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ATMOSPHERIC ENVIRONMENT FOR SPACE SHUTTLE (STS-26) LAUNCH

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16. ABSTRACT

This report presents a summary of selected atmospheric conditions observed near Space Shuttle STS-26 launch time on September 29, 1988, at Kennedy Space Center, Florida. Values of ambient pressure, temperature, moisture, ground winds, visual observations (cloud), and winds aloft are included. The sequence of pre-launch Jimsphere measured vertical wind profiles is given in this report. The final atmospheric tape, which consists of wind and thermodynamic parameters versus altitude, for STS-26 vehicle ascent has been constructed. The STS-26 ascent atmospheric data tape has been constructed by Marshall Space Flight Center's Earth Science and Applications Division to provide an internally consistent data set for use in post-flight performance assessments.

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ATMOSPHERIC ENVIRONMENT FOR SPACE SHUTTLE (STS-26) LAUNCH

I. INTRODUCTION

This report presents an evaluation of the atmospheric environmental data taken during the launch of the Space Shuttle/STS-26 vehicle. This Space Shuttle vehicle was launched from Pad 39B at Kennedy Space Center (KSC), Florida, on a bearing of 90-deg east of North, at 1537 UT (1137 EDT) on September 29, 1988.

This report presents a summary of the atmospheric environment at launch time (L+0) of the STS-26, together with the sequence of prelaunch Jimsphere measured winds aloft profiles from L-6.3 hr through liftoff. The general atmospheric situation for the launch and flight area is described, and surface and upper level wind/thermodynamic observations near launch time are given. Since the ship Redstone was unavailable for STS-26 duty, the SRB descent/impact atmospheric data were not taken. However, one can use the STS-26 ascent data for SRB studies, as the best substitute.

Previous MSFC-related launch vehicle atmospheric environmental conditions have been published as Appendix A of individual MSFC Saturn Flight Evaluation Working Group reports [1]. Office memorandums have been issued for previous flights giving launch pad wind information. A report has also been published [2] which summarizes most launch atmospheric conditions observed for the past 155 MSFC/ABMA-related vehicle launches through SA-208 (Skylab 4). Reports summarizing ASTP, STS-1 through STS-51L launch conditions are presented in References 3 through 21, respectively. Table 1 gives the atmospheric L+0 launch conditions for all the Space Shuttle Missions.

II. SOURCES OF DATA

Atmospheric observational data used in this report were taken from synoptic maps made by the National Weather Service, plus all available surface observations and measurements from around the launch area. Upper air observations were taken from balloon-released instruments sent aloft from Cape Canaveral Air Force Station (CCAFS). High-altitude winds and thermodynamic data were measured by the Super-Loki rocketsondes launched from the CCAFS. Table 2 presents a listing of systems used to obtain the upper level wind profiles used in compiling the final ascent atmospheric data tape. Data cutoff altitudes are also given in Table 2.

III. GENERAL SYNOPTIC SITUATION AT LAUNCH TIME

A weak area of high pressure prevailed over KSC during the launch of STS-26. Surface winds were unusually light and mostly from the northeast during countdown. Figure 1 presents the surface map 3 hr and 37 min before launch of STS-26. Northerly winds dominated the flow aloft over the KSC area and remained unseasonably light. Figure 2 shows the winds aloft condition at the 500 mb level 3 hr and 37 min before launch.

Clouds were scattered over eastern Florida prior to the launch of STS-26. Figure 3 depicts the GOES-7 visible picture at 1531 UT (6 min prior to liftoff) with the 500-mb heights and wind barbs superimposed. Figure 4 presents an up-close visible shot of the Florida peninsula as recorded by GOES-7, taken also at 1531 UT.

The unusually light winds, caused by a very weak area of high pressure over the eastern United States, were responsible for a 1-hr and 37-min launch delay of STS-26. A more detailed explanation of the winds will be presented in Section C of this report.

IV. SURFACE OBSERVATIONS AT LAUNCH TIME

Surface observations at launch time for selected KSC locations are given in Table 3. Included are pad 39B, shuttle runway, and CCAFS balloon release station observations. Neither precipitation nor lightning was observed at launch time.

Table 4 presents pad 39B wind data along with other standard hourly atmospheric measurements and sky observations for the 6-hr period prior to launch of STS-26. Values for wind speed and direction are given for the 84 m (275 ft) FSS reference level and 18 m (60 ft) pad light pole level.

V. UPPER AIR MEASUREMENTS DURING LAUNCH

The FPS-16 Jimsphere (1550 UT), MSS Rawinsonde (1541 UT), Super-Loki Rocketsonde (1635 UT), and Super-Loki Robin (1705 UT) systems were used to measure the upper level wind and thermodynamic parameters for STS-26 launch. At altitudes above the rocket-measured data, the Global Reference Atmosphere (GRA) [22] parameters for October KSC conditions were used. A tabulation of the STS-26 final atmospheric data for ascent is presented in Table 5 which lists the wind and thermodynamic parameters versus altitude. A brief summary of parameters is given in the following paragraphs.

A. Wind Speed

At launch time, wind speeds were 13.7 ft/sec (8.1 kn) at 60 ft and increased to a maximum of 43.7 ft/sec (26 kn) at 53,100 ft (16,185 m). The next measurable maximum wind speed was 93

ft/sec (55 kn) which occurred at an altitude of 199,000 ft (60,655 m). The winds decreased above this level to around 250,000 ft (76,200 m) which was the altitude of the last measurable wind speed. The left side of Figure 5 shows a plot of the wind speed versus the altitude.

B. Wind Direction

At launch time, the 60-ft wind direction was from the northeast (047 deg) and shifted to an easterly component about 5,000 ft (1524 m). Winds remained easterly through 31,000 ft (945 m) where they shifted through north at approximately 36,000 ft (10,973 m) and became northwesterly up through 56,000 ft (17,069 m). Wind directions above this level became easterly around the 63,000 ft (19,202 m) altitude. Winds continued easterly through 139,000 ft (42,367 m) and shifted to a westerly component above this altitude throughout all remaining directional measurements heights. Figure 5 depicts the complete wind versus altitude profile specifying wind direction on the right side.

C. Prelaunch/Launch Wind Profiles

Prelaunch/launch wind profiles given in Figures 6 through 9 were measured by the Jimsphere FPS-16 system. Data are shown for five measurement periods beginning at L–6.3 hr and extending through L + 13 min.

The wind speed and direction profiles for the 6.3-hr period prior to and including L + 13 min are shown in Figures 6 and 7. The in-plane (head-tail wind) and out-of-plane (left-right cross-wind) profiles are given in Figures 8 and 9. The wind speeds and in-plane component speeds were considerably less than the October mean wind values at mostly all altitude levels. The out-of-plane component speeds were approximately equal to the mean October wind values. Ascent load exceedances were produced on the wings of the Orbiter, due to light tail winds at 30,000 ft (9144 m). This resulted in a 1-hr and 37-min launch delay of STS-26.

D. Thermodynamic Data

The thermodynamic data, taken at STS-26 launch time, consisted of atmospheric temperature, dew-point temperature, pressure, and density. These data have been compiled as the STS-26 ascent atmospheric data and are presented in Table 5. The vertical structure of temperature and dew-point temperature for STS-26 ascent are shown graphically versus altitude in Figure 10.

The atmospheric thermodynamic parameters of temperature, pressure and density, measured during STS-26 launch below 60,000 ft (18,288 m) were all within 5 percent of their respective PRA-63 [24] annual values. All these parameters stayed within 15 percent of their respective PRA-63 values, at all levels of measurement.

E. SRB Upper Air and Surface Measurements

As has been mentionned in the introduction, since there was no ship available, an SRB descent atmospheric data tape has not been constructed. The tabular values for the ascent atmospheric tape, as presented in Table 5, should be used for SRB descent/impact studies since it is the closest measured data source.

TABLE 1. SELECTED ATMOSPHERIC OBSERVATIONS FOR THE FLIGHTS OF THE SPACE SHUTTLE VEHICLES

Vehicle Data				Surface Observations					Inflight Conditions Max. Wind Below 60,000 ft			Count Down and Launch Comments of Meteorological Significance
				Thermodynamic[a]			Wind[b]					
Seq. No.	Vehicle No.	Launch Date	Time (EST) Nearest Minute	Press.[c] N/cm^2	Temp. (°C)	Rel. Hum. (%)	Speed (ft/sec)	Dir. (deg)	Alt. (ft)	Speed (ft/sec)	Dir. (deg)	
1	STS-1 Columbia	4/12/81	0700	10.234[d]	21	82	11.8 15.2	125 120	44,300	98	250	
2	STS-2 Columbia	11/12/81	1010	10.166	23	61	27.0 27.0	345 355	36,300	158	286	
3	STS-3 Columbia	3/22/82	1100	10.160	24	71	7.0[e] 8.0[e]	50[e] 145[e]	45,000	119	250	Wind directional change observed at Pad just prior to L+0. Onset of sea breeze.
4	STS-4 Columbia	6/27/82	1100[f]	10.200	29	70	5.8[g] 4.9[g]	133[g] 141[g]	47,900	37	329	
5	STS-5 Columbia	11/11/82	0719	10.227	22	68	22.0 35.0	90 90	40,600	146	336	
6	STS-6 Challenger	4/4/83	1330	10.183	23	55	12.7 16.4	63 55	46,100	155	277	
7	STS-7 Challenger	6/18/83	0733[f]	10.146	25	80	5.9[e] 10.3[e]	10[e] 350[e]	45,900	76	278	
8	STS-8 Challenger	8/30/83	0232[f]	10.111	24	97	8.8 14.0	269 268	45,100	30	349	17 min countdown delay due to adverse weather conditions.
9	STS-9 (SL-1) Columbia	11/28/83	1100	10.153	24	83	19.1 32.0	183 190	47,100	117	252	
10	STS-11 (41-B) Challenger	2/3/84	0800	10.173	17	75	0.0 NA	0 NA	38,200	143	288	
11	STS-13 (41-C) Challenger	4/6/84	0858	10.149	16	56	21.5 18.6	320 275	37,700	176	289	
12	STS-41D Discovery	8/30/84	0842[f]	10.172	26	81	3.0 3.6	106 39	40,300	44	270	
13	STS-41G Challenger	10/5/84	0703[f]	10.210	23	60	16.5 14.8	73 58	40,600	78	303	
14	STS-51A Discovery	11/8/84	0715	10.227	20	59	23.0 31.1	24 10	33,100	131	272	1 day delay due to excessive wind loads, calculated at high altitudes.

TABLE 1. (Concluded)

Vehicle Data[h]				Surface Observations					Inflight Conditions Max. Wind Below 60,000 ft			Count Down and Launch Comments of Meteorological Significance
				Thermodynamic[a]			Wind[b]					
Seq. No.	Vehicle No.	Launch Date	Time (EST) Nearest Minute	Press.[c] N/cm^2	Temp. (°C)	Rel. Hum. (%)	Speed (ft/sec)	Dir. (deg)	Alt. (ft)	Speed (ft/sec)	Dir. (deg)	
15	STS-51C Discovery	1/24/85	1450	10.173	18	46	17.1 15.5	228 253	42,900	199	265	1 day delay due to extreme cold surface temperatures.
16	STS-51D Discovery	4/12/85	1359	10.257	21	55	19.9 22.3	82 82	42,600	134	265	55-min delay due to a ship in the SRB impact area, and concerns over potential weather related impacts (cloud cover).
17	STS-51B Challenger	4/29/85	1202[f]	10.128	27	65	11.5 18.4	005 337	32,900 40,700	68 68	320 297	
18	STS-51G Discovery	6/17/85	0733[f]	10.201	23	91	2.9 11.8	201 206	40,100 46,700	55 55	298 302	
19	STS-51F Challenger	7/29/85	1700[f]	10.174	28	72	14.9 13.4	101 113	48,000	53	035	(20) 8/24 launch scrub due to unexceptable weather in launch area. Rain during countdown.
20	STS-51I Discovery	8/27/85	0658[f]	10.225	24	86	14.2 16.6	073 070	41,000	43	123	
21	STS-51J Atlantis	10/3/85	1115[f]	10.185	28	79	17.0 13.7	213 171	48,000	48	283	(24) 1/7 launch scrub due to unexceptable weather at TAW sites. 1/10 launch scrub due to heavy rain in launch area.
22	STS-61A Challenger	10/30/85	1200	10.059	28	72	12.7 14.1	217 174	43,000	81	218	
23	STS-61B Atlantis	11/26/85	1929	10.202	23	81	10.1 10.4	165 112	49,300	75	270	(25) 1/26 launch scrub due in-part to potential bad weather associated with frontal passage. 1/27 launch scrub due in-part to strong cross winds at X68. 1/28 2-hr delay due in-part to cold early morning temperatures.
24	STS-61C Columbia	1/12/86	0655	10.206	12	84	15.4 18.6	323 342	40,000	221	263	
25[j]	STS-51L[i] Challenger	1/28/86	1138	10.253	3	27	20.1 15.3	331 262	42,000	174	264	
26[j]	STS-26 Discovery	9/29/88	1137[f]	10.182	29	56	13.7 13.5	058 047	53,100	44	304	(26) 1 hr and 37 min delay due to light winds.

a. Pad 39A thermodynamic measurements taken at approximately 1.2 m (4 ft) above natural grade at camera site No. 3.
b. 1 min average prior to L+0 of 60 ft PLP (listed first) and 275 ft FSS winds measured above natural grade. 275 ft FSS wind measurement can possibly be influenced by surrounding pad structures and thermal balance. 60 ft PLP wind data should not have this potential problem.
c. Pressure measurement applicable to 21 ft above MSL unless otherwise indicated.
d. Pressure measurement applicable to 14 ft above MSL.
e. 10 sec average prior to L+0.
f. Eastern Daylight Time.
g. 30 sec average prior to L+0.
h. All vehicles launched from LC 39A except where noted.
i. Shuttle exploded in flight.
j. Vehicle launched from 39B.

