	2.872	2.994
500	3.659		3.925	3.898	3.953	4.088	4.130	
450	5.191		5.416	5.429	5.505	5.705	5.866	
400	7.034			7.432	7.580	7.923	8.190	
350	9.211					10.855	10.842	
300								
250								
200								
NT	1.536	0.463	0.876	1.197	1.217	1.726	1.744	0.501
HEIGHT	SCALE HEIGHT, KM							
950	626.1	574.4	526.6	483.9	450.4	440.2	472.5	436.9
900	523.8	491.4	464.8	430.9	409.4	416.6	410.8	393.0
850	446.1	422.0	377.6	391.1	362.8	365.7	370.3	354.0
800	368.1	350.2	308.9	351.3	316.1	312.2	329.9	315.0
750	288.2	276.4	259.8	296.1	262.0	250.2	275.3	261.7
700	213.6	226.0	213.0	213.7	202.9	207.2	203.1	196.9
650	198.4	187.3	194.9	186.4	184.6	191.4	181.5	178.2
600	183.3	157.1	176.9	168.5	172.4	175.6	166.7	163.4
550	158.5	126.9	151.7	150.6	153.5	151.1	146.0	104.4
500	132.1		147.6	146.9	148.0	146.8	141.2	
450	154.2		166.0	155.6	154.0	151.6	146.0	
400	175.1			158.9	159.4	151.7	160.9	
350	186.3					208.6	229.9	
300								
HS	1004.12	1004.02	1003.93	1003.84	1003.78	1003.75	1003.72	1003.71
LONG	-149.79	-149.68	-149.59	-149.49	-149.40	-149.31	-149.21	-149.12
LAT	6.40	5.32	4.30	3.28	2.26	1.25	0.23	-0.79
DIPL	8.12	7.07	6.07	5.06	4.06	3.06	2.05	1.04
INVL	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.16	1.15	1.15	1.15	1.14	1.14	1.14	1.14
DIP	15.93	13.93	12.00	10.05	8.08	6.10	4.10	2.08
FHS	0.60	0.60	0.60	0.59	0.59	0.59	0.59	0.59
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	13	13	13	13	23	12	12	13
SNL	1	1	1	1	1	1	1	1

PASS 612 AT SPOINT, 621113

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	23723 164118	23740 164157	23759 164240	23817 164321	23835 164403	23853 164444	23911 164525	23929 164607
HEIGHT								
SAT.	0.457	0.481	0.480	0.474	0.473	0.468	0.516	0.475
1000	0.461	0.485	0.488	0.479	0.478	0.474	0.522	0.478
950	0.510	0.542	0.549	0.538	0.541	0.543	0.589	0.545
900	0.575	0.616	0.630	0.621	0.629	0.635	0.690	0.641
850	0.659	0.713	0.735	0.730	0.742	0.752	0.820	0.763
800	0.763	0.833	0.861	0.865	0.882	0.891	0.973	0.918
750	0.928	0.975	1.011	1.045	1.048	1.107	1.208	1.173
700	1.200	1.326	1.330	1.349	1.365	1.431	1.589	1.586
650	1.592	1.953	1.864	1.811	1.893	1.927	2.144	2.167
600	2.097	2.689	2.573	2.511	2.649	2.752	2.997	3.105
550	3.044	3.591	3.515	3.587	3.759	4.021	4.237	4.510
500	4.378	4.944	4.936	5.092	5.433		5.965	6.531
450	6.180	6.793	6.824	7.018	7.480			8.950
400			8.985	9.334	9.575			
350								
300								
250								
200								
NT	0.953	1.091	1.478	1.504	1.572	0.614	0.924	1.333
HEIGHT	SCALE HEIGHT, KM							
950	456.7	412.7	421.4	380.5	360.9	348.8	362.6	340.2
900	381.4	352.8	354.2	338.8	322.4	319.5	320.0	302.9
850	341.0	318.1	313.3	305.0	290.9	290.4	289.4	272.6
800	301.5	284.6	282.7	279.7	265.8	260.5	265.8	240.6
750	247.2	251.2	252.2	237.0	240.7	219.1	206.2	183.5
700	185.1	209.9	215.7	180.4	207.6	186.6	178.3	168.3
650	174.5	163.4	175.4	167.7	168.9	162.9	163.4	155.3
600	163.8	160.1	158.0	153.6	148.7	142.2	151.4	140.2
550	141.7	164.2	155.0	143.2	140.7	132.9	146.6	134.7
500	142.2	158.3	152.1	150.2	147.4		147.7	146.5
450	146.9	165.2	169.7	166.2	182.2			174.9
400			211.4	245.5	231.0			
350								
300								
HS	1003.74	1003.77	1003.80	1003.88	1003.97	1004.06	1004.21	1004.39
LONG	-149.02	-148.93	-148.83	-148.73	-148.63	-148.54	-148.44	-148.34
LAT	-1.86	-2.82	-3.89	-4.91	-5.93	-6.95	-7.97	-8.99
DIPL	-0.02	-0.98	-2.05	-3.06	-4.08	-5.10	-6.13	-7.15
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.14	1.14	1.14	1.14	1.14	1.15	1.15	1.16
DIP	-0.05	-1.96	-4.09	-6.11	-8.13	-10.13	-12.12	-14.08
FHS	0.59	0.60	0.60	0.60	0.60	0.61	0.61	0.62
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	13	33	13	12	13	13	13	33
SNL	1	1	1	1	1	1	1	1

PASS 612 AT SPOINT, 621113

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	23947	24005
LT	164649	164731
HEIGHT		
SAT.	0.473	0.448
1000	0.481	0.458
950	0.547	0.532
900	0.638	0.608
850	0.761	0.710
800	0.913	0.849
750	1.187	1.106
700	1.739	1.469
650	2.459	1.947
600	3.337	2.883
550	4.816	4.422
500	6.904	6.669
450	9.721	9.513
400		
350		
300		
250		
200		
NT	1.420	1.309
HEIGHT	SCALE HEIGHT, KM	
950	356.3	368.4
900	302.8	335.5
850	265.7	292.6
800	230.8	247.8
750	197.8	193.6
700	167.7	170.2
650	151.7	156.8
600	151.0	127.1
550	138.8	119.6
500	142.8	130.9
450	174.5	160.7
400		
350		
300		
HS	1004.57	1004.75
LONG	-148.24	-148.14
LAT	-10.01	-11.03
DIPL	-8.17	-9.20
INVL	3.44	5.47
L	1.16	1.17
DIP	-16.03	-17.95
FHS	0.62	0.63
KP	1+	1+
QUAL	13	13
SNL	1	1

PASS 626 AT SPOINT, 621114

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	30513 160922	30531 161006	30549 161110	30625 161253	30643 161343	30759 161709	30835 161840	30853 161925
HEIGHT								
SAT.	0.128	0.129	0.123	0.120	0.114	0.145	0.183	0.187
1000	0.130	0.131	0.124	0.123	0.115	0.147	0.185	0.191
95	0.138	0.139	0.132	0.133	0.128	0.162	0.200	0.216
90	0.147	0.146	0.140	0.143	0.141	0.177	0.219	0.241
85	0.158	0.157	0.151	0.155	0.153	0.197	0.239	0.265
80	0.174	0.174	0.166	0.170	0.167	0.220	0.266	0.295
75	0.196	0.192	0.186	0.190	0.188	0.247	0.303	0.340
700	0.224	0.219	0.215	0.217	0.215	0.282	0.355	0.417
65	0.264	0.260	0.253	0.254	0.253	0.336	0.429	0.520
60	0.321	0.316	0.302	0.300	0.301	0.412	0.562	0.681
550	0.406	0.400	0.391	0.398	0.399	0.545	0.817	0.975
50	0.534	0.527	0.507	0.536	0.539	0.833	1.197	1.444
450	0.718	0.712	0.713	0.755	0.757	1.280	1.859	2.147
40	0.982	0.990	0.986	1.042	1.042	1.962	2.875	3.388
35	1.481	1.448	1.468	1.639	1.632	3.587	4.965	5.885
30	2.453	2.363	2.422	2.835	2.891		9.648	10.933
25	4.329			4.954	5.291			
20								
N	0.521	0.346	0.344	0.565	0.575	0.426	0.960	1.119
HEIGHT	SCALE HEIGHT, KM							
95	839.0	1035.3	866.2	705.2	514.5	513.2	590.0	467.9
90	738.7	862.7	723.0	634.7	567.9	495.4	564.3	490.2
85	659.9	593.4	587.1	564.0	551.6	472.6	501.3	458.8
80	492.3	474.4	487.3	494.6	483.0	448.7	432.8	398.9
750	407.6	434.5	400.8	425.8	412.9	391.3	358.8	334.0
70	338.8	349.0	345.2	357.5	343.0	332.9	295.7	263.2
65	289.7	275.8	298.2	299.7	290.7	281.4	230.8	211.1
60	244.8	235.7	252.3	242.0	238.6	222.3	158.6	164.3
55	206.0	203.2	212.1	200.5	196.3	148.5	143.8	135.7
50	171.7	170.7	172.5	160.9	159.7	133.4	129.4	126.4
45	168.1	160.4	159.4	149.5	149.6	118.5	118.9	120.2
40	142.6	145.8	146.3	138.2	139.5	104.1	106.8	103.2
35	116.1	119.5	121.5	108.9	109.0	79.7	82.2	85.9
30	96.2	90.4	92.5	88.7	81.3		73.1	80.3
HS	1010.07	1009.77	1009.17	1008.32	1007.90	1006.32	1005.66	1005.33
LONG	-163.96	-163.85	-163.66	-163.38	-163.25	-162.71	-162.48	-162.36
LAT	30.50	29.48	28.48	26.45	25.44	21.15	19.11	18.10
DIPL	28.61	27.72	26.85	25.08	24.18	20.34	18.48	17.55
INVL	27.73	26.76	25.79	23.84	22.86	18.56	16.46	15.37
L	1.48	1.45	1.43	1.38	1.36	1.29	1.26	1.25
DIP	47.48	46.42	45.36	43.10	41.93	36.55	33.76	32.31
FHS	0.72	0.72	0.71	0.69	0.69	0.66	0.65	0.64
KP	0+	0+	0+	0+	0+	0+	0+	0+
QUAL	12	13	13	21	11	23	13	13
SNL	1	1	1	1	1	1	1	1

PASS 626 AT SPOINT, 621114

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	30911 162010	31023 162306	31042 162351	31119 162517	31137 162559	31231 162804	31249 162846
HEIGHT							
SAT.	0.204	0.339	0.409	0.402	0.407	0.418	0.409
100	0.207	0.342	0.413	0.406	0.413	0.419	0.411
95	0.231	0.391	0.448	0.437	0.466	0.457	0.458
90	0.258	0.443	0.486	0.464	0.505	0.506	0.508
85	0.291	0.494	0.517	0.503	0.549	0.578	0.583
80	0.334	0.539	0.564	0.563	0.622	0.673	0.683
75	0.389	0.589	0.626	0.660	0.741	0.794	0.814
70	0.471	0.673	0.731	0.807	0.896	0.941	0.990
65	0.602	0.817	0.962	1.042	1.145	1.294	1.352
60	0.779	1.053	1.219	1.458	1.604	1.899	1.932
550	1.032	1.511	2.031	2.215	2.435	2.787	2.788
50	1.458	2.522	3.056		3.790	3.980	
45	2.207	4.100	4.773		5.506	5.516	
40	3.556	6.555	7.241		7.643	7.526	
35	6.215	10.235	10.874			10.135	
30	11.437						
25							
20							
N	1.182	1.249	1.415	0.362	1.114	1.611	0.446
HEIGHT	SCALE HEIGHT, KM						
95	436.7	402.5	619.5	839.7	552.3	523.6	456.7
900	433.9	455.8	703.0	702.1	783.0	431.6	408.3
85	377.7	518.2	710.3	549.2	491.4	361.0	354.2
80	336.0	562.9	532.2	382.4	371.5	313.4	303.8
750	298.2	471.9	414.4	294.2	268.7	278.2	265.6
70	251.9	324.4	220.0	241.1	235.0	241.9	220.4
65	200.8	237.1	185.2	183.8	178.1	142.4	149.4
60	187.9	183.8	155.8	141.7	136.2	135.4	143.1
55	163.5	132.1	111.8	121.5	116.0	138.2	131.8
50	134.8	102.4	118.2		125.0	147.5	
45	116.1	102.8	114.7		143.6	157.3	
40	99.5	111.9	121.6		158.9	164.2	
35	86.2	110.3	130.1			192.3	
30	82.0						
HS	1005.03	1003.99	1003.74	1003.31	1003.13	1002.69	1002.57
LONG	-162.25	-161.82	-161.71	-161.51	-161.41	-161.11	-161.01
LAT	17.08	13.01	11.93	9.84	8.82	5.76	4.74
DIPL	16.60	12.78	11.75	9.74	8.76	5.78	4.78
INVL	14.28	9.51	8.06	4.67	2.03	0.00	0.00
L	1.23	1.19	1.18	1.17	1.16	1.14	1.14
DIP	30.81	24.40	22.59	18.95	17.13	11.45	9.50
FHS	0.64	0.62	0.61	0.61	0.60	0.60	0.60
KP	0+	0+	0+	0+	0+	0+	0+
QUAL	23	13	13	13	23	11	13
SNL	1	1	1	1	1	1	1

PASS 626 AT SPOINT, 621114

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	31307	31343	31400	31419	31437	31456	31532	31608
LT	162927	163048	163126	163209	163250	163334	163456	163618
HEIGHT								
SAT	0.422	0.422	0.441	0.445	0.459	0.453	0.480	0.492
1000	0.425	0.424	0.443	0.447	0.461	0.455	0.483	0.495
95	0.474	0.474	0.494	0.501	0.518	0.512	0.547	0.562
90	0.528	0.533	0.554	0.562	0.583	0.581	0.621	0.651
85	0.605	0.609	0.642	0.648	0.680	0.675	0.720	0.772
80	0.704	0.708	0.761	0.769	0.812	0.804	0.843	0.935
75	0.849	0.863	0.919	0.925	0.981	0.980	1.039	1.148
70	1.080	1.114	1.112	1.116	1.188	1.197	1.331	1.486
65	1.465	1.488	1.431	1.429	1.607	1.652	1.781	2.043
60	2.087	2.079	2.127	2.130	2.295	2.353	2.463	2.842
55	2.974	2.928	2.998	3.045	3.178	3.289	3.578	4.032
50	4.189	4.139	4.217	4.300		4.674	5.097	5.800
45	5.802	5.827	5.913	5.978		6.504	7.091	8.071
40		8.053	8.199	8.178			9.430	10.657
35		10.658	10.718	10.578				
30								
25								
20								
N	0.903	1.718	1.747	1.755	0.524	1.010	1.503	1.696
HEIGHT	SCALE HEIGHT, KM							
95	449.0	430.9	437.1	430.5	423.1	402.4	393.6	363.6
900	409.7	403.6	379.1	392.5	366.2	360.5	362.0	317.4
85	360.0	356.1	320.4	305.9	309.2	315.2	317.8	284.9
80	300.1	290.4	277.6	273.1	270.1	268.6	277.4	262.6
75	244.0	226.3	252.2	251.7	245.5	238.6	231.9	219.6
700	190.7	190.2	226.9	230.2	221.0	208.6	189.6	184.9
65	155.1	166.1	193.1	197.7	182.0	172.0	169.6	161.6
60	145.9	148.1	138.0	133.9	148.1	146.4	150.6	150.9
55	146.1	147.6	146.0	143.0	156.8	147.2	139.2	141.1
50	150.6	146.2	147.3	148.4		147.4	147.0	145.1
45	157.3	151.2	151.3	156.2		167.2	164.2	162.8
40		164.8	164.1	174.9			216.0	252.6
350		274.6	395.2	365.9				
30								
HS	1002.49	1002.43	1002.40	1002.40	1002.40	1002.40	1002.51	1002.65
LONG	-160.91	-160.73	-160.64	-160.54	-160.44	-160.34	-160.15	-159.96
LAT	3.72	1.68	0.72	-0.35	-1.37	-2.44	-4.48	-6.52
DIPL	3.78	1.76	0.80	-0.27	-1.28	-2.36	-4.41	-6.46
INVE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
/	1.14	1.13	1.13	1.13	1.13	1.13	1.14	1.15
DIP	7.52	3.51	1.60	-0.54	-2.57	-4.71	-8.76	-12.77
FHS	0.60	0.60	0.60	0.60	0.60	0.61	0.62	0.62
KP	0+	0+	0+	0+	0+	0+	0+	0+
QUAL	13	11	11	11	13	13	11	11
NL	1	1	1	1	1	1	1	1

PASS 626 AT SPOINT, 621114

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	31626	31644
LT	163700	163742
HEIGHT		
SAT.	0.501	0.519
100	0.504	0.523
95	0.567	0.592
90	0.652	0.684
85	0.782	0.811
80	0.954	0.982
75	1.169	1.200
70	1.520	1.565
65	2.062	2.116
60	2.893	2.974
55	4.134	4.298
50	5.948	6.251
45		
40		
35		
30		
25		
20		
NT	0.898	0.930
HEIGHT	SCALE HEIGHT, KM	
95	384.5	369.1
90	307.3	323.9
85	283.5	283.2
80	260.8	248.3
75	217.3	218.1
70	187.4	189.7
65	163.1	162.0
60	149.0	146.2
55	139.5	134.5
50	137.5	140.8
45		
400		
35		
30		
[illegible]	1002.77	1002.89
LONG	-159.86	-159.76
LAT	-7.54	-8.56
[illegible]PL	-7.50	-8.53
INVL	0.00	2.39
[illegible]	1.15	1.16
[illegible]P	-14.74	-16.70
[illegible]S	0.63	0.64
[illegible]	0+	0+
[illegible]AL	13	13
[illegible]L	1	1

PASS 639 AT SPOINT, 621115

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	15528 155642	15547 155747	15605 155847	15623 155944	15735 160326	15753 160420	15906 160742	15924 160829
HEIGHT								
SAT	0.103	0.100	0.099	0.107	0.135	0.142	0.157	0.158
100	0.105	0.102	0.101	0.112	0.137	0.144	0.158	0.160
95	0.117	0.113	0.112	0.121	0.146	0.153	0.171	0.176
90	0.130	0.125	0.123	0.137	0.158	0.165	0.188	0.193
850	0.147	0.141	0.140	0.154	0.172	0.182	0.209	0.215
80	0.168	0.161	0.161	0.174	0.190	0.204	0.234	0.242
750	0.193	0.185	0.187	0.199	0.219	0.234	0.266	0.277
700	0.223	0.219	0.218	0.239	0.255	0.274	0.304	0.322
65	0.260	0.264	0.262	0.293	0.303	0.329	0.382	0.407
60	0.321	0.328	0.338	0.365	0.377	0.405	0.495	0.523
55	0.419	0.431	0.439	0.455	0.484	0.532	0.649	0.686
50	0.566	0.587	0.582	0.624	0.676	0.731	0.870	0.956
45	0.792	0.821	0.808	0.896	0.938	1.015	1.222	1.385
40	1.099	1.135	1.132	1.264	1.326	1.449	1.770	2.006
35	1.753	1.781	1.747	1.795	1.976	2.178	2.760	3.328
30	3.348	3.174			3.521		4.659	5.944
25	6.662	5.538			6.555		7.886	10.520
20								
N	0.646	0.614	0.271	0.294	0.704	0.342	0.910	1.100
HEIGHT	SCALE HEIGHT, KM							
950	456.8	481.3	474.1	462.1	690.7	715.9	574.7	533.6
90	432.2	446.7	444.6	425.1	595.5	577.2	512.7	492.5
85	403.5	407.9	390.4	400.7	527.3	493.1	454.5	443.3
800	374.0	367.2	341.7	370.4	459.1	418.1	400.2	390.8
750	347.3	324.5	315.0	336.1	348.0	356.8	350.9	334.7
70	321.9	289.8	288.3	273.2	309.0	302.5	301.6	282.8
65	289.9	252.1	257.9	233.5	257.3	262.2	259.1	249.5
600	219.4	210.0	218.9	215.3	213.9	220.8	217.7	216.2
55	184.2	172.9	185.7	197.1	175.6	176.5	183.3	171.1
50	148.4	151.0	166.4	178.9	165.4	159.7	159.8	145.4
45	142.8	145.5	150.5	160.7	155.3	152.0	140.0	132.8
40	137.1	139.3	135.6	144.7	139.2	136.1	127.4	120.9
35	100.3	106.1	112.3	134.3	110.4	106.3	106.1	93.8
30	71.1	83.0			83.3		92.2	86.8
[illegible]	1011.75	1011.25	1010.78	1010.36	1008.63	1008.17	1006.58	1006.22
ING	-149.69	-149.50	-149.32	-149.16	-148.53	-148.39	-147.85	-147.73
[illegible]T	35.86	34.80	33.79	32.78	28.74	27.72	23.61	22.59
PL	36.08	35.13	34.23	33.33	29.69	28.77	25.01	24.07
IVL	35.70	34.70	33.74	32.79	28.93	27.94	23.93	22.95
	1.76	1.71	1.68	1.64	1.51	1.48	1.39	1.37
P	55.55	54.60	53.69	52.76	48.75	47.68	43.01	41.78
IS	0.81	0.80	0.79	0.78	0.75	0.74	0.70	0.70
[illegible]	10	10	10	10	10	10	10	10
IAL	12	12	13	13	12	13	22	22
IL	1	1	1	1	1	1	1	1

PASS 639 AT SPOINT, 621115

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	15942 160917	20000 161004	20036 161136	20054 161223	20112 161307	20237 161632	20256 161716	20332 161840
HEIGHT								
SAT	0.178	0.167	0.195	0.184	0.194	0.345	0.395	0.497
100	0.179	0.169	0.198	0.187	0.198	0.352	0.398	0.501
95	0.195	0.188	0.220	0.210	0.230	0.436	0.473	0.586
90	0.211	0.209	0.246	0.235	0.263	0.517	0.570	0.662
85	0.235	0.233	0.273	0.264	0.303	0.635	0.687	0.728
800	0.266	0.262	0.308	0.305	0.356	0.761	0.799	0.810
750	0.303	0.297	0.362	0.363	0.419	0.894	0.903	0.955
700	0.346	0.362	0.444	0.445	0.530	1.051	1.074	1.212
65	0.422	0.462	0.574	0.573	0.714	1.322	1.380	1.629
60	0.538	0.598	0.755	0.839	0.988	1.832	1.957	2.267
55	0.719	0.818	1.103	1.257	1.487		3.049	3.596
500	1.054	1.099	1.811	2.130	2.523		4.942	5.584
45	1.503	1.728	3.211	3.683	4.122			8.250
40	2.341	3.051	5.753	6.229	6.881			11.505
350		5.805	9.638	10.072	11.231			
30								
25								
20								
N	0.350	0.615	0.998	1.083	1.226	0.335	0.678	1.614
HEIGHT	SCALE HEIGHT, KM							
95	612.3	467.0	489.7	480.7	378.0	270.0	279.5	365.9
900	531.5	463.1	464.9	443.1	351.9	271.7	274.9	463.5
85	454.8	436.5	433.9	387.6	325.7	268.5	297.5	508.4
80	391.9	384.2	358.4	325.1	299.4	296.5	376.3	387.3
750	352.7	318.7	294.0	260.9	273.0	313.3	343.4	260.9
70	313.5	270.2	234.2	219.3	190.2	265.5	247.5	195.7
65	262.8	227.4	197.0	162.1	151.0	187.8	181.1	165.8
60	206.0	187.7	167.3	139.1	140.2	136.6	127.4	137.3
55	169.0	167.5	121.8	116.6	119.8		110.0	112.1
50	138.3	147.4	96.0	94.6	99.3		105.5	121.0
45	119.6	107.9	85.4	94.2	100.0			138.9
40	95.8	81.2	91.8	99.2	99.9			166.3
35		84.1	104.8	106.1	106.6			
30								
[illegible]	1005.86	1005.50	1004.90	1004.60	1004.32	1003.23	1003.04	1002.73
LONG	-147.62	-147.48	-147.25	-147.13	-147.02	-146.52	-146.41	-146.21
LAT	21.58	20.56	18.53	17.51	16.48	11.65	10.60	8.57
[illegible]PL	23.13	22.18	20.27	19.32	18.34	13.73	12.72	10.75
[illegible]IVL	21.94	20.90	18.86	17.80	16.73	11.49	10.24	7.68
[illegible]	1.35	1.33	1.29	1.28	1.26	1.21	1.20	1.18
[illegible]P	40.50	39.19	36.46	35.03	33.54	26.04	24.29	20.80
[illegible]S	0.69	0.68	0.67	0.66	0.65	0.62	0.62	0.61
[illegible]	10	10	10	10	10	10	10	10
[illegible]JAL	23	13	13	13	13	13	13	12
[illegible]IL	1	1	1	1	1	1	1	1

PASS 639 AT SPOINT, 621115

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	20350 161922	20408 162003	20426 162044	20444 162125	20502 162206	20520 162248	20538 162329	20556 162410
HEIGHT								
SAT	0.528	0.556	0.600	0.579	0.579	0.585	0.586	0.591
100	0.534	0.559	0.602	0.581	0.582	0.587	0.587	0.593
95	0.607	0.616	0.638	0.628	0.632	0.640	0.639	0.648
90	0.662	0.665	0.694	0.696	0.703	0.717	0.718	0.727
85	0.724	0.738	0.765	0.797	0.790	0.827	0.833	0.840
80	0.824	0.862	0.937	0.928	0.953	0.971	0.983	1.045
750	0.982	1.052	1.165	1.152	1.217	1.147	1.169	1.347
70	1.242	1.328	1.486	1.475	1.566	1.439	1.504	1.693
650	1.755	1.859	2.015	1.901	2.000	2.009	2.105	2.103
60	2.570	2.683	2.850	2.697	2.871	2.826	2.941	3.027
55	3.823	3.978		4.022	4.196	4.017	4.134	4.262
50	5.801	5.928		5.783	5.929	5.661	5.723	5.837
450	8.423	8.401			7.971	7.549	7.544	7.654
40	11.580	11.387				9.561	9.537	9.600
35						11.543	11.492	11.553
30								
25								
20								
NT	1.674	1.704	0.471	0.874	1.257	2.171	2.193	2.243
HEIGHT	SCALE HEIGHT, KM							
95	524.0	620.8	724.4	557.7	550.6	505.2	508.5	500.4
90	571.0	560.8	531.6	436.8	436.5	397.7	388.5	401.0
85	467.8	397.2	395.2	347.9	347.0	322.6	311.0	267.0
80	326.5	285.0	292.2	280.8	278.2	290.1	278.9	239.2
75	261.5	239.7	221.7	225.9	218.2	257.5	246.7	214.7
700	171.0	195.6	188.7	194.0	193.1	216.6	205.2	201.2
65	147.3	157.9	162.9	174.2	175.2	160.9	153.9	187.6
60	132.5	135.3	132.0	144.0	143.2	146.9	150.4	151.8
55	123.4	126.9		132.8	139.4	144.9	151.2	153.6
50	127.4	134.4		147.2	157.1	161.6	169.2	173.0
45	145.3	154.3			191.4	194.3	198.3	204.3
40	182.4	182.9				236.4	240.0	244.2
35						315.2	326.2	351.9
30								
S	1002.58	1002.46	1002.37	1002.28	1002.20	1002.17	1002.14	1002.11
LONG	-146.11	-146.02	-145.92	-145.83	-145.73	-145.63	-145.54	-145.44
LAT	7.55	6.54	5.51	4.49	3.47	2.45	1.43	0.42
IPL	9.76	8.77	7.77	6.77	5.77	4.77	3.77	2.76
NVL	6.25	4.57	2.12	0.00	0.00	0.00	0.00	0.00
	1.17	1.16	1.16	1.15	1.15	1.15	1.14	1.14
IP	18.99	17.15	15.27	13.36	11.42	9.47	7.50	5.52
HS	0.61	0.60	0.60	0.60	0.59	0.59	0.59	0.59
P	10	10	10	10	10	10	10	10
UAL	12	12	13	12	22	11	11	11
SNL	1	1	1	1	1	1	1	1

PASS 639 AT SPOINT, 621115

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	20616 162455	20633 162534	20709 162656	20727 162737	20745 162818	20803 162859	20821 162941	20839 163023
HEIGHT								
SAT.	0.586	0.597	0.612	0.601	0.600	0.616	0.603	0.538
100	0.587	0.598	0.614	0.603	0.602	0.619	0.608	0.545
95	0.640	0.654	0.668	0.659	0.660	0.685	0.688	0.661
900	0.722	0.736	0.753	0.743	0.742	0.764	0.767	0.766
85	0.838	0.850	0.870	0.863	0.863	0.885	0.875	0.874
80	0.989	1.001	1.029	1.027	1.027	1.047	1.024	1.021
75	1.176	1.189	1.288	1.240	1.236	1.250	1.215	1.258
70	1.546	1.562	1.688	1.723	1.707	1.702	1.641	1.648
65	2.173	2.220	2.257	2.406	2.409	2.395	2.323	2.210
60	3.010	3.074	3.191	3.238	3.317	3.338	3.233	3.223
550	4.215	4.347	4.539	4.606	4.754	4.800	4.732	4.792
50	5.817	6.113	6.418	6.468	6.733	6.819	6.768	6.979
45	7.631	8.134	8.595	8.728	9.106		9.385	9.698
40			10.696	10.878	11.433			
35								
30								
25								
200								
N	1.262	1.306	1.848	1.872	1.929	1.929	1.413	1.428
HEIGHT	SCALE HEIGHT, KM							
95	498.8	490.6	505.1	480.0	477.1	468.1	430.3	301.3
90	378.0	386.3	391.6	387.8	383.2	396.9	418.3	352.7
85	307.5	312.3	318.4	318.2	317.8	320.3	333.3	354.2
80	275.5	278.9	270.7	262.2	265.2	272.4	285.1	275.3
75	243.5	245.4	190.3	212.2	217.6	228.7	239.6	211.0
70	200.0	199.5	178.3	177.3	177.0	183.1	187.6	185.0
65	152.4	149.4	164.9	157.5	151.5	150.5	148.0	159.0
60	152.5	150.1	146.5	156.9	149.5	145.8	143.4	132.2
55	152.3	145.4	143.3	144.4	141.8	140.6	135.8	129.7
50	171.4	161.5	157.4	156.9	155.0	152.0	146.6	142.5
45	204.9	192.7	206.7	198.7	191.8		165.1	172.7
40			352.0	307.5	301.6			
35								
300								
HS	1002.13	1002.15	1002.24	1002.33	1002.42	1002.52	1002.67	1002.82
LONG	-145.33	-145.24	-145.05	-144.96	-144.86	-144.76	-144.66	-144.57
LAT	-0.77	-1.79	-3.89	-4.85	-5.80	-6.77	-7.79	-8.81
DIPL	1.59	0.58	-1.50	-2.45	-3.40	-4.36	-5.38	-6.40
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.14	1.14	1.14	1.14	1.14	1.15	1.15	1.15
DIP	3.18	1.16	-3.00	-4.89	-6.78	-8.68	-10.67	-12.64
FHS	0.59	0.59	0.59	0.60	0.60	0.60	0.61	0.61
KP	10	10	10	10	10	10	10	10
QUAL	12	12	11	11	11	13	13	12
SNL	1	1	1	-1	1	1	1	1

PASS 639 AT SPOINT, 621115

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	20857
LT	163105
HEIGHT	
SAT.	0.490
100	0.496
95	0.601
90	0.736
85	0.875
80	1.024
75	1.240
70	1.600
65	2.112
60	3.039
55	4.528
50	6.752
45	9.581
400	12.749
35	
30	
25	
20	
NT	1.936

HEIGHT	SCALE HEIGHT, KM
950	249.7
90	268.3
85	305.5
80	295.7
75	211.8
70	189.5
65	168.4
60	138.5
55	123.3
50	134.4
45	158.6
40	210.7
35	
30	

HS	1002.97
LONG	-144.47
LAT	-9.83
DIPL	-7.42
INVL	2.34
L	1.16
DIP	-14.60
FHS	0.61
KP	10
QUAL	12
SNL	1

PASS 653 AT SPOINT, 621116

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	23330 155050	23348 155149	23406 155247	23501 155534	23519 155625	23537 155716	23556 155810	23613 155856
HEIGHT								
SAT.	0.094	0.110	0.130	0.134	0.141	0.146	0.139	0.137
100	0.097	0.116	0.133	0.137	0.143	0.147	0.142	0.140
95	0.111	0.133	0.141	0.147	0.152	0.156	0.155	0.154
90	0.121	0.146	0.149	0.162	0.164	0.174	0.170	0.171
850	0.135	0.159	0.160	0.176	0.178	0.191	0.186	0.188
800	0.151	0.176	0.179	0.196	0.201	0.213	0.205	0.209
75	0.170	0.195	0.207	0.221	0.234	0.240	0.234	0.240
70	0.195	0.217	0.239	0.253	0.276	0.280	0.274	0.278
650	0.233	0.254	0.288	0.310	0.329	0.343	0.330	0.340
60	0.290	0.330	0.358	0.398	0.402	0.430	0.414	0.417
550	0.380	0.430	0.461	0.518	0.527	0.560	0.540	0.516
50	0.506	0.553	0.606	0.702	0.719	0.779	0.742	0.785
45	0.727	0.816	0.853	0.938	0.974	1.076	1.019	1.149
400	1.023	1.184	1.188	1.301	1.383	1.543	1.454	1.678
35	1.595	1.760	1.808	1.925	2.049	2.280	2.127	2.612
30	2.808	3.035		3.337	3.577		3.584	4.354
25	5.092	5.342		6.092	6.088			
20								
N	0.552	0.606	0.290	0.685	0.714	0.360	0.486	0.549
HEIGHT	SCALE HEIGHT, KM							
95	450.3	461.8	950.6	638.1	698.0	750.7	551.5	518.8
90	483.7	533.6	791.6	551.1	606.7	531.6	557.3	520.0
850	465.1	514.0	632.6	489.6	515.5	478.1	508.4	470.3
80	446.5	470.2	460.8	443.7	430.7	426.0	454.9	408.4
75	392.5	426.5	336.4	397.8	349.8	373.9	362.6	354.9
70	321.7	382.7	301.6	331.4	295.6	316.1	296.8	302.4
65	255.2	309.7	256.4	219.2	266.0	251.1	249.5	265.7
60	204.7	188.1	218.9	199.9	225.5	204.4	211.6	229.1
550	182.4	176.5	194.6	181.4	168.3	174.2	166.2	192.7
50	161.5	164.9	172.2	172.5	163.2	164.9	161.5	163.9
45	148.9	149.2	156.2	163.7	158.1	155.6	156.9	135.0
40	136.3	133.2	139.7	146.1	140.3	139.1	140.4	124.7
350	108.9	114.4	117.3	114.0	112.1	98.0	117.4	106.9
30	82.5	84.3		86.3	90.8		88.6	109.7
HS	1010.05	1009.60	1009.16	1007.88	1007.46	1007.04	1006.59	1006.24
LONG	-160.66	-160.49	-160.33	-159.86	-159.72	-159.59	-159.44	-159.32
LAT	33.64	32.63	31.62	28.53	27.52	26.51	25.44	24.48
DIPL	32.01	31.14	30.27	27.58	26.68	25.79	24.84	23.98
INVL	31.43	30.48	29.53	26.60	25.61	24.62	23.60	22.67
L	1.59	1.56	1.53	1.45	1.42	1.40	1.38	1.36
DIP	51.34	50.39	49.41	46.25	45.15	44.02	42.80	41.66
FHS	0.76	0.75	0.74	0.72	0.71	0.70	0.69	0.69
KP	6-	6-	6-	6-	6-	6-	6-	6-
QUAL	11	12	13	11	11	13	13	22
SNL	1	1	1	1	1	1	1	1

PASS 653 AT SPOINT, 621116

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	23631 155944	23649 160032	23707 160120	23725 160207	23744 160256	23842 160520	23900 160604	23918 160648
HEIGHT								
SAT.	0.144	0.157	0.164	0.168	0.169	0.182	0.192	0.203
100	0.147	0.159	0.166	0.170	0.172	0.184	0.195	0.205
950	0.166	0.174	0.179	0.185	0.189	0.203	0.218	0.225
90	0.180	0.189	0.196	0.201	0.207	0.223	0.240	0.251
85	0.196	0.205	0.216	0.219	0.226	0.247	0.266	0.279
80	0.219	0.231	0.239	0.244	0.250	0.277	0.300	0.314
750	0.251	0.264	0.270	0.281	0.279	0.317	0.349	0.358
70	0.298	0.309	0.315	0.325	0.323	0.378	0.420	0.446
65	0.361	0.372	0.381	0.393	0.400	0.475	0.528	0.571
60	0.438	0.467	0.484	0.499	0.510	0.627	0.714	0.784
55	0.550	0.621	0.635	0.667	0.693	0.917	1.045	1.157
500	0.824	0.861	0.876	0.931	0.993	1.360	1.609	1.941
45	1.189	1.193	1.188	1.306	1.422	2.149	2.662	3.326
40	1.739	1.693	1.752	1.898	2.017	3.722	4.708	5.708
350	2.756	2.628	2.761		3.280	6.695	8.375	9.411
30	4.625	4.584	4.766		6.057	11.948	14.014	
25	6.712	7.079	7.800					
200								
N	0.861	0.870	0.912	0.314	0.695	1.183	1.427	1.008
HEIGHT	SCALE HEIGHT, KM							
950	546.8	601.9	616.3	575.5	614.1	546.8	529.5	525.7
90	593.3	598.7	539.1	593.1	561.1	496.1	506.7	470.3
85	493.9	485.3	497.6	516.3	504.6	448.8	447.4	427.4
80	414.8	429.5	440.5	431.3	449.8	403.4	372.1	374.0
75	338.9	378.2	372.2	354.1	394.9	339.6	304.1	319.5
700	295.9	316.5	298.6	311.6	324.1	247.7	254.3	250.8
65	264.9	245.2	245.3	236.8	223.1	204.9	197.6	184.9
60	234.0	193.3	209.2	188.1	184.9	167.3	142.0	136.1
55	202.4	169.2	181.2	162.2	163.2	144.8	126.9	117.4
50	167.3	162.9	166.8	155.3	152.1	122.9	111.5	97.1
45	134.8	154.7	152.2	145.8	139.8	103.1	94.4	93.8
40	123.3	134.2	127.6	126.4	126.4	88.1	87.0	96.0
350	103.9	104.5	102.7		95.5	87.3	89.7	106.9
30	105.9	95.4	91.6		80.1	95.1	127.3	
HS	1005.88	1005.52	1005.18	1004.88	1004.57	1003.67	1003.40	1003.19
LONG	-159.19	-159.07	-158.94	-158.82	-158.70	-158.34	-158.23	-158.12
LAT	23.46	22.44	21.42	20.41	19.33	16.06	15.04	14.02
DIPL	23.07	22.16	21.23	20.30	19.32	16.27	15.32	14.35
INVL	21.65	20.64	19.62	18.58	17.47	14.00	12.86	11.69
L	1.34	1.32	1.30	1.29	1.27	1.23	1.22	1.21
DIP	40.43	39.16	37.85	36.50	35.04	30.28	28.71	27.10
FHS	0.68	0.67	0.67	0.66	0.65	0.63	0.63	0.62
KP	6-	6-	6-	6-	6-	6-	6-	6-
QUAL	31	11	12	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 653 AT SPOINT, 621116

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	23936	23954
LT	160731	160814
HEIGHT		
SAT	0.201	0.218
1000	0.202	0.220
95	0.225	0.248
90	0.248	0.274
85	0.280	0.312
80	0.321	0.358
75	0.371	0.431
70	0.465	0.542
65	0.618	0.739
60	0.869	1.039
55	1.301	1.636
50		2.818
45		4.694
40		6.891
35		
30		
25		
20		
N	0.207	0.832
HEIGHT	SCALE HEIGHT, KM	
950	493.4	459.0
90	451.0	436.5
85	383.3	376.3
80	337.2	309.4
75	291.2	253.1
70	218.7	202.2
65	165.1	167.6
60	144.6	140.3
55	101.6	108.5
50		94.8
45		113.9
40		141.2
35		
30		
HS	1002.98	1002.77
LONG	-158.02	-157.91
LAT	13.00	11.98
DIPL	13.38	12.41
INVL	10.47	9.20
L	1.20	1.19
DIP	25.45	23.76
FHS	0.62	0.62
KP	6-	6-
QUAL	13	13
SNL	1	1

PASS 666 AT SPOINT, 621117

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	13140 160033	13158 160116	13216 160158	13234 160240	13252 160322	13310 160404	13328 160445	13346 160527
HEIGHT								
SAT.	0.195	0.210	0.214	0.218	0.230	0.238	0.271	0.279
100	0.197	0.211	0.215	0.220	0.232	0.239	0.272	0.280
95	0.221	0.234	0.237	0.251	0.264	0.269	0.292	0.305
900	0.247	0.259	0.264	0.289	0.301	0.300	0.325	0.338
85	0.274	0.288	0.297	0.318	0.337	0.339	0.367	0.382
80	0.308	0.324	0.339	0.351	0.383	0.389	0.427	0.441
750	0.357	0.378	0.391	0.397	0.453	0.467	0.516	0.541
70	0.428	0.457	0.476	0.528	0.572	0.597	0.693	0.716
65	0.541	0.587	0.621	0.675	0.750	0.835	1.025	0.980
600	0.751	0.839	0.866	0.922	1.062	1.167	1.535	1.437
55	1.066	1.218	1.291	1.414	1.725	1.906	2.368	2.450
50	1.653	1.902	2.097	2.441	2.996	3.328	4.155	4.285
45	2.742	3.252	3.783	4.483	5.433	6.037	7.109	7.301
400	4.911	5.821	6.853	8.100	9.682	10.430	11.721	12.070
35	8.719	10.254						
30								
25								
20								
NT	0.898	1.040	0.710	0.811	0.962	1.048	1.240	1.268
HEIGHT	SCALE HEIGHT, KM							
95	478.4	484.6	476.8	420.3	418.2	430.0	638.2	531.4
90	468.9	481.1	443.5	459.3	410.3	432.7	459.8	452.4
85	446.0	438.7	395.3	469.9	393.6	374.2	371.2	373.3
800	379.9	378.4	351.8	404.9	340.1	317.7	310.4	293.5
75	307.2	291.4	309.1	333.4	275.0	248.2	226.5	218.5
70	254.0	240.6	237.7	220.7	202.1	181.3	174.2	180.8
65	171.6	167.4	173.9	190.5	171.5	158.1	145.2	156.0
60	153.2	149.7	150.4	140.1	125.2	134.9	123.2	125.0
55	138.8	131.6	108.6	106.8	99.3	101.5	104.5	92.4
50	114.6	108.5	97.7	88.8	88.7	87.2	91.2	92.4
45	93.4	89.0	84.1	82.6	84.5	86.9	96.8	95.6
40	85.6	87.6	89.3	86.4	89.6	98.0	108.6	108.4
350	88.1	89.6						
30								
HS	1002.43	1002.22	1002.09	1001.97	1001.85	1001.77	1001.71	1001.65
LONG	-142.78	-142.67	-142.57	-142.47	-142.37	-142.27	-142.18	-142.08
LAT	12.24	11.22	10.20	9.18	8.16	7.14	6.12	5.10
DIPL	14.80	13.82	12.83	11.84	10.85	9.86	8.87	7.87
INVL	12.94	11.79	10.62	9.41	8.13	6.78	5.22	3.35
L	1.22	1.21	1.20	1.19	1.18	1.17	1.17	1.16
DIP	27.85	26.19	24.49	22.75	20.98	19.17	17.33	15.46
FHS	0.63	0.62	0.62	0.61	0.61	0.61	0.60	0.60
KP	30	30	30	30	30	30	30	30
QUAL	13	13	13	23	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 666 AT SPOINT, 621117

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	13405 160611	13423 160652	13441 160733	13459 160814	13517 160854	13535 160935	13553 161015	13611 161056
HEIGHT								
SAT	0.284	0.292	0.300	0.293	0.293	0.297	0.301	0.297
100	0.284	0.293	0.302	0.294	0.295	0.299	0.302	0.299
95	0.308	0.325	0.332	0.327	0.333	0.329	0.333	0.335
900	0.343	0.358	0.366	0.363	0.370	0.370	0.373	0.375
85	0.389	0.402	0.410	0.410	0.418	0.420	0.424	0.427
80	0.454	0.473	0.510	0.480	0.510	0.512	0.533	0.532
750	0.560	0.603	0.678	0.618	0.678	0.670	0.718	0.727
70	0.750	0.784	0.896	0.821	0.920	0.917	0.967	0.996
65	1.025	1.087	1.206	1.158	1.335	1.388	1.531	1.560
60	1.560	1.687	1.923	1.888	2.247	2.345	2.666	2.681
550	2.708	2.857	3.266	3.283	3.907	4.118	4.491	4.566
50	4.763	5.079	5.596	5.743	6.608	7.165	7.659	7.659
450	8.217	8.594	9.197	9.590	10.682			
40								
35								
30								
250								
20								
N	0.856	0.905	0.997	1.002	1.141	0.740	0.801	0.809
HEIGHT	SCALE HEIGHT, KM							
95	545.1	505.0	550.4	496.4	475.5	479.7	484.3	454.2
90	442.5	438.8	442.5	423.9	407.4	390.6	389.9	381.2
85	361.6	368.8	347.4	359.4	333.6	325.8	314.2	314.0
80	276.4	297.2	272.7	290.1	262.0	256.3	243.8	247.1
75	209.1	222.8	205.4	208.3	192.4	183.0	175.8	180.4
70	178.3	177.4	172.9	166.3	153.3	147.6	144.3	138.9
65	152.3	134.1	139.9	123.9	117.9	106.1	95.3	103.5
60	117.0	104.9	101.4	95.6	94.7	91.6	95.8	91.0
550	90.0	93.4	92.5	88.9	90.2	89.9	90.0	97.6
50	90.5	83.9	95.9	93.9	100.1	99.1	103.1	98.8
45	96.7	99.3	104.4	100.7	113.6			
40								
35								
30								
HS	1001.59	1001.56	1001.53	1001.50	1001.56	1001.62	1001.68	1001.77
LONG	-141.97	-141.88	-141.78	-141.69	-141.59	-141.50	-141.41	-141.31
LAT	4.03	3.01	1.99	0.97	-0.05	-1.07	-2.08	-3.10
DIPL	6.82	5.82	4.82	3.82	2.81	1.81	0.81	-0.20
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.16	1.15	1.15	1.14	1.14	1.14	1.14	1.14
DIP	13.45	11.52	9.57	7.60	5.62	3.62	1.62	-0.40
FHS	0.60	0.59	0.59	0.59	0.59	0.59	0.59	0.59
KP	30	30	30	30	30	30	30	30
QUAL	13	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 666 AT SPOINT, 621117

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	13629 161137	13648 161220	13706 161301	13742 161425
HEIGHT				
SAT.	0.293	0.292	0.299	0.294
100	0.295	0.295	0.302	0.296
95	0.330	0.331	0.331	0.329
90	0.370	0.368	0.365	0.369
850	0.426	0.416	0.410	0.417
80	0.528	0.507	0.503	0.498
75	0.677	0.668	0.656	0.609
700	0.925	0.882	0.845	0.779
65	1.387	1.277	1.226	1.094
60	2.376	2.055	1.970	1.704
550	4.208	3.682	3.483	2.940
50	7.208	6.246	5.957	5.094
45			9.811	8.881
40				
350				
30				
25				
20				
N	0.749	0.673	1.040	0.921
HEIGHT	SCALE HEIGHT, KM			
95	457.8	482.9	530.5	458.8
90	380.9	409.2	443.3	453.9
85	307.3	338.6	359.8	335.2
80	239.6	267.3	271.9	288.1
75	186.4	195.5	193.8	242.4
700	146.8	161.0	169.7	171.0
65	111.1	122.5	120.2	139.4
60	86.8	95.1	95.4	99.4
55	92.7	88.9	87.1	92.1
50	101.4	95.7	98.9	91.7
45			136.5	92.4
40				
35				
30				
HS	1001.89	1002.02	1002.15	1002.45
LONG	-141.22	-141.11	-141.02	-140.82
LAT	-4.12	-5.20	-6.22	-8.25
DIPL	-1.21	-2.27	-3.28	-5.30
INVL	0.00	0.00	0.00	0.00
L	1.14	1.14	1.14	1.15
DIP	-2.41	-4.54	-6.55	-10.52
FHS	0.59	0.59	0.59	0.60
KP	30	30	30	30
QUAL	13	13	13	33
SNL	1	1	1	1

PASS 680 AT SPOINT, 621118

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	20246	20322	20340	20419	20434	20510	20529	20547
LT	153527	153722	153817	154013	154057	154239	154330	154419
HEIGHT								
SAT	0.077	0.084	0.088	0.088	0.124	0.114	0.112	0.116
100	0.080	0.087	0.090	0.091	0.125	0.117	0.116	0.118
950	0.086	0.097	0.098	0.101	0.132	0.128	0.130	0.131
90	0.093	0.104	0.107	0.109	0.138	0.135	0.140	0.142
85	0.103	0.114	0.117	0.119	0.145	0.144	0.154	0.156
800	0.115	0.126	0.129	0.131	0.161	0.157	0.174	0.175
75	0.131	0.142	0.146	0.150	0.195	0.172	0.199	0.201
70	0.150	0.162	0.167	0.175	0.221	0.208	0.234	0.235
65	0.173	0.189	0.192	0.207	0.241	0.275	0.277	0.285
60	0.212	0.225	0.234	0.244	0.288	0.355	0.329	0.348
55	0.266	0.283	0.298	0.299	0.386	0.443	0.436	0.460
500	0.354	0.373	0.408	0.432	0.501	0.582	0.596	0.651
45	0.479	0.514	0.567	0.556	0.697	0.801	0.813	0.903
40	0.669	0.732	0.780	0.757	1.007	1.142	1.139	1.255
350	1.009	1.114	1.188	1.138	1.600	1.776	1.717	1.893
30	1.835	1.996	2.129	2.039	2.950	3.110	2.995	3.155
250		4.065	4.701	4.917		5.122	4.855	5.366
20								
N	0.240	0.412	0.448	0.446	0.362	0.602	0.591	0.637
HEIGHT	SCALE HEIGHT, KM							
95	663.1	630.1	624.2	547.2	1166.2	982.7	677.5	587.3
90	564.0	586.5	582.8	607.9	934.4	755.1	562.8	542.9
85	488.8	525.1	499.8	529.1	751.9	656.7	480.7	473.5
80	416.0	466.0	437.1	454.1	533.7	558.3	420.5	406.0
75	379.2	412.6	402.4	386.0	350.8	459.8	360.3	348.4
70	344.5	360.7	367.7	321.4	343.8	364.2	321.1	294.3
65	309.7	310.8	331.0	293.6	336.8	270.7	284.7	258.4
60	261.2	261.9	254.5	265.7	251.7	256.3	248.3	222.5
55	208.5	211.9	179.4	236.9	175.1	197.8	187.3	193.9
50	181.1	170.7	159.7	178.0	172.2	178.5	160.0	171.6
450	161.0	152.2	155.8	152.2	145.8	151.8	158.1	153.7
40	141.5	134.8	143.3	147.0	122.8	131.0	138.7	138.9
35	97.7	101.7	105.1	106.9	102.1	102.6	109.2	109.7
30	78.3	73.6	74.1	66.5	69.4	85.5	84.9	91.0
HS	1008.63	1007.79	1007.37	1006.49	1006.16	1005.42	1005.07	1004.74
LONG	-156.83	-156.50	-156.34	-156.02	-155.90	-155.63	-155.49	-155.36
LAT	33.47	31.44	30.43	28.24	27.39	25.37	24.30	23.28
DIPL	32.56	30.79	29.91	27.98	27.23	25.42	24.45	23.54
INVL	31.99	30.09	29.13	27.04	26.23	24.25	23.22	22.22
L	1.61	1.55	1.52	1.46	1.44	1.39	1.37	1.35
DIP	51.93	50.00	49.00	46.73	45.82	43.54	42.29	41.06
FHS	0.77	0.75	0.74	0.72	0.72	0.70	0.69	0.69
KP	00	00	00	00	00	00	00	00
QUAL	23	32	13	13	23	21	12	12
SNL	1	1	1	1	1	1	1	1

PASS 680 AT SPOINT, 621118

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	20615 154518	20623 154555	20641 154641	20735 154858	20753 154942	20812 155028	20830 155112	20848 155155
HEIGHT								
SAT.	0.117	0.134	0.138	0.156	0.169	0.182	0.196	0.197
1000	0.12	0.137	0.141	0.158	0.171	0.184	0.198	0.199
950	0.133	0.152	0.156	0.172	0.189	0.203	0.216	0.221
90	0.145	0.166	0.170	0.186	0.204	0.221	0.233	0.239
850	0.159	0.183	0.187	0.204	0.222	0.243	0.256	0.265
80	0.178	0.205	0.209	0.228	0.250	0.273	0.290	0.301
75	0.20[illegible]	0.235	0.237	0.260	0.287	0.307	0.335	0.352
70	0.239	0.274	0.277	0.303	0.336	0.363	0.393	0.420
65	0.288	0.334	0.334	0.356	0.394	0.433	0.464	0.503
60	0.347	0.411	0.404	0.431	0.476	0.578	0.658	0.686
55	0.453	0.549	0.528	0.590	0.712	0.793	0.974	0.973
500	0.611	0.769	0.722	0.861	1.020	1.182	1.508	1.541
45	0.838	1.117	1.000	1.293	1.509	1.923	2.544	2.670
40	1.154	1.691	1.476	2.055		3.447	4.552	5.274
350	1.715	2.7[illegible]6	2.324					9.829
30	2.799	4.978	4.243					
25								
200								
N	0.396	0.567	0.511	0.299	0.247	0.417	0.512	0.923
HEIGHT	SCALE HEIGHT, KM							
95	606.3	567.5	586.7	652.7	669.6	604.7	674.9	640.8
90	528.5	530.6	536.9	572.7	598.5	551.5	574.3	531.1
85	469.5	472.	469.7	491.3	505.1	485.4	479.2	447.1
80	414.6	403.2	419.2	428.[illegible]	423.1	421.5	391.9	369.9
75	362.3	348.3	368.7	366.6	344.5	359.7	327.6	318.8
70	321.4	295.1	323.0	327.3	306.7	301.6	282.3	276.0
65	282.5	256.6	280.6	287.9	268.9	243.6	237.1	233.3
60	243.7	218.1	238.3	227.6	215.7	196.7	180.6	179.3
55	189.1	162.5	204.2	147.7	130.6	152.9	127.8	129.6
50	167.6	148.7	175.3	133.0	133.1	114.8	105.5	101.0
450	160.3	131.5	144.5	116.9	110.3	96.1	90.9	85.9
40	143.3	115.7	120.0	94.2		77.4	82.8	73.9
35	115.4	98.7	100.7					90.3
30	95.9	72.4	70.0					
HS	1004.42	1004.12	1003.82	1003.03	1002.79	1002.58	1002.40	1002.22
LONG	-155.24	-155.12	-155.00	-154.65	-154.54	-154.43	-154.32	-154.22
LAT	22.27	21.25	20.23	17.18	16.16	15.08	14.06	13.05
DIPL	22.61	21.69	20.75	17.91	16.95	15.94	14.98	14.01
INVL	21.20	20.19	19.17	16.00	14.90	13.74	12.60	11.44
L	1.33	1.31	1.30	1.25	1.24	1.23	1.22	1.20
DIP	39.80	38.50	37.15	32.88	31.37	29.74	28.15	26.52
FHS	0.68	0.67	0.66	0.65	0.64	0.63	0.63	0.62
KP	00	00	00	00	00	00	00	00
QUAL	13	23	33	13	23	23	23	13
SNL	1	1	1	1	1	1	1	1

PASS 680 AT SPOINT, 621118

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	20906 155238	20924 155320	20942 155403	21000 155445	21018 155527	21036 155609	21054 155650	21113 155734
HEIGHT								
SAT.	0.211	0.229	0.240	0.262	0.267	0.260	0.268	0.279
100	0.213	0.230	0.241	0.264	0.269	0.262	0.270	0.281
95	0.239	0.256	0.268	0.290	0.298	0.295	0.308	0.315
90	0.260	0.281	0.293	0.314	0.330	0.331	0.348	0.359
85	0.287	0.311	0.325	0.346	0.371	0.378	0.401	0.415
800	0.329	0.353	0.374	0.386	0.421	0.443	0.480	0.509
75	0.384	0.428	0.466	0.480	0.514	0.570	0.664	0.696
70	0.463	0.529	0.594	0.637	0.687	0.763	0.940	0.987
650	0.587	0.696	0.775	0.849	0.981	1.128	1.381	1.441
60	0.813	0.949	1.110	1.298	1.556	1.815	2.103	2.125
55	1.229	1.535	1.901	2.255	2.585	2.856	3.136	3.169
50	2.116	2.789	3.503	3.861	4.128	4.346	4.689	4.675
45	4.059			5.876	6.201	6.407	6.731	6.711
40	7.395			8.398	8.883	9.637	9.567	9.555
35								
30								
25								
20								
NT	0.729	0.342	0.399	1.046	1.132	1.214	1.305	1.316
HEIGHT	SCALE HEIGHT, KM							
95	562.0	535.2	550.6	614.7	537.6	459.5	427.9	426.0
90	516.9	480.1	480.6	537.3	442.2	386.1	364.4	349.0
85	441.3	419.2	408.8	461.0	389.1	335.7	304.8	293.8
80	365.5	356.1	335.5	384.6	336.0	280.7	244.7	232.5
75	297.1	285.4	259.5	253.3	256.7	208.0	182.8	160.2
70	246.2	217.8	200.3	171.1	161.8	155.0	141.5	142.4
65	196.8	182.9	171.5	150.7	125.5	114.8	124.5	131.5
60	150.2	139.7	113.9	107.1	105.2	107.0	124.0	129.4
55	106.4	95.0	84.3	85.9	98.2	115.5	122.4	123.6
50	82.5	79.9	89.2	104.7	119.4	122.7	131.9	137.0
45	77.5			129.9	132.0	125.2	141.5	137.8
40	92.2			144.3	134.2	133.7	144.3	146.0
35								
30								
HS	1002.05	1001.90	1001.75	1001.60	1001.54	1001.48	1001.42	1001.38
LONG	-154.12	-154.01	-153.91	-153.81	-153.71	-153.61	-153.51	-153.41
LAT	12.03	11.01	9.99	8.97	7.95	6.93	5.91	4.83
DIPL	13.04	12.06	11.07	10.09	9.09	8.10	7.10	6.05
INVL	10.20	8.93	7.55	6.03	4.19	0.73	0.00	0.00
L	1.19	1.19	1.18	1.17	1.16	1.16	1.15	1.15
DIP	24.85	23.13	21.37	19.58	17.75	15.89	14.00	11.96
FHS	0.62	0.61	0.61	0.61	0.60	0.60	0.60	0.60
KP	00	00	00	00	00	00	00	00
QUAL	13	13	13	33	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 680 AT SPOINT, 621118

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	21131 155815	21149 155856	21207 155937	21229 160026	21243 160057	21301 160138	21319 160219	21337 160300
HEIGHT								
SAT.	0.276	0.299	0.295	0.299	0.303	0.299	0.298	0.294
100	0.278	0.300	0.297	0.301	0.305	0.300	0.300	0.296
95	0.317	0.334	0.339	0.344	0.347	0.339	0.344	0.342
900	0.366	0.393	0.399	0.406	0.421	0.408	0.414	0.407
85	0.427	0.475	0.479	0.493	0.527	0.504	0.519	0.501
80	0.551	0.584	0.603	0.643	0.658	0.628	0.658	0.648
75	0.750	0.813	0.845	0.923	0.927	0.913	0.923	0.922
70	1.069	1.163	1.174	1.263	1.293	1.287	1.344	1.319
65	1.535	1.622	1.610	1.709	1.742	1.754	1.870	1.861
60	2.216	2.282	2.243	2.399	2.453	2.499	2.669	2.666
550	3.284	3.326	3.240	3.514	3.591	3.677	3.941	3.984
50	4.726	4.760	4.706	5.015	5.188	5.377	5.780	5.903
45	6.671	6.736	6.634	7.068	7.307	7.530	8.186	8.382
40	9.416	9.377	9.281	9.723	10.021	10.291	11.133	11.301
35								
30								
25								
20								
N	1.338	1.366	1.353	1.439	1.481	1.511	1.616	1.637
HEIGHT	SCALE HEIGHT, KM							
95	389.2	377.2	371.7	344.6	358.3	367.2	336.2	334.6
90	322.0	300.2	290.6	275.8	278.9	258.7	258.5	268.2
85	261.4	251.0	246.2	228.8	225.6	225.0	215.4	222.1
800	207.0	206.6	197.4	183.1	190.1	191.4	187.1	175.7
75	158.6	145.5	151.7	151.7	148.6	146.7	152.0	142.7
70	143.1	145.6	156.0	162.0	158.7	154.9	144.1	143.9
65	140.1	148.7	157.7	159.0	159.4	156.5	145.9	144.7
60	131.8	138.5	143.7	138.6	139.2	133.1	136.3	131.2
55	129.3	135.4	133.4	135.8	132.1	133.3	129.2	126.3
50	143.2	143.2	139.3	141.9	140.7	137.6	134.5	132.6
45	146.5	147.7	147.2	152.1	151.6	154.3	151.5	152.9
40	146.1	150.1	151.3	171.3	177.0	185.9	214.5	195.8
35								
30								
HS	1001.35	1001.32	1001.31	1001.35	1001.37	1001.41	1001.53	1001.65
LONG	-153.31	-153.22	-153.12	-153.01	-152.94	-152.84	-152.75	-152.65
LAT	3.81	2.79	1.77	0.53	-0.26	-1.28	-2.30	-3.32
DIPL	5.05	4.04	3.03	1.80	1.01	0.00	-1.01	-2.03
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
DIP	10.01	8.04	6.05	3.60	2.03	0.01	-2.03	-4.06
FHS	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
KP	00	00	00	00	00	00	00	00
QUAL	13	33	13	13	13	13	13	23
SNL	1	1	1	1	1	1	1	1

PASS 680 AT SPOINT, 621118

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	21355 160341	21414 160425	21432 160507	21450 160548	21508 160630	21526 160712	21544 160754	21602 160836
HEIGHT								
SAT.	0.297	0.292	0.291	0.294	0.305	0.296	0.299	0.295
100	0.299	0.294	0.294	0.297	0.308	0.300	0.304	0.298
95	0.342	0.334	0.334	0.334	0.343	0.329	0.338	0.331
90	0.391	0.393	0.386	0.386	0.388	0.378	0.387	0.371
85	0.467	0.477	0.459	0.457	0.443	0.436	0.444	0.421
80	0.617	0.600	0.552	0.548	0.565	0.512	0.515	0.496
750	0.846	0.858	0.806	0.775	0.762	0.658	0.682	0.679
70	1.261	1.253	1.188	1.133	1.064	0.891	0.928	0.931
65	1.845	1.905	1.852	1.800	1.634	1.349	1.319	1.264
60	2.632	2.763	2.814	2.869	2.627	2.248	2.192	1.947
550	3.860	4.170	4.173	4.336	4.126	3.743	3.715	3.302
50	5.824	6.224	6.239	6.463	6.173	5.868	6.033	5.635
45	8.363	8.851	9.024	9.347	9.028	8.719	9.021	9.052
40	11.262							
35								
30								
25								
20								
N	1.611	1.178	1.173	1.196	1.143	1.046	1.061	1.003
HEIGHT	SCALE HEIGHT, KM							
95	386.5	359.1	391.1	396.2	490.4	531.9	544.7	504.4
90	320.9	296.7	309.6	320.8	372.4	365.7	375.9	401.0
85	251.0	242.7	262.3	270.6	294.5	319.6	321.8	333.5
80	172.9	187.8	215.1	221.1	228.9	269.3	267.7	268.1
75	144.5	136.6	143.0	155.6	166.7	189.8	212.8	211.9
70	124.6	126.3	122.5	121.2	139.3	146.2	160.7	165.6
65	137.7	128.5	114.1	106.4	109.4	109.9	123.3	142.3
60	138.4	132.3	128.0	114.5	107.4	96.2	92.7	104.6
55	124.6	124.0	122.2	123.0	120.1	104.6	95.8	89.9
50	128.8	128.2	128.9	129.9	125.3	119.0	114.0	99.1
45	147.8	152.0	146.7	146.6	143.6	135.9	135.8	118.2
40	212.4							
35								
30								
HS	1001.77	1001.92	1002.07	1002.22	1002.41	1002.65	1002.89	1003.03
LONG	-152.56	-152.45	-152.35	-152.25	-152.16	-152.06	-151.96	-151.86
LAT	-4.34	-5.41	-6.43	-7.45	-8.34	-9.06	-9.78	-10.55
DIPL	-3.05	-4.13	-5.15	-6.18	-7.07	-7.79	-8.51	-9.29
INVL	0.00	0.00	0.00	0.00	0.00	1.02	3.65	5.23
L	1.14	1.14	1.15	1.15	1.15	1.16	1.16	1.17
DIP	-6.09	-8.22	-10.23	-12.22	-13.93	-15.30	-16.66	-18.11
FHS	0.60	0.61	0.61	0.62	0.62	0.62	0.63	0.63
KP	00	00	00	00	00	00	00	00
QUAL	13	13	13	13	23	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 694 AT SPOINT, 621119

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	24058 153000	24116 153054	24134 153147	24152 153241	24210 153332	24228 153422	24246 153511	24304 153600
HEIGHT								
SAT.	0.091	0.114	0.106	0.107	0.116	0.117	0.126	0.130
1000	0.093	0.117	0.109	0.110	0.118	0.118	0.128	0.131
950	0.102	0.124	0.119	0.120	0.127	0.126	0.137	0.143
900	0.109	0.130	0.124	0.127	0.136	0.136	0.146	0.154
850	0.118	0.139	0.131	0.136	0.148	0.148	0.159	0.168
800	0.130	0.156	0.149	0.154	0.163	0.163	0.176	0.186
750	0.143	0.180	0.171	0.180	0.181	0.183	0.198	0.210
700	0.159	0.208	0.190	0.208	0.202	0.210	0.226	0.241
650	0.188	0.238	0.221	0.239	0.247	0.251	0.265	0.283
600	0.232	0.287	0.265	0.273	0.310	0.302	0.312	0.333
550	0.289	0.362	0.332	0.341	0.393	0.379	0.396	0.426
500	0.377	0.473	0.440	0.475	0.528	0.502	0.525	0.583
450	0.502	0.639	0.603	0.648	0.753	0.702	0.719	0.824
400	0.700	0.890	0.841	0.891	1.088	0.992	1.007	1.201
350	1.012	1.315	1.254	1.360	1.606	1.472	1.500	1.989
300	1.649	2.195	2.113	2.453	2.663	2.450	2.497	3.815
250	3.115	4.313	4.154	4.779	4.912	4.918	5.054	8.732
200						8.698	11.180	
NT	0.366	0.478	0.454	0.502	0.553	0.867	0.949	0.749
HEIGHT	SCALE HEIGHT, KM							
950	675.7	1425.3	1097.8	979.9	788.0	714.6	826.4	646.2
900	665.4	804.1	929.1	760.0	654.7	631.5	657.6	603.1
850	552.5	563.4	712.9	573.9	541.2	545.2	542.1	522.9
800	500.8	483.8	474.9	478.7	472.7	467.5	467.5	457.7
750	449.0	404.2	393.6	383.4	415.3	396.7	414.4	398.0
700	397.3	351.4	383.5	339.1	357.9	338.9	362.2	348.1
650	337.7	314.2	321.2	313.2	304.4	299.8	315.1	307.9
600	273.5	256.4	254.9	287.3	251.6	260.8	267.9	267.7
550	215.8	204.9	202.1	228.5	201.1	215.9	212.1	199.6
500	189.6	177.9	165.2	153.8	164.6	165.0	170.0	154.2
450	166.9	159.9	155.3	154.7	142.0	153.5	160.2	139.7
400	150.5	141.2	139.7	141.4	132.9	138.4	139.2	118.0
350	119.9	117.8	112.6	102.0	117.3	113.1	116.4	87.2
300	93.4	79.5	81.8	75.7	83.9	84.3	86.2	68.0
HS	1006.84	1006.45	1006.06	1005.67	1005.32	1004.99	1004.66	1004.33
LONG	-167.74	-167.59	-167.44	-167.30	-167.16	-167.02	-166.89	-166.76
LAT	30.68	29.67	28.65	27.64	26.62	25.61	24.59	23.57
DIPL	28.09	27.21	26.33	25.45	24.56	23.66	22.76	21.86
INVL	27.18	26.20	25.21	24.24	23.27	22.25	21.24	20.24
L	1.46	1.44	1.41	1.39	1.37	1.35	1.33	1.32
DIP	46.86	45.80	44.70	43.58	42.42	41.23	40.00	38.74
FHS	0.72	0.71	0.70	0.70	0.69	0.68	0.68	0.67
KP	00	00	00	00	00	00	00	00
QUAL	12	11	23	11	23	22	11	12
SNL	1	1	1	1	1	1	1	1

PASS 694 AT SPOINT, 621119

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	24322	24341	24427	24454	24514	24528	24550	24608
LT	153648	153738	153937	154047	154136	154210	154304	154347
HEIGHT								
SAT.	0.147	0.151	0.193	0.208	0.229	0.233	0.286	0.302
1000	0.150	0.153	0.195	0.210	0.231	0.235	0.288	0.304
950	0.163	0.165	0.214	0.229	0.259	0.261	0.314	0.340
900	0.173	0.178	0.236	0.251	0.287	0.293	0.360	0.389
850	0.190	0.194	0.261	0.279	0.327	0.333	0.410	0.450
800	0.218	0.215	0.294	0.317	0.382	0.382	0.469	0.531
750	0.253	0.240	0.339	0.372	0.457	0.472	0.550	0.628
700	0.287	0.274	0.405	0.441	0.556	0.591	0.670	0.741
650	0.323	0.328	0.498	0.586	0.710	0.739	0.831	0.943
600	0.396	0.400	0.656	0.792	0.952	0.959	1.067	1.266
550	0.533	0.529	0.924	1.111	1.363	1.367	1.534	1.909
500	0.722	0.766	1.415	1.708	2.168	2.147	2.435	3.113
450	1.037	1.170	2.375	2.826	3.786	3.725	4.142	5.317
400	1.625	1.876	4.063	5.035	6.681	6.507	7.031	8.332
350		3.376	7.167	8.809	11.207			12.478
300		6.538						
250								
200								
NT	0.259	0.653	0.768	0.923	1.182	0.732	0.822	1.518
HEIGHT	SCALE HEIGHT, KM							
950	922.2	709.1	539.4	574.6	489.5	454.9	596.1	419.7
900	696.9	621.5	492.7	503.0	413.2	396.6	397.7	357.5
850	540.3	515.0	445.0	429.1	360.1	356.4	364.9	327.0
800	445.8	454.4	384.4	344.0	318.0	316.2	335.5	307.7
750	373.2	403.6	327.2	292.5	275.8	256.7	301.1	282.1
700	344.1	349.3	274.9	240.9	233.6	219.2	260.3	253.6
650	315.1	290.6	223.9	207.3	195.0	206.4	219.0	206.1
600	246.7	228.9	177.5	174.9	160.4	173.4	175.2	147.8
550	165.8	160.2	136.0	133.3	127.5	127.8	124.7	110.9
500	154.9	126.5	106.4	108.4	97.6	102.4	99.9	97.3
450	124.0	113.6	92.9	91.1	85.7	84.4	91.9	100.6
400	103.3	96.8	92.2	88.8	92.5	95.0	101.1	122.7
350		79.3	84.8	85.0	109.7			165.9
300		73.4						
HS	1004.03	1003.72	1003.04	1002.68	1002.44	1002.27	1002.02	1001.83
LONG	-166.64	-166.51	-166.20	-166.03	-165.91	-165.82	-165.69	-165.58
LAT	22.56	21.49	18.89	17.36	16.23	15.44	14.19	13.18
DIPL	20.95	19.99	17.63	16.22	15.17	14.43	13.26	12.30
INVL	19.22	18.11	15.39	13.74	12.44	11.53	10.01	8.68
L	1.30	1.28	1.25	1.23	1.21	1.21	1.19	1.18
DIP	37.45	36.04	32.43	30.19	28.47	27.23	25.24	23.56
FHS	0.66	0.66	0.64	0.63	0.63	0.62	0.62	0.62
KP	00	00	00	00	00	00	00	00
QUAL	13	23	13	13	13	13	23	23
SNL	1	1	1	1	1	1	1	1

PASS 694 AT SPOINT, 621119

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	24626 154430	24644 154512	24703 154557	24721 154639	24739 154720	24758 154804	24816 154846	24834 154927
HEIGHT								
SAT.	0.319	0.328	0.371	0.389	0.412	0.426	0.436	0.445
1000	0.321	0.329	0.372	0.391	0.413	0.428	0.438	0.447
950	0.362	0.382	0.424	0.442	0.461	0.470	0.486	0.495
900	0.419	0.441	0.480	0.498	0.512	0.521	0.539	0.550
850	0.463	0.503	0.542	0.559	0.576	0.590	0.615	0.629
800	0.554	0.575	0.620	0.632	0.661	0.685	0.722	0.742
750	0.641	0.665	0.719	0.751	0.787	0.816	0.879	0.901
700	0.771	0.800	0.877	0.925	0.960	1.021	1.104	1.116
650	0.951	1.002	1.131	1.216	1.266	1.352	1.478	1.502
600	1.279	1.376	1.600	1.730	1.801	1.941	2.127	2.173
550	1.923	2.098	2.486	2.704	2.754	2.988	3.243	3.287
500	3.214	3.463	4.050	4.285	4.343	4.572	4.919	4.933
450	5.318	5.725	6.337	6.450	6.435	6.799	7.206	7.259
400	8.215	8.473	9.093	9.052	9.044	9.647	10.202	10.311
350	11.625	11.836	12.220				13.634	13.563
300								
250								
200								
NT	1.505	1.579	1.733	1.246	1.264	1.340	2.028	2.045
HEIGHT	SCALE HEIGHT, KM							
950	380.6	343.8	396.2	417.6	472.7	506.4	492.9	498.2
900	360.6	364.4	407.3	422.0	439.1	436.3	416.1	412.1
850	356.0	371.4	380.2	387.4	381.6	361.8	353.3	348.6
800	342.1	349.1	341.1	345.0	327.1	316.8	298.3	294.4
750	302.3	301.1	298.1	286.8	281.3	267.7	250.1	249.1
700	259.5	256.3	241.0	222.7	230.3	208.8	207.2	206.0
650	215.8	201.6	176.2	163.9	163.9	164.3	160.1	161.8
600	148.1	142.2	132.8	130.1	131.4	124.8	126.0	126.2
550	109.1	104.7	106.5	108.4	112.9	115.8	117.9	122.0
500	94.5	99.4	103.4	113.1	117.1	121.4	124.5	125.0
450	106.5	110.4	124.8	138.2	134.7	134.1	137.9	134.7
400	125.6	134.4	148.3	158.6	155.3	151.6	158.8	158.0
350	162.6	163.2	205.5				209.2	193.7
300								
HS	1001.68	1001.53	1001.39	1001.33	1001.27	1001.21	1001.17	1001.14
LONG	-165.48	-165.38	-165.27	-165.17	-165.08	-164.97	-164.87	-164.78
LAT	12.16	11.14	10.06	9.04	8.02	6.94	5.92	4.90
DIPL	11.33	10.36	9.32	8.34	7.35	6.31	5.31	4.31
INVL	7.24	5.57	3.31	0.00	0.00	0.00	0.00	0.00
L	1.18	1.17	1.16	1.15	1.15	1.14	1.14	1.14
DIP	21.84	20.08	18.18	16.34	14.47	12.46	10.53	8.57
FHS	0.61	0.61	0.61	0.60	0.60	0.60	0.60	0.60
KP	00	00	00	00	00	00	00	00
QUAL	13	12	13	13	13	13	12	12
SNL	1	1	1	1	1	1	1	1

PASS 694 AT SPOINT, 621119

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	24858 155021	24910 155049	24928 155130	24945 155209	25004 155252	25022 155332	25041 155415	25059 155455
HEIGHT								
SAT.	0.460	0.460	0.469	0.469	0.463	0.477	0.466	0.470
1000	0.461	0.461	0.470	0.470	0.465	0.478	0.468	0.472
950	0.567	0.508	0.512	0.518	0.517	0.526	0.528	0.532
900	0.567	0.566	0.570	0.576	0.572	0.586	0.592	0.596
850	0.640	0.638	0.644	0.651	0.660	0.659	0.671	0.682
800	0.729	0.745	0.735	0.774	0.784	0.787	0.796	0.810
750	0.896	0.910	0.910	0.945	0.950	0.967	0.972	0.985
700	1.144	1.145	1.219	1.182	1.197	1.221	1.251	1.240
650	1.523	1.512	1.604	1.601	1.625	1.658	1.684	1.682
600	2.226	2.184	2.217	2.270	2.335	2.403	2.455	2.444
550	3.371	3.248	3.186	3.329	3.491	3.588	3.652	3.668
500	5.035	4.844	4.544	4.888	5.124	5.254	5.351	5.410
450	7.290	7.162	6.553		7.439	7.545	7.686	7.817
400	10.172	10.294	9.216		10.524	10.563	10.763	10.886
350								
300								
250								
200								
NT	1.462	1.442	1.377	0.726	1.509	1.536	1.563	1.577
HEIGHT	SCALE HEIGHT, KM							
950	511.1	500.2	508.4	497.6	515.0	495.5	426.6	425.7
900	422.4	423.3	422.0	422.0	402.7	424.3	391.0	387.7
850	374.5	369.7	372.9	356.8	336.6	351.3	341.3	333.6
800	326.7	311.3	323.7	295.0	281.6	287.7	290.9	289.5
750	260.0	248.7	253.8	241.0	245.4	232.4	240.2	243.7
700	195.6	205.8	178.3	198.6	200.6	196.1	196.0	194.4
650	155.8	160.8	170.8	157.9	152.9	151.8	154.4	151.8
600	124.0	128.0	147.1	134.2	130.6	128.9	129.4	126.8
550	122.2	126.1	137.2	132.1	127.0	128.8	128.0	125.1
500	128.9	130.9	139.7	126.2	129.7	133.5	132.5	131.7
450	143.7	124.8	140.0		141.2	147.8	147.2	142.3
400	164.3	159.5	149.7		157.0	159.5	167.0	167.1
350								
300								
HS	1001.10	1001.12	1001.15	1001.17	1001.22	1001.31	1001.40	1001.49
LONG	-164.65	-164.59	-164.49	-164.40	-164.30	-164.21	-164.11	-164.02
LAT	3.54	2.86	1.84	0.88	-0.20	-1.21	-2.29	-3.30
DIPL	2.97	2.30	1.29	0.33	-0.74	-1.75	-2.83	-3.85
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.14
DIP	5.93	4.59	2.58	0.67	-1.48	-3.51	-5.65	-7.67
FHS	0.60	0.60	0.60	0.60	0.61	0.61	0.61	0.62
KP	00	00	00	00	00	00	00	00
QUAL	13	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 694 AT SPOINT, 621119

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	25117 155537	25135 155618	25153 155700	25211 155742	25229 155824	25247 155905	25305 155947	25323 160030
HEIGHT								
SAT.	0.474	0.463	0.456	0.436	0.415	0.386	0.363	0.327
1000	0.476	0.466	0.460	0.439	0.419	0.390	0.366	0.330
950	0.542	0.537	0.538	0.521	0.500	0.464	0.431	0.388
900	0.618	0.614	0.632	0.623	0.608	0.569	0.523	0.471
850	0.714	0.707	0.742	0.745	0.747	0.707	0.644	0.583
800	0.851	0.834	0.878	0.892	0.908	0.878	0.811	0.725
750	1.011	1.018	1.069	1.088	1.127	1.091	1.059	0.939
700	1.298	1.284	1.351	1.378	1.443	1.419	1.402	1.288
650	1.747	1.716	1.805	1.813	1.896	1.896	1.907	1.813
600	2.524	2.441	2.578	2.562	2.651	2.653	2.654	2.649
550	3.816	3.649	3.855	3.802	3.920	3.949	3.984	4.001
500	5.729	5.562	5.885	5.816	5.890	6.004	6.003	6.190
450	8.387	8.183	8.797	8.775	8.894	9.054	8.861	9.402
400	11.566	11.440	12.321					
350								
300								
250								
200								
NT	1.663	1.625	1.726	1.192	1.217	1.218	1.202	1.196
HEIGHT	SCALE HEIGHT, KM							
950	379.7	373.8	313.5	284.0	263.4	259.5	272.3	277.9
900	355.1	353.9	313.0	284.3	257.7	243.5	250.5	248.2
850	323.9	327.5	299.0	276.1	252.7	232.5	229.0	227.5
800	291.3	275.0	268.6	258.6	242.9	223.8	206.3	211.7
750	244.2	240.3	238.8	234.0	216.5	212.7	184.6	185.4
700	187.7	199.4	204.1	204.5	193.3	188.1	170.9	153.9
650	156.5	158.8	162.5	164.4	174.0	163.5	157.1	141.2
600	130.1	134.8	132.4	137.0	139.7	138.0	140.0	129.6
550	119.2	120.3	122.3	119.1	124.3	121.3	119.4	115.2
500	126.2	122.6	120.0	117.3	122.5	119.9	125.8	111.8
450	140.6	137.2	131.5	126.7	124.2	127.3	128.5	128.8
400	173.9	165.9	166.0					
350								
300								
HS	1001.67	1001.85	1002.03	1002.23	1002.44	1002.65	1002.87	1003.14
LONG	-163.92	-163.82	-163.72	-163.62	-163.52	-163.42	-163.32	-163.22
LAT	-4.32	-5.34	-6.36	-7.38	-8.40	-9.42	-10.44	-11.46
DIPL	-4.88	-5.91	-6.94	-7.97	-9.01	-10.05	-11.09	-12.13
INVL	0.00	0.00	0.00	0.00	3.31	5.63	7.37	8.92
L	1.14	1.14	1.15	1.15	1.16	1.17	1.18	1.19
DIP	-9.69	-11.69	-13.68	-15.65	-17.59	-19.51	-21.40	-23.26
FHS	0.62	0.62	0.63	0.64	0.64	0.65	0.66	0.66
KP	00	00	00	00	00	00	00	00
QUAL	13	12	13	13	13	23	13	23
SNL	1	1	1	1	1	1	1	1

PASS 707 AT SPOINT, 621120

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	12829 150629	12848 150755	12905 150910	12924 151027	12942 151140	13000 151252	13018 151359	13036 151506
HEIGHT								
SAT.	0.071	0.068	0.071	0.070	0.072	0.073	0.077	0.078
1000	0.074	0.071	0.073	0.074	0.074	0.075	0.080	0.082
950	0.084	0.080	0.083	0.084	0.084	0.084	0.089	0.091
900	0.096	0.091	0.095	0.095	0.094	0.094	0.100	0.101
850	0.110	0.104	0.108	0.108	0.107	0.107	0.113	0.113
800	0.127	0.120	0.123	0.123	0.122	0.124	0.131	0.130
750	0.148	0.141	0.142	0.142	0.142	0.145	0.151	0.152
700	0.175	0.168	0.168	0.164	0.165	0.171	0.178	0.181
650	0.211	0.200	0.200	0.198	0.201	0.204	0.216	0.216
600	0.256	0.244	0.246	0.240	0.250	0.253	0.264	0.268
550	0.325	0.310	0.310	0.305	0.312	0.327	0.345	0.340
500	0.412	0.404	0.394	0.402	0.411	0.428	0.460	0.444
450	0.553	0.548	0.534	0.555	0.575	0.603	0.636	0.597
400	0.757	0.751	0.737	0.769	0.835	0.858	0.888	0.826
350	1.094	1.091	1.087	1.173	1.320	1.307	1.316	1.194
300	1.775	1.773		2.035	2.291	2.249	2.181	1.960
250	3.191			4.481		4.171	3.770	
200								
NT	0.368	0.259	0.186	0.433	0.290	0.454	0.450	0.284
HEIGHT	SCALE HEIGHT, KM							
950	376.3	409.1	387.7	392.7	437.6	434.1	454.3	495.9
900	364.0	379.1	377.6	392.0	411.0	392.4	414.9	440.1
850	353.9	351.5	364.6	376.9	382.7	361.4	379.0	392.2
800	333.9	328.2	346.1	356.1	352.4	343.2	345.7	357.7
750	313.8	305.4	326.4	332.6	318.9	325.0	316.1	323.2
700	291.2	285.5	297.4	308.1	284.7	296.9	286.0	289.2
650	264.9	265.5	268.4	275.8	260.1	257.1	255.1	255.4
600	238.9	240.5	242.0	243.5	238.0	224.2	224.2	231.0
550	216.8	208.3	217.8	201.9	213.9	198.6	192.9	208.9
500	194.7	183.2	193.7	170.3	168.9	174.2	168.4	184.3
450	173.5	169.9	170.8	159.3	147.7	155.8	159.7	161.0
400	150.9	151.5	146.0	144.3	126.4	132.2	142.3	150.2
350	121.8	119.3	116.0	106.9	101.5	110.7	115.3	117.4
300	91.0	96.1		76.9	80.1	80.9	91.1	89.0
HS	1012.57	1012.10	1011.67	1011.16	1010.68	1010.20	1009.78	1009.36
LONG	-155.50	-155.22	-154.98	-154.74	-154.51	-154.28	-154.08	-153.87
LAT	45.19	44.14	43.19	42.13	41.13	40.13	39.12	38.12
DIPL	43.57	42.64	41.80	40.87	39.98	39.10	38.22	37.34
INVL	43.68	42.71	41.82	40.83	39.90	38.97	38.03	37.09
L	2.22	2.15	2.09	2.02	1.97	1.92	1.87	1.82
DIP	62.28	61.50	60.79	59.98	59.20	58.40	57.59	56.76
FHS	0.88	0.87	0.86	0.85	0.84	0.83	0.82	0.82
KP	0+	0+	0+	0+	0+	0+	0+	0+
QUAL	11	13	13	32	33	22	12	13
SNL	1	1	1	1	1	1	1	1

PASS 707 AT SPOINT, 621120

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	13054 151613	13112 151716	13130 151816	13149 151920	13206 152016	13224 152112	13243 152211	13301 152307
HEIGHT								
SAT.	0.086	0.085	0.082	0.088	0.096	0.096	0.097	0.101
1000	0.088	0.088	0.086	0.091	0.100	0.099	0.100	0.103
950	0.099	0.099	0.096	0.100	0.110	0.110	0.108	0.113
900	0.120	0.109	0.106	0.110	0.120	0.121	0.118	0.122
850	0.123	0.123	0.118	0.123	0.133	0.134	0.131	0.137
800	0.140	0.140	0.135	0.141	0.149	0.150	0.149	0.158
750	0.161	0.161	0.157	0.162	0.170	0.171	0.171	0.185
700	0.190	0.186	0.183	0.188	0.196	0.195	0.201	0.217
650	0.226	0.214	0.213	0.218	0.231	0.238	0.241	0.255
600	0.278	0.267	0.263	0.270	0.283	0.296	0.288	0.298
550	0.344	0.341	0.342	0.340	0.348	0.372	0.373	0.385
500	0.440	0.445	0.447	0.445	0.462	0.498	0.511	0.522
450	0.614	0.587	0.601	0.603	0.656	0.707	0.726	0.728
400	0.848	0.847	0.811	0.848	0.943	1.021	1.056	1.091
350	1.252	1.294	1.211	1.270	1.469	1.581	1.652	1.729
300		2.222	1.965	2.190	2.635	2.906	3.039	3.127
250		3.957	3.930	4.726	5.496		6.592	6.759
200								
NT	0.212	0.453	0.433	0.471	0.535	0.355	0.606	0.625
HEIGHT	SCALE HEIGHT, KM							
950	454.4	489.9	520.6	530.8	577.0	581.4	587.9	654.6
900	438.0	456.7	468.5	471.7	524.3	521.1	509.0	508.6
850	406.3	408.5	410.9	421.5	470.2	455.4	443.0	431.6
800	368.0	369.0	364.8	383.4	414.5	399.7	393.6	377.3
750	331.6	339.4	329.4	347.9	367.2	357.0	344.3	327.6
700	301.0	314.3	303.6	316.3	324.3	314.3	308.8	305.8
650	270.4	289.2	277.8	284.6	285.4	279.1	278.0	283.9
600	243.5	253.3	246.5	250.0	254.0	244.5	247.2	262.1
550	217.4	214.5	210.3	214.9	222.7	205.3	196.1	207.3
500	192.6	184.7	181.1	185.6	153.5	156.9	152.0	156.8
450	171.3	162.4	169.6	162.4	145.9	143.6	143.0	141.3
400	148.4	136.3	152.0	139.4	129.9	127.9	125.6	115.8
350	111.8	107.9	115.5	113.3	101.2	102.4	99.5	101.0
300		87.0	91.1	78.0	72.5	73.5	74.0	74.0
HS	1008.94	1008.50	1008.05	1007.57	1007.17	1006.78	1006.37	1005.98
LONG	-153.67	-153.48	-153.30	-153.12	-152.96	-152.80	-152.63	-152.47
LAT	37.11	36.11	35.09	34.03	33.07	32.06	30.99	29.98
DIPL	36.46	35.57	34.69	33.75	32.91	32.01	31.07	30.17
INVL	36.15	35.21	34.25	33.25	32.35	31.39	30.38	29.42
L	1.78	1.73	1.70	1.66	1.62	1.59	1.56	1.53
DIP	55.91	55.04	54.15	53.19	52.31	51.35	50.31	49.30
FHS	0.81	0.80	0.79	0.78	0.77	0.76	0.76	0.75
KP	0+	0+	0+	0+	0+	0+	0+	0+
QUAL	13	32	31	11	11	13	23	33
SNL	1	1	1	1	1	1	1	1

PASS 707 AT SPOINT, 621120

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	13319	13337	13355	13413	13431	13449	13507	13526
LT	152401	152454	152547	152616	152637	152657	152739	152859
HEIGHT								
SAT.	0.122	0.127	0.123	0.124	0.131	0.130	0.137	0.143
1000	0.125	0.129	0.126	0.126	0.133	0.131	0.139	0.145
950	0.135	0.141	0.142	0.138	0.148	0.148	0.154	0.159
900	0.146	0.150	0.151	0.151	0.161	0.160	0.166	0.173
850	0.158	0.162	0.164	0.167	0.178	0.177	0.183	0.191
800	0.180	0.190	0.187	0.188	0.201	0.201	0.209	0.217
750	0.211	0.227	0.214	0.215	0.230	0.231	0.242	0.251
700	0.248	0.262	0.244	0.251	0.268	0.266	0.284	0.296
650	0.294	0.299	0.278	0.302	0.323	0.329	0.335	0.354
600	0.347	0.337	0.315	0.374	0.407	0.424	0.420	0.424
550	0.450	0.451	0.445	0.494	0.532	0.564	0.560	0.571
500	0.613	0.626	0.615	0.678	0.727	0.765	0.787	0.824
450	0.843	0.874	0.847	0.963	1.025	1.097	1.163	1.244
400	1.231	1.269	1.255	1.463	1.574	1.707	1.855	2.032
350	1.954	2.019	2.010	2.435	2.632	3.054	3.338	3.816
300	3.600	3.740	3.950		5.478	6.899	7.340	8.088
250	7.149	7.999	8.837					
200								
NT	0.702	0.741	0.765	0.333	0.561	0.632	0.672	0.733
HEIGHT	SCALE HEIGHT, KM							
950	702.5	903.7	873.5	588.2	595.6	584.4	619.9	586.6
900	599.5	707.9	697.2	535.2	531.9	533.6	544.5	518.9
850	494.8	521.2	530.6	453.8	461.0	456.7	455.8	450.4
800	421.3	416.3	393.4	392.9	408.3	390.4	393.8	394.5
750	353.1	327.7	351.4	349.1	355.0	338.4	332.4	339.3
700	304.4	312.7	328.8	305.1	299.0	290.3	299.9	297.7
650	278.9	297.7	306.2	260.8	252.4	247.1	267.4	265.7
600	253.4	282.8	283.5	218.0	213.6	205.3	212.6	233.7
550	185.6	181.5	177.4	179.0	183.0	176.8	162.6	170.0
500	158.6	151.4	151.6	154.6	162.2	159.1	145.3	131.0
450	148.9	142.9	143.8	134.5	137.6	126.5	117.3	111.8
400	124.7	124.8	119.7	111.6	109.6	103.2	98.0	93.7
350	97.8	90.9	92.2	86.8	86.9	73.9	73.3	73.7
300	74.0	71.0	61.6		56.5	60.0	64.6	70.0
HS	1005.62	1005.26	1004.90	1004.58	1004.28	1003.98	1003.68	1003.37
LONG	-152.32	-152.18	-152.03	-151.98	-151.97	-151.97	-151.87	-151.61
LAT	28.97	27.96	26.94	25.93	24.91	23.89	22.87	21.80
DIPL	29.27	28.36	27.45	26.52	25.58	24.64	23.71	22.74
INVL	28.44	27.48	26.51	25.51	24.47	23.47	22.48	21.43
L	1.50	1.47	1.45	1.42	1.40	1.38	1.36	1.34
DIP	48.26	47.20	46.10	44.95	43.76	42.53	41.29	39.97
FHS	0.74	0.73	0.72	0.71	0.71	0.70	0.69	0.68
KP	0+	0+	0+	0+	0+	0+	0+	0+
QUAL	32	12	12	13	13	13	12	12
SNL	1	1	1	1	1	1	1	1

PASS 707 AT SPOINT, 621120

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	13544 153016	13641 153307	13659 153352	13717 153436	13736 153521	13754 153604	13812 153647	13830 153730
HEIGHT								
SAT.	0.145	0.175	0.186	0.187	0.198	0.205	0.206	0.221
1000	0.147	0.177	0.187	0.189	0.199	0.206	0.208	0.222
950	0.165	0.194	0.204	0.213	0.217	0.225	0.228	0.252
900	0.182	0.214	0.222	0.230	0.236	0.244	0.248	0.278
850	0.201	0.236	0.246	0.253	0.259	0.269	0.277	0.311
800	0.224	0.265	0.276	0.283	0.291	0.303	0.317	0.368
750	0.253	0.303	0.317	0.327	0.336	0.356	0.375	0.452
700	0.299	0.361	0.374	0.386	0.394	0.425	0.448	0.571
650	0.358	0.435	0.445	0.459	0.465	0.535	0.595	0.737
600	0.462	0.565	0.577	0.634	0.662	0.743	0.920	1.050
550	0.634	0.748	0.788	0.900	0.984	1.098	1.342	1.637
500	0.923	1.076	1.161	1.421	1.580	1.855	2.325	2.853
450	1.400	1.690	1.899	2.442	2.888	3.543	4.450	5.537
400	2.258	2.957	3.508	4.642	5.852	7.078		9.376
350	4.108	5.858	6.984	9.409				
300	8.576							
250								
200								
NT	0.791	0.603	0.680	0.849	0.567	0.662	0.470	0.942
HEIGHT	SCALE HEIGHT, KM							
950	503.0	551.0	606.0	599.7	625.6	639.2	629.0	488.9
900	494.5	500.6	529.6	559.2	555.2	555.9	510.9	440.9
850	460.8	450.4	459.2	478.4	472.2	454.0	417.3	367.0
800	412.3	393.7	399.5	395.5	386.4	357.7	334.3	308.3
750	362.9	340.2	344.0	336.0	331.7	310.4	292.9	253.7
700	306.5	292.1	298.7	286.6	286.1	263.0	251.6	209.8
650	250.1	244.0	253.3	237.2	240.6	211.8	131.8	174.4
600	191.6	205.3	200.4	182.4	170.0	153.3	126.4	132.5
550	151.1	169.2	148.4	131.7	119.8	112.5	109.1	103.8
500	129.3	126.8	119.7	103.9	92.0	86.1	86.9	82.4
450	112.5	101.7	92.3	85.3	77.1	74.9	72.9	79.0
400	94.9	81.9	73.0	72.1	71.0	74.5		111.7
350	75.2	72.3	75.5	69.2				
300	75.8							
HS	1003.07	1002.32	1002.11	1001.93	1001.74	1001.56	1001.42	1001.30
LONG	-151.37	-150.89	-150.78	-150.67	-150.56	-150.45	-150.35	-150.25
LAT	20.78	17.56	16.55	15.53	14.45	13.43	12.41	11.39
DIPL	21.82	18.84	17.88	16.92	15.89	14.92	13.95	12.97
INVL	20.42	17.14	16.09	14.99	13.84	12.70	11.55	10.33
L	1.32	1.27	1.25	1.24	1.23	1.22	1.21	1.20
DIP	38.69	34.31	32.83	31.31	29.66	28.06	26.41	24.73
FHS	0.68	0.65	0.65	0.64	0.63	0.63	0.62	0.62
KP	0+	0+	0+	0+	0+	0+	0+	0+
QUAL	13	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 707 AT SPOINT, 621120

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	13848 153812	13906 153854	13924 153936	13942 154018	14000 154100	14018 154141	14037 154224	14055 154305
HEIGHT								
SAT.	0.225	0.240	0.251	0.256	0.271	0.275	0.287	0.284
1000	0.226	0.241	0.253	0.257	0.272	0.276	0.288	0.285
950	0.257	0.268	0.286	0.292	0.306	0.317	0.328	0.324
900	0.261	0.299	0.319	0.334	0.346	0.363	0.372	0.369
850	0.314	0.338	0.362	0.383	0.398	0.420	0.428	0.427
800	0.374	0.390	0.424	0.447	0.462	0.500	0.503	0.506
750	0.461	0.491	0.560	0.565	0.572	0.623	0.634	0.641
700	0.590	0.636	0.744	0.734	0.755	0.822	0.842	0.858
650	0.755	0.840	0.984	1.015	1.079	1.208	1.254	1.287
600	1.059	1.251	1.541	1.616	1.704	1.891	1.897	1.922
550	1.760	2.083	2.643	2.709	2.744	2.833	2.806	2.867
500	3.195	3.804	4.433	4.230	4.158	4.254	4.208	4.285
450	5.842	6.428	6.817	6.378	6.228	6.239	6.224	6.305
400	9.335	9.613	10.045	9.329	9.003	9.018	9.094	9.244
350								
300								
250								
200								
NT	0.963	1.088	1.213	1.175	1.170	1.206	1.209	1.228
HEIGHT	SCALE HEIGHT, KM							
950	516.0	463.5	495.4	456.5	433.1	370.1	401.6	395.9
900	461.1	408.2	405.6	367.8	366.5	348.5	360.0	351.4
850	374.0	359.8	344.5	324.2	329.0	308.2	319.9	309.4
800	299.6	308.0	283.6	279.6	291.4	263.9	275.4	263.3
750	226.5	234.7	223.3	227.9	234.1	214.4	213.8	206.3
700	204.7	186.5	175.9	179.4	167.3	164.3	148.7	150.6
650	182.9	162.0	152.4	134.4	125.3	113.0	123.3	121.1
600	123.8	111.6	103.3	97.7	105.0	119.0	123.9	126.5
550	91.0	88.9	89.4	102.8	112.7	124.0	127.0	124.0
500	79.9	85.2	111.4	120.9	123.2	128.6	125.2	127.0
450	91.5	114.4	124.4	128.1	129.0	130.7	133.3	131.2
400	118.7	125.9	129.3	126.6	131.2	136.1	132.6	129.8
350								
300								
HS	1001.18	1001.08	1001.02	1000.96	1000.90	1000.90	1000.90	1000.90
LONG	-150.15	-150.05	-149.95	-149.85	-149.75	-149.65	-149.55	-149.46
LAT	10.38	9.36	8.34	7.32	6.30	5.28	4.20	3.18
DIPL	11.99	11.01	10.02	9.02	8.03	7.03	5.97	4.97
INVL	9.09	7.74	6.28	4.55	1.99	0.00	0.00	0.00
L	1.19	1.18	1.17	1.16	1.16	1.15	1.15	1.14
DIP	23.01	21.26	19.46	17.62	15.75	13.86	11.82	9.87
FHS	0.61	0.61	0.61	0.60	0.60	0.60	0.60	0.59
KP	0+	0+	0+	0+	0+	0+	0+	0+
QUAL	13	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 707 AT SPOINT, 621120