TABLE 2. SYSTEMS USED TO MEASURE UPPER AIR WIND DATA FOR STS-26 ASCENT

	Date: September 29, 1988		Portion of Data Used			
	Release Time		Start		End	
Type of Data	Time (UT) (hr/min)	Time After L+0 (min)	Altitude m (ft)	Time After L+0 (min)	Altitude m (ft)	Time After L+0 (min)
FPS-16 Jimsphere	15:50	13	6 (21)	13	17,069 (56,000)	69
MSS Rawinsonde	15:41	4	17,374 (57,000)	61	28,651 (94,000)	98
Super-Loki Rocketsonde (Datasonde)	17:05	88	59,436 (195,000)	88	28,956 (95,000)	125
Super-Loki Rocketsonde (Robin)	16:35	58	76,200 (250,000)	58	59,741 (196,000)	74

TABLE 3. SURFACE OBSERVATIONS AT STS-26 LAUNCH TIME

Location[a]	Time After L+0 (min)	Pressure (MSL) N/cm^2 (psia)	Temperature °K (°F)	Dew Point °K (°F)	Relative Humidity (%)	Visibility km (miles)	Sky Cover			Wind	
							Cloud Amount*	Cloud Type	Height of Base Meters (ft)	Speed ft/sec (kt)	Direction (deg)
NASA Space Shuttle Runway X68[e] Winds Measured at 10.4 m (34 ft)	0	10.190 (14.779)	304.8 (89.0)	294.3 (70.0)	54	16 (10)	3	Cumulo-nimbus	762 (2500)	13.5 (8.0)	080
							2	Altocumulus	2134 (7,000)		
							0	Cirrus	7620 (25,000)		
CCAFS XMR[c] Surface Measurements	-7	10.190 (14.779)	302.6 (85.0)	296.5 (74.0)	72	16 (10)	3	Cumulo-nimbus	762 (2500)	11.8 (7.0)	020
							2	Altocumulus	2438 (8000)		
Pad 39B[d] Lightpole SE 18.3 m (60.0 ft)	0	10.186 (14.773)	302.1 (84.1)	292.4 (67.0)	56	-	-	-	-	13.7 (8.1)	058[b]
Pad 39A FSS (Top SE) 83.8 m (275 ft)	0	-	-	-	-	-	-	-	-	13.5 (8.0)	047[b]

*5/10 total sky cover reported at both X68 and XMR.

a. Altitudes of measurements are above natural grade, except where noted.

b. Approximately 1 min average prior to L+0.

c. Balloon release site.

d. Pad 39B thermodynamic measurements are taken at camera site No. 3, approximately 6.4 m (21 ft) above MSL.

e. Official STS-26 sky observational site.

TABLE 4. STS-26 PRE-LAUNCH THROUGH LAUNCH KSC PAD 39B ATMOSPHERIC MEASUREMENTS[a]

Hourly Atmospheric Measurements								Sky Condition[b]			
29 September 1988 Time UT	Temp. (°F)	Dew Point (°F)	RH (%)	275' Level (SE)[d]		60' Level (SE)		Clouds	Total Sky Cover	Vis. (mi.)	Other Remarks
				WS Kt	WD°	WS Kt	WD°				
1000	71	63	77	-	-	3	341	Scattered at 2500 ft	1/10	7	
1100	71	63	77	-	-	4	323	Scattered at 2500 ft	1/10	4	Vision obstructed by fog
1200	73	66	78	-	-	3	338	Scattered at 1700 and 9000 ft	2/10	5	Vision obstructed by fog
1300	79	70	76	6	035	5	067	Scattered at 1700, 9000, and 20,000 ft	2/10	6	Vision obstructed by fog
1400	82	68	62	6	039	5	079	Scattered at 2000, 8000, and 25,000 ft	4/10	8	
1500	84	68	57	6	038	6	065	Scattered at 2700, 8000, and 25,000 ft	5/10	10	
L+0[c] 1537	84	67	56	8	047	8	058	Scattered at 2500, 7000, and 25,000 ft	5/10	10	

a. Hourly pad observations (obtained via MSFC/HOSC) averaged over 1 min, centered on the hour.

b. Sky observations taken at the Shuttle runway site X68.

c. L+0 PAD Wind and thermodynamic parameters obtained from HOSC strip charts. SE Anemometers used at 60 and 275 ft levels for L+0 wind conditions (approximately 1 min average prior to L+0). Pad 39B L+0 atmospheric pressure, at 21 ft (MSL), was 10.175 N/cm^2. Sea level pressure was 10.186 N/cm^2.

d. Hourly tower data for Pad 39A SE anemometer (approximately 5 min averages, centered on the hour).

TABLE 5. STS-26 ASCENT ATMOSPHERIC DATA TAPE

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
21.	10.10	60.00	28.90	0.1018E+04	0.1165E+04	19.20
100.	13.70	54.00	28.60	0.1015E+04	0.1163E+04	19.35
200.	13.60	50.00	28.22	0.1012E+04	0.1160E+04	19.55
300.	13.80	48.00	27.85	0.1009E+04	0.1157E+04	19.74
400.	14.60	49.00	27.47	0.1005E+04	0.1155E+04	19.94
500.	15.40	50.00	27.09	0.1002E+04	0.1152E+04	20.13
600.	16.20	51.00	26.71	0.9984E+03	0.1149E+04	20.32
700.	18.81	57.00	26.33	0.9950E+03	0.1147E+04	20.52
800.	18.75	54.00	25.96	0.9916E+03	0.1144E+04	20.71
900.	18.58	57.00	25.58	0.9882E+03	0.1142E+04	20.91
1000.	18.07	55.00	25.20	0.9849E+03	0.1139E+04	21.10
1100.	18.24	56.00	24.91	0.9815E+03	0.1136E+04	21.05
1200.	16.55	59.00	24.62	0.9781E+03	0.1133E+04	21.00
1300.	17.73	52.00	24.33	0.9747E+03	0.1130E+04	20.95
1400.	17.06	59.00	24.04	0.9713E+03	0.1128E+04	20.90
1500.	17.06	63.00	23.75	0.9679E+03	0.1125E+04	20.85
1600.	17.57	68.00	23.46	0.9646E+03	0.1122E+04	20.80
1700.	18.24	71.00	23.17	0.9613E+03	0.1119E+04	20.75
1800.	16.72	64.00	22.88	0.9579E+03	0.1116E+04	20.70
1900.	18.24	68.00	22.59	0.9546E+03	0.1114E+04	20.65
2000.	16.72	68.00	22.30	0.9513E+03	0.1111E+04	20.60
2100.	16.55	77.00	22.09	0.9480E+03	0.1108E+04	20.45
2200.	18.07	75.00	21.88	0.9447E+03	0.1105E+04	20.30
2300.	18.07	70.00	21.67	0.9414E+03	0.1102E+04	20.15
2400.	19.42	70.00	21.46	0.9381E+03	0.1099E+04	20.00
2500.	19.42	68.00	21.25	0.9348E+03	0.1096E+04	19.85
2600.	22.80	70.00	21.04	0.9316E+03	0.1093E+04	19.70
2700.	23.65	71.00	20.83	0.9283E+03	0.1090E+04	19.55
2800.	24.66	73.00	20.62	0.9251E+03	0.1087E+04	19.40
2900.	22.97	71.00	20.41	0.9218E+03	0.1084E+04	19.25
3000.	24.32	77.00	20.20	0.9186E+03	0.1081E+04	19.10
3100.	22.29	75.00	20.04	0.9154E+03	0.1078E+04	18.64
3200.	23.31	73.00	19.88	0.9122E+03	0.1075E+04	18.18
3300.	20.94	78.00	19.72	0.9090E+03	0.1072E+04	17.72
3400.	21.28	74.00	19.56	0.9058E+03	0.1069E+04	17.26
3500.	19.76	79.00	19.40	0.9026E+03	0.1066E+04	16.80
3600.	19.25	78.00	19.24	0.8994E+03	0.1063E+04	16.34
3700.	19.76	80.00	19.08	0.8963E+03	0.1060E+04	15.88
3800.	16.72	84.00	18.92	0.8931E+03	0.1057E+04	15.42
3900.	17.90	76.00	18.76	0.8900E+03	0.1054E+04	14.96
4000.	16.89	85.00	18.60	0.8868E+03	0.1051E+04	14.50
4100.	14.52	81.00	18.37	0.8837E+03	0.1049E+04	14.34
4200.	16.55	79.00	18.14	0.8806E+03	0.1046E+04	14.18
4300.	16.21	81.00	17.91	0.8774E+03	0.1043E+04	14.02
4400.	14.02	78.00	17.68	0.8743E+03	0.1040E+04	13.86
4500.	15.88	76.00	17.45	0.8712E+03	0.1037E+04	13.70
4600.	17.23	79.00	17.22	0.8681E+03	0.1034E+04	13.54
4700.	15.54	73.00	16.99	0.8651E+03	0.1032E+04	13.38
4800.	16.55	67.00	16.76	0.8620E+03	0.1029E+04	13.22
4900.	17.57	75.00	16.53	0.8589E+03	0.1026E+04	13.06

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
5000.	14.86	84.00	16.30	0.8559E+03	0.1023E+04	12.90
5100.	13.00	79.00	16.09	0.8528E+03	0.1020E+04	12.65
5200.	16.55	81.00	15.88	0.8498E+03	0.1018E+04	12.40
5300.	16.38	85.00	15.67	0.8467E+03	0.1015E+04	12.15
5400.	13.68	85.00	15.46	0.8437E+03	0.1012E+04	11.90
5500.	14.86	88.00	15.25	0.8407E+03	0.1009E+04	11.65
5600.	15.37	90.00	15.04	0.8377E+03	0.1006E+04	11.40
5700.	11.82	99.00	14.83	0.8347E+03	0.1004E+04	11.15
5800.	9.46	93.00	14.62	0.8317E+03	0.1001E+04	10.90
5900.	11.32	93.00	14.41	0.8288E+03	0.9981E+03	10.65
6000.	11.82	121.00	14.20	0.8258E+03	0.9954E+03	10.40
6100.	9.29	135.00	14.00	0.8228E+03	0.9925E+03	10.36
6200.	8.78	127.00	13.80	0.8199E+03	0.9896E+03	10.32
6300.	12.84	134.00	13.60	0.8169E+03	0.9867E+03	10.28
6400.	13.85	142.00	13.40	0.8140E+03	0.9838E+03	10.24
6500.	12.67	135.00	13.20	0.8110E+03	0.9810E+03	10.20
6600.	15.71	131.00	13.00	0.8081E+03	0.9781E+03	10.16
6700.	15.71	133.00	12.80	0.8052E+03	0.9753E+03	10.12
6800.	13.51	139.00	12.60	0.8023E+03	0.9724E+03	10.08
6900.	15.54	128.00	12.40	0.7994E+03	0.9696E+03	10.04
7000.	17.73	129.00	12.20	0.7965E+03	0.9668E+03	10.00
7100.	15.37	132.00	12.03	0.7937E+03	0.9639E+03	9.80
7200.	15.37	121.00	11.86	0.7908E+03	0.9610E+03	9.60
7300.	16.55	127.00	11.69	0.7879E+03	0.9582E+03	9.40
7400.	14.02	126.00	11.52	0.7851E+03	0.9553E+03	9.20
7500.	14.69	120.00	11.35	0.7822E+03	0.9525E+03	9.00
7600.	15.03	127.00	11.18	0.7794E+03	0.9497E+03	8.80
7700.	13.85	120.00	11.01	0.7766E+03	0.9468E+03	8.60
7800.	16.05	123.00	10.84	0.7737E+03	0.9440E+03	8.40
7900.	13.85	126.00	10.67	0.7709E+03	0.9412E+03	8.20
8000.	14.36	119.00	10.50	0.7681E+03	0.9384E+03	8.00
8100.	16.72	121.00	10.36	0.7653E+03	0.9354E+03	8.08
8200.	15.88	113.00	10.22	0.7626E+03	0.9324E+03	8.16
8300.	18.07	111.00	10.08	0.7598E+03	0.9294E+03	8.24
8400.	19.25	116.00	9.94	0.7570E+03	0.9265E+03	8.32
8500.	18.75	118.00	9.80	0.7543E+03	0.9235E+03	8.40
8600.	21.62	117.00	9.66	0.7515E+03	0.9205E+03	8.48
8700.	20.27	124.00	9.52	0.7488E+03	0.9176E+03	8.56
8800.	18.58	117.00	9.38	0.7460E+03	0.9146E+03	8.64
8900.	20.77	112.00	9.24	0.7433E+03	0.9117E+03	8.72
9000.	18.24	121.00	9.10	0.7406E+03	0.9088E+03	8.80
9100.	15.71	120.00	9.01	0.7379E+03	0.9058E+03	8.70
9200.	15.54	108.00	8.92	0.7352E+03	0.9028E+03	8.60
9300.	15.54	121.00	8.83	0.7325E+03	0.8998E+03	8.50
9400.	15.71	116.00	8.74	0.7298E+03	0.8968E+03	8.40
9500.	18.92	109.00	8.65	0.7272E+03	0.8938E+03	8.30
9600.	23.14	112.00	8.56	0.7245E+03	0.8909E+03	8.20
9700.	22.63	109.00	8.47	0.7219E+03	0.8879E+03	8.10
9800.	20.44	105.00	8.38	0.7192E+03	0.8850E+03	8.00
9900.	24.32	105.00	8.29	0.7166E+03	0.8820E+03	7.90

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
10000.	22.46	106.00	8.20	0.7140E+03	0.8791E+03	7.80
10100.	22.97	101.00	7.98	0.7114E+03	0.8766E+03	7.52
10200.	27.36	101.00	7.76	0.7087E+03	0.8742E+03	7.24
10300.	30.57	95.00	7.54	0.7061E+03	0.8717E+03	6.96
10400.	30.06	95.00	7.32	0.7035E+03	0.8692E+03	6.68
10500.	32.43	97.00	7.10	0.7010E+03	0.8668E+03	6.40
10600.	34.79	96.00	6.88	0.6984E+03	0.8644E+03	6.12
10700.	31.08	96.00	6.66	0.6958E+03	0.8619E+03	5.84
10800.	33.10	92.00	6.44	0.6932E+03	0.8595E+03	5.56
10900.	34.45	91.00	6.22	0.6907E+03	0.8571E+03	5.28
11000.	32.43	93.00	6.00	0.6882E+03	0.8547E+03	5.00
11100.	34.12	92.00	6.08	0.6856E+03	0.8519E+03	2.69
11200.	31.25	91.00	6.16	0.6831E+03	0.8490E+03	0.38
11300.	27.19	98.00	6.24	0.6806E+03	0.8461E+03	-1.93
11400.	26.35	102.00	6.32	0.6781E+03	0.8431E+03	-4.24
11500.	25.17	95.00	6.40	0.6755E+03	0.8401E+03	-6.55
11600.	26.85	92.00	6.48	0.6731E+03	0.8370E+03	-8.86
11700.	25.33	101.00	6.56	0.6706E+03	0.8339E+03	-11.17
11800.	22.46	103.00	6.64	0.6681E+03	0.8308E+03	-13.48
11900.	23.14	102.00	6.72	0.6656E+03	0.8277E+03	-15.79
12000.	23.48	108.00	6.80	0.6632E+03	0.8246E+03	-18.10
12100.	20.77	105.00	6.62	0.6607E+03	0.8220E+03	-17.86
12200.	23.14	99.00	6.44	0.6583E+03	0.8195E+03	-17.62
12300.	24.15	98.00	6.26	0.6558E+03	0.8169E+03	-17.38
12400.	21.62	100.00	6.08	0.6534E+03	0.8144E+03	-17.14
12500.	21.45	94.00	5.90	0.6510E+03	0.8119E+03	-16.90
12600.	22.63	96.00	5.72	0.6486E+03	0.8094E+03	-16.66
12700.	20.44	102.00	5.54	0.6462E+03	0.8069E+03	-16.42
12800.	19.93	98.00	5.36	0.6438E+03	0.8044E+03	-16.18
12900.	22.63	99.00	5.18	0.6414E+03	0.8019E+03	-15.94
13000.	19.93	104.00	5.00	0.6390E+03	0.7995E+03	-15.70
13100.	18.75	103.00	4.86	0.6366E+03	0.7969E+03	-16.21
13200.	19.76	105.00	4.72	0.6342E+03	0.7944E+03	-16.72
13300.	16.72	110.00	4.58	0.6319E+03	0.7918E+03	-17.23
13400.	15.54	103.00	4.44	0.6295E+03	0.7893E+03	-17.74
13500.	14.36	114.00	4.30	0.6272E+03	0.7868E+03	-18.25
13600.	12.67	117.00	4.16	0.6248E+03	0.7843E+03	-18.76
13700.	12.16	119.00	4.02	0.6225E+03	0.7818E+03	-19.27
13800.	11.32	125.00	3.88	0.6202E+03	0.7793E+03	-19.78
13900.	9.63	117.00	3.74	0.6179E+03	0.7768E+03	-20.29
14000.	12.16	115.00	3.60	0.6156E+03	0.7743E+03	-20.80
14100.	11.82	118.00	3.41	0.6132E+03	0.7719E+03	-20.94
14200.	12.67	101.00	3.22	0.6109E+03	0.7696E+03	-21.08
14300.	15.54	109.00	3.03	0.6087E+03	0.7672E+03	-21.22
14400.	14.36	111.00	2.84	0.6064E+03	0.7649E+03	-21.36
14500.	15.88	107.00	2.65	0.6041E+03	0.7625E+03	-21.50
14600.	14.52	109.00	2.46	0.6018E+03	0.7602E+03	-21.64
14700.	14.86	87.00	2.27	0.5996E+03	0.7579E+03	-21.78
14800.	15.37	93.00	2.08	0.5973E+03	0.7555E+03	-21.92
14900.	13.17	80.00	1.89	0.5951E+03	0.7532E+03	-22.06

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
15000.	15.71	80.00	1.70	0.5928E+03	0.7509E+03	-22.20
15100.	14.52	90.00	1.50	0.5906E+03	0.7486E+03	-22.36
15200.	16.05	81.00	1.30	0.5884E+03	0.7464E+03	-22.52
15300.	16.55	89.00	1.10	0.5861E+03	0.7441E+03	-22.68
15400.	16.38	80.00	0.90	0.5839E+03	0.7418E+03	-22.84
15500.	19.93	88.00	0.70	0.5817E+03	0.7396E+03	-23.00
15600.	19.42	91.00	0.50	0.5795E+03	0.7373E+03	-23.16
15700.	18.41	86.00	0.30	0.5773E+03	0.7351E+03	-23.32
15800.	18.58	86.00	0.10	0.5752E+03	0.7328E+03	-23.48
15900.	18.92	82.00	-0.10	0.5730E+03	0.7306E+03	-23.64
16000.	19.25	88.00	-0.30	0.5708E+03	0.7284E+03	-23.80
16100.	17.40	83.00	-0.47	0.5686E+03	0.7261E+03	-23.99
16200.	19.76	87.00	-0.64	0.5665E+03	0.7238E+03	-24.18
16300.	18.58	87.00	-0.81	0.5643E+03	0.7215E+03	-24.37
16400.	21.62	88.00	-0.98	0.5622E+03	0.7192E+03	-24.56
16500.	19.42	86.00	-1.15	0.5600E+03	0.7169E+03	-24.75
16600.	20.94	82.00	-1.32	0.5579E+03	0.7146E+03	-24.94
16700.	19.59	85.00	-1.49	0.5558E+03	0.7123E+03	-25.13
16800.	22.13	85.00	-1.66	0.5537E+03	0.7101E+03	-25.32
16900.	20.77	93.00	-1.83	0.5516E+03	0.7078E+03	-25.51
17000.	19.25	85.00	-2.00	0.5495E+03	0.7056E+03	-25.70
17100.	24.15	89.00	-2.09	0.5474E+03	0.7031E+03	-25.79
17200.	22.97	96.00	-2.18	0.5453E+03	0.7007E+03	-25.88
17300.	25.33	89.00	-2.27	0.5432E+03	0.6982E+03	-25.97
17400.	25.84	88.00	-2.36	0.5411E+03	0.6958E+03	-26.06
17500.	24.32	84.00	-2.45	0.5390E+03	0.6934E+03	-26.15
17600.	22.13	80.00	-2.54	0.5370E+03	0.6909E+03	-26.24
17700.	21.45	86.00	-2.63	0.5349E+03	0.6885E+03	-26.33
17800.	20.44	88.00	-2.72	0.5329E+03	0.6861E+03	-26.42
17900.	21.62	79.00	-2.81	0.5309E+03	0.6837E+03	-26.51
18000.	21.62	81.00	-2.90	0.5288E+03	0.6814E+03	-26.60
18100.	19.42	84.00	-3.20	0.5268E+03	0.6795E+03	-26.80
18200.	18.58	85.00	-3.50	0.5248E+03	0.6776E+03	-27.00
18300.	17.57	92.00	-3.80	0.5227E+03	0.6758E+03	-27.20
18400.	15.88	97.00	-4.10	0.5207E+03	0.6739E+03	-27.40
18500.	16.72	92.00	-4.40	0.5187E+03	0.6721E+03	-27.60
18600.	16.72	96.00	-4.70	0.5167E+03	0.6703E+03	-27.80
18700.	13.85	103.00	-5.00	0.5147E+03	0.6684E+03	-28.00
18800.	12.84	94.00	-5.30	0.5128E+03	0.6666E+03	-28.20
18900.	14.52	91.00	-5.60	0.5108E+03	0.6648E+03	-28.40
19000.	15.37	109.00	-5.90	0.5088E+03	0.6630E+03	-28.60
19100.	13.68	116.00	-6.12	0.5068E+03	0.6609E+03	-28.77
19200.	12.67	107.00	-6.34	0.5049E+03	0.6589E+03	-28.94
19300.	16.05	100.00	-6.56	0.5029E+03	0.6569E+03	-29.11
19400.	16.72	108.00	-6.78	0.5009E+03	0.6549E+03	-29.28
19500.	12.67	118.00	-7.00	0.4990E+03	0.6529E+03	-29.45
19600.	13.17	111.00	-7.22	0.4971E+03	0.6509E+03	-29.62
19700.	14.52	102.00	-7.44	0.4951E+03	0.6489E+03	-29.79
19800.	14.36	99.00	-7.66	0.4932E+03	0.6469E+03	-29.96
19900.	13.68	130.00	-7.88	0.4913E+03	0.6449E+03	-30.13

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
20000.	12.50	101.00	-8.10	0.4894E+03	0.6430E+03	-30.30
20100.	16.38	94.00	-8.33	0.4875E+03	0.6410E+03	-30.48
20200.	15.88	104.00	-8.56	0.4855E+03	0.6390E+03	-30.66
20300.	17.57	104.00	-8.79	0.4836E+03	0.6371E+03	-30.84
20400.	17.23	96.00	-9.02	0.4817E+03	0.6352E+03	-31.02
20500.	18.58	104.00	-9.25	0.4799E+03	0.6332E+03	-31.20
20600.	15.03	109.00	-9.48	0.4780E+03	0.6313E+03	-31.38
20700.	14.86	91.00	-9.71	0.4761E+03	0.6294E+03	-31.56
20800.	14.69	92.00	-9.94	0.4742E+03	0.6274E+03	-31.74
20900.	14.52	96.00	-10.17	0.4724E+03	0.6255E+03	-31.92
21000.	13.34	89.00	-10.40	0.4705E+03	0.6236E+03	-32.10
21100.	12.67	78.00	-10.61	0.4687E+03	0.6217E+03	-32.26
21200.	15.71	89.00	-10.82	0.4668E+03	0.6197E+03	-32.42
21300.	14.36	91.00	-11.03	0.4650E+03	0.6178E+03	-32.58
21400.	13.85	80.00	-11.24	0.4631E+03	0.6158E+03	-32.74
21500.	16.89	85.00	-11.45	0.4613E+03	0.6139E+03	-32.90
21600.	16.05	90.00	-11.66	0.4595E+03	0.6119E+03	-33.06
21700.	18.58	89.00	-11.87	0.4577E+03	0.6100E+03	-33.22
21800.	18.75	101.00	-12.08	0.4558E+03	0.6081E+03	-33.38
21900.	17.23	107.00	-12.29	0.4540E+03	0.6062E+03	-33.54
22000.	18.75	102.00	-12.50	0.4522E+03	0.6043E+03	-33.70
22100.	19.76	104.00	-12.75	0.4504E+03	0.6024E+03	-33.84
22200.	19.93	100.00	-13.00	0.4486E+03	0.6006E+03	-33.98
22300.	20.44	103.00	-13.25	0.4469E+03	0.5988E+03	-34.12
22400.	19.76	98.00	-13.50	0.4451E+03	0.5970E+03	-34.26
22500.	22.13	91.00	-13.75	0.4433E+03	0.5952E+03	-34.40
22600.	22.13	85.00	-14.00	0.4415E+03	0.5934E+03	-34.54
22700.	22.97	86.00	-14.25	0.4398E+03	0.5916E+03	-34.68
22800.	23.14	83.00	-14.50	0.4380E+03	0.5898E+03	-34.82
22900.	24.66	77.00	-14.75	0.4363E+03	0.5880E+03	-34.96
23000.	23.98	81.00	-15.00	0.4345E+03	0.5862E+03	-35.10
23100.	23.81	75.00	-15.20	0.4328E+03	0.5843E+03	-35.30
23200.	24.83	77.00	-15.40	0.4310E+03	0.5824E+03	-35.50
23300.	24.15	73.00	-15.60	0.4293E+03	0.5805E+03	-35.70
23400.	24.66	74.00	-15.80	0.4276E+03	0.5787E+03	-35.90
23500.	23.81	70.00	-16.00	0.4259E+03	0.5768E+03	-36.10
23600.	22.97	72.00	-16.20	0.4241E+03	0.5749E+03	-36.30
23700.	24.15	71.00	-16.40	0.4224E+03	0.5730E+03	-36.50
23800.	21.96	74.00	-16.60	0.4207E+03	0.5712E+03	-36.70
23900.	21.45	82.00	-16.80	0.4190E+03	0.5693E+03	-36.90
24000.	21.79	84.00	-17.00	0.4174E+03	0.5675E+03	-37.10
24100.	23.98	89.00	-17.25	0.4157E+03	0.5657E+03	-37.28
24200.	25.84	88.00	-17.50	0.4140E+03	0.5640E+03	-37.46
24300.	26.52	91.00	-17.75	0.4123E+03	0.5623E+03	-37.64
24400.	28.04	89.00	-18.00	0.4106E+03	0.5605E+03	-37.82
24500.	26.85	90.00	-18.25	0.4090E+03	0.5588E+03	-38.00
24600.	26.69	91.00	-18.50	0.4073E+03	0.5571E+03	-38.18
24700.	26.35	92.00	-18.75	0.4056E+03	0.5554E+03	-38.36
24800.	27.36	91.00	-19.00	0.4040E+03	0.5537E+03	-38.54
24900.	26.01	89.00	-19.25	0.4024E+03	0.5519E+03	-38.72