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	14113	14131	14151	14207	14225	14243	14301	14320
LT	154346	154427	154513	154549	154630	154711	154752	154836
HEIGHT								
SAT.	0.268	0.292	0.288	0.276	0.272	0.268	0.264	0.267
1000	0.289	0.293	0.289	0.278	0.274	0.270	0.266	0.270
950	0.334	0.333	0.320	0.313	0.314	0.307	0.303	0.300
900	0.383	0.384	0.370	0.359	0.365	0.345	0.342	0.338
850	0.448	0.452	0.436	0.421	0.432	0.400	0.394	0.384
800	0.531	0.537	0.518	0.499	0.534	0.476	0.470	0.466
750	0.700	0.716	0.676	0.666	0.712	0.649	0.613	0.600
700	1.006	1.003	0.949	0.973	1.007	0.914	0.863	0.821
650	1.445	1.440	1.382	1.447	1.522	1.446	1.388	1.312
600	2.068	2.071	2.006	2.092	2.212	2.155	2.235	2.210
550	3.008	3.035	2.955	3.098	3.278	3.114	3.322	3.414
500	4.448	4.482	4.389	4.631	4.877	4.747	4.943	5.127
450	6.548	6.612	6.592	6.948	7.230	7.084	7.415	7.691
400	9.584	9.673	9.608	10.175	10.547	10.448	10.899	11.130
350								
300								
250								
200								
NT	1.293	1.302	1.277	1.334	1.395	1.350	1.394	1.418
HEIGHT	SCALE HEIGHT, KM							
950	373.1	392.0	403.2	403.5	367.7	434.3	421.7	518.3
900	334.9	332.8	323.8	330.6	322.7	366.4	379.6	394.0
850	290.3	285.0	286.0	288.0	268.6	304.6	318.9	331.9
800	244.2	239.3	248.2	245.4	214.1	241.9	248.3	252.7
750	195.3	189.0	185.5	179.1	165.2	156.8	169.8	181.9
700	144.6	147.5	143.0	131.6	133.1	129.2	127.7	143.0
650	138.5	138.4	134.8	131.9	128.6	117.0	100.8	97.7
600	139.6	136.5	133.6	132.1	132.6	135.1	119.1	106.2
550	126.7	127.7	127.7	127.2	123.9	123.2	126.6	120.1
500	130.1	129.1	126.8	122.3	128.1	123.1	122.7	121.8
450	129.0	128.6	128.6	126.7	130.0	127.8	128.6	128.1
400	139.0	142.3	139.8	142.9	148.6	144.2	154.3	155.8
350								
300								
HS	1000.94	1001.00	1001.07	1001.16	1001.31	1001.46	1001.61	1001.80
LONG	-149.36	-149.26	-149.16	-149.07	-148.98	-148.88	-148.78	-148.68
LAT	2.17	1.15	0.02	-0.89	-1.91	-2.93	-3.95	-5.02
DIPL	3.97	2.96	1.85	0.95	-0.06	-1.08	-2.09	-3.17
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
DIP	7.90	5.91	3.69	1.90	-0.13	-2.15	-4.18	-6.32
FHS	0.59	0.59	0.59	0.59	0.59	0.60	0.60	0.60
KP	0+	0+	0+	0+	0+	0+	0+	0+
QUAL	13	13	33	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 707 AT SPOINT, 621120

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	14358
LT	155062

HEIGHT	
SAT.	0.281
1000	0.284
950	0.315
900	0.348
850	0.390
800	0.467
750	0.589
700	0.778
650	1.161
600	2.088
550	3.607
500	5.527
450	
400	
350	
300	
250	
200	
NT	0.652

HEIGHT	SCALE HEIGHT, KM
950	537.5
900	445.6
850	367.0
800	278.2
750	200.9
700	164.5
650	94.3
600	84.6
550	107.0
500	119.2
450	
400	
350	
300	

HS	1002.18
LONG	-148.48
LAT	-7.18
DIPL	-5.32
INVL	0.00
L	1.15
DIP	-10.55
FHS	0.61
KP	0+
QUAL	13
SNL	1

PASS 734 AT SPOINT, 621122

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	10124 150457	10142 150555	10200 150652	10218 150746	10236 150839	10254 150932	10312 151024	10320 151046
HEIGHT								
SAT.	0.102	0.106	0.128	0.127	0.126	0.128	0.135	0.138
1000	0.105	0.107	0.131	0.131	0.129	0.131	0.137	0.139
950	0.117	0.119	0.144	0.147	0.140	0.148	0.157	0.151
900	0.130	0.130	0.153	0.156	0.148	0.165	0.173	0.162
850	0.145	0.144	0.163	0.173	0.163	0.180	0.191	0.177
800	0.165	0.162	0.181	0.197	0.186	0.204	0.216	0.205
750	0.194	0.184	0.214	0.221	0.217	0.240	0.247	0.243
700	0.229	0.209	0.246	0.245	0.255	0.276	0.290	0.284
650	0.279	0.254	0.296	0.301	0.302	0.331	0.357	0.328
600	0.343	0.337	0.370	0.377	0.377	0.410	0.439	0.401
550	0.435	0.442	0.466	0.473	0.481	0.525	0.567	0.538
500	0.587	0.585	0.606	0.619	0.622	0.690	0.765	0.760
450	0.799	0.762	0.804	0.819	0.823	0.935	1.053	1.055
400	1.092	1.041	1.116	1.133	1.150	1.323	1.535	1.535
350	1.645	1.507	1.670	1.674	1.709	1.982	2.389	2.389
300	2.738	2.331	2.785	2.771	2.816	3.334	4.063	4.239
250	4.933	4.184	4.752	4.676	5.078	5.879	6.764	
200				6.539				
NT	0.571	0.518	0.583	0.866	0.600	0.687	0.795	0.521
HEIGHT	SCALE HEIGHT, KM							
950	514.1	516.1	865.6	931.3	1000.9	835.6	460.7	709.0
900	453.1	489.9	748.0	696.2	746.4	489.5	490.2	595.5
850	400.4	437.0	616.1	480.4	403.1	467.5	439.4	468.0
800	355.0	400.3	438.7	387.6	372.1	393.0	389.2	406.3
750	319.9	363.6	307.2	367.0	341.0	331.5	339.1	344.5
700	284.8	327.0	298.0	346.3	304.9	310.7	295.9	311.1
650	256.5	285.3	262.5	274.0	265.1	264.1	265.2	286.4
600	229.2	235.8	222.4	222.6	223.9	221.9	230.5	223.2
550	202.6	186.2	205.6	204.9	202.3	194.5	200.6	163.2
500	177.2	181.1	185.6	184.5	189.0	175.7	173.8	149.9
450	159.5	177.2	164.1	167.2	165.8	154.8	144.7	144.6
400	145.7	146.0	141.1	143.5	135.9	137.2	128.4	127.5
350	112.7	132.0	112.8	114.3	114.7	110.0	103.7	104.8
300	92.2	103.1	88.4	96.3	91.4	85.8	88.3	82.0
HS	1004.82	1005.06	1005.30	1004.94	1004.58	1004.22	1003.90	1003.77
LONG	-149.11	-148.94	-148.78	-148.63	-148.49	-148.34	-148.20	-148.14
LAT	32.62	31.79	30.76	29.75	28.73	27.72	26.70	26.25
DIPL	33.37	32.45	31.53	30.61	29.70	28.78	27.85	27.44
INVL	32.64	31.86	30.87	29.91	28.94	27.95	26.98	26.54
L	1.64	1.60	1.57	1.54	1.51	1.48	1.46	1.45
DIP	52.80	51.82	50.82	49.80	48.76	47.69	46.58	46.08
FHS	0.78	0.77	0.76	0.76	0.75	0.74	0.73	0.73
KP	4+	4+	4+	4+	4+	4+	4+	4+
QUAL	22	22	11	12	13	23	21	23
SNL	1	1	1	1	1	1	1	1

PASS 734 AT SPOINT, 621122

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	10348 151204	10406 151254	10424 151341	10442 151429	10459 151514	10517 151559	10535 151645	10611 151814
HEIGHT								
SAT.	0.141	0.145	0.149	0.156	0.161	0.168	0.179	0.181
1000	0.143	0.146	0.151	0.158	0.162	0.169	0.180	0.182
950	0.156	0.160	0.165	0.172	0.175	0.185	0.197	0.199
900	0.170	0.173	0.180	0.186	0.189	0.201	0.212	0.216
850	0.187	0.192	0.198	0.204	0.207	0.220	0.231	0.237
800	0.211	0.219	0.224	0.232	0.236	0.243	0.254	0.265
750	0.242	0.255	0.259	0.267	0.274	0.272	0.293	0.310
700	0.266	0.303	0.306	0.318	0.324	0.342	0.372	0.378
650	0.343	0.366	0.376	0.384	0.387	0.433	0.476	0.466
600	0.439	0.441	0.464	0.463	0.462	0.551	0.610	0.604
550	0.581	0.578	0.624	0.606	0.611	0.701	0.774	0.812
500	0.780	0.814	0.854	0.824	0.845	0.912	1.105	1.196
450	1.085	1.130	1.174	1.146	1.178	1.291	1.634	1.881
400	1.586	1.656	1.693	1.648	1.719	1.897	2.607	3.204
350	2.524	2.386	2.646	2.518	2.617	3.003	4.519	5.631
300	4.367	4.385	4.369	4.074	4.370	5.247	7.969	9.476
250		6.904	6.902	6.566	7.410	8.699		
200								
NT	0.543	0.839	0.853	0.820	0.869	0.997	0.868	1.011
HEIGHT	SCALE HEIGHT, KM							
950	734.6	642.6	591.3	651.3	691.3	658.0	686.9	633.4
900	561.0	530.8	529.9	554.8	563.2	551.3	577.3	560.3
850	456.5	443.9	455.6	463.1	465.2	488.8	505.6	470.7
800	402.2	389.4	395.0	398.8	396.4	426.2	433.9	385.2
750	347.9	334.9	337.7	334.5	327.5	364.2	363.7	324.6
700	296.2	295.3	286.2	298.2	294.5	307.6	296.1	281.7
650	245.2	264.0	249.7	267.9	267.3	251.1	228.5	238.8
600	198.7	232.7	213.2	237.5	240.1	211.6	197.9	196.5
550	178.0	197.1	183.9	198.3	197.2	197.0	178.3	154.7
500	167.5	157.4	160.5	159.4	154.2	172.3	136.5	122.2
450	142.8	142.9	149.0	146.6	144.1	138.6	123.9	100.3
400	123.5	124.1	126.2	131.4	126.8	119.4	98.9	89.7
350	103.1	104.8	107.7	113.5	112.0	99.5	84.1	90.5
300	83.8	94.5	99.2	98.9	93.4	87.4	111.1	112.5
HS	1003.30	1003.02	1002.78	1002.54	1002.31	1002.10	1001.89	1001.51
LONG	-147.93	-147.80	-147.68	-147.55	-147.44	-147.32	-147.21	-146.98
LAT	24.68	23.66	22.64	21.63	20.67	19.65	18.63	16.59
DIPL	26.00	25.06	24.12	23.18	22.29	21.33	20.38	18.45
INVL	25.00	23.99	23.01	22.00	21.01	20.00	18.97	16.85
L	1.41	1.39	1.37	1.35	1.33	1.31	1.29	1.26
DIP	44.29	43.09	41.85	40.58	39.34	37.99	36.61	33.72
FHS	0.71	0.71	0.70	0.69	0.68	0.67	0.67	0.65
KP	4+	4+	4+	4+	4+	4+	4+	4+
QUAL	12	12	12	13	12	12	13	23
SNL	1	1	1	1	1	1	1	1

PASS 734 AT SPOINT, 621122

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	10629 151858	10647 151942	10705 152026	10723 152109	10741 152152	10759 152236	10627 152341	10835 152359
HEIGHT SAT.	0.192	0.193	0.195	0.212	0.220	0.228	0.233	0.251
1000	0.193	0.194	0.196	0.213	0.221	0.228	0.233	0.252
950	0.210	0.214	0.216	0.232	0.243	0.250	0.255	0.274
900	0.227	0.232	0.233	0.253	0.272	0.273	0.280	0.305
850	0.249	0.255	0.255	0.279	0.304	0.303	0.314	0.343
800	0.283	0.291	0.282	0.310	0.341	0.340	0.354	0.389
750	0.329	0.341	0.324	0.379	0.412	0.416	0.415	0.443
700	0.369	0.412	0.421	0.477	0.508	0.538	0.540	0.557
650	0.462	0.501	0.551	0.624	0.672	0.713	0.728	0.808
600	0.620	0.694	0.728	0.826	0.945	0.976	1.019	1.144
550	0.966	0.996	1.006	1.241	1.483	1.549	1.658	1.752
500	1.356	1.532	1.573	2.025	2.514	2.728	2.910	2.867
450	2.177	2.646	2.711	3.546	4.562	4.804	5.006	5.062
400	3.762	4.690	4.905	6.266	7.390		8.443	8.548
350	6.689	8.066	8.934	10.828				
300								
250								
200								
NT	0.720	0.847	0.888	1.099	0.803	0.530	0.891	0.917
HEIGHT	SCALE HEIGHT, KM							
950	676.2	615.1	625.7	640.8	582.8	579.7	545.4	625.5
900	575.5	547.0	549.7	536.9	448.3	491.3	460.8	445.7
850	470.4	455.1	484.6	450.1	399.4	423.3	412.4	400.4
800	377.6	364.5	429.6	363.3	350.6	355.3	364.1	355.1
750	317.5	298.4	348.8	295.9	290.0	273.9	296.1	309.8
700	280.8	258.2	258.3	228.7	228.4	189.5	177.2	248.6
650	244.1	218.1	164.6	187.8	177.2	168.4	159.7	163.0
600	192.7	169.9	168.5	159.8	132.9	159.7	132.1	133.0
550	129.4	130.9	134.2	110.1	104.2	100.4	90.6	109.1
500	115.6	103.7	103.2	94.8	88.9	88.0	95.0	94.9
450	100.0	90.0	90.0	85.0	89.0	88.0	92.2	87.2
400	86.1	85.2	84.4	85.5	107.2		103.7	105.7
350	92.9	104.7	93.1	121.0				
300								
HS	1001.36	1001.21	1001.07	1000.98	1000.89	1000.80	1000.71	1000.68
LONG	-146.88	-146.77	-146.66	-146.56	-146.45	-146.35	-146.19	-146.15
LAT	15.57	14.55	13.54	12.52	11.50	10.48	8.89	8.44
DIPL	17.49	16.52	15.55	14.57	13.59	12.61	11.07	10.63
INVL	15.80	14.70	13.61	12.47	11.32	10.11	8.12	7.51
L	1.25	1.24	1.22	1.21	1.20	1.19	1.18	1.18
DIP	32.22	30.68	29.09	27.47	25.80	24.10	21.37	20.57
FHS	0.65	0.64	0.63	0.63	0.62	0.62	0.61	0.61
KP	4+	4+	4+	4+	4+	4+	4+	4+
QUAL	13	13	13	13	13	13	13	23
SNL	1	1	1	1	1	1	1	1

PASS 734 AT SPOINT, 621122

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	10853	10911	10929	10947	11005	11023
LT	152441	152522	152603	152644	152727	152816
HEIGHT						
SAT.	0.266	0.271	0.275	0.272	0.273	0.284
1000	0.267	0.272	0.276	0.273	0.273	0.285
950	0.293	0.296	0.305	0.299	0.300	0.320
900	0.321	0.322	0.346	0.338	0.335	0.380
850	0.358	0.372	0.402	0.388	0.417	0.455
800	0.404	0.458	0.470	0.449	0.522	0.546
750	0.466	0.538	0.560	0.590	0.627	0.714
700	0.611	0.696	0.812	0.794	0.886	1.015
650	0.834	0.972	1.164	1.128	1.271	1.497
600	1.262	1.449	1.825	1.836	1.999	2.318
550	2.030	2.425	3.040	3.128	3.313	3.848
500	3.559	4.272	5.189	5.351	5.602	6.287
450	6.411	7.368	8.335		8.971	9.594
400						
350						
300						
250						
200						
NT	0.674	0.781	0.921	0.588	0.995	1.116
HEIGHT	SCALE HEIGHT, KM					
950	581.3	648.0	507.1	487.7	510.1	372.6
900	473.0	484.0	385.9	378.6	361.2	299.7
850	421.7	333.2	324.4	329.1	256.2	265.6
800	370.4	257.0	278.9	279.6	219.8	237.7
750	310.6	243.3	232.3	209.1	206.5	167.3
700	192.4	157.3	169.2	159.5	145.9	135.2
650	142.3	139.1	127.1	123.6	126.6	124.2
600	114.6	111.7	104.6	94.7	102.5	106.2
550	94.4	92.7	92.9	94.0	96.3	96.4
500	84.5	86.4	98.8	101.7	98.3	106.0
450	90.0	108.4	117.2		119.4	134.4
400						
350						
300						
HS	1000.62	1000.62	1000.65	1000.68	1000.72	1000.81
LONG	-146.05	-145.95	-145.86	-145.76	-145.65	-145.53
LAT	7.42	6.40	5.38	4.36	3.34	2.32
DIPL	9.64	8.64	7.65	6.65	5.65	4.65
INVL	6.05	4.33	1.58	0.00	0.00	0.00
L	1.17	1.16	1.16	1.15	1.15	1.15
DIP	18.76	16.91	15.03	13.12	11.19	9.24
FHS	0.61	0.60	0.60	0.60	0.59	0.59
KP	4+	4+	4+	4+	4+	4+
QUAL	13	13	13	23	23	23
SNL	1	1	1	1	1	1

PASS 748 AT SPOINT, 621123

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	14305 150900	14323 150945	14341 151029	14359 151114	14417 151157	14435 151240	14453 151324	14511 151406
HEIGHT								
SAT.	0.170	0.175	0.179	0.199	0.219	0.252	0.279	0.315
1000	0.171	0.175	0.180	0.200	0.220	0.253	0.280	0.316
950	0.199	0.200	0.206	0.228	0.247	0.289	0.322	0.372
900	0.208	0.225	0.237	0.263	0.288	0.338	0.383	0.433
850	0.236	0.260	0.278	0.307	0.342	0.405	0.471	0.516
800	0.274	0.303	0.327	0.365	0.407	0.486	0.575	0.625
750	0.319	0.361	0.394	0.447	0.509	0.584	0.725	0.806
700	0.393	0.461	0.501	0.564	0.660	0.773	0.945	1.050
650	0.510	0.611	0.660	0.762	0.884	1.058	1.257	1.401
600	0.703	0.837	0.904	1.097	1.302	1.528	1.832	2.006
550	1.051	1.303	1.396	1.757	2.036	2.348	2.839	3.146
500	1.730	2.157	2.319	2.969	3.410	3.900	4.539	5.051
450	2.931	3.790	4.111	5.028	5.640	6.320	7.177	7.652
400	5.085	6.029	6.943	8.048	8.794	9.480	10.358	10.514
350	8.843	10.974	10.890	12.238	12.891	13.266		
300								
250								
200								
NT	0.907	1.136	1.191	1.403	1.554	1.714	1.319	1.424
HEIGHT	SCALE HEIGHT, KM							
950	503.1	399.6	384.7	397.0	376.6	388.5	319.6	346.8
900	446.1	379.9	352.2	350.0	331.6	308.1	290.6	303.8
850	381.2	353.3	318.9	312.3	290.7	272.7	261.4	267.1
800	326.8	305.1	282.6	267.4	254.4	254.3	232.8	234.3
750	282.1	247.2	245.4	237.0	215.5	235.9	205.8	201.8
700	235.3	208.5	206.6	180.1	184.3	183.1	179.9	179.2
650	186.9	172.7	174.0	157.7	155.9	148.9	154.9	157.4
600	148.6	141.3	142.0	122.9	119.2	128.3	131.4	130.7
550	110.5	105.5	107.5	103.8	107.6	110.6	112.4	109.6
500	99.3	96.6	95.3	96.0	99.1	101.4	106.4	112.1
450	93.9	89.3	90.2	100.0	105.7	112.3	122.8	139.9
400	90.8	94.6	104.4	113.3	121.6	135.7	156.7	181.9
350	90.6	100.5	117.3	137.8	156.8	173.4		
300								
HS	1001.46	1001.31	1001.16	1001.01	1000.91	1000.82	1000.73	1000.66
LONG	-158.52	-158.41	-158.30	-158.19	-158.08	-157.98	-157.87	-157.77
LAT	18.19	17.17	16.15	15.13	14.11	13.09	12.08	11.06
DIPL	18.27	17.32	16.37	15.41	14.45	13.48	12.51	11.54
INVL	16.30	15.20	14.11	12.97	11.80	10.59	9.33	7.97
L	1.26	1.24	1.23	1.22	1.21	1.20	1.19	1.18
DIP	33.44	31.95	30.43	28.87	27.26	25.62	23.93	22.20
FHS	0.65	0.64	0.64	0.63	0.63	0.62	0.62	0.61
KP	4+	4+	4+	4+	4+	4+	4+	4+
QUAL	13	13	13	13	13	12	12	12
SNL	1	1	1	1	1	1	1	1

PASS 748 AT SPOINT, 621123

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	14529 151449	14547 151531	14605 151613	14623 151654	14641 151735	14659 151816	14717 151857	14735 151939
HEIGHT								
SAT.	0.332	0.358	0.403	0.408	0.431	0.446	0.470	0.490
1000	0.333	0.359	0.404	0.409	0.432	0.447	0.471	0.491
950	0.418	0.448	0.493	0.485	0.515	0.532	0.558	0.581
900	0.487	0.523	0.572	0.580	0.610	0.629	0.659	0.681
850	0.591	0.628	0.686	0.692	0.718	0.738	0.773	0.797
800	0.722	0.758	0.825	0.843	0.863	0.880	0.922	0.944
750	0.884	0.913	0.997	1.037	1.056	1.073	1.128	1.169
700	1.142	1.167	1.266	1.309	1.340	1.371	1.468	1.551
650	1.541	1.579	1.737	1.856	1.927	1.988	2.111	2.119
600	2.142	2.239	2.521	2.729	2.826	2.889	2.976	3.015
550	3.407	3.506	3.894	4.095	4.153	4.180	4.214	4.279
500	5.316	5.424	5.800	6.004	5.943	5.928	5.940	6.036
450	7.727	7.736	8.007	8.086	8.081	8.068	8.058	8.343
400	10.345	10.119	10.287	10.424	10.514	10.601	10.542	11.356
350		12.363	12.516					
300								
250								
200								
NT	1.466	2.070	2.177	1.657	1.675	1.690	1.716	1.772
HEIGHT	SCALE HEIGHT, KM							
950	274.3	280.5	305.8	286.5	290.7	293.4	299.4	306.6
900	280.4	286.8	301.6	278.7	293.6	299.7	302.6	315.8
850	262.1	268.4	281.2	266.7	288.6	297.6	296.4	305.9
800	243.1	254.6	262.0	251.8	261.6	265.2	262.4	264.2
750	222.4	240.8	237.3	225.7	223.3	223.9	219.3	203.8
700	187.0	191.3	182.6	180.4	181.9	182.9	180.0	171.9
650	159.2	157.9	155.0	149.1	145.7	144.7	146.0	156.5
600	135.1	132.7	130.3	130.6	133.5	137.2	146.4	146.9
550	111.1	113.9	121.0	126.9	134.9	139.5	144.9	144.6
500	123.0	128.2	140.9	150.2	151.9	153.4	155.1	150.8
450	154.4	165.5	178.7	183.9	176.7	172.7	177.5	158.5
400	196.3	212.3	220.8	217.5	210.7	203.7	182.8	178.1
350		298.9	302.2					
300								
HS	1000.60	1000.54	1000.51	1000.54	1000.57	1000.60	1000.66	1000.72
LONG	-157.67	-157.56	-157.46	-157.37	-157.27	-157.18	-157.08	-156.98
LAT	10.04	9.02	8.00	6.98	5.96	4.94	3.91	2.88
DIPL	10.55	9.57	8.58	7.58	6.59	5.58	4.57	3.56
INVL	6.49	4.70	2.16	0.00	0.00	0.00	0.00	0.00
L	1.17	1.16	1.16	1.15	1.15	1.14	1.14	1.14
DIP	20.44	18.63	16.79	14.91	13.00	11.07	9.09	7.09
FHS	0.61	0.61	0.60	0.60	0.60	0.60	0.60	0.60
KP	4+	4+	4+	4+	4+	4+	4+	4+
QUAL	12	12	12	12	12	12	12	11
SNL	1	1	1	1	1	1	1	1

PASS 748 AT SPOINT, 621123

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	14753 152020	14811 152101	14829 152142	14847 152223	14905 152304	14923 152345	14941 152426	14959 152507
HEIGHT								
SAT.	0.490	0.470	0.567	0.504	0.539	0.498	0.477	0.471
1000	0.491	0.472	0.568	0.507	0.511	0.500	0.480	0.475
950	0.578	0.557	0.639	0.615	0.609	0.601	0.593	0.590
900	0.676	0.653	0.746	0.729	0.728	0.728	0.736	0.739
850	0.789	0.764	0.865	0.857	0.873	0.884	0.911	0.925
800	0.936	0.907	1.022	1.018	1.054	1.072	1.123	1.149
750	1.156	1.120	1.263	1.262	1.286	1.332	1.408	1.468
700	1.525	1.482	1.664	1.656	1.705	1.768	1.845	1.929
650	2.075	2.013	2.233	2.225	2.296	2.402	2.494	2.623
600	2.942	2.886	3.122	3.130	3.146	3.300	3.459	3.644
550	4.175	4.106	4.336	4.352	4.385	4.611	4.832	5.131
500	5.895	5.755	6.022	6.053	6.086	6.393	6.643	7.100
450	8.195	8.006	8.246	8.236	8.227	8.516	8.747	9.307
400	11.099	10.779	10.957	10.954	10.822	10.913	11.066	11.457
350								
300								
250								
200								
NT	1.737	1.694	1.796	1.793	1.803	1.866	1.928	2.029
HEIGHT	SCALE HEIGHT, KM							
950	313.3	307.5	386.7	276.0	279.5	264.7	235.2	223.9
900	319.9	316.3	347.8	300.6	279.2	263.0	235.5	224.4
850	309.3	304.2	323.0	298.7	269.2	260.4	237.4	228.4
800	264.2	264.8	262.1	262.2	245.0	243.8	228.6	218.8
750	207.5	200.9	206.7	199.8	214.2	202.1	200.3	189.1
700	175.5	176.6	186.0	181.5	189.6	182.3	183.3	178.3
650	158.5	160.2	166.5	165.1	168.3	166.2	166.7	163.9
600	148.3	146.7	154.9	153.1	157.9	155.6	153.3	151.0
550	144.8	145.8	152.9	152.5	152.4	151.8	154.4	151.2
500	149.0	150.3	156.4	157.5	160.0	164.1	170.3	170.9
450	158.0	157.2	166.9	168.7	173.6	188.3	197.8	212.2
400	180.4	200.6	208.3	207.6	215.6	230.9	254.9	308.4
350								
300								
HS	1000.78	1000.89	1001.04	1001.19	1001.35	1001.53	1001.71	1001.89
LONG	-156.89	-156.79	-156.70	-156.60	-156.50	-156.41	-156.31	-156.22
LAT	1.85	0.83	-0.17	-1.18	-2.19	-3.21	-4.23	-5.25
DIPL	2.54	1.53	0.53	-0.48	-1.49	-2.51	-3.53	-4.55
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.14	1.13	1.13	1.13	1.13	1.14	1.14	1.14
DIP	5.07	3.06	1.06	-0.95	-2.97	-5.00	-7.03	-9.05
FHS	0.60	0.60	0.60	0.60	0.60	0.61	0.61	0.61
KP	4+	4+	4+	4+	4+	4+	4+	4+
QUAL	12	11	11	11	11	11	11	11
SNL	1	1	1	1	1	1	1	1

PASS 748 AT SPOINT, 621123

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	151121
LT	152752

HEIGHT	
SAT.	0.400
1000	0.403
950	0.491
900	0.626
850	0.832
800	1.112
750	1.528
700	2.165
650	3.030
600	4.260
550	6.068
500	8.557
450	11.585
400	
350	
300	
250	
200	
NT	1.733

HEIGHT	SCALE HEIGHT, KM
950	229.8
900	191.0
850	178.9
800	164.5
750	154.4
700	148.9
650	149.5
600	144.6
550	143.5
500	154.7
450	188.1
400	
350	
300	

HS	1002.98
LONG	-155.83
LAT	-9.33
DIPL	-8.67
INVL	3.45
L	1.16
DIP	-16.97
FHS	0.63
KP	4+
QUAL	12
SNL	-

PASS 775 AT SPOINT, 6.1125

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	11012	11030	11047	11105	11123	11141	11159	11217
LT	144756	144845	144931	145020	145107	145153	145240	145326
HEIGHT								
SAT.	0.157	0.156	0.163	0.164	0.172	0.170	0.183	0.185
1000	0.158	0.157	0.164	0.165	0.173	0.171	0.184	0.186
950	0.165	0.174	0.181	0.185	0.167	0.188	0.202	0.206
900	0.173	0.191	0.199	0.203	0.206	0.207	0.220	0.230
850	0.195	0.211	0.217	0.222	0.225	0.227	0.241	0.255
800	0.221	0.236	0.239	0.247	0.248	0.253	0.271	0.282
750	0.256	0.273	0.278	0.283	0.286	0.292	0.313	0.324
700	0.303	0.321	0.327	0.330	0.339	0.343	0.370	0.383
650	0.368	0.392	0.393	0.399	0.406	0.414	0.440	0.462
600	0.467	0.496	0.496	0.503	0.515	0.531	0.572	0.601
550	0.653	0.664	0.675	0.686	0.711	0.734	0.800	0.844
500	0.946	0.954	0.979	0.990	1.033	1.096	1.215	1.292
450	1.408	1.421	1.495	1.576	1.627	1.819	2.065	2.182
400	2.214	2.134	2.432	2.720	2.8[illegible]	3.211	3.6[illegible]3	3.987
350	3.990	3.887	4.306	4.956	5.361	6.292	6.763	7.528
300	7.962	7.743	9.324	9.519	10.252	11.959	12.490	13.633
250								
200								
NT	0.770	0.765	0.851	0.907	0.939	1.084	1.171	1.274

HEIGHT	SCALE HEIGHT, KM							
950	437.5	516.9	532.8	508.3	568.4	551.7	566.9	530.6
900	437.0	516.8	556.3	530.3	543.9	538.3	555.2	503.2
850	404.0	467.6	5[illegible].4	494.7	495.7	484.4	474.2	474.2
800	361.5	396.1	434.3	423.0	432.1	415.0	397.9	403.6
750	322.7	331.9	351.0	347.1	362.7	348.6	326.6	335.8
700	287.0	276.3	292.5	297.8	293.6	295.2	285.9	286.6
650	241.5	241.4	247.5	243.9	248.7	238.5	248.5	238.0
600	179.7	195.9	193.4	189.4	185.7	177.5	167.8	168.0
550	145.5	159.2	151.6	154.7	149.9	137.3	138.5	136.5
500	132.2	126.8	130.4	125.9	122.6	115.1	115.3	108.7
450	117.9	116.5	110.7	101.3	103.3	94.6	94.8	86.4
400	102.1	107.7	95.4	90.1	85.8	83.4	85.6	80.7
350	76.4	78.6	73.6	77.5	74.9	74.7	80.6	82.2
300	78.3	73.5	75.1	86.0	83.5	88.4	92.4	99.0
HS	1002.44	1002.20	1001.97	1001.75	1001.57	1001.39	1001.21	1001.09
LONG	-155.56	-155.43	-155.31	-155.19	-155.07	-154.95	-154.83	-154.72
LAT	25.29	24.27	23.31	22.37	21.28	20.26	19.25	18.23
DIPL	25.56	24.44	23.58	22.65	21.72	20.79	19.85	18.93
INVL	24.19	23.21	22.26	21.25	20.23	19.21	18.16	17.10
L	1.39	1.37	1.35	1.33	1.31	1.30	1.28	1.27
DIP	43.47	42.27	41.11	39.85	38.55	37.21	35.83	34.41
FHS	0.70	0.69	0.69	0.68	0.67	0.67	0.66	0.65
KP	30	30	30	30	30	30	30	30
QUAL	33	23	22	22	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 775 AT SPOINT, 621125

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	11235 145410	11253 145454	11311 145538	11329 145621	11347 145704	11405 145747	11423 145830	11441 145912
HEIGHT								
SAT.	0.169	0.200	0.204	0.219	0.230	0.256	0.253	0.288
1000	0.190	0.230	0.205	0.219	0.230	0.256	0.253	0.288
950	0.216	0.222	0.231	0.246	0.264	0.285	0.288	0.337
900	0.237	0.247	0.255	0.274	0.298	0.320	0.331	0.376
850	0.262	0.278	0.288	0.312	0.339	0.367	0.384	0.443
800	0.294	0.316	0.330	0.360	0.392	0.426	0.450	0.522
750	0.341	0.363	0.379	0.419	0.458	0.506	0.540	0.627
700	0.405	0.426	0.458	0.506	0.557	0.629	0.679	0.783
650	0.501	0.535	0.574	0.645	0.722	0.831	0.881	1.014
600	0.662	0.730	0.786	0.866	1.003	1.164	1.218	1.449
550	0.959	1.061	1.157	1.331	1.596	1.824	1.894	2.233
500	1.496	1.760	1.953	2.359	2.689	2.983	3.104	3.448
450	2.585	3.105	3.577	4.222	4.628	4.965	5.115	5.397
400	4.710	5.730	6.579	7.434	7.786	7.951	8.066	8.260
350	8.580	10.139	11.149	12.081	12.142	12.112	12.453	12.621
300	15.061							
250								
200								
NT	1.441	0.997	1.112	1.256	1.346	1.422	1.465	1.567
HEIGHT	SCALE HEIGHT, KM							
950	472.9	470.2	459.7	445.2	391.3	447.8	374.2	365.9
900	510.4	444.0	444.0	419.3	394.9	399.7	348.9	369.2
850	456.9	406.6	396.2	376.9	367.0	347.4	326.1	320.2
800	385.0	370.5	352.3	336.3	333.8	316.4	294.1	288.2
750	328.4	335.9	313.5	298.6	288.8	264.4	246.8	253.7
700	273.2	275.8	256.2	242.9	222.4	198.6	202.8	214.9
650	209.9	188.0	195.8	189.0	177.5	167.8	174.9	173.9
600	162.3	151.6	154.1	150.0	136.2	132.6	135.7	122.2
550	129.0	119.1	112.0	103.3	103.1	110.9	112.9	118.3
500	101.1	95.3	91.5	88.6	95.9	101.4	101.0	114.6
450	89.3	86.2	82.0	86.1	91.2	101.0	105.1	114.9
400	81.7	83.9	88.1	95.8	106.0	115.3	113.3	119.5
350	87.1	91.7	105.6	116.2	125.3	123.0	118.0	125.2
300	97.8							
HS	1000.97	1000.85	1000.74	1000.65	1000.56	1000.49	1000.46	1000.43
LONG	-154.60	-154.49	-154.39	-154.28	-154.18	-154.07	-153.97	-153.87
LAT	17.21	16.20	15.18	14.16	13.14	12.12	11.10	10.08
DIPL	17.95	17.00	16.04	15.07	14.10	13.13	12.15	11.16
INVL	16.05	14.95	13.86	12.71	11.55	10.32	9.06	7.68
L	1.25	1.24	1.23	1.22	1.21	1.20	1.19	1.18
DIP	32.95	31.45	29.90	28.31	26.68	25.00	23.29	21.54
FHS	0.65	0.64	0.63	0.63	0.62	0.62	0.62	0.61
KP	30	30	30	30	30	30	30	30
QUAL	13	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 775 AT SPOINT, 621125

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	11458 145952	11516 150034	11534 150116	11552 150158	11610 150239	11628 150320	11646 150401
HEIGHT							
SAT.	0.328	0.317	0.322	0.330	0.335	0.327	0.344
1000	0.329	0.317	0.322	0.331	0.335	0.328	0.344
950	0.367	0.367	0.364	0.379	0.387	0.384	0.396
900	0.421	0.424	0.424	0.443	0.453	0.451	0.466
850	0.494	0.498	0.501	0.524	0.534	0.532	0.554
800	0.586	0.584	0.596	0.629	0.641	0.640	0.669
750	0.696	0.709	0.716	0.759	0.776	0.779	0.816
700	0.863	0.878	0.888	0.931	0.970	0.966	1.007
650	1.141	1.129	1.140	1.222	1.253	1.262	1.240
600	1.614	1.587	1.584	1.697	1.699	1.727	1.742
550	2.372	2.342	2.305	2.418	2.360	2.432	2.468
500	3.597	3.510	3.452	3.579	3.510	3.608	3.563
450	5.428	5.357	5.198	5.399	5.304	5.465	5.352
400	8.175	7.962	7.812	8.050	8.006	8.275	8.087
350	12.476	12.082	11.783	11.955	12.125	12.271	12.075
300							
250							
200							
NT	1.608	1.577	1.552	1.609	1.616	1.641	1.629
HEIGHT	SCALE HEIGHT, KM						
950	404.1	376.0	357.0	334.9	328.3	312.8	326.3
900	338.0	346.2	328.2	313.5	310.6	303.8	303.4
850	318.4	318.7	302.5	295.2	296.2	285.9	283.5
800	301.8	282.7	285.4	279.8	273.8	258.3	259.1
750	254.7	256.4	251.8	260.0	239.3	239.2	237.8
700	207.1	227.5	210.7	210.5	209.2	213.4	219.4
650	165.1	169.9	179.9	163.7	184.3	173.0	200.8
600	141.4	142.5	153.2	150.6	164.2	157.5	165.6
550	128.4	129.9	132.2	138.6	143.9	141.1	141.9
500	122.2	122.3	124.7	126.2	125.6	125.7	131.4
450	122.4	122.8	123.3	123.6	121.7	120.6	122.8
400	121.6	123.7	121.9	127.7	121.5	124.2	122.3
350	119.5	129.7	128.5	134.2	131.9	133.5	128.1
300							
HS	1000.40	1000.43	1000.46	1000.49	1000.55	1000.64	1000.73
LONG	-153.77	-153.67	-153.57	-153.47	-153.38	-153.28	-153.18
LAT	9.11	8.09	7.07	6.05	5.03	4.01	2.99
DIPL	10.23	9.24	8.25	7.25	6.25	5.25	4.25
INVL	6.28	4.51	1.79	0.00	0.00	0.00	0.00
L	1.17	1.16	1.16	1.15	1.15	1.14	1.14
DIP	19.85	18.03	16.17	14.28	12.36	10.41	8.44
FHS	0.61	0.60	0.60	0.60	0.60	0.60	0.60
KP	30	30	30	30	30	30	30
QUAL	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1

PASS 802 AT SPOINT, 621127

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	35.7	3535	3553	3611	3629	3647	3705	3722
LT	141907	142013	142119	142223	142324	142425	142525	142618
HEIGHT								
SAT.	0.081	0.091	0.093	0.087	0.091	0.100	0.099	0.105
1000	0.082	0.092	0.094	0.089	0.093	0.101	0.100	0.106
950	0.090	0.104	0.106	0.106	0.108	0.115	0.115	0.122
900	0.102	0.117	0.121	0.121	0.121	0.131	0.132	0.138
850	0.120	0.136	0.140	0.141	0.141	0.151	0.152	0.158
800	0.142	0.160	0.163	0.165	0.164	0.175	0.177	0.182
750	0.168	0.190	0.192	0.194	0.193	0.204	0.206	0.211
700	0.203	0.226	0.231	0.232	0.231	0.246	0.247	0.252
650	0.250	0.267	0.283	0.283	0.281	0.301	0.300	0.306
600	0.312	0.340	0.355	0.355	0.353	0.376	0.374	0.380
550	0.410	0.448	0.461	0.464	0.463	0.488	0.481	0.497
500	0.568	0.614	0.637	0.634	0.652	0.688	0.660	0.688
450	0.818	0.881	0.907	0.898	0.932	0.971	0.952	0.987
400	1.213	1.320	1.348	1.355	1.378	1.428	1.438	1.492
350	1.887	2.072	2.114	2.161	2.111	2.197	2.302	2.393
300	3.535	3.651	3.773	3.791	3.704	3.939	4.195	4.471
250	6.309	6.518	6.485	6.148	6.277	6.755	7.038	
200								
NT	0.651	0.692	0.706	0.701	0.701	0.742	0.765	0.505
HEIGHT	SCALE HEIGHT, KM							
950	431.3	408.4	387.8	325.1	381.9	375.0	359.2	379.0
900	367.5	359.8	365.8	344.1	382.1	366.3	357.7	383.9
850	334.2	328.5	345.3	327.0	337.8	344.8	339.9	359.2
800	304.3	302.2	314.9	308.8	314.8	320.6	320.0	334.0
750	279.0	289.5	285.7	293.7	298.4	295.2	300.4	308.5
700	259.1	276.9	259.2	268.6	275.0	268.7	275.8	277.4
650	233.2	264.2	234.5	235.9	239.8	240.6	245.4	246.1
600	202.3	208.2	211.7	204.1	202.7	207.0	208.9	213.7
550	175.0	168.5	169.8	179.0	155.6	163.1	181.2	171.1
500	151.6	147.9	151.3	151.7	147.0	154.7	149.1	143.3
450	132.9	133.1	135.1	132.1	142.0	146.2	131.4	132.5
400	117.4	119.0	119.9	115.8	127.7	128.8	116.3	117.8
350	100.9	103.4	103.0	102.6	106.2	104.3	98.1	96.7
300	81.0	84.1	83.6	88.4	89.3	84.5	81.7	74.7
HS	1006.06	1005.70	1005.34	1005.00	1004.67	1004.34	1004.02	1003.73
LONG	-154.04	-153.84	-153.64	-153.45	-153.27	-153.09	-152.92	-152.77
LAT	39.22	38.21	37.20	36.19	35.18	34.17	33.16	32.20
DIPL	38.31	37.43	36.54	35.66	34.77	33.88	32.99	32.15
INVL	38.13	37.18	36.24	35.30	34.34	33.40	32.45	31.53
L	1.87	1.82	1.78	1.74	1.70	1.66	1.63	1.59
DIP	57.67	56.84	56.00	55.13	54.24	53.33	52.40	51.50
FHS	0.83	0.82	0.81	0.80	0.79	0.78	0.78	0.77
KP	20	20	20	20	20	20	20	20
QUAL	11	11	11	11	11	11	11	12
SNL	1	1	1	1	1	1	1	1

PASS 802 AT SPOINT, 621127

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	3740 142714	3758 142810	3816 142903	3834 142956	3852 143048	3910 143139	3928 143229	3946 143318
HEIGHT								
SAT.	0.109	0.105	0.107	0.106	0.122	0.119	0.128	0.135
1000	0.109	0.106	0.107	0.106	0.123	0.120	0.128	0.135
950	0.122	0.120	0.122	0.119	0.137	0.136	0.142	0.149
900	0.140	0.137	0.139	0.137	0.152	0.153	0.158	0.164
850	0.160	0.156	0.159	0.158	0.172	0.171	0.178	0.182
800	0.185	0.180	0.183	0.181	0.197	0.194	0.203	0.205
750	0.214	0.208	0.212	0.210	0.226	0.226	0.235	0.234
700	0.255	0.248	0.252	0.250	0.268	0.267	0.279	0.280
650	0.311	0.303	0.308	0.304	0.326	0.321	0.341	0.347
600	0.395	0.384	0.388	0.382	0.414	0.404	0.433	0.441
550	0.512	0.487	0.515	0.510	0.539	0.538	0.589	0.589
500	0.711	0.682	0.716	0.719	0.768	0.767	0.845	0.868
450	1.032	1.003	1.051	1.090	1.143	1.192	1.324	1.393
400	1.576	1.574	1.685	1.715	1.837	1.944	2.218	2.445
350	2.572	2.663	2.870	3.069	3.384	3.567	4.311	4.762
300	4.713	5.057	5.777	6.455	7.213	7.773	9.208	9.932
250		8.670						
200								
NT	0.530	0.879	0.577	0.606	0.662	0.691	0.796	0.855
HEIGHT	SCALE HEIGHT, KM							
950	416.9	391.4	385.5	400.6	467.0	447.4	480.7	520.7
900	382.3	384.9	377.9	376.7	438.0	450.7	435.3	485.9
850	356.5	361.2	359.1	357.7	381.7	410.9	405.1	422.9
800	336.2	336.6	340.5	336.0	354.2	364.5	358.8	382.9
750	317.2	312.6	322.5	311.9	326.7	316.0	314.5	342.9
700	272.3	276.1	268.9	282.7	285.7	281.5	280.6	288.7
650	223.0	231.7	237.1	249.3	236.6	248.3	237.4	226.9
600	202.8	206.8	197.4	191.0	203.2	205.5	188.3	192.4
550	180.0	186.2	169.4	164.0	171.4	158.3	151.3	158.5
500	142.8	142.1	137.0	131.5	139.9	123.2	130.2	122.6
450	127.5	122.1	117.5	117.7	113.0	107.0	103.9	98.1
400	114.2	106.8	102.9	102.9	98.7	97.0	90.8	84.6
350	94.6	88.2	86.6	74.5	74.0	74.9	66.2	70.5
300	79.3	80.6	70.1	71.4	70.5	60.3	71.7	69.4
HS	1003.43	1003.13	1002.89	1002.65	1002.41	1002.18	1001.97	1001.76
LONG	-152.01	-152.45	-152.30	-152.16	-152.01	-151.88	-151.74	-151.61
LAT	31.19	30.18	29.17	28.15	27.13	26.12	25.10	24.09
DIPL	31.26	30.36	29.45	28.55	27.63	26.72	25.80	24.88
INVL	30.58	29.62	28.64	27.67	26.70	25.72	24.71	23.73
L	1.56	1.53	1.50	1.48	1.45	1.43	1.40	1.38
DIP	50.52	49.52	48.48	47.41	46.32	45.19	44.04	42.85
FHS	0.76	0.75	0.74	0.73	0.72	0.72	0.71	0.70
KP	20	20	20	20	20	20	20	20
QUAL	22	11	12	11	22	23	13	13
SNL	1	1	1	1	1	1	1	1

PASS 802 AT SPOINT, 621127

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	4004 143408	4021 143453	4039 143540	4057 143628	4115 143713	4133 143759	4151 143844	4209 143929
HEIGHT								
SAT.	0.153	0.143	0.133	0.148	0.161	0.171	0.188	0.206
1000	0.154	0.143	0.134	0.149	0.162	0.172	0.189	0.206
950	0.150	0.156	0.151	0.170	0.184	0.195	0.216	0.235
900	0.167	0.175	0.171	0.190	0.206	0.218	0.242	0.276
850	0.187	0.195	0.193	0.214	0.232	0.246	0.278	0.329
800	0.213	0.221	0.220	0.243	0.264	0.282	0.323	0.397
750	0.243	0.255	0.252	0.282	0.309	0.334	0.397	0.483
700	0.290	0.303	0.300	0.341	0.373	0.415	0.510	0.622
650	0.355	0.372	0.370	0.430	0.474	0.544	0.687	0.850
600	0.457	0.487	0.485	0.578	0.661	0.778	0.991	1.291
550	0.634	0.682	0.693	0.847	1.011	1.231	1.655	2.024
500	0.942	1.017	1.074	1.397	1.740	2.244	2.988	3.540
450	1.536	1.696	1.871	2.671	3.235	4.449	5.544	6.085
400	2.711	3.100	3.707	5.615	6.844	8.544	9.593	9.810
350	5.414	6.452	8.351	11.438	13.066	14.686		
300	10.862							
250								
200								
NT	0.940	0.598	0.686	0.939	1.107	1.345	0.936	1.057
HEIGHT	SCALE HEIGHT, KM							
950	445.5	516.3	406.6	410.2	410.6	419.5	417.8	335.6
900	452.7	456.2	408.4	427.2	425.7	428.6	389.9	309.1
850	405.9	417.5	389.7	409.1	409.6	381.2	344.1	284.5
800	373.3	371.4	360.2	373.4	358.3	328.4	290.8	259.3
750	340.7	325.6	329.6	299.6	292.5	271.7	235.5	231.8
700	278.1	280.0	273.4	239.5	241.3	211.2	187.4	178.6
650	225.0	215.1	216.0	199.8	176.1	166.7	153.8	138.4
600	177.8	170.5	162.8	149.1	134.2	130.4	121.6	112.8
550	142.6	142.3	131.2	121.9	109.1	93.6	92.3	103.2
500	116.4	112.3	100.3	90.2	95.3	80.9	84.0	90.7
450	97.7	92.8	85.2	73.1	71.3	72.1	84.3	98.7
400	82.9	75.9	67.1	69.1	71.5	84.6	99.9	109.6
350	69.2	67.9	62.2	71.7	86.5	98.8		
300	75.5							
HS	1001.56	1001.39	1001.21	1001.03	1000.90	1000.78	1000.66	1000.57
LONG	-151.48	-151.37	-151.24	-151.12	-151.00	-150.89	-150.78	-150.67
LAT	23.07	22.11	21.10	20.08	19.06	18.05	17.03	16.02
DIPL	23.95	23.07	22.14	21.19	20.25	19.30	18.34	17.38
INVL	22.75	21.79	20.75	19.74	18.71	17.65	16.60	15.53
L	1.36	1.34	1.32	1.31	1.29	1.27	1.26	1.25
DIP	41.62	40.43	39.13	37.79	36.42	35.00	33.55	32.05
FHS	0.69	0.69	0.68	0.67	0.66	0.66	0.65	0.64
KP	20	20	20	20	20	20	20	20
QUAL	13	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 802 AT SPOINT, 621127

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	4227 144013	4245 144057	4303 144140	4320 144220	4339 144305	4357 144348	4415 144429	4433 144510
HEIGHT								
SAT.	0.231	0.257	0.292	0.329	0.364	0.400	0.443	0.498
1000	0.231	0.257	0.292	0.329	0.364	0.401	0.444	0.499
950	0.267	0.296	0.332	0.382	0.439	0.479	0.533	0.586
900	0.312	0.349	0.398	0.459	0.531	0.586	0.645	0.700
850	0.373	0.423	0.490	0.556	0.659	0.712	0.768	0.818
800	0.459	0.512	0.609	0.700	0.816	0.855	0.896	0.929
750	0.569	0.672	0.794	0.870	0.993	1.000	1.026	1.049
700	0.760	0.898	1.038	1.067	1.180	1.171	1.189	1.216
650	1.079	1.207	1.352	1.366	1.448	1.435	1.467	1.516
600	1.564	1.724	1.833	1.889	1.929	1.936	2.011	2.095
550	2.402	2.548	2.714	2.844	2.847	2.906	3.086	3.227
500	3.853	3.988	4.279	4.513	4.521	4.655	4.972	5.151
450	6.259	6.437	6.931	7.282	7.433	7.520	7.767	7.840
400	10.078	10.319	10.848	11.182	11.422	11.212	11.210	
350								
300								
250								
200								
NT	1.154	1.218	1.317	1.384	1.434	1.453	1.509	1.073
HEIGHT	SCALE HEIGHT, KM							
950	333.1	362.9	329.0	303.4	267.2	264.1	266.9	296.1
900	297.8	304.5	264.6	271.4	247.7	254.9	275.7	305.1
850	267.3	257.7	234.4	239.9	234.5	266.5	306.8	358.9
800	243.9	221.1	209.0	218.8	243.7	299.1	347.8	405.3
750	208.8	195.4	197.5	235.6	279.3	323.8	352.8	380.5
700	156.9	172.2	191.6	228.7	272.0	287.5	293.9	278.7
650	136.3	154.7	175.3	179.8	207.0	203.7	203.7	196.4
600	125.9	139.8	147.2	138.8	148.0	143.9	132.1	125.2
550	115.7	123.3	122.9	116.6	121.1	117.0	112.7	112.5
500	105.2	108.4	107.5	105.8	102.1	103.4	107.5	112.8
450	103.6	103.6	106.8	110.2	109.0	115.0	124.4	132.6
400	108.0	112.4	120.3	128.7	133.1	141.6	155.3	
350								
300								
HS	1000.51	1000.45	1000.40	1000.40	1000.40	1000.40	1000.42	1000.45
LONG	-150.56	-150.45	-150.34	-150.25	-150.14	-150.04	-149.94	-149.84
LAT	14.99	13.97	12.95	11.99	10.91	9.89	8.87	7.85
DIPL	16.42	15.45	14.47	13.55	12.51	11.53	10.54	9.55
INVL	14.43	13.33	12.16	11.06	9.76	8.47	7.08	5.49
L	1.23	1.22	1.21	1.20	1.19	1.18	1.17	1.17
DIP	30.51	28.93	27.30	25.73	23.94	22.19	20.41	18.59
FHS	0.64	0.63	0.63	0.62	0.62	0.61	0.61	0.61
KP	20	20	20	20	20	20	20	20
QUAL	13	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 829 AT SPOINT, 621129

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	713 141243	731 141336	749 141429	807 141522	918 141837	936 141925	944 141946	1012 142059
HEIGHT								
SAT.	0.116	0.126	0.119	0.126	0.132	0.147	0.156	0.162
1000	0.117	0.127	0.120	0.127	0.133	0.148	0.157	0.162
950	0.131	0.140	0.133	0.140	0.153	0.167	0.173	0.177
900	0.149	0.160	0.152	0.158	0.172	0.186	0.191	0.196
850	0.171	0.180	0.174	0.178	0.195	0.211	0.215	0.220
800	0.195	0.206	0.199	0.202	0.223	0.242	0.243	0.248
750	0.226	0.236	0.231	0.231	0.257	0.280	0.279	0.284
700	0.268	0.284	0.275	0.276	0.306	0.324	0.328	0.335
650	0.328	0.347	0.331	0.333	0.374	0.401	0.403	0.412
600	0.417	0.437	0.419	0.417	0.469	0.511	0.504	0.515
550	0.551	0.572	0.559	0.539	0.622	0.682	0.668	0.692
500	0.802	0.794	0.818	0.759	0.870	0.949	0.939	0.999
450	1.150	1.149	1.191	1.120	1.288	1.412	1.449	1.597
400	1.816	1.769	1.807	1.840	2.004	2.215	2.424	2.756
350	3.043	2.851	3.021	3.192	3.473	3.920	4.419	5.240
300	5.263	5.162	5.752	5.827	6.008	6.974	8.233	10.682
250					9.240	11.381		
200								
NT	0.597	0.588	0.612	0.618	1.055	1.212	0.822	0.955
HEIGHT	SCALE HEIGHT, KM							
950	408.8	333.3	428.7	456.6	392.3	428.1	504.7	521.3
900	386.7	409.2	391.9	431.7	417.7	410.9	466.8	466.9
850	373.2	390.9	372.4	396.0	387.9	388.0	422.5	423.3
800	347.2	355.5	341.6	363.2	353.5	364.9	380.8	383.9
750	312.9	320.1	306.6	330.3	315.6	326.1	332.8	336.5
700	270.6	277.1	278.9	291.3	270.8	284.4	271.1	268.6
650	232.9	236.3	251.2	251.7	236.1	244.3	239.2	236.9
600	199.5	206.3	201.3	213.3	207.0	204.6	213.9	207.3
550	170.0	176.4	163.0	176.3	174.3	170.9	174.6	165.2
500	149.6	147.0	147.3	142.7	141.0	140.5	134.3	122.9
450	129.1	124.4	131.3	113.2	118.5	118.4	107.7	101.4
400	108.7	114.7	113.9	99.9	106.2	103.1	93.0	86.[illegible]
350	94.4	97.8	87.2	87.7	91.1	85.7	80.9	75.5
300	97.7	79.0	85.5	92.3	104.9	96.5	80.3	67.5
HS	1002.65	1002.44	1002.23	1002.02	1001.28	1001.16	1001.11	1000.92
LONG	-148.62	-148.48	-148.33	-148.19	-147.67	-147.54	-147.49	-147.30
LAT	30.05	29.03	28.02	27.01	23.01	22.00	21.55	19.97
DIPL	30.69	29.98	29.06	28.14	24.47	23.53	23.12	21.64
INVL	30.20	29.24	28.25	27.28	23.37	22.38	21.93	20.32
L	1.55	1.52	1.49	1.46	1.37	1.35	1.34	1.32
DIP	50.12	49.08	48.02	46.93	42.31	41.06	40.49	38.43
FHS	0.76	0.75	0.74	0.73	0.70	0.69	0.69	0.68
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	22	13	12	12	12	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 629 AT SPOINT, 621129

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	1050 142144	1048 142229	1459 143224	1517 143305
HEIGHT SAT.	0.166	0.167	0.532	0.553
1000	0.166	0.168	0.533	0.555
950	0.182	0.185	0.627	0.649
900	0.202	0.205	0.739	0.748
850	0.226	0.230	0.863	0.847
800	0.255	0.259	1.010	0.939
750	0.292	0.299	1.147	1.044
700	0.343	0.352	1.306	1.207
650	0.425	0.432	1.577	1.465
600	0.533	0.556	2.049	1.935
550	0.737	0.803	2.879	2.734
500	1.123	1.269	4.132	3.930
450	1.958	2.281	5.842	5.637
400	3.626	4.449	8.230	8.067
350	7.166	9.477	11.609	11.316
300				
250				
200				
NT	0.678	0.807	1.824	1.757
HEIGHT	SCALE HEIGHT, KM			
950	509.1	495.6	297.2	330.6
900	465.7	465.5	311.8	375.0
850	428.7	427.2	328.8	446.0
800	388.2	377.2	355.2	482.9
750	332.4	320.3	410.2	403.6
700	270.1	279.9	325.7	307.2
650	235.5	232.6	235.9	225.1
600	200.8	161.8	163.8	156.2
550	150.7	129.2	143.4	143.1
500	101.4	95.5	140.7	140.7
450	88.0	82.8	146.3	139.7
400	78.2	71.1	144.1	141.7
350	71.4	67.4	165.0	161.0
300				
HS	1000.80	1000.68	1001.09	1001.27
LONG	-147.19	-147.08	-145.05	-145.55
LAT	18.94	17.92	3.71	2.69
DIPL	20.08	19.72	6.02	5.02
INVL	19.30	18.25	0.00	0.00
L	1.30	1.28	1.15	1.15
DIP	37.06	35.64	11.91	9.96
FHS	0.67	0.66	0.59	0.59
KP	1+	1+	1+	1+
QUAL	13	13	22	12
SNL	1	1	1	1

PASS 830 AT SPOINT, 621129

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	15629 142154	15636 142236	15655 142323	15713 142407	15731 142450	15749 142533	15807 142616	15825 142659
HEIGHT								
SAT.	0.311	0.328	0.376	0.408	0.446	0.481	0.543	0.608
1000	0.311	0.329	0.376	0.409	0.447	0.482	0.543	0.609
950	0.350	0.373	0.425	0.469	0.514	0.559	0.614	0.666
900	0.400	0.426	0.488	0.540	0.601	0.647	0.683	0.717
850	0.457	0.487	0.563	0.620	0.704	0.738	0.743	0.765
800	0.531	0.575	0.651	0.708	0.804	0.812	0.805	0.826
750	0.638	0.699	0.773	0.815	0.906	0.892	0.881	0.937
700	0.773	0.856	0.932	0.971	1.025	1.013	1.012	1.090
650	0.998	1.097	1.137	1.188	1.191	1.208	1.219	1.300
600	1.353	1.460	1.448	1.621	1.556	1.571	1.575	1.683
550	2.016	2.024	1.981	2.362	2.202	2.207	2.188	2.341
500	3.117	2.976	3.047	3.616	3.410	3.308	3.337	3.422
450	5.002	4.801	4.852	5.581	5.348	5.144	5.052	5.029
400	7.845	7.547	7.660	8.395	7.862	7.505	7.167	7.061
350						10.375	9.748	9.342
300								
250								
200								
NT	0.986	0.986	1.016	1.145	1.121	1.552	1.521	1.541
HEIGHT	SCALE HEIGHT, KM							
950	410.3	384.6	382.6	365.0	334.9	339.1	445.0	626.3
900	377.9	367.8	355.2	358.0	335.8	362.2	535.7	736.8
850	339.3	321.0	337.3	361.9	352.1	452.7	605.4	655.9
800	303.4	289.5	320.1	368.0	397.1	508.8	546.2	536.5
750	272.1	265.3	286.5	313.2	393.4	446.5	457.0	431.8
700	240.8	241.1	257.1	263.8	351.1	353.2	347.2	329.1
650	195.0	197.6	231.7	215.3	267.7	247.4	253.0	249.4
600	149.7	165.5	191.3	155.0	174.2	183.3	184.3	183.3
550	116.1	142.8	136.0	125.6	129.6	133.6	138.9	144.9
500	108.2	115.0	110.6	114.7	110.6	114.3	116.9	128.4
450	107.5	103.9	103.9	118.2	120.1	122.0	125.8	136.4
400	112.1	115.3	120.7	130.6	134.8	144.2	158.3	164.8
350						187.9	195.7	210.2
300								
HS	1000.70	1000.62	1000.52	1000.48	1000.45	1000.42	1000.42	1000.48
LONG	-173.60	-173.50	-173.38	-173.27	-173.17	-173.06	-172.96	-172.86
LAT	17.95	16.99	15.91	14.89	13.87	12.85	11.83	10.82
DIPL	15.37	14.48	13.48	12.53	11.57	10.61	9.64	8.67
INVL	12.53	11.41	10.07	8.73	7.26	5.56	3.38	0.00
L	1.21	1.20	1.19	1.18	1.18	1.17	1.16	1.15
DIP	28.80	27.32	25.62	23.97	22.27	20.54	18.77	16.96
FHS	0.63	0.63	0.62	0.62	0.61	0.61	0.61	0.61
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	23	23	23	23	23	22	22	22
SNL	1	1	1	2	2	2	1	1

PASS 830 AT SPUINT, 621129

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	15843 142741	15900 142821	15954 143026	20013 143110	20030 143149	20048 143230	20106 143311
HEIGHT							
SAT.	0.603	0.604	0.582	0.576	0.560	0.581	0.624
1000	0.604	0.605	0.583	0.578	0.563	0.583	0.626
950	0.654	0.650	0.609	0.623	0.615	0.622	0.650
900	0.693	0.689	0.630	0.658	0.650	0.660	0.696
850	0.741	0.740	0.719	0.720	0.703	0.715	0.792
800	0.804	0.805	0.778	0.781	0.776	0.778	0.863
750	0.900	0.890	0.852	0.866	0.863	0.863	0.964
700	1.036	1.019	0.991	0.991	0.980	0.982	1.042
650	1.259	1.229	1.170	1.197	1.191	1.180	1.292
600	1.629	1.579	1.526	1.571	1.555	1.511	1.765
550	2.278	2.177	2.121	2.200	2.147	2.087	2.276
500	3.369	3.167	3.065	3.092	3.011	2.915	3.165
450	4.893	4.650	4.235	4.232	4.148	4.017	4.396
400	6.786	6.485	5.703	5.721	5.668	5.642	6.141
350	8.795	8.519	7.476	7.599	7.706	7.818	8.276
300			9.245	9.242	9.575	9.722	
250							
200							
NT	1.488	1.432	1.739	1.758	1.754	1.747	1.426
HEIGHT	SCALE HEIGHT, KM						
950	779.1	891.7	1462.4	1086.1	945.1	959.9	1131.1
900	779.2	774.9	1012.3	761.9	744.0	752.5	726.3
850	661.8	651.3	490.8	592.5	628.4	617.7	529.9
800	543.0	540.8	532.6	533.1	530.0	519.6	465.4
750	426.7	448.0	431.6	440.2	440.7	440.9	430.9
700	313.4	329.8	316.0	330.0	332.6	343.4	396.4
650	236.1	240.8	251.2	232.2	226.9	239.2	271.3
600	181.5	184.1	173.9	174.5	174.9	184.1	174.0
550	137.2	147.2	140.5	145.9	147.8	153.9	171.4
500	131.4	130.6	144.5	153.5	151.8	152.3	152.5
450	142.6	137.1	162.7	163.6	161.0	157.4	150.3
400	169.6	165.4	175.4	169.6	159.5	146.4	152.3
350	223.8	212.5	198.5	193.4	175.2	170.2	253.9
300			349.5	483.9	454.1	390.5	
HS	1000.54	1000.60	1000.87	1001.01	1001.15	1001.30	1001.47
LONG	-172.76	-172.66	-172.36	-172.26	-172.17	-172.07	-171.98
LAT	9.80	8.84	5.78	4.70	3.74	2.72	1.70
DIPL	7.70	6.77	3.80	2.75	1.81	0.80	-0.21
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.15	1.14	1.13	1.13	1.13	1.13	1.13
DIP	15.13	13.36	7.58	5.49	3.61	1.60	-0.41
FHS	0.61	0.60	0.60	0.60	0.61	0.61	0.61
KP	1+	1+	1+	1+	1+	1+	1+
QUAL	22	22	22	21	22	22	21
SNL	1	1	1	1	1	1	1

PASS 830 AT SPOINT, 621129

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	20142	20159	20217	20235	20253	20311	20329	20347
LT	143431	143509	143550	143631	143712	143754	143836	143917
HEIGHT								
SAT.	0.589	0.599	0.626	0.647	0.680	0.672	0.659	0.595
1000	0.592	0.602	0.629	0.651	0.684	0.676	0.664	0.604
950	0.628	0.640	0.660	0.684	0.720	0.725	0.740	0.721
900	0.666	0.679	0.695	0.718	0.756	0.767	0.801	0.820
850	0.718	0.727	0.746	0.767	0.801	0.814	0.860	0.906
800	0.785	0.786	0.818	0.835	0.865	0.871	0.924	0.989
750	0.874	0.885	0.926	0.920	0.969	0.957	1.010	1.084
700	1.005	1.023	1.061	1.059	1.149	1.120	1.137	1.221
650	1.218	1.247	1.292	1.321	1.392	1.378	1.415	1.427
600	1.552	1.623	1.668	1.717	1.801	1.759	1.837	1.875
550	2.125	2.207	2.261	2.449	2.512	2.443	2.524	2.616
500	2.975	3.138	3.229	3.540	3.666	3.574	3.695	3.859
450	4.193	4.464	4.630	5.067	5.317	5.252	5.511	5.798
400	5.954	6.453	6.584	7.195	7.427	7.474	7.963	8.276
350	8.510	8.985	8.997	9.701	9.886	10.108	10.692	11.341
300								
250								
200								
NT	1.362	1.433	1.469	1.572	1.633	1.626	1.705	1.778
HEIGHT	SCALE HEIGHT, KM							
950	915.5	855.2	1057.7	1165.9	1045.9	872.6	547.8	339.5
900	757.1	747.8	815.8	853.2	917.3	859.5	670.1	445.1
850	621.5	653.1	656.6	668.4	757.3	760.0	669.8	540.8
800	502.4	556.6	519.6	569.6	563.7	621.8	601.5	531.1
750	422.7	421.7	425.1	470.8	386.9	446.6	488.9	472.9
700	318.2	304.9	330.6	349.2	293.4	308.5	341.7	377.4
650	236.8	230.9	238.2	207.7	235.0	228.7	233.7	267.4
600	190.0	189.1	185.6	173.7	173.4	183.2	179.4	168.4
550	155.1	152.2	151.3	135.8	140.6	143.1	145.2	143.6
500	148.4	140.9	139.4	140.5	134.5	129.1	126.2	125.7
450	145.4	139.0	136.6	137.5	138.4	134.8	130.2	130.2
400	138.9	142.8	148.6	152.2	161.2	152.4	149.8	141.0
350	153.7	166.0	183.0	210.5	239.5	210.4	210.1	195.6
300								
HS	1001.89	1002.09	1002.35	1002.62	1002.89	1003.22	1003.58	1003.94
LONG	-171.79	-171.71	-171.61	-171.51	-171.42	-171.32	-171.22	-171.12
LAT	-0.33	-1.29	-2.31	-3.33	-4.35	-5.37	-6.39	-7.41
DIPL	-2.23	-3.19	-4.21	-5.23	-6.26	-7.29	-8.33	-9.36
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.51
L	1.13	1.13	1.14	1.14	1.14	1.15	1.16	1.16
DIP	-4.45	-6.36	-8.38	-10.38	-12.38	-14.36	-16.31	-18.25
FHS	0.61	0.62	0.62	0.63	0.63	0.64	0.64	0.65
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	22	21	22	21	22	22	22	22
SNL	1	1	1	1	1	1	1	1

PASS 830 AT SPOINT, 621129

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	20405
LT	143959
HEIGHT	
SAT.	0.549
1000	0.557
950	0.662
900	0.769
850	0.920
800	1.042
750	1.169
700	1.320
650	1.557
600	1.946
550	2.717
500	4.056
450	6.205
400	9.008
350	12.356
300	
250	
200	
NT	1.892

HEIGHT	SCALE HEIGHT, KM
950	289.9
900	314.4
850	365.9
800	414.8
750	397.9
700	353.4
650	278.8
600	197.9
550	139.2
500	120.1
450	123.7
400	143.4
350	179.2
300	

HS	1004.31
LONG	-171.02
LAT	-8.43
DIPL	-10.40
INVL	5.79
L	1.17
DIP	-20.16
FHS	0.66
KP	1+
QUAL	22
SNL	1

PASS 856 AT SPOINT, 621130

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	234101 140921	234119 141004	234138 141050	234155 141131	234213 141213	234232 141257	234249 141336	234307 141418
HEIGHT								
SAT.	0.183	0.191	0.205	0.213	0.245	0.272	0.265	0.308
1000	0.183	0.190	0.205	0.212	0.245	0.272	0.265	0.309
950	0.203	0.217	0.233	0.248	0.277	0.309	0.320	0.365
900	0.229	0.245	0.266	0.285	0.323	0.367	0.385	0.438
850	0.260	0.281	0.305	0.333	0.383	0.441	0.467	0.529
800	0.299	0.327	0.370	0.397	0.459	0.530	0.569	0.655
750	0.361	0.408	0.464	0.504	0.580	0.695	0.723	0.832
700	0.452	0.515	0.602	0.667	0.797	0.926	0.953	1.081
650	0.597	0.704	0.809	0.911	1.113	1.276	1.305	1.432
600	0.863	0.991	1.210	1.401	1.645	1.861	1.861	1.987
550	1.374	1.632	1.965	2.279	2.609	2.875	2.781	2.998
500	2.491	2.951	3.521	3.931	4.236	4.666	4.507	4.761
450	4.660	5.383	6.177	6.578	6.878	7.343	7.070	7.240
400	8.511	8.968	9.845					10.277
350								
300								
250								
200								
NT	0.807	0.912	1.047	0.718	0.799	0.888	0.877	1.381
HEIGHT	SCALE HEIGHT, KM							
950	470.3	416.0	449.3	356.0	357.9	367.9	266.2	282.2
900	396.7	378.6	369.9	333.1	302.7	287.1	262.8	272.3
850	362.0	330.7	301.9	295.3	272.1	257.1	251.3	244.4
800	323.9	283.9	260.7	254.9	243.5	229.6	229.6	223.4
750	253.5	240.0	224.8	204.5	210.0	200.8	202.4	207.6
700	205.4	196.2	189.2	172.3	169.7	171.9	174.1	189.0
650	164.0	166.2	154.1	144.0	141.4	145.4	151.3	167.7
600	126.1	128.6	115.0	111.2	118.9	125.4	133.7	140.5
550	97.7	93.1	90.5	96.5	106.2	109.5	118.8	114.0
500	82.2	78.7	84.1	92.4	100.3	101.7	103.6	106.5
450	76.7	91.5	100.7	103.1	106.6	123.0	122.3	135.1
400	93.0	103.1	113.6					164.8
350								
300								
HS	999.90	999.90	999.90	999.90	999.94	1000.01	1000.06	1000.15
LONG	-142.91	-142.81	-142.70	-142.60	-142.50	-142.39	-142.30	-142.20
LAT	14.52	13.51	12.43	11.47	10.45	9.38	8.41	7.39
DIPL	17.00	16.03	15.00	14.07	13.09	12.04	11.11	10.12
INVL	15.42	14.32	13.17	12.09	10.94	9.67	8.48	7.15
L	1.24	1.23	1.22	1.21	1.20	1.19	1.18	1.18
DIP	31.45	29.88	28.18	26.62	24.93	23.11	21.44	19.64
FHS	0.65	0.64	0.63	0.63	0.62	0.62	0.61	0.61
KP	4-	4-	4-	4-	4-	4-	4-	4-
QUAL	13	13	13	13	23	23	23	22
SNL	1	1	1	1	1	1	1	1

PASS 856 AT SPOINT, 621130

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	234325 141459	234342 141538	234400 141619	234418 141700	234436 141741	234454 141822	234512 141903	234530 141944
HEIGHT								
SAT.	0.334	0.373	0.405	0.438	0.434	0.492	0.503	0.503
1000	0.334	0.373	0.405	0.439	0.435	0.494	0.504	0.505
950	0.407	0.449	0.487	0.521	0.514	0.570	0.578	0.580
900	0.495	0.549	0.592	0.617	0.615	0.662	0.665	0.668
850	0.605	0.669	0.709	0.730	0.725	0.770	0.767	0.772
800	0.740	0.813	0.841	0.856	0.848	0.893	0.887	0.917
750	0.924	1.011	1.008	1.015	1.008	1.067	1.064	1.122
700	1.178	1.313	1.244	1.274	1.234	1.332	1.333	1.430
650	1.539	1.816	1.642	1.722	1.641	1.788	1.753	1.926
600	2.174	2.650	2.356	2.481	2.345	2.573	2.498	2.695
550	3.312	3.951	3.554	3.643	3.514	3.712	3.640	3.795
500	5.197	5.778	5.267	5.296	5.071	5.260	5.228	5.438
450	7.578	8.017	7.454	7.416	7.055	7.191	7.183	7.478
400	10.347	10.467	9.846	9.779	9.237	9.296	9.409	9.734
350			11.791					
300								
250								
200								
NT	1.475	1.622	2.055	1.534	1.470	1.536	1.528	1.597
HEIGHT	SCALE HEIGHT, KM							
950	251.8	259.3	266.8	288.9	290.8	335.9	350.0	357.6
900	251.4	249.5	270.9	295.7	296.3	332.7	350.5	351.5
850	247.5	247.7	286.0	305.7	307.5	321.6	334.1	313.0
800	235.5	241.9	279.9	314.5	297.6	304.0	309.5	271.6
750	217.8	212.7	253.6	259.7	263.6	258.4	254.4	231.6
700	196.5	174.6	213.3	192.8	217.0	203.6	209.7	190.0
650	171.1	147.1	163.7	144.7	162.2	157.4	167.9	162.4
600	133.6	127.9	130.9	132.4	132.2	136.9	135.7	148.7
550	112.1	126.8	121.9	133.5	128.9	140.4	136.1	143.6
500	117.3	140.8	133.5	133.1	140.6	149.9	145.9	144.5
450	148.7	170.4	162.3	165.5	169.3	177.7	170.0	169.6
400	190.3	227.9	211.3	222.1	210.4	216.0	220.2	232.3
350			360.8					
300								
HS	1000.27	1000.38	1000.50	1000.68	1000.86	1001.04	1001.28	1001.55
LONG	-142.11	-142.02	-141.92	-141.82	-141.73	-141.63	-141.54	-141.44
LAT	6.37	5.41	4.39	3.37	2.35	1.33	0.31	-0.70
DIPL	9.12	8.18	7.19	6.19	5.19	4.19	3.18	2.18
INVL	5.05	4.03	0.78	0.00	0.00	0.00	0.00	0.00
L	1.17	1.16	1.16	1.15	1.15	1.15	1.14	1.14
DIP	17.81	16.05	14.15	12.23	10.29	8.33	6.35	4.36
FHS	0.60	0.60	0.60	0.59	0.59	0.59	0.59	0.59
KP	4-	4-	4-	4-	4-	4-	4-	4-
QUAL	22	22	22	11	21	21	21	21
SNL	1	1	1	1	1	1	1	1

PASS 857 AT SPOINT, 6212 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	12217 135728	12235 135820	12253 135913	12310 140001	12328 140050	12346 140140	12404 140229	12422 140317
HEIGHT								
SAT.	0.111	0.120	0.121	0.127	0.137	0.138	0.142	0.143
1000	0.112	0.120	0.121	0.128	0.137	0.138	0.142	0.143
950	0.126	0.134	0.131	0.140	0.149	0.153	0.153	0.160
900	0.135	0.143	0.140	0.148	0.158	0.162	0.163	0.172
850	0.146	0.154	0.151	0.158	0.170	0.174	0.177	0.186
800	0.160	0.168	0.166	0.172	0.184	0.191	0.194	0.204
750	0.175	0.184	0.184	0.196	0.203	0.213	0.213	0.230
700	0.195	0.211	0.207	0.223	0.232	0.239	0.242	0.264
650	0.233	0.250	0.244	0.253	0.279	0.287	0.293	0.305
600	0.282	0.299	0.289	0.285	0.339	0.349	0.360	0.353
550	0.355	0.382	0.364	0.375	0.432	0.443	0.455	0.469
500	0.451	0.492	0.491	0.547	0.575	0.604	0.623	0.669
450	0.635	0.701	0.702	0.731	0.815	0.868	0.921	0.992
400	0.907	1.009	1.013	1.045	1.183	1.276	1.400	1.609
350	1.370	1.550	1.545	1.652	1.949	2.033	2.476	3.054
300	2.372	2.770	2.749	3.156	3.490	3.741	4.980	6.377
250	5.049	5.491	5.833	6.839	7.317	7.992		
200								
NT	0.506	0.563	0.568	0.628	0.694	0.740	0.512	0.596
HEIGHT	SCALE HEIGHT, KM							
950	613.1	679.8	760.1	763.9	812.1	978.8	929.6	643.5
900	637.3	697.3	684.1	789.5	741.2	752.6	695.0	659.4
850	579.9	616.5	585.4	669.7	618.1	598.7	546.7	573.6
800	521.9	530.7	512.3	540.6	541.0	505.8	494.0	483.9
750	463.9	444.7	445.8	401.4	463.9	437.4	441.4	392.1
700	403.8	378.5	381.6	359.9	387.3	369.0	377.6	350.3
650	329.7	318.6	327.2	327.4	311.2	312.4	297.8	312.4
600	255.7	258.6	272.8	294.8	240.4	256.3	230.8	274.4
550	215.6	216.0	213.5	218.7	200.5	194.2	193.2	177.4
500	181.2	175.0	155.0	146.0	168.7	153.6	155.8	137.6
450	158.6	151.3	145.7	151.1	148.4	138.2	127.0	118.6
400	135.6	129.0	130.0	120.0	119.0	120.8	107.2	93.8
350	109.0	104.4	106.1	98.1	89.8	96.1	76.7	67.9
300	79.2	81.7	71.9	69.6	77.0	66.7	73.2	69.4
HS	1001.80	1001.59	1001.38	1001.20	1001.02	1000.84	1000.67	1000.55
LONG	-171.20	-171.06	-170.92	-170.79	-170.65	-170.52	-170.39	-170.27
LAT	28.97	27.95	26.94	25.98	24.96	23.95	22.93	21.92
DIPL	25.93	25.04	24.15	23.31	22.41	21.52	20.61	19.70
INVL	24.78	23.81	22.81	21.85	20.85	19.84	18.79	17.74
L	1.40	1.38	1.36	1.34	1.33	1.31	1.29	1.28
DIP	44.20	43.06	41.89	40.75	39.52	38.25	36.95	35.60
FHS	0.70	0.69	0.69	0.68	0.67	0.67	0.66	0.65
KP	00	00	00	00	00	00	00	00
QUAL	22	22	23	22	23	23	23	13
SNL	1	1	1	1	1	1	1	1

PASS 857 AT SPOINT, 6212 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	12440 140404	12458 140452	12515 140534	12533 140619	12551 140704	12609 140748	12627 140832	12645 140916
HEIGHT								
SAT.	0.152	0.159	0.178	0.182	0.186	0.206	0.217	0.239
1000	0.153	0.159	0.178	0.182	0.186	0.206	0.217	0.239
950	0.167	0.175	0.192	0.202	0.208	0.227	0.243	0.265
900	0.181	0.190	0.206	0.217	0.228	0.250	0.269	0.295
850	0.194	0.207	0.224	0.238	0.252	0.277	0.302	0.332
800	0.209	0.229	0.245	0.265	0.286	0.317	0.347	0.387
750	0.224	0.256	0.285	0.301	0.332	0.367	0.413	0.458
700	0.257	0.295	0.349	0.361	0.402	0.449	0.501	0.575
650	0.337	0.344	0.432	0.439	0.491	0.571	0.636	0.729
600	0.428	0.415	0.558	0.555	0.666	0.828	0.806	1.158
550	0.538	0.566	0.742	0.812	0.928	1.265	1.260	1.907
500	0.829	0.849	1.075	1.302	1.492	2.141	2.402	3.316
450	1.241	1.362	1.737	2.174	2.930	4.210	4.679	5.918
400	2.012	2.423	3.004	4.306	6.097	7.973	8.406	9.461
350	3.823	4.701	6.074	8.749				
300	7.987							
250								
200								
NT	0.725	0.487	0.609	0.782	0.568	0.750	0.808	1.009
HEIGHT	SCALE HEIGHT, KM							
950	663.9	615.5	706.5	657.9	558.1	549.0	471.7	477.4
900	679.5	573.2	639.9	584.6	505.1	481.6	438.7	427.7
850	617.7	531.8	539.3	498.2	436.1	423.8	385.7	366.3
800	555.9	460.3	436.5	422.2	371.6	363.3	335.5	315.8
750	494.1	394.4	363.2	349.8	312.1	302.8	287.5	265.6
700	405.0	348.8	304.9	299.5	265.9	240.2	243.2	219.8
650	264.7	303.1	246.7	249.2	219.6	182.0	209.4	173.9
600	200.8	237.3	201.3	194.8	175.8	140.9	175.6	129.5
550	173.6	143.3	167.1	124.6	132.9	112.0	95.6	98.6
500	120.4	121.3	123.8	103.0	94.4	85.3	73.6	86.4
450	114.9	96.8	99.6	89.0	72.5	74.7	79.6	94.4
400	89.4	82.4	81.6	67.5	73.1	85.8	92.3	111.9
350	72.9	70.0	64.5	73.6				
300	61.3							
HS	1000.43	1000.31	1000.22	1000.13	1000.04	999.98	999.95	999.92
LONG	-170.15	-170.02	-169.92	-169.81	-169.70	-169.59	-169.48	-169.37
LAT	20.90	19.88	18.92	17.90	16.88	15.86	14.84	13.83
DIPL	18.78	17.86	16.98	16.04	15.10	14.15	13.20	12.25
INVL	16.70	15.61	14.58	13.45	12.27	11.08	9.80	8.45
L	1.26	1.25	1.24	1.22	1.21	1.20	1.19	1.18
DIP	34.22	32.80	31.41	29.90	28.35	26.76	25.13	23.47
FHS	0.65	0.64	0.64	0.63	0.63	0.62	0.62	0.62
KP	00	00	00	00	00	00	00	00
QUAL	23	23	23	13	23	33	33	33
SNL	1	1	1	1	1	1	1	1

PASS 857 AT POINT, 6212 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	12738	13057	13113	13132
LT	141122	141858	141934	142017
HEIGHT				
SAT.	0.262	0.467	0.490	0.489
1000	0.262	0.469	0.492	0.493
950	0.296	0.568	0.592	0.597
900	0.349	0.709	0.733	0.742
850	0.418	0.861	0.889	0.896
800	0.503	1.012	1.047	1.065
750	0.643	1.176	1.225	1.257
700	0.884	1.423	1.494	1.532
650	1.273	1.863	1.969	1.985
600	1.851	2.546	2.707	2.715
550	2.799	3.494	3.682	3.766
500	4.335	4.830	5.005	5.143
450	6.454	6.592	6.825	6.974
400	9.287	8.832	9.093	9.221
350		11.153		
300				
250				
200				
NT	1.229	1.986	1.548	1.577
HEIGHT	SCALE HEIGHT, KM			
950	360.5	237.3	244.8	245.6
900	294.3	244.2	249.7	250.4
850	263.1	284.6	282.8	279.0
800	238.7	323.0	314.0	293.1
750	193.6	295.0	284.1	273.5
700	150.6	230.5	223.8	224.7
650	137.9	178.1	166.0	181.3
600	128.8	162.0	161.5	159.1
550	117.2	156.3	163.6	156.7
500	120.7	155.6	160.5	163.0
450	133.3	166.5	167.7	168.8
400	141.2	180.4	186.5	201.6
350		286.3		
300				
HS	999.96	1001.46	1001.69	1001.98
LONG	-169.06	-168.00	-167.91	-167.81
LAT	10.83	-0.44	-1.35	-2.42
DIPL	9.40	-1.64	-2.54	-3.62
INVL	3.07	0.00	0.00	0.00
L	1.16	1.13	1.13	1.14
DIP	18.31	-3.27	-5.08	-7.22
FHS	0.61	0.61	0.61	0.62
KP	00	00	00	00
QUAL	33	32	32	32
SNL	1	1	1	1

PASS 897 AT SPOINT, 6212 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	234404 133632	234422 133722	234440 133812	234458 133901	234516 133949	234533 134034	234551 134121	234609 134207
HEIGHT								
SAT.	0.151	0.158	0.165	0.173	0.171	0.176	0.180	0.185
1000	0.151	0.159	0.166	0.173	0.172	0.176	0.181	0.185
950	0.172	0.183	0.189	0.197	0.191	0.199	0.204	0.214
900	0.197	0.207	0.215	0.223	0.215	0.222	0.229	0.241
850	0.227	0.236	0.247	0.254	0.244	0.251	0.259	0.273
800	0.262	0.271	0.284	0.291	0.282	0.288	0.295	0.312
750	0.316	0.327	0.338	0.346	0.339	0.360	0.353	0.373
700	0.383	0.403	0.411	0.414	0.411	0.457	0.436	0.454
650	0.483	0.506	0.504	0.522	0.514	0.578	0.545	0.570
600	0.608	0.647	0.649	0.680	0.655	0.748	0.707	0.740
550	0.820	0.820	0.838	0.892	0.905	1.001	0.943	0.979
500	1.164	1.160	1.225	1.277	1.295	1.416	1.359	1.396
450	1.737	1.799	1.865	1.941	1.947	2.149	2.063	2.095
400	2.740	2.990	2.946	3.137	3.216	3.478	3.310	3.251
350	4.804	5.078	5.045	5.382	5.372	5.802	5.541	5.541
300	7.883	8.389	8.298	8.750	8.809	9.199	8.960	9.693
250								
200								
NT	0.896	0.945	0.949	1.001	1.004	1.082	1.041	1.069
HEIGHT	SCALE HEIGHT, KM							
950	403.5	412.9	406.6	394.4	458.9	432.2	453.7	409.1
900	360.7	386.1	369.6	386.5	399.3	405.5	403.8	400.3
850	334.0	348.8	341.8	356.3	356.2	350.9	365.7	363.9
800	307.0	311.6	314.6	323.8	317.5	300.0	327.7	321.9
750	273.3	277.5	286.6	288.1	286.8	275.6	289.3	285.6
700	239.9	243.9	258.2	252.3	256.0	251.1	250.8	249.5
650	219.2	218.0	229.8	223.9	221.9	226.6	215.6	219.1
600	198.4	201.2	201.6	199.8	185.9	192.6	188.8	194.8
550	165.3	184.3	171.5	171.1	148.9	158.2	161.5	166.8
500	136.3	137.6	125.8	130.2	132.8	133.8	132.9	133.7
450	117.4	104.7	115.7	113.8	107.3	114.6	115.9	120.6
400	99.9	98.6	102.8	98.6	99.4	101.1	97.1	105.6
350	91.9	91.0	90.8	93.4	97.1	98.5	101.1	86.9
300	107.0	120.8	122.6	120.8	118.5	134.4	102.2	98.4
HS	1001.07	1000.95	1000.83	1000.71	1000.62	1000.53	1000.44	1000.38
LONG	-151.88	-151.75	-151.62	-151.48	-151.36	-151.24	-151.12	-151.00
LAT	26.50	25.49	24.47	23.45	22.44	21.48	20.46	19.44
DIPL	27.08	26.16	25.23	24.31	23.38	22.49	21.55	20.61
INVL	26.11	25.10	24.10	23.12	22.12	21.14	20.13	19.11
L	1.44	1.41	1.39	1.37	1.35	1.33	1.31	1.30
DIP	45.63	44.49	43.31	42.09	40.84	39.63	38.31	36.95
FHS	0.72	0.71	0.70	0.70	0.69	0.68	0.67	0.67
KP	30	30	30	30	30	30	30	30
QUAL	12	12	12	11	12	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 897 AT SPOINT, 6212 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	234627 134252	234643 134332	234703 134421	234720 134503	234738 134547	234756 134631	234814 134713	234832 134756
HEIGHT								
SAT.	0.196	0.194	0.202	0.216	0.214	0.229	0.230	0.238
1000	0.196	0.194	0.202	0.216	0.214	0.229	0.230	0.238
950	0.221	0.223	0.225	0.241	0.241	0.256	0.259	0.266
900	0.249	0.249	0.252	0.265	0.269	0.284	0.286	0.293
850	0.282	0.280	0.283	0.296	0.302	0.317	0.321	0.330
800	0.325	0.320	0.322	0.334	0.348	0.365	0.362	0.386
750	0.386	0.379	0.378	0.404	0.412	0.431	0.430	0.464
700	0.462	0.451	0.452	0.496	0.498	0.524	0.526	0.570
650	0.577	0.570	0.570	0.628	0.630	0.660	0.680	0.703
600	0.741	0.723	0.722	0.803	0.796	0.830	0.884	0.919
550	0.969	0.949	0.938	1.086	1.126	1.203	1.278	1.410
500	1.399	1.423	1.417	1.660	1.749	1.888	2.122	2.361
450	2.144	2.302	2.232	2.697	2.871	3.254	3.812	4.215
400	3.516	3.845	3.881	4.650	5.057	5.787	6.603	7.601
350	6.162	6.669	7.283	8.197	8.882			
300								
250								
200								
NT	0.722	0.757	0.771	0.888	0.942	0.651	0.719	0.792
HEIGHT	SCALE HEIGHT, KM							
950	451.0	436.6	463.6	498.7	504.3	493.0	486.1	504.3
900	400.0	423.3	426.7	461.2	437.1	452.5	444.4	448.6
850	361.2	382.2	391.1	404.9	380.9	391.1	401.2	369.4
800	325.3	340.5	351.3	349.2	334.7	339.4	358.1	309.5
750	293.5	297.2	299.1	297.4	291.9	290.1	294.1	265.7
700	261.6	254.0	252.4	245.6	251.9	249.9	222.9	241.0
650	231.5	227.7	228.4	212.8	220.8	219.0	197.5	216.3
600	202.6	201.8	204.3	188.0	189.6	188.1	173.3	169.4
550	169.9	167.1	171.4	153.4	126.5	125.1	121.1	108.5
500	128.1	115.3	116.2	112.5	109.2	104.8	91.1	90.2
450	111.8	104.2	102.5	102.0	95.7	89.0	88.1	83.3
400	94.3	93.4	83.4	83.1	86.4	89.8	99.0	89.0
350	88.3	90.5	85.6	91.9	92.3			
300								
HS	1000.35	1000.33	1000.30	1000.30	1000.30	1000.30	1000.35	1000.41
LONG	-150.69	-150.79	-150.67	-150.57	-150.46	-150.35	-150.25	-150.15
LAT	18.42	17.52	16.39	15.43	14.41	13.39	12.37	11.35
DIPL	19.66	18.81	17.75	16.84	15.87	14.89	13.92	12.94
INVL	18.05	17.11	15.95	14.90	13.81	12.67	11.52	10.30
L	1.28	1.27	1.25	1.24	1.23	1.22	1.21	1.20
DIP	35.54	34.27	32.62	31.18	29.62	28.01	26.37	24.69
FHS	0.66	0.65	0.65	0.64	0.63	0.63	0.62	0.62
KP	30	30	30	30	30	30	30	30
QUAL	13	13	13	13	13	13	23	23
SNL	1	1	1	1	1	1	1	1

PASS 897 AT SPOINT, 6212 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	234850 134858	234907 134918	234925 135000	234943 135042	235001 135123	235019 135204	235036 135243	235054 135324
HEIGHT								
SAT.	0.268	0.273	0.255	0.274	0.294	0.302	0.311	0.319
1000	0.269	0.273	0.256	0.275	0.295	0.304	0.312	0.321
950	0.300	0.299	0.289	0.310	0.331	0.342	0.350	0.360
900	0.329	0.334	0.329	0.353	0.377	0.389	0.399	0.413
850	0.366	0.376	0.377	0.404	0.433	0.447	0.458	0.478
800	0.434	0.432	0.446	0.477	0.514	0.531	0.554	0.572
750	0.528	0.526	0.539	0.581	0.652	0.656	0.693	0.724
700	0.654	0.662	0.681	0.739	0.840	0.830	0.912	0.948
650	0.869	0.844	0.905	0.959	1.138	1.157	1.300	1.399
600	1.114	1.185	1.314	1.432	1.714	1.766	2.123	2.343
550	1.700	1.832	2.088	2.371	2.924	3.049	3.768	4.068
500	2.860	3.150	3.809	4.379	5.293	5.640	6.436	6.616
450	5.108	5.774	6.948	7.899	9.110	9.453	9.319	8.533
400	8.864	9.951						
350								
300								
250								
200								
NT	0.938	1.026	0.719	0.805	0.946	0.984	1.090	1.117
HEIGHT	SCALE HEIGHT, KM							
950	557.5	584.4	412.8	417.4	426.8	416.4	428.2	402.2
900	482.0	440.1	375.1	375.4	370.8	370.9	361.0	356.4
850	377.0	385.6	327.4	330.3	315.0	323.8	308.9	305.8
800	313.2	325.8	285.0	279.6	266.6	263.9	261.6	240.7
750	251.9	246.4	243.9	235.0	229.5	224.8	215.8	207.6
700	227.6	209.2	203.7	204.4	192.1	19[illegible].0	171.0	169.1
650	203.3	185.2	162.8	169.8	149.6	137.2	127.0	114.6
600	143.0	132.5	125.0	113.8	108.6	106.7	92.3	92.2
550	107.6	106.9	96.9	92.4	89.1	84.9	90.3	93.7
500	92.0	86.0	79.4	80.8	84.1	84.8	104.8	140.6
450	86.6	86.0	92.7	96.4	102.4	129.3	192.6	263.2
400	97.0	96.5						
350								
300								
HS	1000.47	1000.55	1000.67	1000.79	1000.91	1001.12	1001.32	1001.53
LONG	-150.05	-149.95	-149.85	-149.75	-149.65	-149.56	-149.47	-149.37
LAT	10.33	9.37	8.35	7.33	6.31	5.29	4.33	3.31
DIPL	11.96	11.03	10.04	9.05	8.06	7.06	6.11	5.11
INVL	9.06	7.78	6.33	4.61	2.13	0.00	0.00	0.00
L	1.19	1.18	1.17	1.16	1.16	1.15	1.15	1.15
DIP	22.97	21.30	19.51	17.67	15.81	13.91	12.09	10.14
FHS	0.61	0.61	0.61	0.60	0.60	0.60	0.60	0.59
KP	30	30	30	30	30	30	30	30
QUAL	23	23	23	33	23	22	22	22
SNL	1	1	1	1	1	1	1	1

PASS 897 AT SPOINT, 6212 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	235130	235148	235206	235223	235239
LT	135446	135527	135608	135646	135807
HEIGHT					
SAT.	0.336	0.328	0.344	0.340	0.335
1000	0.339	0.330	0.346	0.342	0.339
950	0.381	0.376	0.392	0.386	0.385
900	0.441	0.434	0.455	0.453	0.450
850	0.514	0.508	0.535	0.536	0.531
800	0.636	0.647	0.678	0.681	0.678
750	0.831	0.842	0.906	0.895	0.893
700	1.143	1.146	1.261	1.236	1.271
650	1.728	1.687	1.949	1.892	2.035
600	2.754	2.710	3.095	3.152	3.214
550	4.455	4.191	4.322	4.456	4.296
500	5.738	5.331	5.336		5.286
450	7.113	6.768	6.695		6.608
400	8.738	8.361	8.115		7.842
350					
300					
250					
200					
NT	1.513	1.449	1.493	0.581	1.487
HEIGHT	SCALE HEIGHT, KM				
950	420.9	371.3	366.8	364.9	359.3
900	330.4	317.8	310.2	301.2	302.9
850	278.4	258.1	258.5	250.8	249.2
800	229.5	224.0	215.3	212.0	211.2
750	182.4	190.0	175.6	175.2	175.0
700	141.6	150.7	137.4	140.2	125.0
650	119.3	121.3	108.6	106.8	106.4
600	104.3	105.5	119.3	110.6	135.9
550	130.1	156.7	216.0	213.3	227.7
500	244.1	227.1	224.6		228.1
450	229.4	217.1	235.0		255.9
400	267.8	270.0	299.1		337.4
350					
300					
HS	1002.00	1002.24	1002.50	1002.78	1003.38
LONG	-149.18	-149.08	-148.99	-148.90	-148.72
LAT	1.28	0.26	-0.76	-1.72	-3.76
DIPL	3.10	2.10	1.09	0.13	-1.90
INVL	0.00	0.00	0.00	0.00	0.00
L	1.14	1.14	1.14	1.14	1.14
DIP	6.19	4.19	2.18	0.26	-3.79
FHS	0.59	0.59	0.59	0.59	0.60
KP	30	30	30	30	30
QUAL	21	22	22	23	22
SNL	1	1	1	1	1