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
25000.	26.18	97.00	-19.50	0.4007E+03	0.5502E+03	-38.90
25100.	28.04	93.00	-19.71	0.3991E+03	0.5484E+03	-38.49
25200.	28.04	99.00	-19.92	0.3974E+03	0.5466E+03	-38.08
25300.	29.73	97.00	-20.13	0.3958E+03	0.5449E+03	-37.67
25400.	30.23	100.00	-20.34	0.3942E+03	0.5431E+03	-37.26
25500.	28.37	97.00	-20.55	0.3926E+03	0.5413E+03	-36.85
25600.	28.88	101.00	-20.76	0.3910E+03	0.5395E+03	-36.44
25700.	29.22	97.00	-20.97	0.3894E+03	0.5378E+03	-36.03
25800.	30.40	103.00	-21.18	0.3878E+03	0.5360E+03	-35.62
25900.	28.54	102.00	-21.39	0.3862E+03	0.5342E+03	-35.21
26000.	28.37	98.00	-21.60	0.3846E+03	0.5325E+03	-34.80
26100.	29.05	96.00	-21.80	0.3830E+03	0.5307E+03	-35.50
26200.	29.39	95.00	-22.00	0.3815E+03	0.5290E+03	-36.20
26300.	28.37	104.00	-22.20	0.3799E+03	0.5272E+03	-36.90
26400.	29.73	91.00	-22.40	0.3783E+03	0.5255E+03	-37.60
26500.	31.08	98.00	-22.60	0.3767E+03	0.5237E+03	-38.30
26600.	33.61	93.00	-22.80	0.3752E+03	0.5220E+03	-39.00
26700.	33.27	90.00	-23.00	0.3736E+03	0.5202E+03	-39.70
26800.	33.78	95.00	-23.20	0.3721E+03	0.5185E+03	-40.40
26900.	34.96	93.00	-23.40	0.3706E+03	0.5168E+03	-41.10
27000.	33.95	91.00	-23.60	0.3690E+03	0.5151E+03	-41.80
27100.	34.96	94.00	-23.85	0.3675E+03	0.5135E+03	-41.99
27200.	31.92	93.00	-24.10	0.3660E+03	0.5118E+03	-42.18
27300.	33.27	92.00	-24.35	0.3644E+03	0.5102E+03	-42.37
27400.	33.44	96.00	-24.60	0.3629E+03	0.5086E+03	-42.56
27500.	30.57	93.00	-24.85	0.3614E+03	0.5070E+03	-42.75
27600.	31.92	94.00	-25.10	0.3599E+03	0.5054E+03	-42.94
27700.	31.08	95.00	-25.35	0.3584E+03	0.5038E+03	-43.13
27800.	28.54	98.00	-25.60	0.3569E+03	0.5022E+03	-43.32
27900.	29.05	95.00	-25.85	0.3554E+03	0.5006E+03	-43.51
28000.	30.57	93.00	-26.10	0.3539E+03	0.4990E+03	-43.70
28100.	27.53	90.00	-26.36	0.3525E+03	0.4975E+03	-43.90
28200.	26.85	93.00	-26.62	0.3510E+03	0.4959E+03	-44.10
28300.	27.02	91.00	-26.88	0.3495E+03	0.4943E+03	-44.30
28400.	25.33	93.00	-27.14	0.3480E+03	0.4928E+03	-44.50
28500.	26.35	93.00	-27.40	0.3466E+03	0.4912E+03	-44.70
28600.	25.33	87.00	-27.66	0.3451E+03	0.4897E+03	-44.90
28700.	23.14	91.00	-27.92	0.3437E+03	0.4881E+03	-45.10
28800.	25.00	86.00	-28.18	0.3422E+03	0.4866E+03	-45.30
28900.	26.69	94.00	-28.44	0.3408E+03	0.4851E+03	-45.50
29000.	22.63	91.00	-28.70	0.3393E+03	0.4835E+03	-45.70
29100.	22.97	91.00	-28.96	0.3379E+03	0.4820E+03	-45.88
29200.	26.01	92.00	-29.22	0.3365E+03	0.4805E+03	-46.06
29300.	23.98	94.00	-29.48	0.3350E+03	0.4789E+03	-46.24
29400.	23.81	90.00	-29.74	0.3336E+03	0.4774E+03	-46.42
29500.	24.32	93.00	-30.00	0.3322E+03	0.4759E+03	-46.60
29600.	21.62	89.00	-30.26	0.3308E+03	0.4744E+03	-46.78
29700.	23.48	90.00	-30.52	0.3294E+03	0.4728E+03	-46.96
29800.	23.81	87.00	-30.78	0.3280E+03	0.4713E+03	-47.14
29900.	20.61	87.00	-31.04	0.3266E+03	0.4698E+03	-47.32

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
30000.	24.15	87.00	-31.30	0.3252E+03	0.4684E+03	-47.50
30100.	20.77	85.00	-31.58	0.3238E+03	0.4669E+03	-47.55
30200.	22.13	82.00	-31.86	0.3224E+03	0.4654E+03	-47.60
30300.	22.46	88.00	-32.14	0.3210E+03	0.4639E+03	-47.65
30400.	23.14	80.00	-32.42	0.3196E+03	0.4625E+03	-47.70
30500.	24.15	91.00	-32.70	0.3182E+03	0.4610E+03	-47.75
30600.	22.46	94.00	-32.98	0.3169E+03	0.4596E+03	-47.80
30700.	23.81	91.00	-33.26	0.3155E+03	0.4581E+03	-47.85
30800.	23.31	87.00	-33.54	0.3142E+03	0.4567E+03	-47.90
30900.	23.65	81.00	-33.82	0.3128E+03	0.4553E+03	-47.95
31000.	21.62	83.00	-34.10	0.3115E+03	0.4538E+03	-48.00
31100.	24.15	74.00	-34.35	0.3101E+03	0.4524E+03	-48.19
31200.	22.97	75.00	-34.60	0.3088E+03	0.4509E+03	-48.38
31300.	22.29	76.00	-34.85	0.3074E+03	0.4494E+03	-48.57
31400.	21.45	78.00	-35.10	0.3061E+03	0.4479E+03	-48.76
31500.	23.14	70.00	-35.35	0.3048E+03	0.4464E+03	-48.95
31600.	20.44	71.00	-35.60	0.3034E+03	0.4449E+03	-49.14
31700.	22.63	67.00	-35.85	0.3021E+03	0.4435E+03	-49.33
31800.	22.29	68.00	-36.10	0.3008E+03	0.4420E+03	-49.52
31900.	24.66	68.00	-36.35	0.2995E+03	0.4406E+03	-49.71
32000.	24.49	75.00	-36.60	0.2982E+03	0.4391E+03	-49.90
32100.	28.88	61.00	-36.85	0.2969E+03	0.4376E+03	-50.01
32200.	31.25	61.00	-37.10	0.2956E+03	0.4362E+03	-50.12
32300.	28.54	61.00	-37.35	0.2943E+03	0.4347E+03	-50.23
32400.	28.04	66.00	-37.60	0.2930E+03	0.4333E+03	-50.34
32500.	26.18	62.00	-37.85	0.2917E+03	0.4318E+03	-50.45
32600.	29.39	62.00	-38.10	0.2904E+03	0.4304E+03	-50.56
32700.	28.88	60.00	-38.35	0.2891E+03	0.4290E+03	-50.67
32800.	27.70	67.00	-38.60	0.2879E+03	0.4275E+03	-50.78
32900.	28.54	62.00	-38.85	0.2866E+03	0.4261E+03	-50.89
33000.	29.39	61.00	-39.10	0.2854E+03	0.4247E+03	-51.00
33100.	26.35	61.00	-39.31	0.2841E+03	0.4232E+03	-51.16
33200.	29.56	56.00	-39.52	0.2828E+03	0.4217E+03	-51.32
33300.	27.87	54.00	-39.73	0.2816E+03	0.4202E+03	-51.48
33400.	28.54	52.00	-39.94	0.2803E+03	0.4187E+03	-51.64
33500.	32.43	51.00	-40.15	0.2791E+03	0.4172E+03	-51.80
33600.	31.08	52.00	-40.36	0.2778E+03	0.4157E+03	-51.96
33700.	34.96	54.00	-40.57	0.2766E+03	0.4143E+03	-52.12
33800.	32.93	58.00	-40.78	0.2754E+03	0.4128E+03	-52.28
33900.	36.14	58.00	-40.99	0.2741E+03	0.4113E+03	-52.44
34000.	35.64	59.00	-41.20	0.2729E+03	0.4099E+03	-52.60
34100.	31.08	61.00	-41.34	0.2717E+03	0.4083E+03	-52.76
34200.	30.40	69.00	-41.48	0.2705E+03	0.4067E+03	-52.92
34300.	30.23	67.00	-41.62	0.2693E+03	0.4052E+03	-53.08
34400.	32.26	63.00	-41.76	0.2681E+03	0.4036E+03	-53.24
34500.	29.56	60.00	-41.90	0.2669E+03	0.4020E+03	-53.40
34600.	23.14	54.00	-42.04	0.2657E+03	0.4005E+03	-53.56
34700.	21.96	42.00	-42.18	0.2645E+03	0.3989E+03	-53.72
34800.	21.28	38.00	-42.32	0.2633E+03	0.3974E+03	-53.88
34900.	19.42	33.00	-42.46	0.2622E+03	0.3959E+03	-54.04

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
35000.	20.44	34.00	-42.60	0.2610E+03	0.3943E+03	-54.20
35100.	15.71	32.00	-42.79	0.2598E+03	0.3929E+03	-54.51
35200.	12.67	32.00	-42.98	0.2586E+03	0.3914E+03	-54.82
35300.	15.03	32.00	-43.17	0.2575E+03	0.3900E+03	-55.13
35400.	13.34	21.00	-43.36	0.2563E+03	0.3886E+03	-55.44
35500.	16.05	14.00	-43.55	0.2552E+03	0.3871E+03	-55.75
35600.	13.51	1.00	-43.74	0.2540E+03	0.3857E+03	-56.06
35700.	16.21	340.00	-43.93	0.2529E+03	0.3843E+03	-56.37
35800.	13.85	344.00	-44.12	0.2517E+03	0.3829E+03	-56.68
35900.	13.85	344.00	-44.31	0.2506E+03	0.3815E+03	-56.99
36000.	15.37	348.00	-44.50	0.2495E+03	0.3801E+03	-57.30
36100.	14.52	2.00	-44.61	0.2483E+03	0.3785E+03	-57.45
36200.	15.88	353.00	-44.72	0.2472E+03	0.3770E+03	-57.60
36300.	13.17	1.00	-44.83	0.2461E+03	0.3755E+03	-57.75
36400.	15.54	10.00	-44.94	0.2450E+03	0.3740E+03	-57.90
36500.	17.23	7.00	-45.05	0.2439E+03	0.3724E+03	-58.05
36600.	14.36	4.00	-45.16	0.2428E+03	0.3709E+03	-58.20
36700.	18.75	4.00	-45.27	0.2417E+03	0.3694E+03	-58.35
36800.	18.92	355.00	-45.38	0.2406E+03	0.3679E+03	-58.50
36900.	20.27	353.00	-45.49	0.2395E+03	0.3664E+03	-58.65
37000.	23.98	356.00	-45.60	0.2384E+03	0.3650E+03	-58.80
37100.	24.32	350.00	-45.78	0.2373E+03	0.3636E+03	-58.97
37200.	24.32	342.00	-45.96	0.2362E+03	0.3622E+03	-59.14
37300.	22.97	343.00	-46.14	0.2351E+03	0.3608E+03	-59.31
37400.	19.25	339.00	-46.32	0.2341E+03	0.3595E+03	-59.48
37500.	22.13	344.00	-46.50	0.2330E+03	0.3581E+03	-59.65
37600.	21.62	345.00	-46.68	0.2319E+03	0.3568E+03	-59.82
37700.	22.13	333.00	-46.86	0.2309E+03	0.3554E+03	-59.99
37800.	21.62	338.00	-47.04	0.2298E+03	0.3541E+03	-60.16
37900.	21.62	338.00	-47.22	0.2288E+03	0.3528E+03	-60.33
38000.	21.96	338.00	-47.40	0.2277E+03	0.3514E+03	-60.50
38100.	24.66	342.00	-47.61	0.2267E+03	0.3502E+03	-60.68
38200.	20.61	338.00	-47.82	0.2257E+03	0.3489E+03	-60.86
38300.	21.11	326.00	-48.03	0.2246E+03	0.3476E+03	-61.04
38400.	23.14	330.00	-48.24	0.2236E+03	0.3463E+03	-61.22
38500.	23.14	326.00	-48.45	0.2226E+03	0.3451E+03	-61.40
38600.	23.98	329.00	-48.66	0.2215E+03	0.3438E+03	-61.58
38700.	25.33	321.00	-48.87	0.2205E+03	0.3425E+03	-61.76
38800.	27.36	326.00	-49.08	0.2195E+03	0.3413E+03	-61.94
38900.	28.37	328.00	-49.29	0.2185E+03	0.3400E+03	-62.12
39000.	28.54	325.00	-49.50	0.2175E+03	0.3388E+03	-62.30
39100.	30.57	330.00	-49.77	0.2165E+03	0.3376E+03	-62.52
39200.	31.08	328.00	-50.04	0.2155E+03	0.3364E+03	-62.74
39300.	31.25	322.00	-50.31	0.2145E+03	0.3353E+03	-62.96
39400.	31.58	329.00	-50.58	0.2135E+03	0.3341E+03	-63.18
39500.	30.40	325.00	-50.85	0.2125E+03	0.3330E+03	-63.40
39600.	31.25	325.00	-51.12	0.2115E+03	0.3318E+03	-63.62
39700.	28.37	327.00	-51.39	0.2105E+03	0.3307E+03	-63.84
39800.	30.06	326.00	-51.66	0.2095E+03	0.3296E+03	-64.06
39900.	30.06	327.00	-51.93	0.2086E+03	0.3284E+03	-64.28

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
40000.	25.33	326.00	-52.20	0.2076E+03	0.3273E+03	-64.50
40100.	30.23	333.00	-52.41	0.2066E+03	0.3261E+03	-64.67
40200.	27.02	336.00	-52.62	0.2056E+03	0.3249E+03	-64.84
40300.	25.00	331.00	-52.83	0.2047E+03	0.3236E+03	-65.01
40400.	27.36	326.00	-53.04	0.2037E+03	0.3224E+03	-65.18
40500.	29.22	329.00	-53.25	0.2028E+03	0.3212E+03	-65.35
40600.	29.73	327.00	-53.46	0.2018E+03	0.3200E+03	-65.52
40700.	28.37	331.00	-53.67	0.2009E+03	0.3188E+03	-65.69
40800.	30.23	330.00	-53.88	0.1999E+03	0.3176E+03	-65.86
40900.	32.93	336.00	-54.09	0.1990E+03	0.3164E+03	-66.03
41000.	32.09	338.00	-54.30	0.1981E+03	0.3153E+03	-66.20
41100.	32.60	341.00	-54.48	0.1971E+03	0.3140E+03	-66.35
41200.	31.58	342.00	-54.66	0.1962E+03	0.3128E+03	-66.50
41300.	33.10	342.00	-54.84	0.1953E+03	0.3116E+03	-66.65
41400.	30.23	341.00	-55.02	0.1943E+03	0.3103E+03	-66.80
41500.	33.44	344.00	-55.20	0.1934E+03	0.3091E+03	-66.95
41600.	30.40	346.00	-55.38	0.1925E+03	0.3079E+03	-67.10
41700.	28.54	347.00	-55.56	0.1916E+03	0.3067E+03	-67.25
41800.	25.84	347.00	-55.74	0.1907E+03	0.3055E+03	-67.40
41900.	24.66	343.00	-55.92	0.1898E+03	0.3043E+03	-67.55
42000.	23.65	344.00	-56.10	0.1889E+03	0.3031E+03	-67.70
42100.	24.32	346.00	-56.22	0.1880E+03	0.3019E+03	-67.80
42200.	26.18	352.00	-56.34	0.1871E+03	0.3006E+03	-67.90
42300.	23.98	356.00	-56.46	0.1862E+03	0.2993E+03	-68.00
42400.	23.31	354.00	-56.58	0.1853E+03	0.2981E+03	-68.10
42500.	23.14	352.00	-56.70	0.1844E+03	0.2968E+03	-68.20
42600.	24.15	352.00	-56.82	0.1835E+03	0.2955E+03	-68.30
42700.	21.28	346.00	-56.94	0.1827E+03	0.2943E+03	-68.40
42800.	24.32	343.00	-57.06	0.1818E+03	0.2931E+03	-68.50
42900.	24.15	338.00	-57.18	0.1809E+03	0.2918E+03	-68.60
43000.	22.63	329.00	-57.30	0.1801E+03	0.2906E+03	-68.70
43100.	24.83	326.00	-57.50	0.1792E+03	0.2895E+03	-68.86
43200.	23.48	325.00	-57.70	0.1783E+03	0.2883E+03	-69.02
43300.	26.69	324.00	-57.90	0.1775E+03	0.2872E+03	-69.18
43400.	27.70	326.00	-58.10	0.1766E+03	0.2861E+03	-69.34
43500.	28.71	325.00	-58.30	0.1758E+03	0.2850E+03	-69.50
43600.	31.08	323.00	-58.50	0.1749E+03	0.2839E+03	-69.66
43700.	32.77	328.00	-58.70	0.1741E+03	0.2828E+03	-69.82
43800.	31.58	327.00	-58.90	0.1732E+03	0.2817E+03	-69.98
43900.	32.77	325.00	-59.10	0.1724E+03	0.2806E+03	-70.14
44000.	32.26	329.00	-59.30	0.1716E+03	0.2795E+03	-70.30
44100.	27.70	324.00	-59.43	0.1707E+03	0.2783E+03	-9999.00
44200.	28.54	324.00	-59.56	0.1699E+03	0.2771E+03	-9999.00
44300.	27.02	322.00	-59.69	0.1691E+03	0.2760E+03	-9999.00
44400.	25.50	321.00	-59.82	0.1683E+03	0.2748E+03	-9999.00
44500.	23.65	316.00	-59.95	0.1675E+03	0.2736E+03	-9999.00
44600.	27.02	317.00	-60.08	0.1667E+03	0.2725E+03	-9999.00
44700.	23.65	318.00	-60.21	0.1658E+03	0.2713E+03	-9999.00
44800.	24.32	310.00	-60.34	0.1650E+03	0.2702E+03	-9999.00
44900.	25.33	309.00	-60.47	0.1642E+03	0.2690E+03	-9999.00

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
45000.	24.66	306.00	-60.60	0.1634E+03	0.2679E+03	-9999.00
45100.	21.45	309.00	-60.80	0.1627E+03	0.2668E+03	-9999.00
45200.	24.15	306.00	-61.00	0.1619E+03	0.2658E+03	-9999.00
45300.	22.13	312.00	-61.20	0.1611E+03	0.2647E+03	-9999.00
45400.	19.76	312.00	-61.40	0.1603E+03	0.2637E+03	-9999.00
45500.	19.76	315.00	-61.60	0.1595E+03	0.2627E+03	-9999.00
45600.	20.77	313.00	-61.80	0.1587E+03	0.2616E+03	-9999.00
45700.	19.25	316.00	-62.00	0.1580E+03	0.2606E+03	-9999.00
45800.	20.27	319.00	-62.20	0.1572E+03	0.2596E+03	-9999.00
45900.	22.97	314.00	-62.40	0.1564E+03	0.2585E+03	-9999.00
46000.	23.14	313.00	-62.60	0.1556E+03	0.2575E+03	-9999.00
46100.	22.46	318.00	-62.75	0.1549E+03	0.2564E+03	-9999.00
46200.	22.29	320.00	-62.90	0.1541E+03	0.2554E+03	-9999.00
46300.	22.46	316.00	-63.05	0.1534E+03	0.2543E+03	-9999.00
46400.	22.63	317.00	-63.20	0.1526E+03	0.2532E+03	-9999.00
46500.	19.42	318.00	-63.35	0.1519E+03	0.2522E+03	-9999.00
46600.	17.06	323.00	-63.50	0.1511E+03	0.2511E+03	-9999.00
46700.	15.54	315.00	-63.65	0.1504E+03	0.2500E+03	-9999.00
46800.	15.88	319.00	-63.80	0.1496E+03	0.2490E+03	-9999.00
46900.	12.84	307.00	-63.95	0.1489E+03	0.2479E+03	-9999.00
47000.	8.28	320.00	-64.10	0.1482E+03	0.2469E+03	-9999.00
47100.	10.30	309.00	-64.25	0.1474E+03	0.2459E+03	-9999.00
47200.	14.19	289.00	-64.40	0.1467E+03	0.2448E+03	-9999.00
47300.	16.38	289.00	-64.55	0.1460E+03	0.2438E+03	-9999.00
47400.	20.77	295.00	-64.70	0.1452E+03	0.2427E+03	-9999.00
47500.	21.11	281.00	-64.85	0.1445E+03	0.2417E+03	-9999.00
47600.	25.17	285.00	-65.00	0.1438E+03	0.2407E+03	-9999.00
47700.	26.35	285.00	-65.15	0.1431E+03	0.2397E+03	-9999.00
47800.	27.36	287.00	-65.30	0.1424E+03	0.2386E+03	-9999.00
47900.	33.27	297.00	-65.45	0.1417E+03	0.2376E+03	-9999.00
48000.	33.78	293.00	-65.60	0.1410E+03	0.2366E+03	-9999.00
48100.	30.06	288.00	-65.74	0.1403E+03	0.2356E+03	-9999.00
48200.	27.87	289.00	-65.88	0.1396E+03	0.2346E+03	-9999.00
48300.	30.06	293.00	-66.02	0.1389E+03	0.2336E+03	-9999.00
48400.	31.75	285.00	-66.16	0.1382E+03	0.2326E+03	-9999.00
48500.	31.41	288.00	-66.30	0.1375E+03	0.2316E+03	-9999.00
48600.	30.57	293.00	-66.44	0.1368E+03	0.2306E+03	-9999.00
48700.	30.06	297.00	-66.58	0.1361E+03	0.2296E+03	-9999.00
48800.	32.26	297.00	-66.72	0.1354E+03	0.2286E+03	-9999.00
48900.	29.22	288.00	-66.86	0.1348E+03	0.2276E+03	-9999.00
49000.	29.56	283.00	-67.00	0.1341E+03	0.2266E+03	-9999.00
49100.	28.54	279.00	-67.12	0.1334E+03	0.2256E+03	-9999.00
49200.	24.49	277.00	-67.24	0.1328E+03	0.2246E+03	-9999.00
49300.	26.35	273.00	-67.36	0.1321E+03	0.2236E+03	-9999.00
49400.	26.18	270.00	-67.48	0.1314E+03	0.2226E+03	-9999.00
49500.	29.56	289.00	-67.60	0.1308E+03	0.2216E+03	-9999.00
49600.	28.37	277.00	-67.72	0.1301E+03	0.2206E+03	-9999.00
49700.	29.05	288.00	-67.84	0.1295E+03	0.2197E+03	-9999.00
49800.	30.74	291.00	-67.96	0.1288E+03	0.2187E+03	-9999.00
49900.	38.68	299.00	-68.08	0.1282E+03	0.2177E+03	-9999.00