PASS 924 AT SPOINT, 6212 S

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	231118 131459	231136 131556	231154 131653	231211 131745	231229 131839	231247 131933	231305 132025	231323 132115
HEIGHT								
SAT.	0.089	0.091	0.092	0.099	0.105	0.111	0.118	0.114
1000	0.090	0.092	0.093	0.099	0.106	0.112	0.118	0.115
950	0.106	0.106	0.108	0.116	0.126	0.135	0.138	0.134
900	0.122	0.121	0.124	0.134	0.144	0.155	0.157	0.156
850	0.141	0.140	0.143	0.153	0.166	0.179	0.183	0.177
800	0.164	0.165	0.167	0.176	0.193	0.208	0.213	0.202
750	0.193	0.193	0.195	0.205	0.228	0.244	0.250	0.231
700	0.230	0.230	0.230	0.247	0.274	0.288	0.292	0.274
650	0.283	0.281	0.283	0.308	0.337	0.360	0.354	0.336
600	0.359	0.357	0.363	0.398	0.433	0.456	0.442	0.427
550	0.465	0.464	0.477	0.527	0.578	0.593	0.588	0.571
500	0.653	0.657	0.679	0.745	0.805	0.788	0.828	0.804
450	0.943	0.953	1.006	1.084	1.145	1.130	1.213	1.176
400	1.434	1.454	1.595	1.703	1.728	1.719	1.889	1.814
350	2.337	2.450	2.744	2.851	2.839	2.910	3.290	3.394
300	4.744	5.256	5.503	5.297	5.351	6.426	6.903	7.647
250		9.427			10.402			
200								
NT	0.492	0.879	0.546	0.567	0.980	0.622	0.667	0.679
HEIGHT	SCALE HEIGHT, KM							
950	338.6	363.0	348.1	333.3	355.6	329.7	348.0	332.6
900	347.4	355.9	351.4	357.4	361.2	349.1	344.5	365.5
850	333.2	331.9	332.5	356.1	340.2	338.4	335.1	376.6
800	314.4	310.6	313.7	328.7	310.8	311.1	324.5	359.3
750	291.4	292.9	298.8	297.7	287.4	287.1	308.6	335.3
700	264.6	266.7	276.7	259.0	259.3	263.1	292.7	273.1
650	232.8	233.8	225.5	216.6	222.1	237.9	252.5	230.8
600	203.3	203.0	194.0	190.7	191.1	212.6	201.8	195.4
550	175.1	173.1	168.6	166.3	167.3	187.2	163.7	159.0
500	150.8	149.3	142.9	143.1	150.2	161.2	148.0	145.4
450	128.0	127.0	117.2	120.6	129.6	127.1	118.9	125.2
400	112.3	109.0	103.0	108.1	115.8	112.0	106.5	97.8
350	92.0	83.6	84.1	90.2	93.4	81.7	81.0	70.2
300	59.6	65.7	72.1	90.0	73.1	64.5	63.8	67.2
HS	1002.22	1002.04	1001.86	1001.71	1001.56	1001.41	1001.27	1001.15
LONG	-149.08	-148.92	-148.75	-148.61	-148.46	-148.31	-148.16	-148.03
LAT	33.19	32.18	31.17	30.21	29.19	28.17	27.16	26.14
DIPL	33.72	32.82	31.91	31.05	30.13	29.21	28.28	27.36
INVL	33.20	32.25	31.28	30.37	29.40	28.41	27.43	26.46
L	1.65	1.62	1.58	1.55	1.52	1.50	1.47	1.44
DIP	53.16	52.21	51.24	50.29	49.25	48.19	47.10	45.98
FHS	0.79	0.78	0.77	0.76	0.75	0.74	0.73	0.73
KP	1-	1-	1-	1-	1-	1-	1-	1-
QUAL	11	11	11	12	11	12	11	12
SNL	1	1	1	1	1	1	1	1

PASS 924 AT SPOINT, 6212 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	231340 132202	231358 132252	231416 132340	231434 132428	231452 132516	231509 132601	231527 132646	231545 132731
HEIGHT								
SAT.	0.123	0.136	0.132	0.136	0.140	0.156	0.166	0.167
1000	0.124	0.136	0.132	0.136	0.140	0.156	0.166	0.167
950	0.143	0.152	0.147	0.152	0.161	0.176	0.184	0.187
900	0.165	0.171	0.167	0.170	0.183	0.199	0.206	0.213
850	0.189	0.192	0.190	0.195	0.210	0.229	0.237	0.245
800	0.215	0.220	0.217	0.227	0.247	0.268	0.276	0.284
750	0.248	0.253	0.251	0.268	0.293	0.318	0.326	0.334
700	0.292	0.303	0.301	0.318	0.349	0.380	0.386	0.410
650	0.357	0.373	0.376	0.396	0.432	0.463	0.485	0.530
600	0.455	0.478	0.494	0.526	0.569	0.616	0.654	0.721
550	0.615	0.660	0.699	0.729	0.800	0.875	0.946	1.038
500	0.875	0.957	1.026	1.058	1.179	1.301	1.516	1.686
450	1.324	1.486	1.615	1.650	1.873	2.120	2.628	3.041
400	2.119	2.468	2.721	2.720	3.304	3.893	4.883	6.043
350	4.024	4.646	4.886	5.048	6.184	7.295	9.100	11.610
300	8.049	8.939	8.703	9.373	11.276	12.726		
250	12.237							
200								
NT	1.262	0.845	0.875	0.910	1.075	1.229	0.868	1.031
HEIGHT	SCALE HEIGHT, KM							
950	376.5	456.1	426.0	445.4	379.3	403.4	452.2	409.6
900	368.0	425.9	401.7	396.6	359.9	371.6	393.0	376.6
850	369.3	392.8	377.3	349.1	334.9	341.5	352.8	349.3
800	354.5	357.2	347.7	310.2	307.0	312.0	314.8	325.8
750	332.1	321.7	309.9	285.9	281.6	286.1	288.5	273.9
700	280.8	269.5	249.9	261.6	256.9	262.1	262.2	229.5
650	225.0	223.2	212.6	222.3	219.0	225.0	205.7	190.7
600	193.3	186.1	160.6	166.3	166.4	158.4	154.9	158.0
550	163.8	155.4	142.2	148.0	142.9	143.7	125.2	121.6
500	135.5	125.9	121.4	123.5	116.2	111.7	99.6	96.5
450	112.1	107.4	105.6	109.4	101.8	96.0	87.7	78.7
400	96.6	92.3	92.6	93.0	83.7	80.3	79.5	74.4
350	72.8	72.4	84.1	77.9	80.8	84.7	80.2	77.5
300	82.4	102.0	95.3	92.9	96.1	95.2		
HS	1001.03	1000.91	1000.85	1000.79	1000.73	1000.68	1000.65	1000.62
LONG	-147.91	-147.77	-147.65	-147.52	-147.40	-147.28	-147.17	-147.05
LAT	25.19	24.17	23.16	22.14	21.12	20.16	19.14	18.13
DIPL	26.48	25.55	24.61	23.67	22.73	21.83	20.88	19.92
INVL	25.53	24.51	23.52	22.53	21.52	20.52	19.51	18.47
L	1.42	1.40	1.38	1.36	1.34	1.32	1.30	1.29
DIP	44.89	43.71	42.50	41.24	39.95	38.70	37.34	35.93
FHS	0.72	0.71	0.70	0.69	0.69	0.68	0.67	0.66
KP	1-	1-	1-	1-	1-	1-	1-	1-
QUAL	11	11	11	12	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 924 AT SPOINT, 6212 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	231603 132816	231621 132900	231638 132942	231656 133026	231714 133109	231732 133151	231750 133234	231808 133316
HEIGHT								
SAT.	0.172	0.179	0.196	0.197	0.208	0.226	0.270	0.272
1000	0.172	0.179	0.196	0.197	0.208	0.227	0.272	0.274
950	0.192	0.203	0.225	0.225	0.237	0.257	0.312	0.323
900	0.217	0.231	0.260	0.257	0.271	0.301	0.362	0.379
850	0.250	0.268	0.300	0.299	0.321	0.362	0.444	0.459
800	0.294	0.319	0.351	0.352	0.388	0.441	0.549	0.577
750	0.349	0.384	0.423	0.421	0.495	0.560	0.725	0.770
700	0.438	0.470	0.539	0.556	0.687	0.794	0.975	1.069
650	0.581	0.619	0.746	0.837	1.005	1.204	1.393	1.562
600	0.800	0.881	1.120	1.315	1.602	1.994	2.158	2.491
550	1.185	1.461	1.911	2.338	2.783	3.506	3.655	4.170
500	2.033	2.680	3.574	4.275	5.338	6.498	6.395	6.947
450	3.891	5.167	6.882	8.101	9.910	11.020	10.413	10.618
400	7.807	10.022	12.685	14.339				14.806
350	14.441							
300								
250								
200								
NT	1.267	0.889	1.139	1.312	0.909	1.077	1.116	1.845
HEIGHT	SCALE HEIGHT, KM							
950	418.1	386.6	397.5	382.1	390.1	354.2	408.9	346.3
900	377.0	353.7	349.2	347.7	327.5	298.3	294.0	283.6
850	339.3	320.2	330.8	311.8	275.0	268.6	240.9	241.1
800	301.0	286.2	298.0	281.3	243.9	234.7	210.5	195.6
750	255.9	256.7	230.8	245.3	174.8	174.6	183.2	164.6
700	211.6	219.0	187.5	140.6	140.7	137.3	156.9	144.8
650	170.0	161.6	147.1	121.0	121.8	108.7	128.3	121.0
600	145.5	127.4	108.7	99.0	100.8	96.2	105.2	102.9
550	108.8	91.4	88.6	87.8	84.5	85.1	91.0	96.9
500	87.6	80.4	78.3	77.9	77.6	86.8	97.4	107.6
450	75.0	75.6	77.9	83.5	86.7	104.1	108.8	131.9
400	74.1	79.8	91.6	102.1				177.9
350	91.4							
300								
HS	1000.60	1000.63	1000.66	1000.69	1000.75	1000.81	1000.87	1000.97
LONG	-146.94	-146.83	-146.73	-146.62	-146.52	-146.42	-146.32	-146.22
LAT	17.11	16.12	15.19	14.20	13.17	12.12	11.07	10.04
DIPL	18.97	18.03	17.14	16.20	15.21	14.20	13.19	12.19
INVL	17.41	16.39	15.41	14.34	13.23	12.04	10.84	9.60
L	1.27	1.26	1.24	1.23	1.22	1.21	1.20	1.19
DIP	34.50	33.06	31.67	30.15	28.53	26.84	25.12	23.37
FHS	0.66	0.65	0.64	0.64	0.63	0.63	0.62	0.62
KP	1-	1-	1-	1-	1-	1-	1-	1-
QUAL	13	13	13	13	13	13	23	23
SNL	1	1	1	1	1	1	1	1

PASS 924 AT SPOINT, 6212 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	231826 133357	231843 133437	231955 133724	232013 133805	232031 133845
HEIGHT					
SAT.	0.284	0.379	0.428	0.457	0.512
1000	0.285	0.381	0.432	0.461	0.516
950	0.333	0.449	0.540	0.556	0.612
900	0.394	0.542	0.672	0.688	0.758
850	0.492	0.670	0.864	0.887	0.956
800	0.635	0.860	1.111	1.128	1.183
750	0.850	1.150	1.438	1.441	1.495
700	1.197	1.562	1.899	1.869	1.926
650	1.787	2.149	2.554	2.485	2.555
600	2.791	3.057	3.487	3.388	3.467
550	4.436	4.424	4.917	4.755	4.785
500	6.984	6.225	6.799	6.542	6.423
450		8.276	9.130	8.654	
400			11.557	10.869	
350					
300					
250					
200					
NT	0.827	1.271	1.970	1.903	1.060
HEIGHT	SCALE HEIGHT, KM				
950	309.2	280.5	228.9	251.4	253.3
900	256.2	250.0	211.3	217.8	241.5
850	214.7	219.1	204.9	208.9	229.9
800	185.8	191.6	195.0	202.7	219.2
750	160.7	169.1	185.4	195.2	206.4
700	138.1	161.4	178.2	186.5	192.5
650	119.2	150.8	167.4	173.1	176.4
600	110.1	135.1	155.6	157.2	162.3
550	106.5	142.7	151.1	153.0	163.6
500	119.7	154.4	162.5	168.2	177.6
450		192.3	190.9	194.0	
400			271.6	318.0	
350					
300					
HS	1001.12	1001.26	1002.04	1002.29	1002.56
LONG	-146.12	-146.02	-145.63	-145.53	-145.44
LAT	9.02	8.05	3.98	2.96	1.94
DIPL	11.20	10.27	6.29	5.29	4.29
INVL	8.31	7.02	0.00	0.00	0.00
L	1.18	1.17	1.15	1.15	1.14
DIP	21.61	19.92	12.44	10.50	8.53
FHS	0.61	0.61	0.60	0.59	0.59
KP	1-	1-	1-	1-	1-
QUAL	23	23	22	21	23
SNL	1	1	1	1	1

PASS 925 AT SPOINT, 6212 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	10142 132800	10200 132845	10218 132928	10235 133009	10253 133052	10311 133135	10329 133218	10347 133300
HEIGHT								
SAT.	0.175	0.188	0.192	0.195	0.206	0.220	0.230	0.234
1000	0.175	0.188	0.192	0.196	0.206	0.220	0.231	0.235
950	0.195	0.207	0.215	0.220	0.228	0.244	0.252	0.258
900	0.212	0.225	0.235	0.245	0.249	0.268	0.275	0.284
850	0.233	0.246	0.258	0.269	0.275	0.296	0.304	0.319
800	0.257	0.274	0.288	0.298	0.308	0.332	0.343	0.360
750	0.291	0.311	0.325	0.337	0.352	0.383	0.399	0.416
700	0.335	0.360	0.377	0.393	0.419	0.454	0.479	0.509
650	0.398	0.428	0.453	0.484	0.517	0.569	0.619	0.684
600	0.502	0.547	0.588	0.632	0.690	0.788	0.870	0.973
550	0.673	0.762	0.820	0.894	1.020	1.203	1.406	1.609
500	1.000	1.148	1.328	1.480	1.735	2.111	2.552	2.969
450	1.616	1.933	2.328	2.666	3.266	4.012	4.754	5.446
400	2.840	3.521	4.195	5.101	6.122	7.496	8.371	8.862
350	5.283	6.696	7.739	9.151	10.576	11.945	12.232	12.213
300	9.792	12.219	13.299					
250								
200								
NT	0.941	1.143	1.295	0.885	1.029	1.212	1.343	1.446
HEIGHT	SCALE HEIGHT, KM							
950	538.4	595.4	552.2	493.0	560.8	513.5	563.3	522.7
900	556.8	576.6	557.2	509.2	532.5	519.6	523.2	474.1
850	505.8	494.5	495.8	498.1	470.1	462.6	456.8	416.8
800	451.4	437.9	422.4	456.4	396.6	387.2	379.8	364.3
750	388.5	387.1	368.5	352.5	330.4	321.4	304.0	299.9
700	324.1	322.2	307.2	288.8	279.9	268.9	238.6	220.4
650	255.8	252.8	240.9	227.0	214.9	191.2	170.9	173.6
600	199.5	175.8	171.8	170.2	155.0	144.0	134.5	129.1
550	151.7	139.7	130.9	127.9	114.8	99.9	94.5	91.9
500	115.5	105.3	97.0	92.7	87.9	84.8	83.7	81.9
450	97.7	91.9	89.0	81.9	78.2	78.8	81.3	90.3
400	85.1	81.5	83.9	80.2	84.6	90.2	107.3	129.6
350	81.7	77.7	83.0	95.6	101.8	142.0	174.9	197.6
300	80.3	105.3	133.3					
HS	1000.60	1000.60	1000.66	1000.72	1000.78	1000.87	1000.99	1001.11
LONG	-173.42	-173.31	-173.20	-173.11	-173.00	-172.90	-172.80	-172.69
LAT	16.69	15.67	14.65	13.69	12.68	11.66	10.64	9.62
DIPL	14.21	13.27	12.31	11.41	10.45	9.48	8.51	7.53
INVL	11.06	9.78	8.40	7.00	5.24	2.89	0.00	0.00
L	1.20	1.19	1.18	1.17	1.17	1.16	1.15	1.15
DIP	26.86	25.24	23.58	21.98	20.25	18.47	16.66	14.81
FHS	0.62	0.62	0.62	0.61	0.61	0.61	0.61	0.61
KP	2-	2-	2-	2-	2-	2-	2-	2-
QUAL	12	12	13	12	12	12	11	11
SNL	1	1	1	1	1	1	1	1

PASS 925 AT SPOINT, 6212 6

ELECTRCN DENSITY IN ELECTRCNS PER CC (X10-5)

UT LT	10404 133340	10422 133421	10440 133502	10458 133543	10516 133624	10534 133705	10551 133744	10609 133825
HEIGHT								
SAT.	0.231	0.234	0.256	0.259	0.267	0.266	0.262	0.262
1000	0.232	0.235	0.256	0.260	0.267	0.267	0.263	0.263
950	0.262	0.264	0.279	0.282	0.288	0.293	0.289	0.284
900	0.291	0.292	0.310	0.312	0.320	0.327	0.323	0.317
850	0.325	0.328	0.349	0.351	0.360	0.367	0.364	0.358
800	0.369	0.374	0.402	0.411	0.427	0.433	0.428	0.424
750	0.435	0.451	0.490	0.506	0.534	0.548	0.537	0.531
700	0.540	0.572	0.634	0.658	0.706	0.743	0.731	0.732
650	0.735	0.794	0.880	0.930	1.005	1.087	1.097	1.094
600	1.101	1.206	1.387	1.500	1.602	1.788	1.832	1.811
550	1.914	2.176	2.410	2.582	2.753	2.935	2.967	2.948
500	3.516	3.880	4.043	4.156	4.264	4.304	4.323	4.315
450	6.048	6.322	6.152	5.861	5.734	5.917	6.010	5.972
400	9.054	8.956	8.345	7.796	8.095	8.421	8.467	8.210
350	12.274	11.952	10.986	10.674	11.702	11.914	11.435	10.836
300								
250								
200								
NT	1.542	1.585	1.565	1.541	1.604	1.663	1.661	1.627
HEIGHT	SCALE HEIGHT, KM							
950	438.3	468.6	538.6	553.6	584.6	504.4	495.4	568.0
900	456.9	452.1	451.7	458.9	476.2	454.8	450.9	444.6
850	415.5	390.8	379.4	368.9	353.0	368.0	363.8	352.0
800	350.7	324.7	308.9	291.7	257.0	259.5	265.3	264.8
750	280.8	254.8	229.5	222.7	211.9	186.9	198.8	194.4
700	203.2	179.0	171.7	169.3	169.4	152.5	150.4	148.5
650	148.2	142.1	137.8	131.6	129.3	116.8	110.7	113.5
600	110.0	99.8	99.9	99.2	97.6	102.1	101.8	102.5
550	86.6	85.7	92.3	100.1	101.6	117.7	120.2	118.9
500	86.8	94.7	107.6	124.9	147.8	144.6	142.8	143.1
450	106.1	122.0	143.9	168.8	162.8	149.8	148.6	155.3
400	146.4	159.4	173.6	167.3	139.7	139.3	154.5	167.9
350	174.4	185.8	195.2	161.7	162.9	169.9	190.8	199.2
300								
HS	1001.23	1001.38	1001.53	1001.68	1001.91	1002.15	1002.38	1002.65
LONG	-172.60	-172.50	-172.41	-172.31	-172.21	-172.12	-172.03	-171.93
LAT	8.65	7.63	6.61	5.59	4.57	3.55	2.59	1.57
DIPL	6.60	5.61	4.62	3.63	2.63	1.63	0.68	-0.33
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.14	1.14	1.14	1.13	1.13	1.13	1.13	1.13
DIP	13.03	11.12	9.19	7.23	5.25	3.25	1.35	-0.66
FHS	0.60	0.60	0.60	0.60	0.60	0.61	0.61	0.61
KP	2-	2-	2-	2-	2-	2-	2-	2-
QUAL	22	22	21	22	22	22	11	11
SNL	1	1	1	1	1	1	1	1

PASS 925 AT SPOINT, 6212 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	10627 133906	10645 133947	10703 134028	10720 134107	10738 134148	10756 134229	10814 134310	10832 134351
HEIGHT								
SAT.	0.280	0.287	0.286	0.289	0.280	0.283	0.289	0.269
1000	0.281	0.288	0.287	0.291	0.284	0.285	0.292	0.273
950	0.303	0.312	0.312	0.318	0.308	0.315	0.324	0.309
900	0.336	0.344	0.346	0.355	0.347	0.354	0.362	0.349
850	0.379	0.388	0.391	0.409	0.394	0.401	0.413	0.398
800	0.446	0.460	0.461	0.480	0.456	0.470	0.481	0.460
750	0.557	0.568	0.567	0.569	0.565	0.579	0.587	0.558
700	0.767	0.770	0.754	0.771	0.738	0.748	0.748	0.719
650	1.168	1.150	1.104	1.121	1.033	1.023	1.023	0.976
600	2.014	1.963	1.862	1.892	1.683	1.598	1.611	1.523
550	3.222	3.281	3.173	3.282	2.954	2.857	2.798	2.649
500	4.649	4.809	4.924	5.164	4.993	4.952	4.976	4.775
450	6.307	6.501	6.769	7.237	7.426	7.865	8.207	8.277
400	8.469	8.652	8.911	9.594	9.965	10.826	11.839	12.725
350	11.162	11.333	11.476	12.296	12.839	13.490		
300								
250								
200								
NT	1.717	1.750	1.773	1.874	1.871	1.944	1.380	1.375
HEIGHT	SCALE HEIGHT, KM							
950	583.1	569.4	549.5	499.4	567.2	469.1	460.5	399.3
900	452.4	458.8	443.3	408.2	417.8	425.5	417.3	395.0
850	361.3	353.0	352.6	332.3	363.0	351.4	364.1	365.3
800	275.4	273.3	285.4	285.6	301.9	281.5	290.6	296.2
750	191.6	203.1	206.1	239.3	216.5	221.2	229.1	230.6
700	144.8	154.7	160.8	170.2	175.7	185.7	184.9	189.4
650	104.3	108.5	116.3	115.8	128.8	142.2	141.3	146.0
600	99.6	96.0	91.1	94.6	97.6	98.4	102.6	103.4
550	122.2	114.1	102.9	99.4	91.0	87.5	88.9	89.1
500	150.6	148.4	136.2	130.1	110.0	98.1	92.9	86.5
450	167.4	170.4	168.9	163.0	149.9	130.8	112.8	104.6
400	175.7	179.9	188.7	187.5	181.5	189.3	187.5	142.2
350	210.6	223.7	243.0	242.4	240.1	318.5		
300								
HS	1002.95	1003.25	1003.56	1003.90	1004.26	1004.62	1005.03	1005.45
LONG	-171.84	-171.74	-171.64	-171.55	-171.46	-171.36	-171.27	-171.17
LAT	0.56	-0.45	-1.47	-2.43	-3.45	-4.47	-5.49	-6.51
DIPL	-1.33	-2.34	-3.36	-4.32	-5.35	-6.38	-7.41	-8.44
INVL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.13	1.13	1.13	1.14	1.14	1.14	1.15	1.16
DIP	-2.67	-4.68	-6.69	-8.60	-10.60	-12.60	-14.57	-16.53
FHS	0.61	0.61	0.62	0.62	0.63	0.63	0.64	0.64
KP	2-	2-	2-	2-	2-	2-	2-	2-
QUAL	11	11	11	11	11	11	11	22
SNL	1	1	1	1	1	1	1	1

PASS 925 AT SPOINT, 6212 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	10849	10907
LT	134430	134511
HEIGHT		
SAT.	0.268	0.262
1000	0.271	0.266
950	0.308	0.303
900	0.349	0.347
850	0.400	0.400
800	0.463	0.466
750	0.558	0.550
700	0.722	0.690
650	0.972	0.902
600	1.418	1.269
550	2.420	2.089
500	4.427	3.740
450	7.793	6.755
400		11.527
350		
300		
250		
200		
NT	0.803	1.170
HEIGHT	SCALE HEIGHT, KM	
950	391.5	374.7
900	384.2	361.7
850	354.9	340.9
800	296.0	308.7
750	241.8	258.5
700	203.0	216.8
650	161.0	175.6
600	116.3	124.2
550	84.4	96.4
500	86.6	86.0
450	93.6	87.0
400		107.9
350		
300		
HS	1005.84	1006.29
LONG	-171.08	-170.98
LAT	-7.48	-8.50
DIPL	-9.42	-10.46
INVL	3.68	5.90
L	1.16	1.17
DIP	-18.36	-20.26
FHS	0.65	0.66
KP	2-	2-
QUAL	22	13
SNL	1	1

PASS 951 AT SPOINT, 6212 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	224124 130212	224142 130306	224200 130400	224218 130451	224235 130539	224253 130630	224329 130808	224347 130856
HEIGHT								
SAT.	0.122	0.116	0.117	0.129	0.134	0.135	0.155	0.157
1000	0.122	0.117	0.118	0.130	0.134	0.136	0.156	0.157
950	0.135	0.140	0.143	0.153	0.155	0.154	0.174	0.176
900	0.155	0.163	0.163	0.176	0.174	0.175	0.194	0.195
850	0.179	0.188	0.187	0.200	0.198	0.202	0.222	0.222
800	0.208	0.216	0.216	0.230	0.226	0.239	0.257	0.257
750	0.243	0.251	0.255	0.267	0.269	0.282	0.298	0.298
700	0.286	0.291	0.304	0.318	0.324	0.337	0.359	0.356
650	0.347	0.358	0.374	0.394	0.406	0.421	0.450	0.451
600	0.439	0.454	0.475	0.503	0.509	0.529	0.576	0.577
550	0.585	0.608	0.643	0.674	0.680	0.734	0.785	0.778
500	0.818	0.858	0.913	0.943	0.959	1.011	1.055	1.035
450	1.209	1.275	1.366	1.396	1.456	1.510	1.581	1.517
400	1.908	2.053	2.182	2.176	2.316	2.353	2.547	2.512
350	2.737	3.526	3.813	3.698	3.907	3.752	4.431	4.411
300	4.880	6.450	6.889	6.459	6.621	6.494	7.895	7.952
250	9.401	9.436						
200								
NT	0.945	1.080	0.727	0.721	0.748	0.751	0.848	0.842
HEIGHT	SCALE HEIGHT, KM							
950	447.0	336.6	342.3	366.0	408.0	391.9	447.5	462.4
900	384.0	344.7	362.7	370.0	390.1	358.2	410.0	422.8
850	341.9	345.7	343.1	359.6	366.0	335.8	371.1	377.4
800	319.3	333.7	322.0	339.0	337.9	316.0	332.4	335.3
750	304.2	313.4	298.4	312.6	290.3	284.1	293.8	297.2
700	289.0	293.2	273.9	267.3	248.3	250.2	257.4	259.9
650	249.4	247.3	233.5	217.1	227.2	221.0	222.7	224.2
600	196.0	194.9	187.7	192.5	206.1	191.8	191.2	190.4
550	160.9	159.2	158.9	165.5	168.5	170.6	172.7	173.8
500	145.3	138.0	138.2	140.1	134.2	149.8	154.2	157.3
450	119.6	116.6	115.5	121.3	115.6	128.0	125.0	127.7
400	126.4	102.5	101.8	107.1	104.3	111.3	99.1	95.6
350	119.2	87.6	86.4	91.2	94.3	99.2	86.1	84.3
300	59.4	92.2	98.9	108.1	107.8	98.1	95.9	96.0
HS	1001.84	1001.72	1001.60	1001.51	1001.42	1001.33	1001.20	1001.14
LONG	-144.80	-144.65	-144.50	-144.36	-144.23	-144.09	-143.84	-143.71
LAT	30.19	29.17	28.16	27.15	26.19	25.17	23.14	22.12
DIPL	31.68	30.75	29.82	28.88	28.00	27.06	25.16	24.21
INVL	31.05	30.08	29.11	28.11	27.18	26.20	24.18	23.19
L	1.58	1.55	1.52	1.49	1.46	1.44	1.39	1.37
DIP	50.98	49.95	48.90	47.81	46.75	45.61	43.21	41.96
FHS	0.77	0.76	0.75	0.74	0.74	0.73	0.71	0.70
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	11	11	11	11	11	21	11	11
SNL	1	1	1	1	1	1	1	1

PASS 951 AT SPOINT, 6212 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	224404 130941	224422 131027	224440 131113	224458 131159	224516 131243	224533 131325	224551 131409	224609 131452
HEIGHT								
SAT.	0.164	0.163	0.167	0.169	0.170	0.178	0.182	0.180
1000	0.165	0.163	0.168	0.169	0.171	0.178	0.183	0.181
950	0.182	0.183	0.184	0.187	0.187	0.192	0.202	0.204
900	0.203	0.203	0.205	0.205	0.208	0.218	0.224	0.227
850	0.231	0.228	0.232	0.232	0.237	0.247	0.250	0.254
800	0.267	0.260	0.266	0.265	0.272	0.282	0.283	0.289
750	0.310	0.298	0.306	0.304	0.314	0.324	0.325	0.332
700	0.366	0.354	0.364	0.370	0.373	0.384	0.387	0.393
650	0.446	0.440	0.450	0.470	0.461	0.471	0.479	0.484
600	0.563	0.573	0.576	0.615	0.591	0.606	0.615	0.635
550	0.771	0.809	0.790	0.829	0.793	0.832	0.828	0.888
500	1.092	1.129	1.125	1.099	1.147	1.203	1.214	1.358
450	1.643	1.752	1.698	1.713	1.819	1.857	1.954	2.265
400	2.655	2.819	2.688	2.791	2.970	3.106	3.386	3.973
350	4.632	4.643	4.572	4.826	5.150	5.454	6.015	6.996
300	7.969	8.002	7.954	8.224	8.509	9.006	9.635	10.985
250								
200								
NT	0.872	0.899	0.876	0.905	0.943	0.988	1.054	1.194
HEIGHT	SCALE HEIGHT, KM							
950	472.2	452.8	496.9	520.4	494.2	555.4	489.1	444.5
900	419.1	445.1	433.6	464.5	428.5	422.9	465.0	448.9
850	376.6	397.7	390.8	392.6	385.9	389.3	413.4	403.5
800	341.5	369.7	357.2	349.7	353.1	360.0	377.5	372.2
750	314.9	341.7	323.8	306.8	326.9	333.2	335.7	332.4
700	281.1	248.9	261.9	261.9	253.2	266.2	255.7	265.8
650	239.2	210.0	222.1	216.1	221.6	224.1	221.4	218.2
600	184.3	177.0	186.8	183.9	190.2	185.9	187.9	176.7
550	161.4	158.5	155.1	168.1	159.0	151.2	155.3	139.2
500	134.0	140.0	130.5	152.3	120.7	124.2	117.0	108.6
450	115.9	117.7	119.1	119.0	109.4	110.8	102.3	96.5
400	99.2	99.8	103.8	98.2	98.3	93.3	88.8	88.2
350	88.1	93.4	90.1	90.0	92.3	91.0	92.9	95.7
300	108.6	117.6	104.7	116.2	121.3	123.4	149.0	145.9
HS	1001.09	1001.06	1001.03	1001.00	1001.05	1001.11	1001.17	1001.24
LONG	-143.59	-143.48	-143.36	-143.24	-143.13	-143.03	-142.92	-142.82
LAT	21.16	20.15	19.13	18.11	17.10	16.14	15.12	14.10
DIPL	23.31	22.35	21.39	20.43	19.46	18.55	17.58	16.60
INVL	22.25	21.23	20.17	19.15	18.11	17.10	16.05	14.97
L	1.35	1.33	1.31	1.30	1.28	1.27	1.25	1.24
DIP	40.75	39.43	38.08	36.68	35.25	33.86	32.36	30.81
FHS	0.69	0.69	0.68	0.67	0.66	0.66	0.65	0.64
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	11	11	11	11	11	11	11	12
SNL	1	1	1	1	1	1	1	1

PASS 951 AT SPOINT, 6212 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	224627 131536	224645 131619	224702 131659	224720 131741	224738 131823	224756 131905	224814 131946	224831 132025
HEIGHT								
SAT.	0.191	0.192	0.213	0.214	0.212	0.219	0.231	0.249
1000	0.192	0.194	0.214	0.216	0.214	0.221	0.232	0.251
950	0.214	0.220	0.237	0.241	0.241	0.253	0.262	0.278
900	0.238	0.244	0.259	0.267	0.270	0.283	0.295	0.311
850	0.267	0.272	0.288	0.300	0.304	0.320	0.341	0.355
800	0.302	0.307	0.330	0.342	0.352	0.369	0.395	0.419
750	0.348	0.359	0.389	0.404	0.420	0.442	0.469	0.504
700	0.416	0.442	0.470	0.493	0.513	0.547	0.591	0.641
650	0.511	0.566	0.586	0.629	0.671	0.736	0.797	0.887
600	0.693	0.759	0.803	0.872	0.947	1.066	1.284	1.424
550	1.006	1.089	1.165	1.345	1.511	1.830	2.144	2.776
500	1.577	1.763	1.961	2.365	2.717	3.507	4.513	5.170
450	2.707	3.119	3.508	4.431	5.254	6.831	8.206	8.478
400	4.912	5.752	6.605	8.298	10.209	11.820	12.114	11.420
350	8.401	9.984	11.659	13.966				
300	13.301							
250								
200								
NT	1.417	0.999	1.127	1.354	0.921	1.110	1.273	1.354
HEIGHT	SCALE HEIGHT, KM							
950	457.5	485.1	579.0	533.6	473.3	434.2	425.1	486.2
900	452.0	473.3	501.7	457.6	435.7	423.1	379.8	405.3
850	418.9	419.3	417.0	410.9	378.2	377.9	342.0	349.7
800	381.0	357.5	346.6	345.5	309.0	318.0	309.0	305.0
750	306.9	297.9	289.9	269.7	263.6	250.6	264.2	244.6
700	254.6	241.3	249.6	232.9	227.4	207.8	202.2	186.3
650	215.4	196.0	206.8	190.6	181.3	162.9	131.7	140.6
600	165.8	165.4	155.8	140.5	131.1	116.8	101.8	92.2
550	124.4	122.3	114.5	103.2	98.5	87.1	84.7	78.0
500	104.4	99.0	94.9	86.8	82.1	75.8	74.7	89.1
450	88.6	83.5	82.6	77.5	74.0	79.9	100.4	132.0
400	88.0	86.4	82.5	88.4	87.5	123.8	174.8	223.6
350	96.8	95.4	99.7	116.0				
300	161.0							
HS	1001.33	1001.42	1001.52	1001.67	1001.82	1001.97	1002.16	1002.36
LONG	-142.71	-142.61	-142.51	-142.41	-142.31	-142.21	-142.12	-142.02
LAT	13.08	12.07	11.11	10.09	9.07	8.05	7.03	6.06
DIPL	15.63	14.65	13.72	12.74	11.75	10.76	9.77	8.83
INVL	13.69	12.78	11.70	10.52	9.31	8.02	6.66	5.17
L	1.23	1.22	1.21	1.20	1.19	1.18	1.17	1.17
DIP	29.23	27.60	26.03	24.33	22.59	20.81	19.00	17.25
FHS	0.64	0.63	0.62	0.62	0.61	0.61	0.60	0.60
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	12	13	13	13	13	12	12	31
SNL	1	1	1	1	1	1	1	1

PASS 951 AT SPOINT, 6212 7

ELECTRON DENSITY IN ELECTRONS PER CC (X1C-5)

UT LT	224849 132106	224907 132147	224925 132228	224943 132309	225018 132429
HEIGHT					
SAT.	0.253	0.254	0.284	0.281	0.289
1000	0.255	0.257	0.286	0.283	0.292
950	0.286	0.291	0.318	0.316	0.328
900	0.322	0.330	0.358	0.358	0.375
850	0.374	0.378	0.416	0.415	0.443
800	0.445	0.441	0.497	0.498	0.544
750	0.537	0.555	0.620	0.636	0.708
700	0.707	0.753	0.885	0.935	0.967
650	1.026	1.110	1.413	1.441	1.524
600	1.705	1.974	2.476	2.475	2.536
550	3.170	3.598	4.023	3.883	3.874
500	5.661	5.842	5.932	5.560	5.300
450	8.302	8.011	7.911	7.392	7.139
400	10.657	10.246	10.165	9.595	9.267
350					
300					
250					
200					
NT	1.399	1.427	1.504	1.442	1.426
HEIGHT	SCALE HEIGHT, KM				
950	416.3	422.3	435.2	420.3	394.7
900	366.9	389.2	378.8	375.7	339.0
850	327.4	338.4	315.4	297.8	278.9
800	289.9	275.9	253.2	242.4	213.8
750	227.2	197.0	191.9	184.4	174.2
700	164.7	155.6	130.6	127.5	140.8
650	121.9	109.3	99.0	106.2	106.0
600	93.2	85.5	97.8	103.7	110.4
550	80.7	91.9	116.1	126.6	147.9
500	107.7	133.2	153.6	158.1	163.6
450	168.9	182.5	186.5	182.1	181.0
400	231.8	224.6	228.4	214.7	215.4
350					
300					
HS	1002.57	1002.80	1003.07	1003.34	1003.93
LONG	-141.93	-141.83	-141.74	-141.64	-141.45
LAT	5.04	4.02	3.00	1.98	0.01
DIPL	7.83	6.83	5.83	4.83	2.89
INVL	3.28	0.00	0.00	0.00	0.00
L	1.16	1.16	1.15	1.15	1.14
DIP	15.38	13.48	11.55	9.60	5.77
FHS	0.60	0.59	0.59	0.59	0.59
KP	1+	1+	1+	1+	1+
QUAL	12	11	11	11	31
SNL	1	1	1	1	1

PASS 952 AT SPOINT, 6212 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	2721 130251	2739 130344	2757 130436	2815 130527	2832 130613	2850 130703	2908 130752	2926 130839
HEIGHT								
SAT.	0.132	0.139	0.140	0.141	0.143	0.147	0.162	0.169
1000	0.133	0.139	0.141	0.142	0.143	0.147	0.163	0.170
950	0.155	0.153	0.159	0.161	0.162	0.168	0.182	0.189
900	0.172	0.171	0.177	0.177	0.179	0.187	0.199	0.208
850	0.191	0.194	0.198	0.198	0.199	0.211	0.223	0.232
800	0.217	0.220	0.223	0.223	0.227	0.238	0.251	0.261
750	0.248	0.252	0.255	0.255	0.260	0.273	0.289	0.299
700	0.284	0.291	0.293	0.292	0.300	0.315	0.341	0.353
650	0.327	0.338	0.341	0.351	0.370	0.393	0.419	0.430
600	0.422	0.426	0.436	0.440	0.469	0.503	0.519	0.531
550	0.548	0.544	0.567	0.575	0.613	0.663	0.714	0.746
500	0.724	0.731	0.776	0.806	0.856	0.930	0.994	1.054
450	1.010	1.039	1.123	1.139	1.251	1.350	1.424	1.553
400	1.457	1.546	1.690	1.698	1.856	1.959	2.103	2.344
350	2.159	2.498	2.741	2.703	2.978	3.101	3.496	3.731
300	3.842	4.362	4.716	4.636	4.791	5.142	5.593	5.615
250	6.441	6.903						
200								
NT	0.752	0.814	0.570	0.570	0.609	0.647	0.702	0.741
HEIGHT	SCALE HEIGHT, KM							
950	444.0	474.9	442.5	463.8	449.2	418.5	499.3	505.9
900	475.9	420.7	448.2	463.5	448.3	433.2	483.3	489.5
850	438.1	401.5	421.4	433.1	427.3	409.4	427.6	429.7
800	381.9	382.3	394.2	402.6	390.4	384.5	389.2	388.9
750	345.4	352.9	358.5	363.1	343.4	337.0	328.8	341.4
700	316.5	319.1	322.8	323.5	288.4	289.6	267.3	282.1
650	285.4	283.8	283.7	263.9	252.2	248.5	235.4	236.2
600	235.5	236.8	228.1	205.2	219.1	208.3	203.5	193.6
550	190.3	192.1	179.5	169.5	173.7	165.5	179.9	170.9
500	163.2	161.5	151.7	152.7	143.2	145.1	157.8	148.8
450	148.5	139.3	127.1	139.5	130.1	133.3	136.6	131.0
400	132.2	118.6	116.1	122.6	120.0	124.8	116.2	116.5
350	112.1	98.0	98.2	100.9	105.2	104.9	102.4	114.6
300	86.1	92.2	99.3	101.2	115.1	111.4	136.2	165.5
HS	1001.66	1001.54	1001.42	1001.35	1001.29	1001.23	1001.19	1001.16
LONG	-171.12	-170.98	-170.83	-170.70	-170.58	-170.44	-170.32	-170.19
LAT	28.76	27.74	26.73	25.71	24.76	23.74	22.73	21.71
DIPL	25.75	24.87	23.98	23.09	22.24	21.34	20.44	19.52
INVL	24.59	23.62	22.61	21.60	20.66	19.64	18.59	17.55
L	1.40	1.38	1.36	1.34	1.32	1.30	1.29	1.27
DIP	43.97	42.83	41.66	40.45	39.28	38.01	36.69	35.34
FHS	0.70	0.69	0.69	0.68	0.67	0.67	0.66	0.65
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	11	11	11	11	11	11	11	11
SNL	1	1	1	1	1	1	1	1

PASS 952 AT SPOINT, 6212 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	2944 130927	3001 131012	3019 131056	3037 131141	3055 131226	3113 131310	3130 131351	3148 131435
HEIGHT								
SAT.	0.179	0.180	0.181	0.189	0.202	0.213	0.217	0.228
1000	0.180	0.181	0.182	0.189	0.203	0.214	0.218	0.229
950	0.198	0.203	0.205	0.213	0.228	0.241	0.246	0.254
900	0.219	0.225	0.226	0.236	0.252	0.267	0.271	0.282
850	0.245	0.249	0.251	0.263	0.280	0.295	0.303	0.312
800	0.278	0.278	0.281	0.297	0.314	0.331	0.340	0.349
750	0.316	0.319	0.326	0.344	0.363	0.381	0.388	0.402
700	0.361	0.376	0.389	0.408	0.429	0.451	0.454	0.477
650	0.446	0.456	0.477	0.499	0.521	0.548	0.555	0.578
600	0.563	0.586	0.601	0.633	0.663	0.685	0.726	0.758
550	0.764	0.799	0.819	0.854	0.884	0.948	0.996	1.051
500	1.089	1.133	1.177	1.205	1.267	1.422	1.481	1.617
450	1.621	1.668	1.747	1.818	1.948	2.197	2.328	2.653
400	2.452	2.514	2.636	2.840	3.054	3.521	3.836	4.297
350	3.809	3.905	4.148	4.549	4.965	5.784	6.209	6.910
300	5.658	5.907	6.637	7.291	8.224	9.176	9.437	10.218
250		8.076						
200								
NT	0.764	1.137	0.835	0.895	0.969	1.088	1.148	1.258
HEIGHT	SCALE HEIGHT, KM							
950	507.2	466.6	464.3	452.4	464.4	455.2	462.3	483.2
900	466.4	497.3	489.8	467.1	482.0	493.5	476.4	488.1
850	429.3	457.8	441.5	427.7	439.4	446.9	438.7	452.8
800	391.0	405.1	388.2	377.0	383.0	392.0	405.9	399.3
750	351.1	341.1	319.6	321.9	332.1	340.6	353.7	328.8
700	310.8	284.9	264.3	269.4	283.0	291.5	288.5	273.7
650	251.7	234.9	234.6	234.0	238.8	244.4	203.8	228.1
600	196.3	182.3	199.9	198.2	198.9	196.0	177.7	183.3
550	161.6	150.3	150.4	161.8	161.9	139.7	147.0	141.1
500	133.0	138.9	131.6	131.2	127.1	119.0	119.6	102.4
450	125.0	129.5	127.4	121.6	117.9	113.4	108.5	103.3
400	119.6	120.2	118.3	111.0	109.3	104.8	102.1	103.6
350	119.2	118.0	107.5	104.6	100.7	102.6	109.7	113.7
300	171.8	136.6	118.1	118.0	109.8	130.0	147.1	165.8
HS	1001.13	1001.10	1001.10	1001.10	1001.10	1001.14	1001.20	1001.26
LONG	-170.07	-169.95	-169.84	-169.73	-169.62	-169.51	-169.41	-169.30
LAT	20.69	19.73	18.72	17.70	16.68	15.66	14.70	13.68
DIPL	18.60	17.73	16.80	15.87	14.93	13.98	13.08	12.12
INVL	16.50	15.46	14.37	13.23	12.05	10.83	9.63	8.26
L	1.26	1.25	1.23	1.22	1.21	1.20	1.19	1.18
DIP	33.95	32.60	31.13	29.62	28.06	26.46	24.91	23.24
FHS	0.65	0.64	0.64	0.63	0.63	0.62	0.62	0.62
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	11	11	11	11	11	11	11	11
SNL	1	1	1	1	1	1	1	1

PASS 952 AT SPOINT, 6212 8

ELECTRCN DENSITY IN ELECTRCNS PER CC (X10-5)

UT LT	3206 131518	3224 131601	3259 131724	3317 131805	3335 131847	3353 131929	3429 132051	3447 132132
HEIGHT								
SAT.	0.233	0.247	0.255	0.259	0.271	0.282	0.282	0.278
1000	0.233	0.248	0.256	0.260	0.272	0.283	0.284	0.280
950	0.257	0.272	0.280	0.284	0.303	0.311	0.312	0.310
900	0.285	0.300	0.313	0.315	0.335	0.343	0.345	0.343
850	0.318	0.335	0.352	0.354	0.372	0.382	0.391	0.386
800	0.357	0.377	0.401	0.403	0.430	0.442	0.449	0.452
750	0.412	0.437	0.459	0.473	0.521	0.539	0.544	0.557
700	0.489	0.525	0.560	0.581	0.645	0.674	0.698	0.726
650	0.603	0.653	0.720	0.754	0.843	0.853	0.936	0.994
600	0.801	0.827	0.970	1.035	1.168	1.237	1.410	1.514
550	1.132	1.238	1.403	1.589	1.840	2.013	2.409	2.614
500	1.759	1.975	2.209	2.724	3.201	3.571	4.286	4.530
450	2.854	3.219	3.840	4.758	5.526	6.063	6.796	6.863
400	4.679	5.421	6.905	7.935	8.669	8.987	9.291	9.186
350	7.396	8.859	11.046	11.453	11.490	11.843	11.850	11.563
300	11.043	13.090						
250								
200								
NT	1.349	1.555	1.203	1.353	1.487	1.574	1.697	1.720
HEIGHT	SCALE HEIGHT, KM							
950	497.6	524.7	500.2	517.2	479.8	525.8	511.6	494.5
900	469.4	485.1	444.2	457.2	491.0	486.2	445.6	451.6
850	435.4	436.5	402.4	409.0	397.4	391.5	378.5	367.3
800	383.1	389.7	359.9	347.1	323.2	312.6	313.6	286.7
750	329.1	307.8	317.2	285.0	279.1	260.0	238.2	213.4
700	269.5	237.1	232.6	222.8	218.8	217.2	191.3	178.0
650	209.1	206.3	190.7	185.2	168.4	181.1	154.5	145.2
600	171.2	179.9	156.1	142.9	131.8	115.5	109.4	108.6
550	127.9	108.0	124.5	103.3	106.2	98.8	91.7	92.3
500	112.5	107.0	105.3	90.8	89.1	90.1	96.5	103.6
450	103.5	100.0	86.0	91.9	99.9	108.0	135.1	151.6
400	105.1	98.6	94.3	111.3	138.5	160.4	177.8	181.1
350	114.9	111.4	143.6	194.5	210.3	190.2	278.6	324.0
300	151.2	181.3						
HS	1001.34	1001.46	1001.69	1001.87	1002.05	1002.23	1002.69	1002.93
LONG	-169.20	-169.09	-168.90	-168.80	-168.70	-168.60	-168.41	-168.31
LAT	12.66	11.64	9.67	8.79	7.92	7.05	4.83	3.66
DIPL	11.15	10.18	8.29	7.45	6.61	5.76	3.59	2.44
INVL	6.76	4.96	0.00	0.00	0.00	0.00	0.00	0.00
L	1.17	1.17	1.15	1.15	1.15	1.14	1.13	1.13
DIP	21.52	19.76	16.25	14.65	13.04	11.41	7.16	4.88
FHS	0.61	0.61	0.61	0.60	0.60	0.60	0.60	0.60
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	11	22	21	11	11	12	21	21
SNL	1	1	1	1	1	1	1	1

PASS 952 AT SPOINT, 6212 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	3522 132251	3539 132329	3557 132410	3615 132451
HEIGHT				
SAT.	0.293	0.297	0.293	0.284
1000	0.295	0.299	0.295	0.287
950	0.324	0.327	0.324	0.321
900	0.359	0.366	0.363	0.362
850	0.407	0.417	0.415	0.417
800	0.473	0.497	0.505	0.501
750	0.596	0.630	0.636	0.637
700	0.772	0.830	0.807	0.859
650	1.148	1.208	1.162	1.276
600	1.832	1.981	1.914	2.098
550	3.182	3.343	3.293	3.566
500	5.092	5.341	5.329	5.751
450	7.156	7.594	7.318	7.807
400	9.252	9.517	9.225	9.531
350				
300				
250				
200				
NT	1.306	1.372	1.341	1.425
HEIGHT	SCALE HEIGHT, KM			
950	516.4	510.4	479.7	438.3
900	419.8	403.1	401.6	366.6
850	361.6	337.6	324.1	313.2
800	298.6	265.4	232.1	257.3
750	217.8	197.3	203.3	189.4
700	150.6	164.4	179.9	147.2
650	120.4	117.1	118.0	118.8
600	103.1	94.8	93.3	92.6
550	94.4	101.0	96.1	98.9
500	126.8	127.4	131.2	132.7
450	172.4	185.9	192.2	211.4
400	235.8	258.7	249.3	315.0
350				
300				
HS	1003.47	1003.75	1004.05	1004.42
LONG	-168.13	-168.04	-167.95	-167.85
LAT	2.00	1.36	0.68	-0.56
DIPL	0.80	0.17	-0.49	-1.74
INVL	0.00	0.00	0.00	0.00
L	1.13	1.13	1.13	1.13
DIP	1.60	0.34	-0.99	-3.48
FHS	0.60	0.61	0.61	0.61
KP	1+	1+	1+	1+
QUAL	21	21	21	21
SNL	1	1	1	1

PASS 979 AT SPOINT, 6212 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	235520 124352	235538 124428	235556 124525	235614 124619	235631 124710	235649 124803	235707 124855	235725 124946
HEIGHT								
SAT.	0.110	0.132	0.125	0.122	0.136	0.132	0.139	0.146
1000	0.110	0.133	0.126	0.122	0.137	0.133	0.140	0.147
950	0.128	0.148	0.144	0.143	0.154	0.157	0.163	0.169
900	0.151	0.167	0.164	0.164	0.175	0.178	0.186	0.192
850	0.177	0.191	0.188	0.188	0.200	0.203	0.212	0.219
800	0.206	0.221	0.218	0.219	0.231	0.236	0.245	0.253
750	0.243	0.257	0.256	0.258	0.270	0.277	0.287	0.296
700	0.288	0.309	0.302	0.307	0.324	0.330	0.345	0.358
650	0.351	0.382	0.387	0.385	0.407	0.411	0.433	0.449
600	0.444	0.489	0.499	0.495	0.529	0.532	0.564	0.586
550	0.590	0.664	0.673	0.679	0.699	0.749	0.780	0.812
500	0.823	0.937	0.939	0.969	1.025	1.081	1.127	1.180
450	1.205	1.391	1.404	1.455	1.569	1.659	1.807	1.853
400	1.871	2.172	2.183	2.307	2.543	2.722	3.037	3.135
350	3.250	3.884	3.947	4.162	4.729	5.097	5.449	5.690
300	6.453	7.764	8.051	8.376	9.419	9.677	10.026	9.956
250	11.713		14.206					
200								
NT	1.164	0.758	1.326	0.799	0.882	0.927	0.986	1.012
HEIGHT	SCALE HEIGHT, KM							
950	318.5	427.4	379.9	342.6	405.0	345.5	350.8	369.0
900	321.0	391.7	369.8	351.9	386.6	372.4	369.8	375.9
850	319.9	360.3	344.7	339.8	354.9	353.8	356.4	358.5
800	305.4	329.4	314.3	311.9	322.1	322.6	324.9	327.9
750	291.4	298.6	285.6	287.7	291.8	296.2	292.8	293.3
700	277.4	263.9	256.8	261.7	257.4	262.8	255.7	252.3
650	241.1	227.3	223.2	222.6	216.2	210.4	211.5	207.1
600	195.6	182.8	189.6	176.5	185.4	167.9	170.0	170.0
550	164.1	160.8	166.0	154.4	160.7	151.6	148.7	147.6
500	145.4	138.4	138.9	133.6	128.9	125.0	120.4	121.3
450	120.2	119.4	118.0	116.8	112.4	111.6	105.6	107.5
400	107.1	104.1	103.8	100.8	94.4	93.2	92.5	89.6
350	83.2	78.3	77.0	77.0	75.4	75.4	83.2	84.8
300	72.8	74.7	71.8	72.9	77.6	84.9	90.0	106.9
HS	1002.50	1002.41	1002.32	1002.21	1002.09	1001.97	1001.88	1001.82
LONG	-167.95	-167.79	-167.63	-167.48	-167.34	-167.19	-167.05	-166.91
LAT	32.91	31.90	30.89	29.87	28.91	27.90	26.89	25.87
DIPL	30.03	29.16	28.29	27.41	26.58	25.70	24.81	23.92
INVL	29.32	28.35	27.40	26.44	25.49	24.52	23.55	22.55
L	1.52	1.49	1.47	1.44	1.42	1.40	1.38	1.36
DIP	49.14	48.14	47.11	46.05	45.02	43.91	42.76	41.58
FHS	0.74	0.73	0.72	0.71	0.71	0.70	0.69	0.68
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	12	12	12	13	13	12	11	11
SNL	1	1	1	1	1	1	1	1

PASS 979 AT SPOINT, 6212 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	235743 125036	235800 125124	235818 125211	235836 125259	235854 125346	235911 125430	235929 125515	235947 125600
HEIGHT								
SAT.	0.159	0.166	0.164	0.168	0.172	0.183	0.190	0.201
1000	0.159	0.166	0.165	0.169	0.173	0.184	0.192	0.202
950	0.180	0.184	0.187	0.190	0.196	0.212	0.223	0.231
900	0.201	0.205	0.210	0.214	0.220	0.238	0.252	0.259
850	0.228	0.232	0.238	0.243	0.249	0.269	0.287	0.295
800	0.263	0.266	0.274	0.281	0.287	0.314	0.327	0.343
750	0.306	0.309	0.319	0.328	0.340	0.375	0.391	0.404
700	0.369	0.375	0.391	0.400	0.414	0.456	0.475	0.478
650	0.462	0.472	0.491	0.501	0.534	0.574	0.593	0.607
600	0.616	0.634	0.651	0.694	0.704	0.753	0.787	0.817
550	0.868	0.911	0.910	1.024	0.998	1.053	1.125	1.169
500	1.299	1.336	1.359	1.541	1.503	1.618	1.750	1.875
450	1.997	2.041	2.165	2.372	2.386	2.584	2.863	3.105
400	3.373	3.559	3.677	3.985	3.912	4.272	4.932	5.401
350	5.941	6.301	6.404	6.794	6.452	7.139	8.295	9.391
300	10.069	10.485	10.645	10.742	10.133	11.309	13.049	
250								
200								
NT	1.062	1.108	1.134	1.201	1.167	1.280	1.446	0.989
HEIGHT	SCALE HEIGHT, KM							
950	425.1	466.8	413.5	418.9	442.3	418.5	400.7	404.1
900	412.7	429.6	410.8	401.6	423.7	413.5	393.3	391.6
850	373.2	383.4	374.0	370.7	375.6	359.2	363.3	358.8
800	337.6	343.0	332.8	333.0	324.1	301.7	317.6	321.9
750	306.5	304.9	291.0	287.5	272.8	265.4	284.9	288.2
700	240.8	247.1	244.8	243.7	225.6	239.4	252.2	254.6
650	196.7	192.4	199.4	187.0	196.0	210.2	215.2	211.7
600	165.9	160.5	167.5	156.9	170.4	177.7	168.2	162.2
550	147.7	145.8	141.0	138.9	140.4	135.4	125.9	122.1
500	129.1	128.9	116.4	123.5	119.0	114.8	111.2	106.9
450	109.5	107.3	104.4	108.2	107.0	105.6	97.9	96.7
400	93.4	89.8	93.1	95.8	100.8	97.3	94.0	89.0
350	88.2	90.0	91.0	97.7	103.7	101.1	98.7	101.6
300	120.1	129.5	139.1	153.3	131.6	135.4	157.5	
HS	1001.76	1001.70	1001.64	1001.58	1001.52	1001.54	1001.60	1001.66
LONG	-166.78	-166.65	-166.53	-166.40	-166.28	-166.17	-166.06	-165.94
LAT	24.66	23.90	22.88	21.87	20.85	19.89	18.87	17.85
DIPL	23.03	22.18	21.27	20.36	19.44	18.57	17.64	16.70
INVL	21.54	20.60	19.58	18.53	17.49	16.50	15.41	14.32
L	1.34	1.32	1.30	1.29	1.27	1.26	1.25	1.23
DIP	40.37	39.19	37.91	36.58	35.22	33.89	32.45	30.97
FHS	0.68	0.67	0.66	0.66	0.65	0.65	0.64	0.64
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	11	11	11	11	11	11	12	13
SNL	1	1	1	1	1	1	1	1

PASS 979 AT SPOINT, 621210

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	5 125645	23 125729	40 125811	58 125855	116 125937	134 130020	152 130102	227 130224
HEIGHT								
SAT.	0.212	0.219	0.237	0.260	0.272	0.261	0.296	0.333
1000	0.213	0.221	0.239	0.261	0.273	0.263	0.298	0.336
950	0.240	0.252	0.267	0.283	0.302	0.302	0.335	0.383
900	0.266	0.282	0.298	0.318	0.339	0.346	0.379	0.441
850	0.304	0.319	0.340	0.364	0.388	0.399	0.450	0.513
800	0.353	0.367	0.390	0.424	0.460	0.469	0.547	0.614
750	0.413	0.437	0.472	0.514	0.567	0.557	0.672	0.784
700	0.497	0.542	0.586	0.652	0.721	0.734	0.825	1.023
650	0.643	0.705	0.763	0.835	0.961	1.011	1.148	1.449
600	0.866	0.982	1.068	1.205	1.443	1.512	1.813	2.361
550	1.320	1.490	1.646	1.929	2.280	2.495	3.119	3.863
500	2.167	2.441	2.728	3.291	3.953	4.517	5.492	6.103
450	3.716	4.163	5.043	6.012	7.156	8.166	8.900	8.513
400	6.469	7.621	9.063	10.530	12.300	12.758		11.166
350	11.502	13.709	15.195					
300								
250								
200								
NT	1.157	1.328	1.519	1.061	1.243	1.351	0.969	1.590
HEIGHT	SCALE HEIGHT, KM							
950	437.4	435.7	494.5	492.4	465.6	369.2	417.0	367.7
900	410.2	424.8	417.5	419.6	393.9	352.7	341.3	347.7
850	369.2	375.4	359.8	351.9	331.7	316.7	292.9	303.5
800	330.0	321.9	311.7	291.3	269.6	281.0	253.6	243.3
750	295.9	268.7	263.6	235.3	223.1	245.3	230.2	198.5
700	238.4	219.5	217.1	207.2	196.6	190.4	206.8	167.7
650	176.8	175.4	179.1	179.3	158.4	143.7	133.7	130.5
600	146.3	138.0	133.9	118.7	116.1	115.5	105.3	105.2
550	113.8	113.4	110.2	104.4	104.0	95.5	89.1	104.6
500	100.2	100.3	92.0	88.1	87.2	81.0	95.2	131.1
450	91.3	90.7	80.5	87.0	87.4	95.8	121.1	168.3
400	93.3	77.2	93.5	90.9	108.1	135.3		195.3
350	83.5	103.1	98.7					
300								
HS	1001.72	1001.78	1001.83	1001.89	1002.01	1002.13	1002.25	1002.61
LONG	-165.83	-165.72	-165.62	-165.51	-165.41	-165.31	-165.21	-165.01
LAT	16.84	15.82	14.86	13.84	12.83	11.81	10.79	8.81
DIPL	15.76	14.81	13.91	12.96	11.99	11.02	10.05	8.14
INVL	13.18	12.00	10.86	9.60	8.24	6.76	4.98	0.00
L	1.22	1.21	1.20	1.19	1.18	1.17	1.17	1.15
DIP	29.44	27.87	26.36	24.71	23.02	21.29	19.52	15.97
FHS	0.63	0.63	0.62	0.62	0.61	0.61	0.61	0.60
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	13	13	13	23	23	33	23	23
SNL	1	1	1	1	1	1	1	1

PASS 979 AT SPOINT, 621210

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	245 130306	303 130347	322 130430	339 130509	357 130550	415 130631
HEIGHT						
SAT.	0.322	0.334	0.351	0.381	0.377	0.377
1000	0.325	0.337	0.356	0.385	0.380	0.380
950	0.385	0.401	0.419	0.440	0.436	0.431
900	0.445	0.462	0.480	0.515	0.513	0.515
850	0.520	0.544	0.562	0.619	0.620	0.628
800	0.642	0.678	0.707	0.762	0.767	0.795
750	0.791	0.857	0.923	0.981	0.996	1.045
700	1.051	1.163	1.223	1.280	1.377	1.440
650	1.575	1.749	1.866	1.858	2.073	2.029
600	2.513	2.703	2.802	2.790	2.929	2.853
550	4.068	4.068	3.977	3.938	3.957	3.878
500	6.039	5.656	5.336	5.236	5.198	5.102
450	8.090	7.547	6.926	6.789	6.749	6.671
400	10.461	9.413	8.969	8.748	8.599	8.443
350		11.931	11.485	10.986	10.541	10.293
300						
250						
200						
NT	1.577	2.059	2.006	1.982	1.984	1.958
HEIGHT	SCALE HEIGHT, KM					
950	314.5	319.1	360.2	342.4	335.3	336.1
900	346.1	333.4	327.2	291.8	288.6	279.3
850	282.7	265.0	267.3	260.7	250.2	231.6
800	234.0	211.6	223.7	223.4	215.5	198.6
750	207.3	193.8	183.9	188.8	171.7	169.0
700	156.2	146.4	147.8	165.9	145.7	154.2
650	118.7	125.8	130.4	126.7	138.0	150.7
600	107.2	121.1	136.1	136.4	156.6	159.3
550	116.2	139.4	158.0	161.1	173.8	171.7
500	151.1	172.3	179.6	182.1	187.2	185.1
450	184.1	194.2	191.7	194.9	200.3	200.9
400	198.6	206.0	198.5	209.7	221.4	226.4
350		230.5	215.0	248.8	306.7	361.6
300						
HS	1002.82	1003.04	1003.29	1003.52	1003.76	1004.07
LONG	-164.91	-164.81	-164.71	-164.62	-164.53	-164.43
LAT	7.79	6.77	5.69	4.73	3.71	2.69
DIPL	7.15	6.16	5.11	4.16	3.16	2.15
INVL	0.00	0.00	0.00	0.00	0.00	0.00
L	1.15	1.14	1.14	1.14	1.13	1.13
DIP	14.09	12.18	10.13	8.28	6.30	4.30
FHS	0.60	0.60	0.60	0.60	0.60	0.60
KP	1+	1+	1+	1+	1+	1+
QUAL	23	22	13	22	21	21
SNL	1	1	1	1	1	1

PASS 3014 AT SPOINT, 63 5 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	30158 171124	30316 171513	30334 171604	30351 171651	30650 172428	30707 172509	30725 172551	30801 172716
HEIGHT								
SAT.	0.223	0.242	0.248	0.260	0.337	0.330	0.311	0.330
1000	0.228	0.244	0.251	0.265	0.344	0.338	0.317	0.335
950	0.256	0.274	0.277	0.304	0.381	0.374	0.357	0.391
900	0.287	0.308	0.314	0.342	0.435	0.430	0.424	0.456
850	0.325	0.349	0.357	0.393	0.502	0.496	0.509	0.521
800	0.376	0.405	0.414	0.450	0.579	0.572	0.603	0.607
750	0.451	0.481	0.494	0.538	0.691	0.683	0.730	0.734
700	0.549	0.584	0.607	0.656	0.853	0.836	0.895	0.933
650	0.674	0.718	0.735	0.807	1.081	1.050	1.147	1.216
600	0.849	0.952	0.969	1.045	1.462	1.478	1.639	1.689
550	1.169	1.312	1.330	1.438	2.061	2.161	2.426	2.485
500	1.712	1.870	1.921	2.017	3.264	3.381	3.615	3.999
450	2.587	2.865	2.933	3.088	5.476	5.540	6.022	7.084
400	4.145	4.722	4.786	5.011			10.215	11.368
350	7.008	7.925						
300	10.775							
250								
200								
NT	1.295	0.946	0.645	0.686	0.711	0.720	1.182	1.298
HEIGHT	SCALE HEIGHT, KM							
950	457.3	443.3	475.0	413.3	461.3	461.0	361.0	347.1
900	409.2	403.3	396.3	396.7	385.9	371.4	312.7	345.5
850	365.1	362.9	357.2	359.7	344.3	344.2	288.2	333.0
800	320.4	322.3	314.3	319.6	312.3	319.9	277.7	293.5
750	273.6	281.5	268.0	271.3	275.7	272.4	259.0	251.4
700	244.7	246.3	242.3	244.6	236.1	226.0	225.8	206.2
650	225.8	213.3	222.5	224.0	189.5	186.4	167.9	171.1
600	195.8	177.2	184.7	176.2	157.9	155.5	143.8	146.3
550	143.4	150.4	147.3	151.4	134.3	127.4	129.5	122.2
500	131.9	134.9	133.0	138.2	104.8	108.1	113.8	96.7
450	117.0	111.9	113.5	114.0	93.5	102.4	95.0	92.4
400	99.6	96.9	99.3	100.3			95.0	124.8
350	102.5	104.2						
300	214.7							
HS	1005.51	1003.22	1004.03	1004.79	1005.93	1006.07	1006.25	1006.61
LONG	-147.64	-147.01	-146.87	-146.75	-145.59	-145.49	-145.39	-145.18
LAT	30.81	26.42	25.40	24.45	14.34	13.38	12.37	10.33
DIPL	31.77	27.78	26.85	25.96	16.47	15.55	14.58	12.62
INVL	31.14	26.91	25.93	24.98	14.70	13.67	12.54	10.19
L	1.58	1.46	1.43	1.41	1.24	1.23	1.22	1.20
DIP	51.09	46.49	45.35	44.24	30.60	29.10	27.48	24.12
FHS	0.77	0.73	0.72	0.71	0.64	0.63	0.63	0.62
KP	2+	2+	2+	2+	2+	2+	2+	2+
QUAL	21	23	23	23	23	23	22	23
SNL	1	1	1	1	1	1	1	1

PASS 3014 AT SPOINT, 63 5 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	30848	30908	30930	30947	31006	31023	31042
LT	172756	172951	173042	173120	173204	173242	173326
HEIGHT							
SAT.	0.327	0.334	0.331	0.340	0.353	0.358	0.375
1000	0.334	0.342	0.340	0.351	0.366	0.370	0.388
950	0.369	0.396	0.399	0.418	0.427	0.428	0.441
900	0.424	0.469	0.469	0.487	0.487	0.487	0.501
850	0.492	0.557	0.547	0.560	0.554	0.558	0.574
800	0.575	0.653	0.639	0.648	0.643	0.647	0.659
750	0.714	0.779	0.754	0.756	0.754	0.786	0.815
700	0.900	0.951	0.933	0.973	0.964	1.000	1.023
650	1.146	1.251	1.269	1.346	1.302	1.375	1.406
600	1.619	1.899	1.999	2.009	1.932	2.035	2.044
550	2.424	3.118	3.144	3.232	3.046	3.121	3.106
500	4.096	5.068	4.985	5.019	4.666	4.592	4.483
450	7.163	7.605	7.332	7.215	6.529	6.261	
400			9.851	9.424	8.578	7.963	
350							
300							
250							
200							
NT	0.825	0.956	1.378	1.378	1.289	1.273	0.650
HEIGHT	SCALE HEIGHT, KM						
950	439.8	313.1	309.9	306.1	356.0	362.7	386.4
900	358.4	303.6	319.9	342.8	383.8	370.0	373.8
850	319.0	299.0	319.1	343.0	349.8	337.2	335.4
800	280.3	294.2	305.0	308.5	308.2	298.3	295.6
750	241.5	272.4	285.4	264.9	266.6	245.8	247.7
700	206.7	216.9	195.4	197.3	206.6	190.0	199.8
650	177.4	151.1	140.9	146.1	152.8	146.1	156.5
600	146.7	108.1	116.4	112.9	117.1	127.9	124.2
550	115.6	102.1	110.7	108.9	114.1	124.5	129.0
500	89.5	112.4	118.0	125.7	132.9	145.9	147.2
450	100.1	143.2	150.8	164.9	167.5	185.6	
400			219.6	237.9	225.0	250.5	
350							
300							
HS	1006.87	1007.65	1008.05	1008.36	1008.72	1009.06	1009.44
LONG	-145.09	-144.82	-144.70	-144.61	-144.51	-144.42	-144.32
LAT	9.37	6.55	5.30	4.34	3.27	2.31	1.23
DIPL	11.69	8.94	7.73	6.79	5.73	4.79	3.73
INVL	9.03	5.02	2.32	0.00	0.00	0.00	0.00
L	1.19	1.17	1.16	1.16	1.15	1.15	1.14
DIP	22.48	17.47	15.18	13.39	11.35	9.51	7.42
FHS	0.61	0.60	0.60	0.59	0.59	0.59	0.59
KP	2+	2+	2+	2+	2+	2+	2+
QUAL	23	23	23	12	12	12	12
SNL	1	1	1	1	1	1	1

PASS 3028 AT SPOINT, 63 5 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	33841 170117	33859 170215	33917 170310	33934 170402	33952 170457	34010 170550	34028 170641	34046 170732
HEIGHT								
SAT.	0.192	0.191	0.196	0.194	0.199	0.207	0.202	0.204
1000	0.196	0.195	0.199	0.198	0.205	0.210	0.206	0.209
950	0.216	0.214	0.223	0.220	0.227	0.229	0.224	0.232
900	0.236	0.236	0.245	0.239	0.249	0.249	0.243	0.253
850	0.260	0.262	0.270	0.263	0.274	0.274	0.266	0.279
800	0.292	0.294	0.302	0.293	0.307	0.304	0.297	0.315
750	0.333	0.336	0.345	0.337	0.351	0.352	0.342	0.374
700	0.386	0.390	0.397	0.393	0.410	0.413	0.404	0.450
650	0.454	0.464	0.476	0.474	0.488	0.503	0.480	0.544
600	0.562	0.565	0.579	0.584	0.605	0.619	0.595	0.697
550	0.717	0.733	0.756	0.718	0.801	0.794	0.833	0.887
500	0.951	0.973	1.023	1.012	1.102	1.103	1.173	1.314
450	1.298	1.333	1.447	1.420	1.549	1.596	1.646	1.965
400	1.766	1.858	2.018	2.053	2.208	2.376	2.405	2.983
350	2.580	2.773	3.083	3.236	3.606	3.850	3.939	5.017
300	3.950	4.363	5.018	5.487	6.125	6.767	6.884	8.529
250	5.988	6.631		8.360	9.346			
200								
NT	0.856	0.910	0.689	1.050	1.154	0.808	0.820	0.984
HEIGHT	SCALE HEIGHT, KM							
950	562.8	546.8	504.5	550.0	583.2	589.9	643.6	554.4
900	520.9	483.6	495.1	531.1	518.8	536.1	570.2	509.3
850	471.3	445.7	454.8	473.9	469.2	480.7	504.8	436.2
800	419.6	405.2	412.9	417.9	415.3	423.9	428.0	375.6
750	366.5	363.0	368.9	364.3	357.8	356.9	320.8	333.8
700	319.5	320.2	324.8	310.6	307.6	289.8	284.3	292.0
650	274.5	275.8	278.2	270.3	263.3	256.4	252.3	250.4
600	230.4	233.4	231.4	236.1	220.6	226.2	216.8	211.8
550	196.1	196.0	189.3	201.9	180.4	191.1	170.3	173.3
500	175.3	166.7	156.3	171.7	156.8	145.8	145.0	149.2
450	161.2	152.7	148.5	143.8	145.9	133.8	139.2	128.2
400	151.1	142.5	139.8	124.2	129.1	118.3	122.1	111.7
350	131.6	121.6	112.9	105.1	98.6	97.1	96.6	93.2
300	116.3	106.6	112.1	100.3	100.4	96.1	86.1	114.9
HS	1005.83	1005.80	1005.74	1005.69	1005.63	1005.60	1005.60	1005.60
LONG	-159.35	-159.18	-159.03	-158.88	-158.73	-158.58	-158.45	-158.31
LAT	32.97	31.97	30.95	29.99	28.98	27.97	26.95	25.94
DIPL	31.65	30.78	29.90	29.06	28.18	27.29	26.39	25.49
INVL	31.03	30.09	29.12	28.20	27.25	26.29	25.29	24.31
L	1.58	1.55	1.52	1.49	1.46	1.44	1.42	1.39
DIP	50.96	49.99	48.99	48.02	46.97	45.89	44.78	43.64
FHS	0.76	0.75	0.74	0.73	0.72	0.72	0.71	0.70
KP	3+	3+	3+	3+	3+	3+	3+	3+
QUAL	21	12	22	22	22	23	22	22
SNL	1	1	1	1	1	1	1	1

PASS 3028 AT SPOINT, 63 5 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	34103 170820	34121 170908	34139 170956	34157 171044	34308 171348	34326 171432	34437 171724	34455 171807
HEIGHT								
SAT.	0.199	0.204	0.202	0.203	0.236	0.248	0.278	0.291
1000	0.203	0.208	0.206	0.208	0.241	0.253	0.286	0.297
950	0.226	0.228	0.229	0.232	0.274	0.286	0.315	0.326
900	0.250	0.249	0.255	0.260	0.308	0.321	0.356	0.371
850	0.278	0.275	0.286	0.293	0.349	0.364	0.403	0.426
800	0.315	0.312	0.323	0.332	0.398	0.417	0.459	0.490
750	0.370	0.371	0.382	0.395	0.470	0.481	0.549	0.568
700	0.440	0.447	0.461	0.482	0.591	0.607	0.685	0.727
650	0.533	0.539	0.577	0.607	0.748	0.771	0.868	0.934
600	0.678	0.681	0.731	0.775	0.981	1.007	1.130	1.323
550	0.900	0.957	0.981	1.000	1.337	1.391	1.648	1.847
500	1.260	1.356	1.411	1.540	1.972	2.060	2.553	3.047
450	1.867	1.906	2.089	2.333	3.156	3.286	4.508	5.903
400	2.915	2.998	3.337	3.710	5.302	5.568	8.745	
350	5.033	5.186	5.695	6.336	8.607	9.060		
300	8.667	8.950	9.420	10.302				
250								
200								
NT	0.976	1.004	1.078	1.178	1.015	1.061	0.899	0.658
HEIGHT	SCALE HEIGHT, KM							
950	490.7	579.9	478.6	480.6	422.3	417.1	501.1	494.8
900	465.4	515.6	437.4	420.1	401.9	396.9	410.4	407.0
850	409.3	441.3	397.4	381.6	365.5	364.1	368.9	355.6
800	362.4	372.2	357.4	343.1	324.6	329.4	327.4	319.0
750	326.8	310.2	305.5	295.3	285.5	294.3	285.9	281.0
700	291.2	263.1	251.8	244.7	249.3	253.9	244.3	228.2
650	253.0	231.8	223.3	213.9	213.1	213.5	203.2	175.3
600	207.1	199.2	199.3	191.0	178.7	175.1	162.8	154.7
550	165.5	163.8	160.5	167.8	147.9	144.6	134.6	134.4
500	136.3	142.6	132.0	141.0	123.5	122.3	106.1	85.8
450	126.3	132.5	121.1	117.4	101.9	102.5	78.4	76.8
400	104.6	101.0	102.2	101.0	99.9	99.0	79.2	
350	89.6	89.7	95.5	95.0	109.5	105.8		
300	112.0	111.7	117.3	124.7				
HS	1005.60	1005.63	1005.66	1005.69	1005.97	1006.12	1006.71	1006.86
LONG	-158.18	-158.05	-157.93	-157.80	-157.33	-157.22	-156.80	-156.70
LAT	24.98	23.97	22.95	21.94	17.94	16.92	12.91	11.89
DIPL	24.64	23.73	22.82	21.90	18.22	17.27	13.48	12.51
INVL	23.39	22.39	21.39	20.37	16.28	15.18	10.65	9.39
L	1.37	1.35	1.34	1.32	1.26	1.24	1.20	1.19
DIP	42.53	41.32	40.08	38.80	33.36	31.87	25.62	23.93
FHS	0.69	0.69	0.68	0.67	0.65	0.64	0.62	0.62
KP	3+	3+	3+	3+	3+	3+	3+	3+
QUAL	22	12	22	22	23	23	13	13
SNL	1	1	1	1	1	1	1	1

PASS 3028 AT SPOINT, 63 5 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	34513 171849	34530 171926	34548 172010	34602 172043	34624 172134	34642 172215	34659 172255	34717 172335
HEIGHT								
SAT.	0.280	0.281	0.285	0.282	0.290	0.295	0.291	0.303
1000	0.268	0.286	0.292	0.291	0.296	0.301	0.302	0.311
950	0.322	0.319	0.327	0.326	0.330	0.338	0.346	0.351
900	0.363	0.362	0.370	0.370	0.377	0.386	0.399	0.409
850	0.413	0.414	0.424	0.424	0.435	0.446	0.467	0.482
800	0.473	0.477	0.490	0.492	0.516	0.539	0.566	0.583
750	0.565	0.589	0.595	0.613	0.664	0.697	0.742	0.771
700	0.709	0.739	0.787	0.807	0.893	0.967	1.028	1.075
650	0.927	0.984	1.070	1.148	1.285	1.452	1.532	1.629
600	1.279	1.433	1.542	1.752	2.128	2.241	2.403	2.540
550	2.033	2.363	2.661	2.963	3.511	3.690	3.839	3.965
500	3.727	4.305	4.701	5.205	5.860	6.101	6.039	6.137
450	6.906	7.720	8.009		9.141	9.282	8.895	8.954
400	11.384							
350								
300								
250								
200								
NT	1.178	0.799	0.856	0.582	1.036	1.082	1.098	1.129
HEIGHT	SCALE HEIGHT, KM							
950	442.6	420.7	420.2	422.0	412.0	398.6	363.6	372.0
900	398.4	387.0	371.6	371.0	355.6	347.0	326.5	312.7
850	359.1	340.7	333.6	334.2	309.4	301.0	282.7	274.3
800	320.2	293.2	295.6	294.2	260.9	247.0	235.7	232.4
750	273.7	253.0	251.7	219.1	206.1	182.4	181.6	177.0
700	220.8	212.7	198.4	164.1	158.5	140.1	144.2	137.6
650	175.4	164.8	154.0	135.0	122.1	119.0	122.8	121.7
600	135.7	123.4	118.4	109.9	102.2	108.9	111.6	115.0
550	101.9	95.8	89.8	91.3	99.9	100.6	108.7	113.2
500	79.9	81.1	91.5	95.0	103.5	108.2	119.9	122.5
450	88.6	97.1	101.9		130.8	143.3	153.1	180.3
400	142.0							
350								
300								
HS	1007.07	1007.30	1007.54	1007.74	1008.14	1008.47	1008.78	1009.14
LONG	-156.60	-156.50	-156.41	-156.33	-156.21	-156.11	-156.02	-155.92
LAT	10.88	9.91	8.90	8.11	6.86	5.85	4.89	3.87
DIPL	11.53	10.61	9.62	8.85	7.64	6.65	5.71	4.71
INVL	8.04	6.66	4.94	3.27	0.00	0.00	0.00	0.00
L	1.18	1.17	1.17	1.16	1.15	1.15	1.15	1.14
DIP	22.20	20.53	18.73	17.30	15.02	13.12	11.30	9.35
FHS	0.61	0.61	0.60	0.60	0.60	0.60	0.60	0.60
KP	3+	3+	3+	3+	3+	3+	3+	3+
QUAL	13	13	13	13	23	22	23	32
SNL	1	1	1	1	1	1	1	1

PASS 3028 AT SPOINT, 63 5 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	34735
LT	172416

HEIGHT	
SAT.	0.299
1000	0.306
950	0.349
900	0.414
850	0.500
800	0.608
750	0.748
700	1.097
650	1.639
600	2.473
550	3.866
500	6.029
450	8.536
400	
350	
300	
250	
200	
NT	1.167

HEIGHT	SCALE HEIGHT, KM
950	330.4
900	280.1
850	252.0
800	227.7
750	201.3
700	143.1
650	124.9
600	118.8
550	112.7
500	126.4
450	179.9
400	
350	
300	

HS	1009.50
LONG	-155.83
LAT	2.85
DIPL	3.70
INVL	0.00
L	1.14
DIP	7.57
FHS	0.59
KP	3+
QUAL	22
SNL	1

PASS 3041 AT SPOINT, 63 510

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	23125 165636	23143 165730	23218 165912	23236 170002	23254 170052	23312 170141	23329 170227	23347 170315
HEIGHT								
SAT.	0.199	0.194	0.211	0.213	0.215	0.231	0.247	0.267
1000	0.203	0.199	0.216	0.219	0.221	0.237	0.253	0.272
950	0.229	0.227	0.244	0.250	0.255	0.273	0.290	0.310
900	0.259	0.257	0.278	0.288	0.294	0.316	0.337	0.358
850	0.295	0.292	0.321	0.336	0.342	0.370	0.395	0.419
800	0.336	0.334	0.373	0.395	0.400	0.435	0.463	0.492
750	0.399	0.400	0.441	0.463	0.478	0.513	0.560	0.581
700	0.460	0.486	0.549	0.576	0.596	0.645	0.698	0.740
650	0.596	0.614	0.693	0.730	0.759	0.819	0.895	0.947
600	0.725	0.792	0.908	0.962	0.991	1.082	1.172	1.271
550	0.956	1.070	1.232	1.336	1.397	1.547	1.676	1.713
500	1.414	1.575	1.851	1.945	2.016	2.281	2.486	2.440
450	2.030	2.332	2.854	2.960	3.057	3.521	3.922	3.870
400	3.146	3.688	4.642	4.925	5.064	5.979	6.596	6.392
350	5.451	6.527	8.301	8.519	8.668			
300	9.957							
250								
200								
NT	1.072	0.772	0.925	0.977	1.005	0.745	0.816	0.824
HEIGHT	SCALE HEIGHT, KM							
950	426.4	421.6	401.5	370.6	364.7	366.5	358.9	363.9
900	397.8	393.5	369.4	344.9	340.0	335.4	332.9	336.6
850	364.3	357.6	337.3	319.8	315.7	308.6	307.6	309.7
800	329.8	321.0	305.4	296.8	291.6	287.3	282.7	283.7
750	294.2	281.6	272.8	273.9	263.7	266.1	254.0	257.4
700	258.4	244.2	238.4	235.3	229.4	232.6	223.0	225.8
650	228.9	213.7	204.9	197.7	197.9	198.3	193.2	194.1
600	203.3	186.4	177.7	171.4	170.0	161.0	164.7	174.7
550	177.7	162.0	151.3	149.3	150.1	142.2	143.6	158.8
500	153.3	142.5	126.9	131.2	132.8	125.9	122.5	132.8
450	129.3	122.4	111.8	112.6	113.8	106.9	104.2	105.0
400	107.9	100.4	97.2	93.5	95.2	92.8	95.8	99.0
350	85.7	82.8	88.0	92.6	97.2			
300	97.2							
HS	1006.10	1006.10	1006.10	1006.10	1006.10	1006.12	1006.15	1006.18
LONG	-143.70	-143.55	-143.27	-143.14	-143.00	-142.88	-142.76	-142.63
LAT	29.94	28.93	26.96	25.94	24.93	23.91	22.96	21.94
DIPL	31.63	30.70	28.87	27.93	26.99	26.04	25.14	24.19
INVL	31.01	30.04	28.12	27.14	26.15	25.15	24.19	23.19
L	1.58	1.55	1.49	1.46	1.44	1.41	1.39	1.37
DIP	50.94	49.90	47.80	46.68	45.52	44.34	43.19	41.94
FHS	0.77	0.76	0.74	0.74	0.73	0.72	0.71	0.70
KP	3-	3-	3-	3-	3-	3-	3-	3-
QUAL	23	23	23	23	23	23	23	23
SNL	1	1	1	1	1	1	1	1

PASS 3041 AT SPOINT, 63 510

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	23405 170403	23423 170449	23441 170535	23458 170618	23516 170703	23534 170746	23553 170833	23611 170916
HEIGHT								
SAT.	0.260	0.294	0.304	0.313	0.327	0.321	0.339	0.337
1000	0.266	0.299	0.312	0.320	0.332	0.328	0.346	0.344
950	0.322	0.341	0.352	0.364	0.375	0.378	0.393	0.395
900	0.372	0.394	0.406	0.422	0.434	0.436	0.456	0.460
850	0.436	0.460	0.481	0.499	0.508	0.510	0.537	0.544
800	0.511	0.540	0.565	0.590	0.597	0.603	0.639	0.653
750	0.611	0.640	0.666	0.708	0.720	0.722	0.760	0.785
700	0.767	0.822	0.839	0.896	0.913	0.913	0.987	1.039
650	0.977	1.055	1.071	1.157	1.178	1.222	1.339	1.452
600	1.297	1.416	1.468	1.572	1.609	1.664	1.899	2.092
550	1.757	1.904	1.991	2.137	2.236	2.375	2.972	3.503
500	2.578	2.824	3.012	3.295	3.638	4.010	5.196	6.438
450	4.148	4.525	4.922	5.508	6.343	7.331	9.530	
400	6.953	7.628	8.169	9.326				
350								
300								
250								
200								
NT	0.869	0.944	1.001	1.099	0.777	0.833	1.006	0.716
HEIGHT	SCALE HEIGHT, KM							
950	383.3	364.3	399.9	362.7	368.9	348.0	359.6	338.0
900	346.9	332.2	358.5	339.7	332.1	331.4	327.8	311.3
850	314.2	305.6	319.0	316.6	303.3	311.8	297.3	284.3
800	286.8	281.3	290.4	280.0	278.5	282.4	271.0	258.1
750	258.0	256.2	260.8	244.0	249.9	248.0	244.6	231.9
700	226.1	225.1	222.5	214.2	215.6	194.0	194.4	178.7
650	197.1	194.0	186.3	186.3	184.0	170.7	154.5	142.0
600	177.4	172.7	168.1	166.8	161.4	155.1	134.5	122.7
550	153.1	154.0	149.9	145.6	135.1	129.0	103.5	91.9
500	120.2	121.5	115.6	109.5	98.1	89.5	84.9	80.2
450	100.6	99.5	99.7	95.0	88.0	83.3	85.9	
400	99.9	101.6	99.0	101.3				
350								
300								
HS	1006.22	1006.31	1006.40	1006.49	1006.61	1006.73	1006.85	1007.03
LONG	-142.51	-142.39	-142.27	-142.16	-142.05	-141.95	-141.83	-141.73
LAT	20.93	19.91	18.90	17.94	16.93	15.91	14.84	13.82
DIPL	23.24	22.28	21.32	20.41	19.44	18.47	17.44	16.47
INVL	22.20	21.18	20.13	19.17	18.12	17.06	15.95	14.87
L	1.35	1.33	1.31	1.30	1.28	1.27	1.25	1.24
DIP	40.65	39.33	37.97	36.66	35.22	33.75	32.15	30.59
FHS	0.69	0.68	0.68	0.67	0.66	0.65	0.65	0.64
KP	3-	3-	3-	3-	3-	3-	3-	3-
QUAL	23	23	23	23	23	23	23	23
SNL	1	1	1	1	1	1	1	1

PASS 3041 AT SPOINT, 63 510

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	23629	23645	23704	23722	23740	23758	23815
LT	170958	171036	171121	171203	171244	171326	171406
HEIGHT							
SAT.	0.343	0.344	0.363	0.368	0.414	0.434	0.474
1000	0.349	0.355	0.375	0.382	0.424	0.448	0.490
950	0.402	0.411	0.432	0.453	0.511	0.557	0.612
900	0.473	0.487	0.517	0.549	0.647	0.716	0.799
850	0.567	0.586	0.653	0.691	0.838	0.935	1.046
800	0.686	0.738	0.836	0.902	1.090	1.226	1.367
750	0.875	0.965	1.113	1.235	1.508	1.686	1.802
700	1.187	1.349	1.568	1.779	2.156	2.298	2.351
650	1.702	2.016	2.421	2.593	2.990	3.077	3.045
600	2.575	3.286	3.769	3.939	4.176	4.177	3.992
550	4.457	5.359	5.867	5.849	5.924	5.658	5.286
500	8.093	8.816	8.896	8.529	8.352	7.618	6.990
450					11.066	10.012	8.963
400							
350							
300							
250							
200							
NT	0.857	0.989	1.091	1.122	1.697	1.659	1.601
HEIGHT	SCALE HEIGHT, KM						
950	326.4	314.9	304.0	274.9	235.1	213.9	202.4
900	290.5	272.4	252.7	239.4	207.9	195.9	188.7
850	260.5	243.2	212.0	205.6	188.6	182.4	184.1
800	233.8	209.3	191.6	175.2	173.0	170.7	184.6
750	197.3	168.4	157.4	146.6	160.0	169.3	189.0
700	152.6	140.9	134.5	134.7	149.3	168.3	191.2
650	135.5	111.8	113.3	127.3	151.9	166.4	189.7
600	110.5	103.4	114.3	123.1	147.3	166.3	183.8
550	85.3	101.3	115.8	130.2	144.2	167.3	180.2
500	89.7	109.0	126.0	139.5	158.8	175.5	194.3
					227.4	197.7	238.3
HS	1007.24	1007.42	1007.66	1007.93	1008.20	1008.47	1008.75
LONG	-141.63	-141.53	-141.43	-141.33	-141.23	-141.13	-141.04
LAT	12.80	11.90	10.82	9.81	8.79	7.77	6.81
DIPL	15.49	14.62	13.58	12.60	11.61	10.63	9.69
INVL	13.78	12.80	11.60	10.42	9.21	7.93	6.65
L	1.23	1.22	1.21	1.20	1.19	1.18	1.17
DIP	29.00	27.55	25.79	24.09	22.34	20.57	18.86
FHS	0.63	0.63	0.62	0.62	0.61	0.61	0.60
KP	3-	3-	3-	3-	3-	3-	3-
QUAL	23	23	23	23	23	23	23
SNL	1	1	1	1	1	1	1

PASS 3041 AT SPOINT, 63 510

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	23851	23909	23927	24002	24020	24038
LT	171529	171610	171650	171809	171850	171931
HEIGHT						
SAT.	0.552	0.553	0.625	0.683	0.689	0.666
1000	0.573	0.582	0.652	0.729	0.720	0.702
950	0.729	0.760	0.824	0.891	0.897	0.887
900	0.958	0.989	1.037	1.090	1.092	1.086
850	1.163	1.247	1.260	1.283	1.283	1.279
800	1.458	1.497	1.474	1.635	1.482	1.477
750	1.764	1.801	1.695	1.815	1.724	1.694
700	2.141	2.176	1.972	2.100	2.034	1.948
650	2.709	2.695	2.396	2.514	2.461	2.237
600	3.423	3.437	3.051	3.109	3.004	2.593
550	4.435	4.426	3.926	3.826	3.677	3.023
500	5.755	5.625	4.979	4.606	4.446	3.496
450	7.264	6.785	6.035	5.398	5.162	
400			6.873	6.076	5.786	
350						
300						
250						
200						
NT	1.419	1.416	1.621	1.583	1.526	0.916
HEIGHT	SCALE HEIGHT, KM					
950	210.7	185.1	220.6	233.3	237.5	232.8
900	216.3	199.7	247.2	278.8	283.3	279.7
850	228.9	247.6	289.2	292.1	328.3	323.9
800	232.8	272.8	333.6	284.6	326.6	350.2
750	235.5	273.4	335.0	374.1	310.7	359.4
700	237.9	251.7	292.6	290.5	286.5	357.3
650	221.4	215.1	235.2	254.9	266.5	348.3
600	206.2	200.9	206.8	236.1	252.4	336.6
550	196.4	197.4	207.9	254.8	256.6	336.7
500	212.3	233.4	236.2	290.6	301.1	374.7
450	269.8	308.0	321.2	364.1	376.4	
400			458.0	523.1	576.4	
HS	1009.35	1009.69	1010.08	1010.85	1011.33	1011.81
LONG	-140.84	-140.74	-140.65	-140.47	-140.37	-140.28
LAT	4.78	3.76	2.74	0.77	-0.25	-1.26
DIPL	7.71	6.71	5.71	3.77	2.78	1.78
INVL	3.21	0.00	0.00	0.00	0.00	0.00
L	1.16	1.16	1.15	1.15	1.14	1.14
DIP	15.14	13.24	11.32	7.51	5.54	3.55
FHS	0.60	0.59	0.59	0.59	0.59	0.59
KP	3-	3-	3-	3-	3-	3-
QUAL	23	11	22	21	21	22
SNL	1	1	1	1	1	1

PASS 3042 AT SPOINT, 63 510

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	41756 165855	41813 165943	41831 170032	41849 170122	41907 170211	41924 170255	41942 170342	42000 170428
HEIGHT								
SAT. 1000	0.224 0.229	0.232 0.237	0.237 0.242	0.242 0.247	0.247 0.253	0.256 0.261	0.254 0.259	0.281 0.288
950 900	0.258 0.290	0.264 0.297	0.270 0.303	0.279 0.316	0.284 0.318	0.295 0.333	0.292 0.332	0.316 0.353
850 800	0.329 0.376	0.338 0.389	0.344 0.395	0.360 0.415	0.362 0.415	0.381 0.439	0.382 0.442	0.421 0.499
750 700	0.446 0.542	0.464 0.562	0.474 0.585	0.493 0.616	0.476 0.617	0.525 0.693	0.533 0.672	0.598 0.735
650 600	0.678 0.849	0.704 0.882	0.740 0.951	0.788 1.031	0.801 1.137	0.912 1.254	0.882 1.184	0.935 1.294
550 500	1.147 1.628	1.235 1.861	1.406 2.075	1.479 2.217	1.699 2.592	1.702 2.438	1.752 2.687	1.881 2.919
450 400	2.456 4.018	2.855 4.698	3.228 5.341	3.536 6.002	4.040 6.760	4.080 6.926	4.430 7.600	4.909 8.532
350 300	6.858 10.523	7.661 11.213	8.637	9.537	10.463	10.919		
250 200								
NT	1.262	1.397	1.028	1.121	1.243	1.278	0.876	0.964
HEIGHT	SCALE HEIGHT, KM							
950 900	439.1 409.5	446.0 400.4	445.1 404.5	405.0 382.8	447.0 397.0	418.7 376.1	414.0 361.8	502.0 377.7
850 800	372.3 332.6	361.0 321.5	368.7 326.3	350.9 315.2	361.1 325.2	338.5 300.9	332.0 302.2	285.9 297.1
750 700	[illegible] 241.7	[illegible] 245.1	[illegible] 227.2	[illegible] 231.8	289.2 233.3	262.0 220.2	260.6 209.3	253.6 224.0
650 600	221.4 201.1	218.1 191.1	196.8 165.5	195.0 166.7	177.4 144.6	178.4 163.2	178.1 152.5	180.8 145.3
550 500	172.7 138.5	161.9 130.9	145.9 126.8	142.0 119.4	123.7 116.7	151.3 126.3	132.2 111.7	124.1 107.4
450 400	112.3 97.3	111.2 99.6	108.2 102.1	101.9 97.8	101.6 105.3	95.3 99.4	94.3 99.7	91.6 96.9
350 300	101.5 234.8	106.4 228.0	116.1	126.9	145.5	150.0		
HS LONG LAT	1006.10 -169.75 26.60	1006.12 -169.62 25.64	1006.15 -169.49 24.62	1006.18 -169.36 23.61	1006.22 -169.23 22.60	1006.28 -169.12 21.64	1006.34 -169.00 20.62	1006.40 -168.88 19.61
DIPL INVL L DIP	24.06 22.70 1.36 41.76	23.21 21.74 1.34 40.62	22.32 20.75 1.32 39.39	21.42 19.73 1.31 38.11	20.51 18.69 1.29 36.80	19.65 17.70 1.28 35.53	18.73 16.66 1.26 34.15	17.81 15.57 1.25 32.72
FHS KP QUAL SNL	0.68 3- 12 1	0.68 3- 12 1	0.67 3- 12 1	0.66 3- 12 1	0.66 3- 23 1	0.65 3- 13 1	0.65 3- 13 1	0.64 3- 23 1

PASS 3042 AT SPOINT, 63 510

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	42018 170514	42036 170559	42053 170642	42111 170726	42129 170809	42147 170852	42205 170935	42219 171008
HEIGHT SAT.	0.282	0.283	0.300	0.313	0.314	0.319	0.323	0.341
1000	0.288	0.289	0.305	0.318	0.319	0.325	0.330	0.347
950	0.324	0.325	0.344	0.358	0.359	0.368	0.374	0.390
900	0.370	0.376	0.400	0.418	0.419	0.430	0.436	0.461
850	0.428	0.445	0.469	0.499	0.501	0.509	0.519	0.556
800	0.502	0.529	0.555	0.598	0.603	0.610	0.624	0.675
750	0.632	0.629	0.693	0.716	0.725	0.797	0.776	0.841
700	0.808	0.831	0.883	0.918	0.946	1.078	1.110	1.205
650	1.062	1.115	1.153	1.249	1.324	1.579	1.623	1.806
600	1.479	1.568	1.674	1.863	1.991	2.335	2.447	2.828
550	2.138	2.243	2.593	2.987	3.267	3.915	4.118	4.527
500	3.323	3.847	4.547	5.224	5.610	6.736	6.853	7.313
450	5.825	7.028	8.283	9.166	9.670			10.976
400								
350								
300								
250								
200								
NT	0.706	0.778	0.880	0.978	1.037	0.758	0.781	1.313
HEIGHT	SCALE HEIGHT, KM							
950	410.7	379.6	371.1	361.9	357.6	355.7	354.7	369.2
900	359.0	340.6	325.3	327.1	324.1	314.1	303.1	285.7
850	313.3	302.4	293.5	292.3	290.6	274.3	270.9	258.2
800	269.5	269.2	263.1	265.8	260.8	234.4	241.1	232.8
750	235.8	236.0	230.0	239.5	231.4	192.1	205.6	200.2
700	202.1	201.3	196.6	196.5	184.1	156.1	146.1	131.0
650	170.1	166.4	162.7	146.4	138.1	138.8	127.3	121.7
600	147.7	144.8	134.7	123.4	117.4	118.5	112.2	110.2
550	129.5	121.9	106.0	99.4	97.2	94.8	97.1	105.5
500	104.4	89.2	81.3	87.7	91.9	97.0	106.2	112.7
450	86.7	84.7	92.1	93.6	96.0			140.2
400								
350								
300								
HS	1006.49	1006.58	1006.66	1006.81	1006.99	1007.17	1007.36	1007.52
LONG	-168.77	-168.65	-168.54	-168.44	-168.33	-168.23	-168.12	-168.04
LAT	18.59	17.58	16.62	15.60	14.58	13.56	12.55	11.76
DIPL	16.88	15.94	15.06	14.11	13.15	12.20	11.23	10.48
INVL	14.48	13.35	12.24	11.04	9.78	8.42	6.95	5.64
L	1.24	1.22	1.21	1.20	1.19	1.18	1.18	1.17
DIP	31.25	29.74	28.28	26.69	25.05	23.38	21.67	20.31
FHS	0.64	0.63	0.63	0.62	0.62	0.61	0.61	0.61
KP	3-	3-	3-	3-	3-	3-	3-	3-
QUAL	23	23	23	23	23	23	23	23
SNL	1	1	1	1	1	1	1	1