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
50000.	35.13	301.00	-68.20	0.1275E+03	0.2168E+03	-9999.00
50100.	32.93	305.00	-68.28	0.1269E+03	0.2157E+03	-9999.00
50200.	31.58	301.00	-68.36	0.1262E+03	0.2147E+03	-9999.00
50300.	27.87	286.00	-68.44	0.1256E+03	0.2137E+03	-9999.00
50400.	30.91	298.00	-68.52	0.1250E+03	0.2128E+03	-9999.00
50500.	29.56	291.00	-68.60	0.1243E+03	0.2118E+03	-9999.00
50600.	28.54	294.00	-68.68	0.1237E+03	0.2108E+03	-9999.00
50700.	30.40	301.00	-68.76	0.1231E+03	0.2098E+03	-9999.00
50800.	24.66	299.00	-68.84	0.1225E+03	0.2088E+03	-9999.00
50900.	26.52	298.00	-68.92	0.1219E+03	0.2079E+03	-9999.00
51000.	24.15	301.00	-69.00	0.1212E+03	0.2069E+03	-9999.00
51100.	24.15	301.00	-69.19	0.1206E+03	0.2060E+03	-9999.00
51200.	24.32	304.00	-69.38	0.1200E+03	0.2052E+03	-9999.00
51300.	20.77	302.00	-69.57	0.1194E+03	0.2043E+03	-9999.00
51400.	23.98	306.00	-69.76	0.1188E+03	0.2035E+03	-9999.00
51500.	24.32	301.00	-69.95	0.1182E+03	0.2026E+03	-9999.00
51600.	21.96	294.00	-70.14	0.1176E+03	0.2018E+03	-9999.00
51700.	19.09	283.00	-70.33	0.1170E+03	0.2010E+03	-9999.00
51800.	23.14	290.00	-70.52	0.1164E+03	0.2001E+03	-9999.00
51900.	20.77	288.00	-70.71	0.1158E+03	0.1993E+03	-9999.00
52000.	22.80	289.00	-70.90	0.1152E+03	0.1985E+03	-9999.00
52100.	25.17	292.00	-71.05	0.1146E+03	0.1976E+03	-9999.00
52200.	31.92	295.00	-71.20	0.1141E+03	0.1967E+03	-9999.00
52300.	30.57	288.00	-71.35	0.1135E+03	0.1959E+03	-9999.00
52400.	30.06	280.00	-71.50	0.1129E+03	0.1950E+03	-9999.00
52500.	34.62	291.00	-71.65	0.1123E+03	0.1942E+03	-9999.00
52600.	35.64	290.00	-71.80	0.1117E+03	0.1933E+03	-9999.00
52700.	35.13	294.00	-71.95	0.1112E+03	0.1925E+03	-9999.00
52800.	34.96	294.00	-72.10	0.1106E+03	0.1916E+03	-9999.00
52900.	39.52	300.00	-72.25	0.1100E+03	0.1908E+03	-9999.00
53000.	36.48	295.00	-72.40	0.1095E+03	0.1899E+03	-9999.00
53100.	43.74	304.00	-72.49	0.1089E+03	0.1891E+03	-9999.00
53200.	39.86	305.00	-72.58	0.1083E+03	0.1882E+03	-9999.00
53300.	40.37	308.00	-72.67	0.1078E+03	0.1873E+03	-9999.00
53400.	35.13	306.00	-72.76	0.1072E+03	0.1864E+03	-9999.00
53500.	32.77	304.00	-72.85	0.1067E+03	0.1855E+03	-9999.00
53600.	29.56	304.00	-72.94	0.1061E+03	0.1847E+03	-9999.00
53700.	30.57	303.00	-73.03	0.1056E+03	0.1838E+03	-9999.00
53800.	27.36	298.00	-73.12	0.1050E+03	0.1829E+03	-9999.00
53900.	24.49	289.00	-73.21	0.1045E+03	0.1821E+03	-9999.00
54000.	27.70	285.00	-73.30	0.1040E+03	0.1812E+03	-9999.00
54100.	25.84	270.00	-73.32	0.1034E+03	0.1803E+03	-9999.00
54200.	28.54	272.00	-73.34	0.1029E+03	0.1794E+03	-9999.00
54300.	31.25	257.00	-73.36	0.1024E+03	0.1785E+03	-9999.00
54400.	31.58	250.00	-73.38	0.1018E+03	0.1776E+03	-9999.00
54500.	31.92	261.00	-73.40	0.1013E+03	0.1767E+03	-9999.00
54600.	32.77	262.00	-73.42	0.1008E+03	0.1758E+03	-9999.00
54700.	34.12	265.00	-73.44	0.1003E+03	0.1749E+03	-9999.00
54800.	33.95	273.00	-73.46	0.9974E+02	0.1740E+03	-9999.00
54900.	30.57	273.00	-73.48	0.9922E+02	0.1731E+03	-9999.00

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
55000.	26.35	283.00	-73.50	0.9871E+02	0.1722E+03	-9999.00
55100.	21.45	268.00	-73.33	0.9820E+02	0.1712E+03	-9999.00
55200.	27.02	286.00	-73.16	0.9770E+02	0.1702E+03	-9999.00
55300.	25.17	295.00	-72.99	0.9720E+02	0.1692E+03	-9999.00
55400.	23.48	301.00	-72.82	0.9670E+02	0.1682E+03	-9999.00
55500.	20.27	313.00	-72.65	0.9620E+02	0.1671E+03	-9999.00
55600.	18.24	320.00	-72.48	0.9570E+02	0.1661E+03	-9999.00
55700.	12.33	323.00	-72.31	0.9521E+02	0.1651E+03	-9999.00
55800.	11.82	327.00	-72.14	0.9472E+02	0.1642E+03	-9999.00
55900.	12.67	335.00	-71.97	0.9423E+02	0.1632E+03	-9999.00
56000.	4.90	350.00	-71.80	0.9375E+02	0.1622E+03	-9999.00
57000.	3.55	95.00	-71.00	0.8907E+02	0.1535E+03	-9999.00
58000.	5.24	154.00	-71.70	0.8463E+02	0.1464E+03	-9999.00
59000.	10.81	184.00	-72.80	0.8038E+02	0.1398E+03	-9999.00
60000.	13.34	198.00	-70.80	0.7636E+02	0.1315E+03	-9999.00
61000.	8.61	189.00	-68.60	0.7258E+02	0.1236E+03	-9999.00
62000.	7.60	105.00	-66.60	0.6902E+02	0.1164E+03	-9999.00
63000.	15.54	83.00	-65.30	0.6567E+02	0.1101E+03	-9999.00
64000.	21.28	81.00	-64.80	0.6249E+02	0.1045E+03	-9999.00
65000.	23.31	87.00	-63.60	0.5947E+02	0.9887E+02	-9999.00
66000.	22.46	85.00	-62.10	0.5663E+02	0.9348E+02	-9999.00
67000.	24.83	80.00	-61.10	0.5393E+02	0.8860E+02	-9999.00
68000.	26.35	81.00	-59.90	0.5137E+02	0.8392E+02	-9999.00
69000.	25.67	85.00	-58.70	0.4895E+02	0.7952E+02	-9999.00
70000.	27.53	80.00	-58.00	0.4666E+02	0.7555E+02	-9999.00
71000.	35.81	79.00	-57.60	0.4447E+02	0.7187E+02	-9999.00
72000.	42.90	88.00	-57.00	0.4240E+02	0.6834E+02	-9999.00
73000.	47.46	97.00	-56.70	0.4042E+02	0.6505E+02	-9999.00
74000.	48.14	99.00	-57.50	0.3854E+02	0.6226E+02	-9999.00
75000.	45.43	99.00	-58.60	0.3673E+02	0.5964E+02	-9999.00
76000.	41.55	100.00	-58.50	0.3501E+02	0.5682E+02	-9999.00
77000.	40.37	102.00	-57.80	0.3337E+02	0.5398E+02	-9999.00
78000.	43.24	103.00	-56.80	0.3181E+02	0.5122E+02	-9999.00
79000.	47.12	105.00	-55.60	0.3033E+02	0.4857E+02	-9999.00
80000.	54.05	103.00	-54.40	0.2893E+02	0.4607E+02	-9999.00
81000.	61.14	102.00	-54.40	0.2760E+02	0.4395E+02	-9999.00
82000.	64.01	102.00	-54.50	0.2633E+02	0.4195E+02	-9999.00
83000.	61.82	102.00	-54.10	0.2512E+02	0.3995E+02	-9999.00
84000.	58.61	101.00	-54.40	0.2396E+02	0.3816E+02	-9999.00
85000.	56.75	100.00	-52.70	0.2286E+02	0.3612E+02	-9999.00
86000.	54.55	100.00	-53.00	0.2182E+02	0.3453E+02	-9999.00
87000.	52.70	99.00	-53.00	0.2082E+02	0.3295E+02	-9999.00
88000.	49.15	99.00	-53.00	0.1987E+02	0.3144E+02	-9999.00
89000.	45.94	97.00	-53.00	0.1896E+02	0.3000E+02	-9999.00
90000.	43.41	89.00	-53.00	0.1809E+02	0.2863E+02	-9999.00
91000.	44.42	79.00	-52.80	0.1726E+02	0.2729E+02	-9999.00
92000.	47.97	71.00	-52.50	0.1648E+02	0.2602E+02	-9999.00
93000.	50.67	63.00	-52.10	0.1573E+02	0.2479E+02	-9999.00
94000.	47.30	65.00	-50.50	0.1501E+02	0.2349E+02	-9999.00
95000.	43.91	68.00	-48.91	0.1434E+02	0.2227E+02	-9999.00

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
96000.	42.22	74.00	-48.98	0.1369E+02	0.2128E+02	-9999.00
97000.	40.53	82.00	-49.04	0.1308E+02	0.2033E+02	-9999.00
98000.	40.53	87.00	-49.09	0.1249E+02	0.1942E+02	-9999.00
99000.	43.91	94.00	-49.16	0.1193E+02	0.1856E+02	-9999.00
100000.	45.60	101.00	-49.21	0.1140E+02	0.1773E+02	-9999.00
101000.	42.22	106.00	-49.26	0.1088E+02	0.1693E+02	-9999.00
102000.	40.53	104.00	-49.28	0.1039E+02	0.1617E+02	-9999.00
103000.	38.85	99.00	-49.01	0.9928E+01	0.1543E+02	-9999.00
104000.	40.53	97.00	-48.45	0.9483E+01	0.1470E+02	-9999.00
105000.	42.22	98.00	-47.85	0.9059E+01	0.1401E+02	-9999.00
106000.	43.91	98.00	-47.26	0.8655E+01	0.1335E+02	-9999.00
107000.	45.60	101.00	-46.69	0.8270E+01	0.1272E+02	-9999.00
108000.	43.91	104.00	-46.16	0.7903E+01	0.1213E+02	-9999.00
109000.	42.22	105.00	-45.39	0.7554E+01	0.1155E+02	-9999.00
110000.	35.47	101.00	-43.80	0.7222E+01	0.1097E+02	-9999.00
111000.	25.33	88.00	-42.47	0.6906E+01	0.1043E+02	-9999.00
112000.	21.96	59.00	-42.56	0.6605E+01	0.9979E+01	-9999.00
113000.	28.71	51.00	-42.76	0.6317E+01	0.9552E+01	-9999.00
114000.	38.85	66.00	-42.06	0.6041E+01	0.9107E+01	-9999.00
115000.	45.60	78.00	-40.53	0.5779E+01	0.8655E+01	-9999.00
116000.	42.22	77.00	-39.01	0.5530E+01	0.8228E+01	-9999.00
117000.	40.53	70.00	-37.54	0.5294E+01	0.7828E+01	-9999.00
118000.	43.91	76.00	-36.86	0.5068E+01	0.7472E+01	-9999.00
119000.	43.91	90.00	-37.27	0.4852E+01	0.7166E+01	-9999.00
120000.	38.85	103.00	-36.93	0.4646E+01	0.6852E+01	-9999.00
121000.	32.09	118.00	-35.66	0.4448E+01	0.6525E+01	-9999.00
122000.	23.65	129.00	-35.20	0.4260E+01	0.6237E+01	-9999.00
123000.	21.96	130.00	-34.70	0.4080E+01	0.5961E+01	-9999.00
124000.	28.71	141.00	-33.27	0.3909E+01	0.5677E+01	-9999.00
125000.	35.47	154.00	-31.58	0.3746E+01	0.5402E+01	-9999.00
126000.	30.40	155.00	-29.90	0.3590E+01	0.5141E+01	-9999.00
127000.	25.33	144.00	-28.24	0.3442E+01	0.4896E+01	-9999.00
128000.	23.65	132.00	-26.60	0.3302E+01	0.4666E+01	-9999.00
129000.	16.89	106.00	-24.98	0.3167E+01	0.4446E+01	-9999.00
130000.	16.89	63.00	-23.52	0.3040E+01	0.4242E+01	-9999.00
131000.	21.96	43.00	-22.93	0.2917E+01	0.4061E+01	-9999.00
132000.	23.65	32.00	-23.20	0.2800E+01	0.3903E+01	-9999.00
133000.	27.02	29.00	-22.74	0.2687E+01	0.3738E+01	-9999.00
134000.	32.09	35.00	-21.04	0.2580E+01	0.3565E+01	-9999.00
135000.	32.09	44.00	-19.16	0.2477E+01	0.3397E+01	-9999.00
136000.	25.33	51.00	-17.87	0.2380E+01	0.3248E+01	-9999.00
137000.	16.89	55.00	-17.23	0.2286E+01	0.3112E+01	-9999.00
138000.	5.07	48.00	-16.26	0.2196E+01	0.2978E+01	-9999.00
139000.	6.76	254.00	-14.00	0.2111E+01	0.2838E+01	-9999.00
140000.	20.27	252.00	-11.49	0.2029E+01	0.2701E+01	-9999.00
141000.	33.78	252.00	-11.47	0.1951E+01	0.2597E+01	-9999.00
142000.	50.67	251.00	-12.47	0.1876E+01	0.2507E+01	-9999.00
143000.	55.74	265.00	-13.72	0.1804E+01	0.2422E+01	-9999.00
144000.	43.91	285.00	-14.98	0.1734E+01	0.2340E+01	-9999.00
145000.	21.96	288.00	-16.22	0.1666E+01	0.2259E+01	-9999.00