PASS 3042 AT SPOINT, 63 510

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	42240 171058	42258 171140	42316 171222	42427 171503	42445 171545	42503 171626	42538 171745	42614 171907
HEIGHT SAT.	0.357	0.329	0.330	0.343	0.330	0.342	0.321	0.320
1000	0.344	0.336	0.336	0.353	0.340	0.354	0.331	0.330
950	0.390	0.388	0.389	0.428	0.419	0.436	0.409	0.392
900	0.466	0.467	0.469	0.554	0.550	0.580	0.558	0.509
850	0.574	0.577	0.582	0.728	0.730	0.766	0.737	0.663
800	0.714	0.719	0.728	0.945	0.949	0.986	0.952	0.898
750	0.944	1.002	1.050	1.271	1.223	1.295	1.246	1.233
700	1.363	1.435	1.495	1.770	1.663	1.720	1.679	1.629
650	1.977	2.019	2.058	2.429	2.236	2.278	2.266	2.091
600	3.052	3.076	3.034	3.294	3.082	3.156	3.123	3.017
550	4.712	4.699	4.523	4.518	4.265	4.318	4.244	4.221
500	7.370	7.039	6.575	6.010	5.632	5.520	5.308	5.479
450	10.755	10.041	9.251	7.202	6.633	6.358	6.101	6.462
400					7.480	7.256	7.088	7.412
350								
300								
250								
200								
NT	1.356	1.330	1.285	1.286	1.565	1.561	1.517	1.523
HEIGHT	SCALE HEIGHT, KM							
950	329.8	301.7	300.6	220.5	211.5	203.2	206.5	258.0
900	276.5	251.0	240.3	194.3	186.4	182.9	182.5	198.7
850	236.1	222.4	214.6	182.5	180.0	181.6	186.7	182.9
800	207.5	196.0	188.8	176.6	182.2	185.0	189.1	168.9
750	168.4	158.5	153.7	171.0	182.9	183.0	173.7	162.8
700	133.4	138.6	142.8	165.7	173.8	177.9	169.8	166.0
650	128.0	135.2	144.0	162.4	165.1	171.4	166.0	169.2
600	116.3	120.0	130.1	162.3	158.1	159.9	162.6	149.9
550	114.1	120.5	129.7	166.4	167.5	183.2	203.0	172.7
500	120.3	133.4	139.7	216.4	241.6	285.8	303.5	252.3
450	164.2	169.1	189.9	370.6	378.4	367.8	345.1	334.7
400					482.8	421.3	379.2	368.1
350								
300								
HS	1007.77	1007.98	1008.27	1009.54	1009.90	1010.27	1011.09	1011.97
LONG	-167.92	-167.82	-167.72	-167.35	-167.25	-167.15	-166.97	-166.78
LAT	10.58	9.56	8.54	4.52	3.51	2.49	0.52	-1.51
DIPL	9.35	8.38	7.39	3.47	2.47	1.47	-0.49	-2.52
INVL	3.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.16	1.16	1.15	1.14	1.13	1.13	1.13	1.13
DIP	18.23	16.41	14.55	6.92	4.93	2.93	-0.98	-5.02
FHS	0.61	0.60	0.60	0.60	0.60	0.60	0.60	0.61
KP	3-	3-	3-	3-	3-	3-	3-	3-
QUAL	23	22	22	21	31	21	32	32
SNL	1	1	1	1	1	1	1	1

PASS 3042 AT SPOINT, 63 510

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	42629
LT	171940

HEIGHT	
SAT.	0.307
1000	0.317
950	0.378
900	0.490
850	0.650
800	0.849
750	1.124
700	1.520
650	2.065
600	2.881
550	4.099
500	5.612
450	6.804
400	7.813
350	
300	
250	
200	
NT	1.527

HEIGHT	SCALE HEIGHT, KM
950	232.3
900	204.2
850	186.7
800	185.8
750	169.6
700	167.0
650	156.9
600	145.7
550	151.2
500	209.1
450	313.5
400	394.8
350	
300	

HS	1012.57
LONG	-166.70
LAT	-2.36
DIPL	-3.57
INVL	0.00
L	1.14
DIP	-6.71
FHS	0.61
KP	3-
QUAL	22
SNL	1

PASS 3055 AT SPOINT, 63 511

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	30622 164033	30640 164138	30658 164243	30715 164340	30733 164439	30751 164539	30809 164637	30827 164732
HEIGHT								
SAT.	0.197	0.203	0.204	0.223	0.208	0.210	0.212	0.217
1000	0.202	0.207	0.209	0.227	0.213	0.216	0.217	0.221
950	0.227	0.235	0.236	0.249	0.239	0.245	0.246	0.248
900	0.257	0.266	0.268	0.280	0.269	0.277	0.278	0.278
850	0.293	0.304	0.306	0.317	0.306	0.316	0.314	0.314
800	0.333	0.348	0.350	0.360	0.349	0.361	0.358	0.355
750	0.390	0.399	0.407	0.419	0.410	0.419	0.413	0.414
700	0.461	0.478	0.485	0.497	0.494	0.501	0.494	0.488
650	0.569	0.583	0.590	0.608	0.606	0.605	0.600	0.595
600	0.712	0.717	0.740	0.755	0.759	0.763	0.760	0.736
550	0.869	0.925	0.927	0.938	0.945	0.961	0.964	0.908
500	1.253	1.221	1.241	1.311	1.232	1.294	1.281	1.329
450	1.660	1.685	1.670	1.802	1.743	1.794	1.796	1.920
400	2.290	2.362	2.293	2.545	2.513	2.564	2.629	2.822
350	3.143	3.372	3.278	3.741	3.771	3.858	4.074	4.377
300	4.532	4.894	4.955	5.759	6.008	6.263	6.674	7.271
250	5.704		6.722			8.799	9.664	
200								
NT	0.998	0.772	1.061	0.841	0.837	1.236	1.291	0.926
HEIGHT	SCALE HEIGHT, KM							
950	433.5	406.2	415.7	474.0	446.4	420.7	411.5	437.5
900	398.8	385.4	390.8	415.7	407.1	395.1	402.4	420.5
850	372.5	363.7	366.2	387.2	372.2	369.1	381.6	391.4
800	347.8	341.2	341.6	359.3	338.1	342.8	353.8	360.8
750	300.0	310.7	311.1	310.7	302.7	313.2	320.5	320.0
700	267.8	289.4	275.9	272.4	266.6	278.4	276.5	279.5
650	242.2	258.5	245.5	244.1	239.0	244.9	238.4	249.2
600	219.5	227.5	223.6	221.1	222.7	221.3	218.7	221.7
550	196.9	196.5	201.7	198.3	206.5	197.7	199.0	194.2
500	184.8	172.6	186.0	179.5	184.7	176.1	175.9	167.0
450	172.7	159.6	171.6	160.6	153.3	155.5	148.9	139.7
400	160.5	147.8	153.1	141.7	132.7	135.4	126.5	125.1
350	149.3	139.4	132.3	123.6	116.4	113.2	107.5	105.7
300	157.9	147.8	138.3	131.2	122.6	115.3	110.1	101.5
HS	1006.93	1006.87	1006.81	1006.75	1006.69	1006.63	1006.60	1006.60
LONG	-156.45	-156.26	-156.06	-155.89	-155.72	-155.55	-155.38	-155.23
LAT	38.05	37.04	36.03	35.08	34.07	33.06	32.04	31.03
DIPL	36.77	35.89	35.01	34.18	33.30	32.42	31.54	30.65
INVL	36.52	35.58	34.63	33.74	32.79	31.84	30.88	29.93
L	1.79	1.75	1.71	1.67	1.64	1.60	1.57	1.54
DIP	56.21	55.36	54.48	53.64	52.72	51.79	50.83	49.84
FHS	0.81	0.80	0.79	0.78	0.77	0.77	0.76	0.75
KP	4+	4+	4+	4+	4+	4+	4+	4+
QUAL	12	12	11	12	12	12	12	12
SNL	1	1	1	1	1	1	1	1

PASS 3055 AT SPOINT, 63 511

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	30845 164828	30902 164920	30920 165012	30938 165103	30956 165155	31014 165244	31031 165330	31039 165351
HEIGHT								
SAT.	0.209	0.207	0.199	0.197	0.199	0.207	0.212	0.219
1000	0.213	0.212	0.204	0.203	0.203	0.211	0.217	0.225
950	0.237	0.239	0.228	0.232	0.230	0.238	0.247	0.259
900	0.265	0.267	0.256	0.262	0.262	0.271	0.284	0.301
850	0.298	0.300	0.290	0.297	0.300	0.313	0.330	0.354
800	0.338	0.340	0.331	0.339	0.348	0.364	0.385	0.421
750	0.394	0.402	0.393	0.406	0.410	0.424	0.470	0.500
700	0.468	0.484	0.472	0.494	0.512	0.531	0.585	0.607
650	0.579	0.599	0.593	0.626	0.649	0.680	0.753	0.792
600	0.722	0.765	0.748	0.804	0.851	0.897	0.976	1.042
550	0.905	0.972	0.935	1.045	1.131	1.218	1.386	1.465
500	1.334	1.322	1.399	1.586	1.659	1.796	2.018	2.018
450	1.905	1.967	2.091	2.385	2.488	2.729	3.107	3.202
400	2.834	3.067	3.326	3.749	4.022	4.395	5.112	5.259
350	4.568	5.307	5.673	6.231	6.642	7.159	8.188	8.434
300	8.045	9.138	9.532	10.100	10.243	10.811		
250								
200								
NT	0.949	1.035	1.080	1.180	1.236	1.326	0.993	1.027
HEIGHT	SCALE HEIGHT, KM							
950	458.4	449.8	454.5	411.8	391.2	397.4	373.9	340.6
900	430.4	428.9	415.3	402.7	370.5	362.3	351.8	324.9
850	396.7	387.2	375.7	366.8	343.9	332.7	321.6	306.8
800	362.3	345.3	335.4	321.1	309.7	306.0	283.2	284.5
750	312.8	303.9	289.9	280.6	274.3	279.4	251.9	260.7
700	260.5	262.6	246.2	240.5	236.1	242.0	221.6	234.2
650	236.3	231.1	225.7	213.7	202.0	201.7	196.1	200.5
600	212.2	210.7	205.1	190.7	180.6	173.4	172.0	169.3
550	188.1	190.2	184.6	167.4	159.4	150.0	150.1	153.6
500	164.3	162.1	152.1	141.0	138.8	132.5	129.2	138.3
450	140.6	122.7	119.1	119.2	117.5	115.4	111.0	106.3
400	119.6	105.4	102.8	104.6	100.3	102.0	102.1	102.3
350	94.6	90.4	92.8	100.1	108.1	106.7	118.8	121.6
300	96.0	117.9	125.9	129.6	149.5	200.4		
HS	1006.60	1006.60	1006.60	1006.60	1006.60	1006.62	1006.65	1006.66
LONG	-155.07	-154.92	-154.78	-154.64	-154.50	-154.37	-154.25	-154.20
LAT	30.02	29.07	28.06	27.05	26.03	25.02	24.06	23.61
DIPL	29.76	28.92	28.02	27.12	26.21	25.30	24.44	24.03
INVL	28.96	28.05	27.09	26.13	25.13	24.14	23.22	22.78
L	1.51	1.49	1.46	1.44	1.41	1.39	1.37	1.36
DIP	48.83	47.85	46.78	45.69	44.56	43.40	42.27	41.72
FHS	0.74	0.73	0.72	0.72	0.71	0.70	0.69	0.69
KP	4+	4+	4+	4+	4+	4+	4+	4+
QUAL	12	11	12	12	12	12	12	12
SNL	1	1	1	1	1	1	1	1

PASS 3055 AT SPUINT, 63 511

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	31107 165506	31125 165553	31143 165639	31200 165724	31218 165808	31254 165937	31312 170021	31330 170104
HEIGHT								
SAT.	0.236	0.244	0.257	0.269	0.282	0.313	0.283	0.332
1000	0.240	0.250	0.262	0.275	0.288	0.318	0.289	0.338
950	0.273	0.290	0.299	0.313	0.326	0.353	0.329	0.377
900	0.316	0.337	0.347	0.361	0.377	0.409	0.385	0.439
850	0.371	0.394	0.406	0.421	0.442	0.479	0.458	0.516
800	0.439	0.465	0.477	0.491	0.518	0.560	0.547	0.618
750	0.519	0.547	0.571	0.600	0.630	0.691	0.678	0.790
700	0.650	0.703	0.706	0.741	0.806	0.869	0.892	1.024
650	0.849	0.908	0.900	0.957	1.035	1.131	1.215	1.428
600	1.152	1.218	1.185	1.276	1.442	1.610	1.737	1.958
550	1.559	1.679	1.706	1.841	1.974	2.410	2.632	3.036
500	2.144	2.433	2.550	2.752	3.072	3.856	4.484	5.215
450	3.477	4.054	4.132	4.540	5.259	6.745	7.946	8.974
400	5.940	6.757	7.015	8.115	9.234			
350	9.505	10.481	11.178					
300								
250								
200								
NT	1.127	1.258	1.301	0.924	1.032	0.795	0.874	1.003
HEIGHT	SCALE HEIGHT, KM							
950	357.9	334.9	349.5	371.4	361.8	402.0	339.1	403.5
900	329.2	321.1	330.0	340.9	336.1	345.8	315.5	340.8
850	302.2	301.3	309.7	312.4	307.1	307.9	290.2	288.7
800	279.6	277.3	287.6	284.5	274.8	276.0	252.0	244.4
750	257.0	253.3	260.8	252.1	243.5	246.0	216.9	211.9
700	228.2	223.9	229.5	219.9	213.0	216.5	185.4	179.8
650	195.3	194.4	195.3	189.7	182.8	164.6	158.3	161.7
600	169.6	170.4	161.8	162.0	163.0	140.0	138.7	143.7
550	155.1	151.1	141.3	139.8	143.2	120.3	111.3	106.1
500	137.7	123.3	118.6	116.4	105.8	99.1	89.0	90.7
450	99.6	96.7	98.2	89.3	89.7	86.2	94.0	101.0
400	98.0	106.6	97.7	96.9	102.4			
350	127.4	131.4	143.5					
300								
HS	1006.72	1006.78	1006.84	1006.90	1007.02	1007.26	1007.42	1007.60
LONG	-154.00	-153.88	-153.76	-153.65	-153.54	-153.32	-153.21	-153.10
LAT	22.04	21.02	20.01	19.05	18.03	16.00	14.98	13.96
DIPL	22.59	21.66	20.73	19.84	18.89	16.98	16.02	15.06
INVL	21.19	20.19	19.17	18.18	17.12	14.98	13.88	12.75
L	1.33	1.31	1.30	1.28	1.27	1.24	1.23	1.22
DIP	39.77	38.46	37.12	35.81	34.39	31.42	29.87	28.28
FHS	0.68	0.67	0.66	0.66	0.65	0.64	0.63	0.63
KP	4+	4+	4+	4+	4+	4+	4+	4+
QUAL	13	13	13	13	13	33	23	33
SNL	1	1	1	1	1	1	1	1

PASS 3055 AT SPOINT, 63 511

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	31337 170121	31405 170228	31423 170311	31441 170353	31500 170438	31517 170517	31532 170551
HEIGHT							
SAT.	0.345	0.334	0.335	0.340	0.354	0.363	0.395
1000	0.350	0.343	0.343	0.349	0.365	0.375	0.404
950	0.391	0.395	0.403	0.412	0.435	0.452	0.481
900	0.460	0.471	0.483	0.500	0.529	0.553	0.595
850	0.551	0.570	0.587	0.615	0.654	0.697	0.741
800	0.662	0.690	0.722	0.765	0.818	0.883	0.928
750	0.840	0.869	0.885	0.948	1.019	1.113	1.171
700	1.128	1.153	1.226	1.298	1.409	1.507	1.638
650	1.562	1.631	1.735	1.890	2.014	2.088	2.288
600	2.172	2.358	2.545	2.760	2.961	3.037	3.277
550	3.470	3.689	3.906	4.258	4.562	4.606	4.808
500	5.813	6.154	6.649	6.915	7.134	6.978	6.971
450	9.907	10.219	10.568	10.696	10.586	10.130	9.603
400							
350							
300							
250							
200							
NT	1.109	1.163	1.230	1.294	1.351	1.358	1.395
HEIGHT	SCALE HEIGHT, KM						
950	375.2	318.5	289.0	271.5	266.2	251.6	268.6
900	312.7	283.8	266.7	253.0	245.0	234.8	237.3
850	272.0	257.0	246.0	234.4	224.2	218.2	220.9
800	241.3	235.7	223.8	215.5	208.6	203.8	204.8
750	206.7	204.8	201.7	196.6	192.9	190.0	188.0
700	168.7	164.0	174.9	173.0	169.5	170.3	167.1
650	150.5	146.4	147.1	146.1	142.9	148.7	148.0
600	134.4	128.2	128.1	126.8	125.9	130.8	136.6
550	104.2	106.2	105.5	107.4	112.1	119.6	133.1
500	94.4	97.3	99.1	108.7	118.5	126.0	145.5
450	102.4	108.7	121.2	128.1	153.9	171.5	213.8
400							
350							
300							
HS	1007.67	1007.97	1008.21	1008.45	1008.70	1009.01	1009.29
LONG	-153.06	-152.90	-152.80	-152.70	-152.59	-152.50	-152.42
LAT	13.57	11.99	10.97	9.95	8.88	7.92	7.07
DIPL	14.68	13.17	12.19	11.21	10.17	9.24	8.41
INVL	12.29	10.44	9.19	7.83	6.29	4.64	2.70
L	1.21	1.20	1.19	1.18	1.17	1.17	1.16
DIP	27.65	25.07	23.37	21.62	19.74	18.01	16.47
FHS	0.63	0.62	0.61	0.61	0.61	0.60	0.60
KP	4+	4+	4+	4+	4+	4+	4+
QUAL	23	33	33	33	33	22	22
SNL	1	1	1	1	1	1	1

PASS 3096 AT SPOINT, 63 514

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	31437 162241	31441 162254	31459 162352	31516 162442	31534 162535	31552 162629	31610 162720	31628 162811
HEIGHT								
SAT.	0.192	0.189	0.188	0.192	0.194	0.196	0.194	0.202
1000	0.197	0.195	0.194	0.196	0.198	0.200	0.200	0.208
950	0.219	0.221	0.218	0.221	0.224	0.227	0.226	0.233
900	0.243	0.247	0.246	0.247	0.251	0.255	0.254	0.259
850	0.275	0.279	0.278	0.280	0.283	0.288	0.287	0.292
800	0.315	0.324	0.317	0.321	0.323	0.332	0.328	0.333
750	0.368	0.377	0.370	0.370	0.374	0.386	0.380	0.385
700	0.433	0.439	0.436	0.436	0.443	0.459	0.446	0.457
650	0.514	0.514	0.525	0.522	0.534	0.569	0.542	0.557
600	0.674	0.656	0.659	0.654	0.674	0.710	0.691	0.709
550	0.861	0.846	0.845	0.833	0.872	0.920	0.908	0.934
500	1.142	1.125	1.131	1.117	1.193	1.279	1.257	1.305
450	1.558	1.581	1.613	1.619	1.751	1.925	1.856	1.925
400	2.120	2.239	2.350	2.416	2.660	3.001	2.910	3.043
350	3.079	3.208	3.546	3.720	4.188	4.912	4.890	5.326
300	4.528	4.791	5.371	5.743	6.579	7.529	7.950	8.835
250	5.971	6.420						
200								
NT	0.972	1.008	0.766	0.786	0.858	0.956	0.952	1.014
HEIGHT	SCALE HEIGHT, KM							
950	509.2	435.1	421.6	430.0	426.0	422.1	417.3	451.7
900	446.7	420.8	405.4	416.1	424.3	415.6	418.3	432.4
850	376.5	373.9	380.0	381.8	393.9	378.1	382.1	400.7
800	333.3	333.7	355.0	352.6	358.6	351.8	352.4	363.8
750	304.0	313.8	323.9	328.7	319.6	300.8	329.1	316.2
700	276.1	293.8	285.2	290.6	280.8	260.4	291.2	273.6
650	248.5	271.9	241.1	249.6	243.5	241.2	228.5	235.3
600	227.2	228.6	218.2	222.6	214.2	222.1	203.1	205.4
550	205.8	188.4	191.8	193.1	181.5	184.8	173.0	170.6
500	184.7	159.6	155.0	152.7	145.0	138.6	141.3	139.0
450	167.9	151.6	143.3	137.2	131.4	122.3	125.5	123.8
400	151.0	143.5	130.9	123.9	117.8	109.2	105.8	100.9
350	133.6	134.5	121.3	116.4	107.8	105.8	98.5	92.8
300	139.8	137.1	183.4	135.9	141.6	166.3	122.4	124.0
HS	1008.10	1008.10	1008.10	1008.10	1008.10	1008.10	1008.12	1008.15
LONG	-162.98	-162.94	-162.78	-162.64	-162.49	-162.35	-162.20	-162.07
LAT	32.33	32.11	31.10	30.14	29.13	28.12	27.11	26.10
DIPL	30.42	30.22	29.35	28.52	27.65	26.76	25.88	24.99
INVL	29.71	29.50	28.53	27.63	26.68	25.69	24.71	23.75
L	1.54	1.53	1.50	1.48	1.45	1.43	1.40	1.38
DIP	49.58	49.36	48.36	47.39	46.33	45.25	44.13	42.99
FHS	0.74	0.74	0.73	0.72	0.72	0.71	0.70	0.69
KP	4-	4-	4-	4-	4-	4-	4-	4-
QUAL	12	11	12	12	12	12	12	12
SNL	1	1	1	1	1	1	1	1

PASS 3096 AT SPOINT, 63 514

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	31645 162858	31703 162948	31721 163037	31739 163125	31756 163210	31814 163256	31832 163342	31850 163427
HEIGHT								
SAT.	0.207	0.205	0.203	0.215	0.209	0.221	0.222	0.226
1000	0.212	0.212	0.209	0.218	0.214	0.226	0.228	0.233
950	0.238	0.237	0.234	0.243	0.242	0.253	0.256	0.262
900	0.265	0.264	0.262	0.272	0.274	0.286	0.288	0.300
850	0.296	0.298	0.297	0.310	0.313	0.328	0.328	0.347
800	0.341	0.341	0.340	0.360	0.365	0.386	0.385	0.411
750	0.399	0.403	0.398	0.423	0.440	0.464	0.464	0.502
700	0.471	0.483	0.483	0.518	0.555	0.571	0.578	0.640
650	0.576	0.597	0.609	0.665	0.741	0.740	0.755	0.837
600	0.745	0.766	0.801	0.886	1.026	0.998	1.030	1.177
550	1.001	1.052	1.124	1.262	1.508	1.457	1.512	1.763
500	1.443	1.571	1.719	1.920	2.287	2.286	2.351	2.778
450	2.204	2.474	2.725	3.056	3.767	3.860	3.901	4.706
400	3.661	4.205	4.593	5.235	6.464	6.666	6.767	7.992
350	6.486	7.292	8.196	8.952	10.634	11.063	11.267	13.099
300	10.629	11.557	12.421					
250								
200								
NT	1.177	1.293	1.405	0.987	1.170	1.197	1.218	1.419
HEIGHT	SCALE HEIGHT, KM							
950	465.7	450.5	434.1	457.1	403.3	423.8	423.9	392.9
900	451.9	437.1	417.6	412.0	393.2	383.9	398.6	358.3
850	401.0	383.7	383.4	362.1	347.9	336.2	344.0	314.4
800	323.6	329.3	338.0	319.7	298.7	292.9	297.8	274.4
750	298.1	294.3	287.9	280.6	245.2	252.8	250.5	228.9
700	272.7	263.0	243.9	225.9	196.0	216.7	208.6	197.6
650	239.7	228.1	205.1	193.1	173.8	189.5	182.9	173.0
600	196.2	189.1	171.8	163.2	143.4	154.3	149.2	134.6
550	156.4	144.2	133.1	129.8	124.9	124.5	124.8	121.7
500	130.1	121.2	118.2	117.9	114.2	107.0	109.7	104.7
450	112.6	105.6	104.8	102.3	96.8	93.7	94.5	94.2
400	93.9	90.9	91.7	92.1	95.1	95.1	95.1	97.2
350	90.1	97.7	93.5	102.4	113.7	112.8	104.0	104.8
300	140.5	154.1	157.2					
HS	1008.17	1008.21	1008.27	1008.33	1008.39	1008.49	1008.61	1008.73
LONG	-161.94	-161.81	-161.68	-161.56	-161.44	-161.32	-161.21	-161.09
LAT	25.14	24.13	23.11	22.10	21.14	20.12	19.11	18.09
DIPL	24.14	23.24	22.33	21.42	20.55	19.62	18.69	17.76
INVL	22.82	21.81	20.80	19.79	18.81	17.76	16.72	15.65
L	1.36	1.34	1.33	1.31	1.29	1.28	1.26	1.25
DIP	41.87	40.66	39.40	38.11	36.86	35.49	34.08	32.64
FHS	0.69	0.68	0.67	0.67	0.66	0.65	0.65	0.64
KP	4-	4-	4-	4-	4-	4-	4-	4-
QUAL	12	12	12	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 3096 AT SPOINT, 63 514

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	31918	31925	31943	32001	32019	32036	32054	32112
LT	163536	163553	163637	163721	163804	163845	163928	164010
HEIGHT								
SAT.	0.232	0.246	0.251	0.263	0.264	0.276	0.288	0.285
1000	0.239	0.254	0.266	0.272	0.276	0.285	0.300	0.299
950	0.271	0.291	0.301	0.312	0.311	0.333	0.334	0.336
900	0.310	0.331	0.343	0.355	0.356	0.376	0.380	0.383
850	0.361	0.384	0.402	0.411	0.415	0.437	0.444	0.452
800	0.432	0.457	0.474	0.493	0.494	0.527	0.529	0.541
750	0.530	0.559	0.576	0.602	0.604	0.645	0.654	0.672
700	0.672	0.709	0.726	0.771	0.769	0.830	0.834	0.858
650	0.863	0.922	0.944	1.027	1.021	1.110	1.125	1.123
600	1.217	1.287	1.308	1.449	1.441	1.577	1.623	1.582
550	1.810	1.898	1.927	2.143	2.120	2.326	2.470	2.410
500	2.829	3.086	3.055	3.444	3.336	3.638	4.085	4.152
450	4.731	5.212	5.112	5.620	5.504	6.219	6.861	6.972
400	8.121	8.618	8.587	9.312	9.490	10.478	11.387	11.343
350	13.629	14.111	13.734					
300								
250								
200								
NT	1.454	1.547	1.538	1.071	1.063	1.170	1.259	1.265
HEIGHT	SCALE HEIGHT, KM							
950	391.1	369.9	425.8	381.6	403.3	367.0	423.7	406.4
900	347.8	356.5	351.8	357.2	349.9	379.9	351.5	345.9
850	297.3	311.6	308.7	312.8	307.2	312.4	301.3	294.4
800	261.2	269.5	277.6	262.1	266.3	260.3	257.5	251.0
750	232.4	230.6	233.3	223.5	226.9	224.4	223.8	223.7
700	205.9	205.2	208.1	197.4	200.0	195.0	194.9	201.8
650	178.3	175.2	176.9	164.2	165.3	160.3	155.1	168.4
600	134.5	137.9	141.0	137.1	137.8	140.0	132.1	138.6
550	123.6	121.4	124.4	120.9	124.0	124.2	113.2	109.9
500	106.9	98.4	104.6	105.3	107.9	103.9	98.0	94.5
450	94.2	99.2	96.0	101.7	95.4	93.6	97.2	99.6
400	93.7	97.9	102.8	98.1	97.4	101.4	108.4	109.4
350	101.0	117.9	109.7					
300								
HS	1008.95	1009.01	1009.16	1009.31	1009.55	1009.78	1010.02	1010.30
LONG	-160.92	-160.88	-160.77	-160.66	-160.56	-160.46	-160.35	-160.26
LAT	16.52	16.12	15.11	14.09	13.08	12.12	11.10	10.08
DIPL	16.29	15.92	14.97	14.01	13.05	12.13	11.16	10.18
INVL	13.95	13.51	12.35	11.17	9.92	8.69	7.26	5.64
L	1.23	1.23	1.21	1.20	1.19	1.19	1.18	1.17
DIP	30.30	29.70	28.13	26.52	24.87	23.26	21.53	19.76
FHS	0.63	0.63	0.63	0.62	0.62	0.61	0.61	0.61
KP	4-	4-	4-	4-	4-	4-	4-	4-
QUAL	13	13	23	23	23	33	33	33
SNL	1	1	1	1	1	1	1	1

PASS 3096 AT SPOINT, 63 514

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	32130	32147	32205	32223	32240	32258	32316	32334
LT	164051	164130	164211	164253	164332	164414	164455	164535
HEIGHT								
SAT.	0.301	0.310	0.287	0.315	0.299	0.299	0.311	0.299
1000	0.316	0.317	0.297	0.326	0.307	0.315	0.320	0.311
950	0.354	0.354	0.332	0.365	0.349	0.355	0.359	0.355
900	0.403	0.406	0.385	0.423	0.402	0.409	0.407	0.412
850	0.482	0.482	0.456	0.508	0.474	0.491	0.478	0.481
800	0.588	0.576	0.550	0.607	0.561	0.571	0.560	0.553
750	0.727	0.704	0.670	0.721	0.661	0.675	0.667	0.689
700	0.916	0.869	0.819	0.879	0.839	0.887	0.889	0.896
650	1.159	1.100	1.075	1.231	1.173	1.253	1.231	1.277
600	1.599	1.643	1.652	1.888	1.815	1.968	1.944	1.962
550	2.695	2.704	2.831	3.119	3.069	3.197	3.141	3.192
500	4.507	4.572	4.741	5.120	5.043	5.197	5.144	5.221
450	7.432	7.563	7.588	8.052	7.950	7.950	7.868	7.976
400	11.684	11.596	11.420	11.607	11.435	11.182	10.861	10.833
350				14.868	14.865	13.825		
300								
250								
200								
NT	1.343	1.346	1.348	2.106	2.068	2.060	1.414	1.429
HEIGHT	SCALE HEIGHT, KM							
950	415.8	405.6	383.2	377.7	366.2	385.4	419.2	343.0
900	332.5	335.7	315.8	312.1	327.1	312.3	360.5	332.3
850	274.4	291.5	280.6	291.8	306.7	302.1	311.0	346.1
800	248.5	266.8	262.6	290.2	305.7	333.2	317.3	308.2
750	230.0	245.8	254.4	274.5	266.6	237.7	221.3	190.8
700	216.5	231.1	227.4	201.2	179.9	163.1	157.6	168.9
650	197.7	173.1	143.7	128.4	134.8	122.0	132.5	126.8
600	116.6	112.1	106.6	107.2	103.5	111.1	112.5	114.2
550	98.5	96.6	94.1	100.3	97.9	103.4	103.7	102.1
500	96.8	98.8	103.0	105.5	105.1	110.0	108.4	109.2
450	104.7	107.5	113.2	122.7	122.1	130.4	135.6	139.0
400	122.0	129.7	142.9	170.3	165.1	191.8	200.3	227.0
350				265.2	220.8	350.6		
300								
HS	1010.60	1010.88	1011.20	1011.56	1011.90	1012.26	1012.67	1013.09
LONG	-160.16	-160.07	-159.97	-159.87	-159.78	-159.68	-159.59	-159.49
LAT	9.06	8.10	7.09	6.07	5.11	4.09	3.08	2.06
DIPL	9.20	8.26	7.27	6.28	5.34	4.34	3.33	2.33
INVL	3.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	1.16	1.16	1.15	1.15	1.14	1.14	1.14	1.14
DIP	17.94	16.20	14.32	12.41	10.59	8.63	6.65	4.65
FHS	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
KP	4-	4-	4-	4-	4-	4-	4-	4-
QUAL	23	33		23	23	22	32	22
SNL	1	1	1	1	1	1	1	1

PASS 3109 AT SPOINT, 63 515

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	20615 161428	20640 161547	20658 161644	20715 161734	20733 161828	20751 161921	20810 162015	20826 162059
HEIGHT								
SAT.	0.189	0.198	0.203	0.209	0.210	0.216	0.214	0.206
1000	0.195	0.204	0.210	0.215	0.218	0.222	0.221	0.215
950	0.217	0.230	0.239	0.247	0.252	0.255	0.252	0.245
900	0.248	0.262	0.272	0.281	0.288	0.290	0.285	0.277
850	0.285	0.300	0.311	0.322	0.330	0.331	0.324	0.314
800	0.327	0.346	0.359	0.372	0.380	0.380	0.371	0.358
750	0.385	0.399	0.415	0.430	0.438	0.437	0.428	0.422
700	0.464	0.479	0.495	0.518	0.525	0.523	0.511	0.506
650	0.571	0.584	0.605	0.637	0.635	0.634	0.629	0.622
600	0.723	0.740	0.761	0.798	0.803	0.801	0.801	0.805
550	0.911	0.939	0.978	1.022	1.018	1.023	1.033	1.050
500	1.255	1.275	1.330	1.387	1.424	1.416	1.509	1.563
450	1.728	1.773	1.867	1.933	2.009	2.025	2.190	2.348
400	2.425	2.517	2.667	2.845	3.023	3.082	3.388	3.788
350		3.663	3.973	4.472	5.015	5.253	5.962	6.646
300		5.417	6.255	7.148	8.313	8.877	10.240	10.916
250		7.179						
200								
NT	0.421	1.131	0.875	0.947	1.020	1.050	1.146	1.225
HEIGHT	SCALE HEIGHT, KM							
950	419.5	396.2	384.4	374.1	371.0	373.9	395.8	416.7
900	375.8	370.1	368.8	363.6	361.2	372.7	387.4	401.4
850	349.6	351.5	350.6	348.0	348.0	361.9	371.2	372.5
800	326.4	335.5	332.2	326.8	333.4	340.1	348.9	334.6
750	296.3	319.6	313.8	305.7	318.5	318.4	319.4	299.5
700	261.4	273.0	282.1	276.7	277.6	281.1	266.6	265.1
650	232.2	230.0	241.9	244.8	238.4	241.6	227.6	230.7
600	211.5	211.2	210.9	214.5	212.4	212.4	201.0	196.9
550	190.8	192.5	185.8	186.2	186.3	185.3	174.7	163.9
500	175.6	174.3	166.4	164.4	161.9	158.8	151.5	140.4
450	161.2	156.3	150.4	145.5	137.8	132.7	128.2	117.8
400	138.3	141.5	136.2	124.6	115.0	110.4	103.8	97.4
350		131.0	117.2	103.4	96.4	92.4	89.1	89.9
300		152.0	144.4	135.3	132.6	114.9	168.9	133.9
HS	1009.60	1009.60	1009.60	1009.57	1009.54	1009.51	1009.52	1009.54
LONG	-147.94	-147.72	-147.56	-147.42	-147.27	-147.12	-146.98	-146.86
LAT	33.03	31.62	30.61	29.66	28.65	27.64	26.57	25.67
DIPL	33.78	32.52	31.60	30.74	29.82	28.90	27.92	27.09
INVL	33.26	31.93	30.96	30.04	29.08	28.09	27.06	26.19
L	1.06	1.61	1.58	1.55	1.52	1.49	1.46	1.44
DIP	53.22	51.89	50.90	49.94	48.90	47.83	46.66	45.65
FHS	0.79	0.77	0.77	0.76	0.75	0.74	0.73	0.72
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	13	12	11	12	12	12	12	12
SNL	1	1	1	1	1	1	1	1

PASS 3109 AT SPOINT, 63 515

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	20844 162149	20902 162238	20920 162326	20937 162411	20955 162458	21013 162544	21031 162630	21048 162712
HEIGHT								
SAT.	0.208	0.203	0.204	0.209	0.218	0.233	0.242	0.251
1000	0.215	0.212	0.213	0.218	0.227	0.239	0.248	0.259
950	0.245	0.247	0.243	0.252	0.264	0.274	0.286	0.296
900	0.278	0.279	0.279	0.293	0.304	0.318	0.333	0.343
850	0.318	0.318	0.325	0.343	0.356	0.372	0.390	0.401
800	0.368	0.366	0.381	0.405	0.419	0.437	0.460	0.472
750	0.426	0.433	0.447	0.479	0.494	0.514	0.541	0.555
700	0.500	0.538	0.552	0.593	0.611	0.635	0.681	0.706
650	0.669	0.673	0.712	0.752	0.774	0.803	0.872	0.909
600	0.891	0.876	0.939	0.993	1.017	1.057	1.158	1.215
550	1.215	1.153	1.289	1.372	1.403	1.480	1.612	1.672
500	1.677	1.761	1.880	2.002	2.011	2.141	2.283	2.375
450	2.449	2.708	2.940	3.123	3.159	3.428	3.713	3.802
400	4.094	4.398	5.013	5.362	5.311	5.925	6.447	6.503
350	7.397	7.752	8.604	9.291	9.370			
300	11.865							
250								
200								
NT	1.328	0.887	0.970	1.036	1.046	0.727	0.784	0.806
HEIGHT	SCALE HEIGHT, KM							
950	397.8	384.6	386.1	344.5	340.2	343.6	335.6	351.3
900	375.2	380.4	353.7	326.3	329.2	327.1	321.4	331.2
850	350.9	352.4	323.1	307.9	310.9	310.3	306.6	309.3
800	320.9	316.7	297.8	288.0	290.1	292.9	283.1	283.5
750	290.9	281.6	272.5	268.1	269.3	275.5	259.5	257.7
700	260.2	247.4	240.5	234.3	238.3	238.6	230.1	227.4
650	223.1	213.6	204.1	195.9	203.5	198.8	199.6	196.7
600	186.0	185.0	171.6	171.2	172.5	168.5	174.0	172.8
550	161.3	156.7	145.8	148.2	148.8	146.2	154.5	155.2
500	146.8	129.5	128.5	126.9	130.1	126.2	130.4	131.2
450	120.7	112.3	105.5	105.7	106.4	101.1	97.3	100.9
400	90.7	94.7	91.9	90.6	91.9	83.9	92.8	92.6
350	90.0	91.0	97.1	100.9	92.1			
300	145.9							
HS	1009.57	1009.61	1009.67	1009.72	1009.78	1009.89	1010.01	1010.12
LONG	-146.73	-146.60	-146.47	-146.36	-146.23	-146.12	-146.00	-145.90
LAT	24.65	23.64	22.62	21.67	20.65	19.64	18.62	17.67
DIPL	26.16	25.22	24.28	23.39	22.44	21.49	20.54	19.64
INVL	25.20	24.18	23.20	22.26	21.25	20.20	19.18	18.20
L	1.41	1.39	1.37	1.35	1.33	1.32	1.30	1.28
DIP	44.49	43.29	42.06	40.86	39.56	38.22	36.85	35.51
FHS	0.71	0.71	0.70	0.69	0.68	0.67	0.67	0.66
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	13	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 3109 AT SPOINT, 63 515

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	21106 162757	21124 162841	21141 162923	21159 163007	21217 163049	21235 163132	21251 163209	21310 163254
HEIGHT								
SAT.	0.259	0.257	0.285	0.294	0.284	0.293	0.298	0.295
1000	0.266	0.264	0.293	0.305	0.290	0.300	0.307	0.303
950	0.301	0.300	0.323	0.341	0.332	0.339	0.346	0.338
900	0.346	0.349	0.370	0.390	0.382	0.389	0.394	0.386
850	0.403	0.410	0.431	0.457	0.442	0.449	0.454	0.447
800	0.472	0.483	0.503	0.540	0.513	0.521	0.528	0.522
750	0.553	0.572	0.587	0.638	0.616	0.634	0.629	0.656
700	0.693	0.703	0.717	0.751	0.753	0.785	0.812	0.855
650	0.877	0.880	0.903	0.955	0.981	1.026	1.121	1.158
600	1.140	1.129	1.168	1.293	1.348	1.471	1.647	1.774
550	1.612	1.588	1.675	1.892	2.016	2.302	2.550	2.839
500	2.363	2.355	2.495	3.029	3.293	3.912	4.418	4.891
450	3.735	3.955	4.066	5.305	6.071	7.241	7.952	8.649
400	6.681	7.140	7.484	9.292				
350								
300								
250								
200								
NT	0.799	0.821	0.856	1.019	0.693	0.780	0.851	0.917
HEIGHT	SCALE HEIGHT, KM							
950	377.4	352.7	432.0	406.4	358.8	381.6	392.0	407.0
900	339.3	327.5	367.4	370.3	346.1	358.1	365.0	362.0
850	315.3	306.6	331.6	334.1	326.1	327.2	335.8	318.2
800	295.9	291.3	313.5	306.3	302.5	294.3	304.4	274.0
750	276.5	273.0	295.3	283.1	264.3	254.7	251.8	222.2
700	239.2	240.8	243.9	260.0	222.3	214.7	174.7	178.3
650	202.1	208.7	200.1	206.0	182.8	172.0	146.7	145.5
600	167.3	176.9	168.2	150.5	147.6	136.2	128.2	120.6
550	146.3	147.6	144.1	126.7	119.5	107.6	106.0	101.6
500	125.1	117.6	118.9	98.8	94.1	87.9	87.7	87.3
450	99.3	89.2	93.1	89.3	81.0	84.1	90.7	98.3
400	86.2	89.1	79.9	93.7				
350								
300								
HS	1010.26	1010.44	1010.61	1010.79	1011.03	1011.27	1011.48	1011.77
LONG	-145.78	-145.68	-145.57	-145.47	-145.36	-145.26	-145.17	-145.07
LAT	16.65	15.64	14.68	13.67	12.65	11.63	10.73	9.65
DIPL	18.68	17.71	16.80	15.83	14.85	13.88	13.00	11.97
INVL	17.14	16.09	15.07	13.99	12.87	11.71	10.67	9.39
L	1.27	1.26	1.24	1.23	1.22	1.21	1.20	1.19
DIP	34.06	32.57	31.12	29.56	27.94	26.29	24.79	22.97
FHS	0.65	0.65	0.64	0.63	0.63	0.62	0.62	0.61
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	13	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 3109 AT SPOINT, 63 515

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	21328	21346	21403	21421	21439	21457	21514	21532
LT	163335	163416	163454	163535	163616	163657	163736	163817
HEIGHT								
SAT.	0.289	0.290	0.286	0.287	0.296	0.288	0.293	0.293
1000	0.294	0.297	0.298	0.297	0.308	0.302	0.307	0.307
950	0.332	0.336	0.341	0.346	0.358	0.357	0.365	0.365
900	0.383	0.393	0.402	0.415	0.429	0.437	0.447	0.450
850	0.448	0.467	0.476	0.507	0.526	0.547	0.560	0.568
800	0.528	0.556	0.591	0.628	0.649	0.693	0.708	0.720
750	0.679	0.708	0.769	0.806	0.863	0.909	0.943	0.948
700	0.927	0.949	1.039	1.153	1.221	1.319	1.335	1.337
650	1.318	1.347	1.537	1.682	1.768	1.951	1.907	1.915
600	1.878	2.058	2.311	2.530	2.663	2.910	2.771	2.783
550	3.079	3.387	3.737	4.059	4.187	4.281	4.008	3.961
500	5.331	5.732	6.082	6.330	6.285	6.055	5.541	5.337
450	9.062	9.316	9.320	8.899	8.384	8.162	7.030	6.712
400					10.068		8.132	
350								
300								
250								
200								
NT	0.979	1.037	1.105	1.153	1.626	1.185	1.492	1.095
HEIGHT	SCALE HEIGHT, KM							
950	377.7	359.9	335.1	296.2	297.8	265.7	265.0	258.0
900	325.7	314.5	302.4	266.5	264.3	240.0	237.2	229.0
850	290.3	280.1	259.6	238.6	235.1	216.5	213.1	209.8
800	255.0	250.1	216.6	211.9	208.5	196.3	194.8	196.2
750	212.5	199.8	179.6	182.3	174.1	167.2	166.8	171.2
700	165.6	159.3	150.3	144.5	140.0	130.9	141.9	141.6
650	141.7	132.3	133.6	129.3	131.9	129.8	140.2	139.9
600	127.4	113.9	117.9	116.6	119.2	129.2	137.7	141.4
550	94.3	98.5	103.8	109.9	117.3	137.5	146.9	156.9
500	92.1	98.1	107.9	126.0	146.6	156.4	187.5	188.5
450	103.6	125.5	157.5	185.7	229.6	179.6	285.7	284.2
400					319.8		409.0	
350								
300								
HS	1012.07	1012.37	1012.66	1013.02	1013.38	1013.74	1014.13	1014.55
LONG	-144.97	-144.87	-144.78	-144.69	-144.59	-144.50	-144.41	-144.31
LAT	8.64	7.62	6.66	5.64	4.63	3.61	2.65	1.64
DIPL	10.98	9.99	9.05	8.06	7.07	6.07	5.13	4.13
INVL	8.10	6.72	5.22	3.30	0.00	0.00	0.00	0.00
L	1.18	1.17	1.17	1.16	1.16	1.15	1.15	1.15
DIP	21.21	19.41	17.68	15.82	13.92	12.01	10.18	8.22
FHS	0.61	0.60	0.60	0.60	0.59	0.59	0.59	0.59
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	13	12	12	12	12	12	12	12
SNL	1	1	1	1	1	1	1	1

PASS 3123 AT SPOINT, 63 516

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	24322 160526	24340 160635	24358 160734	24416 160828	24433 160919	24451 161013	24526 161154	24544 161245
HEIGHT								
SAT.	0.178	0.180	0.182	0.187	0.185	0.190	0.187	0.182
1000	0.184	0.187	0.188	0.193	0.192	0.197	0.192	0.188
950	0.212	0.219	0.220	0.225	0.226	0.228	0.218	0.218
900	0.239	0.247	0.253	0.258	0.259	0.259	0.249	0.251
850	0.270	0.285	0.293	0.296	0.294	0.295	0.284	0.294
800	0.310	0.330	0.340	0.342	0.340	0.339	0.330	0.346
750	0.368	0.387	0.397	0.399	0.399	0.396	0.397	0.420
700	0.443	0.469	0.479	0.479	0.477	0.473	0.491	0.525
650	0.548	0.583	0.596	0.589	0.584	0.581	0.633	0.679
600	0.702	0.736	0.754	0.737	0.743	0.758	0.842	0.904
550	0.924	0.969	0.994	0.971	1.005	1.039	1.173	1.270
500	1.262	1.338	1.381	1.369	1.444	1.540	1.783	1.897
450	1.796	1.911	1.987	2.027	2.144	2.404	2.887	3.053
400	2.675	2.904	3.140	3.195	3.533	3.995	4.918	5.348
350	4.157	4.636	5.147	5.436	6.048	6.791	8.159	8.777
300	6.185	7.011	7.700	8.376	9.148	9.922	11.233	11.859
250								
200								
NT	0.854	0.931	0.996	1.030	1.108	1.208	1.404	1.500
HEIGHT	SCALE HEIGHT, KM							
950	387.5	364.9	333.5	343.5	337.2	362.4	384.4	337.1
900	407.6	367.2	344.1	359.7	376.3	385.5	382.4	334.1
850	372.2	337.6	336.3	344.8	367.0	366.3	346.8	315.4
800	332.7	317.6	318.2	326.4	327.9	334.5	302.1	280.4
750	294.0	291.0	295.5	301.6	297.6	305.8	262.4	244.2
700	252.6	251.8	249.7	263.0	265.0	269.4	217.6	204.7
650	219.3	224.9	223.1	233.1	229.2	216.8	189.2	187.5
600	199.7	204.4	203.5	208.4	185.8	172.0	166.5	164.8
550	174.2	172.6	170.5	169.4	152.6	144.0	134.6	135.2
500	151.1	148.2	145.4	139.1	133.6	125.1	117.8	120.0
450	139.1	134.8	128.1	122.8	118.0	108.9	100.1	98.2
400	123.6	116.2	106.5	103.5	97.0	94.4	94.9	93.5
350	117.8	110.2	109.2	101.5	101.9	109.3	114.2	118.8
300	168.8	178.4	205.6	169.6	169.3	199.7	328.5	419.0
HS	1010.16	1010.13	1010.10	1010.10	1010.10	1010.10	1010.14	1010.17
LONG	-159.44	-159.27	-159.10	-158.95	-158.80	-158.65	-158.38	-158.24
LAT	33.84	32.83	31.82	30.81	29.86	28.85	26.88	25.87
DIPL	32.41	31.54	30.67	29.79	28.95	28.07	26.33	25.44
INVL	31.66	30.91	29.96	28.99	28.08	27.13	25.23	24.26
L	1.61	1.57	1.54	1.51	1.49	1.46	1.42	1.39
DIP	51.78	50.83	49.86	48.86	47.89	46.84	44.71	43.57
FHS	0.76	0.75	0.75	0.74	0.73	0.72	0.71	0.70
KP	30	30	30	30	30	30	30	30
QUAL	11	11	11	11	11	12	11	11
SNL	1	1	1	1	1	1	1	1

PASS 3123 AT SPOINT, 63 516

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	24602 161336	24620 161424	24637 161510	24655 161558	24713 161645	24731 161731	24748 161814	24806 161900
HEIGHT								
SAT.	0.196	0.194	0.206	0.217	0.229	0.244	0.246	0.261
1000	0.202	0.201	0.213	0.224	0.236	0.252	0.255	0.269
950	0.234	0.235	0.248	0.262	0.276	0.293	0.299	0.311
900	0.267	0.274	0.287	0.307	0.321	0.339	0.347	0.361
850	0.311	0.321	0.338	0.364	0.377	0.398	0.406	0.423
800	0.370	0.381	0.403	0.431	0.447	0.474	0.485	0.499
750	0.451	0.459	0.492	0.524	0.545	0.581	0.594	0.609
700	0.562	0.575	0.619	0.661	0.685	0.724	0.744	0.766
650	0.728	0.743	0.790	0.852	0.876	0.928	0.957	0.994
600	0.971	0.992	1.060	1.144	1.175	1.260	1.288	1.355
550	1.364	1.408	1.530	1.652	1.726	1.832	1.879	1.982
500	2.035	2.118	2.340	2.509	2.692	2.878	2.902	3.091
450	3.371	3.545	3.905	4.192	4.535	4.889	4.974	5.366
400	5.792	6.155	6.732	7.353	7.814	8.309	8.488	9.075
350	9.447	9.977	10.690	11.500	12.123	12.663	13.143	13.666
300								
250								
200								
NT	1.064	1.115	1.210	1.306	1.382	1.468	1.503	1.590
HEIGHT	SCALE HEIGHT, KM							
950	354.9	318.6	326.6	312.2	322.4	334.6	327.0	339.9
900	348.6	320.0	320.8	309.1	321.4	326.1	323.5	322.8
850	304.4	298.2	292.2	293.7	296.3	299.1	301.3	307.4
800	272.1	278.5	269.1	274.6	276.4	263.9	264.3	277.3
750	244.3	248.4	234.2	234.1	229.2	231.3	228.3	230.0
700	208.5	206.0	208.2	209.8	211.5	214.6	213.9	212.1
650	190.1	189.6	192.2	187.5	189.8	187.8	187.1	181.2
600	163.4	161.2	156.5	153.4	149.7	148.0	151.8	148.6
550	136.3	133.7	131.4	134.2	129.3	129.0	131.2	127.9
500	117.0	114.6	112.0	112.9	107.1	104.8	107.3	104.4
450	96.7	94.7	94.4	91.8	92.4	93.2	90.5	91.1
400	96.8	94.8	98.2	96.8	98.9	101.7	101.3	105.2
350	121.2	126.2	130.3	139.3	141.0	154.9	145.1	160.2
300								
HS	1010.20	1010.23	1010.26	1010.29	1010.39	1010.51	1010.62	1010.75
LONG	-158.11	-157.98	-157.86	-157.73	-157.62	-157.50	-157.39	-157.27
LAT	24.86	23.84	22.89	21.87	20.86	19.84	18.89	17.87
DIPL	24.54	23.63	22.76	21.84	20.92	19.99	19.10	18.16
INVL	23.28	22.28	21.33	20.32	19.30	18.25	17.26	16.22
L	1.37	1.35	1.34	1.32	1.30	1.28	1.27	1.26
DIP	42.40	41.18	40.00	38.72	37.40	36.03	34.71	33.27
FHS	0.69	0.68	0.68	0.67	0.66	0.66	0.65	0.64
KP	30	30	30	30	30	30	30	30
QUAL	12	12	11	12	12	12	12	12
SNL	1	1	1	1	1	1	1	1

PASS 3123 AT SPOINT, 63 516

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	24841 162025	24859 162109	24952 162316	25010 162359	25028 162440	25046 162522	25103 162602	25121 162643
HEIGHT								
SAT.	0.279	0.288	0.315	0.312	0.304	0.301	0.326	0.299
1000	0.267	0.298	0.325	0.320	0.317	0.314	0.336	0.310
950	0.330	0.343	0.371	0.362	0.367	0.359	0.376	0.355
900	0.383	0.394	0.426	0.417	0.421	0.412	0.430	0.414
850	0.448	0.456	0.494	0.487	0.488	0.482	0.504	0.494
800	0.529	0.537	0.588	0.577	0.584	0.581	0.616	0.616
750	0.647	0.655	0.722	0.713	0.729	0.738	0.787	0.796
700	0.808	0.818	0.903	0.908	0.945	0.975	1.071	1.086
650	1.044	1.063	1.189	1.224	1.302	1.396	1.572	1.602
600	1.424	1.459	1.790	1.811	1.939	2.181	2.430	2.483
550	2.058	2.098	2.849	2.884	3.157	3.602	3.903	3.952
500	3.270	3.360	4.864	4.998	5.499	6.004	6.148	6.140
450	5.716	5.813	8.428	8.615	9.059	9.336	9.174	8.867
400	9.795	10.298	13.266	13.198	13.029	12.634	11.832	11.103
350								
300								
250								
200								
NT	1.085	1.115	1.471	1.488	1.558	1.627	1.655	1.626
HEIGHT	SCALE HEIGHT, KM							
950	346.8	357.1	372.8	378.3	355.4	370.7	411.6	348.3
900	329.6	345.4	345.3	344.7	345.9	337.1	342.6	303.3
850	311.3	324.9	310.3	315.5	306.4	296.4	287.7	259.3
800	267.4	272.4	260.1	247.4	255.8	221.6	226.4	204.3
750	235.3	236.4	235.7	223.4	211.3	198.5	183.9	184.0
700	217.4	216.4	205.9	194.6	175.4	165.9	148.4	146.4
650	182.6	179.5	154.0	147.1	141.2	127.7	126.1	125.0
600	151.1	149.5	124.9	125.4	120.4	109.5	113.2	113.7
550	127.4	127.4	103.2	101.2	96.7	99.7	108.8	111.1
500	100.6	101.1	90.8	90.7	93.5	104.4	114.9	120.7
450	90.8	88.7	97.8	97.7	114.9	130.1	149.8	170.5
400	99.7	96.6	137.0	162.9	192.0	242.6	280.6	346.3
350								
300								
HS	1011.04	1011.19	1011.81	1012.05	1012.32	1012.59	1012.86	1013.22
LONG	-157.06	-156.96	-156.65	-156.54	-156.45	-156.35	-156.25	-156.16
LAT	15.90	14.89	11.89	10.88	9.86	8.85	7.89	6.87
DIPL	16.52	15.36	12.51	11.54	10.56	9.58	8.65	7.66
INVL	14.10	12.97	9.40	8.05	6.60	4.86	2.69	0.00
L	1.23	1.22	1.19	1.18	1.17	1.17	1.16	1.16
DIP	30.35	28.79	23.94	22.21	20.45	18.65	16.92	15.05
FHS	0.63	0.63	0.61	0.61	0.61	0.60	0.60	0.60
KP	30	30	30	30	30	30	30	30
QUAL	12	23	12	22	12	11	11	11
SNL	1	1	1	1	1	1	1	1

PASS 3123 AT SPOINT, 63 516

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	25140	25214	25229
LT	162726	162843	162918
HEIGHT			
SAT.	0.299	0.300	0.312
1000	0.310	0.312	0.322
950	0.356	0.363	0.374
900	0.424	0.438	0.455
850	0.519	0.540	0.562
800	0.652	0.696	0.727
750	0.863	0.935	0.973
700	1.187	1.297	1.339
650	1.778	1.898	1.923
600	2.697	2.781	2.785
550	4.078	4.096	4.050
500	6.164	5.955	5.820
450	8.607	8.007	7.647
400		9.406	
350			
300			
250			
200			
NT	1.159	1.593	1.150

HEIGHT	SCALE HEIGHT, KM		
950	319.0	296.2	295.6
900	278.4	257.3	249.9
850	237.1	217.3	213.6
800	199.5	188.5	188.9
750	173.3	164.8	166.5
700	140.7	141.8	147.5
650	128.2	136.3	141.6
600	122.8	132.1	136.8
550	121.4	131.8	136.5
500	128.9	148.1	156.7
450	187.7	221.7	250.4
400		470.5	
350			
300			

HS	1013.60	1014.33	1014.68
LONG	-156.06	-155.88	-155.80
LAT	5.80	3.88	3.03
DIPL	6.61	4.72	3.88
INVL	0.00	0.00	0.00
L	1.15	1.14	1.14
DIP	13.04	9.37	7.73
FHS	0.60	0.59	0.59
KP	30	30	30
QUAL	11	11	11
SNL	1	1	1

PASS 3137 AT SPOINT, 63 517

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	32223 160239	32241 160331	32258 160420	32316 160509	32334 160558	32409 160733	32427 160819	32445 160906
HEIGHT								
SAT.	0.212	0.220	0.218	0.219	0.228	0.234	0.242	0.251
1000	0.218	0.226	0.224	0.225	0.235	0.241	0.250	0.259
950	0.249	0.258	0.256	0.255	0.266	0.274	0.287	0.295
900	0.285	0.293	0.291	0.290	0.303	0.314	0.328	0.334
850	0.324	0.335	0.333	0.333	0.351	0.363	0.384	0.386
800	0.376	0.390	0.387	0.388	0.411	0.425	0.447	0.447
750	0.444	0.459	0.460	0.462	0.487	0.509	0.529	0.532
700	0.543	0.565	0.564	0.573	0.602	0.632	0.649	0.646
650	0.685	0.715	0.712	0.728	0.768	0.799	0.810	0.808
600	0.887	0.929	0.928	0.958	1.021	1.046	1.060	1.055
550	1.226	1.264	1.295	1.344	1.430	1.448	1.479	1.491
500	1.809	1.857	1.912	1.990	2.075	2.100	2.173	2.295
450	2.842	2.923	3.046	3.206	3.346	3.339	3.477	3.789
400	4.750	5.001	5.125	5.390	5.620	5.703	5.843	6.286
350	7.878	8.296	8.587	8.866	9.287	9.741	9.747	10.356
300	11.297	11.794	12.179	12.797		14.869	14.975	
250								
200								
NT	1.402	1.465	1.505	1.565	1.072	1.712	1.741	1.184
HEIGHT	SCALE HEIGHT, KM							
950	380.0	382.9	382.2	389.2	382.9	371.8	354.5	391.2
900	370.3	371.8	371.1	369.1	361.3	354.6	346.7	372.2
850	342.9	347.5	342.3	344.7	332.2	328.5	326.5	341.0
800	316.5	317.6	312.7	308.3	307.8	300.3	311.9	313.3
750	279.8	278.8	272.2	263.1	265.3	251.8	259.6	275.3
700	230.3	222.8	227.9	218.4	219.0	219.2	233.0	242.5
650	207.7	205.8	205.9	199.8	197.6	205.2	213.9	209.3
600	179.3	179.8	174.9	169.8	166.0	173.2	173.7	168.6
550	141.0	147.1	138.8	137.5	140.9	146.5	144.2	132.4
500	125.5	127.0	123.1	120.8	124.4	126.3	123.1	106.2
450	106.5	103.8	103.2	102.1	102.1	102.3	101.9	101.1
400	97.8	94.3	96.3	97.9	98.0	94.3	99.1	98.0
350	109.5	110.6	107.3	109.7	105.6	98.0	101.9	108.3
300	257.3	228.9	276.4	236.1		159.7	142.2	
HS	1010.70	1010.70	1010.70	1010.73	1010.76	1010.84	1010.93	1011.02
LONG	-169.93	-169.79	-169.66	-169.53	-169.40	-169.15	-169.03	-168.91
LAT	28.26	27.25	26.29	25.28	24.27	22.30	21.29	20.27
DIPL	25.52	24.64	23.80	22.91	22.01	20.25	19.34	18.42
INVL	24.33	23.36	22.40	21.40	20.40	18.39	17.35	16.30
L	1.40	1.37	1.36	1.34	1.32	1.29	1.27	1.26
DIP	43.67	42.53	41.41	40.20	38.96	36.43	35.07	33.67
FHS	0.70	0.69	0.68	0.67	0.67	0.66	0.65	0.64
KP	1-	1-	1-	1-	1-	1-	1-	1-
QUAL	11	11	11	11	12	12	22	12
SNL	1	1	1	1	1	1	1	1

PASS 3137 AT SPOINT, 63 517

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	32502 160950	32520 161035	32538 161119	32555 161202	32613 161246	32631 161330	32649 161413	32706 161454
HEIGHT								
SAT.	0.259	0.264	0.269	0.277	0.274	0.257	0.288	0.284
1000	0.267	0.269	0.278	0.282	0.281	0.264	0.295	0.292
950	0.301	0.301	0.309	0.315	0.316	0.301	0.329	0.326
900	0.341	0.343	0.352	0.360	0.358	0.343	0.370	0.367
850	0.391	0.397	0.402	0.410	0.408	0.391	0.418	0.417
800	0.453	0.465	0.469	0.471	0.467	0.449	0.482	0.478
750	0.540	0.546	0.555	0.556	0.551	0.532	0.569	0.562
700	0.665	0.675	0.676	0.678	0.674	0.655	0.683	0.679
650	0.828	0.849	0.826	0.839	0.839	0.822	0.854	0.829
600	1.097	1.097	1.086	1.093	1.101	1.078	1.134	1.091
550	1.536	1.532	1.510	1.550	1.547	1.539	1.570	1.559
500	2.259	2.269	2.171	2.349	2.303	2.368	2.428	2.400
450	3.652	3.580	3.484	3.759	3.771	3.862	4.134	4.182
400	6.151	5.992	5.793	6.079	6.145	6.454	6.929	7.345
350	9.961	9.707	9.398	9.530	9.581	10.149	10.877	11.442
300			14.056	13.613				
250								
200								
NT	1.163	1.152	1.710	1.747	1.170	1.200	1.274	1.305
HEIGHT	SCALE HEIGHT, KM							
950	403.8	410.4	423.3	432.2	417.7	386.7	443.5	433.1
900	384.6	365.5	379.2	388.2	390.1	379.6	414.8	408.1
850	353.2	336.2	349.0	363.6	364.8	357.8	373.4	380.6
800	309.5	306.1	314.0	330.2	340.9	333.4	331.2	339.8
750	260.2	272.8	277.9	275.3	267.3	265.5	291.0	276.2
700	234.2	242.2	250.2	245.2	240.4	234.1	252.4	250.8
650	210.4	211.8	222.8	218.9	215.6	211.1	201.3	225.4
600	168.4	175.7	174.2	172.4	171.5	168.4	167.6	169.9
550	143.1	147.1	145.7	140.0	141.7	135.7	139.6	133.6
500	123.2	123.0	127.1	117.4	118.4	113.2	103.4	107.8
450	100.4	104.2	103.0	105.9	102.2	99.6	95.4	87.2
400	98.3	100.2	101.5	106.8	108.3	103.3	102.4	99.0
350	110.2	109.7	110.1	121.0	120.9	126.5	141.3	147.9
300			173.4	185.0				
HS	1011.12	1011.27	1011.42	1011.56	1011.75	1011.96	1012.17	1012.38
LONG	-168.80	-168.69	-168.58	-168.47	-168.36	-168.25	-168.15	-168.05
LAT	19.52	18.30	17.28	16.32	15.31	14.29	13.28	12.32
DIPL	17.55	16.62	15.68	14.79	13.84	12.89	11.93	11.02
INVL	15.26	14.17	13.02	11.92	10.69	9.42	8.03	6.61
L	1.24	1.23	1.22	1.21	1.20	1.19	1.18	1.17
DIP	32.51	30.83	29.31	27.83	26.23	24.59	22.91	21.29
FHS	0.64	0.63	0.63	0.62	0.62	0.62	0.61	0.61
KP	1-	1-	1-	1-	1-	1-	1-	1-
QUAL	12	12	12	12	12	11	11	11
SNL	1	1	1	1	1	1	1	1

PASS 3137 AT SPOINT, 63 517

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	32724 161536	32742 161618	32759 161657	32817 161739	32835 161821	32853 161902	32910 161942	32946 162104
HEIGHT								
SAT.	0.293	0.297	0.294	0.290	0.287	0.283	0.287	0.275
1000	0.300	0.306	0.303	0.299	0.296	0.292	0.295	0.284
950	0.328	0.337	0.335	0.329	0.325	0.321	0.317	0.309
900	0.366	0.376	0.372	0.363	0.360	0.353	0.345	0.341
850	0.412	0.422	0.417	0.404	0.400	0.392	0.387	0.387
800	0.472	0.480	0.470	0.459	0.455	0.448	0.449	0.455
750	0.554	0.560	0.545	0.536	0.535	0.530	0.539	0.564
700	0.666	0.671	0.659	0.658	0.664	0.661	0.691	0.746
650	0.829	0.840	0.843	0.841	0.858	0.893	0.973	1.071
600	1.104	1.136	1.153	1.177	1.267	1.370	1.523	1.699
550	1.628	1.727	1.864	1.927	2.237	2.227	2.565	2.794
500	2.631	2.952	3.258	3.439	3.903	3.940	4.349	4.495
450	4.800	5.370	5.860	6.119	6.610	6.561	7.001	7.022
400	8.277	8.980	9.648	9.759	9.961	9.908	10.150	9.959
350	12.280	12.598		12.463				
300								
250								
200								
NT	1.448	1.515	1.038	1.620	1.137	1.140	1.218	1.250
HEIGHT	SCALE HEIGHT, KM							
950	506.6	488.2	483.0	517.1	512.9	536.6	638.0	542.7
900	436.8	436.3	448.4	486.4	492.0	506.1	508.9	452.0
850	399.2	403.1	417.9	429.7	426.7	430.5	385.6	350.1
800	341.5	364.4	386.4	364.1	349.2	333.9	319.0	275.5
750	288.7	316.6	313.9	281.0	272.6	270.9	242.4	207.1
700	249.4	240.8	227.1	225.4	217.6	199.2	172.8	160.2
650	202.8	198.8	187.2	186.9	172.6	138.3	129.5	123.0
600	156.0	146.8	135.7	127.1	109.1	109.6	106.1	107.5
550	124.9	114.0	102.6	98.8	90.9	98.0	97.0	104.1
500	86.5	87.3	86.8	85.6	92.4	92.8	99.8	108.8
450	86.2	90.3	90.9	95.0	105.9	107.3	115.9	120.3
400	103.8	108.4	124.3	133.9	153.8	163.0	192.3	242.0
350	196.6	236.6		633.8				
300								
HS	1012.62	1012.86	1013.09	1013.41	1013.74	1014.07	1014.42	1015.20
LONG	-167.95	-167.85	-167.76	-167.66	-167.56	-167.46	-167.37	-167.17
LAT	11.30	10.29	9.33	8.31	7.30	6.28	5.32	3.29
DIPL	10.05	9.08	8.15	7.17	6.19	5.20	4.26	2.26
INVL	4.78	2.14	0.00	0.00	0.00	0.00	0.00	0.00
L	1.17	1.16	1.15	1.15	1.15	1.14	1.14	1.13
DIP	19.52	17.72	15.99	14.13	12.24	10.32	8.48	4.52
FHS	0.61	0.60	0.60	0.60	0.60	0.60	0.60	0.60
KP	1-	1-	1-	1-	1-	1-	1-	1-
QUAL	11	11	11	11	11	11	11	11
SNL	1	1	1	1	1	1	1	1

PASS 3137 AT SPOINT, 63 517

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	33039	33056	33114	33132
LT	162303	162341	162422	162503
HEIGHT				
SAT.	0.249	0.263	0.266	0.257
1000	0.257	0.272	0.273	0.267
950	0.287	0.301	0.303	0.292
900	0.322	0.336	0.343	0.329
850	0.369	0.384	0.392	0.380
800	0.438	0.456	0.467	0.459
750	0.548	0.577	0.589	0.574
700	0.746	0.790	0.796	0.789
650	1.115	1.158	1.156	1.146
600	1.780	1.799	1.849	1.844
550	2.827	2.870	2.965	2.957
500	4.465	4.561	4.646	4.675
450	6.921	6.853	7.050	7.166
400	9.531	9.496	9.783	10.016
350				
300				
250				
200				
NT	1.235	1.248	1.279	1.288
HEIGHT	SCALE HEIGHT, KM			
950	446.9	474.4	445.2	476.1
900	394.7	412.8	398.6	383.0
850	331.3	338.4	326.8	315.3
800	265.9	253.1	255.6	254.1
750	189.5	184.5	187.7	188.3
700	144.4	143.4	157.8	154.8
650	115.7	120.1	119.4	120.0
600	106.5	113.2	109.5	108.9
550	109.1	108.5	109.8	109.1
500	111.0	114.9	115.1	112.2
450	125.2	135.6	133.7	129.1
400	256.7	229.8	219.4	211.4
350				
300				
HS	1016.47	1016.90	1017.40	1017.91
LONG	-166.90	-166.81	-166.72	-166.62
LAT	0.30	-0.65	-1.67	-2.68
DIPL	-0.70	-1.66	-2.67	-3.69
INVL	0.00	0.00	0.00	0.00
L	1.13	1.13	1.14	1.14
DIP	-1.40	-3.31	-5.33	-7.34
FHS	0.60	0.61	0.61	0.61
KP	1-	1-	1-	1-
QUAL	11	21	21	11
SNL	1	1	1	1

PASS 3144 AT SPOINT, 63 517

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	150447	150522	150540	150558	150651	150708
LT	43845	44026	44120	44213	44502	44558
HEIGHT						
SAT.	0.065	0.077	0.071	0.076	0.074	0.082
1000	0.068	0.080	0.076	0.080	0.078	0.087
950	0.078	0.090	0.088	0.093	0.093	0.105
900	0.088	0.102	0.100	0.105	0.107	0.121
850	0.100	0.116	0.113	0.119	0.122	0.137
800	0.113	0.134	0.127	0.134	0.139	0.155
750	0.129	0.154	0.145	0.154	0.160	0.178
700	0.148	0.177	0.165	0.177	0.183	0.203
650	0.171	0.204	0.190	0.203	0.210	0.233
600	0.199	0.237	0.218	0.235	0.243	0.273
550	0.233	0.279	0.253	0.272	0.285	0.322
500	0.275	0.330	0.298	0.319	0.339	0.382
450	0.329	0.398	0.354	0.379	0.408	0.456
400	0.401	0.485	0.426	0.457	0.496	0.556
350	0.490	0.600	0.520	0.559	0.616	0.691
300	0.610	0.746	0.642	0.697	0.777	0.866
250	0.706	0.919	0.799	0.869	0.981	1.074
200	0.947		0.988	1.033		
NT	0.232	0.228	0.248	0.266	0.235	0.263
HEIGHT	SCALE HEIGHT, KM					
950	383.3	423.1	416.3	368.5	324.7	310.3
900	391.7	382.0	410.9	401.7	359.0	370.9
850	390.1	373.6	402.7	400.4	371.5	390.5
800	384.3	365.4	393.2	385.7	369.6	382.0
750	371.7	357.7	383.9	369.5	369.3	373.1
700	357.7	350.0	374.7	357.2	364.9	360.1
650	343.8	336.8	362.5	352.4	351.7	343.4
600	329.9	318.1	348.4	342.4	330.3	314.1
550	310.4	301.7	325.5	328.2	300.0	300.0
500	288.1	285.7	299.6	301.0	279.0	288.5
450	264.1	265.5	277.5	280.2	265.8	266.5
400	254.2	247.9	263.1	260.4	243.3	241.3
350	243.5	235.4	248.7	241.3	225.9	229.3
300	227.9	234.0	235.7	226.7	214.9	226.3
HS	1012.52	1012.46	1012.43	1012.40	1012.48	1012.50
LONG	-156.51	-156.23	-156.08	-155.94	-155.45	-155.29
LAT	26.71	28.68	29.69	30.70	33.67	34.62
DIPL	26.50	28.33	29.28	30.22	32.99	33.88
INVL	25.42	27.42	28.43	29.47	32.45	33.41
L	1.42	1.47	1.50	1.53	1.63	1.66
DIP	44.92	47.16	48.27	49.35	52.39	53.33
FHS	0.71	0.72	0.73	0.74	0.77	0.78
KP	2+	2+	2+	2+	2+	2+
QUAL	21	31	31	21	21	21
SNL	1	1	1	1	1	1

PASS 3150 AT SPOINT, 63 518

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	21120 154548	21138 154652	21213 154854	21231 154953	21249 155052	21306 155147	21324 155242	21342 155338
HEIGHT								
SAT.	0.172	0.177	0.220	0.205	0.214	0.219	0.228	0.235
1000	0.176	0.180	0.229	0.212	0.219	0.226	0.237	0.242
950	0.198	0.200	0.247	0.234	0.246	0.254	0.264	0.274
900	0.225	0.225	0.270	0.262	0.278	0.286	0.298	0.308
850	0.255	0.253	0.298	0.295	0.314	0.325	0.338	0.349
800	0.290	0.287	0.337	0.336	0.357	0.376	0.389	0.403
750	0.336	0.332	0.392	0.393	0.416	0.439	0.458	0.472
700	0.397	0.392	0.460	0.464	0.490	0.520	0.548	0.562
650	0.479	0.479	0.555	0.558	0.610	0.641	0.666	0.677
600	0.599	0.615	0.687	0.694	0.771	0.804	0.838	0.860
550	0.759	0.802	0.871	0.907	1.003	1.070	1.078	1.123
500	1.009	1.057	1.135	1.218	1.338	1.455	1.475	1.566
450	1.381	1.454	1.515	1.655	1.755	2.028	2.023	2.207
400	1.895	2.007	2.051	2.290	2.416	2.925	3.017	3.300
350	2.640	2.811	2.793	3.259	3.448	4.233	4.615	5.171
300	3.543	3.744		4.380	4.773	5.819	6.424	7.476
250	4.644							
200								
NT	0.821	0.644	0.516	0.743	0.797	0.919	0.967	1.057
HEIGHT	SCALE HEIGHT, KM							
950	414.8	464.3	589.8	480.4	422.4	426.1	440.7	418.7
900	398.6	424.8	536.0	423.0	407.8	395.2	402.6	401.1
850	400.3	408.0	456.3	392.3	384.2	367.3	368.5	368.5
800	357.3	365.6	379.2	361.0	350.7	339.3	335.0	336.6
750	320.2	327.7	328.6	328.0	310.3	308.0	302.0	305.2
700	282.1	269.6	289.8	289.5	269.7	262.5	270.0	272.8
650	238.8	220.4	251.0	246.9	239.4	231.8	239.5	239.9
600	219.2	204.8	226.4	209.5	210.5	203.7	210.2	205.9
550	200.3	188.2	196.1	182.2	192.0	182.9	181.4	176.3
500	170.9	168.2	183.4	168.2	183.6	165.3	163.9	158.8
450	161.4	161.0	167.0	162.3	175.2	151.0	146.8	140.1
400	158.3	157.0	166.4	155.3	158.0	140.9	124.3	119.6
350	167.4	166.4	163.3	152.6	150.4	142.7	127.1	123.1
300	180.1	259.1		249.0	224.9	198.4	193.1	173.1
HS	1011.37	1011.34	1011.28	1011.25	1011.22	1011.20	1011.20	1011.20
LONG	-156.38	-156.19	-155.83	-155.66	-155.48	-155.33	-155.17	-155.02
LAT	37.96	36.95	34.99	33.98	32.98	32.02	31.01	30.00
DIPL	36.70	35.82	34.12	33.24	32.36	31.53	30.64	29.75
INVL	36.45	35.51	33.67	32.72	31.77	30.87	29.92	28.95
L	1.79	1.75	1.67	1.64	1.60	1.57	1.54	1.51
DIP	56.15	55.29	53.57	52.66	51.72	50.82	49.83	48.82
FHS	0.81	0.80	0.78	0.77	0.76	0.76	0.75	0.74
KP	1-	1-	1-	1-	1-	1-	1-	1-
QUAL	12	21	33	12	23	23	13	23
SNL	1	1	1	1	1	1	1	1

PASS 3150 AT SPOINT, 63 518

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	21400 155433	21417 155521	21435 155613	21453 155704	21510 155751	21528 155840	21546 155929	21604 160017
HEIGHT								
SAT.	0.235	0.247	0.235	0.230	0.224	0.233	0.242	0.247
1000	0.243	0.253	0.241	0.239	0.233	0.241	0.248	0.257
950	0.275	0.280	0.270	0.272	0.264	0.271	0.280	0.292
900	0.308	0.313	0.306	0.305	0.297	0.309	0.317	0.344
850	0.349	0.353	0.347	0.346	0.340	0.356	0.373	0.407
800	0.402	0.401	0.398	0.401	0.395	0.418	0.457	0.480
750	0.472	0.474	0.469	0.481	0.478	0.507	0.561	0.591
700	0.562	0.570	0.561	0.585	0.589	0.630	0.685	0.737
650	0.678	0.699	0.691	0.722	0.740	0.806	0.880	0.970
600	0.860	0.895	0.888	0.959	1.005	1.092	1.183	1.329
550	1.134	1.187	1.198	1.347	1.427	1.547	1.690	1.943
500	1.562	1.679	1.747	1.994	2.057	2.242	2.557	2.985
450	2.269	2.468	2.704	3.081	3.291	3.636	4.269	4.913
400	3.586	3.912	4.372	5.239	5.658	6.253	7.244	8.402
350	5.812	6.545	7.290	8.844	9.476			
300								
250								
200								
NT	0.775	0.831	0.886	1.014	1.070	0.753	0.850	0.966
HEIGHT	SCALE HEIGHT, KM							
950	425.9	468.6	415.7	422.3	411.8	398.8	422.4	346.6
900	405.9	421.3	396.3	400.9	386.0	368.4	354.5	311.4
850	369.8	367.8	365.7	357.2	343.8	326.6	297.7	288.2
800	338.0	353.6	334.3	317.9	303.6	290.1	249.9	268.3
750	309.0	302.9	301.7	282.7	267.8	253.4	235.5	238.6
700	276.7	256.7	266.8	245.8	231.1	218.3	222.7	208.9
650	240.9	226.5	224.4	206.6	193.0	185.8	193.5	177.9
600	203.9	194.0	186.2	170.7	160.1	157.8	155.4	150.9
550	167.6	163.2	153.7	143.4	139.4	141.6	137.1	130.2
500	150.2	144.9	132.9	125.5	126.0	124.1	113.2	111.5
450	129.6	123.6	112.1	108.0	102.0	98.9	94.7	95.8
400	107.3	103.1	100.2	93.0	92.3	93.5	101.0	100.5
350	114.3	102.1	107.0	108.5	107.6			
300								
HS	1011.20	1011.23	1011.26	1011.29	1011.32	1011.35	1011.38	1011.43
LONG	-154.86	-154.73	-154.59	-154.45	-154.33	-154.20	-154.07	-153.94
LAT	28.99	28.04	27.02	26.01	25.06	24.05	23.04	22.02
DIPL	28.86	28.01	27.11	26.20	25.34	24.43	23.51	22.59
INVL	27.98	27.08	26.11	25.12	24.18	23.21	22.21	21.19
L	1.49	1.46	1.44	1.41	1.39	1.37	1.35	1.33
DIP	47.78	46.77	45.67	44.54	43.45	42.25	41.03	39.76
FHS	0.73	0.72	0.72	0.71	0.70	0.69	0.68	0.68
KP	1-	1-	1-	1-	1-	1-	1-	1-
QUAL	13	23	23	23	23	33	23	23
SNL	1	1	1	1	1	1	1	1

PASS 3150 AT SPOINT, 63 518

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	21621 160100	21639 160147	21657 160233	21715 160318	21732 160400	21750 160444	21808 160528	21825 160609
HEIGHT								
SAT.	0.263	0.272	0.308	0.326	0.332	0.342	0.360	0.374
1000	0.273	0.282	0.318	0.336	0.341	0.354	0.371	0.386
950	0.311	0.323	0.360	0.381	0.394	0.414	0.426	0.444
900	0.362	0.384	0.423	0.452	0.466	0.489	0.500	0.530
850	0.425	0.461	0.501	0.536	0.554	0.582	0.595	0.633
800	0.503	0.549	0.600	0.645	0.668	0.705	0.711	0.782
750	0.634	0.682	0.742	0.797	0.827	0.879	0.912	0.994
700	0.811	0.863	0.941	1.011	1.057	1.125	1.198	1.337
650	1.062	1.130	1.228	1.345	1.429	1.559	1.637	1.854
600	1.464	1.584	1.731	1.887	2.033	2.226	2.285	2.746
550	2.066	2.289	2.525	2.791	3.099	3.441	3.742	4.373
500	3.217	3.609	4.005	4.458	5.142	5.934	6.647	7.113
450	5.465	6.190	7.009	7.940	9.132			
400	9.336							
350								
300								
250								
200								
NT	1.056	0.755	0.836	0.922	1.020	0.728	0.776	0.872
HEIGHT	SCALE HEIGHT, KM							
950	354.5	329.1	356.5	348.4	320.2	309.8	332.2	317.8
900	318.3	302.7	318.0	300.7	295.4	294.1	303.2	287.6
850	288.6	278.1	287.4	279.4	275.0	272.8	272.3	252.0
800	259.0	255.4	257.2	253.5	251.3	243.4	240.8	222.9
750	227.6	229.1	222.8	223.3	223.6	210.6	205.6	196.0
700	197.6	201.0	196.9	193.8	187.3	179.7	174.3	172.0
650	172.6	167.2	172.3	168.3	158.5	155.9	156.4	149.8
600	152.5	147.9	150.5	146.8	136.5	132.8	133.6	122.1
550	134.2	128.1	125.9	122.0	112.4	106.7	95.9	104.9
500	107.2	103.4	99.1	96.6	94.3	85.8	87.7	104.5
450	92.2	87.9	87.6	86.6	80.6			
400	102.2							
350								
300								
HS	1011.54	1011.66	1011.78	1011.92	1012.07	1012.22	1012.39	1012.59
LONG	-153.83	-153.72	-153.60	-153.49	-153.38	-153.27	-153.16	-153.06
LAT	21.06	20.05	19.03	18.01	17.06	16.04	15.03	14.07
DIPL	21.71	20.77	19.83	18.88	17.98	17.03	16.07	15.16
INVL	20.24	19.22	18.16	17.11	16.12	15.03	13.94	12.88
L	1.32	1.30	1.28	1.27	1.26	1.24	1.23	1.22
DIP	38.52	37.18	35.79	34.37	32.99	31.49	29.95	28.46
FHS	0.67	0.66	0.66	0.65	0.64	0.64	0.63	0.63
KP	1-	1-	1-	1-	1-	1-	1-	1-
QUAL	23	23	33	23	23	23	23	23
SNL	1	1	1	1	1	1	1	1

PASS 3150 AT SPOINT, 63 518

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	21843 160652	21901 160735	21919 160817	21936 160857	21954 160938	**22012 161020**	22029 161100
HEIGHT							
SAT.	0.385	0.408	0.414	0.434	0.454	**0.479**	0.520
1000	0.398	0.423	0.430	0.456	0.474	**0.498**	0.541
950	0.482	0.495	0.515	0.546	0.572	**0.602**	0.645
900	0.549	0.598	0.628	0.674	0.708	**0.745**	0.789
850	0.661	0.729	0.777	0.842	0.881	**0.916**	0.959
800	0.810	0.908	0.969	1.053	1.094	**1.133**	1.166
750	1.057	1.178	1.288	1.362	1.371	**1.401**	1.430
700	1.435	1.610	1.807	1.840	1.755	**1.734**	1.771
650	1.983	2.214	2.494	2.496	2.308	**2.210**	2.280
600	2.992	3.195	3.391	3.400	3.139	**2.988**	3.044
550	4.585	4.775	4.918	4.820	4.371	**4.176**	4.171
500	7.144	7.397	7.415	6.952	6.342	**5.936**	5.792
450		10.910		10.138	9.205	**8.322**	7.908
400							9.952
350							
300							
250							
200							
NT	0.915	1.438	1.035	1.464	1.369	**1.313**	1.760
HEIGHT	SCALE HEIGHT, KM						
950	308.1	286.4	263.0	253.3	248.6	**249.2**	266.2
900	280.6	266.3	241.7	233.7	236.3	**242.7**	254.9
850	251.6	239.1	220.7	218.1	229.5	**239.0**	256.3
800	220.8	208.7	199.8	205.0	226.6	**234.7**	245.3
750	184.3	178.5	182.5	191.1	214.0	**231.3**	236.9
700	160.5	164.3	168.0	176.3	192.2	**220.2**	218.5
650	144.2	150.6	158.0	164.2	172.1	**184.9**	184.4
600	122.2	133.4	130.3	154.2	161.2	**164.4**	171.0
550	116.3	120.0	129.4	141.9	145.4	**148.7**	158.7
500	112.7	120.3	128.6	134.9	131.9	**145.4**	157.1
450		150.5		133.0	161.8	**158.1**	184.7
400							265.9
350							
300							
HS	1012.80	1013.01	1013.28	1013.54	1013.81	**1014.14**	1014.48
LONG	-152.96	-152.85	-152.76	-152.66	-152.56	**-152.46**	-152.37
LAT	13.06	12.04	11.03	10.07	9.05	**8.03**	7.08
DIPL	14.20	13.23	12.25	11.32	10.34	**9.35**	8.42
INVL	11.71	10.52	9.27	8.00	6.56	**4.84**	2.74
L	1.21	1.20	1.19	1.18	1.17	**1.17**	1.16
DIP	26.84	25.17	23.47	21.82	20.04	**18.23**	16.49
FHS	0.62	0.62	0.61	0.61	0.60	**0.60**	0.60
KP	1-	1-	1-	1-	1-	**1-**	1-
QUAL	23	23	23	23	22	**22**	22
SNL	1	1	1	1	1	**1**	1

PASS 3185 AT SPOINT, 63 520

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	51302 185200	51320 185140	51320 185140	51337 185122	51355 185103	51413 185045	51430 185030	51448 185013
HEIGHT								
SAT.	0.179	0.187	0.199	0.188	0.180	0.173	0.187	0.182
1000	0.186	0.191	0.206	0.195	0.186	0.179	0.194	0.189
950	0.197	0.203	0.220	0.211	0.197	0.193	0.207	0.206
900	0.202	0.210	0.229	0.223	0.209	0.205	0.221	0.222
850	0.208	0.217	0.240	0.233	0.222	0.219	0.238	0.240
800	0.214	0.225	0.254	0.247	0.238	0.236	0.261	0.262
750	0.221	0.238	0.273	0.266	0.257	0.257	0.288	0.290
700	0.236	0.252	0.298	0.293	0.284	0.284	0.319	0.329
650	0.254	0.276	0.334	0.331	0.317	0.315	0.361	0.377
600	0.280	0.309	0.383	0.381	0.357	0.361	0.420	0.434
550	0.324	0.354	0.450	0.444	0.425	0.419	0.493	0.505
500	0.363	0.413	0.543	0.532	0.511	0.488	0.585	0.587
450	0.458	0.498	0.667	0.662	0.626	0.584	0.694	0.705
400	0.561	0.614	0.834	0.835	0.767	0.699	0.838	0.861
350	0.727	0.769	1.059	1.053	0.952	0.853	1.028	1.071
300	0.937	0.977	1.320	1.352	1.183	1.064	1.248	1.330
250	1.207	1.250	1.574		1.450	1.295	1.468	1.571
200	1.530	1.570						
NT	0.363	0.384	0.400	0.324	0.368	0.346	0.402	0.415
HEIGHT	SCALE HEIGHT, KM							
950	1670.8	974.0	1077.1	800.9	908.0	789.1	839.1	685.6
900	1823.7	2187.5	1177.8	1029.6	844.7	785.5	707.9	656.2
850	1653.7	1401.9	918.0	949.0	778.8	705.7	616.2	583.6
800	1475.2	1188.5	776.0	767.7	661.0	624.2	532.8	505.6
750	1230.9	918.9	644.7	625.4	543.6	543.0	484.7	447.1
700	851.6	646.0	500.7	460.9	489.8	479.8	436.7	416.5
650	616.6	495.0	394.4	392.0	436.0	416.6	392.5	385.9
600	376.6	411.5	336.3	344.6	382.1	381.4	353.1	357.0
550	331.4	353.4	286.8	315.1	323.5	348.0	313.7	332.2
500	301.3	291.0	259.6	241.4	264.5	314.6	298.1	307.4
450	263.9	259.0	236.2	230.3	253.9	294.0	284.2	272.6
400	229.4	237.0	221.0	221.9	245.8	273.4	259.9	244.4
350	199.7	216.2	220.8	206.4	232.1	246.1	251.1	226.7
300	198.3	206.1	249.9	205.4	235.8	232.4	277.2	261.9
HS	1012.50	1012.50	1012.47	1012.44	1012.41	1012.42	1012.45	1012.48
LONG	-155.08	-155.26	-155.41	-155.56	-155.72	-155.86	-156.00	-156.14
LAT	34.08	33.08	32.07	31.11	30.10	29.09	28.13	27.12
DIPL	33.44	32.49	31.55	30.66	29.72	28.77	27.88	26.94
INVL	32.93	31.91	30.90	29.94	28.91	27.89	26.94	25.91
L	1.65	1.61	1.57	1.54	1.51	1.48	1.46	1.43
DIP	52.86	51.87	50.84	49.85	48.78	47.68	46.62	45.46
FHS	0.77	0.77	0.76	0.75	0.74	0.73	0.72	0.71
KP	30	30	30	30	30	30	30	30
QUAL	32	21	11	21	11	11	12	21
SNL	1	1	1	1	1	1	1	1

PASS 3185 AT SPOINT, 63 520

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	51506	51523
LT	184958	184945
HEIGHT		
SAT.	0.175	0.176
1000	0.180	0.185
950	0.199	0.202
900	0.218	0.219
850	0.238	0.238
800	0.262	0.263
750	0.291	0.292
700	0.330	0.329
650	0.377	0.373
600	0.439	0.435
550	0.514	0.515
500	0.615	0.632
450	0.747	0.792
400	0.918	1.010
350	1.142	1.351
300	1.405	1.690
250		1.889
200		2.082
NT	0.354	0.568
HEIGHT	SCALE HEIGHT, KM	
950	525.7	612.6
900	539.5	583.7
850	531.6	538.5
800	484.8	485.3
750	439.1	442.5
700	396.9	407.7
650	355.8	372.9
600	328.8	328.0
550	301.7	279.1
500	280.0	244.5
450	260.7	217.4
400	240.5	193.2
350	241.7	171.3
300	284.0	2112.2
HS	1012.52	1012.58
LONG	-156.28	-156.40
LAT	26.11	25.16
DIPL	25.99	25.09
INVL	24.86	23.90
L	1.41	1.39
DIP	44.28	43.13
FHS	0.70	0.70
KP	30	30
QUAL	22	23
SNL	1	1

PASS 3191 AT SPOINT, 63 521

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	21958	21956	22013	22031	22048	22107	22124	22142
LT	152804	152901	152952	153046	153136	153231	153319	153409
HEIGHT								
SAT.	0.190	0.201	0.206	0.204	0.193	0.201	0.199	0.194
1000	0.197	0.208	0.215	0.212	0.200	0.209	0.207	0.204
950	0.221	0.231	0.239	0.234	0.224	0.232	0.230	0.229
900	0.251	0.254	0.262	0.257	0.250	0.255	0.255	0.254
850	0.261	0.282	0.290	0.283	0.280	0.283	0.284	0.287
800	0.316	0.321	0.330	0.320	0.317	0.321	0.325	0.330
750	0.361	0.369	0.378	0.367	0.366	0.373	0.382	0.396
700	0.425	0.426	0.442	0.433	0.433	0.446	0.454	0.482
650	0.512	0.511	0.527	0.518	0.515	0.541	0.573	0.598
600	0.633	0.629	0.670	0.650	0.654	0.708	0.761	0.742
550	0.828	0.816	0.873	0.846	0.884	0.960	1.003	1.028
500	1.123	1.146	1.215	1.182	1.269	1.384	1.460	1.488
450	1.659	1.679	1.712	1.747	1.888	2.095	2.084	2.232
400	2.461	2.572	2.593	2.748	3.024	3.291	3.418	3.726
350	3.909	4.239	4.416	4.739	5.165	5.641	6.079	6.579
300	6.335	6.904	7.606	8.190	8.885	9.376	10.118	10.457
250								
200								
NT	0.811	0.852	0.893	0.926	0.991	1.066	1.123	1.185
HEIGHT	SCALE HEIGHT, KM							
950	420.2	509.5	522.6	526.0	452.4	498.3	479.3	452.9
900	424.2	482.1	498.5	499.3	445.4	480.7	450.2	422.1
850	424.2	432.8	444.8	447.4	415.1	431.5	395.7	376.1
800	390.1	385.7	387.3	396.4	369.3	376.2	349.5	331.3
750	342.2	345.0	338.4	345.3	320.0	316.5	308.0	288.9
700	295.9	309.5	293.5	298.4	289.5	270.0	266.4	249.0
650	254.1	267.4	249.4	252.5	259.0	227.3	229.1	223.7
600	216.5	221.6	213.0	214.5	197.1	187.2	195.6	198.1
550	182.4	171.1	178.4	175.5	154.9	152.8	162.7	155.5
500	151.6	136.2	157.5	138.6	133.2	131.3	144.9	131.4
450	136.1	128.3	141.2	124.9	121.1	119.2	126.2	114.7
400	119.1	111.9	112.4	103.8	101.8	104.7	96.4	93.4
350	105.4	100.3	86.7	88.7	90.3	92.7	88.6	95.8
300	128.6	115.6	122.9	126.6	131.1	130.6	144.4	163.0
HS	1013.00	1013.00	1013.00	1013.00	1013.00	1013.02	1013.08	1013.14
LONG	-162.89	-162.73	-162.58	-162.44	-162.30	-162.15	-162.02	-161.88
LAT	32.09	31.08	30.13	29.12	28.16	27.10	26.14	25.12
DIPL	30.22	29.35	28.52	27.64	26.81	25.88	25.03	24.13
INVL	29.49	28.53	27.63	26.68	25.75	24.71	23.79	22.81
L	1.53	1.50	1.48	1.45	1.43	1.40	1.38	1.36
DIP	49.36	48.36	47.39	46.33	45.31	44.13	43.04	41.86
FHS	0.74	0.73	0.72	0.71	0.71	0.70	0.69	0.68
KP	1-	1-	1-	1-	1-	1-	1-	1-
QUAL	11	11	11	11	11	12	12	12
SNL	1	1	1	1	1	1	1	1

PASS 3191 AT SPOINT, 63 521

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	22200 153500	22217 153544	22235 153632	22254 153722	22310 153803	22328 153848	22403 154016	22421 154100
HEIGHT SAT.	0.199	0.210	0.195	0.216	0.221	0.222	0.235	0.243
1000	0.209	0.220	0.206	0.225	0.231	0.232	0.247	0.253
950	0.232	0.246	0.236	0.254	0.259	0.261	0.277	0.285
900	0.262	0.277	0.268	0.285	0.290	0.293	0.313	0.321
850	0.298	0.315	0.307	0.325	0.327	0.335	0.357	0.365
800	0.341	0.362	0.353	0.371	0.380	0.387	0.412	0.426
750	0.406	0.436	0.422	0.441	0.454	0.460	0.490	0.507
700	0.492	0.529	0.510	0.532	0.559	0.557	0.595	0.620
650	0.615	0.658	0.641	0.666	0.712	0.699	0.740	0.769
600	0.775	0.838	0.827	0.849	0.903	0.916	0.974	1.012
550	1.076	1.143	1.110	1.185	1.271	1.264	1.354	1.425
500	1.561	1.688	1.707	1.757	1.896	1.904	1.956	2.068
450	2.396	2.606	2.634	2.712	2.950	2.970	3.116	3.377
400	3.816	4.316	4.275	4.513	4.957	4.927	5.279	5.918
350	6.748	7.434	7.318	7.825	8.294	8.179	9.133	
300		11.990						
250								
200								
NT	0.768	1.348	0.853	0.896	0.961	0.959	1.028	0.713
HEIGHT	SCALE HEIGHT, KM							
950	443.3	436.7	383.0	413.9	441.5	422.8	414.0	415.9
900	392.7	398.9	375.8	394.2	411.2	394.6	387.9	386.0
850	363.0	357.4	345.7	363.7	361.8	362.3	357.3	352.9
800	333.4	318.5	315.3	333.1	315.1	325.7	323.3	314.7
750	288.1	288.5	282.5	292.6	270.0	275.9	280.6	274.5
700	243.8	258.4	249.6	250.8	233.9	240.1	243.9	243.3
650	217.9	222.8	217.9	217.4	209.9	204.9	212.4	215.0
600	191.4	184.7	187.0	183.4	185.8	171.9	174.4	170.9
550	148.4	145.4	157.3	137.6	158.5	143.5	143.7	139.0
500	129.7	128.9	131.4	126.2	128.7	124.4	127.2	123.5
450	116.9	110.4	111.9	109.6	106.9	107.9	102.1	97.7
400	99.6	94.6	97.3	91.8	95.5	98.2	94.2	86.8
350	84.7	93.9	93.5	96.9	101.4	101.6	87.9	
300		139.0						
HS	1013.20	1013.26	1013.32	1013.38	1013.48	1013.63	1013.93	1014.11
LONG	-161.75	-161.63	-161.51	-161.38	-161.28	-161.16	-160.94	-160.83
LAT	24.11	23.16	22.14	21.08	20.18	19.16	17.19	16.18
DIPL	23.23	22.38	21.46	20.50	19.68	18.75	16.92	15.96
INVL	21.80	20.85	19.85	18.76	17.83	16.79	14.69	13.58
L	1.34	1.33	1.31	1.29	1.28	1.26	1.24	1.23
DIP	40.65	39.47	36.18	36.78	35.57	34.17	31.32	29.80
FHS	0.68	0.67	0.66	0.66	0.65	0.65	0.63	0.63
KP	1-	1-	1-	1-	1-	1-	1-	1-
QUAL	13	13	23	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 3191 AT SPOINT, 63 521

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	22440 154147	22456 154226	22532 154351	22550 154434	22607 154513	22625 154555	22643 154637	22700 154716
HEIGHT SAT.	0.266	0.267	0.265	0.266	0.278	0.267	0.264	0.261
1000	0.277	0.280	0.281	0.276	0.287	0.282	0.279	0.273
950	0.305	0.307	0.309	0.306	0.315	0.313	0.309	0.304
900	0.338	0.344	0.345	0.342	0.353	0.350	0.346	0.348
850	0.382	0.388	0.390	0.386	0.403	0.403	0.399	0.405
800	0.443	0.451	0.452	0.453	0.471	0.485	0.491	0.493
750	0.529	0.535	0.542	0.547	0.557	0.609	0.621	0.624
700	0.643	0.653	0.673	0.686	0.720	0.786	0.815	0.839
650	0.805	0.821	0.863	0.917	0.991	1.108	1.174	1.200
600	1.076	1.071	1.216	1.366	1.506	1.705	1.787	1.889
550	1.518	1.564	1.821	2.158	2.566	2.787	2.856	3.034
500	2.229	2.471	3.119	4.079	4.456	4.716	4.756	4.905
450	3.799	4.321	5.889	7.299	7.680	7.723	7.539	7.324
400	6.980	8.203	10.368		11.343	10.925	10.051	9.227
350								
300								
250								
200								
NT	0.785	0.858	1.047	0.751	1.292	1.329	1.313	1.306

SCALE HEIGHT, KM

HEIGHT								
950	495.1	487.4	486.9	471.6	472.2	461.4	445.7	406.6
900	440.7	426.9	430.8	414.5	410.3	391.5	376.1	349.6
850	372.4	372.6	377.7	362.4	337.2	316.4	310.6	299.7
800	313.7	323.7	315.1	303.7	294.7	263.9	256.8	228.2
750	274.4	277.8	249.5	246.5	255.7	217.1	206.4	194.6
700	243.3	241.4	216.1	204.9	191.1	175.0	167.1	161.0
650	209.2	197.5	179.8	158.8	141.5	134.4	124.0	128.1
600	169.2	163.2	127.4	116.9	112.2	114.7	116.1	114.0
550	141.2	131.9	113.1	97.8	94.2	99.5	103.5	105.5
500	117.3	104.2	83.7	81.7	91.2	98.8	100.0	112.1
450	89.1	80.4	81.5	95.1	100.6	108.9	143.5	173.0
400	82.9	85.8	112.9		225.0	306.6	220.4	292.8
350								
300								

HS	1014.30	1014.46	1014.98	1015.25	1015.52	1015.82	1016.12	1016.40
LONG	-160.72	-160.62	-160.42	-160.32	-160.22	-160.12	-160.02	-159.93
LAT	15.11	14.21	12.18	11.16	10.20	9.19	8.17	7.21
DIPL	14.97	14.12	12.19	11.22	10.30	9.32	8.33	7.40
INVL	12.35	11.31	8.78	7.37	5.87	3.92	0.00	0.00
L	1.21	1.21	1.19	1.18	1.17	1.16	1.16	1.15
DIP	28.14	26.71	23.37	21.65	19.98	18.17	16.33	14.56
FHS	0.62	0.62	0.61	0.61	0.61	0.60	0.60	0.60
KP	1-	1-	1-	1-	1-	1-	1-	1-
QUAL	13	13	13	13	22	12	22	12
SNL	1	1	1	1	1	1	1	1

PASS 3218 AT SPOINT, 63 523

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	14821 151058	14839 151156	14856 151251	14914 151346	14931 151437	14949 151531	15007 151624	15024 151712
HEIGHT								
SAT.	0.225	0.210	0.215	0.210	0.215	0.210	0.202	0.206
1000	0.232	0.220	0.225	0.219	0.224	0.221	0.213	0.218
950	0.255	0.245	0.251	0.245	0.247	0.245	0.243	0.247
900	0.278	0.274	0.277	0.272	0.273	0.272	0.274	0.278
850	0.307	0.309	0.308	0.304	0.305	0.307	0.311	0.316
800	0.349	0.349	0.348	0.342	0.346	0.350	0.355	0.362
750	0.401	0.404	0.405	0.402	0.408	0.414	0.423	0.436
700	0.468	0.474	0.474	0.476	0.486	0.498	0.514	0.533
650	0.547	0.567	0.575	0.581	0.597	0.614	0.645	0.680
600	0.654	0.697	0.701	0.719	0.748	0.762	0.843	0.870
550	0.904	0.925	0.927	0.954	1.014	1.055	1.091	1.186
500	1.258	1.281	1.303	1.364	1.464	1.547	1.644	1.786
450	1.753	1.862	1.907	1.992	2.207	2.368	2.539	2.779
400	2.659	2.934	2.979	3.229	3.672	3.967	4.233	4.701
350	4.277	4.975	5.149	5.632	6.463	7.104	7.423	8.410
300	7.253	8.257		9.728	10.684	10.931	11.238	
250								
200								
NT	0.893	0.977	0.657	1.074	1.184	1.254	1.313	0.924
HEIGHT	SCALE HEIGHT, KM							
950	557.7	459.8	487.0	468.4	492.4	468.0	401.1	419.2
900	516.1	427.1	467.0	444.8	455.9	432.7	394.7	394.0
850	449.3	403.4	421.9	407.8	404.8	389.8	361.0	358.2
800	392.7	370.5	378.7	370.7	358.1	346.4	325.7	322.3
750	339.1	332.3	338.5	327.6	319.6	300.5	287.4	275.7
700	307.4	292.4	298.2	284.4	281.2	258.5	248.6	227.6
650	275.6	257.6	260.4	247.6	239.4	230.0	215.8	205.6
600	240.4	221.3	222.9	213.6	196.0	200.2	190.3	184.2
550	185.0	180.2	175.5	164.2	157.0	149.5	164.8	159.7
500	149.0	148.6	140.7	135.0	133.2	128.1	134.3	130.0
450	138.3	128.2	126.5	123.1	114.5	110.9	109.0	107.1
400	115.8	104.7	105.0	98.9	95.0	91.3	92.0	87.3
350	99.1	94.3	90.8	89.1	87.6	93.6	94.0	103.2
300	122.7	120.5		149.2	285.6	267.7	321.2	
HS	1014.20	1014.20	1014.20	1014.20	1014.20	1014.20	1014.22	1014.28
LONG	-159.34	-159.18	-159.02	-158.86	-158.72	-158.57	-158.43	-158.30
LAT	33.69	32.69	31.73	30.72	29.77	28.76	27.75	26.79
DIPL	32.30	31.43	30.60	29.72	28.89	28.00	27.11	26.27
INVL	31.73	30.78	29.89	28.92	28.01	27.06	26.09	25.15
L	1.60	1.57	1.54	1.51	1.49	1.46	1.44	1.41
DIP	51.66	50.71	49.79	48.79	47.82	46.76	45.68	44.63
FHS	0.76	0.75	0.74	0.74	0.73	0.72	0.71	0.70
KP	00	00	00	00	00	00	00	00
QUAL	12	12	23	12	11	11	21	12
SNL	1	1	1	1	1	1	1	1

PASS 3191 AT SPOINT, 63 521

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	22718	22736	22753	22811
LT	154757	154838	154917	154958
HEIGHT				
SAT.	0.265	0.265	0.269	0.265
1000	0.278	0.273	0.285	0.279
950	0.314	0.312	0.325	0.323
900	0.362	0.366	0.381	0.379
850	0.424	0.434	0.454	0.452
800	0.526	0.529	0.558	0.567
750	0.687	0.705	0.754	0.775
700	0.957	0.993	1.039	1.057
650	1.332	1.307	1.498	1.490
600	2.124	2.370	2.255	2.198
550	3.301	3.465	3.407	3.165
500	5.114	4.907	4.769	4.347
450	6.987	6.504	6.096	5.603
400		7.753	7.092	6.540
350				
300				
250				
200				
NT	0.938	1.305	1.261	1.188

HEIGHT	SCALE HEIGHT, KM			
950	369.0	348.9	340.4	318.1
900	320.7	297.0	290.6	281.8
850	275.9	264.1	257.4	248.7
800	228.2	225.8	220.6	215.5
750	178.4	170.6	172.5	182.2
700	154.5	137.6	147.7	155.1
650	132.3	122.2	133.2	141.1
600	112.5	123.0	125.2	136.5
550	113.7	138.4	137.1	148.8
500	140.5	163.0	180.6	177.1
450	208.4	225.4	255.5	257.2
400		350.2	447.9	511.2
350				
300				

HS	1016.79	1017.18	1017.55	1017.97
LONG	-159.83	-159.74	-159.65	-159.55
LAT	6.20	5.18	4.22	3.21
DIPL	6.41	5.41	4.47	3.47
INVL	0.00	0.00	0.00	0.00
L	1.15	1.14	1.14	1.14
DIP	12.66	10.73	8.89	6.91
FHS	0.60	0.60	0.59	0.59
KP	1-	1-	1-	1-
QUAL	12	12	12	11
SNL	1	1	1	1

PASS 3218 AT SPOINT, 63 523

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	15042 151802	15100 151852	15117 151938	15135 152026	15153 152114	15210 152159	15228 152245	15246 152331
HEIGHT								
SAT.	0.211	0.213	0.231	0.244	0.249	0.257	0.289	0.306
1000	0.222	0.226	0.241	0.256	0.261	0.270	0.301	0.322
950	0.251	0.260	0.275	0.293	0.298	0.310	0.338	0.364
900	0.288	0.302	0.319	0.340	0.343	0.362	0.395	0.423
850	0.332	0.353	0.372	0.397	0.401	0.424	0.465	0.497
800	0.387	0.416	0.436	0.465	0.470	0.497	0.547	0.585
750	0.459	0.489	0.511	0.545	0.551	0.607	0.662	0.696
700	0.571	0.605	0.636	0.671	0.685	0.750	0.817	0.862
650	0.730	0.762	0.807	0.843	0.875	0.962	1.037	1.109
600	0.955	1.008	1.066	1.107	1.158	1.272	1.415	1.526
550	1.321	1.415	1.497	1.571	1.664	1.824	2.049	2.159
500	1.936	2.067	2.163	2.320	2.477	2.797	3.172	3.320
450	2.982	3.282	3.452	3.762	4.005	4.631	5.449	5.640
400	4.976	5.656	6.074	6.595	7.171	8.377	9.121	9.741
350	8.826	9.724	10.467	11.103				
300								
250								
200								
NT	0.986	1.079	1.148	1.229	0.832	0.938	1.053	1.111
HEIGHT	SCALE HEIGHT, KM							
950	382.0	339.8	352.2	347.0	357.8	339.5	375.0	367.3
900	354.7	324.9	331.7	333.9	320.6	318.5	327.2	336.1
850	328.5	308.9	312.5	320.0	308.9	299.0	303.9	311.4
800	302.6	290.9	294.4	299.9	297.1	279.5	285.9	295.3
750	271.5	272.9	276.4	279.8	285.4	253.2	255.0	265.8
700	228.2	239.3	236.5	241.7	234.6	226.2	221.7	211.6
650	196.0	200.7	196.9	202.6	188.9	193.6	188.8	180.2
600	174.0	168.0	166.3	165.3	158.7	162.2	158.5	156.9
550	151.8	144.0	145.8	143.0	140.7	137.3	130.1	135.2
500	129.4	125.0	126.8	121.1	119.6	111.4	106.8	108.2
450	110.1	102.5	99.8	97.2	95.9	91.5	92.7	91.6
400	91.9	91.3	87.5	88.9	85.3	90.2	109.9	114.6
350	104.2	115.5	123.5	132.8				
300								
HS	1014.34	1014.40	1014.48	1014.57	1014.66	1014.77	1014.89	1015.01
LONG	-158.16	-158.03	-157.91	-157.78	-157.66	-157.54	-157.43	-157.31
LAT	25.78	24.77	23.82	22.80	21.79	20.84	19.82	18.81
DIPL	25.37	24.47	23.61	22.70	21.78	20.91	19.98	19.04
INVL	24.18	23.21	22.26	21.26	20.25	19.29	18.24	17.19
L	1.39	1.37	1.35	1.33	1.32	1.30	1.29	1.27
DIP	43.48	42.30	41.16	39.91	38.63	37.38	36.02	34.61
FHS	0.70	0.69	0.68	0.68	0.67	0.66	0.66	0.65
KP	00	00	00	00	00	00	00	00
QUAL	12	22	15	13	13	13	23	23
SNL	1	1	1	1	1	1	1	1

PASS 3218 AT SPOINT, 63 523

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	15303 152414	15321 152458	15339 152542	15356 152623	15414 152706	15432 152749	15449 152829	15507 152911
HEIGHT								
SAT.	0.312	0.305	0.347	0.308	0.325	0.330	0.335	0.328
1000	0.324	0.319	0.366	0.321	0.341	0.348	0.354	0.346
950	0.367	0.368	0.413	0.374	0.395	0.405	0.415	0.404
900	0.427	0.432	0.479	0.438	0.458	0.469	0.480	0.470
850	0.499	0.509	0.559	0.516	0.537	0.558	0.569	0.562
800	0.586	0.603	0.654	0.624	0.641	0.672	0.685	0.680
750	0.724	0.732	0.806	0.782	0.793	0.814	0.828	0.825
700	0.920	0.920	1.015	1.001	1.018	1.044	1.065	1.054
650	1.202	1.179	1.310	1.326	1.357	1.408	1.434	1.412
600	1.623	1.645	1.740	1.880	1.931	1.962	1.985	1.960
550	2.205	2.354	2.420	2.782	2.877	2.947	2.961	2.965
500	3.441	3.683	3.802	4.475	4.548	4.647	4.620	4.666
450	5.821	6.166	6.297	7.429	7.251	7.340	7.230	7.289
400	10.020	10.163	10.213	11.257	10.733	10.652	10.460	10.241
350					13.500			
300								
250								
200								
NT	1.149	1.192	1.239	1.371	1.973	1.388	1.384	1.379
HEIGHT	SCALE HEIGHT, KM							
950	362.6	329.7	371.1	323.9	333.7	322.8	317.6	314.6
900	328.2	309.6	336.9	309.3	328.3	310.7	312.6	302.3
850	299.1	295.6	305.5	276.2	292.5	277.6	279.2	275.1
800	270.7	274.1	274.7	246.4	262.7	255.1	256.7	253.3
750	240.4	238.2	246.0	222.8	219.9	234.7	235.7	233.8
700	209.5	208.3	217.7	192.4	185.7	192.7	192.0	194.2
650	184.2	179.9	191.9	162.5	160.8	158.5	160.5	161.5
600	166.4	156.5	169.2	143.3	141.0	142.6	145.1	143.0
550	145.3	131.5	139.5	120.9	121.0	119.8	122.3	118.6
500	106.5	105.6	106.4	98.5	106.2	108.2	110.8	109.9
450	90.1	97.4	98.0	108.1	115.2	118.6	120.4	126.3
400	117.4	116.3	133.0	148.0	158.7	175.8	177.7	196.6
350					403.2			
300								
HS	1015.13	1015.31	1015.49	1015.66	1015.89	1016.13	1016.35	1016.63
LONG	-157.20	-157.09	-156.99	-156.88	-156.78	-156.68	-156.58	-156.48
LAT	17.85	16.84	15.82	14.87	13.85	12.84	11.88	10.87
DIPL	18.15	17.21	16.25	15.35	14.39	13.42	12.51	11.53
INVL	16.21	15.11	14.02	12.96	11.78	10.58	9.40	8.05
L	1.26	1.24	1.23	1.22	1.21	1.20	1.19	1.18
DIP	33.25	31.77	30.25	28.77	27.16	25.52	23.93	22.20
FHS	0.64	0.64	0.63	0.63	0.62	0.62	0.61	0.61
KP	00	00	00	00	00	00	00	00
QUAL	23	23	23	11	11	11	11	11
SNL	1	1	1	1	1	1	1	1

PASS 3218 AT SPOINT, 63 523

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	15525 152953	15542 153032	15600 153114	15618 153156	15635 153235	15653 153317	15711 153358	15728 153436
HEIGHT								
SAT.	0.346	0.322	0.314	0.339	0.323	0.315	0.320	0.304
1000	0.363	0.337	0.333	0.356	0.341	0.331	0.338	0.322
950	0.418	0.390	0.389	0.409	0.395	0.379	0.388	0.371
900	0.484	0.456	0.452	0.474	0.459	0.441	0.450	0.428
850	0.572	0.544	0.539	0.562	0.545	0.523	0.532	0.500
800	0.683	0.654	0.648	0.672	0.651	0.626	0.634	0.589
750	0.818	0.787	0.780	0.803	0.780	0.755	0.760	0.724
700	1.026	0.981	0.969	1.003	0.966	0.929	0.931	0.910
650	1.348	1.294	1.277	1.332	1.280	1.238	1.241	1.204
600	1.868	1.835	1.818	1.907	1.862	1.791	1.808	1.792
550	2.788	2.763	2.746	2.873	2.805	2.681	2.716	2.691
500	4.416	4.406	4.388	4.466	4.301	4.089	4.085	4.002
450	6.883	6.827	6.687	6.637	6.316	5.981	5.906	5.720
400	9.712	9.387	8.906	8.502	7.980	7.623	7.253	7.031
350								
300								
250								
200								
NT	1.317	1.290	1.266	1.278	1.226	1.170	1.162	1.130
HEIGHT	SCALE HEIGHT, KM							
950	337.6	325.1	315.8	341.9	326.4	340.6	335.8	343.7
900	318.6	303.4	304.8	317.5	310.4	314.3	317.5	333.7
850	290.9	282.0	284.6	294.0	293.6	293.8	300.2	314.8
800	270.1	263.1	265.2	272.1	273.8	271.8	279.1	266.7
750	250.8	245.4	246.3	251.0	250.9	248.0	253.4	237.3
700	209.8	210.0	211.6	208.6	212.1	214.3	217.9	204.0
650	169.1	162.9	162.0	160.4	157.5	154.5	158.0	153.5
600	147.1	141.1	140.0	138.8	136.6	137.6	128.0	134.3
550	121.1	118.4	117.6	120.7	122.4	124.5	123.1	127.0
500	109.7	109.0	111.0	118.2	123.3	125.6	129.0	133.0
450	125.7	130.2	139.4	151.8	154.8	159.6	166.6	173.9
400	212.2	235.3	267.0	343.4	357.0	529.5	507.7	498.5
350								
300								
HS	1016.96	1017.27	1017.60	1017.96	1018.30	1018.66	1019.07	1019.50
LONG	-156.38	-156.29	-156.19	-156.09	-156.00	-155.90	-155.80	-155.72
LAT	9.85	8.89	7.88	6.86	5.90	4.89	3.87	2.91
DIPL	10.56	9.63	8.64	7.65	6.71	5.72	4.72	3.77
INVL	6.60	4.97	2.69	0.00	0.00	0.00	0.00	0.00
L	1.18	1.17	1.16	1.16	1.15	1.15	1.14	1.14
DIP	20.44	18.74	16.91	15.04	13.25	11.32	9.37	7.51
FHS	0.61	0.60	0.60	0.60	0.60	0.59	0.59	0.59
KP	00	00	00	00	00	00	00	00
QUAL	21	11	11	11	11	11	11	11
SNL	1	1	1	1	1	1	1	1

PASS 3232 AT SPOINT, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	23206	23223	23408	23426	23443	23501	23519	23526
LT	152014	152054	152456	152537	152616	152657	152737	152753
HEIGHT								
SAT.	0.397	0.389	0.331	0.339	0.343	0.343	0.343	0.342
1000	0.415	0.408	0.357	0.361	0.362	0.364	0.366	0.363
950	0.466	0.465	0.403	0.410	0.408	0.409	0.415	0.410
900	0.530	0.531	0.460	0.466	0.466	0.475	0.477	0.472
850	0.616	0.617	0.532	0.549	0.544	0.547	0.550	0.543
800	0.721	0.726	0.673	0.658	0.659	0.647	0.647	0.638
750	0.867	0.877	0.905	0.796	0.822	0.777	0.779	0.766
700	1.090	1.114	1.220	1.000	1.029	0.973	0.972	0.961
650	1.457	1.507	1.580	1.315	1.320	1.275	1.258	1.240
600	2.040	2.129	2.002	1.813	1.843	1.790	1.815	1.846
550	3.057	3.207	2.792	2.548	2.588	2.523	2.568	2.646
500	4.818	4.904	3.972	3.611	3.649	3.529	3.532	3.630
450	7.508	7.450	5.390	4.949	4.956	4.812	4.748	4.836
400	10.626	10.190	6.402	5.995	5.889		5.800	5.854
350								
300								
250								
200								
NT	1.434	1.441	1.166	1.065	1.070	0.777	1.042	1.055

HEIGHT	SCALE HEIGHT, KM							
950	402.9	372.9	390.3	388.5	391.8	400.8	371.9	379.2
900	364.8	350.8	345.2	340.6	346.0	343.2	350.7	354.7
850	325.9	320.7	269.8	291.7	279.9	319.2	327.9	331.3
800	297.2	292.2	235.1	264.0	249.3	288.3	286.7	289.8
750	249.6	237.6	214.5	243.9	232.8	256.1	246.6	245.1
700	197.7	186.2	193.9	208.5	216.3	212.1	212.2	209.1
650	163.1	156.0	186.8	170.2	196.1	169.7	180.6	174.5
600	135.0	130.2	179.8	158.3	164.0	157.1	157.6	149.0
550	119.2	122.0	155.9	150.3	149.4	151.2	152.9	150.2
500	110.5	118.9	155.7	154.2	158.9	160.7	168.1	169.1
450	124.0	133.1	206.9	229.4	260.0	211.3	207.2	211.6
400	203.1	240.6	503.2	456.0	546.2		410.0	427.1
350								
300								

HS	1017.00	1017.28	1019.29	1019.71	1020.10	1020.52	1020.97	1021.15
LONG	-167.97	-167.87	-167.30	-167.20	-167.11	-167.01	-166.92	-166.89
LAT	12.14	11.18	5.26	4.25	3.29	2.27	1.26	0.87
DIPL	10.86	9.94	4.21	3.21	2.27	1.26	0.26	-0.13
INVL	6.34	4.55	0.00	0.00	0.00	0.00	0.00	0.00
L	1.17	1.17	1.14	1.14	1.13	1.13	1.13	1.13
DIP	20.99	19.32	8.37	6.40	4.53	2.53	0.52	-0.26
FHS	0.61	0.60	0.60	0.60	0.60	0.60	0.60	0.60
KP	00	00	00	00	00	00	00	00
QUAL	11	11	11	31	21	11	32	11
SNL	1	1	1	1	1	1	1	1

PASS 3232 AT SPOINT, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	23554	23629
LT	152856	153015
HEIGHT		
SAT.	0.333	0.336
1000	0.355	0.359
950	0.406	0.403
900	0.467	0.459
850	0.540	0.524
800	0.632	0.599
750	0.764	0.724
700	0.969	0.892
650	1.295	1.199
600	1.868	1.719
550	2.638	2.462
500	3.641	3.465
450	4.948	4.821
400		6.001
350		
300		
250		
200		
NT	0.794	1.022
HEIGHT	SCALE HEIGHT, KM	
950	359.0	397.9
900	353.1	380.9
850	323.3	348.7
800	287.6	316.5
750	244.8	266.1
700	199.0	213.9
650	160.6	151.4
600	150.9	146.9
550	151.1	145.5
500	163.6	151.4
450	215.2	183.8
400		314.3
350		
300		
HS	1021.85	1022.82
LONG	-166.74	-166.56
LAT	-0.70	-2.68
DIPL	-1.70	-3.68
INVL	0.00	0.00
L	1.13	1.14
DIP	-3.39	-7.32
FHS	0.61	0.61
KP	00	00
QUAL	22	32
SNL	1	1

PASS 3286 AT SPOINT, 63 528

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	12620 143831	12636 143915	12700 144021	12717 144106	12735 144154	12753 144241	12846 144551	12921 144709
HEIGHT								
SAT.	0.254	0.263	0.288	0.305	0.307	0.325	0.367	0.387
1000	0.267	0.276	0.304	0.325	0.326	0.344	0.390	0.406
950	0.306	0.318	0.351	0.365	0.371	0.396	0.448	0.463
900	0.358	0.375	0.412	0.427	0.437	0.464	0.523	0.538
850	0.423	0.448	0.485	0.505	0.515	0.547	0.615	0.631
800	0.502	0.533	0.571	0.595	0.607	0.649	0.723	0.742
750	0.596	0.632	0.700	0.732	0.742	0.795	0.886	0.892
700	0.746	0.810	0.874	0.919	0.923	1.001	1.102	1.110
650	0.955	1.041	1.129	1.174	1.177	1.291	1.434	1.443
600	1.272	1.416	1.533	1.611	1.619	1.744	1.896	1.908
550	1.801	1.983	2.120	2.272	2.280	2.459	2.701	2.754
500	2.712	3.006	3.257	3.456	3.438	3.747	4.128	4.189
450	4.431		5.361	5.410	5.652	6.039	6.597	6.510
400			8.696	8.846	9.330	9.716	10.401	9.834
350								
300								
250								
200								
NT	0.601	0.460	1.065	1.102	1.129	1.208	1.322	1.315
HEIGHT	SCALE HEIGHT, KM							
950	335.3	321.7	324.3	375.2	352.9	332.3	335.2	347.3
900	317.8	303.0	312.8	331.1	317.4	316.3	322.3	333.8
850	299.9	284.2	294.7	298.3	296.7	294.2	301.3	316.8
800	280.6	265.4	272.8	271.6	276.2	267.6	271.4	286.3
750	260.4	246.4	244.5	242.8	247.6	235.5	243.7	252.2
700	223.3	218.4	214.6	212.3	216.2	207.7	216.2	214.6
650	188.7	190.5	179.4	178.0	180.0	182.7	191.7	188.2
600	160.2	164.5	159.7	158.9	160.3	162.8	168.3	165.8
550	141.0	139.7	141.3	138.6	139.1	138.6	136.9	135.0
500	116.4	116.7	110.7	117.5	113.8	113.8	113.1	117.3
450	94.2		102.3	108.2	99.5	103.0	105.4	114.9
400			126.3	126.0	143.2	142.9	206.3	163.7
350								
300								
HS	1017.67	1017.72	1017.80	1017.88	1017.97	1018.06	1018.56	1018.94
LONG	-161.95	-161.84	-161.66	-161.54	-161.42	-161.30	-160.73	-160.55
LAT	26.17	25.27	23.92	22.97	21.95	20.94	17.97	16.00
DIPL	25.07	24.27	23.07	22.21	21.30	20.38	17.69	15.85
INVL	23.84	22.97	21.62	20.68	19.67	18.63	15.58	13.44
L	1.39	1.37	1.34	1.32	1.31	1.29	1.25	1.23
DIP	43.10	42.05	40.43	39.24	37.95	36.62	32.53	29.59
FHS	0.69	0.68	0.68	0.67	0.66	0.66	0.64	0.63
KP	4-	4-	4-	4-	4-	4-	4-	4-
QUAL	13	13	12	21	12	12	12	12
SNL	1	1	1	1	1	1	1	1

PASS 3286 AT SPOINT, 63 528

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	12939	13031	13049
LT	144731	144910	144953
HEIGHT			
SAT.	0.402	0.406	0.393
1000	0.423	0.427	0.417
950	0.482	0.483	0.470
900	0.557	0.558	0.539
850	0.649	0.645	0.621
800	0.757	0.750	0.716
750	0.922	0.908	0.862
700	1.138	1.107	1.048
650	1.475	1.427	1.355
600	1.930	1.884	1.758
550	2.774	2.652	2.378
500	4.169	3.980	3.612
450	6.435	6.157	5.749
400	9.727	9.069	8.691
350			
300			
250			
200			
NT	1.318	1.265	1.183

HEIGHT	SCALE HEIGHT, KM		
950	360.2	372.7	383.2
900	339.0	345.9	359.0
850	313.2	320.7	334.1
800	286.3	294.2	309.2
750	253.5	263.3	267.6
700	220.0	232.4	225.0
650	194.3	202.8	204.2
600	170.1	173.8	183.9
550	138.1	142.3	155.0
500	120.5	119.9	115.1
450	114.4	119.3	112.3
400	174.8	163.4	141.2
350			
300			

HS	1019.15	1019.86	1020.13
LONG	-160.53	-160.33	-160.23
LAT	14.98	12.05	11.04
DIPL	14.88	12.08	11.11
INVL	12.25	8.63	7.20
L	1.21	1.19	1.18
DIP	27.99	23.18	21.45
FHS	0.62	0.61	0.61
KP	4-	4-	4-
QUAL	12	12	12
SNL	1	1	1

PASS 3408 AT SPOINT, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	235910	111	148	208	225	302	356	413
LT	132417	133102	133140	133232	133316	133450	133700	133740
HEIGHT								
SAT.	0.228	0.287	0.283	0.273	0.306	0.354	0.389	0.399
1000	0.241	0.309	0.300	0.298	0.338	0.384	0.416	0.433
950	0.265	0.345	0.342	0.346	0.382	0.443	0.472	0.495
900	0.302	0.396	0.392	0.402	0.437	0.510	0.545	0.572
850	0.346	0.457	0.458	0.470	0.513	0.596	0.644	0.667
800	0.398	0.537	0.542	0.562	0.612	0.705	0.767	0.786
750	0.482	0.650	0.661	0.680	0.741	0.849	0.924	0.943
700	0.592	0.806	0.809	0.823	0.910	1.083	1.150	1.176
650	0.755	1.019	1.029	1.066	1.155	1.421	1.508	1.542
600	0.963	1.409	1.369	1.454	1.558	1.894	2.015	2.040
550	1.385	1.938	1.932	2.060	2.152	2.741	2.893	2.925
500	1.969	2.851	2.949	3.229	3.358	4.259	4.337	4.384
450	3.015	4.607	5.050	5.489	5.711	6.856		6.713
400	4.906	7.779	8.735	9.277	9.714	10.521		9.955
350					14.285			
300								
250								
200								
NT	0.652	0.953	1.003	1.068	1.728	1.340	0.665	1.372
HEIGHT	SCALE HEIGHT, KM							
950	442.4	401.2	370.9	330.8	389.5	357.2	362.0	354.0
900	381.2	357.6	331.0	318.9	342.6	334.0	325.6	335.2
850	344.3	327.3	306.7	289.4	290.5	299.3	300.5	314.5
800	309.0	292.0	280.9	271.2	268.2	274.0	275.1	265.6
750	267.5	251.0	258.6	255.4	254.0	245.0	246.3	250.7
700	227.4	217.4	236.3	239.7	230.6	205.9	207.3	205.0
650	201.4	186.9	197.0	187.7	189.7	178.9	183.4	184.4
600	175.5	169.8	163.2	153.5	164.6	160.4	165.0	165.9
550	155.6	152.7	139.3	132.7	140.3	130.7	137.1	137.9
500	135.9	123.1	109.7	105.5	105.7	109.2	117.1	120.4
450	113.3	95.9	89.6	93.5	93.2	109.7		121.9
400	101.0	101.9	105.3	106.9	104.2	135.1		160.8
350					191.3			
300								
HS	1024.22	1024.57	1024.82	1024.98	1025.15	1025.50	1025.50	1025.85
LONG	-158.72	-157.78	-157.53	-157.40	-157.29	-157.05	-156.73	-156.63
LAT	30.56	23.78	21.70	20.58	19.63	17.56	14.52	13.56
DIPL	29.60	23.60	21.71	20.69	19.81	17.89	15.03	14.12
INVL	28.78	22.25	20.18	19.05	18.06	15.91	12.57	11.46
L	1.51	1.36	1.32	1.30	1.28	1.26	1.22	1.21
DIP	48.65	41.14	38.53	37.06	35.77	32.85	28.24	26.71
FHS	0.73	0.68	0.66	0.66	0.65	0.64	0.62	0.62
KP	0+	0+	0+	0+	0+	0+	0+	0+
QUAL	33	33	23	32	32	23	13	12
SNL	1	1	1	1	1	1	1	1

PASS 3408 AT SPOINT, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	431	449	507	525	600	618	636
LT	133824	133907	133949	134030	134150	134231	134312
HEIGHT							
SAT.	0.409	0.410	0.421	0.385	0.396	0.357	0.349
1000	0.436	0.447	0.451	0.429	0.424	0.390	0.386
950	0.499	0.509	0.509	0.483	0.469	0.438	0.430
900	0.573	0.578	0.573	0.547	0.541	0.502	0.499
850	0.662	0.663	0.659	0.639	0.637	0.588	0.595
800	0.782	0.779	0.783	0.761	0.750	0.702	0.707
750	0.941	0.936	0.934	0.922	0.900	0.852	0.838
700	1.165	1.161	1.156	1.160	1.138	1.068	1.063
650	1.513	1.524	1.502	1.509	1.486	1.379	1.394
600	1.997	2.031	1.990	1.982	1.963	1.864	1.874
550	2.823	2.849	2.832	2.788	2.773	2.599	2.583
500	4.168	4.185	4.141	4.075	4.027	3.719	3.624
450	6.380	6.325	6.077	5.944	5.692	5.222	4.951
400	9.425	9.063	8.392	7.749		6.601	5.945
350							
300							
250							
200							
NT	1.322	1.315	1.279	1.245	0.887	1.121	1.086
HEIGHT	SCALE HEIGHT, KM						
950	365.2	386.1	422.0	425.9	410.1	400.3	388.2
900	345.2	368.0	380.8	349.3	347.6	329.8	325.3
850	322.7	330.5	335.4	309.9	306.3	303.0	286.7
800	287.4	297.8	294.0	274.5	282.5	273.3	271.3
750	251.5	258.9	260.5	240.4	252.4	241.2	255.9
700	214.9	210.0	209.6	206.6	207.6	210.7	209.7
650	191.[illegible]	186.9	183.6	187.0	183.9	185.3	178.4
600	170.0	168.2	167.0	171.1	168.1	166.9	167.9
550	143.5	145.2	143.7	146.4	146.4	150.3	156.9
500	123.9	126.0	132.1	133.1	140.8	147.1	166.7
450	119.0	126.1	138.8	164.0	176.6	199.2	231.5
400	153.6	178.7	244.3	233.8		328.5	318.9
350							
300							
HS	1026.33	1026.81	1027.22	1027.52	1028.10	1028.43	1028.76
LONG	-156.53	-156.42	-156.32	-156.23	-156.04	-155.94	-155.85
LAT	12.55	11.54	10.53	9.51	7.54	6.53	5.52
DIPL	13.16	12.19	11.22	10.24	8.32	7.34	6.35
INVL	10.25	8.99	7.61	6.10	1.41	0.00	0.00
L	1.23	1.19	1.18	1.17	1.16	1.16	1.15
DIP	25.06	23.37	21.64	19.86	16.31	14.44	12.54
FHS	0.61	0.61	0.61	0.60	0.60	0.59	0.59
KP	0+	0+	0+	0+	0+	0+	0+
QUAL	22	32	32	32	32	32	32
SNL	1	1	1	1	1	1	1

PASS 5213 AT SPOINT, 631016

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	63332 200536	63424 200802	63459 200938	63517 201024	63534 201107	63859 201926	63917 202007	63957 202138
HEIGHT								
SAT.	0.114	0.113	0.123	0.114	0.115	0.256	0.215	0.223
1000	0.120	0.117	0.128	0.118	0.121	0.269	0.236	0.237
950	0.124	0.122	0.133	0.122	0.130	0.295	0.264	0.272
900	0.127	0.127	0.137	0.127	0.136	0.340	0.331	0.324
850	0.130	0.132	0.142	0.135	0.144	0.401	0.365	0.399
800	0.134	0.139	0.148	0.144	0.156	0.471	0.458	0.516
750	0.142	0.153	0.161	0.155	0.172	0.608	0.588	0.711
700	0.164	0.175	0.182	0.176	0.192	0.875	0.816	1.003
650	0.184	0.204	0.215	0.205	0.230	1.227	1.182	1.452
600	0.226	0.253	0.273	0.255	0.288	1.945	1.845	2.181
550	0.300	0.342	0.369	0.349	0.407	3.152	2.968	3.374
500	0.445	0.480	0.549	0.527	0.688	5.187	4.838	5.215
450	0.662	0.744	0.850	0.882	1.319	8.115		7.590
400	1.048	1.160	1.423	1.637	2.201			9.749
350	1.489	1.738	2.361	2.817	3.478			
300			3.630					
250								
200								
NT	0.226	0.248	0.441	0.309	0.393	0.935	0.566	1.402
HEIGHT	SCALE HEIGHT, KM							
950	2082.6	1205.0	1760.6	1338.5	945.0	434.7	410.5	318.0
900	1922.5	1219.8	1343.4	996.1	959.2	337.8	314.2	260.1
850	1619.9	982.6	1126.9	792.5	743.0	286.6	251.8	223.1
800	1317.3	760.3	910.4	687.5	568.1	249.9	211.0	175.5
750	863.1	585.1	654.1	568.1	478.2	202.1	180.3	150.8
700	371.9	422.3	381.0	423.3	388.2	145.3	150.7	144.9
650	336.7	297.7	252.1	293.1	285.3	128.5	122.2	135.1
600	209.3	213.5	191.4	195.7	193.6	110.2	112.5	120.6
550	157.7	159.8	152.4	143.1	125.7	103.0	104.9	115.7
500	124.0	133.4	122.4	109.0	85.7	105.6	104.6	124.0
450	116.9	114.5	106.9	89.9	83.7	129.2		171.9
400	128.5	114.8	99.3	86.9	103.6			256.4
350	202.5	137.0	109.3	104.6	125.2			
300			135.9					
HS	1018.85	1019.02	1019.19	1019.34	1019.48	1022.08	1022.44	1023.24
LONG	-156.98	-156.59	-156.34	-156.22	-156.11	-154.89	-154.79	-154.58
LAT	27.62	24.70	22.74	21.73	20.77	9.24	8.22	5.97
DIPL	27.25	24.64	22.87	21.95	21.07	10.17	9.19	6.99
INVL	26.25	23.41	21.47	20.46	19.50	6.10	4.28	0.00
L	1.44	1.38	1.34	1.32	1.31	1.17	1.17	1.15
DIP	45.83	42.54	40.15	38.86	37.62	19.74	17.93	13.78
FHS	0.71	0.69	0.68	0.67	0.66	0.60	0.60	0.59
KP	3+	3+	3+	3+	3+	3+	3+	3+
QUAL	32	33	33	23	23	23	33	33
SNL								

PASS 5234 AT SPOINT, 631017

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	184737 81959	184755 81958	184812 82037	184830 82120	184847 82200	184905 82243	184922 82324	184940 82408
HEIGHT								
SAT.	0.173	0.172	0.157	0.168	0.158	0.169	0.148	0.150
1000	0.176	0.175	0.162	0.172	0.162	0.173	0.154	0.154
950	0.197	0.193	0.186	0.189	0.179	0.188	0.175	0.176
900	0.218	0.216	0.208	0.210	0.200	0.207	0.194	0.195
850	0.244	0.242	0.234	0.234	0.224	0.235	0.216	0.220
800	0.276	0.274	0.266	0.267	0.254	0.263	0.248	0.251
750	0.317	0.315	0.307	0.310	0.294	0.307	0.289	0.290
700	0.370	0.372	0.358	0.364	0.350	0.366	0.341	0.340
650	0.445	0.450	0.438	0.443	0.419	0.442	0.414	0.411
600	0.572	0.570	0.556	0.564	0.536	0.562	0.529	0.522
550	0.791	0.800	0.754	0.756	0.721	0.817	0.703	0.690
500	1.172	1.181	1.118	1.130	1.041	1.176	1.018	0.965
450	2.052	1.996	1.932	1.903	1.659	1.809	1.596	1.496
400	3.903	3.748	3.531	3.369	2.957	3.095	2.768	2.528
350	6.618	6.329	6.021	5.880	5.354	5.384	4.980	4.583
300				7.999	7.725		7.498	7.248
250								
200								
NT	0.698	0.680	0.649	0.985	0.907	0.612	0.865	0.818
HEIGHT	SCALE HEIGHT, KM							
950	528.5	465.1	428.1	557.9	519.5	677.6	501.7	471.9
900	462.5	441.7	429.8	453.7	453.4	482.3	459.9	438.2
850	422.8	407.2	404.7	410.9	408.6	408.5	418.1	397.6
800	383.5	373.4	362.1	360.5	362.2	371.3	364.3	360.6
750	341.8	339.6	326.6	319.9	315.1	327.1	314.0	328.7
700	294.8	288.8	292.4	287.2	280.6	282.3	275.3	289.7
650	233.2	236.5	240.2	238.4	246.1	232.9	237.3	240.4
600	186.2	186.8	190.3	189.4	197.7	189.9	200.1	204.7
550	146.5	149.4	150.6	151.5	157.6	162.5	165.2	176.8
500	114.3	117.8	113.7	114.0	131.6	135.1	135.5	138.9
450	85.5	91.0	89.2	95.0	103.6	112.2	106.9	107.1
400	83.6	85.6	87.1	87.1	82.7	86.6	87.9	91.6
350	133.9	120.3	117.0	112.4	101.5	109.8	96.4	89.9
300				313.2	329.1		219.6	173.1
HS	1006.71	1006.47	1006.26	1006.05	1005.85	1005.67	1005.55	1005.43
LONG	-157.07	-156.98	-156.89	-156.79	-156.69	-156.59	-156.49	-156.38
LAT	8.23	9.25	10.21	11.22	12.19	13.20	14.16	15.18
DIPL	8.86	9.88	10.84	11.85	12.80	13.80	14.74	15.74
INVL	3.18	5.36	6.99	8.48	9.77	11.06	12.22	13.44
L	1.16	1.17	1.18	1.18	1.19	1.20	1.21	1.22
DIP	17.32	19.20	20.95	22.76	24.43	26.16	27.76	29.41
FHS	0.60	0.61	0.61	0.61	0.62	0.62	0.63	0.63
KP	10	10	10	10	10	10	10	10
QUAL	11	12	12	22	22	22	22	22
SNL	1	1	1	1	1	1	1	1

PASS 5234 AT SPOINT, 631017

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	184957	185015	185032	185050	185108	185126	185143	185201
LT	82450	82537	82622	82709	82755	82839	82920	83005
HEIGHT								
SAT.	0.130	0.139	0.130	0.134	0.125	0.124	0.118	0.114
1000	0.134	0.143	0.134	0.137	0.128	0.127	0.120	0.116
950	0.154	0.157	0.150	0.151	0.145	0.142	0.135	0.132
900	0.173	0.176	0.165	0.167	0.161	0.158	0.149	0.147
850	0.197	0.199	0.187	0.186	0.182	0.179	0.167	0.162
800	0.227	0.226	0.217	0.214	0.209	0.205	0.192	0.187
750	0.264	0.264	0.251	0.253	0.242	0.239	0.226	0.225
700	0.311	0.313	0.288	0.300	0.286	0.282	0.269	0.264
650	0.377	0.378	0.354	0.355	0.344	0.339	0.320	0.312
600	0.469	0.475	0.443	0.421	0.431	0.422	0.395	0.397
550	0.618	0.626	0.571	0.572	0.554	0.544	0.522	0.512
500	0.851	0.870	0.798	0.799	0.776	0.759	0.699	0.684
450	1.325	1.258	1.194	1.133	1.095	1.081	1.004	0.940
400	2.213	2.060	1.893	1.866	1.729	1.665	1.531	1.410
350	3.962	3.656	3.365	3.140	2.869	2.715	2.465	2.238
300	6.788	6.475	5.923	5.504	4.999	4.696	4.169	3.902
250								6.462
200								
NT	0.730	0.698	0.642	0.619	0.579	0.557	0.511	0.740
HEIGHT	SCALE HEIGHT, KM							
950	433.1	498.2	533.0	528.6	493.8	484.4	502.2	450.1
900	400.1	425.6	463.1	463.9	435.1	433.9	450.1	488.6
850	371.1	382.4	381.6	404.9	380.6	388.1	397.5	415.0
800	341.8	349.4	331.5	351.8	351.5	348.6	351.9	357.0
750	312.4	321.0	315.8	301.5	324.2	318.4	315.6	307.7
700	282.8	291.4	301.0	279.3	289.9	286.2	282.6	281.4
650	248.8	244.0	253.3	259.6	250.8	251.9	252.6	255.4
600	210.2	203.5	209.2	238.0	214.1	216.5	222.4	225.9
550	175.5	174.6	177.6	178.6	178.3	180.5	191.7	196.5
500	140.5	148.1	147.2	143.1	155.3	155.9	161.0	172.5
450	106.0	123.3	118.8	125.7	134.3	135.2	136.4	142.5
400	95.0	97.7	103.8	103.2	111.4	115.6	116.7	116.1
350	85.8	86.8	86.4	93.3	94.3	97.3	102.3	102.4
300	149.2	123.2	103.3	109.7	96.7	97.9	95.8	91.3
HS	1005.32	1005.22	1005.14	1005.05	1004.99	1004.96	1004.93	1004.90
LONG	-156.28	-156.16	-156.04	-155.92	-155.80	-155.69	-155.59	-155.48
LAT	16.14	17.16	18.12	19.13	20.15	21.16	22.12	23.14
DIPL	16.67	17.66	18.59	19.57	20.55	21.51	22.42	23.38
INVL	14.53	15.67	16.73	17.82	18.92	19.99	20.99	22.05
L	1.24	1.25	1.26	1.28	1.29	1.31	1.33	1.35
DIP	30.92	32.49	33.93	35.42	36.86	38.25	39.53	40.85
FHS	0.64	0.64	0.65	0.66	0.66	0.67	0.68	0.66
KP	10	10	10	10	10	10	10	10
QUAL	22	22	23	12	23	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 5234 AT SPOINT, 631017

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	185218 83052	185236 83141	185253 83228	185311 83320	185346 83502	185438 83741	185456 83837	185514 83937
HEIGHT								
SAT.	0.098	0.109	0.115	0.111	0.110	0.101	0.104	0.108
1000	0.101	0.113	0.119	0.114	0.114	0.103	0.108	0.111
950	0.122	0.132	0.138	0.133	0.131	0.121	0.127	0.129
900	0.139	0.148	0.154	0.149	0.146	0.135	0.141	0.143
850	0.157	0.168	0.173	0.167	0.165	0.151	0.159	0.161
800	0.178	0.193	0.198	0.192	0.186	0.175	0.181	0.182
750	0.206	0.224	0.230	0.223	0.217	0.207	0.210	0.210
700	0.244	0.264	0.270	0.261	0.255	0.243	0.247	0.247
650	0.295	0.312	0.319	0.305	0.307	0.285	0.292	0.295
600	0.356	0.384	0.397	0.381	0.371	0.360	0.365	0.355
550	0.459	0.486	0.497	0.484	0.480	0.463	0.461	0.445
500	0.612	0.649	0.677	0.642	0.635	0.614	0.603	0.595
450	0.865	0.917	0.939	0.882	0.872	0.824	0.819	0.814
400	1.267	1.349	1.361	1.279	1.232	1.083	1.163	1.153
350	2.030	2.122	2.083	1.952	1.913	1.689	1.741	1.748
300	3.561	3.662	3.566	3.353	3.279	2.766	2.826	2.896
250	6.118	6.209	6.075	6.234	5.492	4.709	4.836	4.900
200								
NT	0.680	0.708	0.705	0.679	0.650	0.576	0.590	0.594
HEIGHT	SCALE HEIGHT, KM							
950	328.7	442.5	434.6	414.3	485.4	439.2	411.5	498.2
900	400.6	411.4	429.0	444.6	429.0	430.8	431.7	450.5
850	386.2	373.2	392.7	394.8	388.3	380.8	398.9	403.7
800	363.0	347.2	359.5	353.8	364.7	343.2	363.5	372.4
750	326.8	323.9	326.8	320.9	327.8	308.7	328.7	337.1
700	275.7	298.2	295.7	298.7	285.6	284.9	295.0	298.2
650	253.5	272.2	264.5	276.5	259.7	261.1	257.5	268.9
600	231.3	235.6	231.0	233.4	233.7	230.3	234.9	242.3
550	200.8	195.1	197.4	195.5	206.1	198.8	212.4	213.7
500	166.3	157.4	174.2	174.3	177.8	179.2	181.7	181.9
450	142.8	142.7	153.9	149.9	153.7	166.5	153.1	154.1
400	121.4	125.1	131.9	125.8	131.0	153.8	133.3	131.8
350	100.7	103.8	108.3	109.7	107.7	119.3	118.8	115.3
300	91.1	92.7	94.1	88.9	94.0	98.0	97.5	92.9
HS	1004.90	1004.90	1004.90	1004.94	1005.05	1005.23	1005.29	1005.35
LONG	-155.36	-155.23	-155.10	-154.96	-154.68	-154.23	-154.08	-153.90
LAT	24.09	25.11	26.07	27.08	29.05	31.97	32.99	34.00
DIPL	24.29	25.24	26.14	27.10	28.94	31.68	32.62	33.57
INVL	23.05	24.07	25.05	26.10	28.08	31.03	32.05	33.07
L	1.37	1.39	1.41	1.44	1.49	1.58	1.61	1.65
DIP	42.07	43.32	44.47	45.66	47.88	50.98	52.01	53.01
FHS	0.69	0.70	0.71	0.72	0.73	0.76	0.77	0.78
KP	10	10	10	10	10	10	10	10
QUAL	23	32	22	31	32	23	21	22
SNL	1	1	1	1	1	1	1	1

PASS 5234 AT SPOINT, 631017

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	185531 84034	185549 84135	185606 84234
HEIGHT			
SAT.	0.114	0.117	0.103
1000	0.118	0.120	0.108
950	0.141	0.137	0.133
900	0.158	0.152	0.150
850	0.174	0.166	0.168
800	0.193	0.183	0.189
750	0.226	0.211	0.215
700	0.260	0.256	0.248
650	0.317	0.304	0.293
600	0.381	0.357	0.333
550	0.455	0.457	0.436
500	0.609	0.619	0.580
450	0.904	0.832	0.773
400	1.293	1.113	1.067
350	1.776	1.698	1.605
300	2.893	2.766	2.594
250	5.162		4.522
200			
NT	0.620	0.396	0.556
HEIGHT	SCALE HEIGHT, KM		
950	367.1	443.7	373.3
900	488.9	543.0	431.3
850	472.1	493.2	430.9
800	422.2	424.2	398.5
750	371.1	359.0	361.7
700	306.7	296.1	324.7
650	257.0	268.4	288.0
600	237.9	246.3	251.8
550	218.8	219.0	218.2
500	192.5	189.2	193.7
450	159.0	165.8	168.3
400	139.2	146.2	137.8
350	131.3	119.8	120.2
300	93.3	98.0	98.1
HS	1005.40	1005.46	1005.54
LONG	-153.74	-153.56	-153.38
LAT	34.95	35.96	36.92
DIPL	34.47	35.43	36.33
INVL	34.03	35.05	36.01
L	1.69	1.73	1.77
DIP	53.94	54.90	55.79
FHS	0.79	0.80	0.81
KP	10	10	10
QUAL	22	23	23
SNL	1	1	1

PASS 5403 AT SPOINT, 631030

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	44213 181248	44231 181342	44306 181526	44324 181617	44341 181706	44417 181845	44434 181931	44452 182019
HEIGHT								
SAT.	0.183	0.182	0.160	0.159	0.163	0.166	0.170	0.175
1000	0.193	0.192	0.168	0.167	0.172	0.176	0.182	0.184
950	0.207	0.202	0.178	0.177	0.183	0.186	0.195	0.197
900	0.222	0.214	0.190	0.190	0.195	0.199	0.208	0.210
850	0.237	0.228	0.206	0.208	0.212	0.217	0.224	0.226
800	0.252	0.247	0.227	0.229	0.235	0.239	0.248	0.249
750	0.274	0.277	0.255	0.257	0.265	0.268	0.280	0.279
700	0.316	0.320	0.294	0.302	0.307	0.311	0.320	0.320
650	0.382	0.384	0.357	0.361	0.372	0.374	0.370	0.388
600	0.480	0.484	0.447	0.460	0.471	0.468	0.476	0.497
550	0.643	0.639	0.592	0.611	0.623	0.626	0.645	0.672
500	0.861	0.867	0.825	0.847	0.865	0.879	0.904	0.941
450	1.156	1.190	1.143	1.184	1.214	1.238	1.291	1.373
400	1.587	1.604	1.570	1.634	1.738	1.753	1.866	2.073
350		2.122	2.167	2.223	2.418	2.590	2.787	3.217
300		2.701	2.804	2.894	3.182	3.739		
250								
200								
NT	0.296	0.511	0.497	0.511	0.539	0.565	0.426	0.456
HEIGHT	SCALE HEIGHT, KM							
950	719.0	918.5	810.8	760.5	772.7	779.9	753.4	758.9
900	746.4	835.1	692.0	640.5	666.9	674.4	690.0	707.4
850	776.3	690.8	579.5	529.6	549.1	547.3	584.0	594.3
800	683.0	528.7	475.6	455.1	465.2	471.0	483.4	502.5
750	516.4	427.5	384.7	383.2	384.6	395.2	396.8	411.6
700	353.7	327.0	306.1	322.3	310.5	321.3	344.0	322.6
650	236.1	245.2	256.1	261.5	251.3	256.2	288.2	243.1
600	196.6	201.4	206.4	206.1	201.6	202.1	183.8	186.1
550	180.1	174.3	167.7	169.4	165.6	161.6	156.1	160.2
500	172.6	165.1	153.6	154.3	156.1	147.0	145.0	142.3
450	165.1	159.7	154.6	152.4	141.5	144.1	139.2	128.6
400	159.9	173.7	157.3	159.1	151.1	137.9	132.1	119.3
350		189.3	173.9	173.3	170.2	131.1	119.5	109.2
300		333.9	251.0	252.7	237.4	158.3		
HS	1029.02	1029.05	1029.11	1029.14	1029.17	1029.31	1029.43	1029.55
LONG	-157.35	-157.20	-156.91	-156.78	-156.65	-156.38	-156.26	-156.14
LAT	31.23	30.22	28.26	27.26	26.30	24.29	23.34	22.33
DIPL	30.45	29.56	27.84	26.95	26.10	24.29	23.43	22.52
INVL	29.71	28.75	26.89	25.92	24.98	23.04	22.09	21.08
L	1.54	1.51	1.46	1.44	1.41	1.37	1.35	1.33
DIP	49.62	48.61	46.57	45.47	44.41	42.07	40.92	39.66
FHS	0.74	0.73	0.72	0.71	0.70	0.68	0.68	0.67
KP	5-	5-	5-	5-	5-	5-	5-	5-
QUAL	23	22	22	22	22	22	13	13
SNL	1	1	1	1	1	1	1	1

PASS 5403 AT SPOINT, 631030

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	44545	44603	44638
LT	182236	182321	182447
HEIGHT			
SAT.	0.191	0.193	0.215
1000	0.207	0.208	0.232
950	0.223	0.223	0.253
900	0.239	0.240	0.277
850	0.260	0.263	0.307
800	0.283	0.293	0.344
750	0.328	0.335	0.406
700	0.386	0.390	0.489
650	0.471	0.496	0.618
600	0.607	0.666	0.819
550	0.853	0.924	1.175
500	1.233	1.293	1.699
450	1.873		2.432
400	2.784		3.537
350	4.305		5.636
300			9.786
250			
200			
NT	0.590	0.229	1.150

HEIGHT	SCALE HEIGHT, KM		
950	666.3	672.8	557.2
900	633.3	598.9	510.2
850	545.1	506.9	440.9
800	457.1	418.5	368.2
750	377.8	352.4	313.0
700	298.5	286.2	259.6
650	235.2	201.7	208.9
600	180.5	167.6	162.0
550	142.6	153.9	135.8
500	128.8	148.6	140.4
450	127.4		137.6
400	122.5		122.5
350	99.1		100.9
300			80.9

HS	1029.90	1030.02	1030.32
LONG	-155.79	-155.67	-155.46
LAT	19.36	18.35	16.39
DIPL	19.79	18.86	17.02
INVL	18.07	17.04	14.95
L	1.29	1.27	1.24
DIP	35.74	34.33	31.47
FHS	0.65	0.64	0.63
KP	5-	5-	5-
QUAL	13	33	13
SNL	1	1	1

PASS 5444 AT SPOINT, 6311 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	45417 180347	45435 180429	45453 180512	45510 180551	45528 180632	45546 180713	45603 180752	45621 180833
HEIGHT								
SAT.	0.200	0.227	0.249	0.257	0.272	0.280	0.292	0.292
1000	0.220	0.246	0.265	0.284	0.293	0.302	0.315	0.316
950	0.247	0.275	0.293	0.313	0.319	0.330	0.341	0.342
900	0.279	0.311	0.324	0.345	0.349	0.360	0.370	0.371
850	0.315	0.347	0.357	0.380	0.386	0.397	0.406	0.410
800	0.354	0.388	0.398	0.423	0.435	0.440	0.462	0.473
750	0.403	0.437	0.445	0.474	0.501	0.509	0.541	0.559
700	0.466	0.503	0.525	0.533	0.595	0.610	0.668	0.695
650	0.559	0.610	0.637	0.683	0.761	0.803	0.868	0.939
600	0.676	0.798	0.846	0.909	1.031	1.088	1.216	1.354
550	0.953	1.138	1.204	1.328	1.529	1.629	1.814	1.958
500	1.467	1.813	2.002	2.186	2.355	2.503	2.870	3.104
450	2.292	3.076	3.240	3.573	3.903	4.135	4.680	4.876
400	4.067	4.813	5.174	5.620	6.053	6.367	6.898	7.379
350	6.364	7.048	7.673	8.130	8.538	9.457		10.868
300	9.188	10.298	11.246	11.473				
250								
200								
NT	1.154	1.341	1.444	1.539	1.132	1.203	0.892	1.403
HEIGHT	SCALE HEIGHT, KM							
950	414.4	441.8	513.7	503.3	553.2	570.3	623.4	614.5
900	411.7	436.8	492.1	494.9	506.9	529.2	556.4	538.5
850	408.5	436.0	466.1	460.4	454.5	471.4	449.6	418.7
800	395.6	411.7	422.0	420.7	394.7	413.0	369.5	357.1
750	353.9	370.7	377.8	381.0	329.6	329.6	297.0	295.6
700	310.1	317.5	302.7	339.1	256.1	232.1	236.0	212.0
650	262.4	240.8	225.4	217.7	202.1	189.6	185.7	157.0
600	214.7	176.9	176.3	156.8	158.4	150.9	150.3	135.0
550	163.3	128.7	111.6	125.3	131.2	131.7	128.5	125.8
500	120.4	109.9	104.0	104.7	110.7	111.7	106.8	109.3
450	96.1	101.2	105.4	105.9	106.6	107.5	116.0	116.7
400	100.3	123.2	118.2	124.5	131.4	122.8	127.2	123.1
350	124.6	131.7	127.4	136.1	146.3	133.5		164.1
300	147.0	171.7	144.8	222.9				
HS	1031.60	1031.81	1032.02	1032.23	1032.47	1032.71	1032.94	1033.21
LONG	-162.62	-162.52	-162.42	-162.33	-162.23	-162.13	-162.04	-161.95
LAT	12.57	11.55	10.54	9.59	8.58	7.57	6.61	5.60
DIPL	12.19	11.23	10.26	9.34	8.36	7.38	6.44	5.46
INVL	8.68	7.25	5.63	3.73	0.00	0.00	0.00	0.00
L	1.19	1.18	1.17	1.17	1.16	1.16	1.15	1.15
DIP	23.37	21.65	19.90	18.20	16.37	14.51	12.73	10.81
FHS	0.61	0.60	0.60	0.60	0.60	0.59	0.59	0.59
KP	2+	2+	2+	2+	2+	2+	2+	2+
QUAL	13	32	23	12	33	23	33	13
SNL	1	1	1	1	1	1	1	1

PASS 5444 AT SPOINT, 6311 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	45656	45714	45749	45807	45815
LT	180953	181033	181152	181232	181250
HEIGHT					
SAT.	0.304	0.304	0.304	0.307	0.315
1000	0.328	0.325	0.331	0.334	0.339
950	0.354	0.351	0.362	0.371	0.370
900	0.386	0.383	0.400	0.415	0.411
850	0.435	0.424	0.457	0.482	0.511
800	0.508	0.511	0.545	0.590	0.667
750	0.620	0.638	0.676	0.735	0.832
700	0.780	0.813	0.875	0.963	1.010
650	1.037	1.084	1.207	1.274	1.247
600	1.471	1.570	1.784	1.866	1.955
550	2.197	2.455	2.694	2.807	2.938
500	3.633	3.879	4.187	4.385	4.588
450		5.929	6.555	6.825	7.211
400		8.930	10.134	10.058	10.660
350					
300					
250					
200					
NT	0.488	1.133	1.249	1.295	1.362
HEIGHT	SCALE HEIGHT, KM				
950	584.6	575.0	528.2	464.5	489.9
900	491.6	488.1	430.8	374.6	354.9
850	400.5	401.2	341.9	308.9	292.2
800	310.6	287.7	267.9	265.5	234.5
750	249.0	217.2	216.3	222.2	216.3
700	203.3	194.5	175.6	190.5	204.8
650	165.2	163.3	144.3	159.8	188.1
600	137.4	125.9	133.3	136.2	130.9
550	116.6	111.7	120.9	119.8	119.2
500	104.0	114.5	112.5	111.9	108.6
450		121.4	114.9	119.6	118.0
400		127.8	146.7	148.7	482.7
350					
300					
HS	1033.74	1034.01	1034.53	1034.82	1034.95
LONG	-161.76	-161.67	-161.49	-161.39	-161.35
LAT	3.63	2.62	0.66	-0.35	-0.80
DIPL	3.52	2.52	0.57	-0.43	-0.88
INVL	0.00	0.00	0.00	0.00	0.00
L	1.14	1.14	1.14	1.14	1.14
DIP	7.02	5.04	1.14	-0.87	-1.76
FHS	0.59	0.59	0.59	0.60	0.60
KP	2+	2+	2+	2+	2+
QUAL	13	23	22	13	11
SNL	1	1	1	1	1

PASS 5484 AT SPOINT, 6311 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	31047 172907	31158 173225	31215 173310	31454 173948	31530 174113
HEIGHT					
SAT.	0.061	0.064	0.067	0.118	0.135
1000	0.069	0.074	0.074	0.126	0.150
950	0.065	0.081	0.080	0.135	0.163
900	0.070	0.085	0.085	0.144	0.176
850	0.075	0.089	0.089	0.154	0.190
800	0.082	0.096	0.095	0.169	0.209
750	0.090	0.105	0.103	0.190	0.235
700	0.100	0.115	0.111	0.216	0.268
650	0.111	0.129	0.123	0.250	0.310
600	0.126	0.149	0.141	0.292	0.376
550	0.151	0.178	0.167	0.394	0.491
500	0.188	0.220	0.209	0.555	0.710
450	0.253	0.294	0.282	0.802	1.166
400	0.363	0.414	0.412	1.125	2.056
350	0.534	0.589	0.626	2.021	4.280
300	0.865	0.874	1.017	3.967	8.346
250	1.228	1.367	1.601	8.949	
200					
NT	0.163	0.207	0.219	0.748	0.744
HEIGHT	SCALE HEIGHT, KM				
950	662.0	838.2	730.4	760.5	632.1
900	682.3	1130.2	1003.6	694.6	612.9
850	617.8	847.9	843.8	598.7	564.2
800	539.0	597.9	751.3	526.7	496.3
750	489.5	546.9	654.9	457.7	389.7
700	453.0	495.9	549.4	388.8	352.5
650	416.5	403.3	446.1	321.1	315.3
600	369.1	317.5	334.5	253.3	230.6
550	285.0	256.9	253.5	191.1	170.1
500	207.7	213.3	208.3	142.5	121.4
450	155.0	171.6	144.5	132.5	90.3
400	134.4	143.2	127.8	122.5	82.4
350	126.9	137.0	112.1	81.4	70.9
300	122.7	123.7	94.3	70.5	76.4
HS	1031.68	1031.89	1031.97	1033.05	1033.35
LONG	-145.41	-144.88	-144.77	-143.77	-143.57
LAT	27.71	23.73	22.78	13.87	11.84
DIPL	29.24	25.56	24.68	16.24	14.30
INVL	28.48	24.59	23.65	14.52	12.31
L	1.50	1.41	1.38	1.24	1.22
DIP	48.23	43.73	42.59	30.23	27.01
FHS	0.74	0.70	0.70	0.63	0.62
KP	0+	0+	0+	0+	0+
QUAL	22	23	32	33	23
SNL	1	1	1	1	1

PASS 5484 AT SPOINT, 6311 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	31547	31605	31623
LT	174153	174235	174316
HEIGHT			
SAT.	0.139	0.145	0.143
1000	0.153	0.160	0.162
950	0.166	0.175	0.179
900	0.180	0.192	0.199
850	0.198	0.213	0.221
800	0.221	0.238	0.249
750	0.251	0.271	0.288
700	0.288	0.314	0.340
650	0.345	0.379	0.420
600	0.417	0.486	0.545
550	0.576	0.684	0.789
500	0.869	1.121	1.338
450	1.531	2.015	2.627
400	3.034	4.216	5.113
350		7.329	
300			
250			
200			
NT	0.332	0.703	0.492
HEIGHT	SCALE HEIGHT, KM		
950	597.0	528.6	480.5
900	552.2	497.7	467.6
850	485.6	459.3	439.3
800	426.6	417.3	381.0
750	377.3	367.1	327.1
700	327.5	312.9	273.7
650	273.3	240.9	219.6
600	219.2	180.1	170.7
550	161.0	131.3	125.5
500	111.3	94.4	88.5
450	83.0	79.4	73.7
400	69.6	78.0	90.6
350		106.5	
300			
HS	1033.49	1033.66	1033.87
LONG	-143.47	-143.37	-143.28
LAT	10.89	9.88	8.87
DIPL	13.38	12.40	11.42
INVL	11.24	10.04	8.83
L	1.21	1.20	1.19
DIP	25.44	23.74	22.00
FHS	0.61	0.61	0.60
KP	0+	0+	0+
QUAL	23	23	33
SNL	1	1	1

PASS 5525 AT SPOINT, 6311 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	31937 171141	32030 171354	32047 171435	32105 171519	32123 171602	32141 171645	32216 171808
HEIGHT							
SAT.	0.068	0.160	0.122	0.131	0.194	0.198	0.216
1000	0.076	0.173	0.134	0.143	0.206	0.216	0.238
950	0.086	0.192	0.148	0.159	0.226	0.236	0.265
900	0.097	0.213	0.165	0.176	0.248	0.260	0.300
850	0.110	0.237	0.185	0.197	0.275	0.290	0.340
800	0.127	0.265	0.212	0.225	0.310	0.340	0.397
750	0.149	0.300	0.245	0.261	0.354	0.404	0.477
700	0.178	0.348	0.293	0.314	0.424	0.494	0.597
650	0.214	0.413	0.353	0.384	0.539	0.607	0.852
600	0.270	0.524	0.459	0.508	0.747	0.901	1.344
550	0.344	0.717	0.654	0.753	1.115	1.458	2.233
500	0.500	1.087	1.036	1.282	1.925	2.507	4.581
450	0.757	1.865	1.952	2.432	3.783	5.310	8.532
400	1.271	3.246	3.870	5.151			
350		6.434					
300							
250							
200							
NT	0.175	0.636	0.385	0.467	0.408	0.513	0.789
HEIGHT	SCALE HEIGHT, KM						
950	419.0	485.8	474.1	472.5	537.2	530.2	428.6
900	394.6	473.6	437.0	443.5	496.6	458.8	393.1
850	370.6	453.3	399.4	406.5	450.2	390.4	362.5
800	338.1	417.1	358.2	358.3	394.3	336.2	303.5
750	305.6	370.8	317.0	310.8	335.0	282.0	245.4
700	274.4	318.5	276.2	267.5	260.4	236.3	189.6
650	243.0	263.2	235.5	222.4	192.2	191.5	137.4
600	209.6	183.4	187.0	155.2	140.1	122.2	106.7
550	176.3	145.7	129.5	120.0	112.6	101.6	88.8
500	143.5	107.1	96.4	94.3	88.6	81.8	72.2
450	113.8	98.3	80.1	76.4	68.1	66.8	100.0
400	89.4	83.8	67.9	61.4			
350		68.1					
300							
HS	1033.82	1034.05	1034.13	1034.23	1034.35	1034.47	1034.71
LONG	-151.98	-151.65	-151.55	-151.44	-151.34	-151.23	-151.03
LAT	19.78	16.84	15.98	15.03	14.02	13.01	11.05
DIPL	20.77	18.02	17.20	16.31	15.35	14.39	12.51
INVL	19.27	16.23	15.30	14.29	13.19	12.03	9.71
L	1.30	1.26	1.25	1.24	1.23	1.22	1.20
DIP	37.18	33.05	31.77	30.34	28.77	27.16	23.92
FHS	0.66	0.64	0.63	0.63	0.62	0.62	0.61
KP	5+	5+	5+	5+	5+	5+	5+
QUAL	23	23	33	23	33	23	23
SNL	1	1	1	1	1	1	1

PASS 5525 AT SPOINT, 6311 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	32251
LT	171929
HEIGHT	
SAT.	0.253
1000	0.274
950	0.306
900	0.348
850	0.400
800	0.478
750	0.610
700	0.825
650	1.241
600	2.127
550	3.665
500	6.068
450	
400	
350	
300	
250	
200	
NT	0.660

HEIGHT	SCALE HEIGHT, KM
1000	484.6
950	413.9
900	362.6
850	318.2
800	262.4
750	190.4
700	151.3
650	119.7
600	96.3
550	94.7
500	117.7
450	
400	
350	
300	

HS	1034.94
LONG	-150.84
LAT	9.09
DIPL	10.61
INVL	7.12
L	1.18
DIP	20.53
FHS	0.60
KP	5+
QUAL	13
SNL	1

PASS 5593 AT SPOINT, 631113

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	25125 162054	25133 162151	25155 162301	25213 162355	25231 162448	25249 162541	25324 162721	25434 163032
HEIGHT								
SAT.	0.083	0.093	0.090	0.087	0.093	0.090	0.090	0.114
1000	0.089	0.102	0.098	0.099	0.100	0.094	0.104	0.122
950	0.094	0.108	0.103	0.104	0.106	0.098	0.111	0.130
900	0.101	0.113	0.111	0.111	0.112	0.103	0.116	0.138
850	0.110	0.123	0.119	0.118	0.122	0.111	0.124	0.148
800	0.121	0.135	0.131	0.131	0.133	0.122	0.136	0.161
750	0.135	0.148	0.143	0.145	0.146	0.134	0.148	0.175
700	0.152	0.168	0.161	0.160	0.164	0.147	0.162	0.197
650	0.176	0.193	0.185	0.183	0.188	0.172	0.184	0.227
600	0.210	0.226	0.218	0.214	0.219	0.205	0.217	0.274
550	0.263	0.277	0.264	0.268	0.270	0.252	0.263	0.357
500	0.348	0.359	0.343	0.351	0.350	0.331	0.343	0.489
450	0.471	0.483	0.464	0.477	0.479	0.458	0.471	0.700
400	0.685	0.660	0.641	0.669	0.663	0.649	0.687	1.003
350	0.986	0.948	0.923	0.958	0.964	0.901	1.010	1.654
300	1.681	1.570	1.486	1.607	1.577	1.397	1.755	3.054
250	3.070	2.957	2.729	2.988	2.953	2.898	3.828	6.712
200								
NT	0.356	0.352	0.335	0.352	0.351	0.329	0.385	0.606
HEIGHT	SCALE HEIGHT, KM							
950	762.7	1154.1	1110.1	908.3	847.3	1106.2	1224.3	835.4
900	646.1	843.8	720.9	739.7	718.1	880.4	946.2	772.5
850	541.1	588.1	593.7	645.0	591.7	638.3	745.0	660.0
800	490.8	506.6	529.0	540.7	538.3	513.0	596.0	573.3
750	445.5	459.9	494.6	472.7	477.3	472.0	540.6	496.1
700	394.1	397.3	375.7	425.7	413.7	423.7	464.0	410.0
650	328.3	340.3	335.2	356.4	352.9	344.6	351.6	319.5
600	263.0	284.1	290.9	283.7	293.2	270.7	293.6	229.1
550	202.6	223.5	236.3	221.1	230.6	218.9	235.0	180.4
500	171.0	181.1	176.5	179.5	180.8	181.2	173.6	142.3
450	144.5	166.2	160.2	153.9	156.7	151.9	139.9	130.8
400	133.7	151.6	145.1	136.9	141.1	141.6	127.3	124.6
350	122.9	122.2	126.2	123.9	122.8	132.3	117.5	98.0
300	94.1	80.8	91.6	95.7	95.4	104.4	83.4	72.5
HS	1036.15	1036.09	1036.02	1035.98	1035.95	1035.92	1035.86	1035.80
LONG	-157.58	-157.42	-157.22	-157.07	-156.93	-156.78	-156.51	-156.01
LAT	33.61	32.61	31.38	30.37	29.37	28.36	26.41	22.50
DIPL	32.55	31.67	30.60	29.72	28.84	27.95	26.22	22.69
INVL	31.98	31.04	29.88	28.92	27.96	27.01	25.11	21.29
L	1.62	1.58	1.55	1.52	1.49	1.46	1.42	1.34
DIP	51.93	50.98	49.79	48.79	47.76	46.70	44.56	39.91
FHS	0.76	0.75	0.74	0.73	0.72	0.71	0.70	0.67
KP	10	10	10	10	10	10	10	10
QUAL	33	22	12	23	23	23	23	33
SNL	1	1	1	1	1	1	1	1

PASS 5593 AT SPOINT, 631113

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	25510	25527
LT	163206	163248
HEIGHT		
SAT.	0.118	0.135
1000	0.126	0.144
950	0.134	0.153
900	0.143	0.163
850	0.152	0.176
800	0.164	0.193
750	0.185	0.214
700	0.208	0.242
650	0.242	0.285
600	0.299	0.356
550	0.388	0.479
500	0.510	0.736
450	0.865	1.159
400	1.418	2.095
350	2.467	4.084
300	5.577	9.527
250	13.631	
200		
NT	0.982	0.758
HEIGHT	SCALE HEIGHT, KM	
950	822.0	793.0
900	834.1	716.1
850	700.6	558.5
800	571.5	505.2
750	447.6	451.9
700	371.9	375.5
650	286.5	266.2
600	216.6	206.4
550	183.6	143.0
500	150.6	118.4
450	121.0	103.6
400	97.9	84.2
350	77.3	66.7
300	59.3	57.6
HS	1035.77	1035.71
LONG	-155.77	-155.66
LAT	20.49	19.54
DIPL	20.85	19.98
INVL	19.27	18.28
L	1.30	1.29
DIP	37.30	36.02
FHS	0.66	0.65
KP	10	10
QUAL	13	13
SNL	1	1

PASS 5606 AT SPOINT, 631114

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	14421 161841	14710 162538	14736 162613	14754 162659	14811 162740	14829 162824	14904 162947	14940 163112
HEIGHT								
SAT.	0.090	0.147	0.130	0.134	0.140	0.156	0.133	0.161
1000	0.101	0.156	0.141	0.142	0.152	0.165	0.148	0.172
950	0.108	0.165	0.151	0.149	0.161	0.172	0.155	0.181
900	0.117	0.175	0.160	0.158	0.171	0.181	0.164	0.192
850	0.127	0.187	0.169	0.167	0.182	0.192	0.175	0.205
800	0.139	0.202	0.184	0.178	0.196	0.206	0.189	0.222
750	0.155	0.222	0.206	0.198	0.213	0.223	0.207	0.242
700	0.176	0.248	0.230	0.222	0.236	0.249	0.231	0.272
650	0.204	0.281	0.257	0.249	0.268	0.284	0.262	0.315
600	0.243	0.343	0.298	0.284	0.315	0.343	0.316	0.381
550	0.305	0.435	0.379	0.359	0.389	0.443	0.405	0.501
500	0.409	0.554	0.506	0.481	0.530	0.603	0.564	0.710
450	0.573	0.745	0.729	0.702	0.746	0.867	0.812	1.072
400	0.838	1.062	1.044	1.050	1.069	1.260	1.229	1.724
350	1.297	1.592	1.619	1.647	1.748	1.956	2.042	3.488
300	2.271		2.871	3.024	3.293	3.878	4.673	8.014
250	4.274		5.854	6.824	8.042	9.916	11.578	
200								
NT	0.457	0.275	0.590	0.618	0.681	0.795	0.864	0.680
HEIGHT	SCALE HEIGHT, KM							
950	684.4	867.9	779.1	922.5	871.2	1061.3	979.6	909.7
900	624.4	788.1	894.1	852.1	828.3	911.0	841.4	784.2
850	554.6	683.4	726.2	755.1	706.3	758.7	712.3	675.9
800	496.0	584.1	590.1	652.0	624.3	658.1	599.9	588.6
750	437.6	499.7	471.6	503.8	546.9	557.0	501.6	508.0
700	379.7	411.9	419.0	420.0	462.9	447.3	427.0	404.2
650	318.0	323.1	375.4	374.3	372.9	336.4	350.0	310.5
600	253.8	277.2	299.5	315.1	286.6	234.0	251.7	231.0
550	203.7	242.4	191.0	196.2	204.5	180.6	179.8	174.4
500	166.9	207.7	152.0	153.1	160.7	147.9	149.6	126.3
450	141.3	161.2	143.3	135.5	146.2	140.2	136.9	115.1
400	123.4	135.6	134.5	125.2	120.4	128.8	107.8	94.2
350	105.4	110.7	109.5	103.8	97.9	101.5	85.7	61.3
300	84.5		76.0	67.4	65.2	61.5	52.7	59.9
HS	1037.26	1036.58	1036.54	1036.51	1036.50	1036.50	1036.49	1036.43
LONG	-141.42	-140.51	-140.34	-140.23	-140.13	-140.02	-139.82	-139.61
LAT	31.44	19.83	18.37	17.37	16.41	15.40	13.44	11.42
DIPL	33.46	22.45	21.07	20.11	19.19	18.23	16.34	14.39
INVL	32.93	21.43	19.92	18.91	17.93	16.87	14.81	12.64
L	1.65	1.34	1.32	1.30	1.28	1.27	1.24	1.22
DIP	52.89	39.58	37.61	36.21	34.85	33.37	30.38	27.17
FHS	0.78	0.68	0.67	0.66	0.65	0.65	0.63	0.62
KP	1+	1+	1+	1+	1+	1+	1+	1+
QUAL	13	13	13	13	13	13	13	13
SNL	1	1	1	1	1	1	1	1

PASS 5606 AT SPOINT, 631114

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	15015 163234	15033 163315	15108 163435	15126 163516	15201 163635
HEIGHT					
SAT.	0.166	0.185	0.168	0.175	0.191
1000	0.178	0.198	0.185	0.192	0.204
950	0.187	0.210	0.197	0.203	0.217
900	0.199	0.222	0.210	0.217	0.234
850	0.215	0.240	0.226	0.237	0.256
800	0.234	0.265	0.252	0.261	0.283
750	0.260	0.295	0.284	0.294	0.325
700	0.295	0.330	0.323	0.342	0.387
650	0.345	0.397	0.396	0.418	0.492
600	0.431	0.505	0.522	0.568	0.692
550	0.581	0.707	0.752	0.853	1.129
500	0.860	1.121	1.263	1.444	2.007
450	1.429	1.945	2.417	2.840	3.513
400	2.670	3.783	4.742	5.000	5.545
350	5.704	7.260	7.998	7.974	9.109
300	11.676	12.836	13.090		
250					
200					
NT	0.967	1.190	1.311	0.838	0.987
HEIGHT	SCALE HEIGHT, KM				
950	859.2	871.1	787.4	816.6	712.4
900	727.0	737.5	695.8	644.3	589.5
850	619.2	600.9	592.9	551.0	516.1
800	526.1	484.6	456.3	485.3	441.1
750	445.8	425.6	381.0	378.0	343.7
700	371.0	366.6	322.2	296.6	257.3
650	293.9	269.0	234.7	218.1	187.6
600	211.7	187.3	168.9	145.6	130.4
550	156.0	129.4	121.9	111.6	95.9
500	113.0	98.9	82.6	87.5	88.4
450	89.8	84.9	76.4	80.6	100.7
400	74.4	77.1	82.5	100.4	105.9
350	64.5	80.8	104.7	102.8	99.1
300	72.4	99.6	125.3		
HS	1036.42	1036.45	1036.50	1036.50	1036.50
LONG	-139.42	-139.32	-139.14	-139.04	-138.85
LAT	9.46	8.45	6.48	5.47	3.50
DIPL	12.49	11.51	9.60	8.61	6.69
INVL	10.41	9.23	6.71	5.20	0.00
L	1.20	1.19	1.18	1.17	1.16
DIP	23.90	22.16	18.68	16.85	13.20
FHS	0.61	0.60	0.60	0.59	0.59
KP	1+	1+	1+	1+	1+
QUAL	13	13	13	23	33
SNL	1	1	1	1	1

PASS 5688 AT SPOINT, 631120

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	15822 153257	15840 153346	15857 153432	15915 153520	15933 153607	15951 153655	20008 153739	20025 153822
HEIGHT								
SAT.	0.109	0.131	0.135	0.137	0.152	0.148	0.146	0.158
1000	0.123	0.139	0.146	0.147	0.160	0.159	0.164	0.176
950	0.133	0.148	0.159	0.159	0.174	0.172	0.177	0.190
900	0.146	0.161	0.171	0.173	0.189	0.187	0.192	0.206
850	0.162	0.177	0.187	0.190	0.206	0.204	0.211	0.227
800	0.182	0.198	0.208	0.212	0.231	0.227	0.235	0.253
750	0.207	0.224	0.238	0.240	0.262	0.256	0.266	0.283
700	0.240	0.259	0.277	0.279	0.306	0.300	0.310	0.330
650	0.287	0.311	0.324	0.333	0.365	0.354	0.367	0.393
600	0.358	0.387	0.402	0.412	0.450	0.450	0.480	0.498
550	0.465	0.507	0.529	0.541	0.604	0.589	0.634	0.661
500	0.639	0.701	0.736	0.756	0.849	0.829	0.901	0.946
450	0.949	0.994	1.073	1.095	1.236	1.222	1.329	1.431
400	1.475	1.441	1.676	1.689	1.916	1.914	2.074	2.300
350	2.474	2.443	2.841	2.831	3.123	3.245	3.629	4.276
300	5.136	5.406	5.427	5.415	5.898	6.339	6.740	8.220
250	12.366		11.047	10.921	11.304	11.942	12.130	
200								
NT	0.955	0.536	0.992	0.993	1.077	1.117	1.185	0.810
HEIGHT	SCALE HEIGHT, KM							
950	567.6	694.5	630.9	616.8	618.1	620.9	639.3	620.8
900	508.4	558.0	584.6	549.6	566.4	570.6	562.4	555.2
850	467.4	485.5	514.6	496.5	488.4	506.1	500.6	480.7
800	407.6	430.0	435.4	440.6	426.6	435.5	430.3	433.1
750	357.8	370.8	343.7	368.4	364.8	368.0	361.0	385.4
700	310.8	314.0	310.2	313.2	315.2	317.0	305.6	324.8
650	260.6	256.0	276.7	268.9	269.1	266.0	250.8	260.8
600	218.4	205.4	229.4	223.7	222.4	217.6	212.1	209.1
550	182.4	167.0	170.6	176.6	174.0	171.3	173.3	163.8
500	138.5	147.1	144.7	144.0	143.9	142.3	144.5	131.4
450	124.8	142.0	123.9	124.2	125.5	117.7	121.3	112.9
400	108.9	117.0	107.3	110.1	112.1	107.1	104.5	97.2
350	86.2	80.0	88.1	88.9	93.7	87.1	87.6	76.9
300	57.0	67.3	70.8	72.6	73.9	71.1	78.2	83.1
HS	1037.85	1037.73	1037.62	1037.47	1037.32	1037.17	1037.05	1036.93
LONG	-156.35	-156.22	-156.10	-155.98	-155.85	-155.73	-155.62	-155.51
LAT	25.98	24.98	24.03	23.02	22.01	21.00	20.05	19.10
DIPL	25.85	24.95	24.09	23.18	22.26	21.34	20.46	19.58
INVL	24.71	23.74	22.83	21.82	20.81	19.80	18.84	17.85
L	1.41	1.39	1.37	1.35	1.33	1.31	1.30	1.28
DIP	44.10	42.94	41.81	40.58	39.31	38.00	36.74	35.43
FHS	0.70	0.69	0.68	0.67	0.67	0.66	0.65	0.65
KP	2+	2+	2+	2+	2+	2+	2+	2+
QUAL	33	23	23	13	23	13	13	23
SNL	1	1	1	1	1	1	1	1

PASS 5688 AT SPOINT, 631120

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	20131	20119
LT	153952	154036
HEIGHT		
SAT.	0.167	0.177
1000	0.185	0.190
950	0.201	0.205
900	0.218	0.222
850	0.239	0.244
800	0.265	0.273
750	0.301	0.312
700	0.351	0.369
650	0.416	0.443
600	0.547	0.568
550	0.748	0.800
500	1.119	1.230
450	1.841	1.980
400	3.190	
350	5.971	
300		
250		
200		
NT	0.626	0.288
HEIGHT	SCALE HEIGHT, KM	
950	594.7	628.9
900	565.0	558.1
850	516.3	483.8
800	427.4	410.9
750	358.9	338.4
700	307.2	293.3
650	255.1	250.3
600	197.7	190.4
550	147.8	133.6
500	116.8	109.7
450	99.9	97.6
400	86.2	
350	74.0	
300		
HS	1036.69	1036.57
LONG	-155.28	-155.18
LAT	17.08	16.08
DIPL	17.71	16.76
INVL	15.75	14.66
L	1.26	1.24
DIP	32.56	31.06
FHS	0.64	0.63
KP	2+	2+
QUAL	23	13
SNL	1	1

PASS 5701 AT SPOINT, 631121

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	5043 152654	5148 152945	5210 153041	5229 153128	5247 153213	5306 153300	5340 153421
HEIGHT							
SAT.	0.135	0.146	0.159	0.161	0.159	0.155	0.172
1000	0.152	0.159	0.174	0.175	0.172	0.171	0.182
950	0.162	0.173	0.190	0.189	0.188	0.185	0.196
900	0.175	0.189	0.208	0.206	0.206	0.201	0.212
850	0.192	0.211	0.231	0.228	0.227	0.223	0.232
800	0.216	0.238	0.259	0.254	0.253	0.249	0.259
750	0.248	0.272	0.295	0.288	0.286	0.280	0.294
700	0.291	0.320	0.339	0.333	0.329	0.324	0.342
650	0.347	0.380	0.414	0.398	0.395	0.384	0.402
600	0.424	0.478	0.509	0.492	0.478	0.485	0.527
550	0.554	0.618	0.651	0.648	0.640	0.644	0.715
500	0.760	0.856	0.877	0.894	0.900	0.946	1.049
450	1.055	1.241	1.304	1.292	1.390	1.427	1.669
400	1.569	1.869	2.009	1.979	2.211	2.267	2.927
350	2.574	3.195	3.410	3.582	4.025	4.448	5.852
300	5.125		6.978	7.232	8.412	9.681	12.416
250							
200							
NT	0.561	0.426	0.714	0.724	0.791	0.849	1.049
HEIGHT	SCALE HEIGHT, KM						
950	688.8	566.1	554.3	609.8	560.4	611.8	643.2
900	562.0	499.8	507.1	537.3	525.2	539.3	580.3
850	494.3	442.2	442.9	480.1	476.1	479.1	516.3
800	415.[illegible]	388.1	396.0	418.8	426.1	426.5	436.6
750	352.0	336.4	355.6	366.9	375.5	380.5	358.7
700	301.2	299.4	315.4	320.8	325.4	323.8	307.3
650	266.5	262.5	276.5	265.7	276.3	263.3	256.0
600	228.4	222.5	237.5	213.5	227.3	207.5	203.3
550	181.1	181.5	195.2	179.1	179.2	160.8	154.3
500	157.4	143.4	151.7	150.2	135.8	138.5	118.4
450	142.4	126.5	129.7	126.4	111.[illegible]	117.5	100.5
400	120.6	112.6	109.9	107.1	100.1	94.9	8[illegible].7
350	91.7	81.1	79.7	76.9	75.5	69.2	67.0
300	66.4		66.0	70.1	65.5	63.0	67.1
HS	1037.57	1037.00	1036.83	1036.71	1036.59	1036.45	1036.17
LONG	-140.95	-140.51	-140.37	-140.25	-140.14	-140.02	-139.83
LAT	24.20	20.57	19.34	18.28	17.27	16.20	14.29
DIPL	26.60	23.17	22.00	20.99	20.02	19.00	17.17
INVL	25.79	22.18	20.91	19.84	18.83	17.72	15.74
L	1.43	1.36	1.33	1.31	1.30	1.28	1.26
DIP	45.65	40.56	38.94	37.49	36.09	34.56	31.72
FHS	0.72	0.69	0.68	0.67	0.66	0.65	0.64
KP	00	00	00	00	00	00	00
QUAL	23	23	23	23	23	23	23
SNL	1	1	1	1	1	1	1

PASS 5729 AT SPOINT, 631123

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	20321 150451	20354 150632	20412 150724	20430 150815	20448 150906	20542 151133	20559 151218	20617 151305
HEIGHT								
SAT.	0.121	0.142	0.143	0.134	0.130	0.147	0.151	0.164
1000	0.131	0.153	0.159	0.146	0.147	0.160	0.164	0.176
950	0.136	0.161	0.172	0.155	0.164	0.168	0.175	0.188
900	0.145	0.172	0.185	0.167	0.181	0.180	0.188	0.202
850	0.156	0.187	0.199	0.181	0.199	0.197	0.207	0.220
800	0.174	0.205	0.218	0.199	0.220	0.217	0.229	0.245
750	0.198	0.230	0.244	0.222	0.246	0.244	0.256	0.279
700	0.225	0.264	0.278	0.253	0.278	0.280	0.296	0.323
650	0.265	0.307	0.324	0.295	0.324	0.335	0.350	0.377
600	0.324	0.381	0.388	0.360	0.390	0.407	0.437	0.476
550	0.407	0.485	0.491	0.457	0.490	0.524	0.568	0.643
500	0.529	0.633	0.644	0.599	0.650	0.716	0.776	0.891
450	0.706	0.842	0.861	0.806	0.915	0.998	1.081	1.244
400	0.975	1.165	1.165	1.089	1.328	1.437	1.571	1.851
350	1.454	1.744	1.647	1.621	2.070	2.159	2.506	3.036
300	2.371	2.834	2.582	2.556	3.589	3.579	4.295	5.047
250	4.252	4.535	4.550	4.288		5.903		
200								
NT	0.513	0.598	0.588	0.559	0.466	0.724	0.543	0.629
HEIGHT	SCALE HEIGHT, KM							
950	895.9	875.8	683.4	730.4	484.9	854.5	710.3	723.9
900	756.2	663.7	663.6	656.3	516.8	671.7	599.2	616.3
850	616.5	566.3	583.7	572.0	520.6	541.0	518.8	515.1
800	464.9	499.5	508.1	490.4	473.9	474.5	453.2	422.6
750	383.3	398.5	423.1	422.3	425.9	400.1	395.8	368.7
700	345.6	335.0	351.0	355.3	373.3	319.9	334.1	326.1
650	280.4	285.4	307.3	292.8	299.3	279.6	271.4	283.6
600	241.8	244.4	257.3	240.7	245.5	242.1	222.1	231.5
550	210.2	205.7	201.9	203.9	197.7	184.5	181.9	172.0
500	182.1	185.7	179.3	176.4	160.3	157.4	158.0	152.0
450	165.5	164.4	166.6	160.0	142.4	144.0	144.0	138.8
400	142.0	139.4	150.3	148.2	124.2	130.0	121.7	119.4
350	118.6	120.4	133.5	126.8	105.0	115.4	102.0	99.2
300	96.4	103.8	102.7	105.3	80.6	98.1	92.7	97.6
HS	1038.75	1038.37	1038.18	1038.00	1037.82	1037.21	1037.01	1036.83
LONG	-164.62	-164.34	-164.20	-164.06	-163.92	-163.54	-163.42	-163.30
LAT	31.09	29.25	28.25	27.24	26.24	23.22	22.27	21.26
DIPL	29.01	27.42	26.54	25.66	24.78	22.09	21.23	20.32
INVL	28.16	26.42	25.44	24.48	23.51	20.52	19.57	18.53
L	1.50	1.45	1.43	1.40	1.38	1.33	1.31	1.29
DIP	47.96	46.05	44.97	43.86	42.71	39.07	37.85	36.53
FHS	0.72	0.71	0.70	0.69	0.68	0.66	0.66	0.65
KP	30	30	30	30	30	30	30	30
QUAL	22	23	23	23	23	22	23	23
SNL	1	1	1	1	1	1	1	1

PASS 5729 AT SPOINT, 631123

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	20654 151348	20652 151434	20710 151519	20728 151603	20746 151647	20804 151731	20821 151812	20839 151855
HEIGHT								
SAT.	0.199	0.181	0.189	0.183	0.213	0.260	0.222	0.230
1000	0.212	0.194	0.202	0.196	0.229	0.278	0.240	0.248
950	0.225	0.208	0.216	0.212	0.247	0.300	0.261	0.275
900	0.242	0.225	0.234	0.231	0.269	0.329	0.288	0.308
850	0.263	0.248	0.259	0.258	0.297	0.373	0.326	0.352
800	0.293	0.276	0.292	0.290	0.335	0.429	0.380	0.411
750	0.334	0.313	0.333	0.331	0.392	0.498	0.451	0.491
700	0.385	0.367	0.393	0.397	0.465	0.605	0.556	0.603
650	0.466	0.449	0.486	0.493	0.602	0.771	0.751	0.792
600	0.601	0.579	0.629	0.650	0.811	1.041	1.060	1.146
550	0.810	0.795	0.858	0.943	1.186	1.605	1.638	1.821
500	1.103	1.129	1.285	1.446	1.918	2.624	2.688	2.909
450	1.624	1.719	2.014	2.365	3.236	4.234	4.397	4.494
400	2.536	2.831	3.498	4.187	5.656	6.591	6.879	6.722
350	4.361	5.090	6.207	7.221		9.769	10.039	9.833
300				11.497				
250								
200								
NT	0.558	0.589	0.685	1.243	0.635	1.221	1.241	1.268
HEIGHT	SCALE HEIGHT, KM							
950	730.2	656.8	654.2	597.2	625.1	581.5	555.0	453.9
900	634.6	575.6	548.6	513.9	539.3	471.1	447.1	404.5
850	544.9	505.6	482.4	455.7	446.3	400.9	369.3	353.0
800	443.2	427.1	415.9	393.2	360.2	343.0	318.7	305.2
750	362.0	350.9	341.2	327.4	307.8	295.3	266.3	262.1
700	305.9	289.9	279.1	268.4	255.4	241.6	206.1	217.3
650	250.0	236.0	227.7	212.1	203.1	195.2	170.7	167.7
600	194.2	190.3	185.4	162.6	154.0	146.8	143.4	122.7
550	168.2	158.9	147.1	134.6	118.9	111.2	116.4	111.1
500	151.2	136.4	117.1	113.2	104.2	105.8	101.8	112.1
450	128.7	115.8	105.6	97.0	91.4	108.3	107.0	120.8
400	104.7	93.0	87.4	88.7	100.3	120.1	121.3	126.6
350	93.0	87.2	92.8	97.8		134.2	146.5	149.6
300				127.0				
HS	1036.66	1036.48	1036.32	1036.17	1036.02	1035.86	1035.69	1035.51
LONG	-163.19	-163.07	-162.96	-162.85	-162.74	-162.64	-162.54	-162.43
LAT	20.31	19.30	18.29	17.28	16.27	15.27	14.31	13.31
DIPL	19.46	18.53	17.60	16.67	15.73	14.79	13.89	12.94
INVL	17.55	16.52	15.44	14.36	13.24	12.07	10.95	9.71
L	1.28	1.26	1.25	1.24	1.23	1.22	1.21	1.20
DIP	35.24	33.84	32.40	30.92	29.40	27.83	26.32	24.68
FHS	0.64	0.64	0.63	0.63	0.62	0.62	0.61	0.61
KP	30	30	30	30	30	30	30	30
QUAL	33	23	23	13	23	23	23	23
SNL	1	1	1	1	1	1	1	1

PASS 5729 AT SPOINT, 631123

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	20855	20913	20930	21041	21116	21134	21209	21227
LT	151933	152015	152035	152338	152458	152539	152658	152738
HEIGHT								
SAT.	0.241	0.267	0.294	0.328	0.345	0.349	0.353	0.332
1000	0.263	0.292	0.315	0.354	0.382	0.383	0.388	0.373
950	0.293	0.325	0.351	0.411	0.448	0.454	0.459	0.442
900	0.328	0.366	0.395	0.485	0.528	0.534	0.543	0.527
850	0.375	0.421	0.453	0.586	0.617	0.612	0.629	0.616
800	0.439	0.495	0.539	0.684	0.709	0.698	0.731	0.702
750	0.528	0.606	0.697	0.802	0.853	0.821	0.894	0.799
700	0.668	0.799	0.897	0.987	1.085	1.082	1.157	1.164
650	0.908	1.099	1.153	1.338	1.471	1.488	1.557	1.571
600	1.321	1.549	1.637	1.915	2.084	2.165	2.157	2.179
550	1.992	2.217	2.459	2.776	2.983	2.984	3.061	3.120
500	3.069	3.612	3.705	4.023	4.283	4.161	4.288	4.441
450	4.886	5.465	5.512	5.755	6.039	5.876	6.040	6.353
400	7.200	7.701	7.740	8.113	8.302	8.210	8.385	8.739
350	9.819	10.329	10.453		10.830	10.818	10.758	11.102
300								
250								
200								
NT	1.352	1.498	1.546	1.200	1.750	1.734	1.774	1.819
HEIGHT	SCALE HEIGHT, KM							
950	457.4	433.9	443.5	315.1	307.5	302.9	299.6	287.4
900	405.9	389.7	394.1	285.7	315.1	335.1	321.7	296.1
850	349.5	341.8	332.9	293.3	356.6	377.7	342.9	371.5
800	296.6	283.6	239.6	325.3	312.4	325.0	286.2	319.1
750	249.9	217.3	191.7	275.7	242.6	262.3	229.1	266.7
700	190.9	159.9	206.0	207.4	187.4	172.1	187.2	152.6
650	150.8	151.6	167.3	155.2	156.6	151.6	162.4	159.1
600	124.8	139.6	139.4	145.9	147.0	148.4	144.4	143.0
550	122.2	125.2	127.4	138.7	141.8	152.7	147.9	142.8
500	113.0	112.3	124.8	138.1	142.7	148.6	148.6	141.9
450	116.7	133.9	137.5	143.7	152.0	147.6	148.8	147.1
400	146.1	158.1	156.5	149.4	169.5	160.6	172.9	184.3
350	170.6	209.0	211.6		293.0	263.8	495.2	304.9
300								
HS	1035.35	1035.21	1035.10	1034.63	1034.45	1034.39	1034.27	1034.21
LONG	-162.34	-162.24	-162.14	-161.76	-161.57	-161.48	-161.29	-161.20
LAT	12.41	11.40	10.44	6.45	4.48	3.47	1.51	0.50
DIPL	12.09	11.12	10.20	6.33	4.40	3.40	1.46	0.46
INVL	8.54	7.10	5.54	0.00	0.00	0.00	0.00	0.00
L	1.19	1.18	1.17	1.15	1.14	1.14	1.14	1.14
DIP	23.18	21.46	19.79	12.50	8.75	6.78	2.92	0.92
FHS	0.61	0.60	0.60	0.59	0.59	0.59	0.59	0.59
KP	30	30	30	30	30	30	30	30
QUAL	23	23	32	13	12	23	22	32
SNL	1	1	1	1	1	1	1	1