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
146000.	11.82	306.00	-17.41	0.1601E+01	0.2181E+01	-9999.00
147000.	10.13	277.00	-18.46	0.1538E+01	0.2104E+01	-9999.00
148000.	28.71	248.00	-16.53	0.1477E+01	0.2005E+01	-9999.00
149000.	27.02	229.00	-14.28	0.1420E+01	0.1911E+01	-9999.00
150000.	20.27	237.00	-11.98	0.1365E+01	0.1821E+01	-9999.00
151000.	23.65	258.00	-12.63	0.1312E+01	0.1754E+01	-9999.00
152000.	33.78	259.00	-14.30	0.1262E+01	0.1698E+01	-9999.00
153000.	45.60	273.00	-15.96	0.1212E+01	0.1642E+01	-9999.00
154000.	40.53	290.00	-17.66	0.1165E+01	0.1589E+01	-9999.00
155000.	21.96	318.00	-17.50	0.1119E+01	0.1525E+01	-9999.00
156000.	10.13	310.00	-15.78	0.1075E+01	0.1455E+01	-9999.00
157000.	20.27	307.00	-14.13	0.1034E+01	0.1391E+01	-9999.00
158000.	18.58	338.00	-12.94	0.9940E+00	0.1331E+01	-9999.00
159000.	8.44	340.00	-12.00	0.9550E+00	0.1274E+01	-9999.00
160000.	5.07	201.00	-11.03	0.9190E+00	0.1221E+01	-9999.00
161000.	20.27	200.00	-10.19	0.8840E+00	0.1171E+01	-9999.00
162000.	42.22	229.00	-9.27	0.8500E+00	0.1122E+01	-9999.00
163000.	57.42	240.00	-8.40	0.8180E+00	0.1076E+01	-9999.00
164000.	52.36	242.00	-7.70	0.7870E+00	0.1033E+01	-9999.00
165000.	48.98	245.00	-8.76	0.7570E+00	0.9974E+00	-9999.00
166000.	52.36	266.00	-9.94	0.7280E+00	0.9635E+00	-9999.00
167000.	52.36	278.00	-10.67	0.7000E+00	0.9291E+00	-9999.00
168000.	42.22	292.00	-10.78	0.6740E+00	0.8949E+00	-9999.00
169000.	28.71	317.00	-10.74	0.6480E+00	0.8603E+00	-9999.00
170000.	10.13	300.00	-10.69	0.6230E+00	0.8269E+00	-9999.00
171000.	21.96	186.00	-10.72	0.5990E+00	0.7952E+00	-9999.00
172000.	42.22	180.00	-10.68	0.5760E+00	0.7645E+00	-9999.00
173000.	50.67	186.00	-10.65	0.5540E+00	0.7352E+00	-9999.00
174000.	67.56	207.00	-10.69	0.5330E+00	0.7075E+00	-9999.00
175000.	79.38	218.00	-10.71	0.5130E+00	0.6810E+00	-9999.00
176000.	82.76	220.00	-10.69	0.4930E+00	0.6544E+00	-9999.00
177000.	74.31	218.00	-10.74	0.4740E+00	0.6293E+00	-9999.00
178000.	64.18	220.00	-10.76	0.4560E+00	0.6054E+00	-9999.00
179000.	62.49	225.00	-10.80	0.4390E+00	0.5829E+00	-9999.00
180000.	65.87	229.00	-10.66	0.4220E+00	0.5601E+00	-9999.00
181000.	70.94	234.00	-10.97	0.4060E+00	0.5395E+00	-9999.00
182000.	69.25	242.00	-12.19	0.3900E+00	0.5206E+00	-9999.00
183000.	67.56	251.00	-13.67	0.3750E+00	0.5035E+00	-9999.00
184000.	62.49	262.00	-15.28	0.3610E+00	0.4877E+00	-9999.00
185000.	50.67	266.00	-16.69	0.3470E+00	0.4714E+00	-9999.00
186000.	52.36	270.00	-18.17	0.3330E+00	0.4550E+00	-9999.00
187000.	55.74	275.00	-19.63	0.3200E+00	0.4397E+00	-9999.00
188000.	64.18	272.00	-21.16	0.3080E+00	0.4258E+00	-9999.00
189000.	70.94	271.00	-22.55	0.2950E+00	0.4101E+00	-9999.00
190000.	64.18	268.00	-23.97	0.2830E+00	0.3957E+00	-9999.00
191000.	52.36	265.00	-25.42	0.2720E+00	0.3825E+00	-9999.00
192000.	45.60	260.00	-26.80	0.2610E+00	0.3691E+00	-9999.00
193000.	37.16	247.00	-28.41	0.2500E+00	0.3559E+00	-9999.00
194000.	43.91	233.00	-29.98	0.2400E+00	0.3438E+00	-9999.00
195000.	57.42	234.00	-30.25	0.2300E+00	0.3299E+00	-9999.00

TABLE 5. (Continued)

STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
196000.	76.00	236.00	-33.15	0.2190E+00	0.3179E+00	-9999.00
197000.	92.89	241.00	-33.92	0.2110E+00	0.3073E+00	-9999.00
198000.	92.89	246.00	-33.90	0.2020E+00	0.2941E+00	-9999.00
199000.	92.89	252.00	-34.87	0.1940E+00	0.2836E+00	-9999.00
200000.	89.51	258.00	-33.35	0.1860E+00	0.2702E+00	-9999.00
201000.	84.45	265.00	-33.65	0.1780E+00	0.2589E+00	-9999.00
202000.	81.07	272.00	-35.15	0.1710E+00	0.2503E+00	-9999.00
203000.	74.31	281.00	-35.15	0.1640E+00	0.2401E+00	-9999.00
204000.	69.25	289.00	-36.81	0.1570E+00	0.2314E+00	-9999.00
205000.	64.18	297.00	-38.15	0.1500E+00	0.2224E+00	-9999.00
206000.	57.42	305.00	-37.21	0.1440E+00	0.2126E+00	-9999.00
207000.	52.36	312.00	-37.62	0.1380E+00	0.2041E+00	-9999.00
208000.	47.29	318.00	-38.15	0.1320E+00	0.1957E+00	-9999.00
209000.	42.22	322.00	-38.63	0.1260E+00	0.1872E+00	-9999.00
210000.	37.16	322.00	-40.24	0.1210E+00	0.1810E+00	-9999.00
211000.	32.09	316.00	-44.08	0.1160E+00	0.1764E+00	-9999.00
212000.	28.71	307.00	-46.15	0.1100E+00	0.1688E+00	-9999.00
213000.	30.40	293.00	-46.76	0.1060E+00	0.1631E+00	-9999.00
214000.	33.78	280.00	-47.15	0.1010E+00	0.1557E+00	-9999.00
215000.	38.85	270.00	-47.15	0.9700E-01	0.1495E+00	-9999.00
216000.	43.91	263.00	-45.97	0.9200E-01	0.1411E+00	-9999.00
217000.	50.67	259.00	-45.15	0.8800E-01	0.1345E+00	-9999.00
218000.	57.42	257.00	-44.15	0.8400E-01	0.1278E+00	-9999.00
219000.	62.49	256.00	-46.66	0.8100E-01	0.1246E+00	-9999.00
220000.	69.25	254.00	-48.71	0.7700E-01	0.1195E+00	-9999.00
221000.	74.31	253.00	-51.59	0.7400E-01	0.1164E+00	-9999.00
222000.	77.69	252.00	-54.48	0.7000E-01	0.1115E+00	-9999.00
223000.	81.07	253.00	-56.00	0.6700E-01	0.1075E+00	-9999.00
224000.	82.76	254.00	-58.77	0.6400E-01	0.1040E+00	-9999.00
225000.	84.45	255.00	-61.05	0.6100E-01	0.1002E+00	-9999.00
226000.	84.45	256.00	-61.15	0.5800E-01	0.9531E-01	-9999.00
227000.	84.45	258.00	-61.15	0.5500E-01	0.9038E-01	-9999.00
228000.	86.14	260.00	-61.15	0.5300E-01	0.8709E-01	-9999.00
229000.	84.45	262.00	-61.15	0.5000E-01	0.8216E-01	-9999.00
230000.	82.76	264.00	-60.15	0.4800E-01	0.7851E-01	-9999.00
231000.	81.07	266.00	-60.11	0.4600E-01	0.7522E-01	-9999.00
232000.	79.38	269.00	-58.97	0.4400E-01	0.7157E-01	-9999.00
233000.	76.00	271.00	-58.06	0.4200E-01	0.6802E-01	-9999.00
234000.	72.62	274.00	-57.15	0.4000E-01	0.6451E-01	-9999.00
235000.	69.25	276.00	-57.15	0.3800E-01	0.6129E-01	-9999.00
236000.	64.18	278.00	-57.15	0.3600E-01	0.5806E-01	-9999.00
237000.	60.80	280.00	-57.15	0.3500E-01	0.5645E-01	-9999.00
238000.	57.42	281.00	-57.15	0.3300E-01	0.5322E-01	-9999.00
239000.	52.36	283.00	-58.15	0.3200E-01	0.5185E-01	-9999.00
240000.	47.29	283.00	-58.91	0.3000E-01	0.4878E-01	-9999.00
241000.	42.22	283.00	-60.43	0.2900E-01	0.4749E-01	-9999.00
242000.	35.47	281.00	-61.96	0.2700E-01	0.4454E-01	-9999.00
243000.	30.40	276.00	-63.48	0.2600E-01	0.4320E-01	-9999.00
244000.	25.33	267.00	-65.01	0.2500E-01	0.4184E-01	-9999.00
245000.	21.96	255.00	-66.53	0.2400E-01	0.4046E-01	-9999.00

TABLE 5. (Continued)