PASS 5783 AT SPOINT, 631127

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	10020 142914	10037 143011	10054 143108	10112 143205	10130 143301	10147 143353	10205 143448	10222 143537
HEIGHT								
SAT.	0.061	0.071	0.074	0.067	0.070	0.080	0.083	0.085
1000	0.069	0.080	0.082	0.074	0.079	0.091	0.094	0.099
950	0.076	0.088	0.089	0.083	0.088	0.100	0.104	0.110
900	0.084	0.096	0.098	0.092	0.097	0.109	0.116	0.122
850	0.093	0.107	0.109	0.102	0.109	0.122	0.129	0.136
800	0.105	0.121	0.124	0.117	0.123	0.138	0.146	0.153
750	0.121	0.138	0.142	0.136	0.143	0.158	0.167	0.174
700	0.141	0.161	0.166	0.159	0.167	0.185	0.195	0.203
650	0.168	0.192	0.202	0.188	0.198	0.222	0.231	0.241
600	0.207	0.238	0.252	0.234	0.240	0.272	0.284	0.294
550	0.262	0.298	0.321	0.297	0.309	0.352	0.363	0.370
500	0.345	0.395	0.417	0.400	0.409	0.465	0.485	0.493
450	0.466	0.545	0.573	0.545	0.565	0.645	0.667	0.679
400	0.710	0.810	0.803	0.825	0.820	0.939	0.949	0.965
350	1.040	1.227	1.178	1.201	1.233	1.455	1.477	1.487
300	1.805	2.093	1.996	1.680	2.103	2.470	2.603	2.573
250	3.826	3.794	3.809	3.506	3.917	4.415	4.872	4.728
200								
NT	0.378	0.422	0.421	0.392	0.430	0.494	0.520	0.521
HEIGHT	SCALE HEIGHT, KM							
950	504.6	531.7	529.6	473.1	485.4	537.0	468.7	483.9
900	475.5	498.9	495.5	450.9	454.7	497.6	470.3	467.1
850	433.9	447.1	432.5	399.6	417.0	424.4	423.1	439.9
800	391.4	393.6	389.8	370.2	379.4	378.7	386.8	396.7
750	348.2	343.3	343.0	340.8	340.1	342.3	358.6	354.8
700	304.8	302.3	282.5	303.4	302.3	304.7	315.5	312.7
650	265.9	267.1	252.3	262.2	269.8	266.2	264.3	272.6
600	232.0	237.8	228.2	230.0	236.7	230.8	229.3	237.8
550	201.8	208.0	203.3	198.0	201.9	200.7	195.3	204.9
500	176.4	173.9	177.6	185.3	171.7	170.8	165.5	175.8
450	152.5	147.0	159.6	141.0	148.8	142.6	153.5	153.8
400	134.6	131.6	139.7	123.4	131.9	127.8	129.9	129.8
350	117.0	113.0	114.8	117.4	112.8	109.3	104.8	106.7
300	82.9	88.8	90.8	111.4	84.9	90.5	80.8	84.0
HS	1039.50	1039.24	1038.99	1038.74	1038.50	1038.27	1038.03	1037.81
LONG	-157.77	-157.61	-157.44	-157.28	-157.12	-156.97	-156.82	-156.68
LAT	35.70	34.76	33.81	32.81	31.81	30.86	29.86	28.91
DIPL	34.40	33.58	32.76	31.89	31.01	30.18	29.30	28.46
INVL	33.98	33.10	32.21	31.26	30.32	29.42	28.46	27.56
L	1.69	1.66	1.62	1.59	1.56	1.53	1.50	1.48
DIP	53.86	53.01	52.15	51.21	50.25	49.31	48.30	47.32
FHS	0.77	0.77	0.76	0.75	0.74	0.73	0.73	0.72
KP	00	00	00	00	00	00	00	00
QUAL	22	22	22	23	23	22	23	22
SNL	1	1	1	1	1	1	1	1

PASS 5783 AT SPOINT, 631127

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	10240 143650	10334 143901	10407 144030	10425 144117	10442 144201	10500 144248	10517 144330	10535 144416
HEIGHT								
SAT.	0.088	0.116	0.103	0.117	0.120	0.132	0.153	0.151
1000	0.099	0.125	0.116	0.129	0.132	0.143	0.164	0.165
950	0.108	0.132	0.126	0.139	0.144	0.153	0.174	0.177
900	0.118	0.143	0.136	0.151	0.158	0.166	0.189	0.190
850	0.132	0.160	0.150	0.166	0.174	0.183	0.207	0.208
800	0.148	0.180	0.168	0.185	0.194	0.204	0.228	0.230
750	0.169	0.202	0.190	0.210	0.218	0.230	0.254	0.258
700	0.197	0.233	0.220	0.241	0.253	0.264	0.293	0.303
650	0.234	0.276	0.259	0.287	0.301	0.311	0.345	0.362
600	0.287	0.342	0.323	0.347	0.368	0.375	0.435	0.462
550	0.361	0.436	0.421	0.458	0.475	0.488	0.567	0.592
500	0.486	0.591	0.571	0.625	0.636	0.689	0.786	0.824
450	0.675	0.852	0.796	0.879	0.928	1.008	1.150	1.231
400	0.958	1.239	1.196	1.277	1.406	1.553	1.767	2.017
350	1.434	1.857	1.897	1.983	2.236	2.550	3.117	3.858
300	2.509	3.122	3.230	3.683	4.118	4.626	5.921	7.689
250	4.367			6.792			12.333	
200								
NT	0.502	0.413	0.406	0.705	0.481	0.528	1.084	0.732
HEIGHT	SCALE HEIGHT, KM							
950	531.2	757.5	601.7	605.5	537.2	657.9	695.8	698.2
900	496.8	590.3	556.2	553.8	533.7	564.1	591.5	617.7
850	459.4	473.4	495.8	490.0	481.5	494.0	531.2	516.3
800	421.9	420.5	419.6	429.2	428.6	439.9	486.6	450.1
750	358.6	390.3	361.5	382.4	376.3	389.0	399.3	383.5
700	298.4	316.1	315.1	335.6	328.9	338.7	330.7	314.5
650	261.1	266.5	271.3	281.3	282.4	286.6	266.4	249.0
600	234.8	228.5	229.9	226.8	238.3	233.0	221.2	218.9
550	205.1	196.5	190.1	187.7	199.1	175.1	177.9	188.7
500	164.4	146.3	163.3	158.3	159.6	145.2	142.6	144.1
450	149.9	140.3	139.4	140.0	127.1	124.6	123.8	108.8
400	134.7	131.9	114.7	121.9	112.8	110.5	107.6	93.0
350	110.6	114.7	106.4	102.5	98.4	95.0	79.5	75.8
300	89.4	93.7	84.4	79.1	80.8	77.9	74.2	73.5
HS	1037.57	1036.85	1036.41	1036.17	1035.94	1035.70	1035.50	1035.29
LONG	-156.54	-156.14	-155.90	-155.78	-155.67	-155.55	-155.44	-155.33
LAT	27.91	24.89	23.05	22.04	21.09	20.08	19.13	18.11
DIPL	27.58	24.88	23.22	22.30	21.43	20.50	19.62	18.68
INVL	26.61	23.68	21.86	20.85	19.90	18.89	17.89	16.85
L	1.45	1.39	1.35	1.33	1.31	1.30	1.28	1.27
DIP	46.25	42.85	40.63	39.36	38.13	36.79	35.49	34.07
FHS	0.71	0.69	0.67	0.67	0.66	0.65	0.65	0.64
KP	00	00	00	00	00	00	00	00
QUAL	23	33	23	23	23	23	23	33
SNL	1	1	1	1	1	1	1	1

PASS 5783 AT SPOINT, 631127

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	10553	10611	10630	10646
LT	144501	144545	144631	144709
HEIGHT				
SAT.	0.149	0.171	0.157	0.191
1000	0.164	0.184	0.169	0.206
950	0.177	0.200	0.183	0.222
900	0.191	0.220	0.198	0.243
850	0.210	0.243	0.217	0.272
800	0.234	0.271	0.243	0.307
750	0.270	0.303	0.278	0.354
700	0.315	0.352	0.327	0.427
650	0.374	0.420	0.392	0.524
600	0.446	0.533	0.520	0.700
550	0.612	0.735	0.743	1.021
500	0.904	1.163	1.177	1.742
450	1.456	1.918	2.012	3.031
400	2.451	3.381	3.698	5.891
350	4.735	6.377	6.867	11.090
300	9.986			
250				
200				
NT	0.873	0.651	0.675	1.019
HEIGHT	SCALE HEIGHT, KM			
950	638.2	559.7	618.9	588.4
900	565.1	519.7	573.8	501.3
850	491.1	469.3	485.8	437.6
800	422.0	426.3	419.6	371.8
750	363.6	384.0	356.2	312.0
700	309.5	325.2	296.0	267.4
650	269.9	261.4	236.9	222.8
600	230.2	198.8	175.7	168.2
550	164.0	136.2	127.1	116.9
500	120.4	100.2	103.8	93.9
450	98.8	96.9	90.2	86.1
400	89.2	84.8	82.2	75.3
350	69.9	76.3	78.2	89.8
300	76.8			
HS	1035.08	1034.89	1034.70	1034.54
LONG	-155.21	-155.11	-154.99	-154.90
LAT	17.10	16.09	15.03	14.13
DIPL	17.74	16.79	15.79	14.94
INVL	15.79	14.70	13.55	12.53
L	1.26	1.24	1.23	1.22
DIP	32.61	31.11	29.48	28.08
FHS	0.64	0.63	0.62	0.62
KP	00	00	00	00
QUAL	23	23	23	13
SNL	1	1	1	1

PASS 5796 AT SPOINT, 631127

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	235411 142755	235429 142847	235446 142936	235504 143027	235521 143113	235539 143202	235556 143249	235614 143336
HEIGHT								
SAT.	0.118	0.121	0.117	0.115	0.120	0.108	0.120	0.127
1000	0.130	0.133	0.126	0.129	0.132	0.119	0.133	0.137
950	0.143	0.144	0.136	0.140	0.145	0.134	0.148	0.149
900	0.158	0.158	0.150	0.153	0.160	0.150	0.164	0.163
850	0.177	0.174	0.170	0.173	0.179	0.168	0.184	0.183
800	0.202	0.194	0.195	0.199	0.203	0.191	0.206	0.208
750	0.233	0.223	0.224	0.229	0.231	0.219	0.236	0.239
700	0.270	0.260	0.257	0.263	0.267	0.256	0.273	0.277
650	0.317	0.313	0.309	0.310	0.318	0.302	0.327	0.332
600	0.399	0.386	0.380	0.381	0.383	0.371	0.395	0.408
550	0.508	0.489	0.484	0.484	0.495	0.467	0.509	0.528
500	0.667	0.640	0.641	0.641	0.644	0.632	0.690	0.704
450	0.893	0.869	0.869	0.888	0.893	0.885	0.966	0.982
400	1.211	1.232	1.208	1.253	1.277	1.284	1.399	1.413
350	1.706	1.817	1.791	1.862	1.933	1.935	2.096	2.068
300	2.714	2.870	2.822	3.186	3.359	3.223	3.485	3.543
250	4.383	4.894	5.477	5.729	5.818		5.588	
200								
NT	0.593	0.614	0.622	0.655	0.673	0.433	0.697	0.475
HEIGHT	SCALE HEIGHT, KM							
950	512.7	628.5	560.0	587.0	520.7	430.6	464.8	547.8
900	455.4	531.4	475.5	479.3	470.5	427.7	456.5	478.7
850	410.6	473.6	398.2	411.3	428.6	406.8	431.0	430.4
800	370.3	410.4	355.5	359.1	389.6	375.2	405.3	388.8
750	339.2	345.2	339.1	340.1	353.8	343.8	358.8	348.6
700	309.7	296.8	317.7	321.1	317.1	312.7	304.8	309.2
650	277.6	254.3	269.5	288.7	278.9	281.5	271.7	267.3
600	236.1	226.0	228.9	239.7	241.1	238.4	238.6	224.6
550	200.3	195.8	199.1	199.3	208.0	198.3	197.7	191.1
500	182.8	176.7	178.0	167.8	175.6	166.6	157.0	165.0
450	171.0	152.6	158.8	148.3	153.7	144.1	145.0	149.8
400	157.8	136.4	138.6	133.2	131.9	127.6	131.0	133.9
350	127.7	120.8	123.8	115.5	110.4	114.5	114.8	116.6
300	106.3	101.1	98.7	88.0	90.2	95.9	101.5	101.5
HS	1035.63	1035.36	1035.11	1034.85	1034.62	1034.38	1034.15	1033.91
LONG	-141.56	-141.42	-141.29	-141.15	-141.03	-140.90	-140.78	-140.66
LAT	29.41	29.01	28.62	27.93	26.30	24.57	22.94	21.87
DIPL	31.50	31.13	30.79	30.14	28.60	26.96	25.42	24.40
INVL	30.88	30.51	30.15	29.48	27.86	26.17	24.53	23.46
L	1.58	1.57	1.55	1.53	1.49	1.44	1.40	1.38
DIP	50.79	50.38	50.00	49.27	47.48	45.50	43.54	42.22
FHS	0.76	0.76	0.76	0.75	0.74	0.72	0.71	0.70
KP	2+	2+	2+	2+	2+	2+	2+	2+
QUAL	23	22	32	33	33	22	32	22
SNL	1	1	1	1	1	1	1	1

PASS 5796 AT SPOINT, 631127

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	235631 143420	235649 143507	235706 143550	235724 143635	235741 143717	235759 143802	235816 143843	235834 143926
HEIGHT								
SAT.	0.131	0.135	0.136	0.149	0.153	0.154	0.156	0.169
1000	0.141	0.147	0.151	0.161	0.165	0.165	0.171	0.181
950	0.154	0.161	0.166	0.174	0.177	0.179	0.190	0.198
900	0.170	0.177	0.184	0.190	0.191	0.195	0.207	0.218
850	0.190	0.197	0.204	0.210	0.212	0.216	0.228	0.243
800	0.214	0.223	0.229	0.237	0.240	0.243	0.256	0.274
750	0.246	0.256	0.261	0.268	0.269	0.276	0.294	0.312
700	0.284	0.295	0.303	0.309	0.314	0.318	0.345	0.363
650	0.341	0.353	0.361	0.371	0.378	0.381	0.411	0.438
600	0.418	0.437	0.436	0.450	0.461	0.482	0.531	0.597
550	0.540	0.564	0.576	0.583	0.612	0.649	0.755	0.840
500	0.713	0.755	0.771	0.771	0.835	0.922	1.111	1.326
450	1.010	1.036	1.066	1.093	1.237	1.409	1.881	2.518
400	1.483	1.507	1.561	1.626	1.945	2.423	3.568	4.794
350	2.223	2.297	2.411	2.534	3.550	4.589	6.883	8.648
300	3.520	3.745	4.041	4.506	6.804	8.945	12.361	
250			6.890	8.091	12.192			
200								
NT	0.491	0.510	0.805	0.872	1.170	0.842	1.146	0.827
HEIGHT	SCALE HEIGHT, KM							
950	534.0	537.5	508.7	604.5	663.7	580.9	538.9	524.1
900	481.7	481.7	479.6	521.8	558.5	523.4	537.4	487.8
850	431.8	433.3	445.4	464.9	484.8	467.5	465.8	449.0
800	386.4	386.4	410.6	411.3	418.7	412.6	404.8	404.6
750	350.8	350.4	365.0	364.3	357.0	367.5	351.1	356.2
700	314.2	314.4	311.2	319.1	312.2	319.5	297.9	290.5
650	268.0	273.2	268.4	279.0	271.4	254.6	245.1	218.7
600	226.0	227.7	227.5	238.8	230.5	203.8	197.0	179.0
550	196.9	194.9	197.3	202.1	188.5	168.0	153.9	138.1
500	168.7	172.7	168.3	166.6	149.1	136.4	112.8	96.0
450	143.9	147.3	145.7	136.9	118.4	109.1	90.0	79.4
400	129.6	129.4	127.5	122.6	101.8	87.3	75.4	79.9
350	119.0	114.1	109.1	103.7	79.4	74.8	82.4	88.0
300	114.7	103.5	95.0	79.4	79.1	80.8	86.0	
HS	1033.69	1033.45	1033.23	1033.02	1032.82	1032.61	1032.44	1032.26
LONG	-140.54	-140.42	-140.31	-140.20	-140.10	-139.99	-139.89	-139.78
LAT	21.03	20.14	19.26	18.25	17.30	16.29	15.33	14.32
DIPL	23.01	22.77	21.93	20.97	20.06	19.09	18.18	17.20
INVL	22.64	21.76	20.84	19.82	18.86	17.82	16.82	15.78
L	1.36	1.35	1.33	1.31	1.30	1.28	1.27	1.25
DIP	41.16	40.01	38.85	37.47	36.14	34.69	33.29	31.77
FHS	0.69	0.68	0.68	0.67	0.66	0.65	0.65	0.64
KP	2+	2+	2+	2+	2+	2+	2+	2+
QUAL	12	13	23	23	23	23	23	13
SNL	1	1	1	1	1	1	1	1

PASS 5796 AT SPOINT, 631128

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	235851	235909	235944	1	19	54	112	127
LT	144007	144049	144210	144250	144332	144453	144534	144607
HEIGHT								
SAT.	0.188	0.190	0.202	0.226	0.237	0.265	0.265	0.308
1000	0.199	0.206	0.217	0.243	0.258	0.284	0.293	0.335
950	0.218	0.225	0.241	0.273	0.294	0.326	0.339	0.386
900	0.237	0.248	0.271	0.312	0.337	0.379	0.396	0.454
850	0.262	0.279	0.310	0.359	0.393	0.452	0.482	0.550
800	0.293	0.317	0.362	0.428	0.475	0.556	0.606	0.699
750	0.336	0.370	0.439	0.529	0.582	0.706	0.785	0.895
700	0.398	0.460	0.556	0.683	0.769	0.932	1.042	1.166
650	0.507	0.631	0.739	0.939	1.061	1.280	1.455	1.560
600	0.704	0.895	1.093	1.393	1.543	1.885	2.016	2.162
550	1.044	1.396	1.800	2.243	2.414	2.848	2.985	3.156
500	1.839	2.470	3.084	3.783	3.991	4.416	4.649	4.704
450	3.378	4.452	5.531	6.179	6.520	6.724	6.967	6.809
400	6.392	8.023	9.121	9.475	9.768	9.643	9.583	9.373
350	10.657	12.644				12.502		
300								
250								
200								
NT	1.052	1.310	0.955	1.099	1.170	1.827	1.333	1.370
HEIGHT	SCALE HEIGHT, KM							
950	576.9	531.2	441.8	399.3	375.5	342.0	326.4	316.3
900	535.9	466.9	393.0	358.3	337.2	302.4	285.5	281.7
850	479.8	410.7	345.2	317.0	287.1	270.0	245.6	246.6
800	411.0	354.5	297.6	270.9	254.6	232.4	211.0	211.0
750	322.8	277.7	243.9	223.7	222.2	198.4	184.2	198.0
700	256.7	216.8	197.3	179.6	180.7	169.4	159.3	180.9
650	201.8	177.7	157.7	147.7	148.0	143.2	153.1	163.9
600	158.3	137.4	119.8	115.8	125.0	131.2	146.8	143.2
550	112.6	102.4	100.1	103.2	107.1	120.2	124.4	128.1
500	86.6	88.8	90.4	99.2	100.7	115.4	114.9	129.9
450	80.2	82.2	89.9	107.5	111.9	129.1	140.8	146.2
400	89.0	96.2	120.8	136.4	143.6	165.4	186.9	167.3
350	105.3	128.3				239.9		
300								
HS	1032.09	1031.92	1031.63	1031.49	1031.37	1031.14	1031.02	1030.92
LONG	-139.68	-139.58	-139.39	-139.29	-139.20	-139.00	-138.91	-138.83
LAT	13.37	12.35	10.38	9.42	8.41	6.45	5.43	4.59
DIPL	16.29	15.31	13.40	12.47	11.49	9.58	8.59	7.77
INVL	14.76	13.68	11.51	10.40	9.21	6.70	5.19	3.74
L	1.24	1.23	1.21	1.20	1.19	1.18	1.17	1.17
DIP	30.30	28.70	25.48	23.87	22.13	18.65	16.82	15.26
FHS	0.63	0.63	0.62	0.61	0.61	0.60	0.59	0.59
KP	2+	3-	3-	3-	3-	3-	3-	3-
QUAL	33	13	13	13	13	12	23	22
SNL	1	1	1	1	1	1	1	1

PASS 5796 AT SPOINT, 631128

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	146	204
LT	144650	144730
HEIGHT		
SAT.	0.249	0.334
1000	0.279	0.364
950	0.331	0.430
900	0.406	0.512
850	0.500	0.628
800	0.640	0.790
750	0.838	0.999
700	1.097	1.262
650	1.471	1.693
600	2.008	2.291
550	2.934	3.325
500	4.454	4.858
450	6.672	6.803
400	9.133	
350		
300		
250		
200		
NT	1.303	1.019
HEIGHT	SCALE HEIGHT, KM	
950	258.5	294.2
900	235.8	263.4
850	224.3	233.4
800	201.1	213.2
750	182.8	205.3
700	177.1	196.2
650	166.0	175.4
600	151.1	154.5
550	130.0	134.7
500	120.5	140.6
450	141.3	164.8
400	187.5	
350		
300		
HS	1030.79	1030.69
LONG	-138.73	-138.64
LAT	3.52	2.51
DIPL	6.72	5.73
INVL	0.00	0.00
L	1.16	1.16
DIP	13.26	11.34
FHS	0.59	0.58
KP	3-	3-
QUAL	22	23
SNL	1	1

PASS 5824 AT SPOINT, 631130

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	10956	11019	11054	**11221**	11256	11314	11331	11349
LT	141446	141548	141722	**142104**	142230	142313	142353	142436
HEIGHT								
SAT.	0.133	0.143	0.151	**0.311**	0.290	0.306	0.340	0.384
1000	0.144	0.156	0.166	**0.328**	0.315	0.332	0.368	0.419
950	0.155	0.166	0.179	**0.360**	0.357	0.378	0.419	0.489
900	0.168	0.179	0.195	**0.397**	0.411	0.438	0.483	0.578
850	0.185	0.198	0.217	**0.428**	0.479	0.510	0.561	0.678
800	0.207	0.220	0.244	**0.501**	0.560	0.600	0.669	0.788
750	0.232	0.249	0.283	**0.605**	0.679	0.729	0.806	0.916
700	0.271	0.293	0.333	**0.751**	0.838	0.893	0.966	1.067
650	0.326	0.350	0.395	**0.976**	1.047	1.104	1.171	1.267
600	0.398	0.419	0.521	**1.322**	1.404	1.430	1.487	1.619
550	0.525	0.565	0.716	**1.914**	1.993	1.997	2.102	2.332
500	0.742	0.805	1.064	**2.999**	2.980	3.051	3.220	3.627
450	1.094	1.237	1.838	**4.774**	4.643	4.787	5.272	5.758
400	1.715	1.949	3.122	**7.496**	7.527	7.603	8.004	8.404
350	2.926	3.361	5.652					
300		6.194	9.875					
250								
200								
NT	0.378	0.658	0.989	**0.947**	0.966	0.994	1.067	1.176
HEIGHT	SCALE HEIGHT, KM							
950	623.6	701.2	582.8	**541.4**	370.2	357.5	363.6	315.3
900	550.4	585.0	515.0	**485.2**	343.5	329.7	335.9	316.3
850	489.8	491.6	447.7	**449.4**	318.6	310.3	307.1	322.8
800	429.1	421.3	380.3	**288.1**	293.8	289.4	292.2	332.2
750	368.5	354.8	336.4	**247.3**	258.8	264.9	278.9	323.5
700	320.8	316.9	295.3	**214.6**	225.9	240.7	263.1	303.1
650	276.5	278.9	254.3	**181.0**	197.7	217.1	233.5	252.0
600	231.2	240.9	197.9	**153.1**	169.6	178.7	182.0	174.3
550	175.4	179.8	143.2	**122.4**	141.6	129.6	130.5	125.0
500	140.8	133.0	110.0	**110.3**	121.9	116.4	112.5	112.1
450	117.7	113.2	98.4	**110.0**	106.8	109.5	110.4	120.9
400	106.1	104.8	91.2	**113.8**	112.6	115.8	134.6	143.6
350	86.1	87.0	85.8					
300		84.7	95.5					
HS	1034.16	1033.81	1033.29	**1032.15**	1031.75	1031.54	1031.34	1031.13
LONG	-163.79	-163.63	-163.38	**-162.82**	-162.60	-162.50	-162.40	-162.30
LAT	25.52	24.24	22.28	**17.40**	15.43	14.42	13.47	12.46
DIPL	24.15	23.01	21.25	**16.79**	14.96	14.01	13.10	12.14
INVL	22.82	21.54	19.59	**14.50**	12.28	11.10	9.93	8.62
L	1.37	1.34	1.31	**1.24**	1.22	1.21	1.20	1.19
DIP	41.89	40.34	37.88	**31.11**	28.12	26.51	24.96	23.28
FHS	0.68	0.67	0.66	**0.63**	0.62	0.62	0.61	0.61
KP	50	50	50	**50**	50	50	50	50
QUAL	13	13	13	**23**	13	23	23	13
SNL	1	1	1	**1**	1	1	1	1

PASS 5824 AT SPOINT, 631130

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT LT	11404 142511	11424 142558	11459 142719	11534 142839	11551 142917	11609 142958	11626 143037	11644 143118
HEIGHT								
SAT.	0.425	0.455	0.521	0.569	0.569	0.591	0.591	0.596
1000	0.470	0.501	0.566	0.619	0.637	0.655	0.651	0.658
950	0.543	0.578	0.658	0.714	0.725	0.738	0.734	0.746
900	0.636	0.675	0.743	0.790	0.796	0.805	0.796	0.814
850	0.740	0.775	0.830	0.859	0.852	0.858	0.846	0.862
800	0.852	0.875	0.909	0.926	0.911	0.909	0.899	0.908
750	0.973	0.978	0.994	1.012	0.997	1.001	0.975	1.018
700	1.118	1.113	1.135	1.134	1.148	1.176	1.131	1.151
650	1.319	1.304	1.355	1.419	1.420	1.409	1.397	1.478
600	1.688	1.832	1.788	1.864	1.867	1.890	1.846	1.909
550	2.396	2.625	2.669	2.754	2.775	2.641	2.606	2.682
500	3.728	3.698	4.115	3.999	3.915	3.626	3.652	3.855
450	5.663	5.543	5.938	5.470	5.245	5.042	5.131	5.343
400	8.092	8.183	7.967	7.343	7.146	6.861	7.134	7.365
350	10.939	10.632	10.011	9.594	9.448	9.214	9.877	9.636
300								
250								
200								
NT	1.673	1.682	1.719	1.669	1.642	1.594	1.619	1.664
HEIGHT	SCALE HEIGHT, KM							
950	328.3	339.6	378.5	430.7	462.7	492.7	528.5	484.7
900	332.5	347.6	430.1	540.7	637.9	691.0	710.0	712.1
850	347.1	388.9	507.9	633.9	750.2	862.4	843.4	940.5
800	367.0	430.4	505.5	597.6	644.1	697.4	680.0	720.2
750	353.8	404.0	453.2	483.0	470.6	429.2	513.5	426.0
700	320.5	331.4	352.9	354.5	312.2	284.9	325.0	307.6
650	263.6	247.9	253.5	199.1	215.1	232.3	214.8	196.4
600	177.1	169.3	157.3	160.2	155.1	169.2	162.5	171.2
550	127.7	142.0	121.8	142.8	139.2	153.2	148.3	152.4
500	118.5	135.7	127.8	149.2	157.0	156.1	150.2	147.7
450	130.5	127.7	154.0	164.3	165.1	158.0	150.1	154.5
400	150.4	154.8	196.0	178.9	171.1	166.5	150.9	172.5
350	208.9	255.9	245.0	241.0	236.0	223.6	408.8	208.0
300								
HS	1030.97	1030.80	1030.51	1030.27	1030.16	1030.05	1029.97	1029.88
LONG	-162.22	-162.11	-161.92	-161.73	-161.64	-161.54	-161.45	-161.36
LAT	11.61	10.49	8.52	6.54	5.59	4.57	3.62	2.61
DIPL	11.34	10.26	8.35	6.43	5.50	4.50	3.56	2.56
INVL	7.44	5.65	0.00	0.00	0.00	0.00	0.00	0.00
L	1.18	1.17	1.16	1.15	1.15	1.14	1.14	1.14
DIP	21.85	19.89	16.36	12.71	10.89	8.95	7.10	5.12
FHS	0.60	0.60	0.60	0.59	0.59	0.59	0.59	0.59
KP	50	50	50	50	50	50	50	50
QUAL	13	12	12	12	22	12	12	13
SNL	1	1	1	1	1	1	1	1

PASS 5824 AT SPOINT, 631130

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

UT	11659	11749
LT	143152	143237
HEIGHT		
SAT.	0.613	
1000	0.668	
950	0.765	
900	0.831	
850	0.873	
800	0.917	
750	0.969	
700	1.236	
650	1.453	
600	1.969	
550	2.748	
500	3.567	
450	5.276	
400	7.365	
350	9.930	
300		
250		
200		
NT	1.663	
HEIGHT	SCALE HEIGHT, KM	
950	454.1	
900	820.5	
850	1030.4	
800	826.6	
750	617.5	
700	230.0	
650	228.2	
600	158.8	
550	152.5	
500	153.7	
450	140.4	
400	161.5	
350	267.7	
300		
HS	1029.80	1030.80
LONG	-161.28	-161.17
LAT	1.77	0.64
DIPL	1.73	0.61
INVL	0.00	0.00
L	1.14	1.14
DIP	3.45	1.23
FHS	0.59	0.59
KP	50	50
QUAL	12	23
SNL	1	1

Table IV. — Index of Figures

Individual passes	Month	Figures
531 to 856	November 1962	3 to 22
857 to 979	December 1962	23 to 29
3014 to 3286	May 1963	30 to 45
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Average N and H versus dip latitude, winter, for 1-hr local-time intervals 61 to 66

Average N and H versus local time, winter, for 5° dip-latitude intervals 67 to 74

Average N and H versus dip latitude, summer, for 1-hr local-time intervals 75 to 78

Average N and H versus local time, summer, for 5° dip-latitude intervals 79 to 84

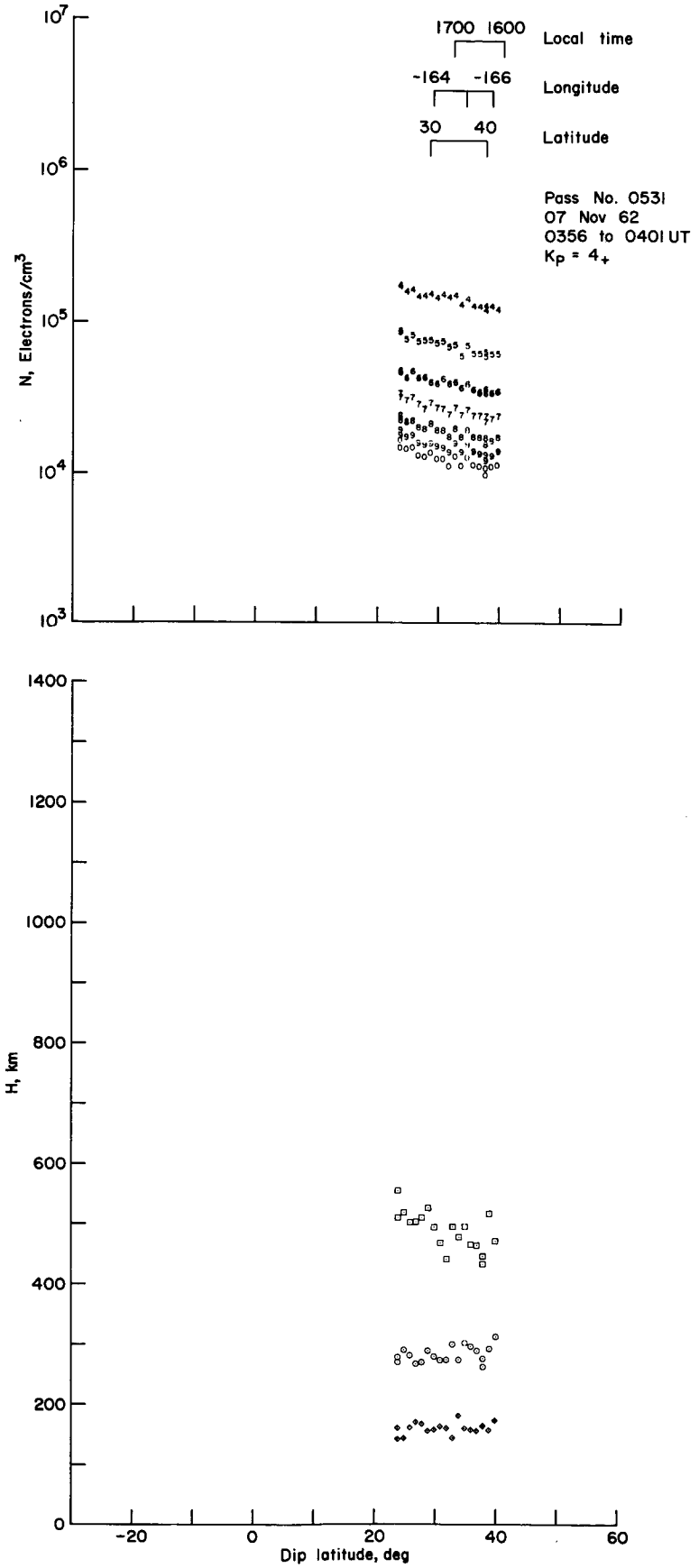

1700 1600
Local time
-164 -166
Longitude
30 40
Latitude
Pass No. 0531
07 Nov 62
0356 to 0401 UT
Kp = 4+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 3

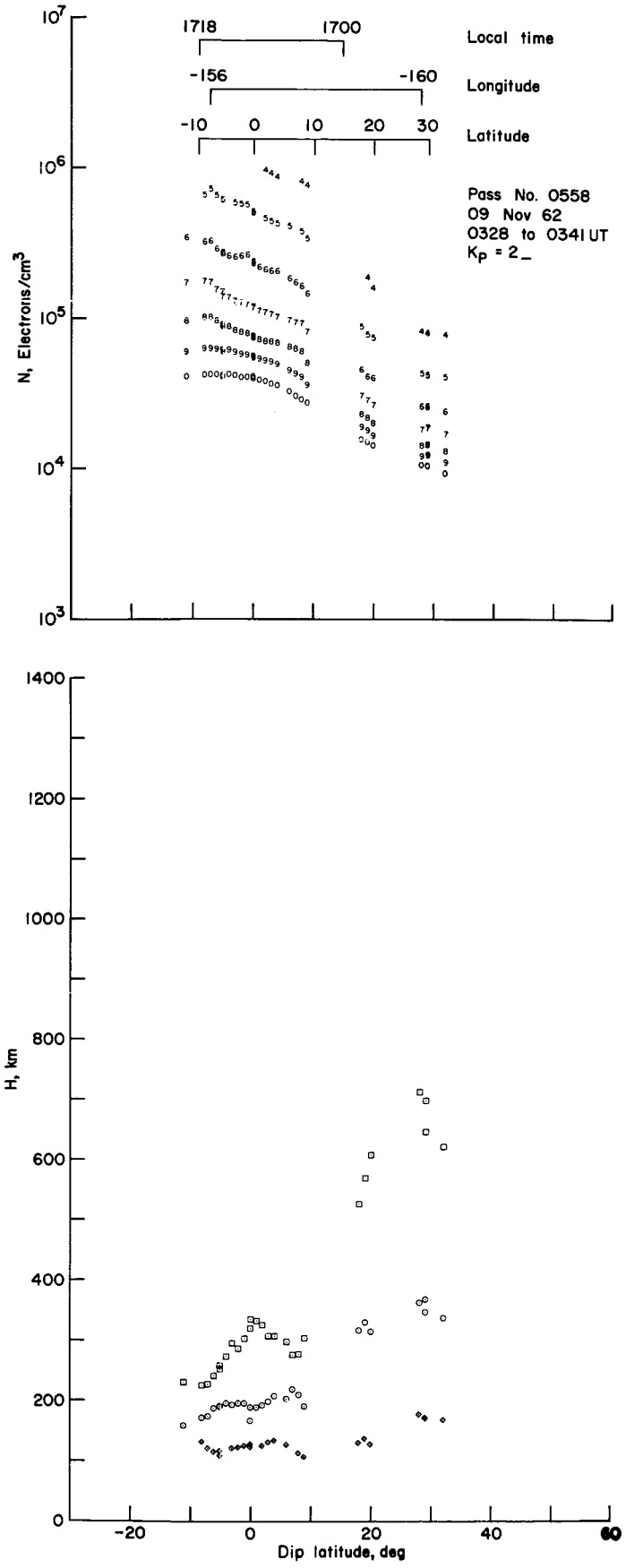

1718
1700
Local time
-156
-160
Longitude
-10
0
10
20
30
Latitude
Pass No. 0558
09 Nov 62
0328 to 0341 UT
Kp = 2_
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 4

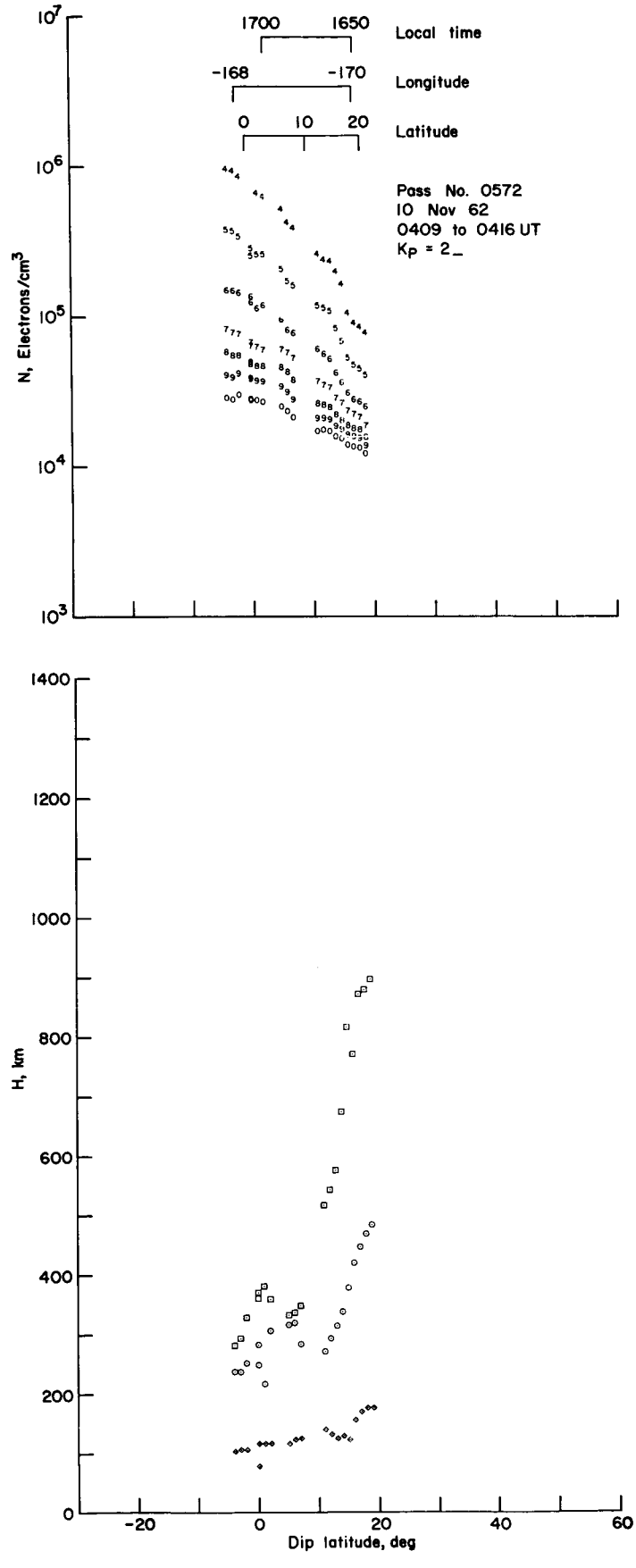

1700
1650
Local time
-168
-170
Longitude
0
10
20
Latitude
Pass No. 0572
10 Nov 62
0409 to 0416 UT
Kp = 2_
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 5

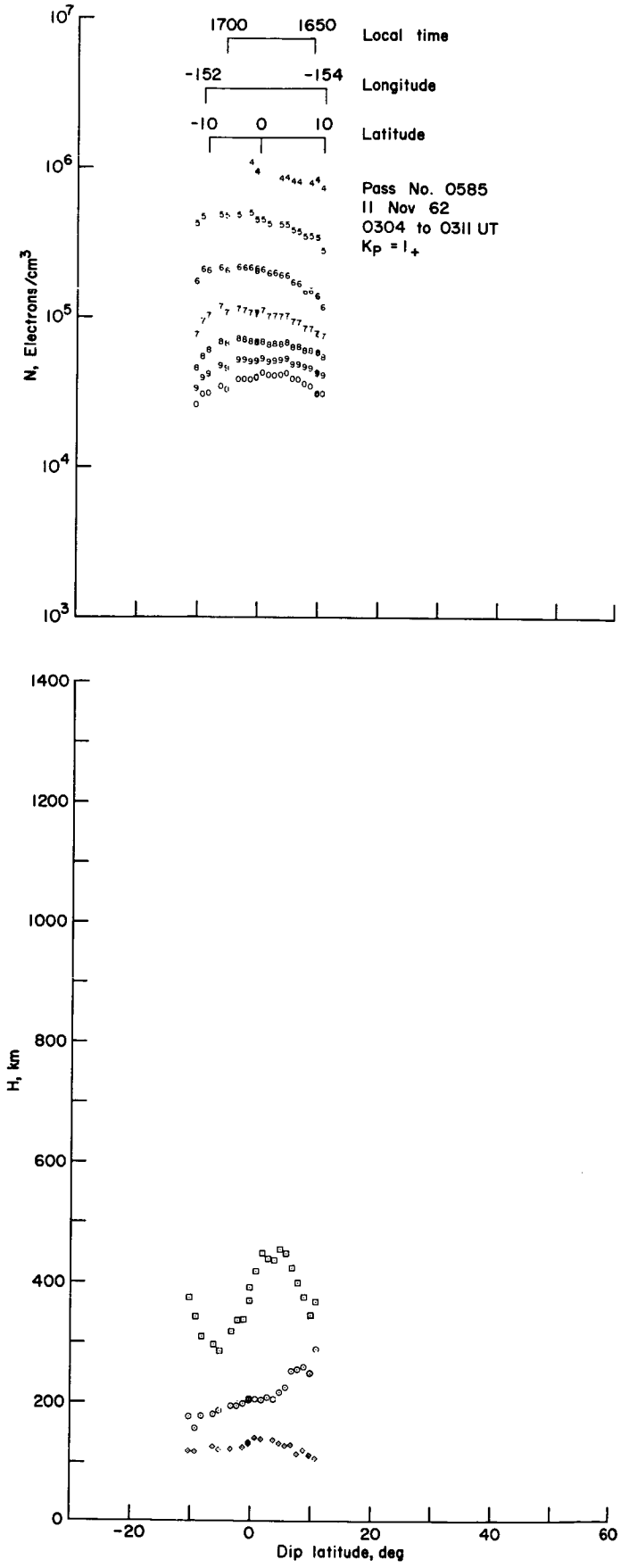

1700
1650
Local time
-152
-154
Longitude
-10
0
10
Latitude
Pass No. 0585
11 Nov 62
0304 to 0311 UT
Kp = 1+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 6

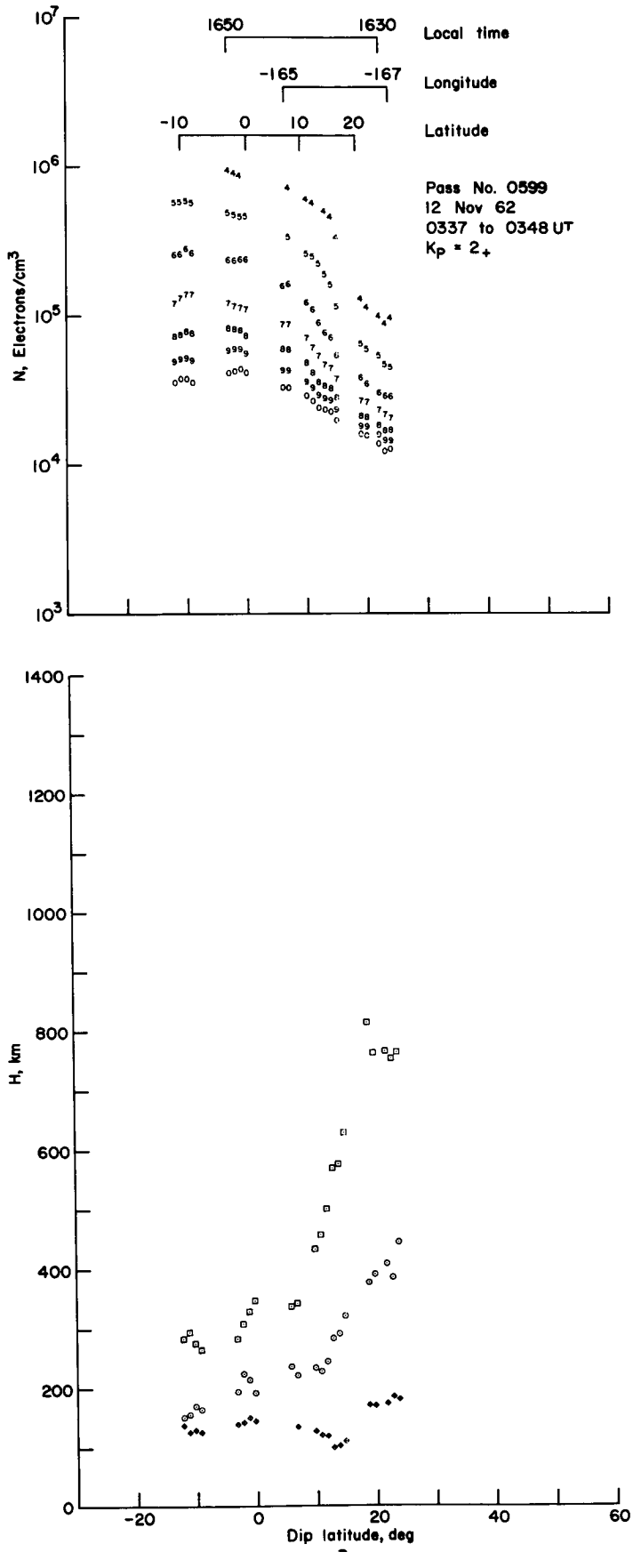

1650
1630
Local time
-165
-167
Longitude
-10
0
10
20
Latitude
Pass No. 0599
12 Nov 62
0337 to 0348 UT
Kp = 2+
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
1400
1200
1000
800
600
400
200
0
H, km
-20
0
20
40
60
Dip latitude, deg

Figure 7

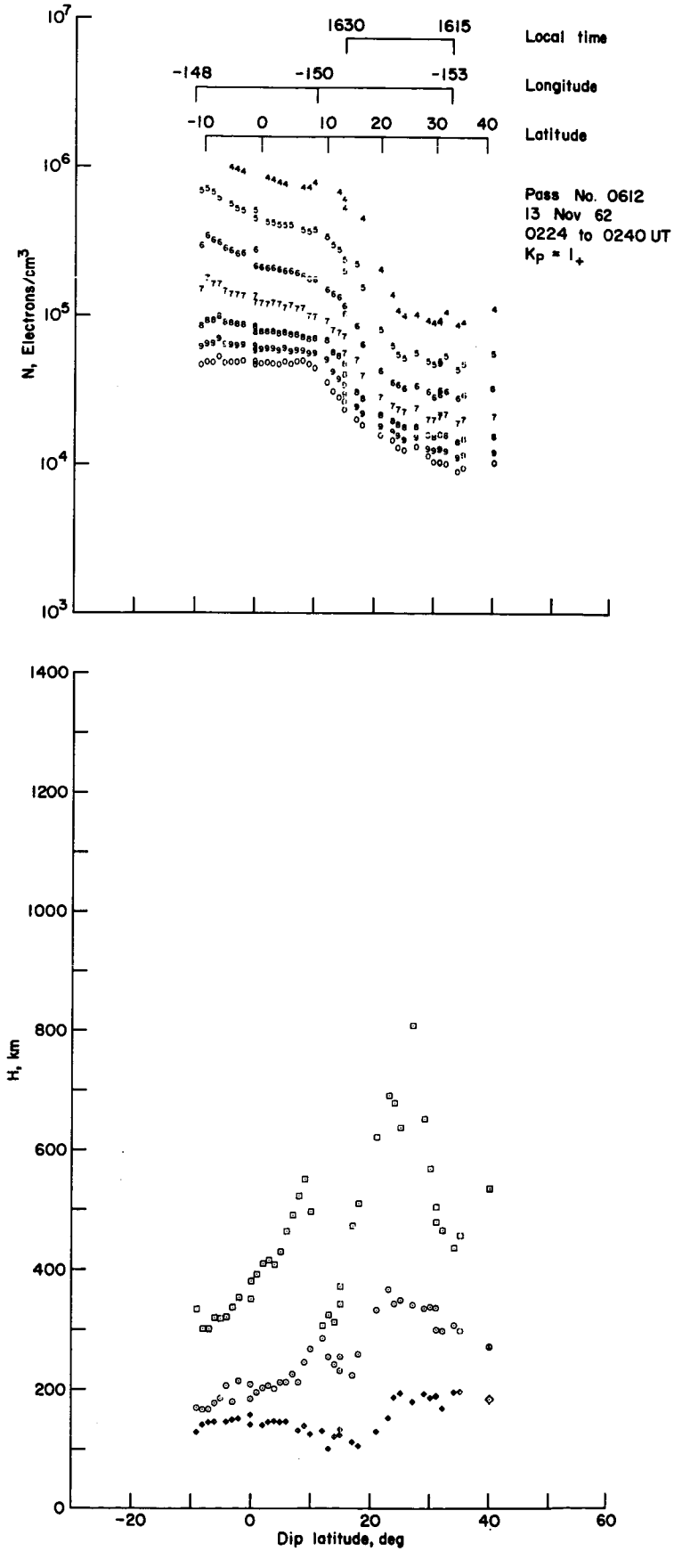

1630
1615
Local time
-148
-150
-153
Longitude
-10
0
10
20
30
40
Latitude
Pass No. 0612
13 Nov 62
0224 to 0240 UT
Kp = 1+
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 8

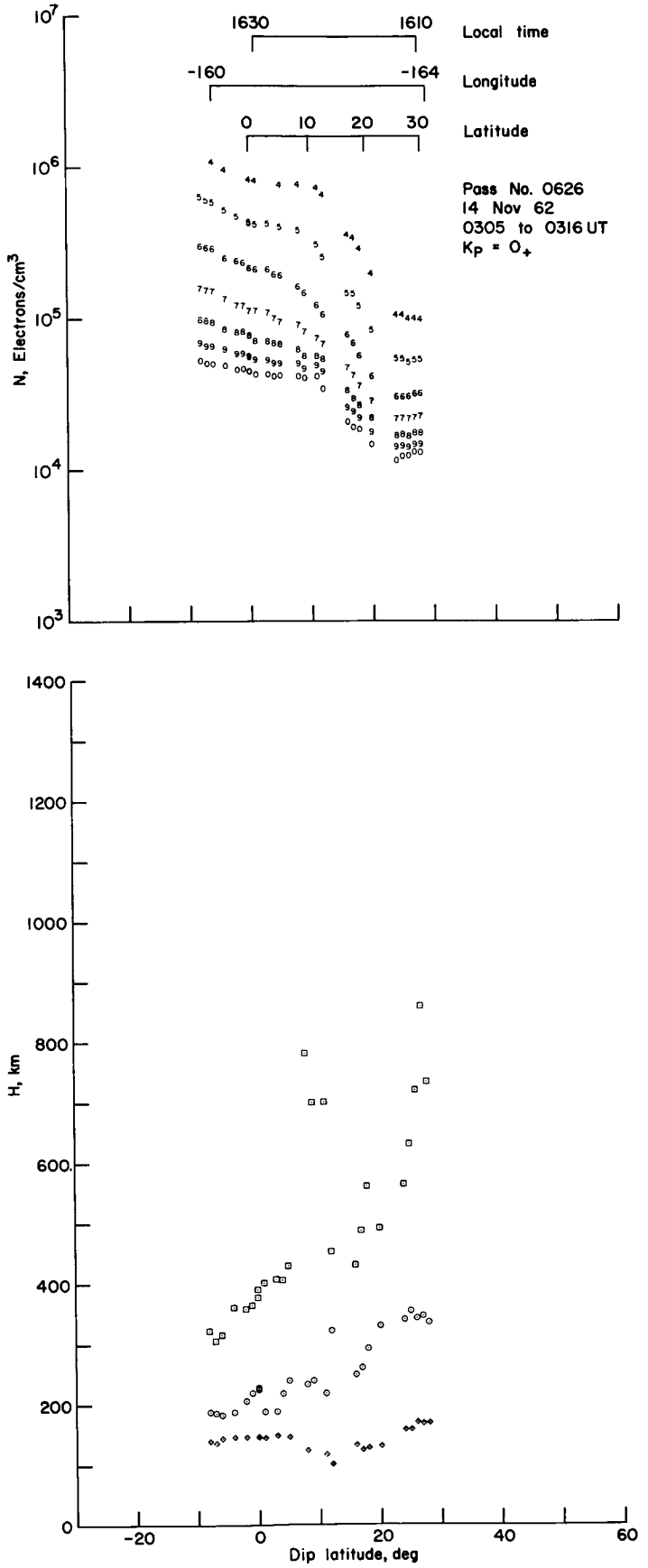

1630
1610
Local time
-160
-164
Longitude
0
10
20
30
Latitude
Pass No. 0626
14 Nov 62
0305 to 0316 UT
Kp = 0+
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 9

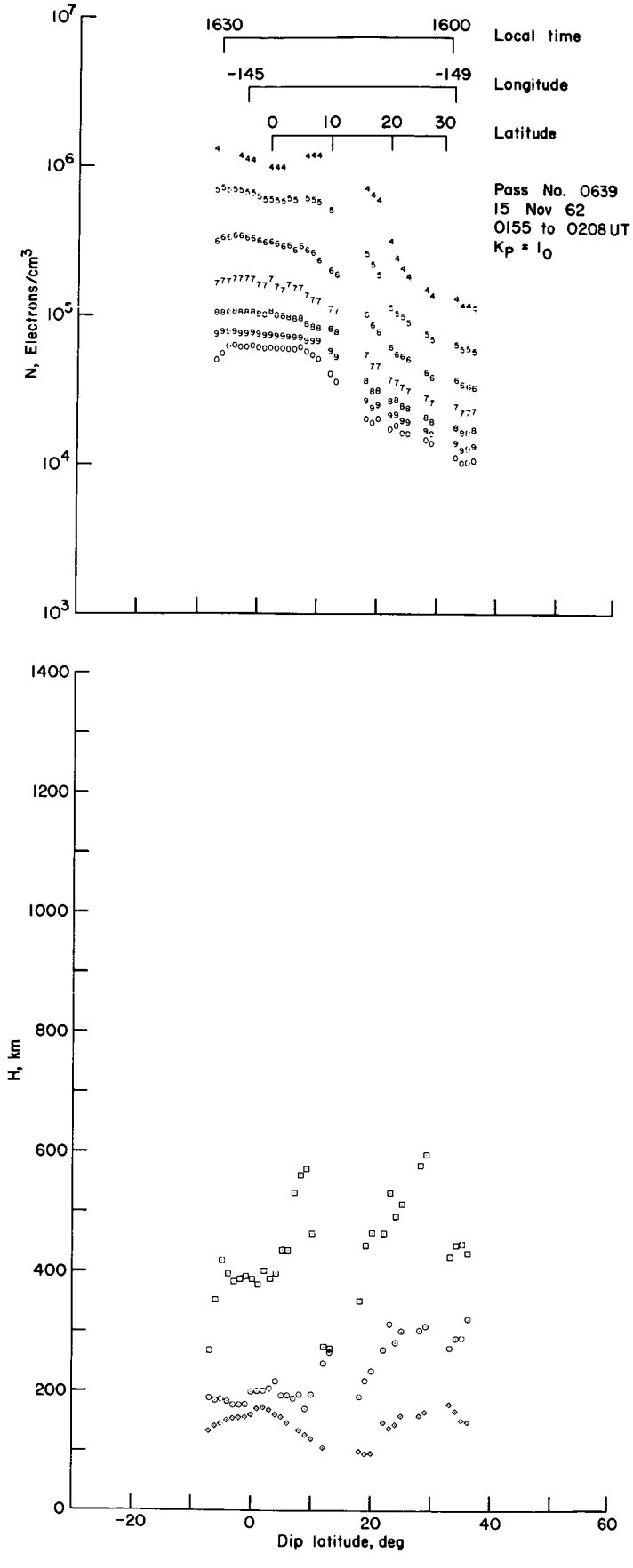

1630
1600
Local time
-145
-149
Longitude
0
10
20
30
Latitude
Pass No. 0639
15 Nov 62
0155 to 0208 UT
$K_P = I_0$
N, Electrons/cm^3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 10

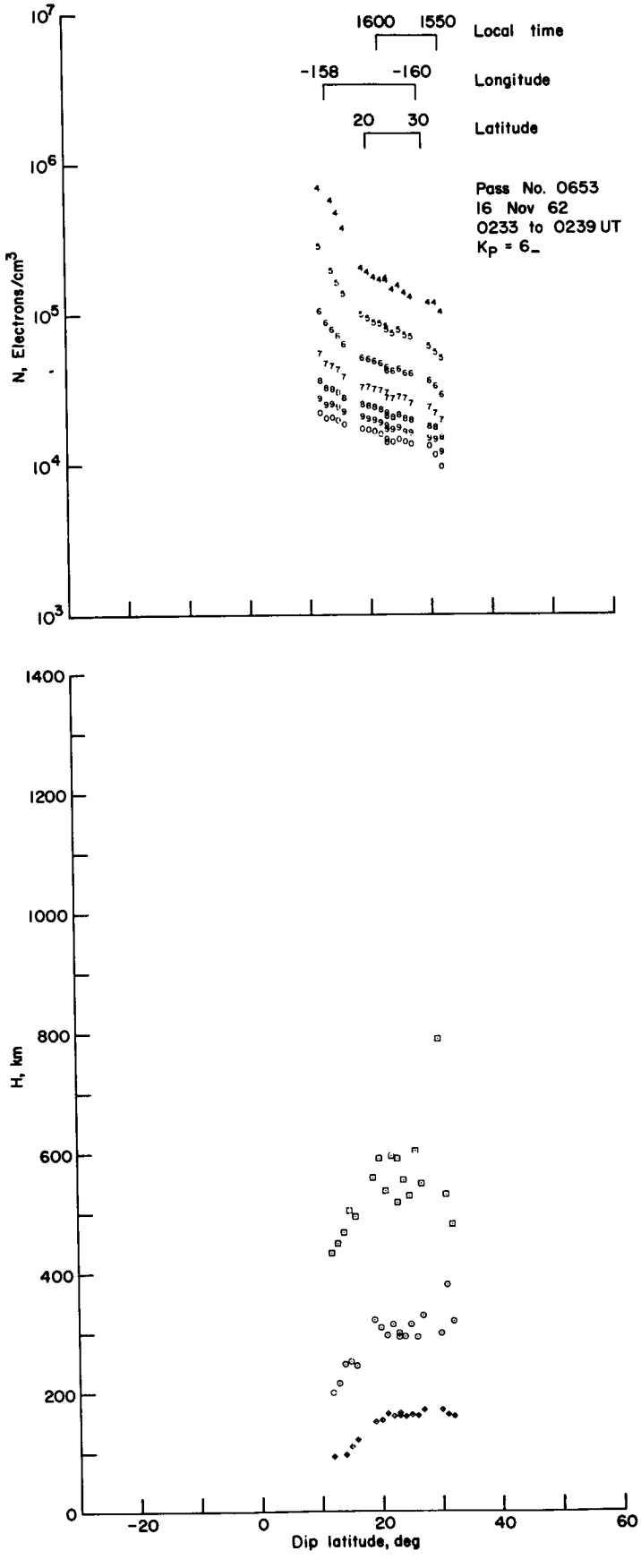

1600 1550
Local time
-158 -160
Longitude
20 30
Latitude
Pass No. 0653
16 Nov 62
0233 to 0239 UT
Kp = 6_
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 11

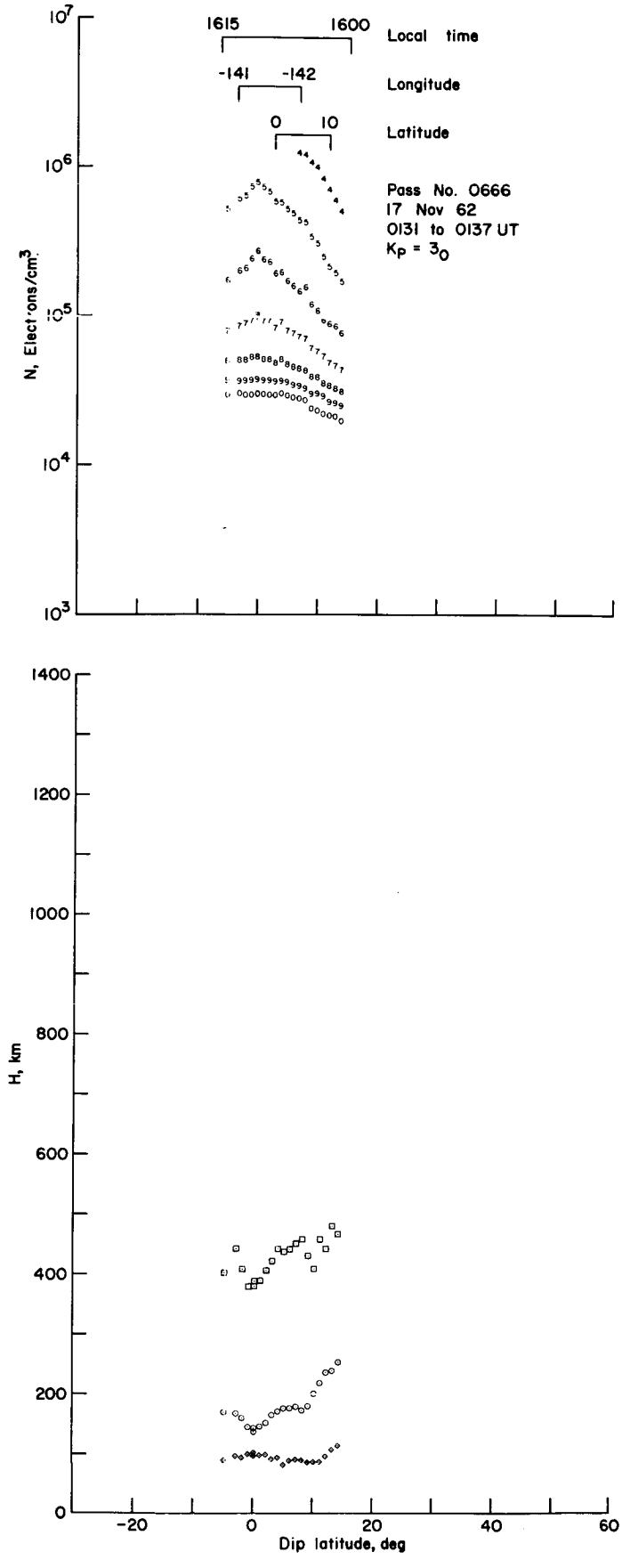

1615
1600
Local time
-141
-142
Longitude
0
10
Latitude
Pass No. 0666
17 Nov 62
0131 to 0137 UT
Kp = 3o
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 12

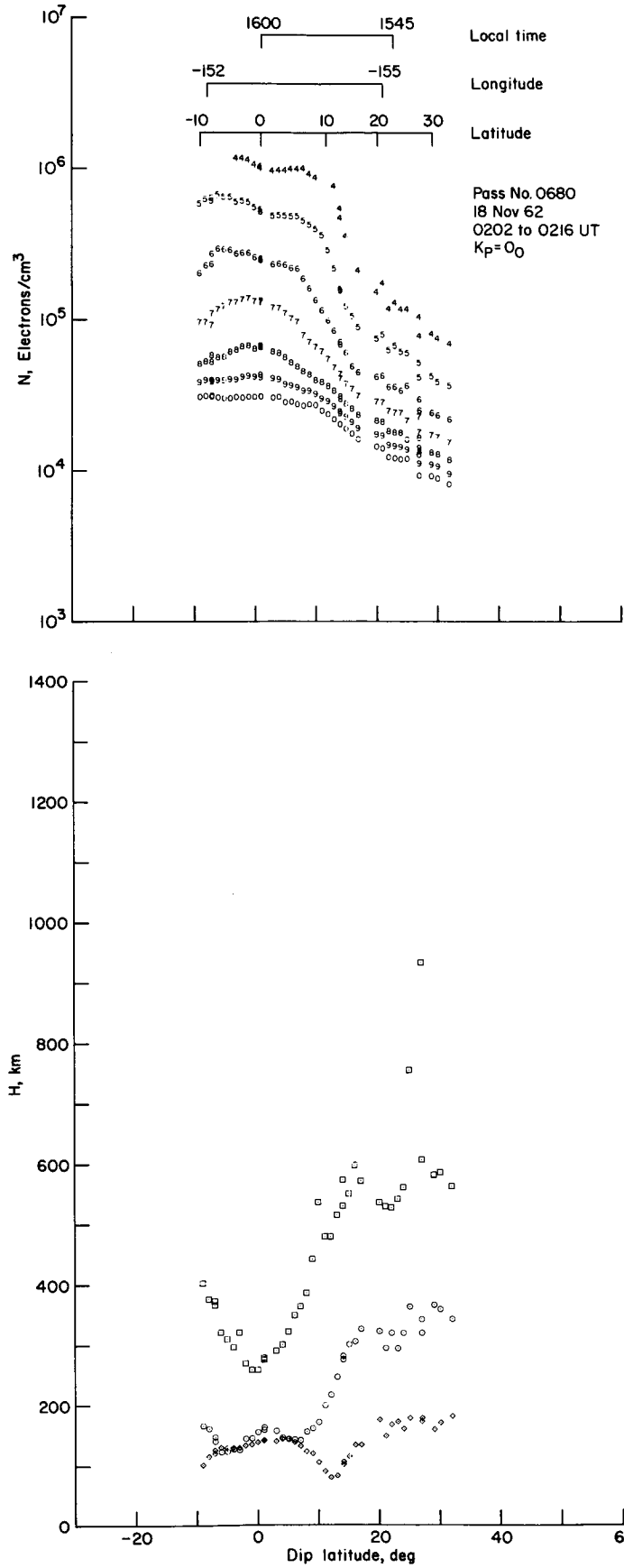

1600
1545
Local time
-152
-155
Longitude
-10
0
10
20
30
Latitude
Pass No. 0680
18 Nov 62
0202 to 0216 UT
Kp=0o
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 13

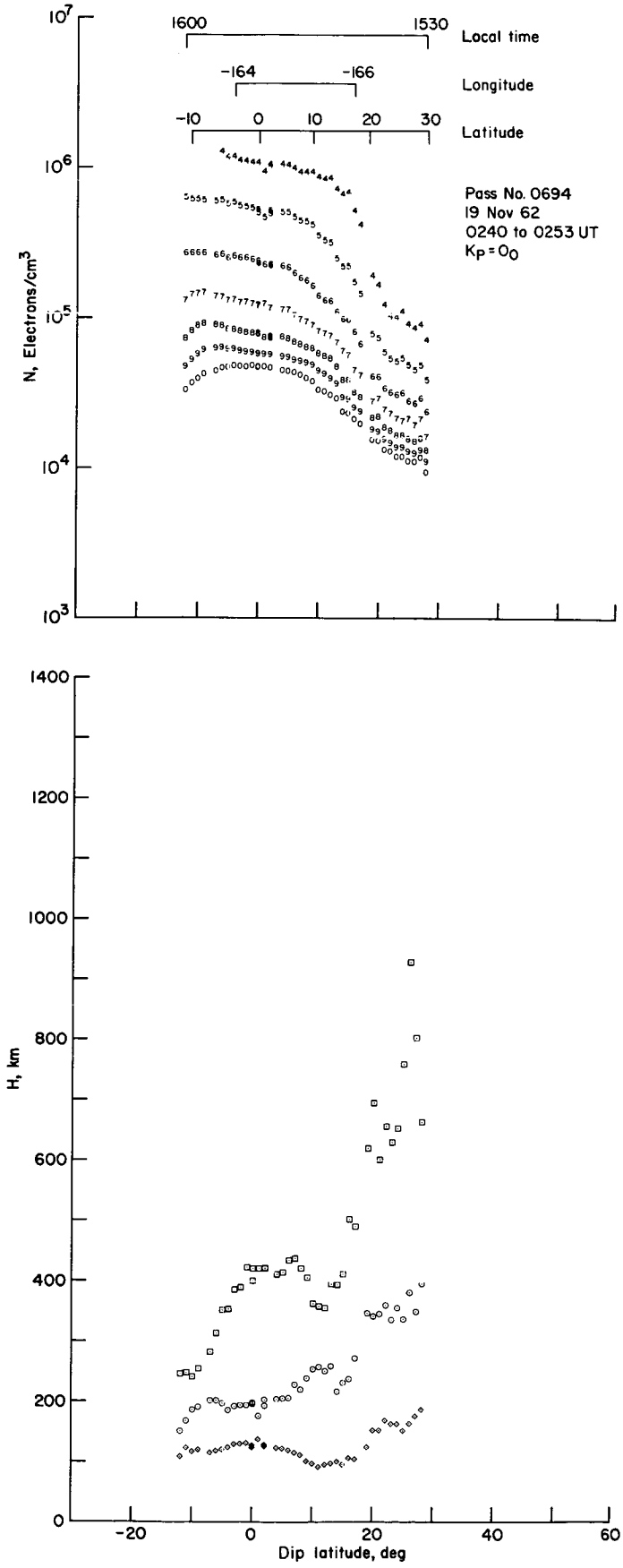

1600
1530
Local time
-164
-166
Longitude
-10
0
10
20
30
Latitude
Pass No. 0694
19 Nov 62
0240 to 0253 UT
Kp = 0o
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 14

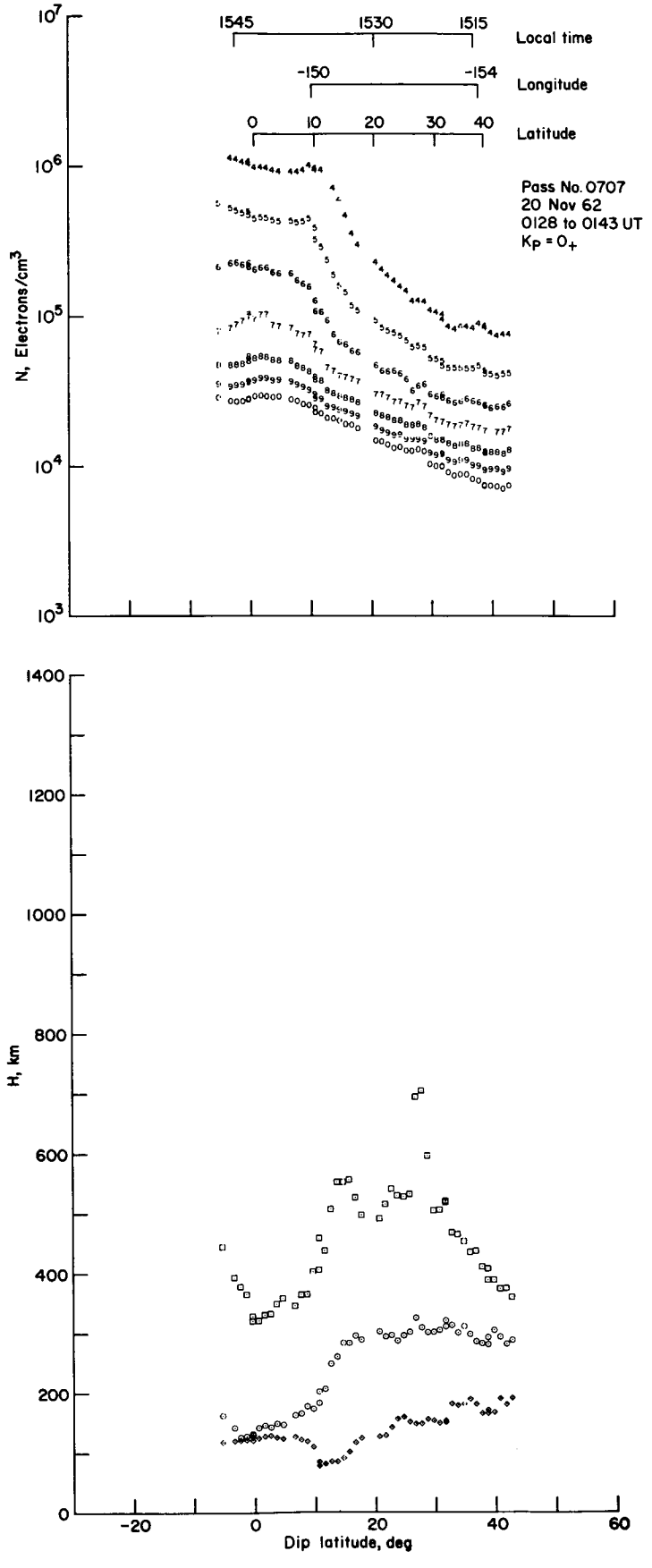

1545
1530
1515
Local time
-150
-154
Longitude
0
10
20
30
40
Latitude
Pass No. 0707
20 Nov 62
0128 to 0143 UT
Kp = 0+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 15

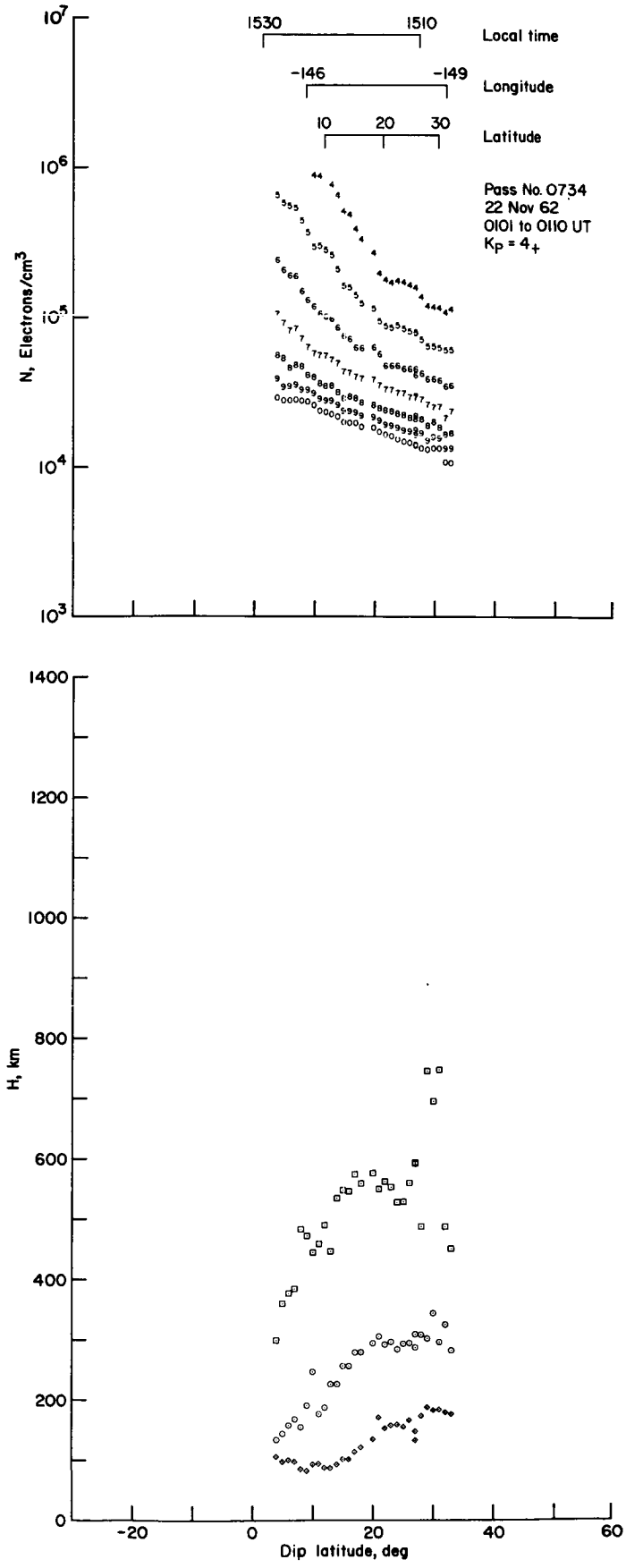

1530
1510
Local time
-146
-149
Longitude
10
20
30
Latitude
Pass No. 0734
22 Nov 62
0101 to 0110 UT
Kp = 4+
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 16

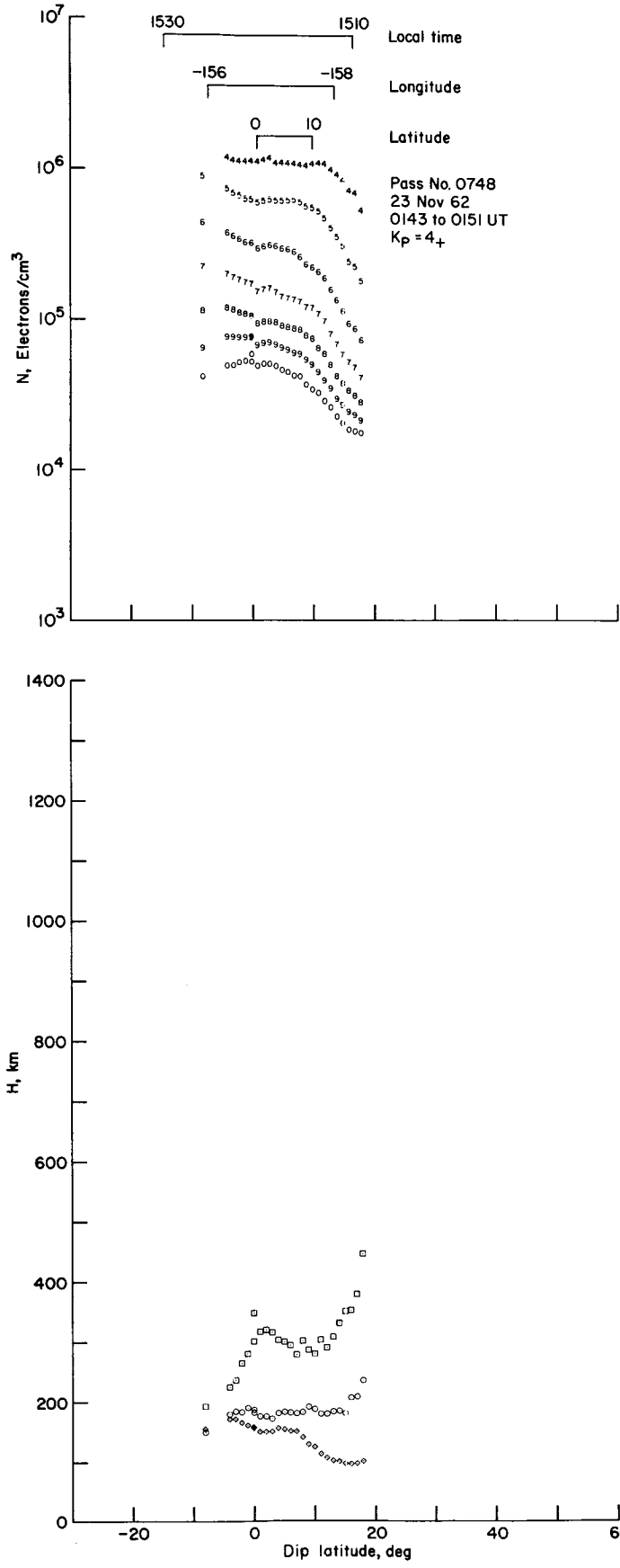

1530
1510
Local time
-156
-158
Longitude
0
10
Latitude
Pass No. 0748
23 Nov 62
0143 to 0151 UT
Kp = 4+
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 17

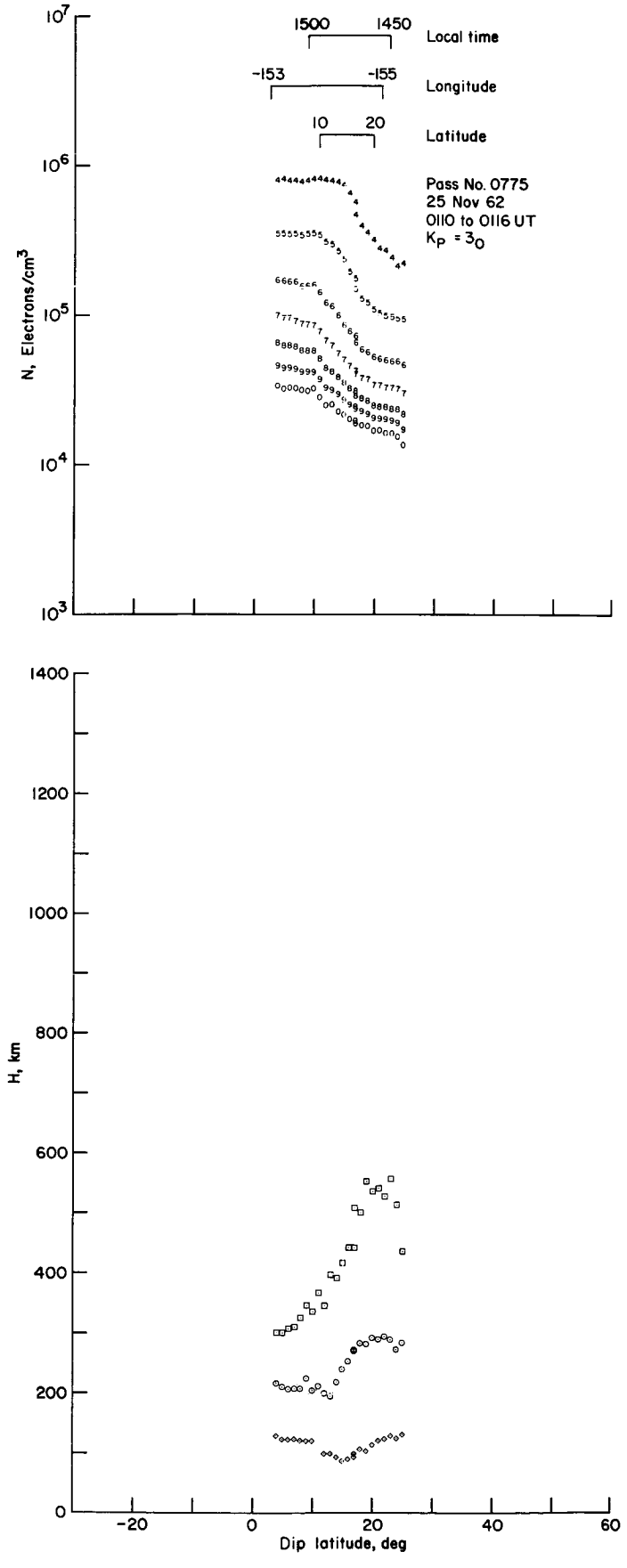

1500
1450
Local time
-153
-155
Longitude
10
20
Latitude
Pass No. 0775
25 Nov 62
0110 to 0116 UT
$K_P = 3_0$
N, Electrons/cm^3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 18

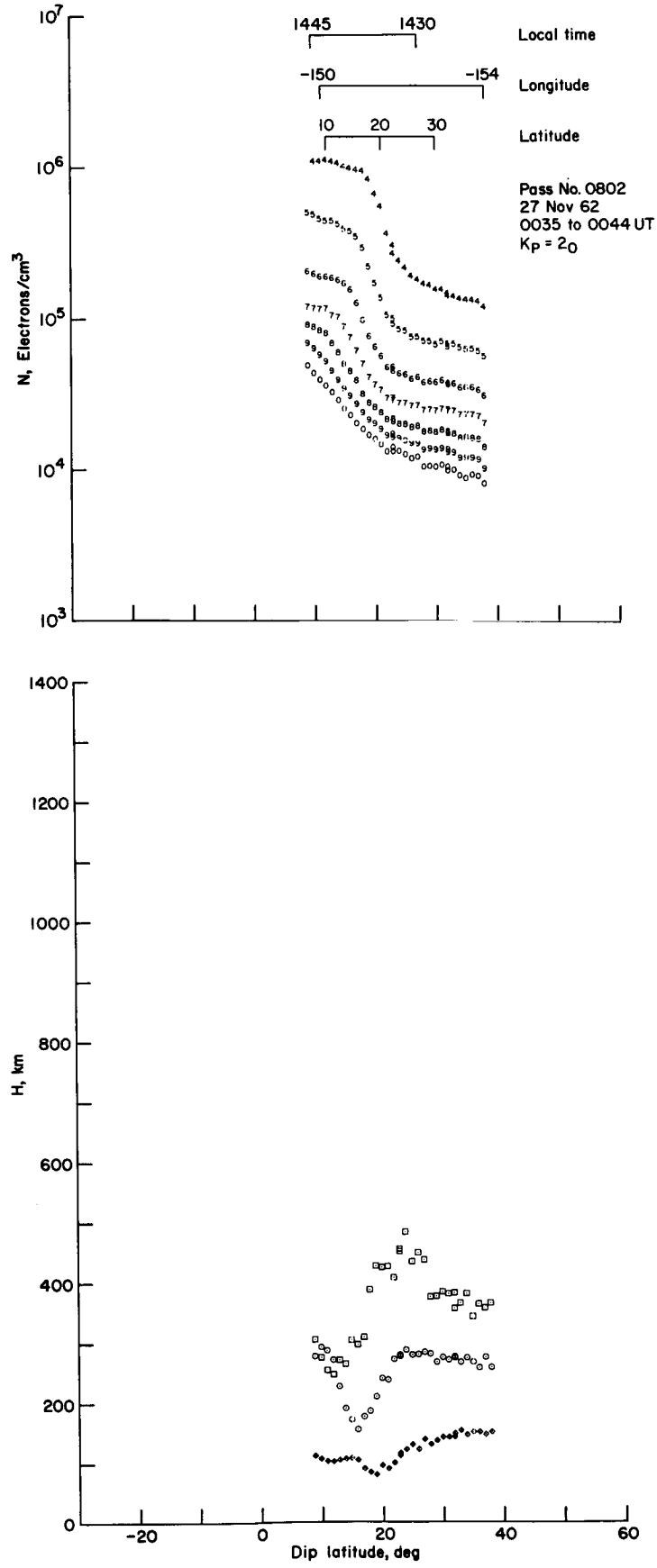

1445
1430
Local time
-150
-154
Longitude
10
20
30
Latitude
Pass No. 0802
27 Nov 62
0035 to 0044 UT
Kp = 2o
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 19

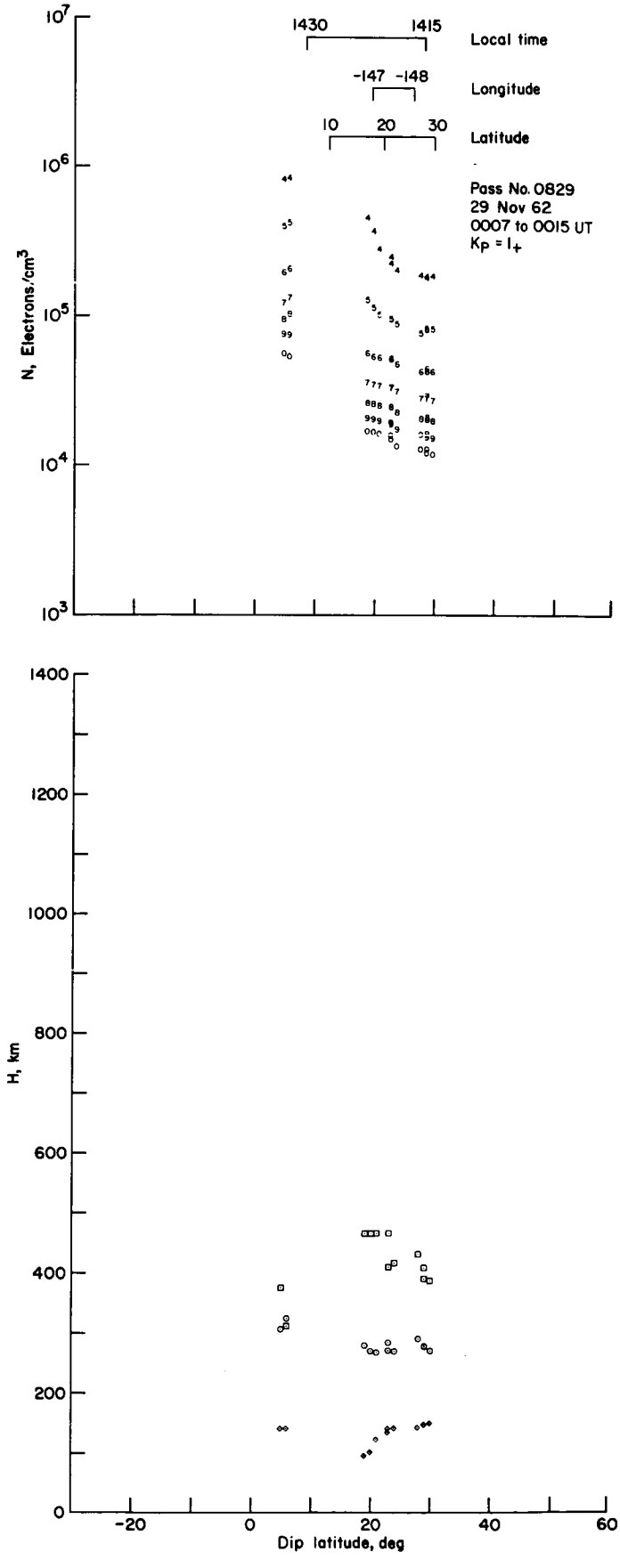

1430
1415
Local time
-147 -148
Longitude
10 20 30
Latitude
Pass No. 0829
29 Nov 62
0007 to 0015 UT
Kp = 1+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 20

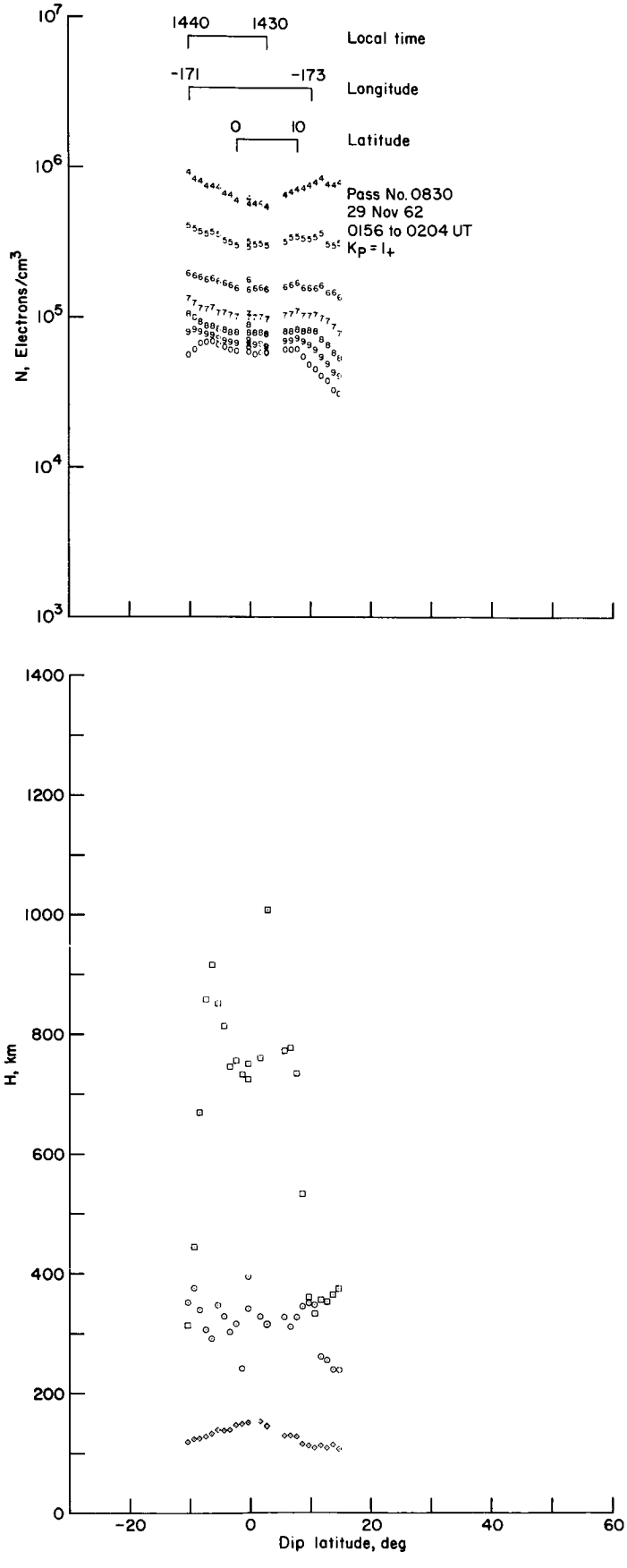

1440
1430
Local time
-171
-173
Longitude
0
10
Latitude
Pass No. 0830
29 Nov 62
0156 to 0204 UT
Kp = 1+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 21

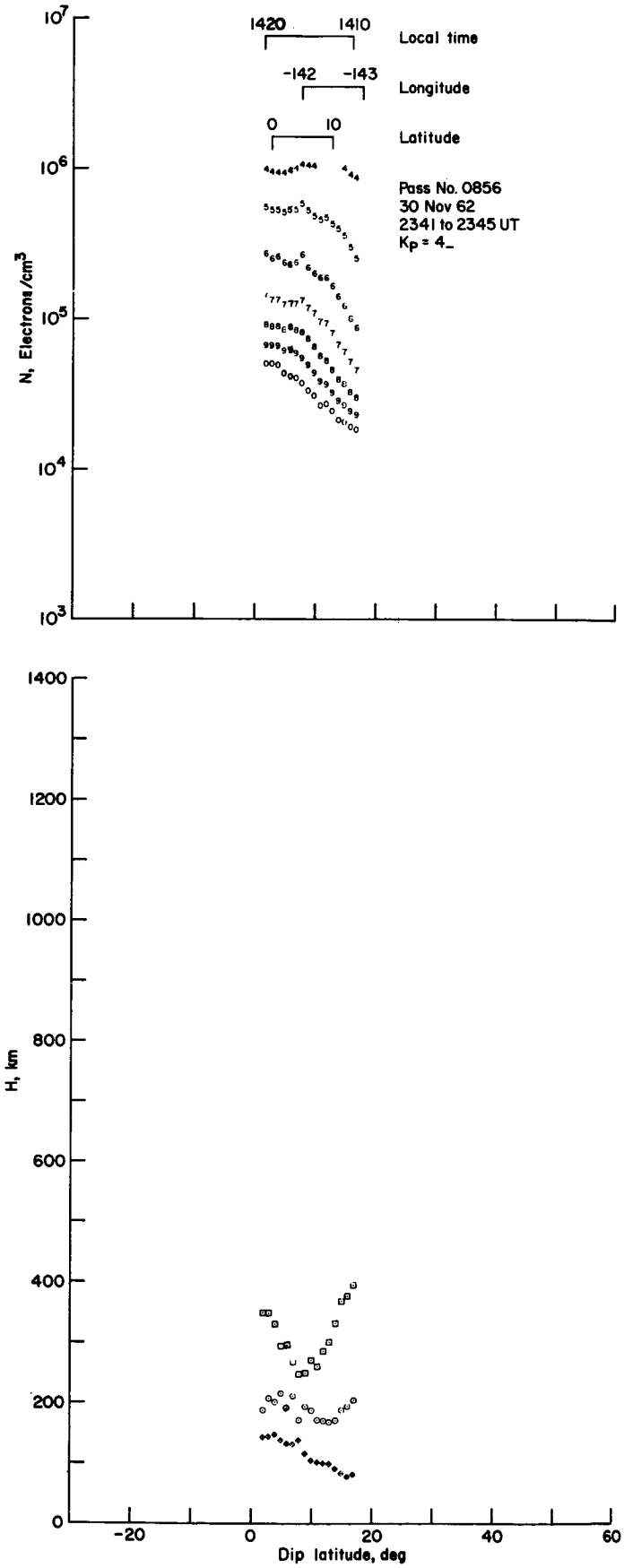

1420
1410
Local time
-142
-143
Longitude
0
10
Latitude
Pass No. 0856
30 Nov 62
2341 to 2345 UT
Kp = 4_
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 22

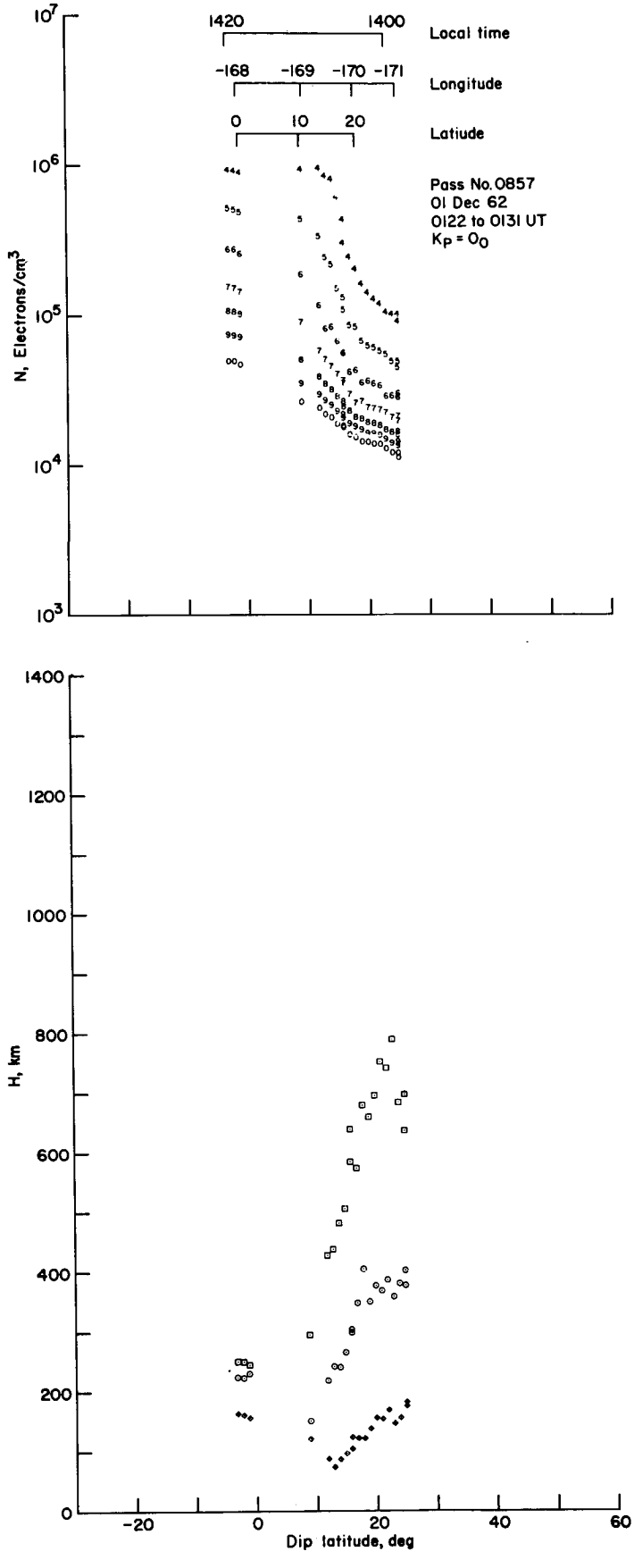

1420
1400
Local time
-168
-169
-170
-171
Longitude
0
10
20
Latiude
Pass No. 0857
01 Dec 62
0122 to 0131 UT
Kp = 0o
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 23

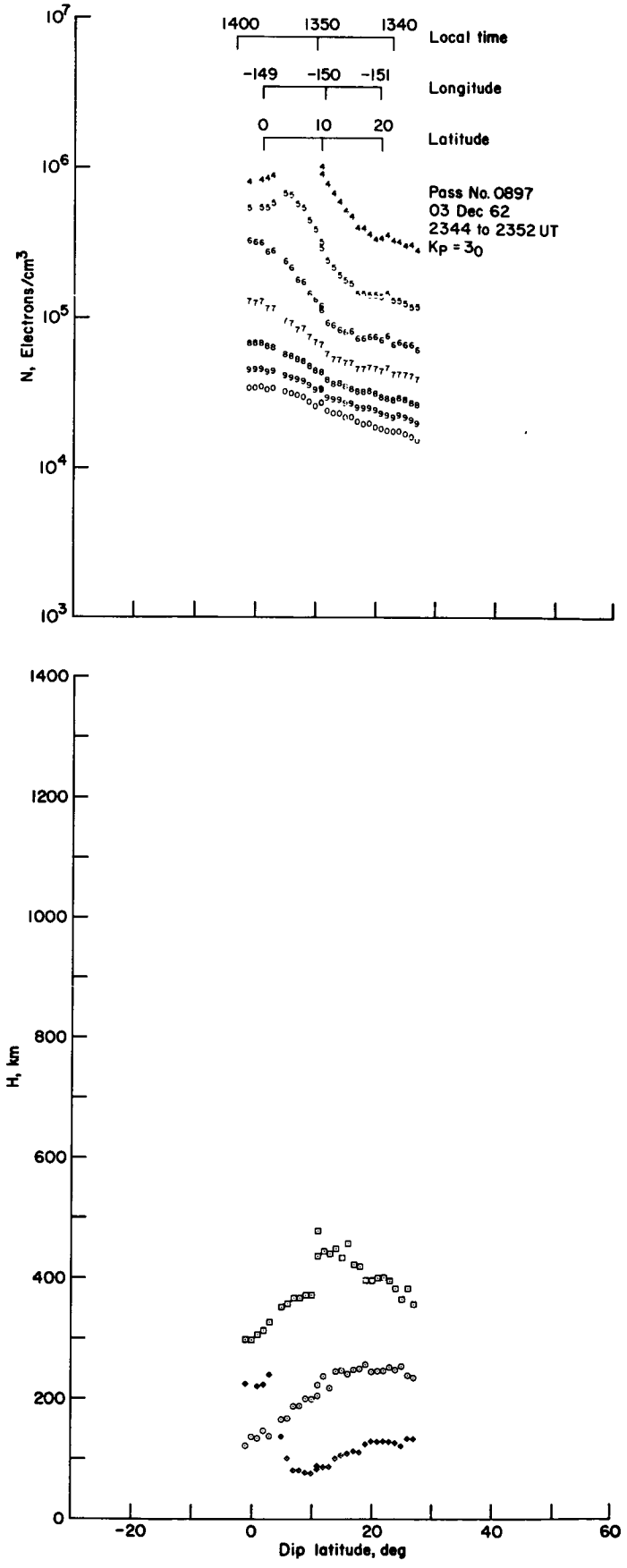

1400 1350 1340
Local time
-149 -150 -151
Longitude
0 10 20
Latitude
Pass No. 0897
03 Dec 62
2344 to 2352 UT
Kp = 3o
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 24

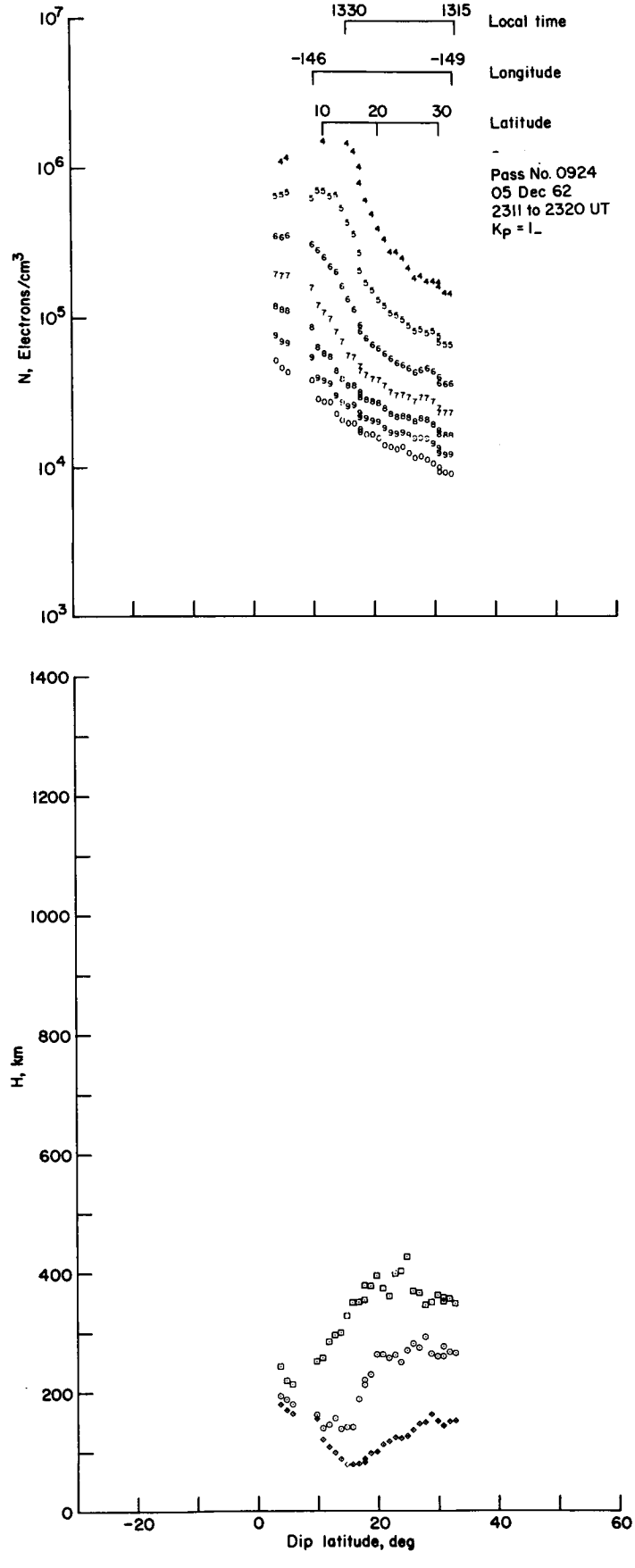

1330
1315
Local time
-146
-149
Longitude
10
20
30
Latitude
Pass No. 0924
05 Dec 62
2311 to 2320 UT
Kp = 1-
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 25

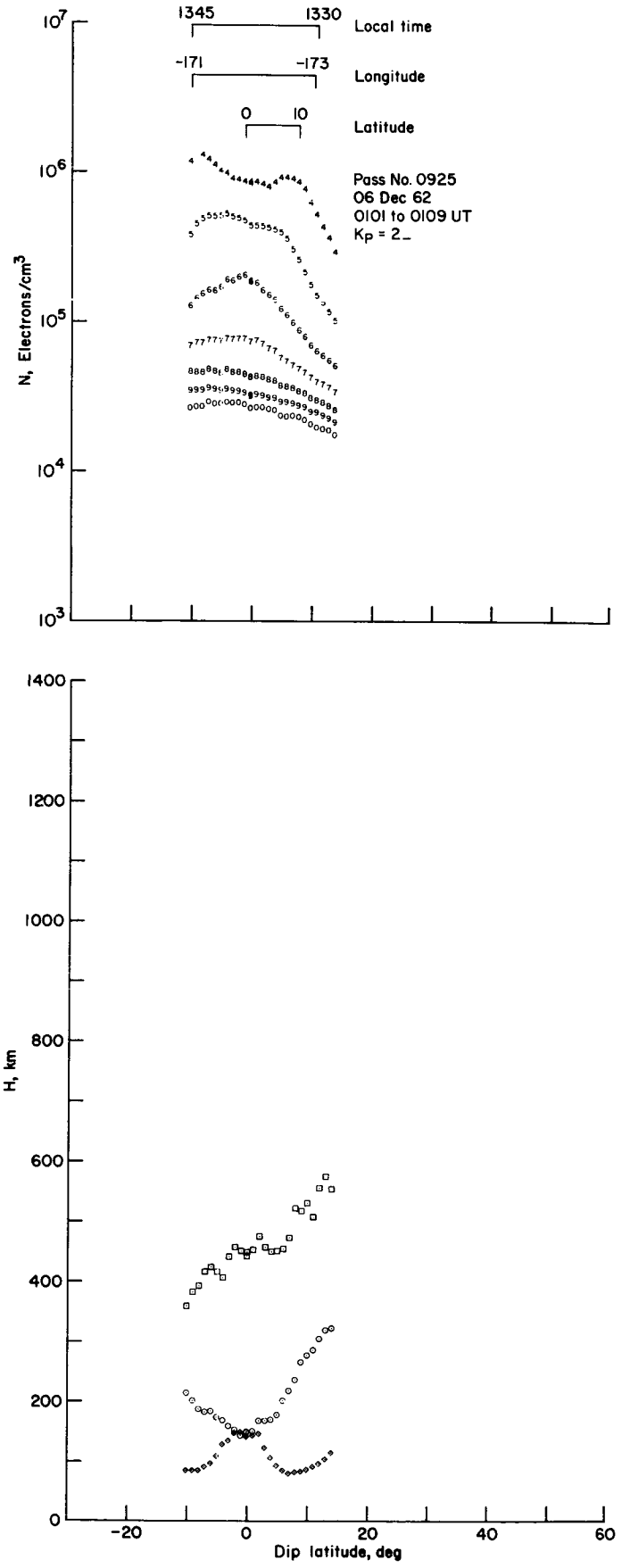

1345
1330
Local time
-171
-173
Longitude
0
10
Latitude
Pass No. 0925
06 Dec 62
0101 to 0109 UT
Kp = 2_
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 26

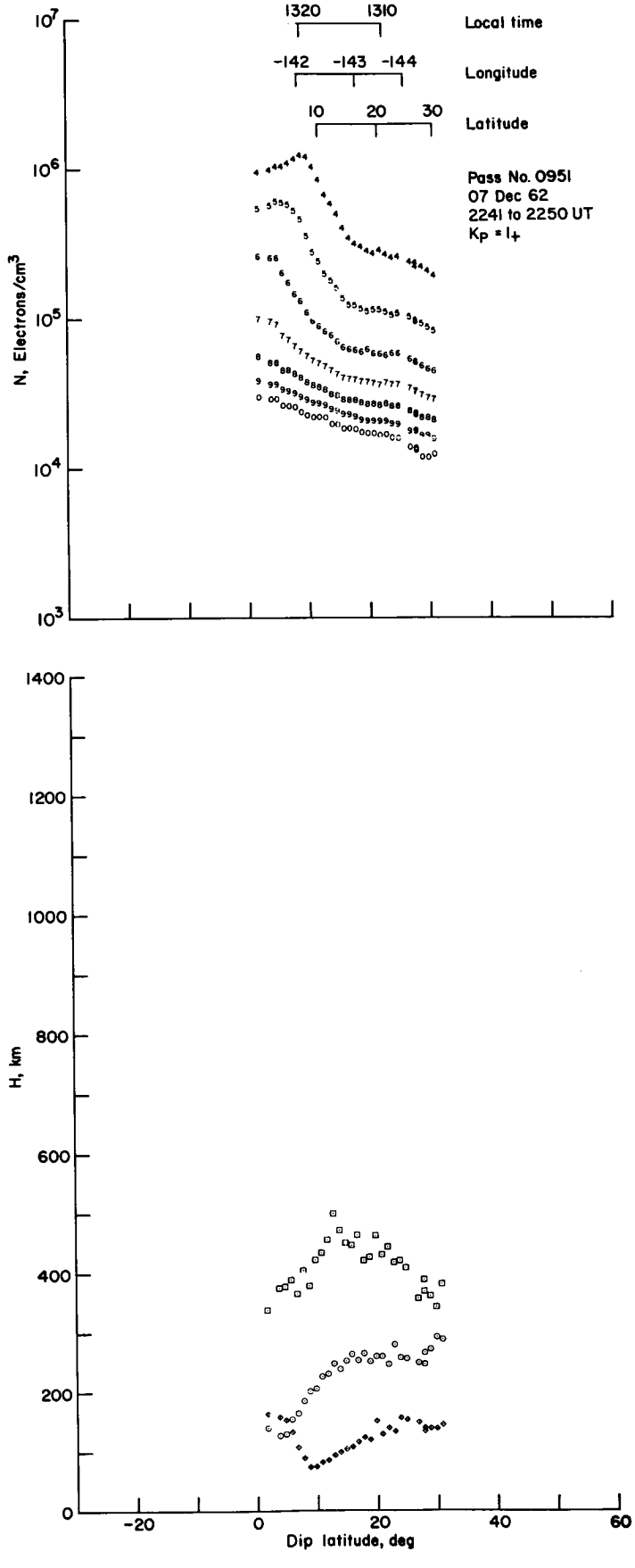

1320 1310
Local time
-142 -143 -144
Longitude
10 20 30
Latitude
Pass No. 0951
07 Dec 62
2241 to 2250 UT
Kp = 1+
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 27

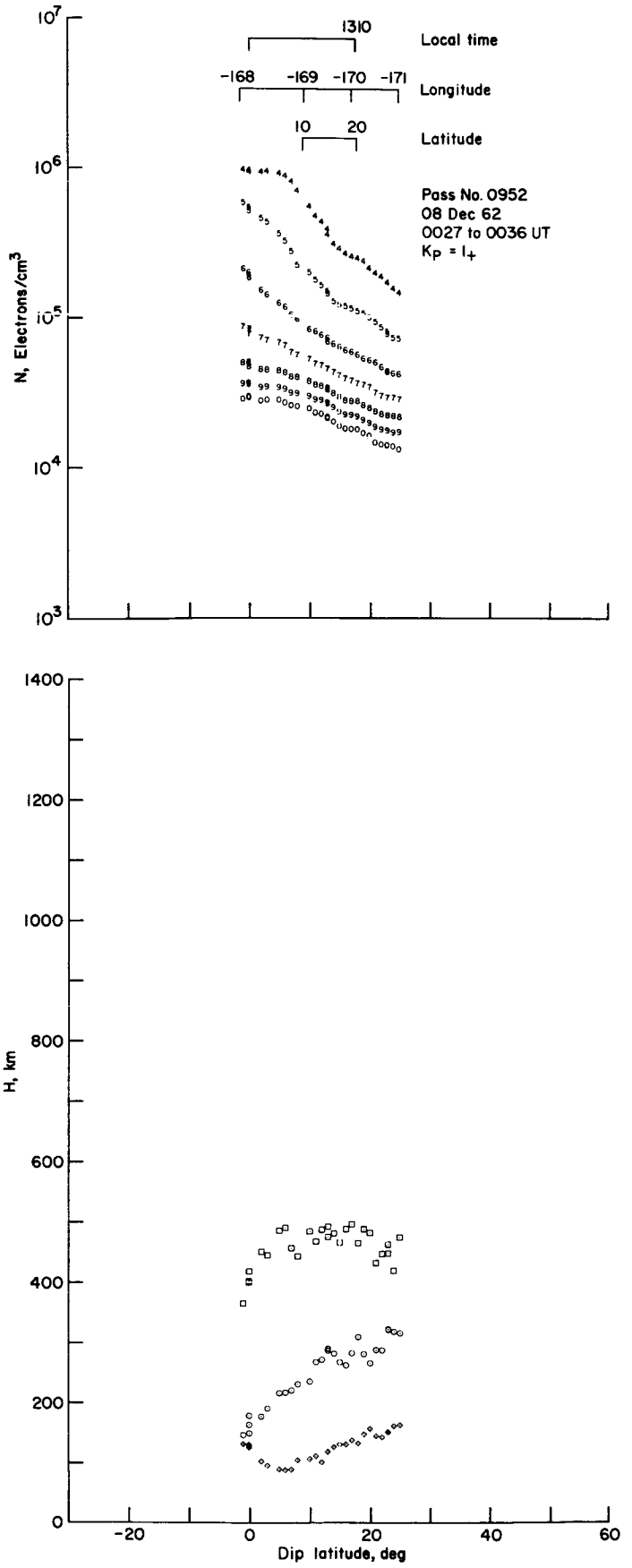

1310
Local time
-168 -169 -170 -171
Longitude
10 20
Latitude
Pass No. 0952
08 Dec 62
0027 to 0036 UT
Kp = 1+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 28

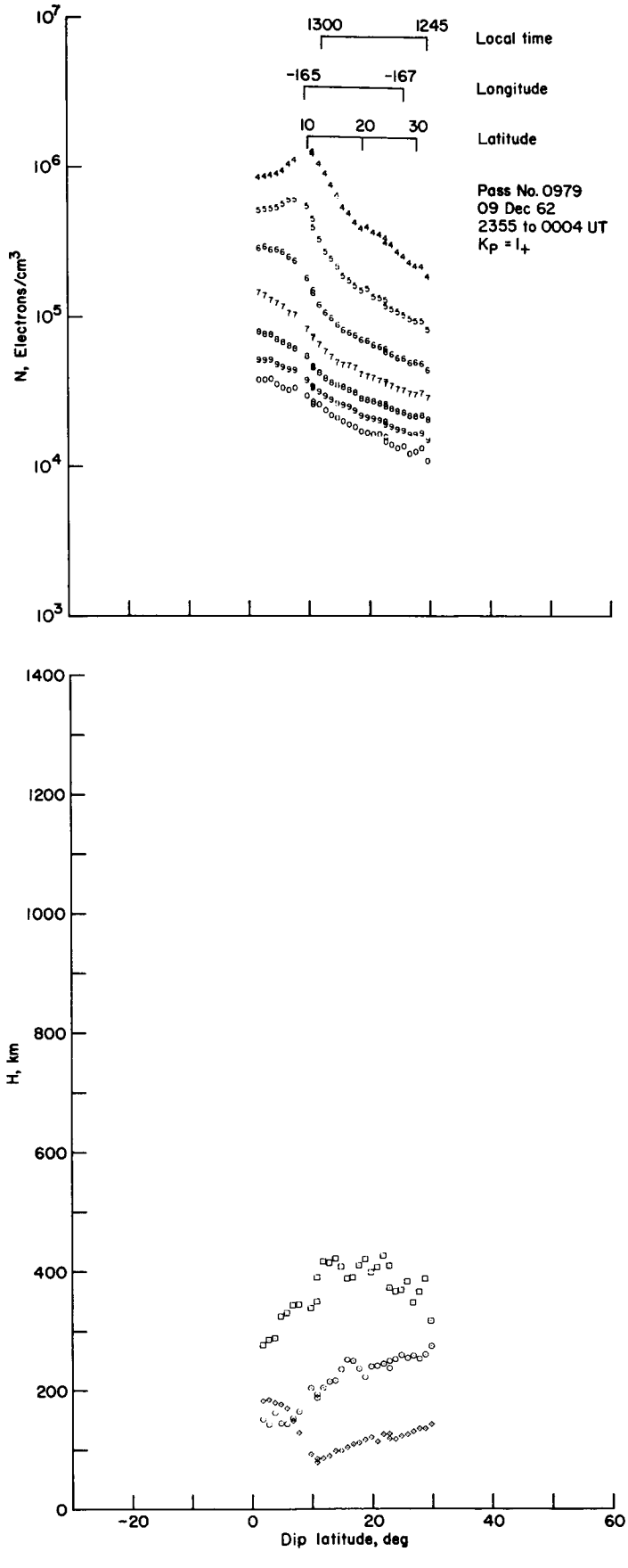

1300
1245
Local time
-165
-167
Longitude
10
20
30
Latitude
Pass No. 0979
09 Dec 62
2355 to 0004 UT
Kp = 1+
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 29

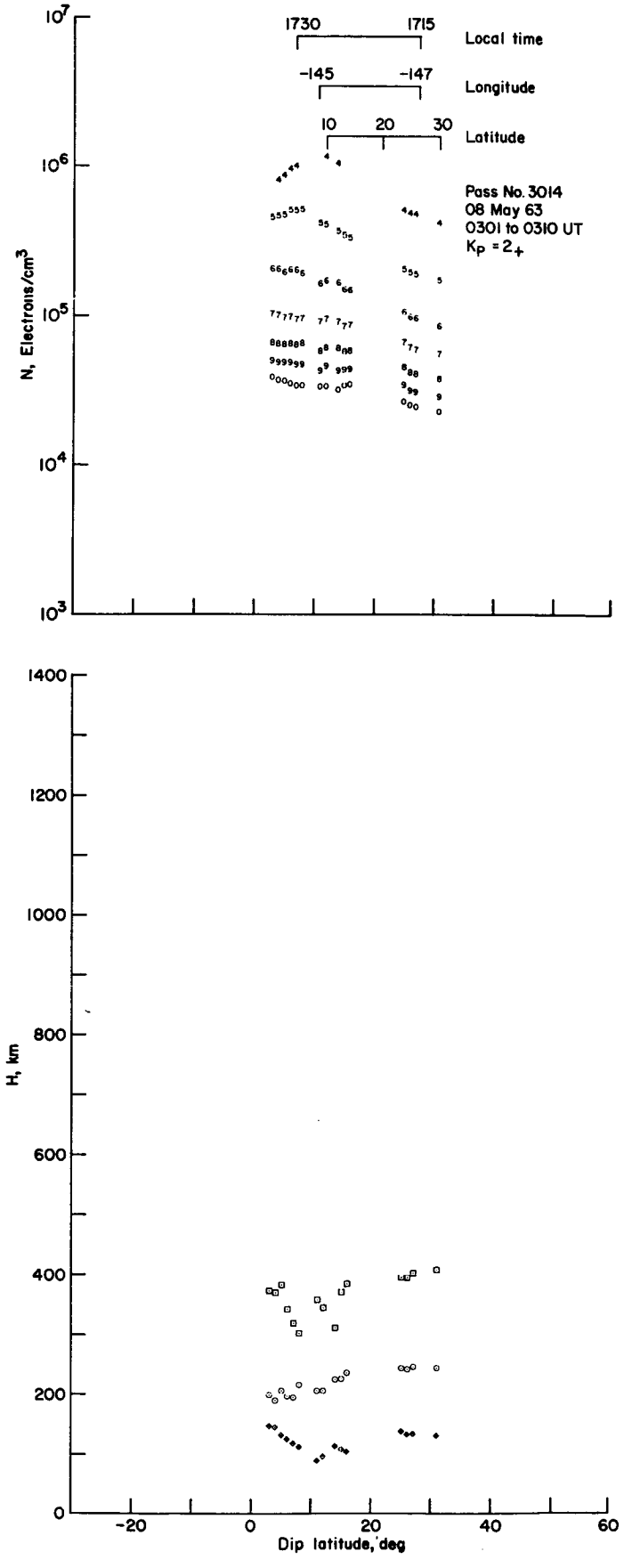

1730
1715
Local time
-145
-147
Longitude
10
20
30
Latitude
Pass No. 3014
08 May 63
0301 to 0310 UT
Kp = 2+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 30

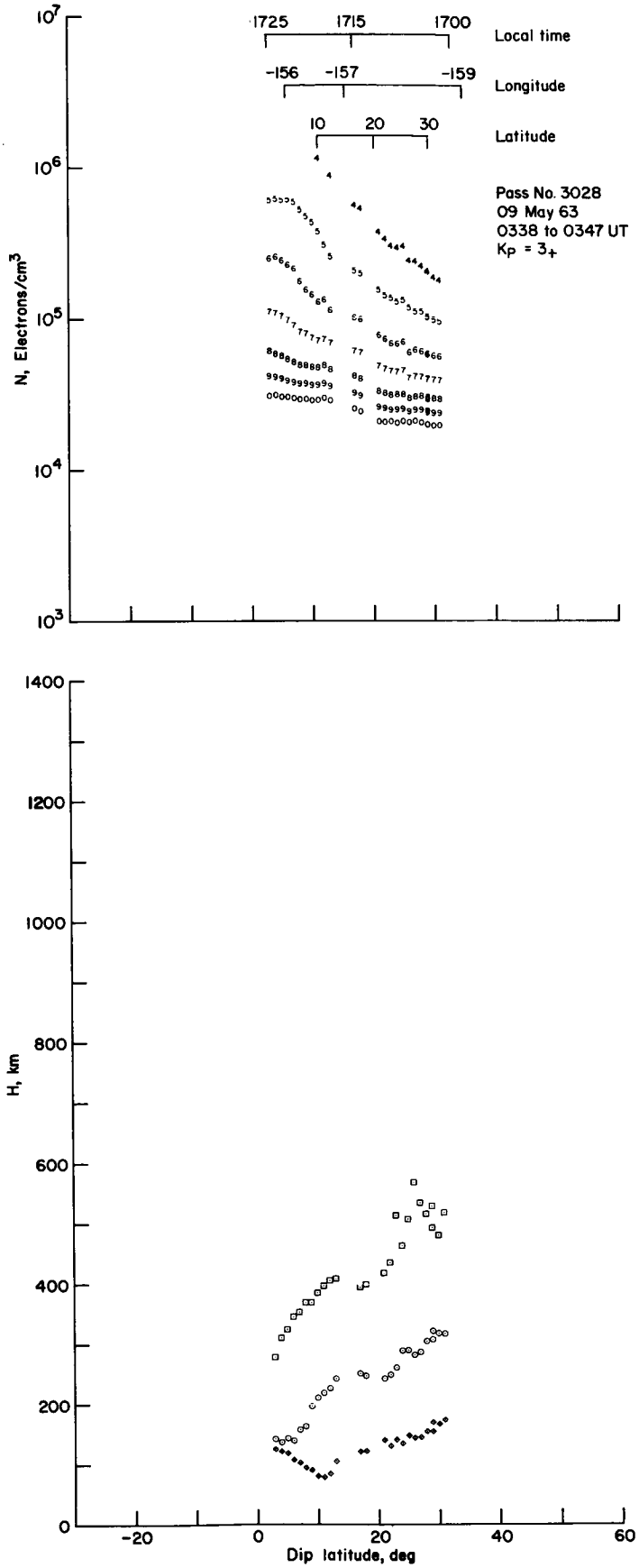

1725
1715
1700
Local time
-156
-157
-159
Longitude
10
20
30
Latitude
Pass No. 3028
09 May 63
0338 to 0347 UT
Kp = 3+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 31

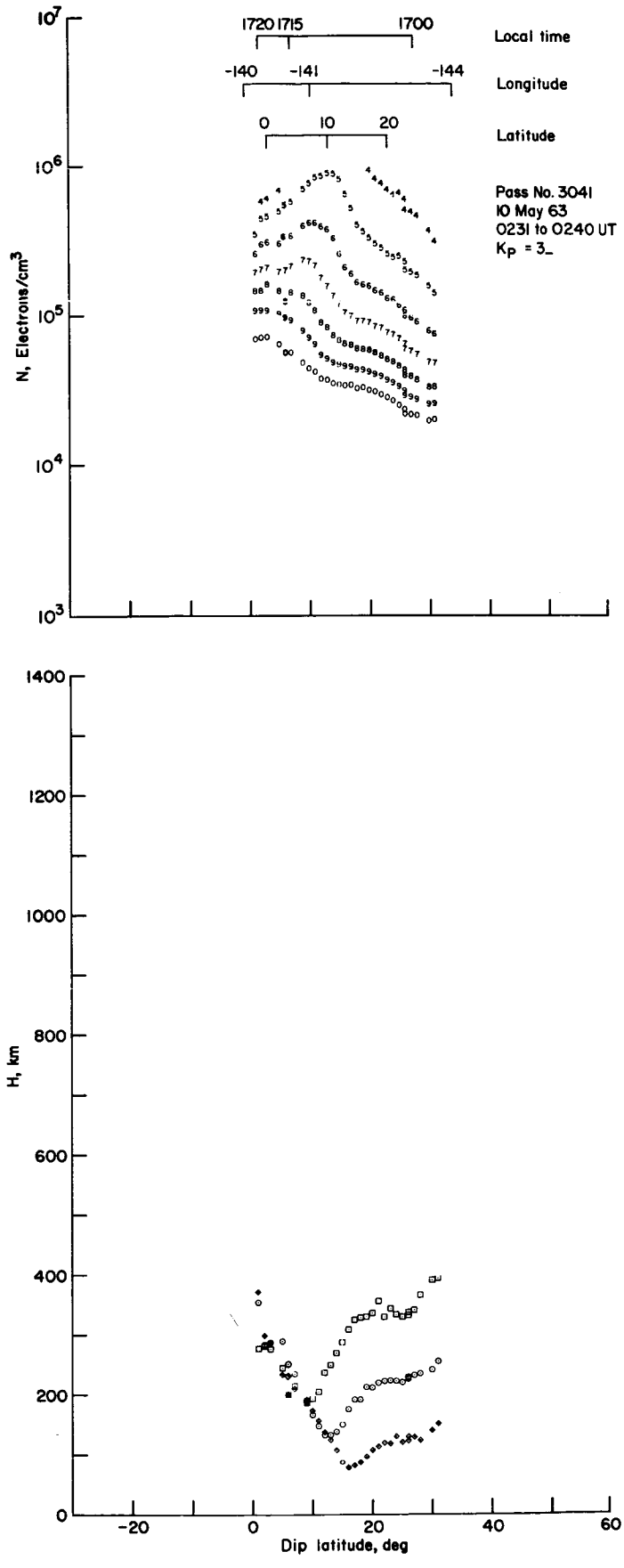
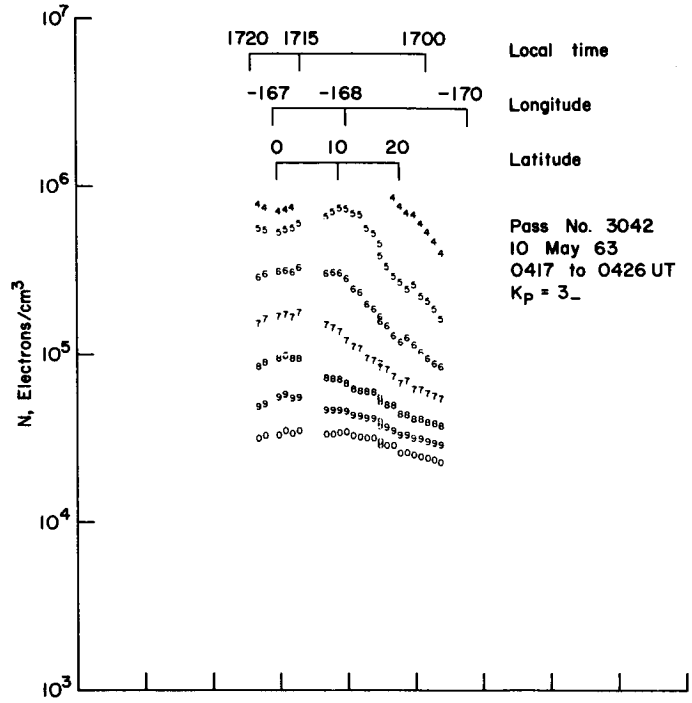

1720 1715 1700
Local time
-140 -141 -144
Longitude
0 10 20
Latitude
Pass No. 3041
10 May 63
0231 to 0240 UT
Kp = 3_
N, Electrons/cm³
10⁷
10⁶
10⁵
10⁴
10³
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 32


1720 1715 1700
Local time
-167 -168 -170
Longitude
0 10 20
Latitude
Pass No. 3042
10 May 63
0417 to 0426 UT
Kp = 3_
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3

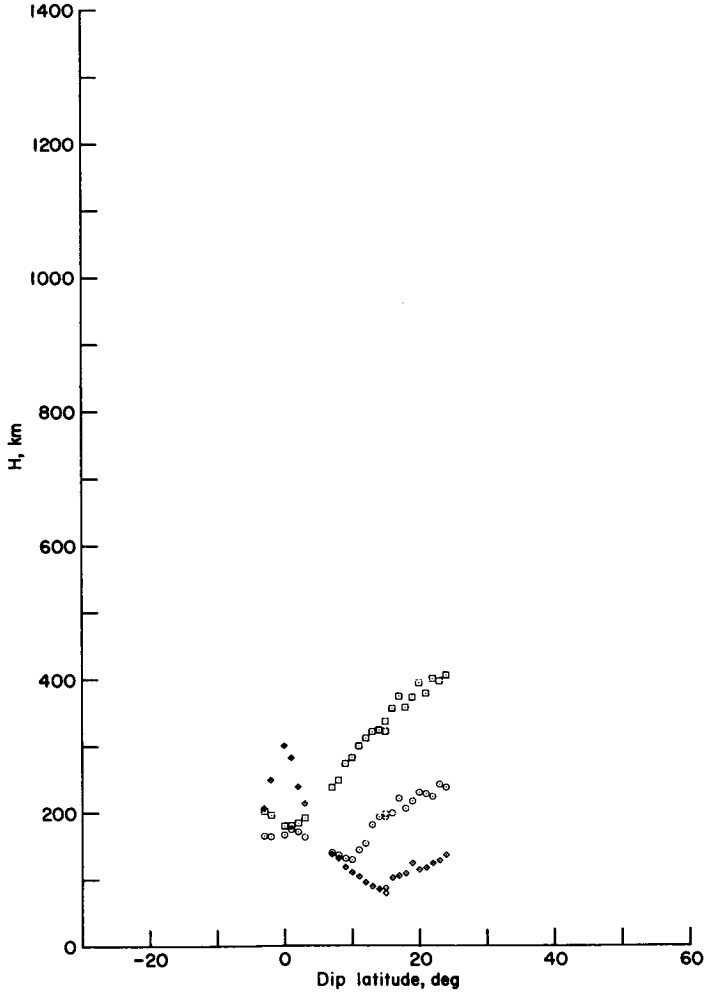

H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 33

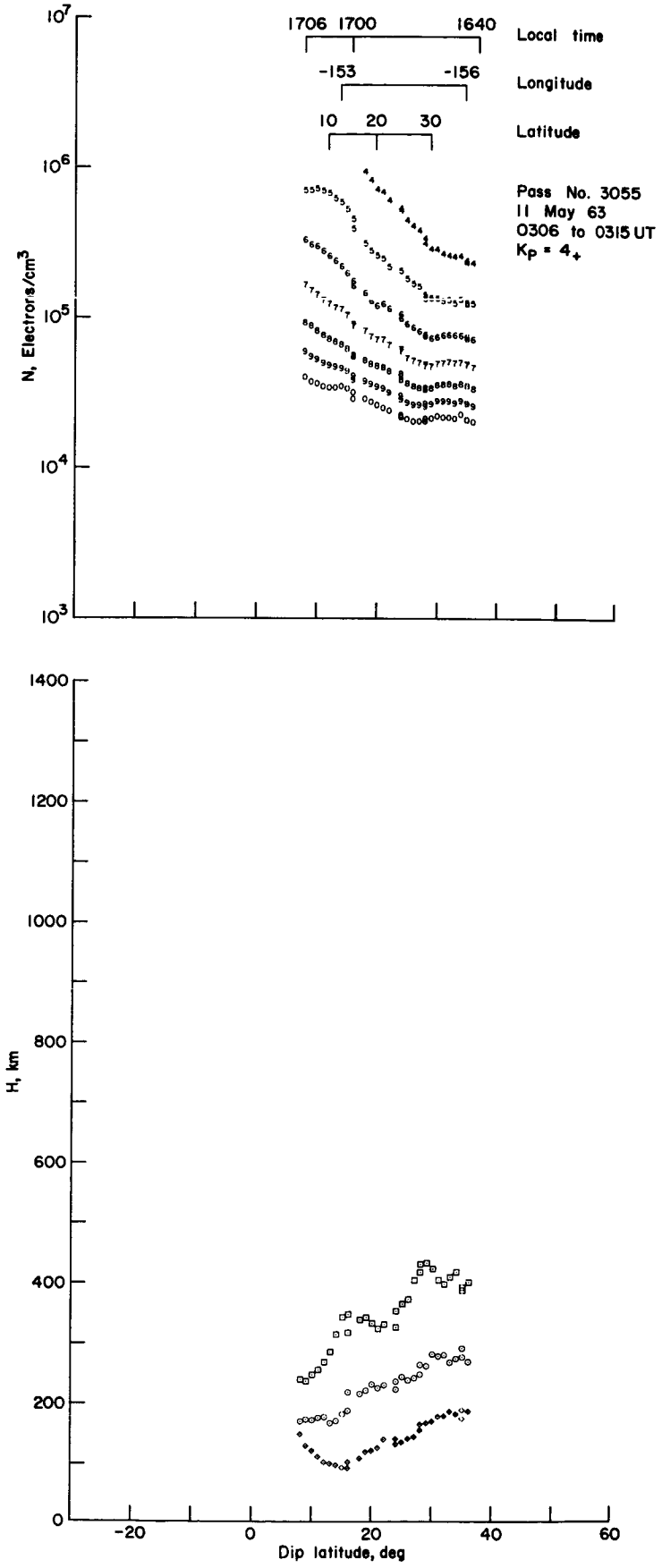
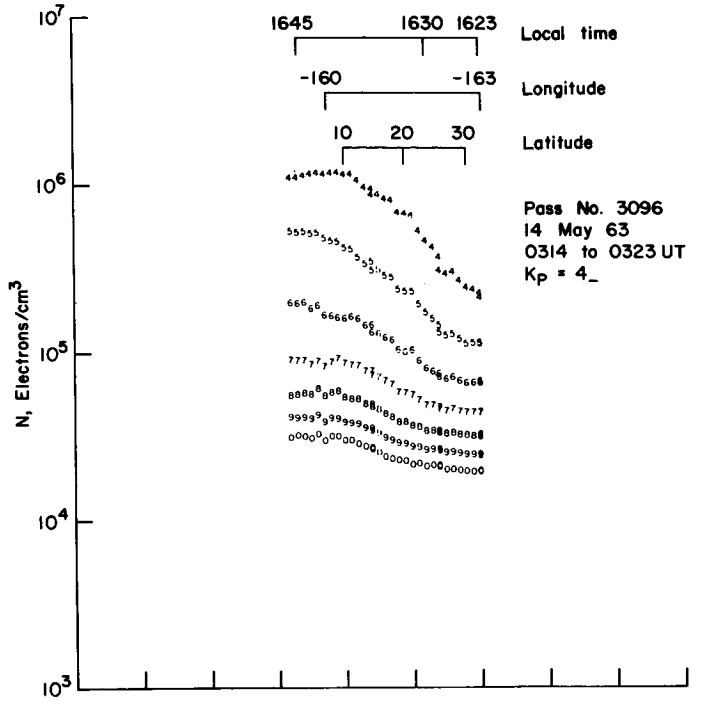

1706 1700 1640
Local time
-153 -156
Longitude
10 20 30
Latitude
Pass No. 3055
11 May 63
0306 to 0315 UT
Kp = 4+
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 34


1645
1630
1623
Local time
-160
-163
Longitude
10
20
30
Latitude
Pass No. 3096
14 May 63
0314 to 0323 UT
Kp = 4_
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3

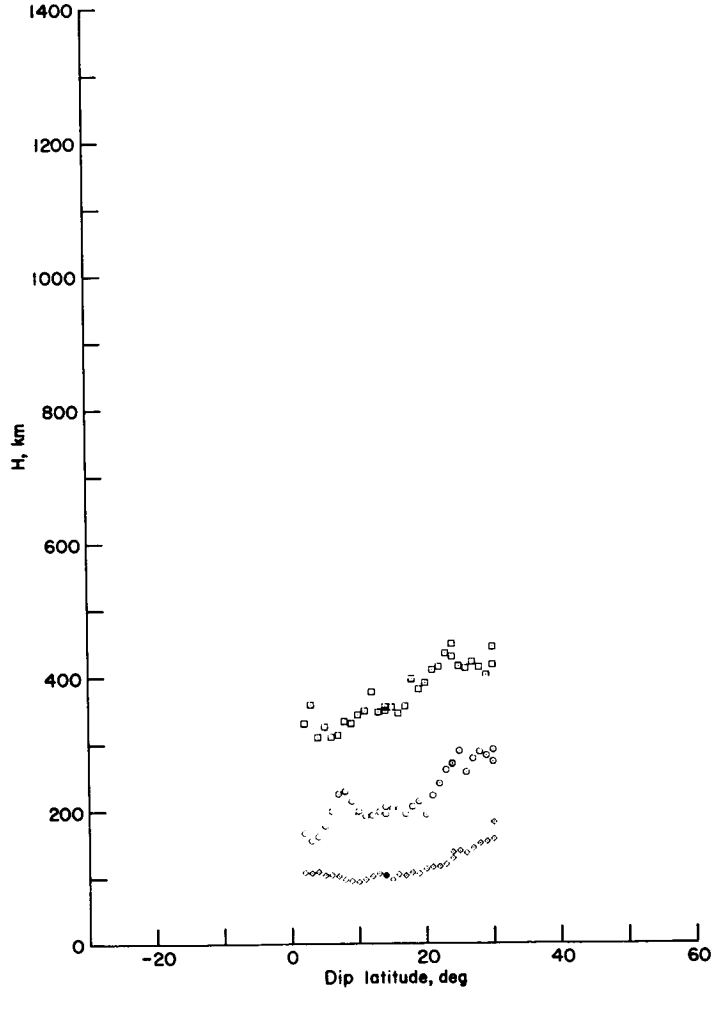

H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 35

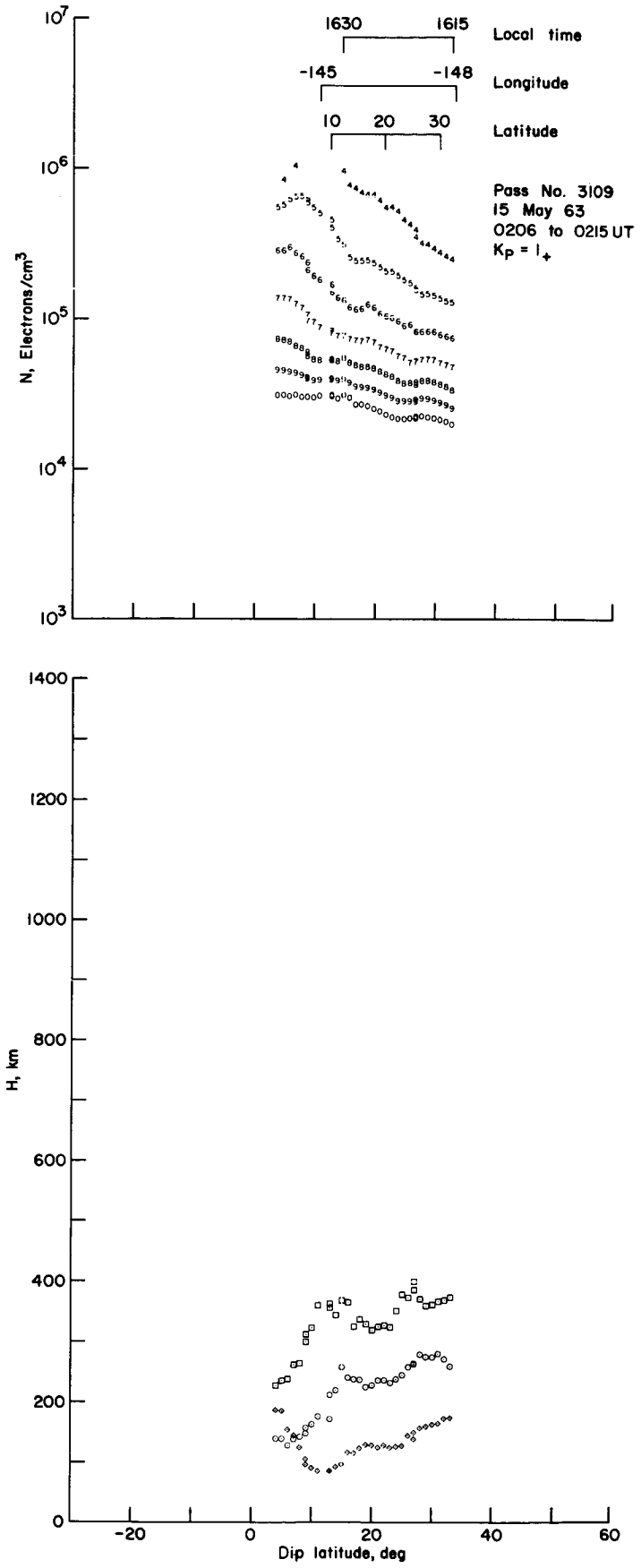

1630
1615
Local time
-145
-148
Longitude
10
20
30
Latitude
Pass No. 3109
15 May 63
0206 to 0215 UT
Kp = 1+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 36

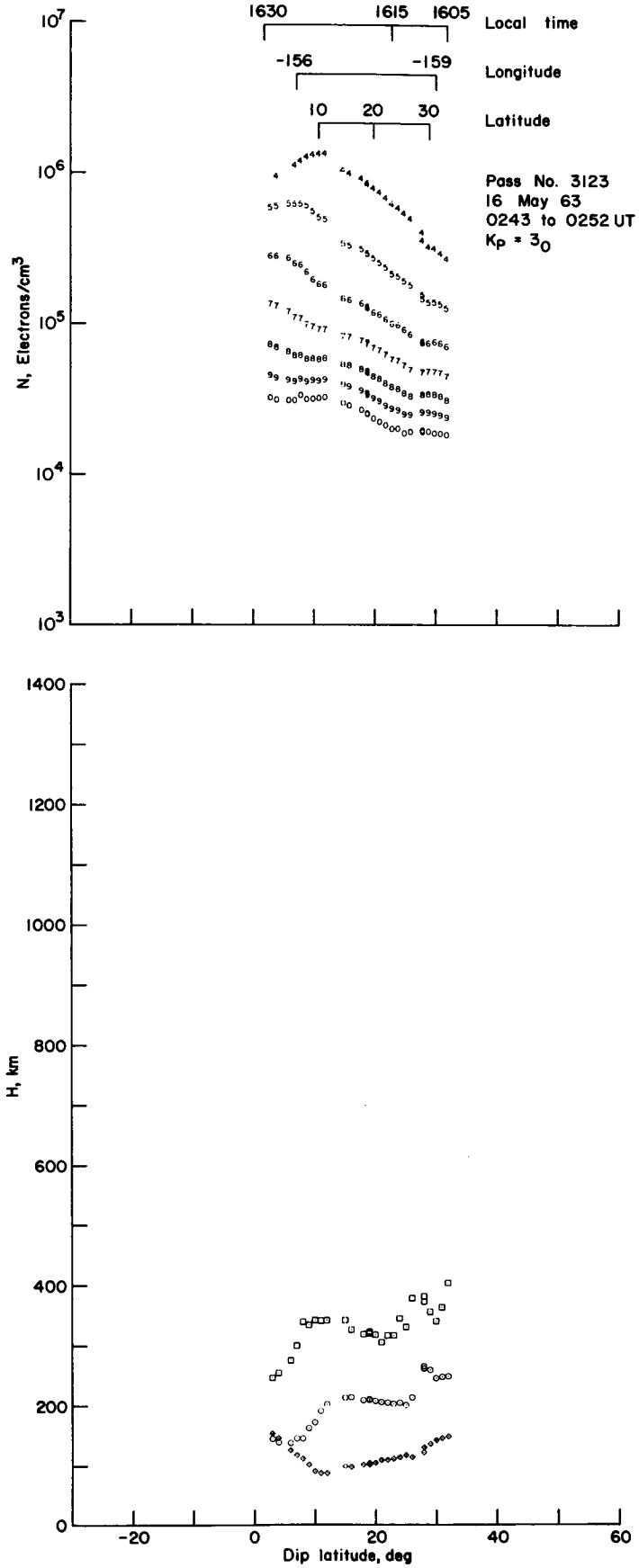

1630
1615
1605
Local time
-156
-159
Longitude
10
20
30
Latitude
Pass No. 3123
16 May 63
0243 to 0252 UT
Kp = 3o
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 37

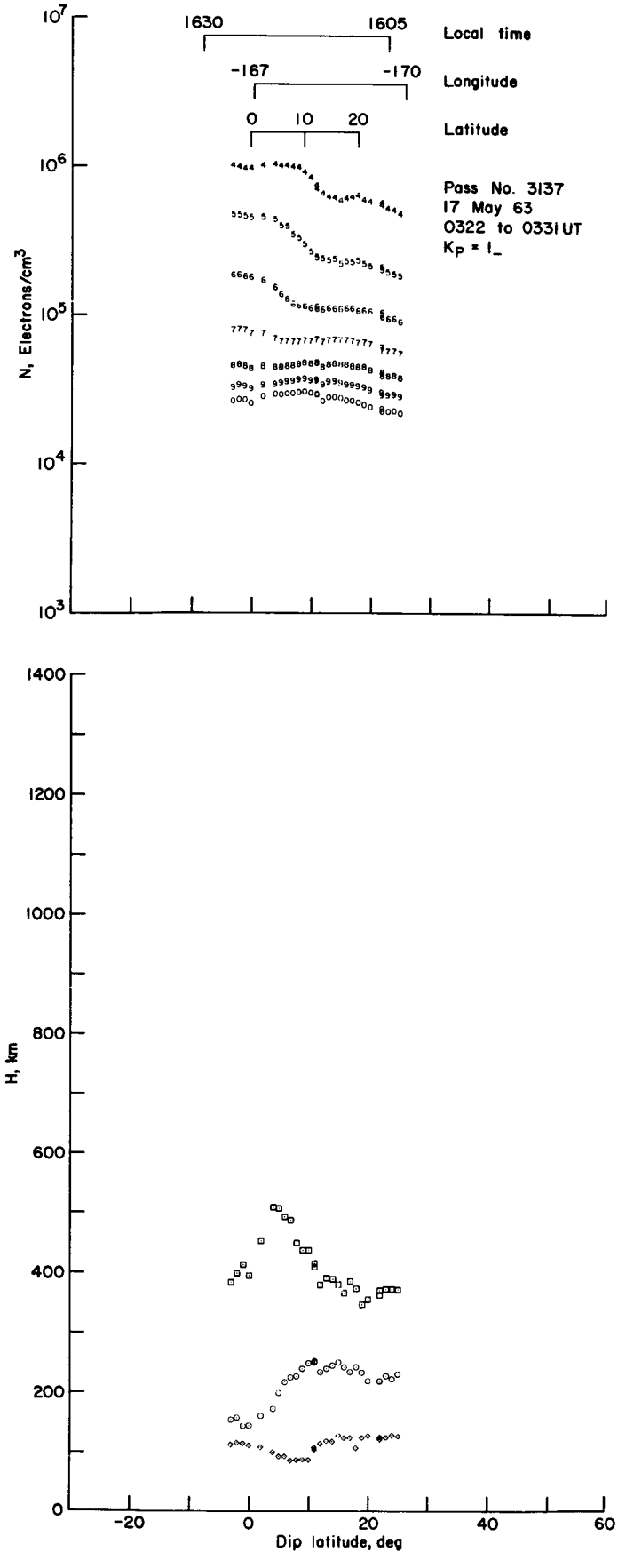

1630
1605
Local time
-167
-170
Longitude
0
10
20
Latitude
Pass No. 3137
17 May 63
0322 to 0331 UT
Kp = 1_
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 38

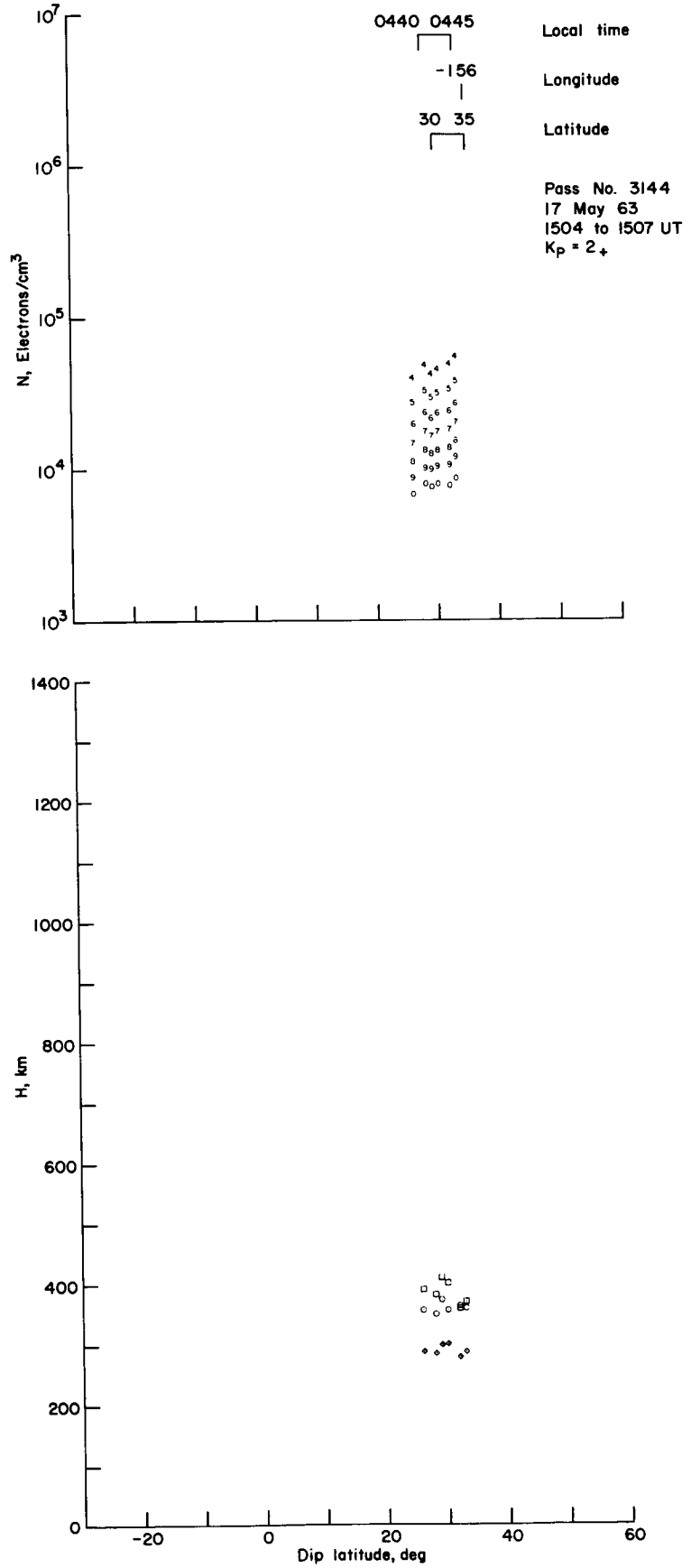

0440 0445
Local time
-156
Longitude
30 35
Latitude
Pass No. 3144
17 May 63
1504 to 1507 UT
Kp = 2+
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 39

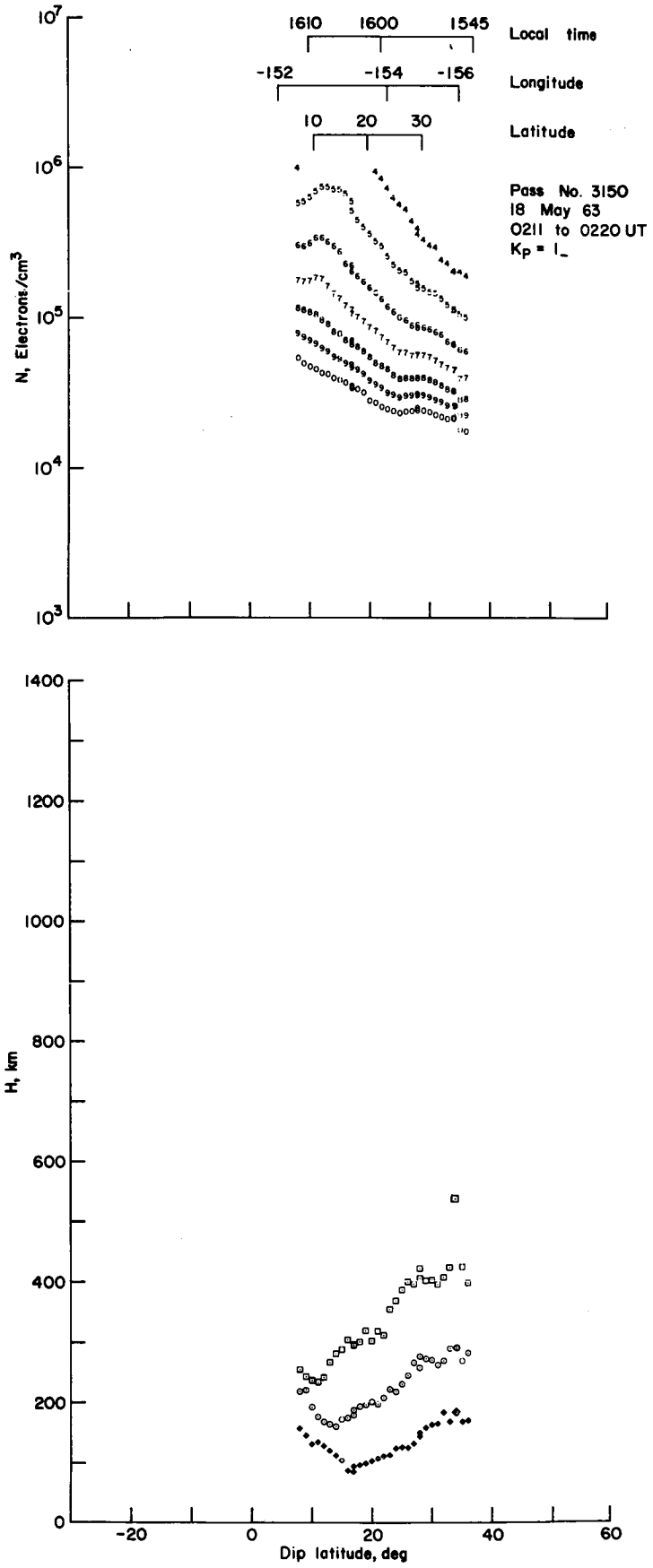

1610 1600 1545
Local time
-152 -154 -156
Longitude
10 20 30
Latitude
Pass No. 3150
18 May 63
0211 to 0220 UT
Kp = 1_
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 40

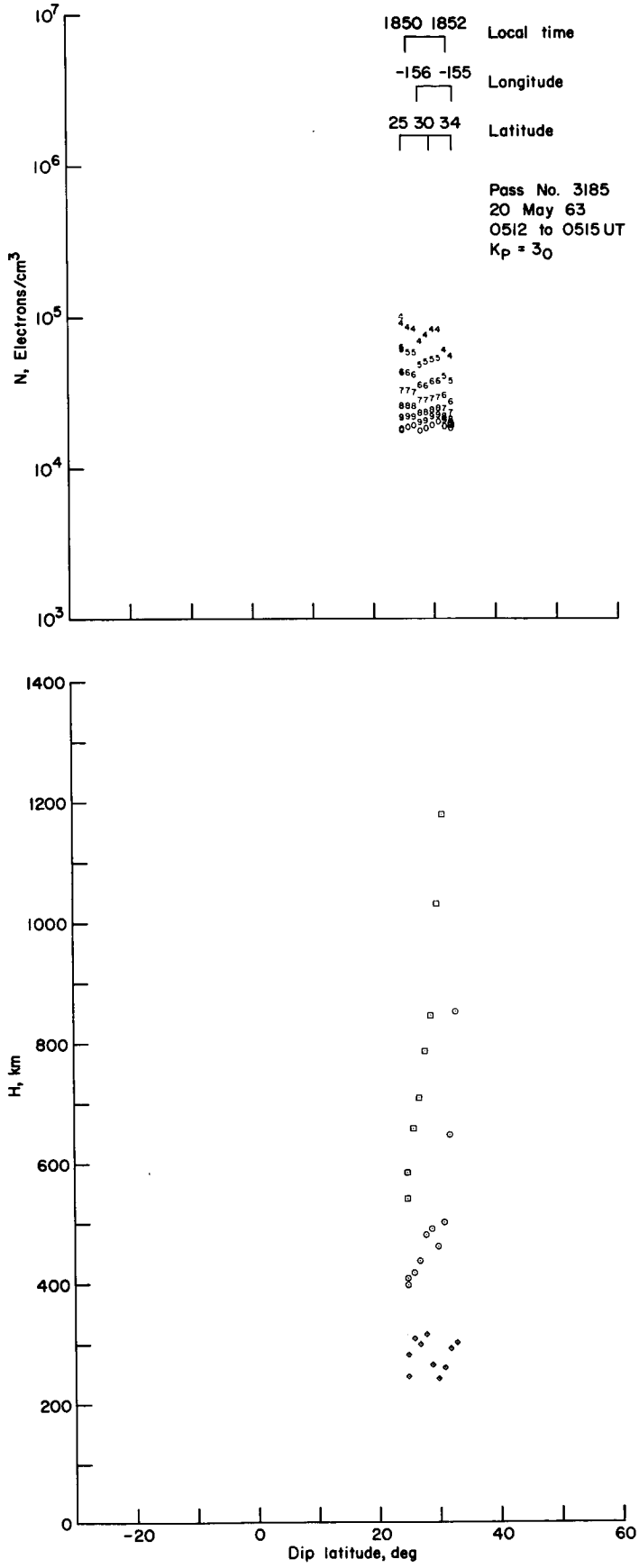

1850 1852
Local time
-156 -155
Longitude
25 30 34
Latitude
Pass No. 3185
20 May 63
0512 to 0515 UT
Kp = 3o
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 41

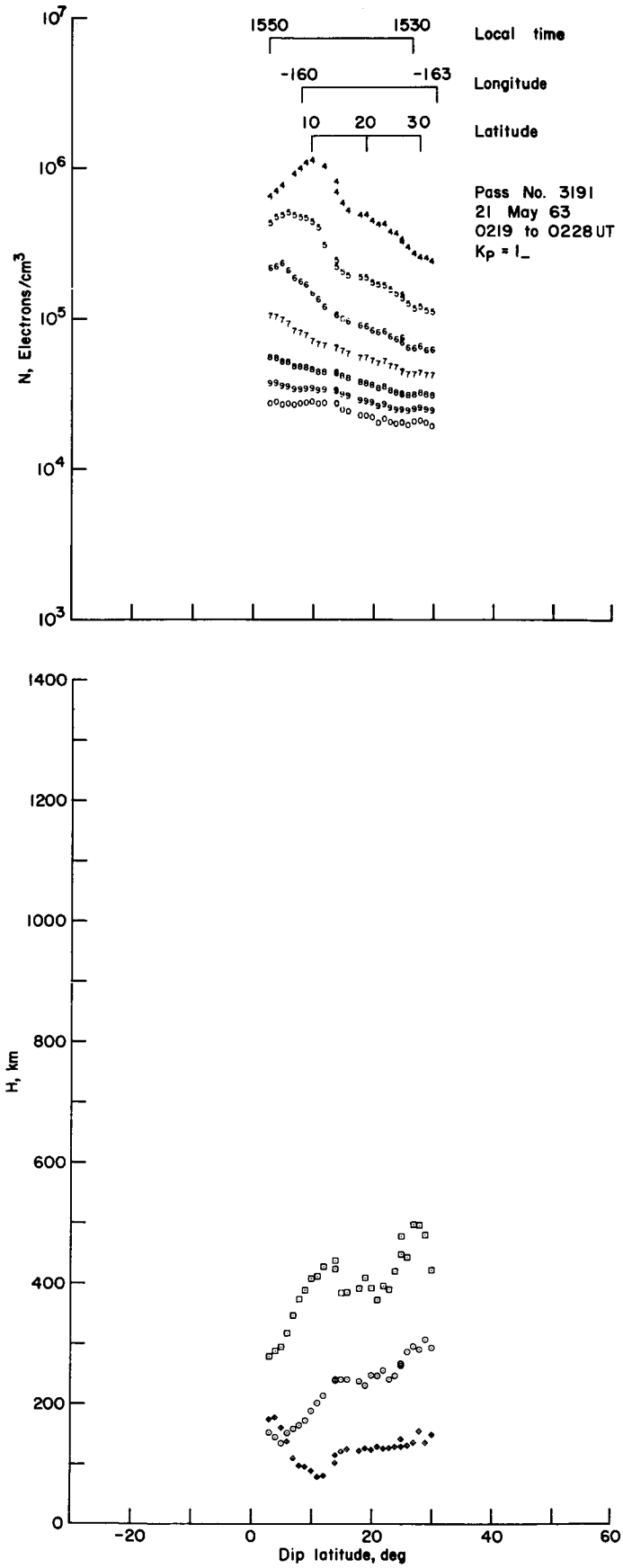

1550
1530
Local time
-160
-163
Longitude
10
20
30
Latitude
Pass No. 3191
21 May 63
0219 to 0228 UT
Kp = 1_
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 42

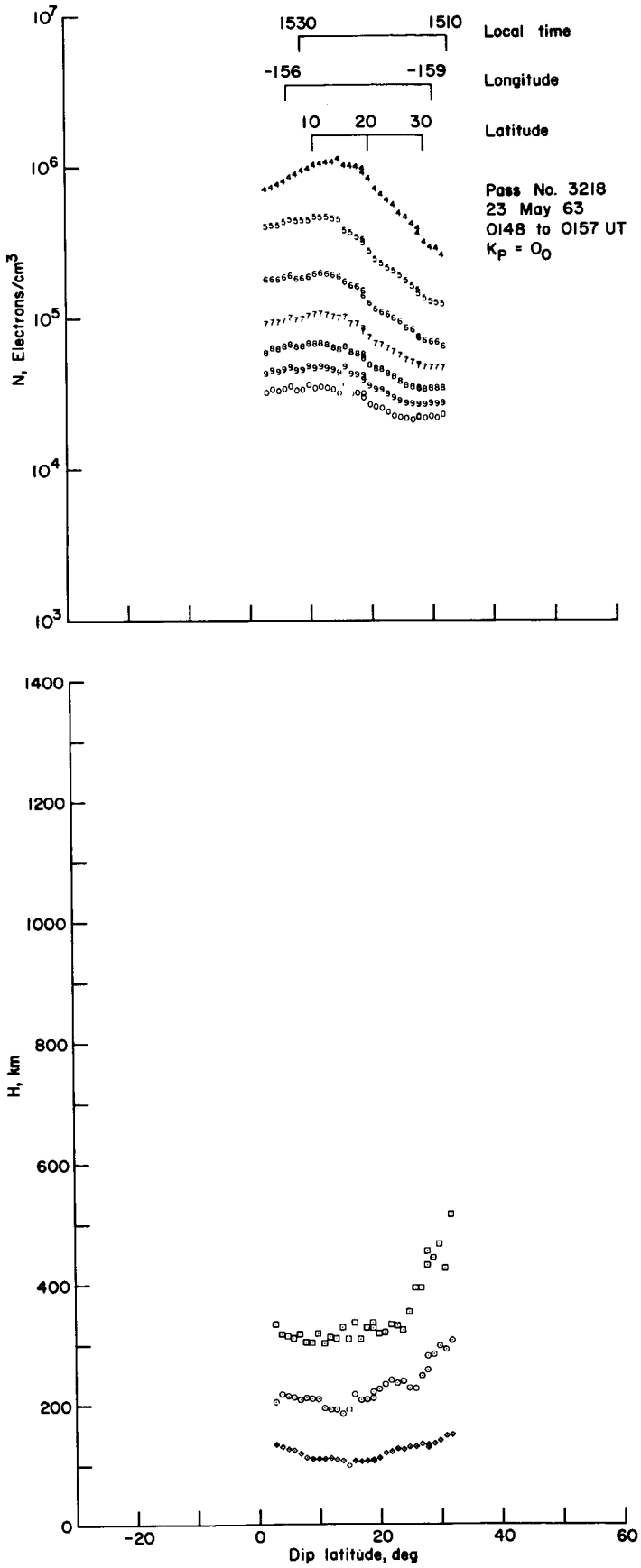

1530
1510
Local time
-156
-159
Longitude
10
20
30
Latitude
Pass No. 3218
23 May 63
0148 to 0157 UT
$K_P = 0_0$
N, Electrons/cm^3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 43

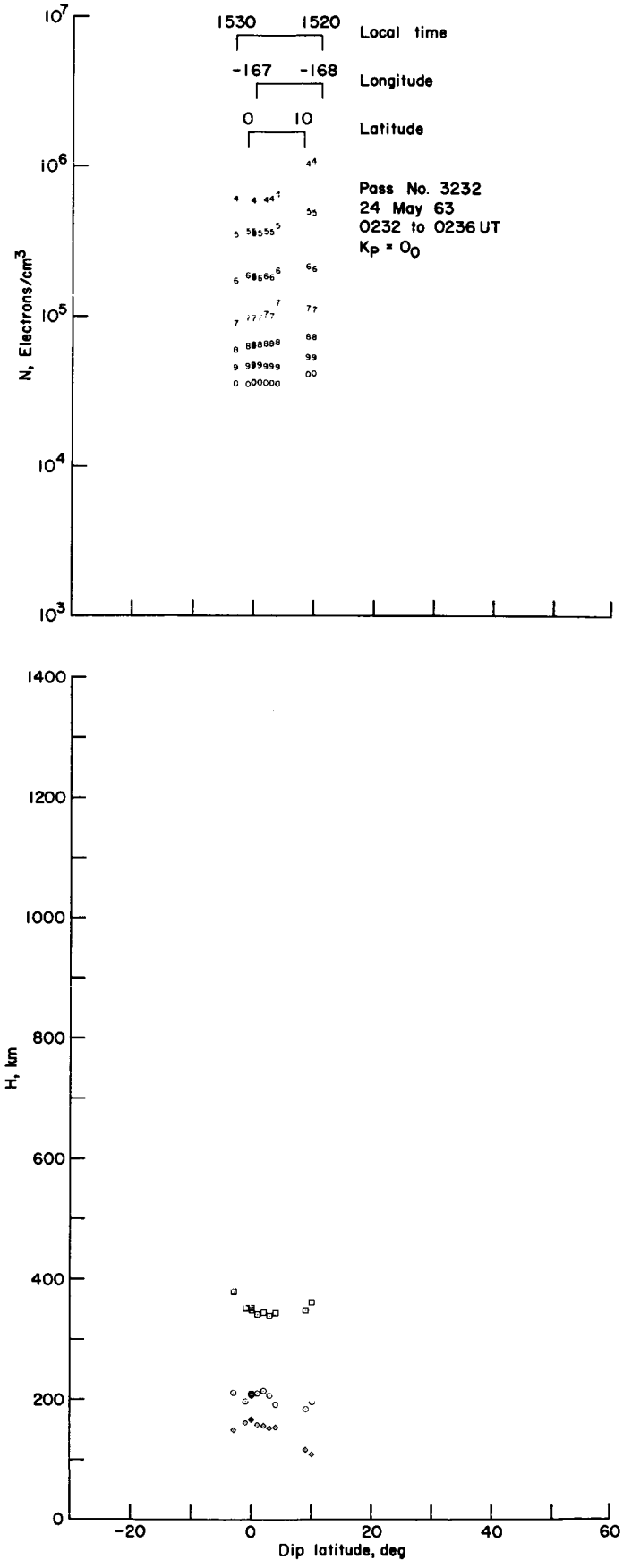

1530 1520
Local time
-167 -168
Longitude
0 10
Latitude
Pass No. 3232
24 May 63
0232 to 0236 UT
Kp = 0o
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 44

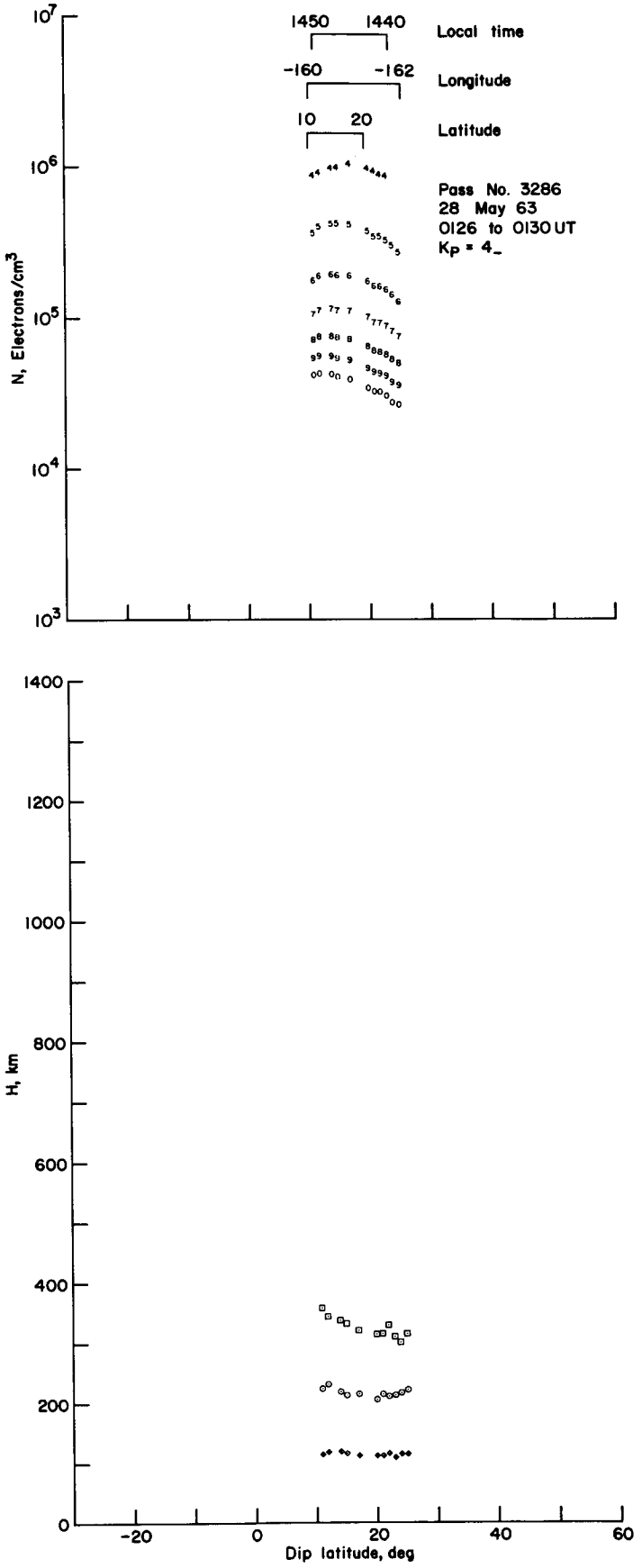

1450 1440
Local time
-160 -162
Longitude
10 20
Latitude
Pass No. 3286
28 May 63
0126 to 0130 UT
Kp = 4_
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 45

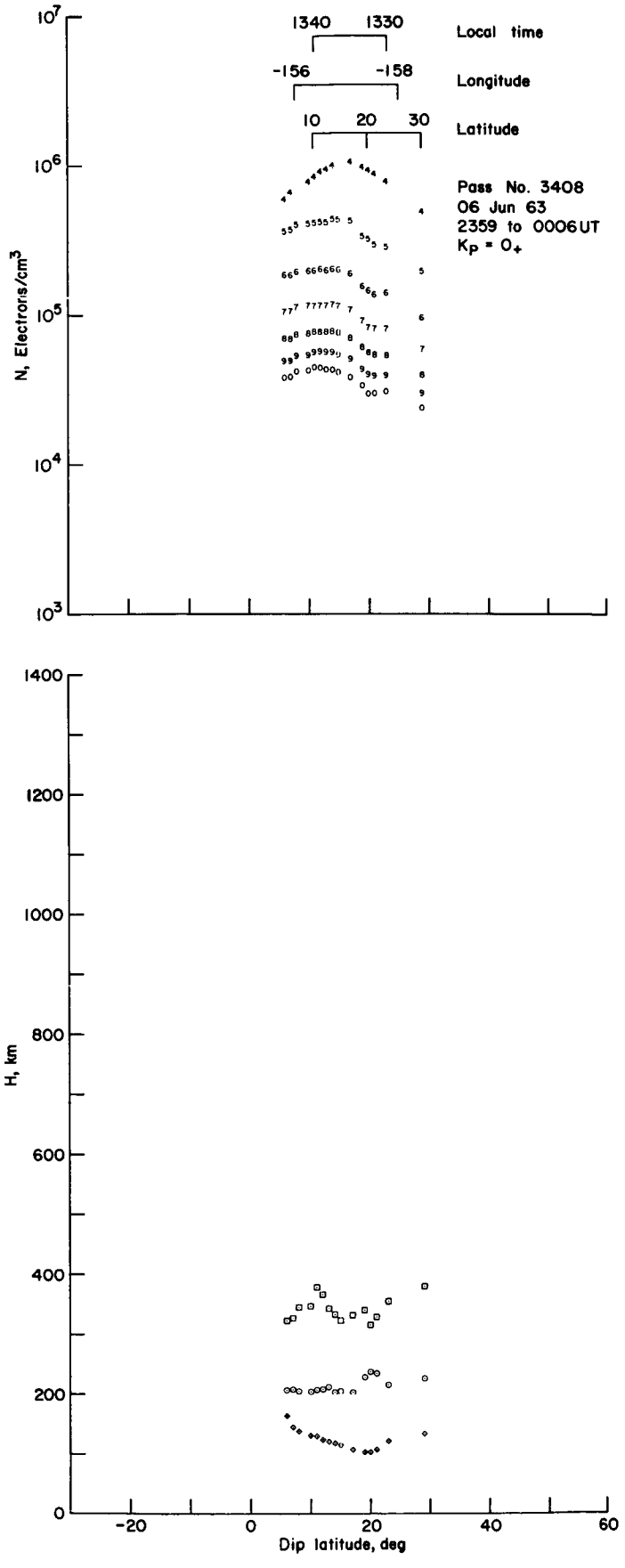

1340 1330
Local time
-156 -158
Longitude
10 20 30
Latitude
Pass No. 3408
06 Jun 63
2359 to 0006UT
Kp = 0+
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 46

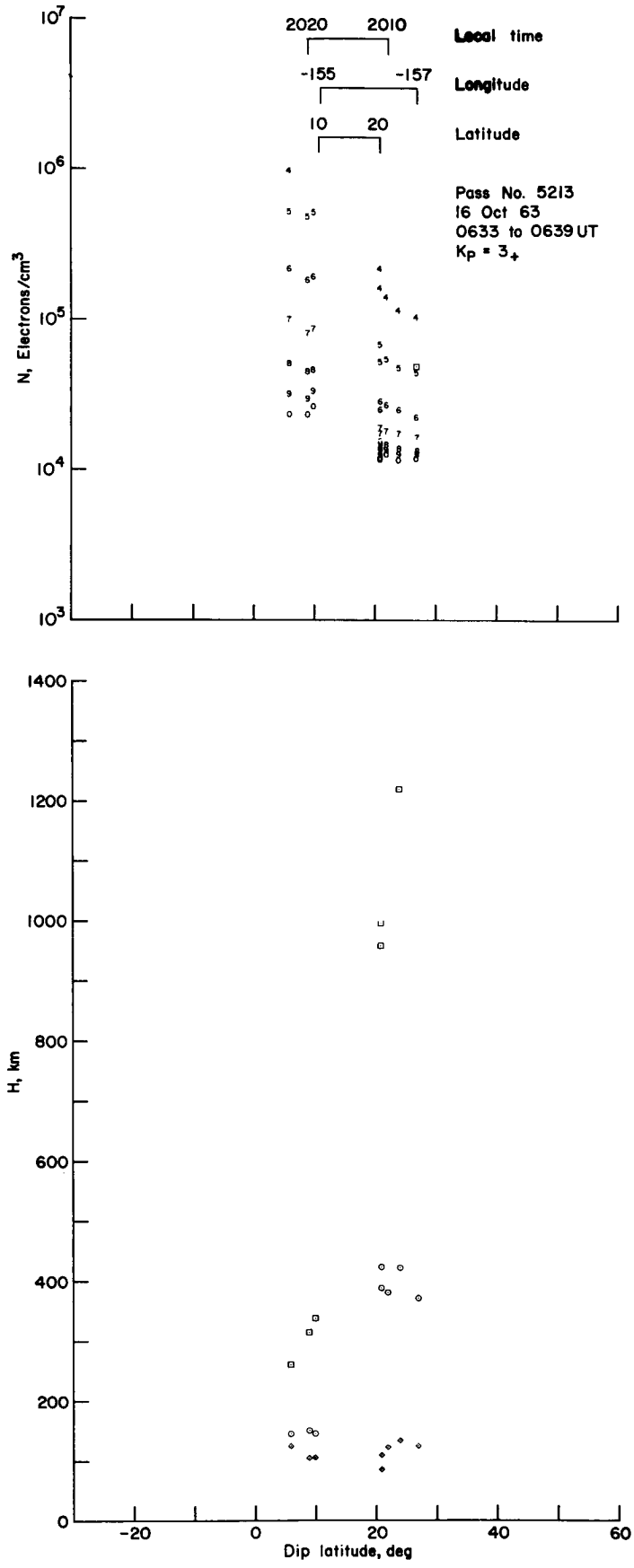

2020
2010
Local time
-155
-157
Longitude
10
20
Latitude
Pass No. 5213
16 Oct 63
0633 to 0639 UT
Kp = 3+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 47

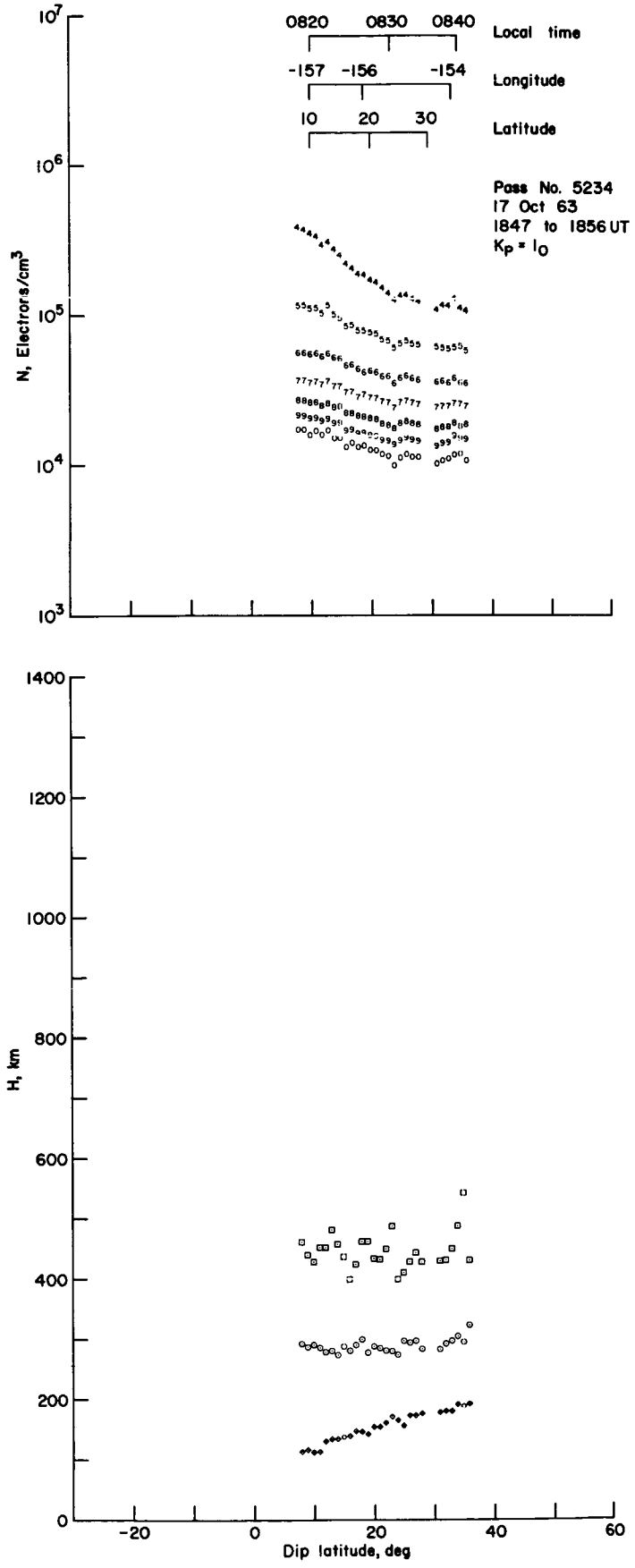

0820 0830 0840
Local time
-157 -156 -154
Longitude
10 20 30
Latitude
Pass No. 5234
17 Oct 63
1847 to 1856 UT
Kp = 1o
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 48

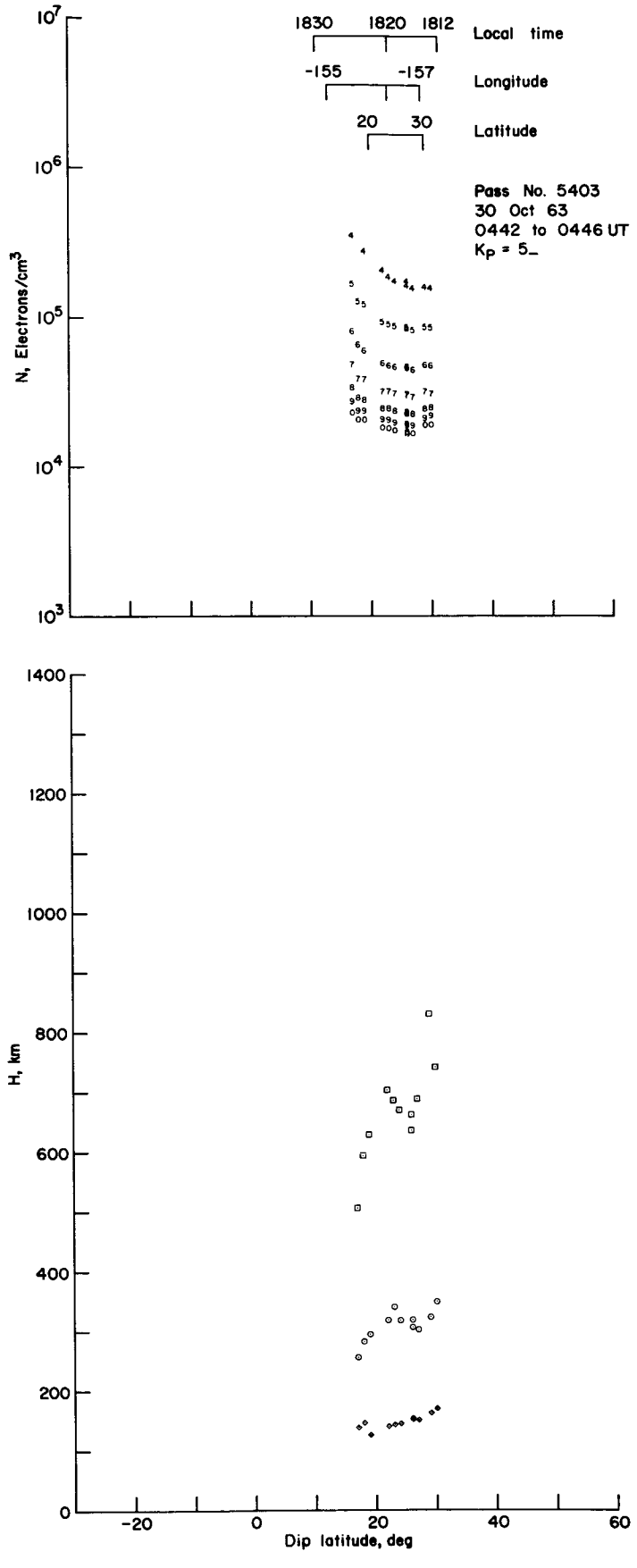

1830 1820 1812
Local time
-155 -157
Longitude
20 30
Latitude
Pass No. 5403
30 Oct 63
0442 to 0446 UT
Kp = 5_
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 49

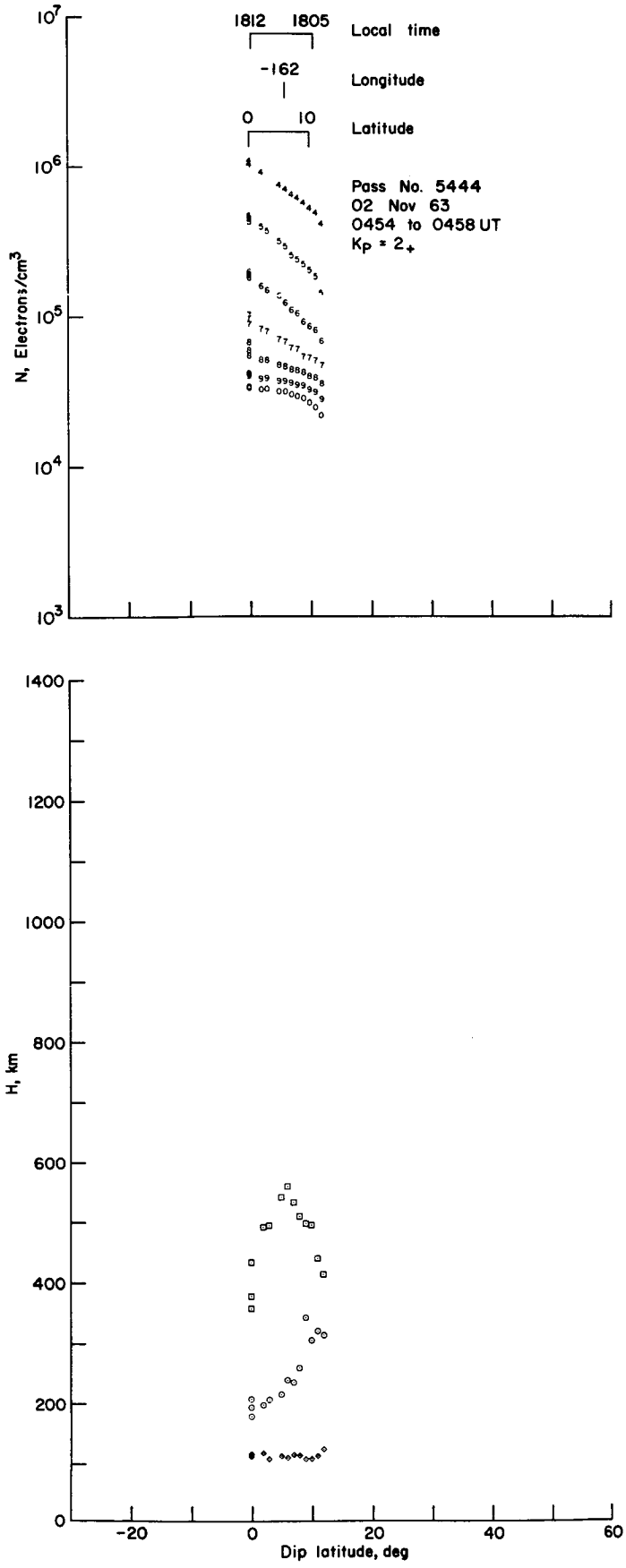

1812 1805
Local time
-162
Longitude
0 10
Latitude
Pass No. 5444
02 Nov 63
0454 to 0458 UT
Kp = 2+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 50

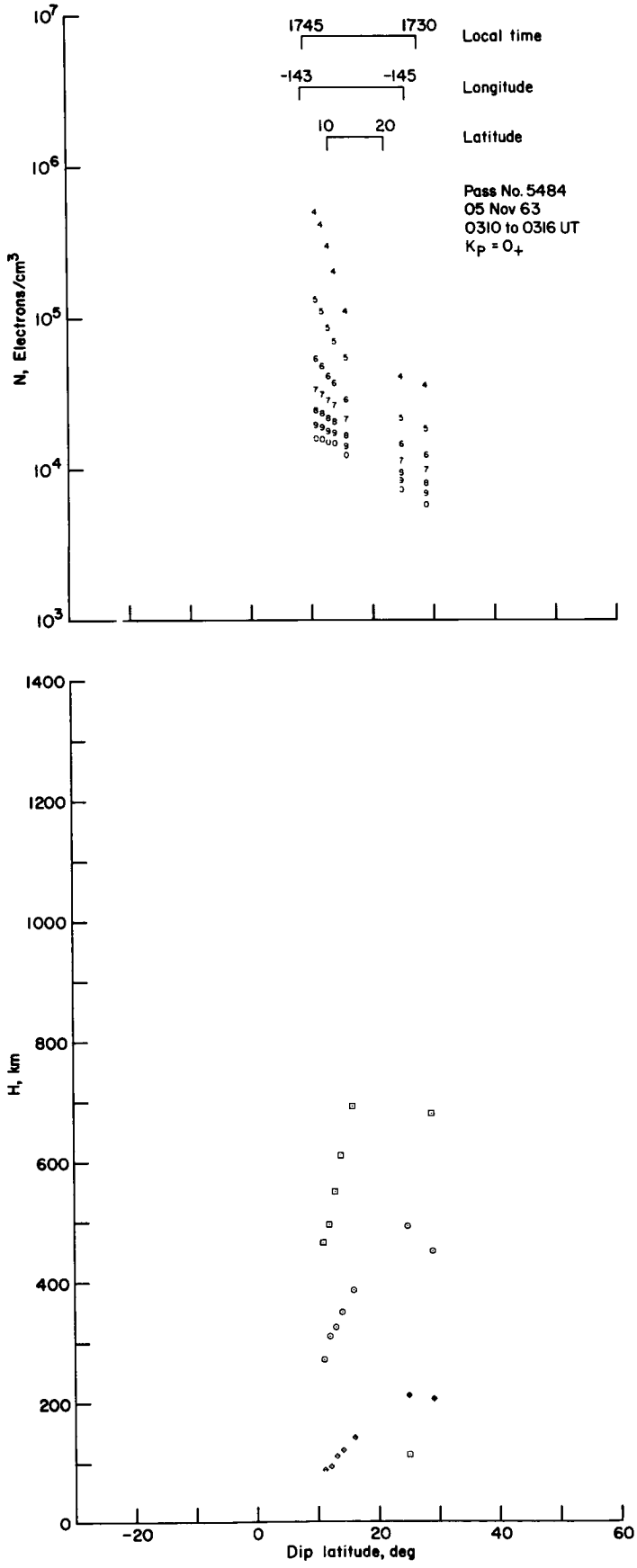

1745
1730
Local time
-143
-145
Longitude
10
20
Latitude
Pass No. 5484
05 Nov 63
0310 to 0316 UT
Kp = 0+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 51

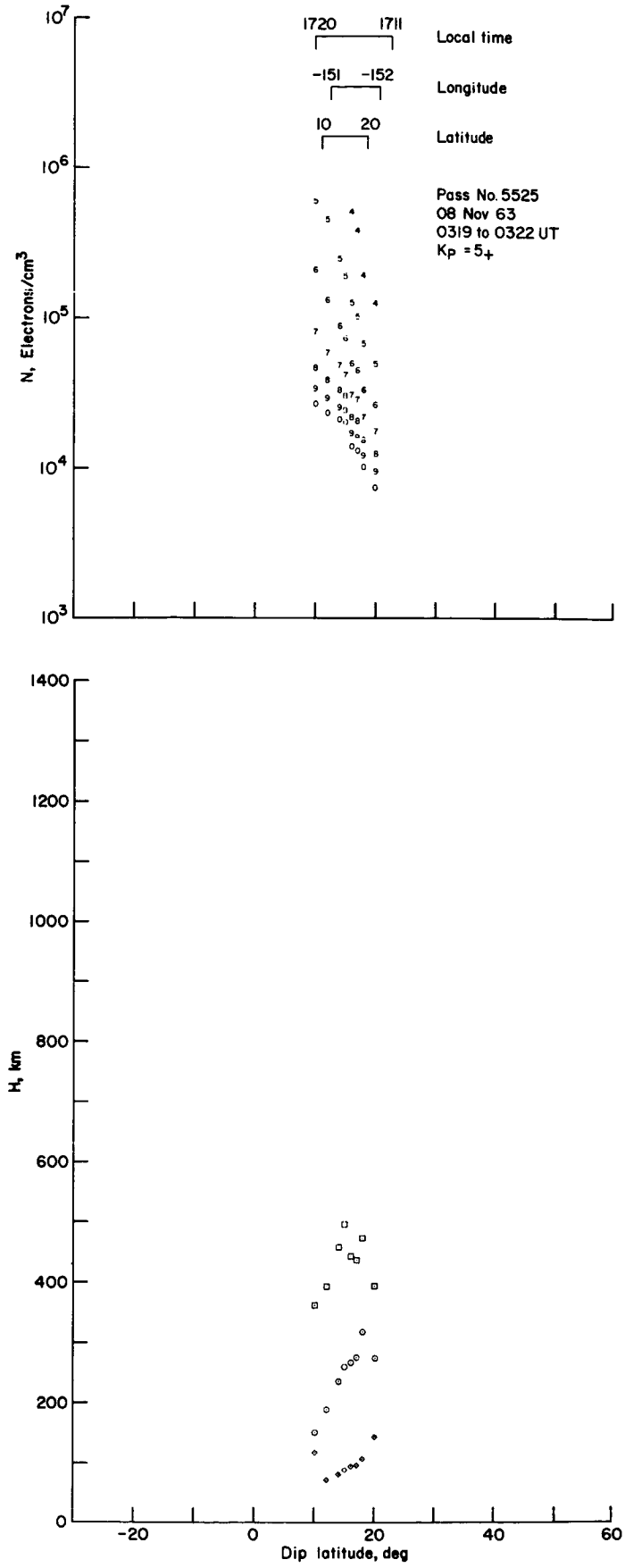

1720
1711
Local time
-151
-152
Longitude
10
20
Latitude
Pass No. 5525
08 Nov 63
0319 to 0322 UT
Kp = 5+
N, Electronts/cm3
H, km
Dip latitude, deg

Figure 52

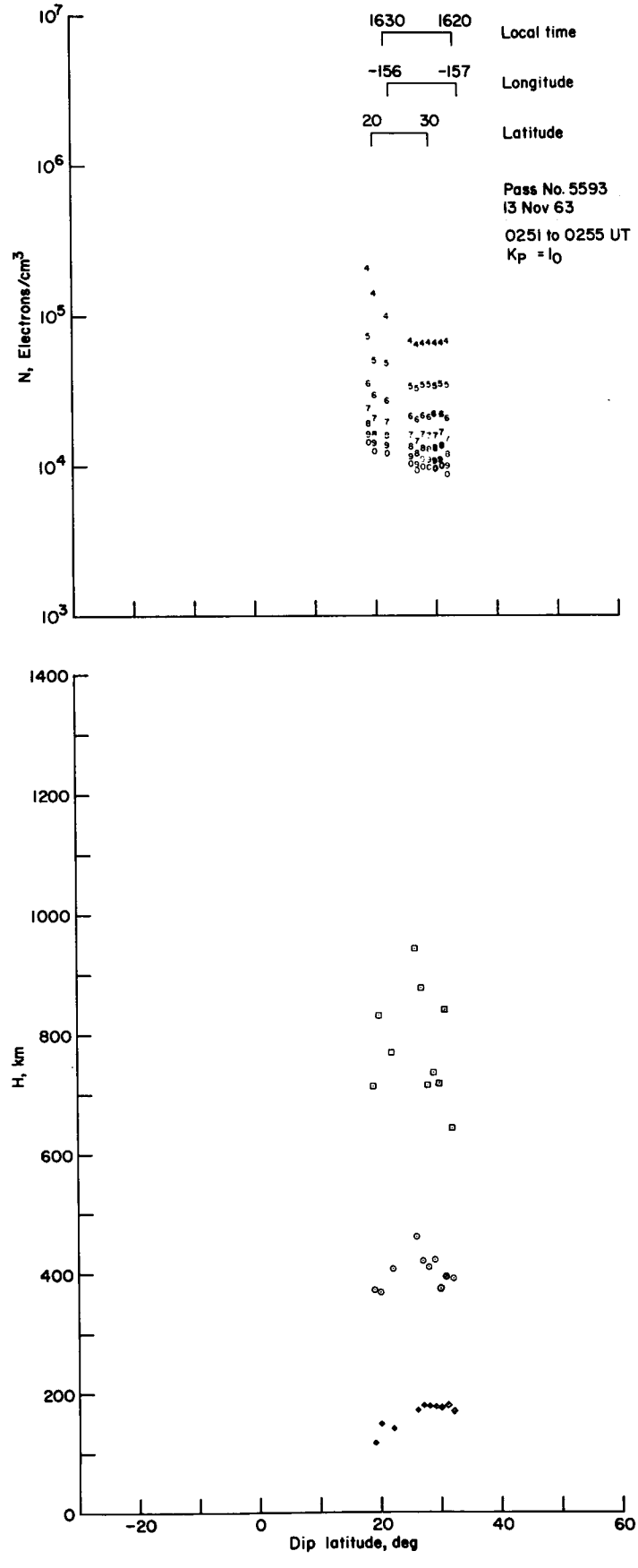

1630 1620
Local time
-156 -157
Longitude
20 30
Latitude
Pass No. 5593
13 Nov 63
0251 to 0255 UT
Kp = I0
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 53

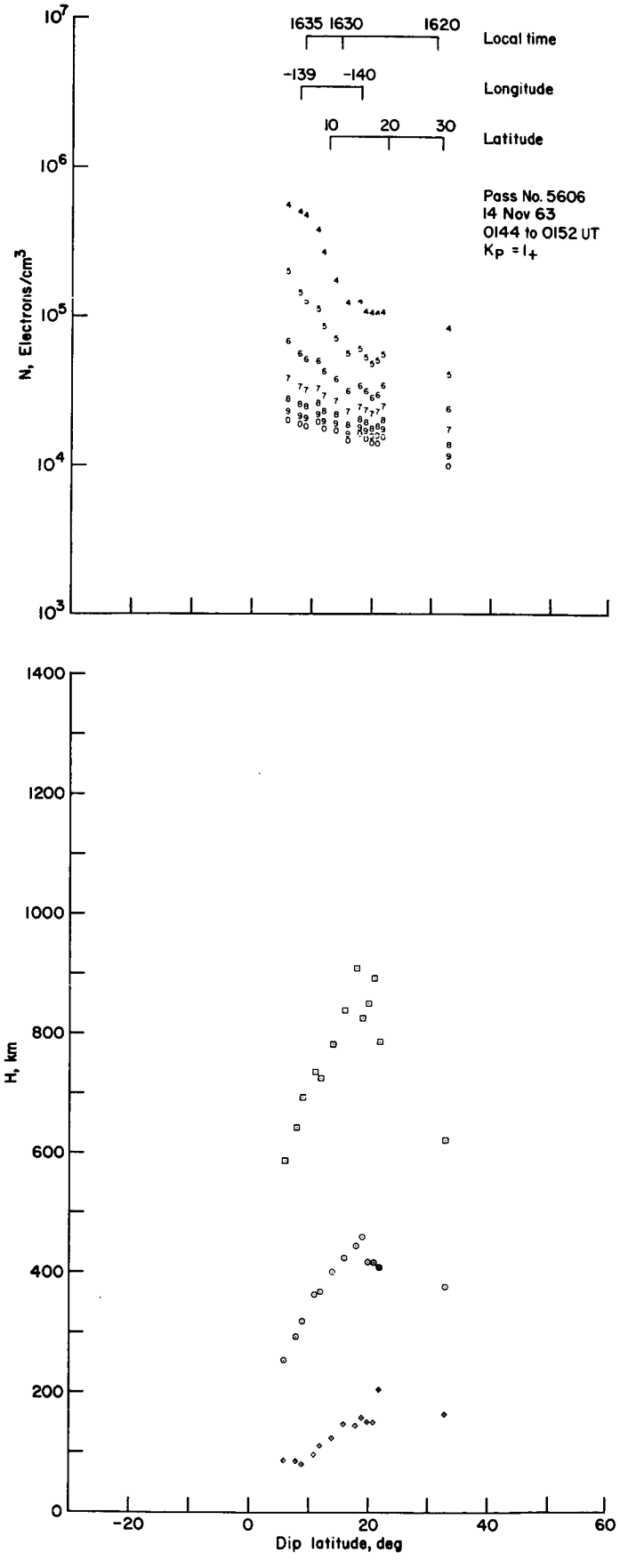

1635 1630 1620
Local time
-139 -140
Longitude
10 20 30
Latitude
Pass No. 5606
14 Nov 63
0144 to 0152 UT
Kp = 1+
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 54

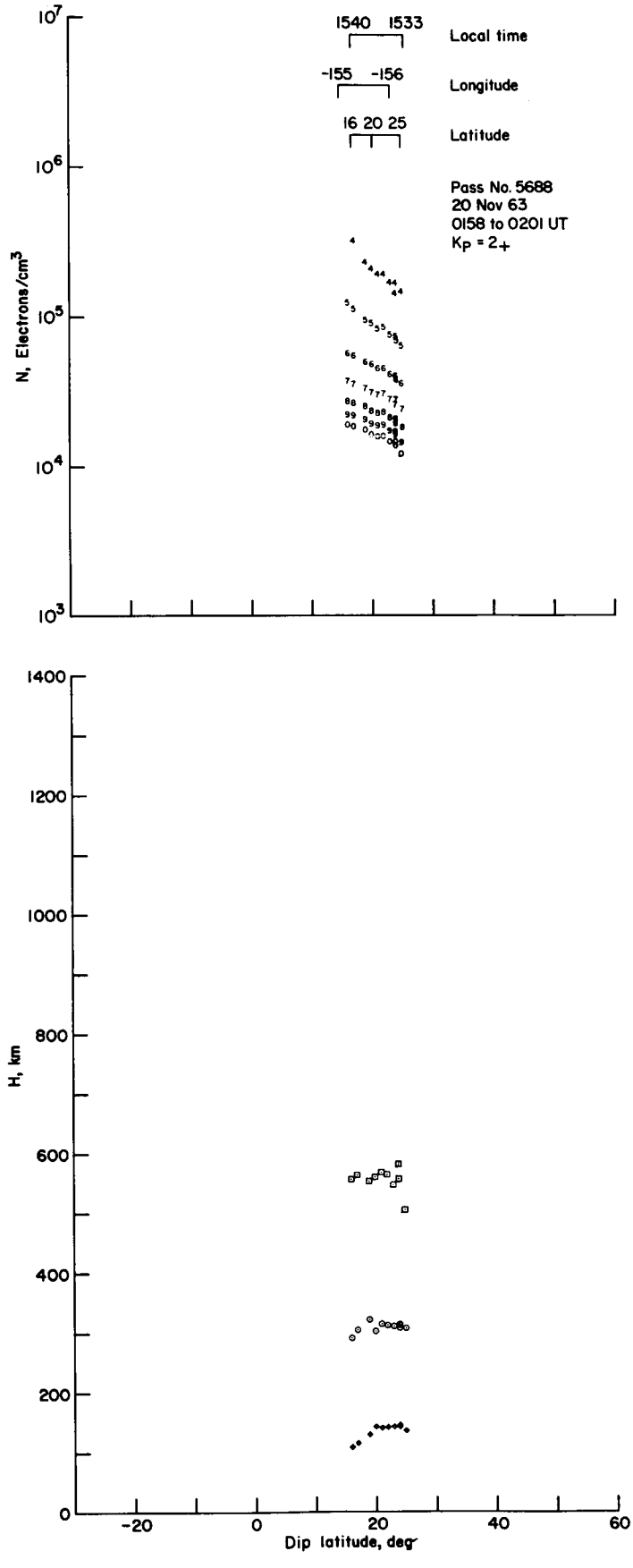

1540 1533
Local time
-155 -156
Longitude
16 20 25
Latitude
Pass No. 5688
20 Nov 63
0158 to 0201 UT
Kp = 2+
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 55

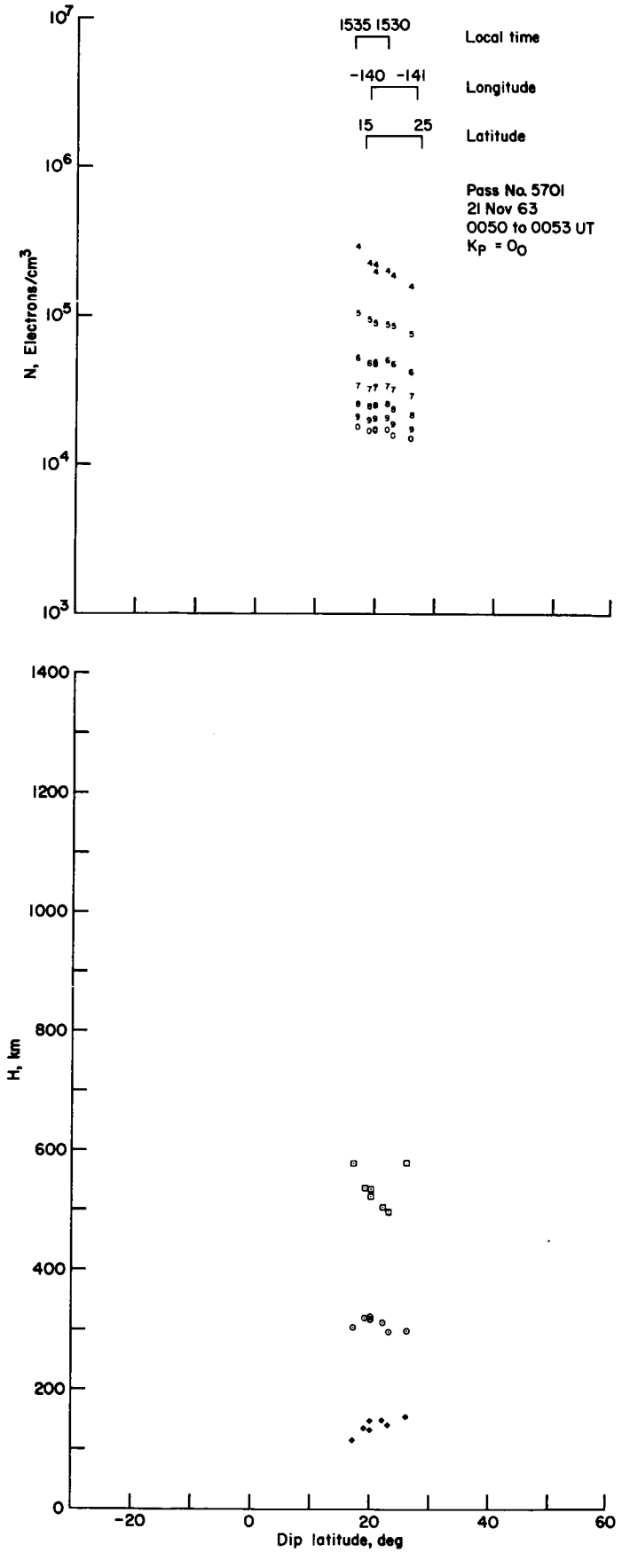
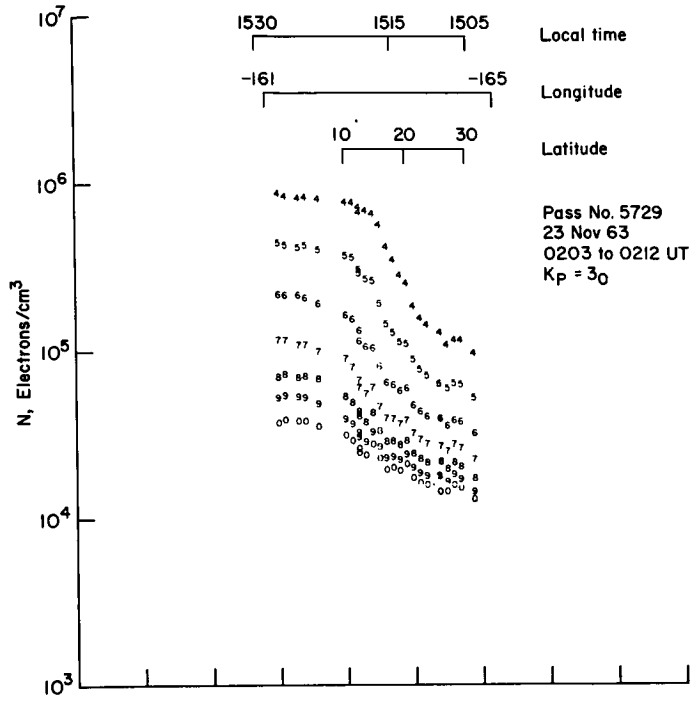

1535 1530
Local time
-140 -141
Longitude
15 25
Latitude
Pass No. 5701
21 Nov 63
0050 to 0053 UT
Kp = 0o
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 56


1530
1515
1505
Local time
-161
-165
Longitude
10
20
30
Latitude
Pass No. 5729
23 Nov 63
0203 to 0212 UT
Kp = 3o
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3

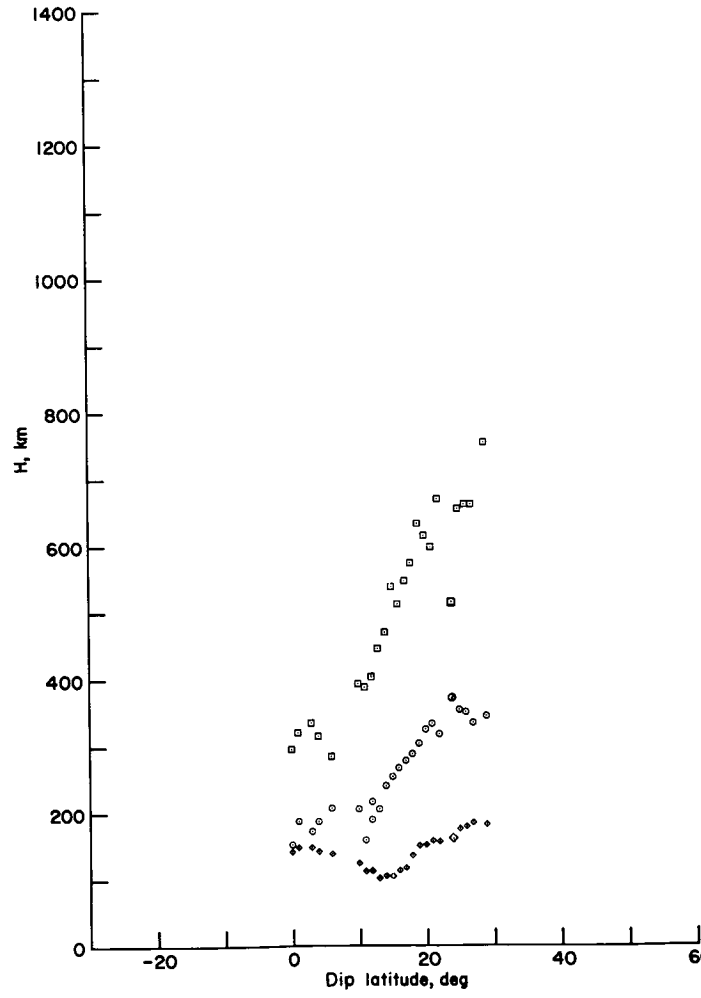

H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 57

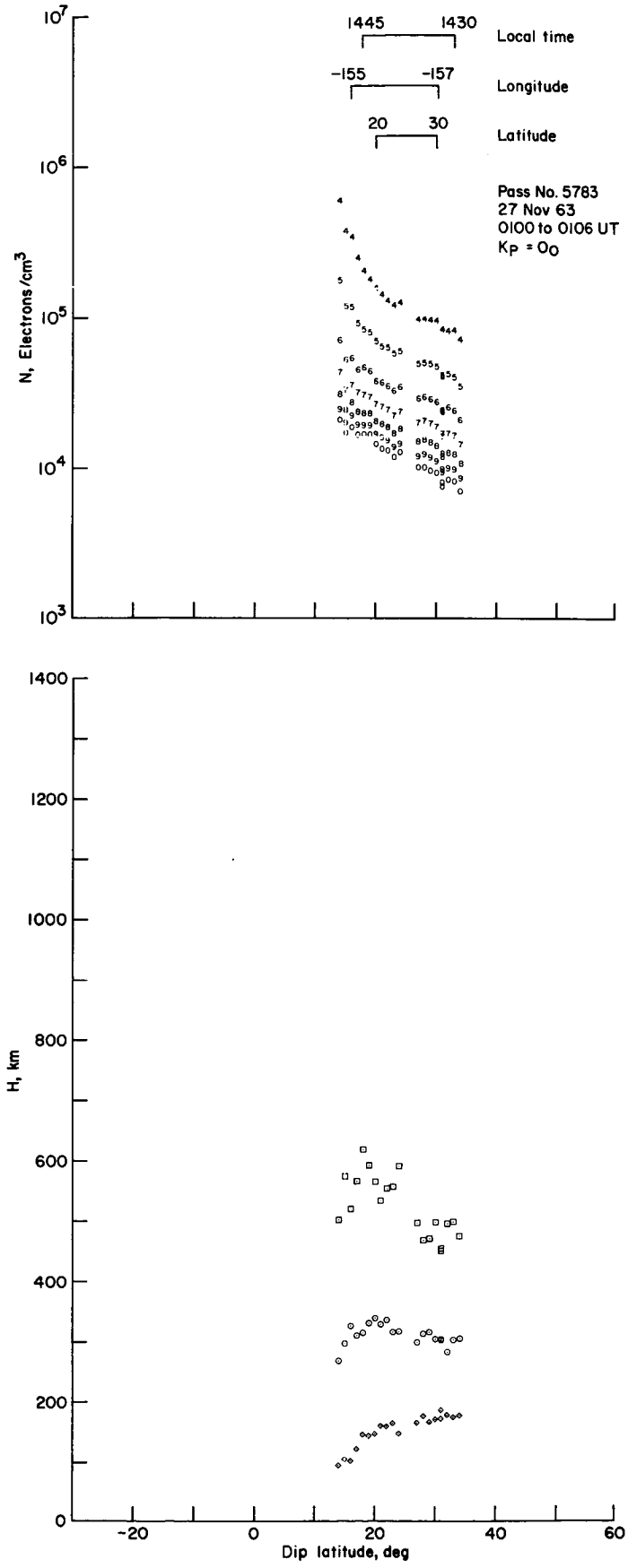

1445
1430
Local time
-155
-157
Longitude
20
30
Latitude
Pass No. 5783
27 Nov 63
0100 to 0106 UT
Kp = 0o
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 58

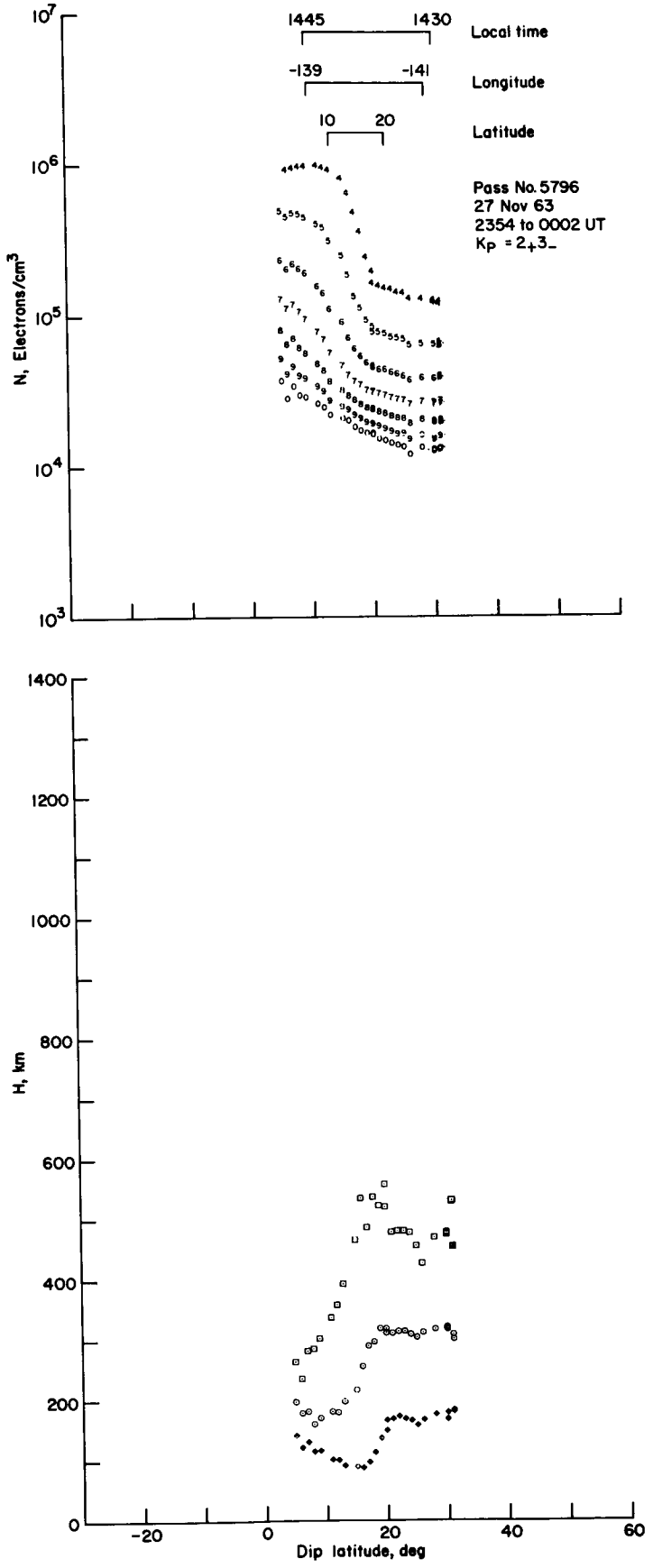

1445
1430
Local time
-139
-141
Longitude
10
20
Latitude
Pass No. 5796
27 Nov 63
2354 to 0002 UT
Kp = 2+3-
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 59

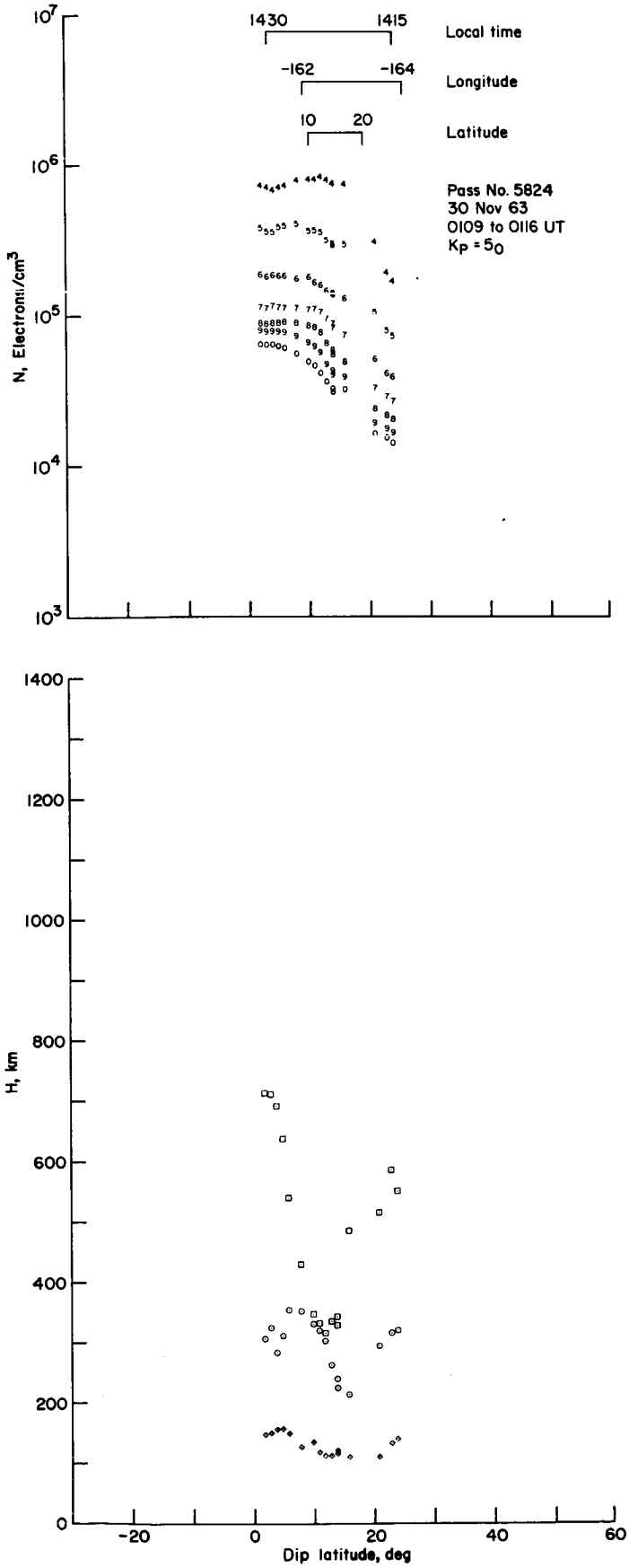

1430
1415
Local time
-162
-164
Longitude
10
20
Latitude
Pass No. 5824
30 Nov 63
0109 to 0116 UT
Kp = 5o
N, Electrons/cm3
H, km
Dip latitude, deg

Figure 60

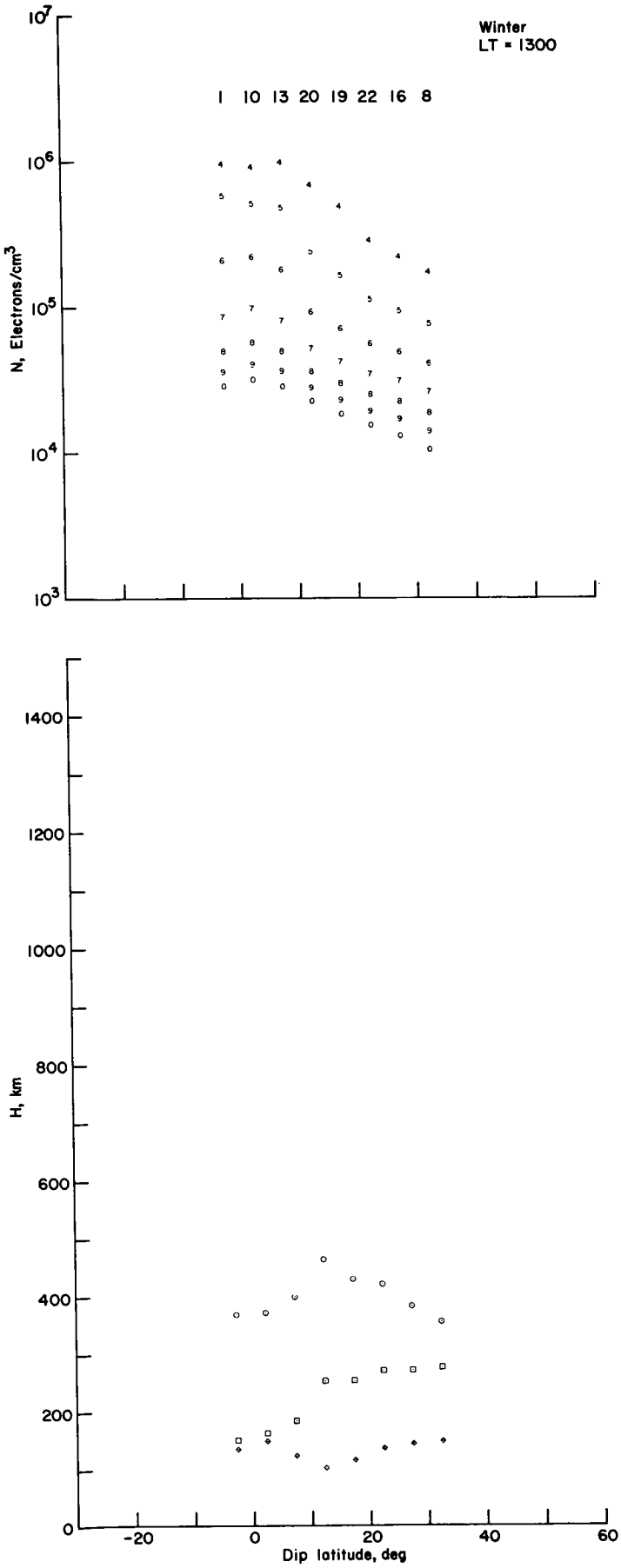

Winter
LT = 1300
1 10 13 20 19 22 16 8
N, Electrons/cm^3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 61

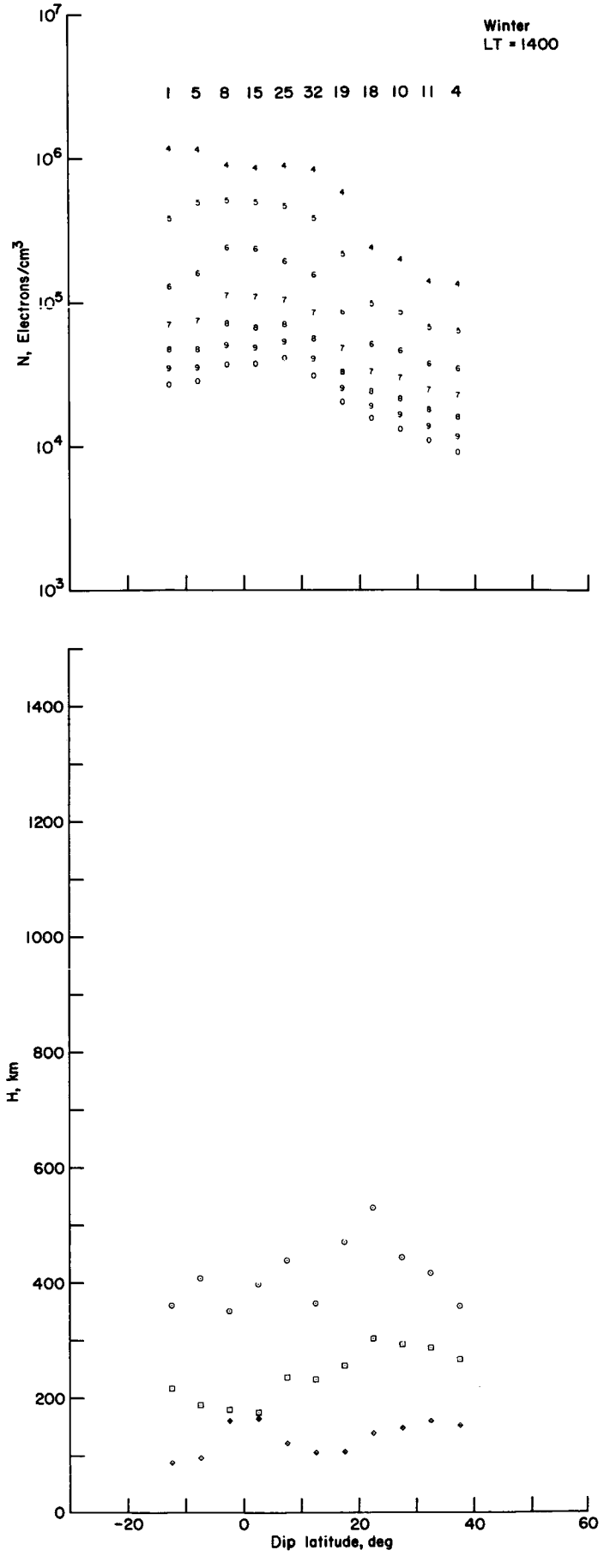

Winter
LT = 1400
1 5 8 15 25 32 19 18 10 11 4
N, Electrons/cm³
H, km
Dip latitude, deg

Figure 62

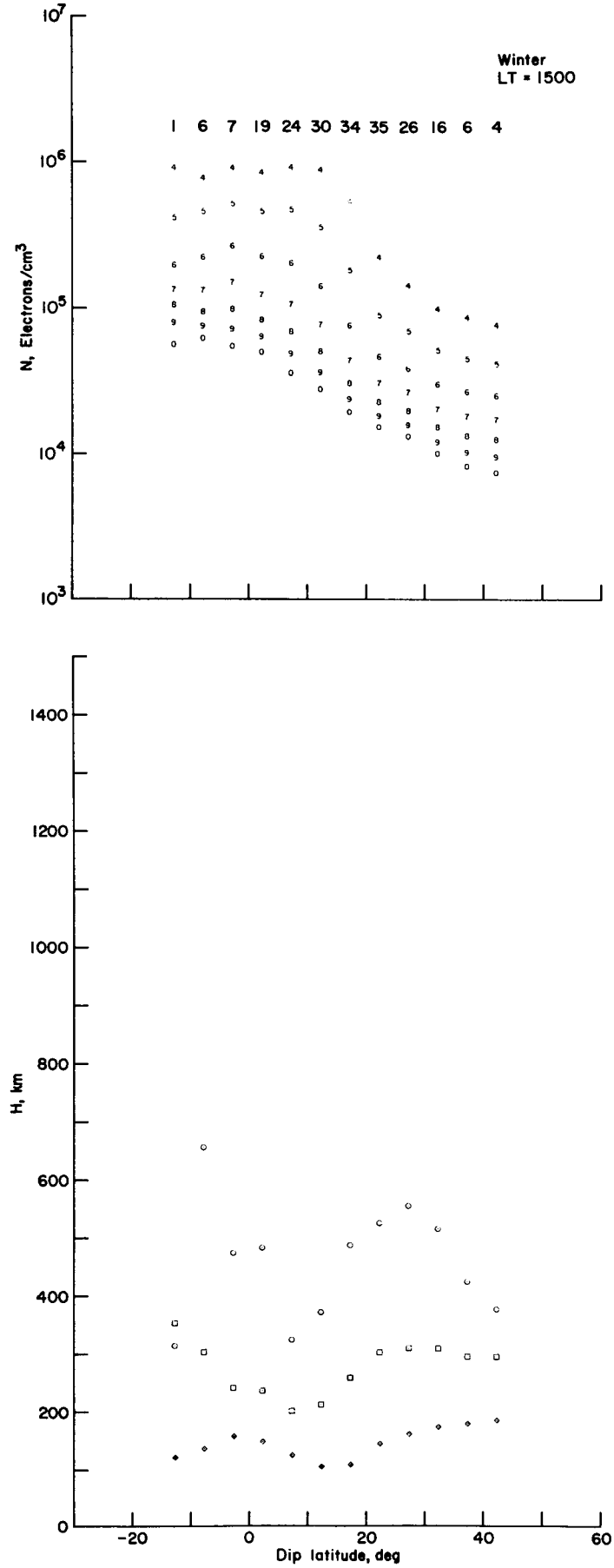

Winter
LT = 1500
1 6 7 19 24 30 34 35 26 16 6 4
N, Electrons/cm³
H, km
Dip latitude, deg

Figure 63

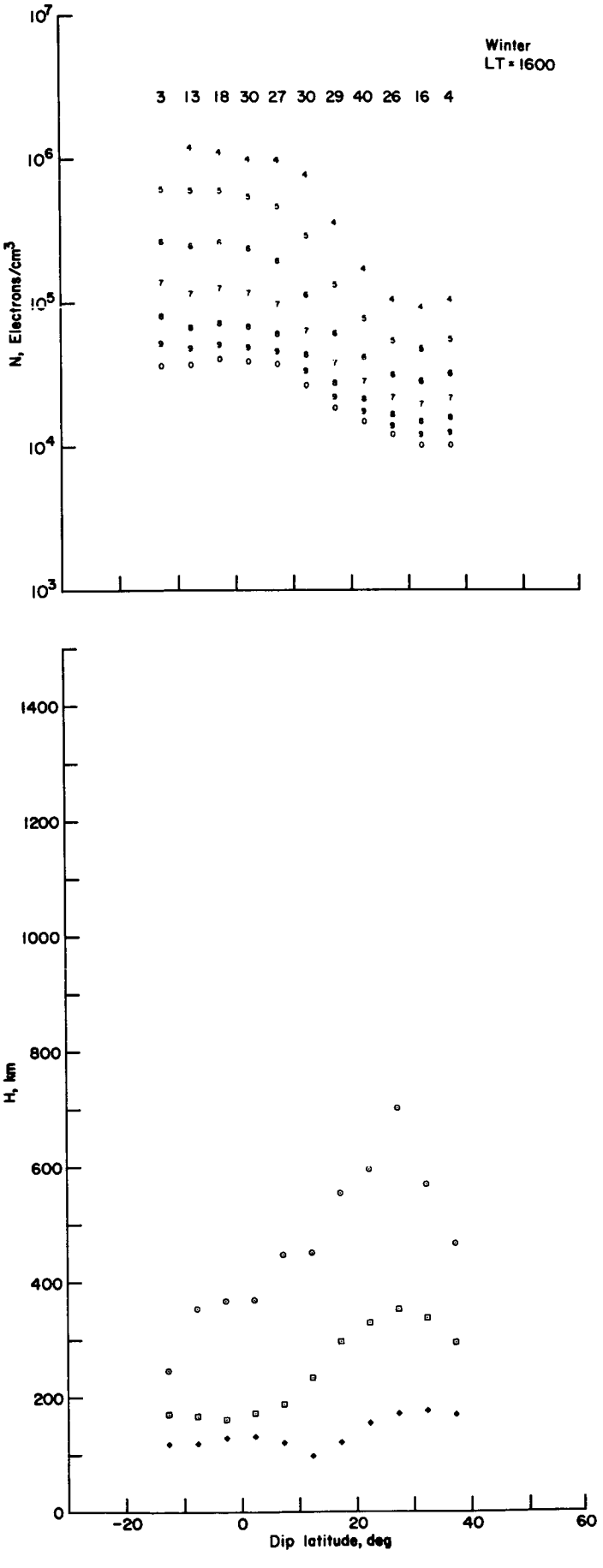

Winter
LT = 1600
3 13 18 30 27 30 29 40 26 16 4
N, Electrons/cm³
H, km
Dip latitude, deg

Figure 64

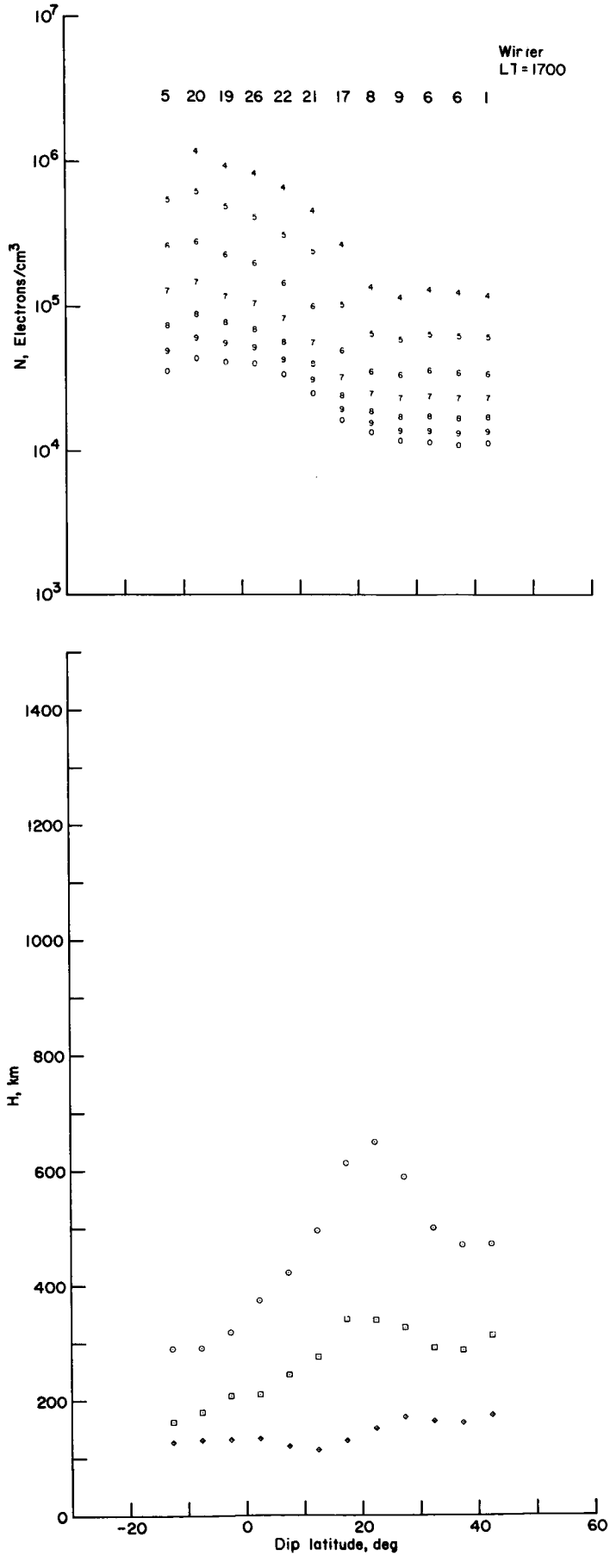

Winter
LT = 1700
5 20 19 26 22 21 17 8 9 6 6 1
N, Electrons/cm³
10⁷
10⁶
10⁵
10⁴
10³
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 65

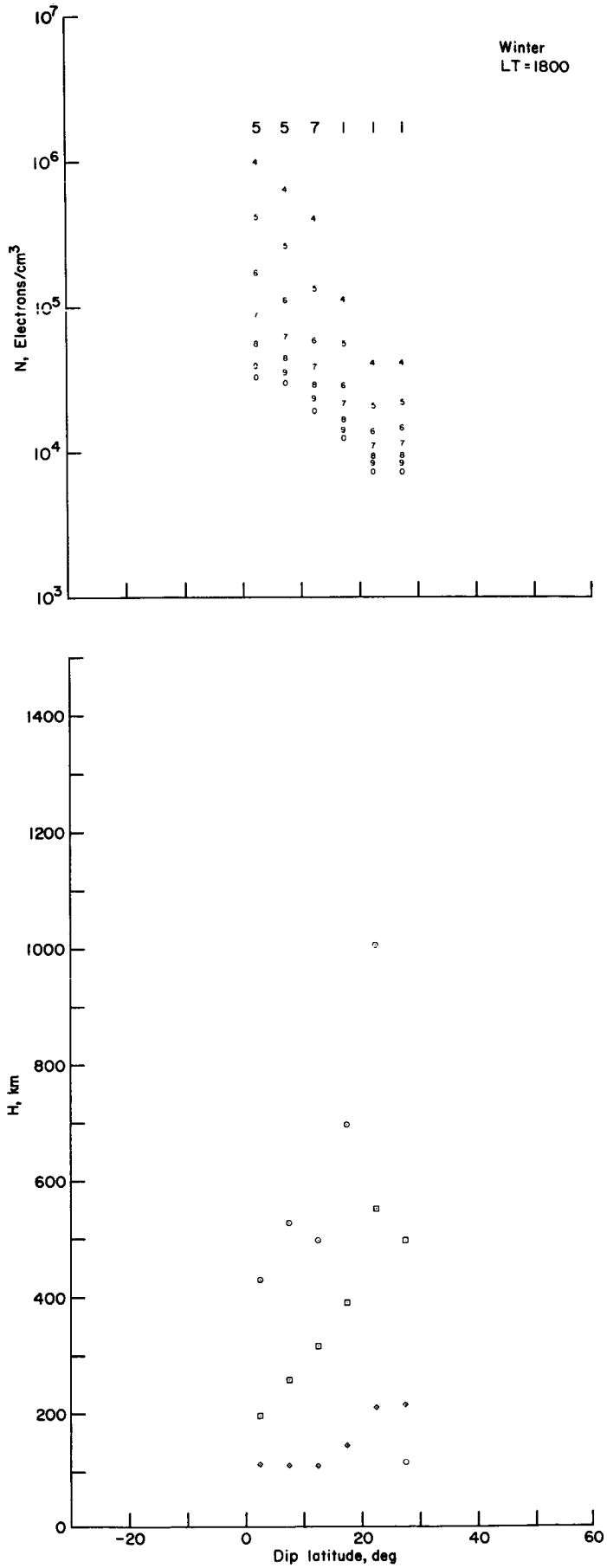

Winter
LT = 1800
N, Electrons/cm^3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 66

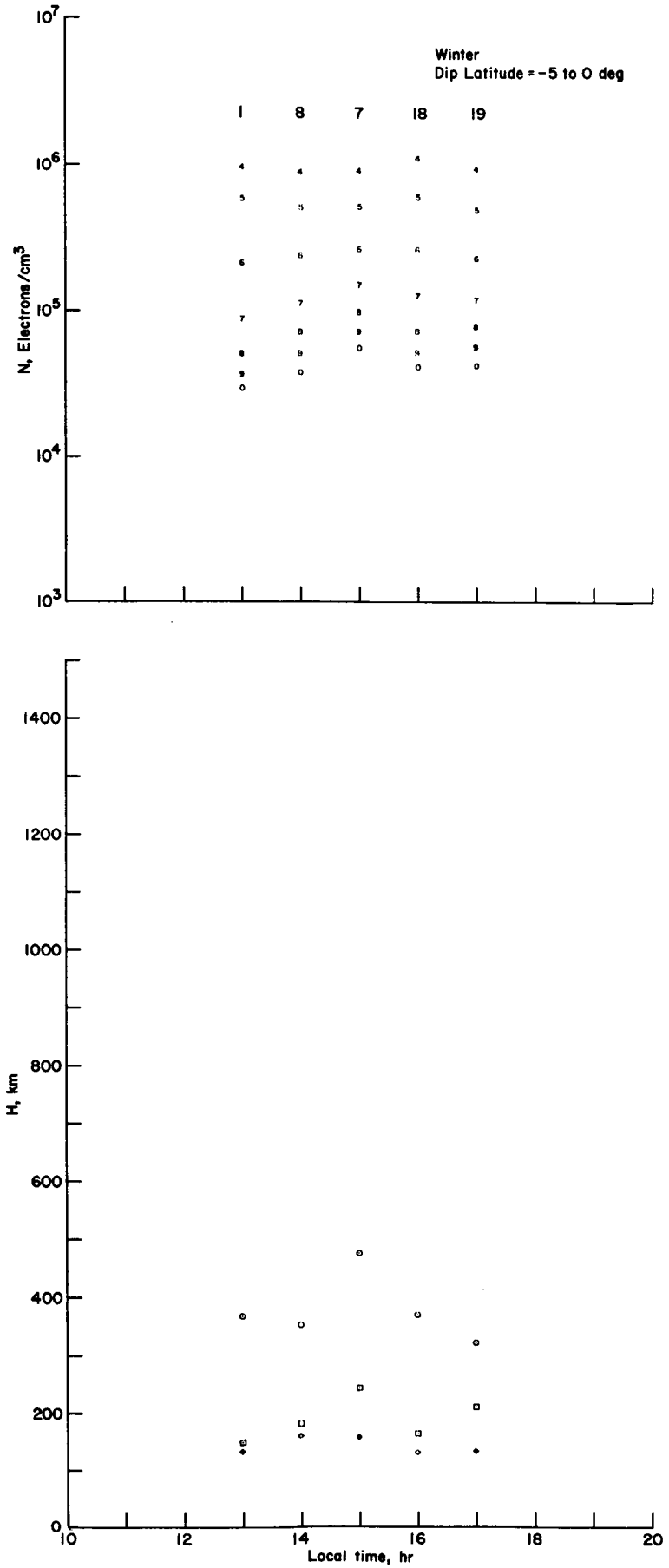

Winter
Dip Latitude = -5 to 0 deg
1
8
7
18
19
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
10
12
14
16
18
20
Local time, hr

Figure 67

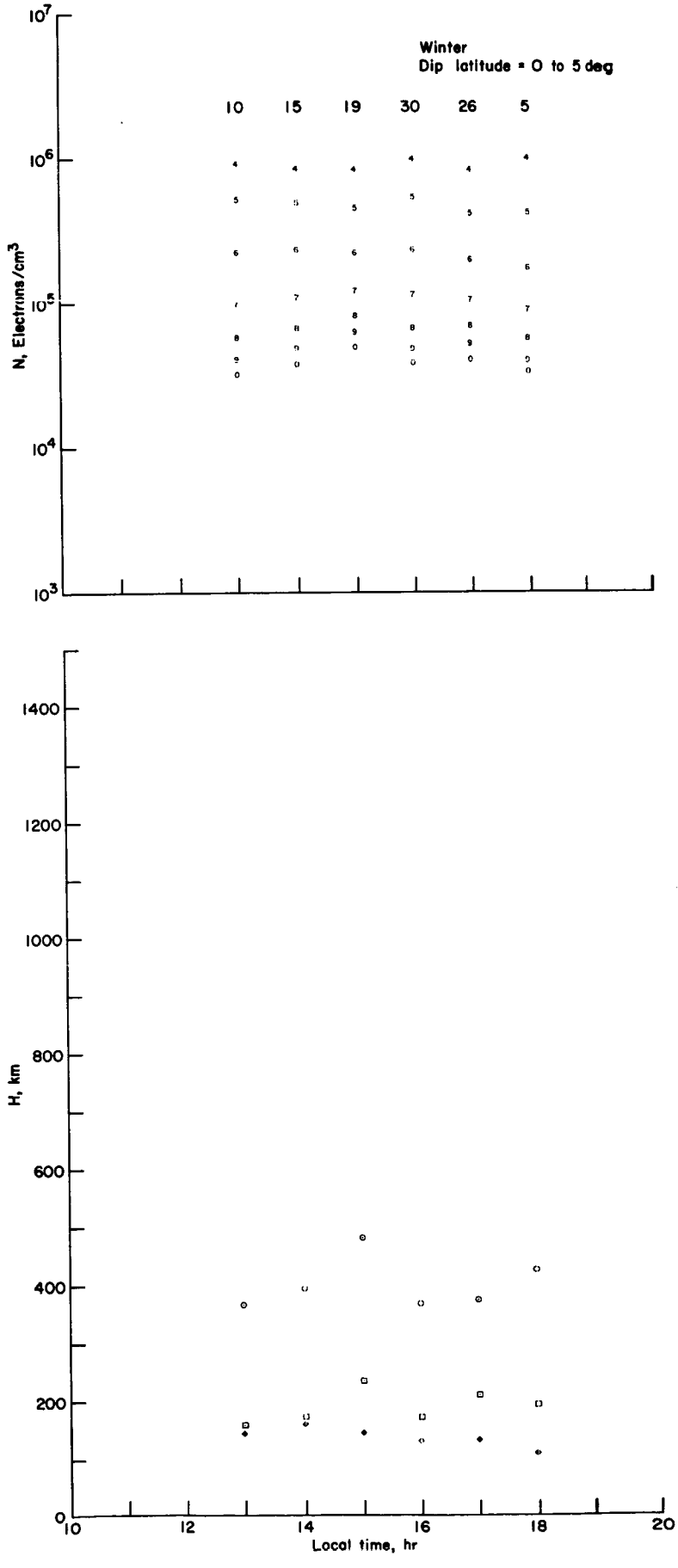

Winter
Dip latitude = 0 to 5 deg
10
15
19
30
26
5
N, Electrons/cm3
H, km
Local time, hr

Figure 68

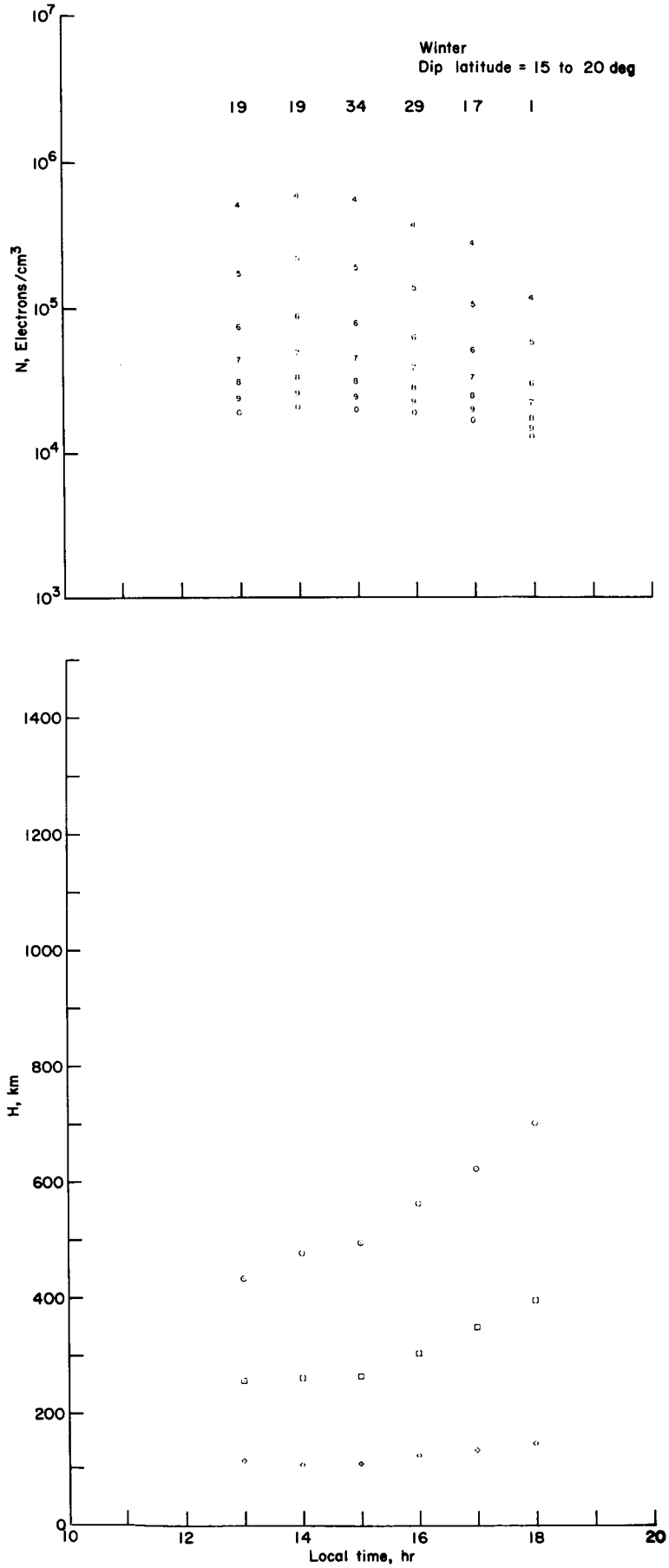

Winter
Dip latitude = 15 to 20 deg
19
19
34
29
17
1
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
10
12
14
16
18
20
Local time, hr

Figure 71

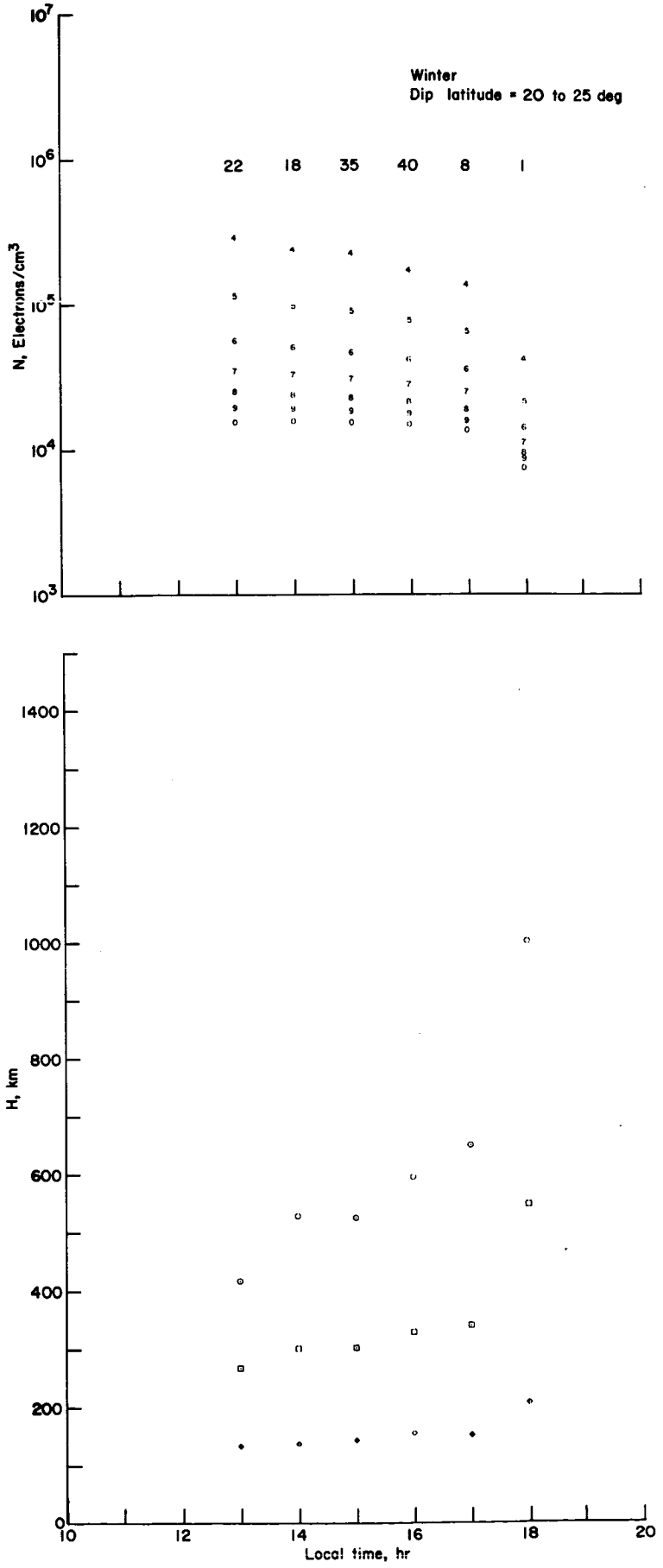

Winter
Dip latitude = 20 to 25 deg
22
18
35
40
8
1
N, Electrons/cm3
H, km
Local time, hr

Figure 72

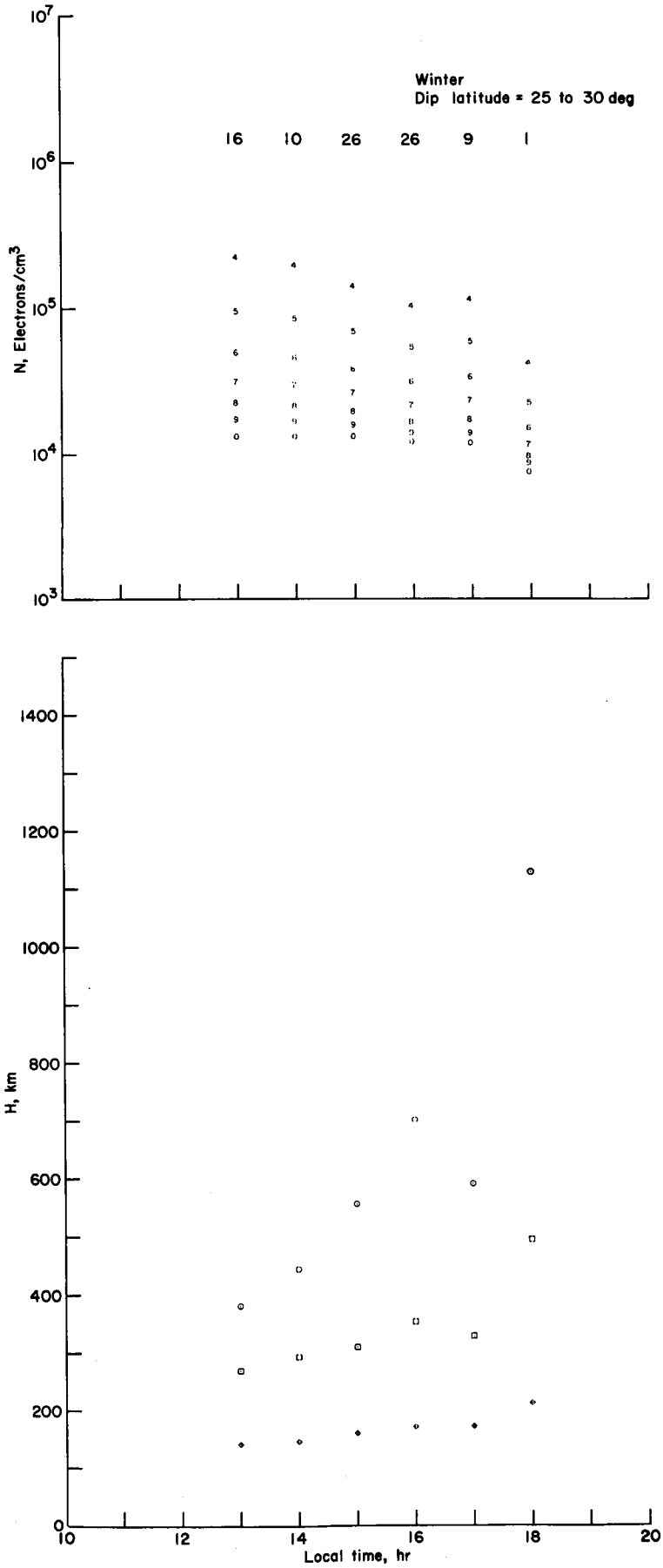

Winter
Dip latitude = 25 to 30 deg
16
10
26
26
9
1
N, Electrons/cm^3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
10
12
14
16
18
20
Local time, hr

Figure 73

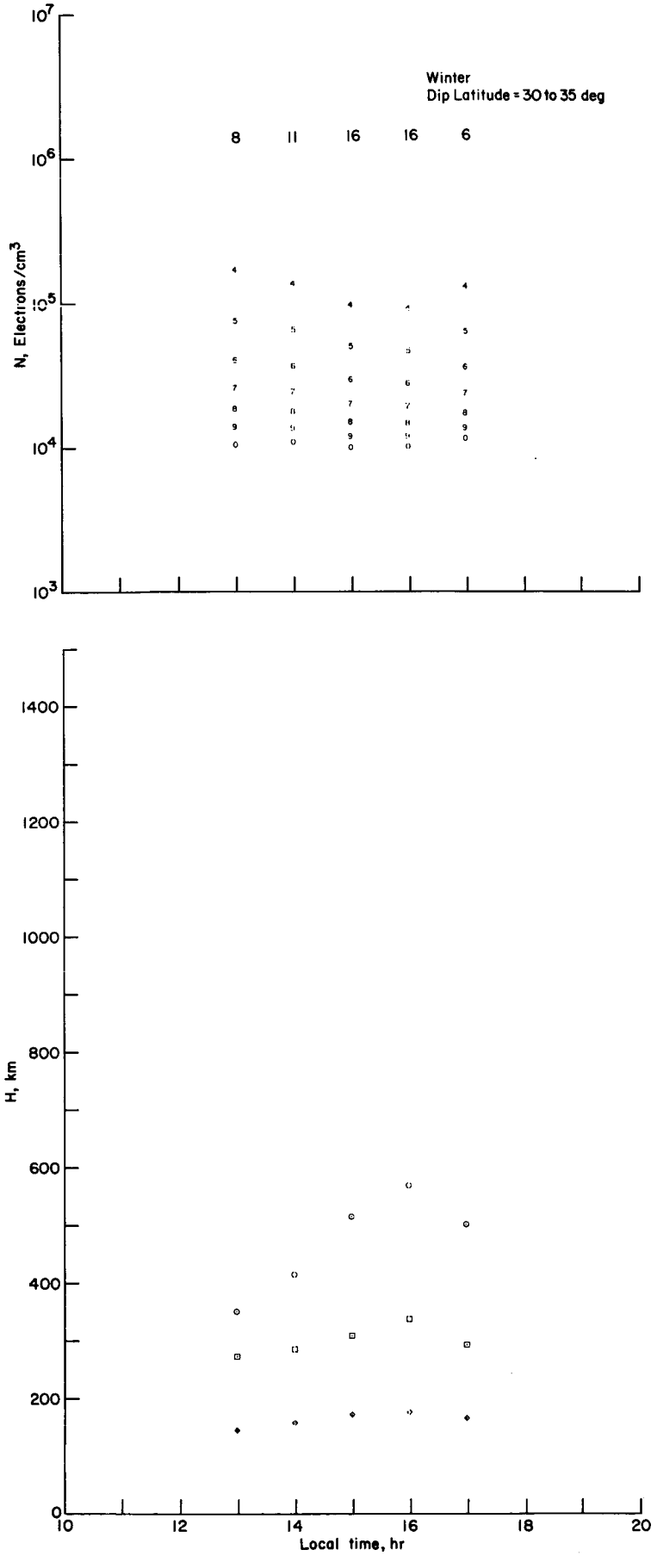

Winter
Dip Latitude = 30 to 35 deg
8
11
16
16
6
N, Electrons/cm3
H, km
Local time, hr

Figure 74

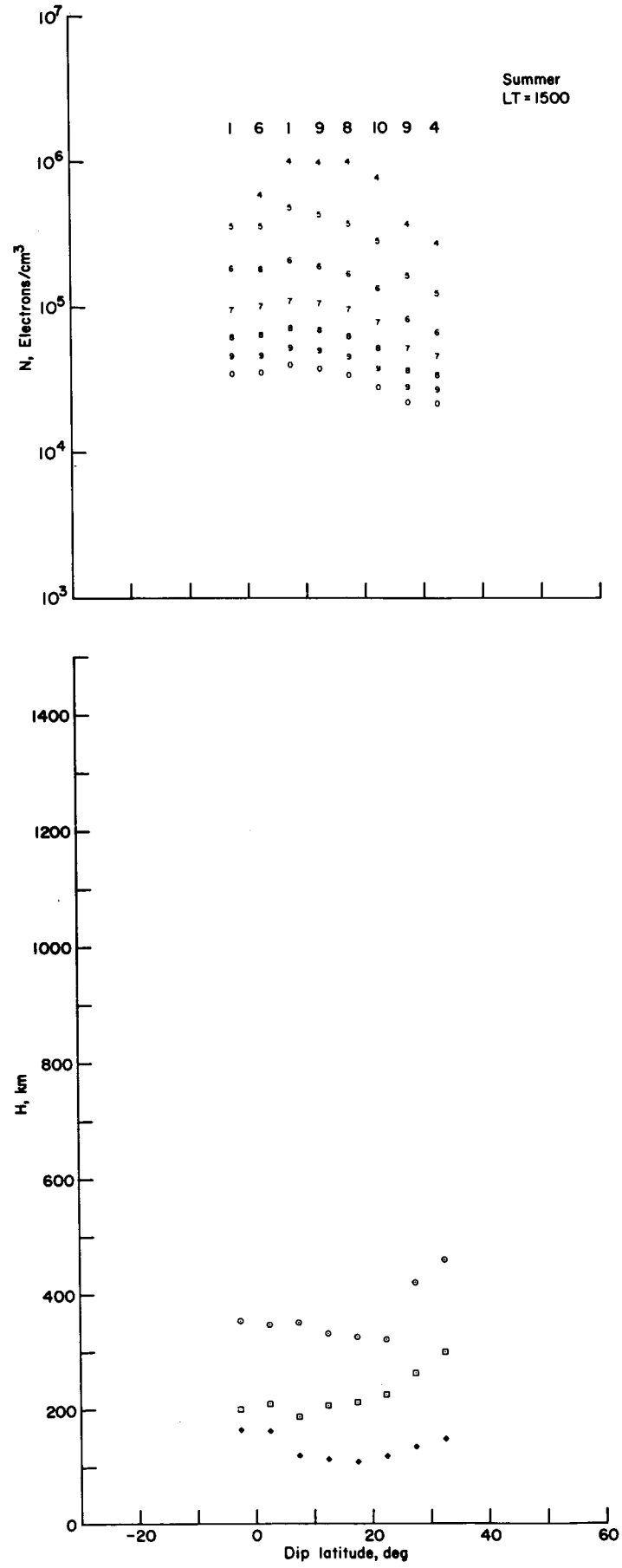

Summer
LT = 1500
1 6 1 9 8 10 9 4
N, Electrons/cm^3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 75

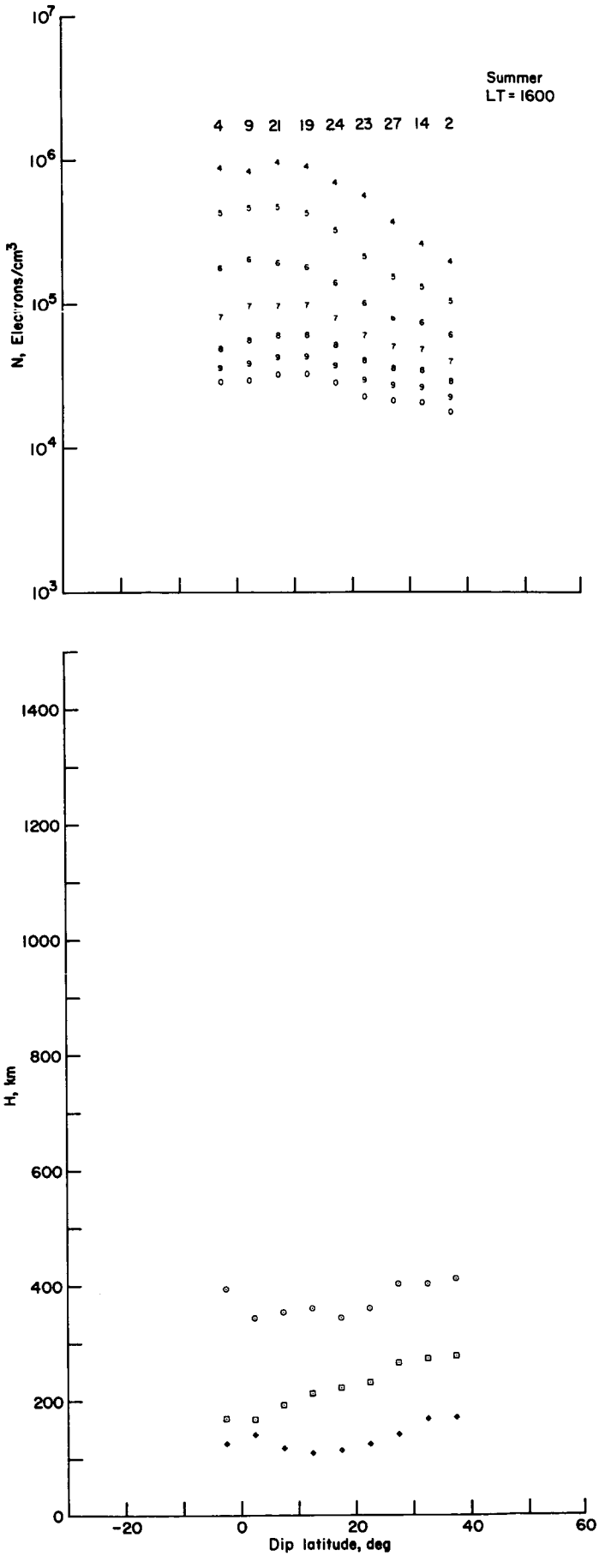

Summer
LT = 1600
4 9 21 19 24 23 27 14 2
N, Electrons/cm3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 76

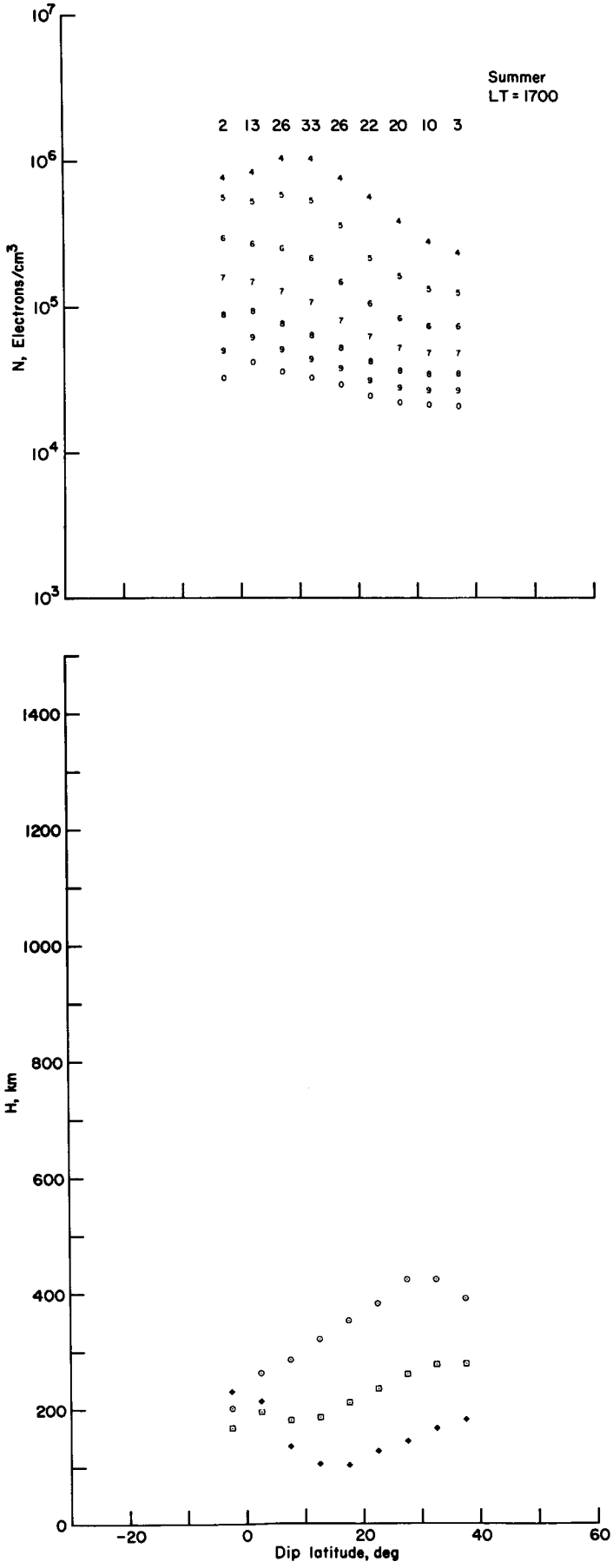

Summer
LT = 1700
2 13 26 33 26 22 20 10 3
N, Electrons/cm^3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 77

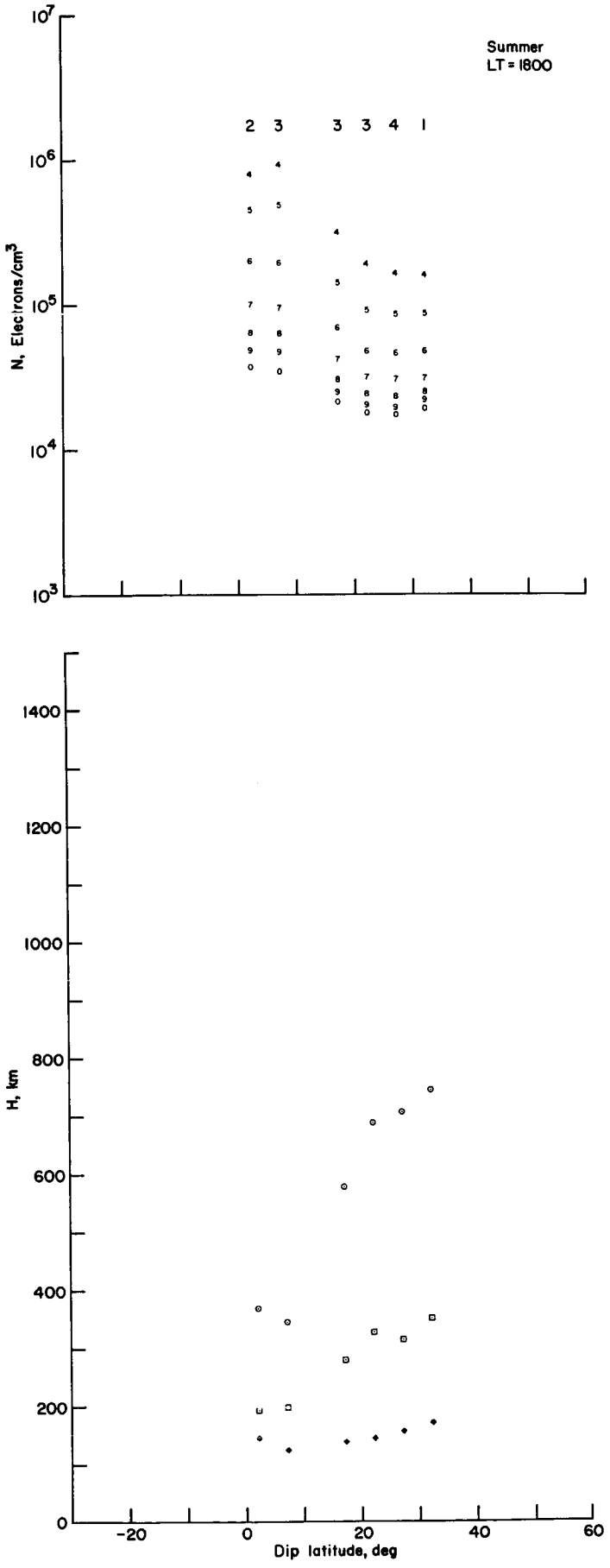

Summer
LT = 1800
N, Electrons/cm^3
10^7
10^6
10^5
10^4
10^3
2 3 3 3 4 1
H, km
1400
1200
1000
800
600
400
200
0
-20
0
20
40
60
Dip latitude, deg

Figure 78

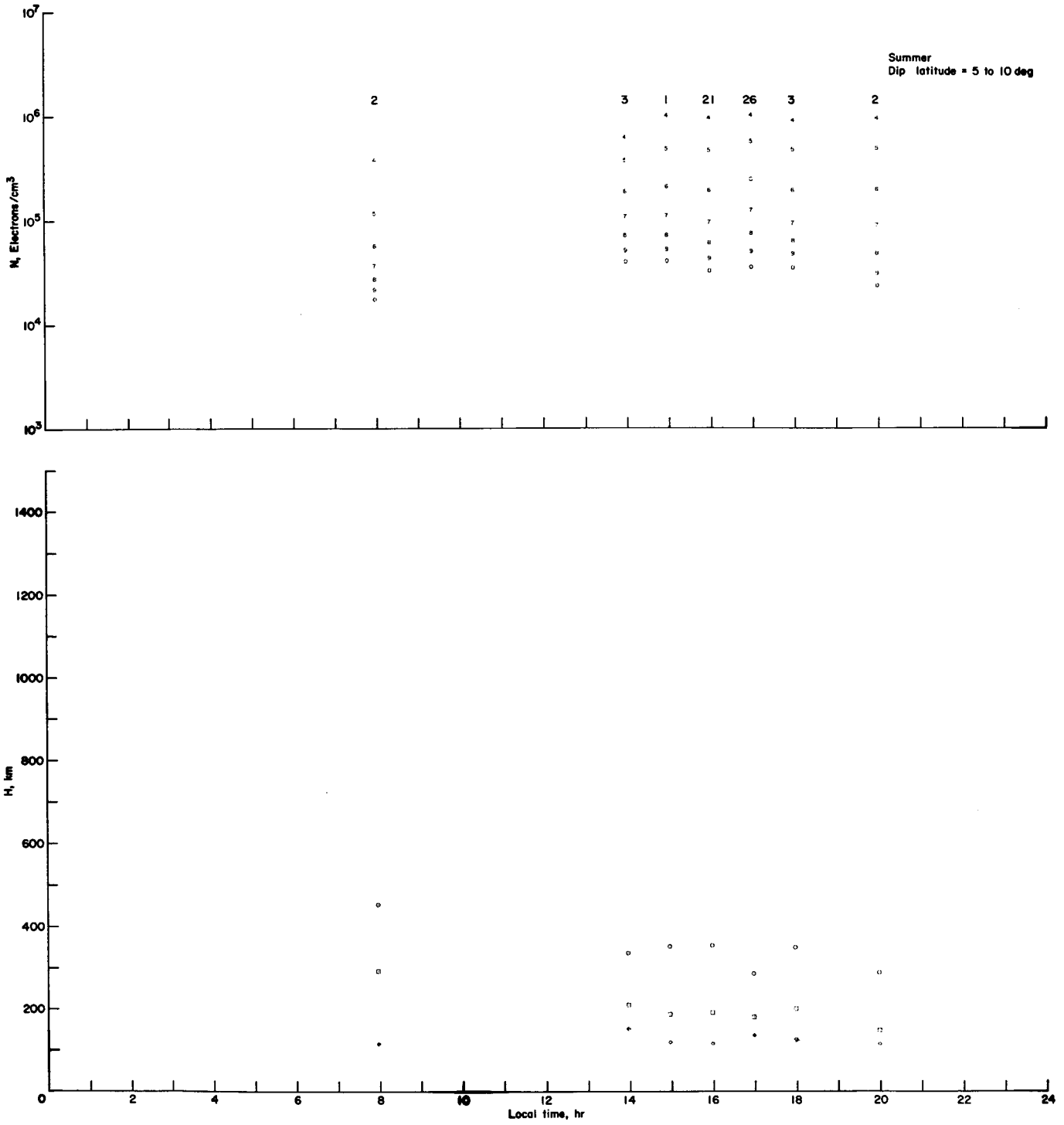

Summer
Dip latitude = 5 to 10 deg
2
3
1
21
26
3
2
N_e, Electrons/cm^3
10^7
10^6
10^5
10^4
10^3
H, km
1400
1200
1000
800
600
400
200
0
2
4
6
8
10
12
14
16
18
20
22
24
Local time, hr

Figure 79

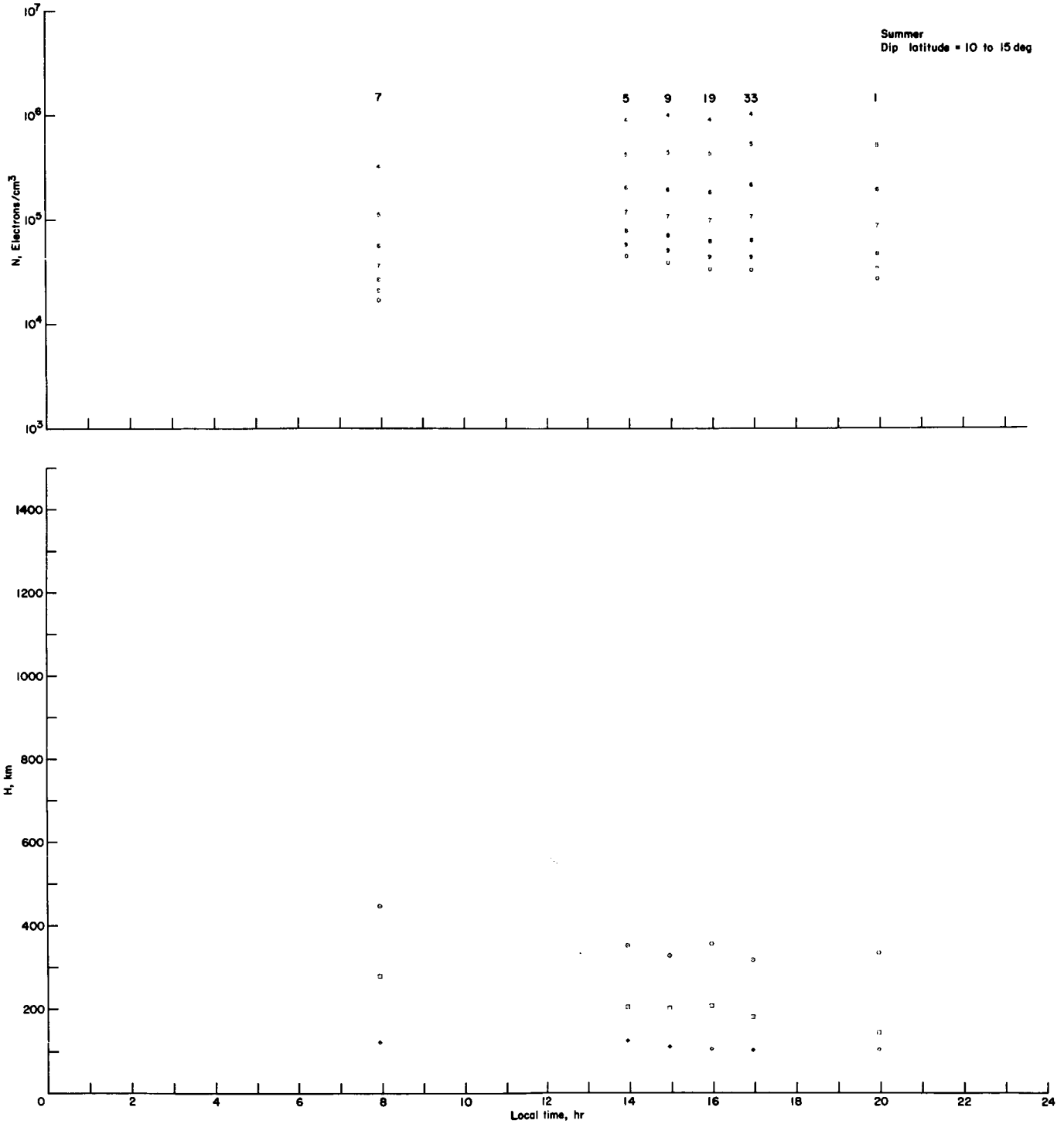

Summer
Dip latitude = 10 to 15 deg
7
5
9
19
33
1
N, Electrons/cm³
H, km
Local time, hr

Figure 80

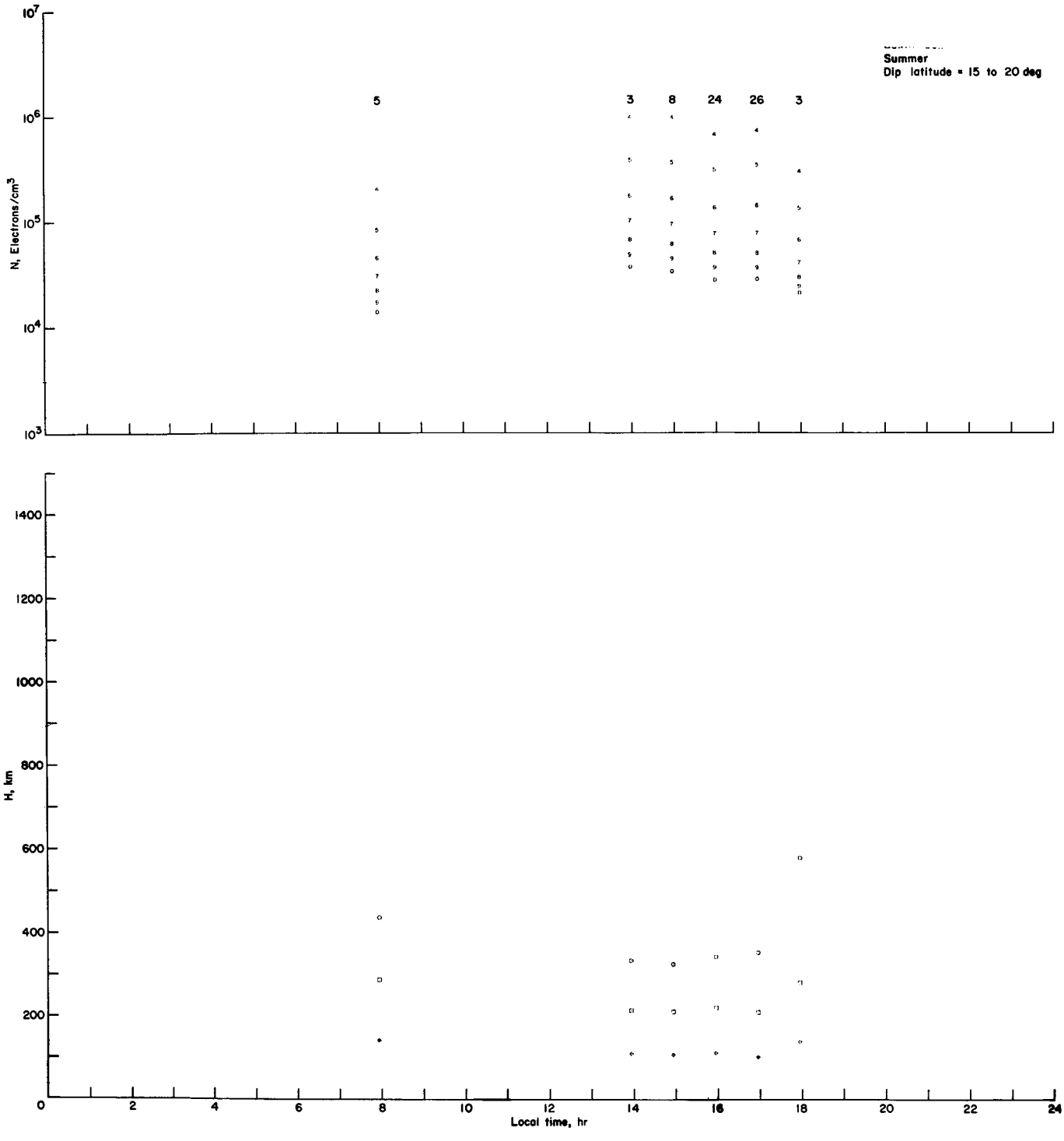

Summer
Dip latitude = 15 to 20 deg
5
3
8
24
26
3
N, Electrons/cm³
H, km
Local time, hr

Figure 81

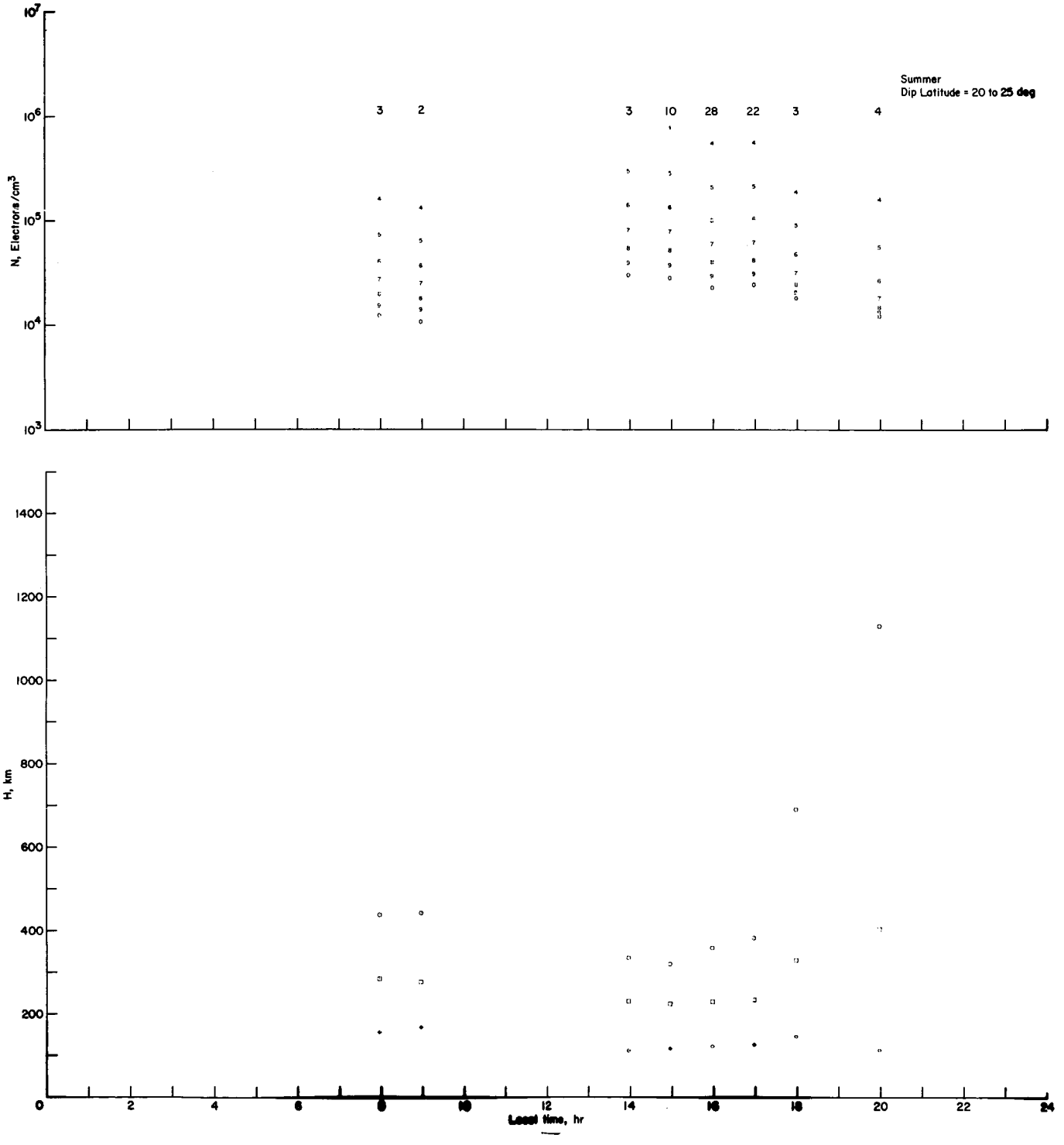

Summer
Dip Latitude = 20 to 25 deg
N, Electrons/cm³
H, km
Local time, hr

Figure 82

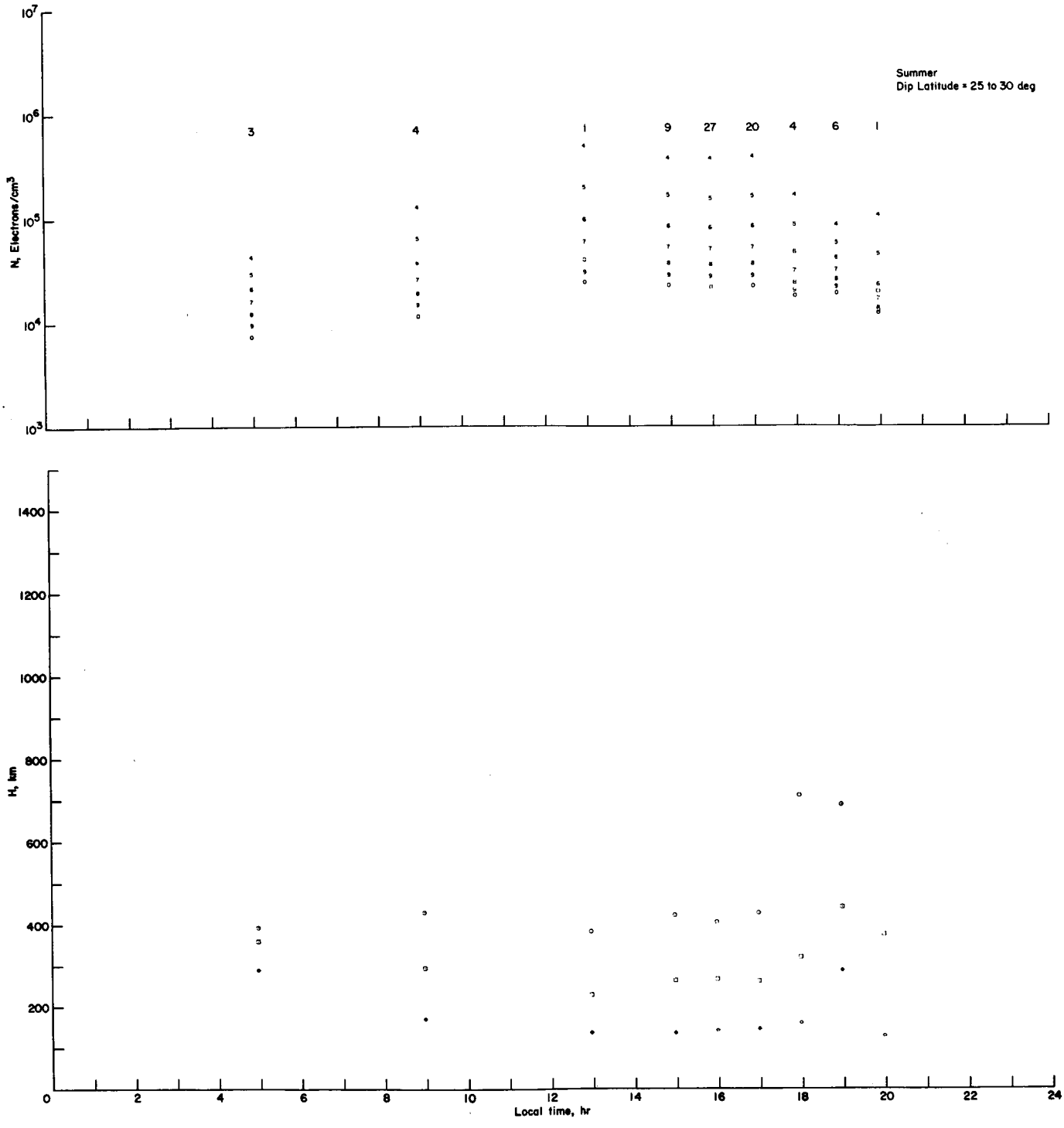

Summer
Dip Latitude = 25 to 30 deg
N, Electrons/cm³
H, km
Local time, hr

Figure 83

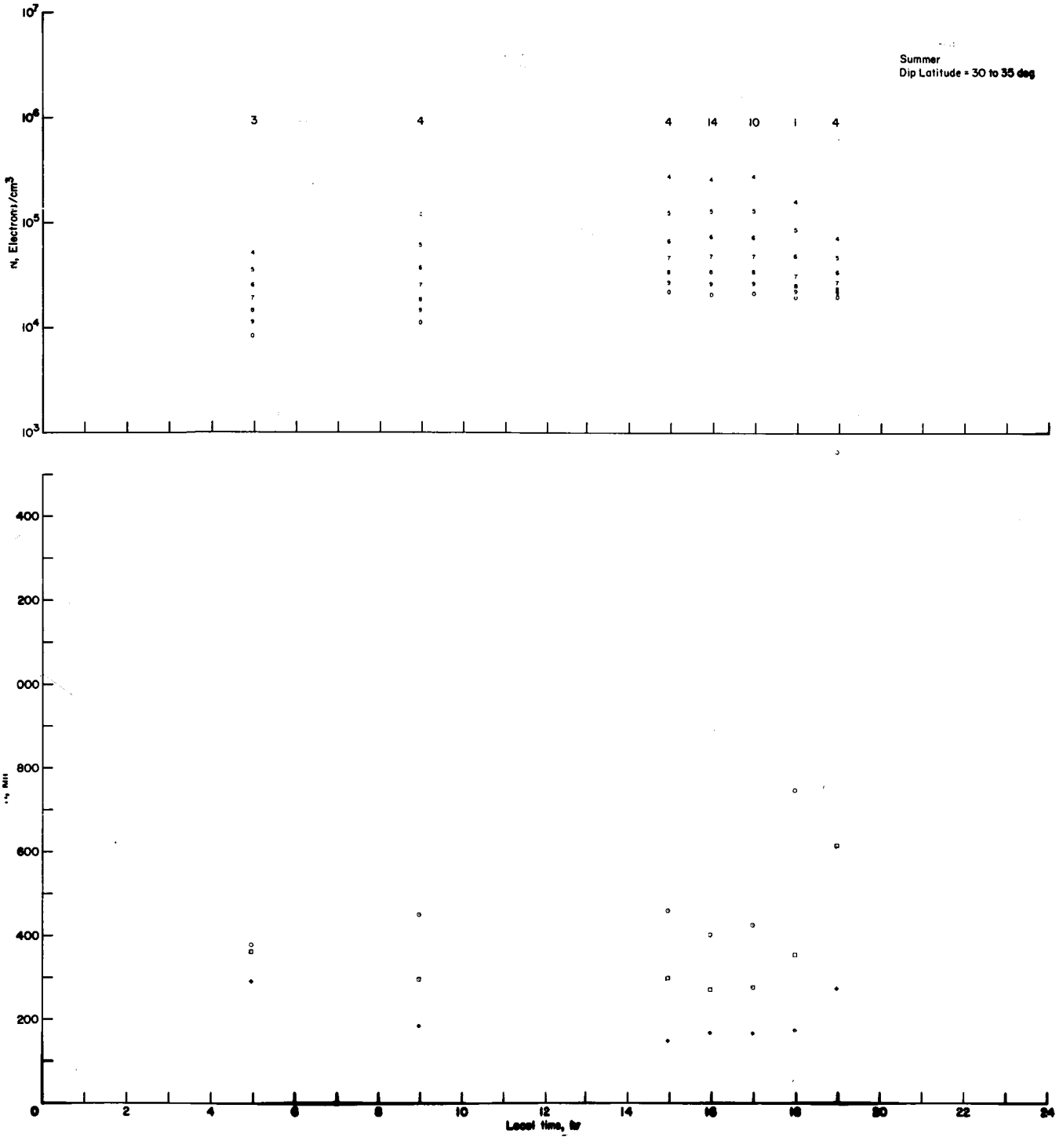

Summer
Dip Latitude = 30 to 35 deg
N, Electrons/cm³
Local time, hr

Figure 84