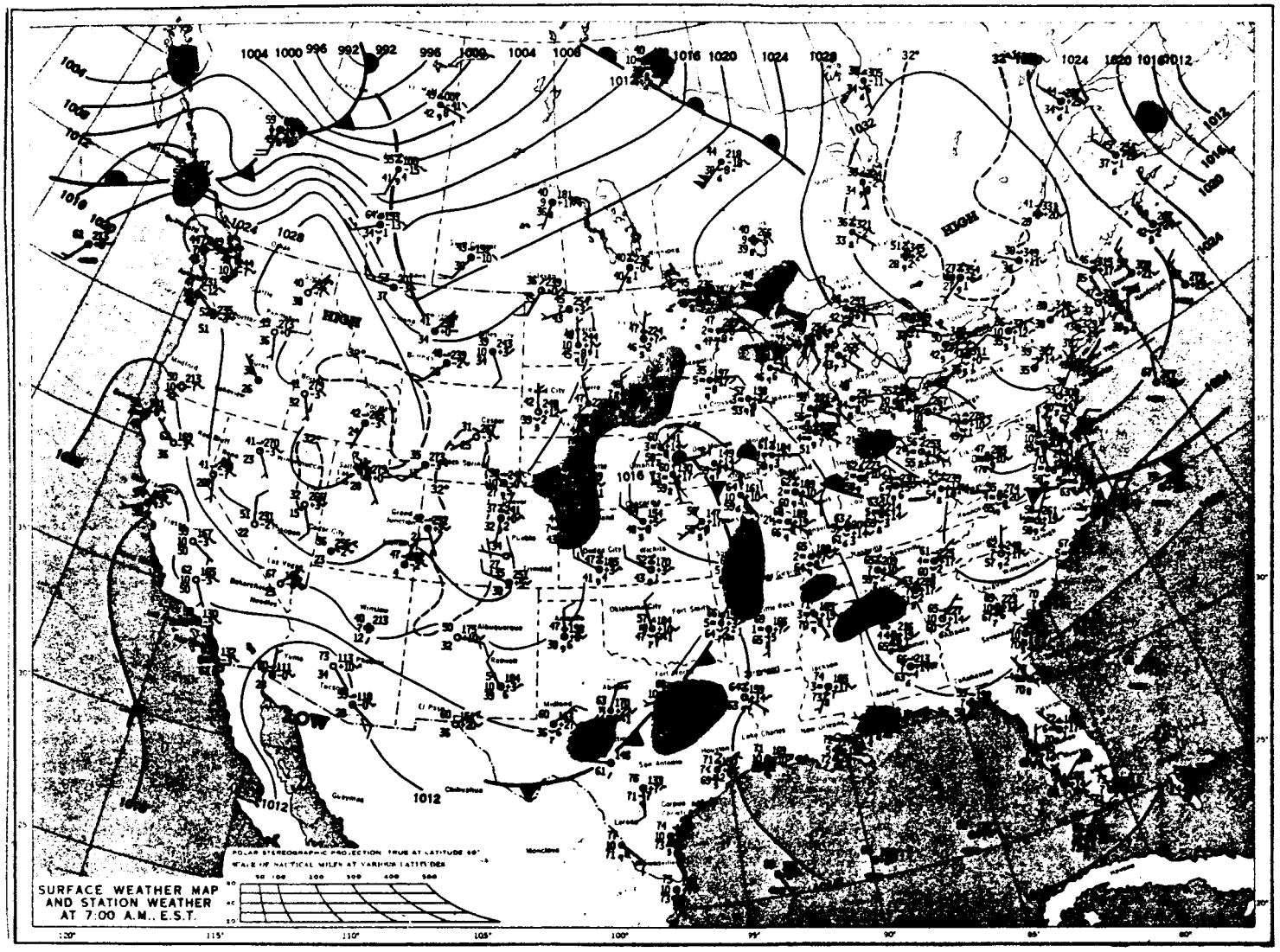
STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
246000.	20.27	236.00	-68.05	0.2300E-01	0.3907E-01	-9999.00
247000.	20.27	214.00	-69.15	0.2100E-01	0.3586E-01	-9999.00
248000.	25.33	198.00	-71.10	0.2000E-01	0.3448E-01	-9999.00
249000.	30.40	188.00	-72.63	0.1900E-01	0.3301E-01	-9999.00
250000.	38.85	182.00	-74.15	0.1800E-01	0.3151E-01	-9999.00
253000.	30.18	185.96	-74.79	0.1565E-01	0.2748E-01	-9999.00
256000.	21.77	193.03	-75.43	0.1360E-01	0.2396E-01	-9999.00
259000.	14.09	208.33	-76.06	0.1182E-01	0.2089E-01	-9999.00
262000.	9.19	247.00	-76.70	0.1027E-01	0.1822E-01	-9999.00
265000.	11.49	297.00	-77.34	0.8930E-02	0.1589E-01	-9999.00
268000.	11.84	261.56	-78.40	0.7650E-02	0.1368E-01	-9999.00
271000.	15.82	236.67	-79.47	0.6560E-02	0.1180E-01	-9999.00
274000.	21.49	223.27	-80.50	0.5630E-02	0.1018E-01	-9999.00
277000.	27.81	215.64	-81.33	0.4830E-02	0.8772E-02	-9999.00
280000.	24.21	238.18	-81.01	0.4130E-02	0.7488E-02	-9999.00
283000.	25.10	263.40	-80.70	0.3530E-02	0.6390E-02	-9999.00
286000.	30.11	283.35	-80.38	0.3020E-02	0.5458E-02	-9999.00
289000.	37.63	296.56	-80.06	0.2590E-02	0.4673E-02	-9999.00
292000.	46.44	305.10	-79.74	0.2210E-02	0.3981E-02	-9999.00
295000.	75.65	291.52	-78.78	0.1900E-02	0.3405E-02	-9999.00
298000.	144.21	276.98	-77.03	0.1630E-02	0.2895E-02	-9999.00
301000.	220.78	271.85	-75.28	0.1400E-02	0.2465E-02	-9999.00
304000.	298.24	269.39	-73.52	0.1200E-02	0.2094E-02	-9999.00
307000.	368.89	268.01	-71.77	0.1030E-02	0.1782E-02	-9999.00
310000.	421.83	267.11	-70.02	0.8850E-03	0.1518E-02	-9999.00
313000.	440.32	267.04	-68.72	0.7610E-03	0.1297E-02	-9999.00
316000.	449.62	267.04	-67.47	0.6550E-03	0.1109E-02	-9999.00
319000.	448.79	267.05	-66.23	0.5630E-03	0.9479E-03	-9999.00
322000.	434.07	267.06	-64.99	0.4850E-03	0.8117E-03	-9999.00
325000.	400.65	267.08	-63.75	0.4170E-03	0.6937E-03	-9999.00
328000.	369.53	267.12	-61.90	0.3590E-03	0.5920E-03	-9999.00
331000.	378.73	267.10	-58.86	0.3090E-03	0.5023E-03	-9999.00
334000.	379.36	267.08	-55.81	0.2670E-03	0.4280E-03	-9999.00
337000.	368.01	267.05	-52.76	0.2300E-03	0.3636E-03	-9999.00
340000.	340.36	267.01	-49.71	0.1980E-03	0.3087E-03	-9999.00
343000.	290.97	266.92	-46.66	0.1710E-03	0.2630E-03	-9999.00
346000.	276.78	267.06	-41.18	0.1490E-03	0.2238E-03	-9999.00
349000.	270.33	266.81	-35.00	0.1310E-03	0.1916E-03	-9999.00
352000.	253.34	266.45	-28.82	0.1150E-03	0.1640E-03	-9999.00
355000.	222.37	265.83	-22.64	0.1000E-03	0.1391E-03	-9999.00
358000.	173.11	264.59	-16.46	0.8790E-04	0.1193E-03	-9999.00
361000.	117.12	264.60	-9.66	0.7750E-04	0.1025E-03	-9999.00
364000.	109.68	263.13	-0.73	0.6990E-04	0.8939E-04	-9999.00
367000.	97.61	260.81	8.20	0.6310E-04	0.7813E-04	-9999.00
370000.	79.82	256.62	17.13	0.5680E-04	0.6817E-04	-9999.00
373000.	55.80	246.87	26.06	0.5110E-04	0.5950E-04	-9999.00
376000.	30.16	210.75	34.99	0.4600E-04	0.5201E-04	-9999.00
379000.	15.84	186.18	44.99	0.4180E-04	0.4577E-04	-9999.00
382000.	17.75	189.15	55.83	0.3840E-04	0.4066E-04	-9999.00
385000.	19.81	191.76	67.00	0.3540E-04	0.3626E-04	-9999.00

TABLE 5. (Concluded)

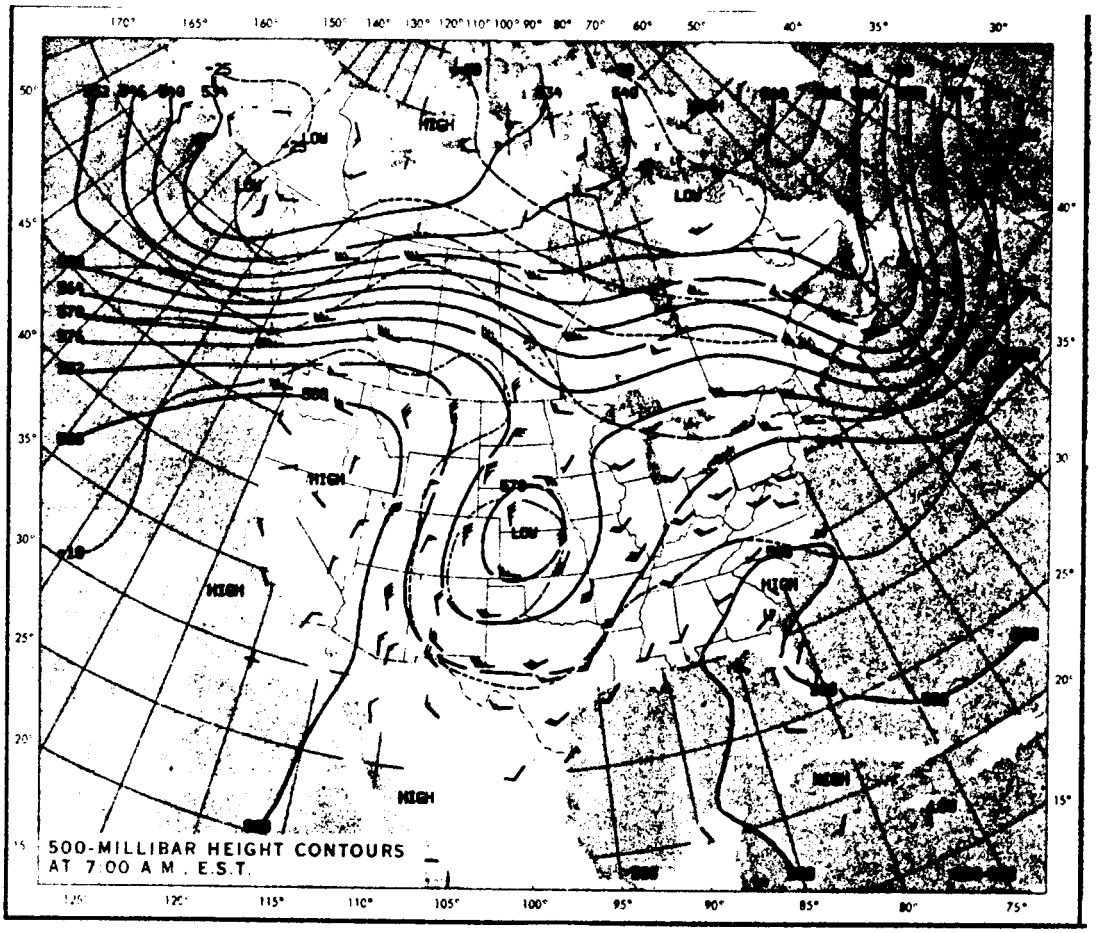
STS NUMBER 26 ASCENT ATMOSPHERIC DATA PROFILE

ALTITUDE (FT)	WIND SPEED (FT/SEC)	WIND DIRECTION (DEG)	TEMPERATURE (DEG C)	PRESSURE (MILLIBARS)	DENSITY (GRAM/M3)	DEW POINT (DEG C)
388000.	22.03	193.79	78.47	0.3270E-04	0.3240E-04	-9999.00
391000.	24.38	195.53	90.22	0.3030E-04	0.2905E-04	-9999.00
394000.	26.87	197.04	102.22	0.2820E-04	0.2617E-04	-9999.00
397000.	29.49	198.35	114.43	0.2620E-04	0.2355E-04	-9999.00
400000.	32.25	199.43	126.83	0.2450E-04	0.2134E-04	-9999.00



Surface Synoptic Map at 1200 UT September 29, 1988 — Isobaric, Frontal, and Precipitation Patterns are Shown in Standard Symbolic Form.

Figure 1. Surface synoptic chart 3 hr 37 min before launch of STS-26.



500 Millibar Height
Contours at 1200 UT
September 29, 1988.
Continuous Lines Indicate Height Contours in Feet Above Sea Level.
Dashed Lines are Isotherms in Degrees Centigrade. Arrows Show Wind
Direction and Speed at the 500 MB Level.

Figure 2. 500 mb map 3 hr 37 min before launch of STS-26.

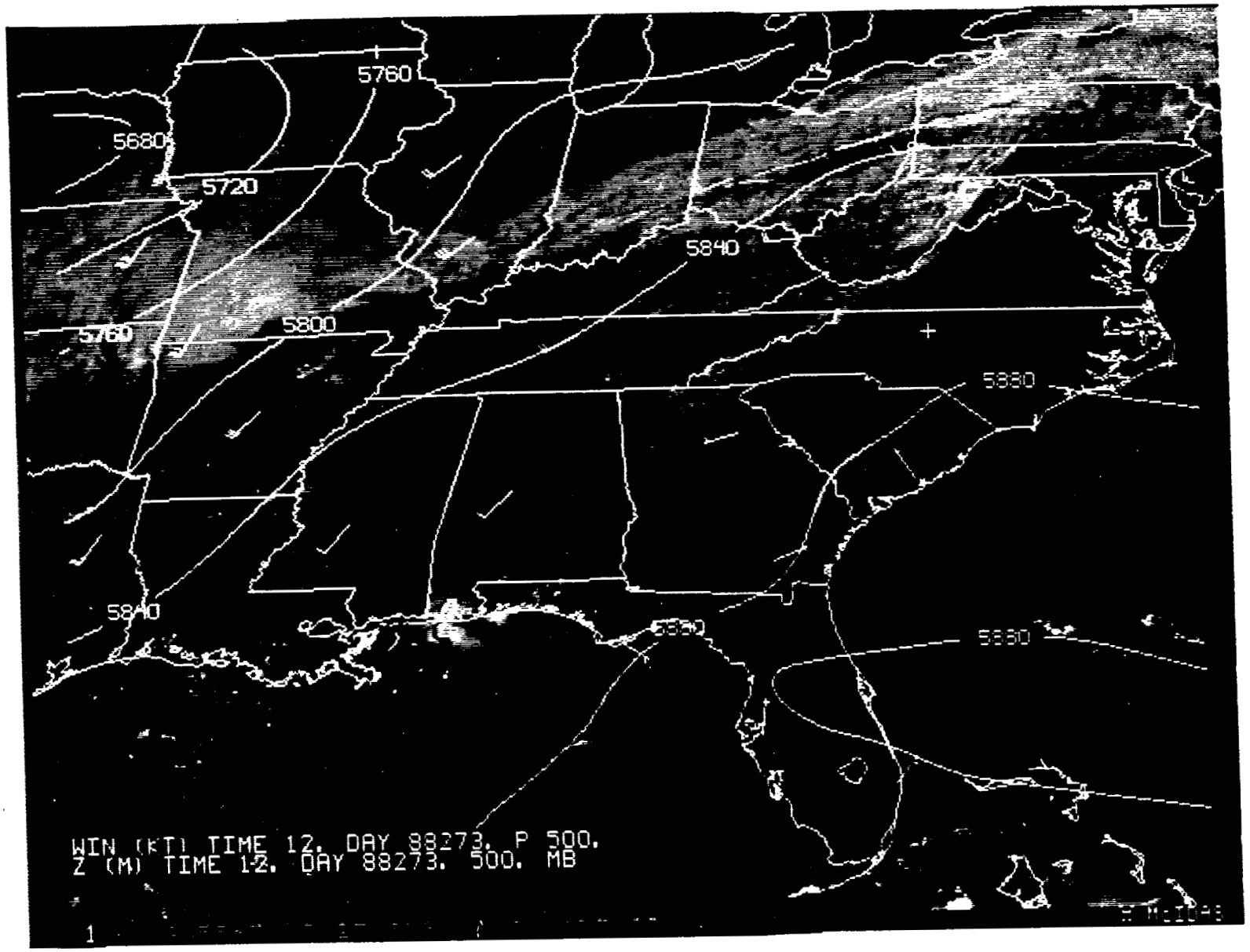


Figure 3. GOES-7 visible imagery of cloud cover 6 min before launch of STS-26 (1531 UT, September 29, 1988). 500-mb heights (meters) and wind barbs are also included for 1200 UT.

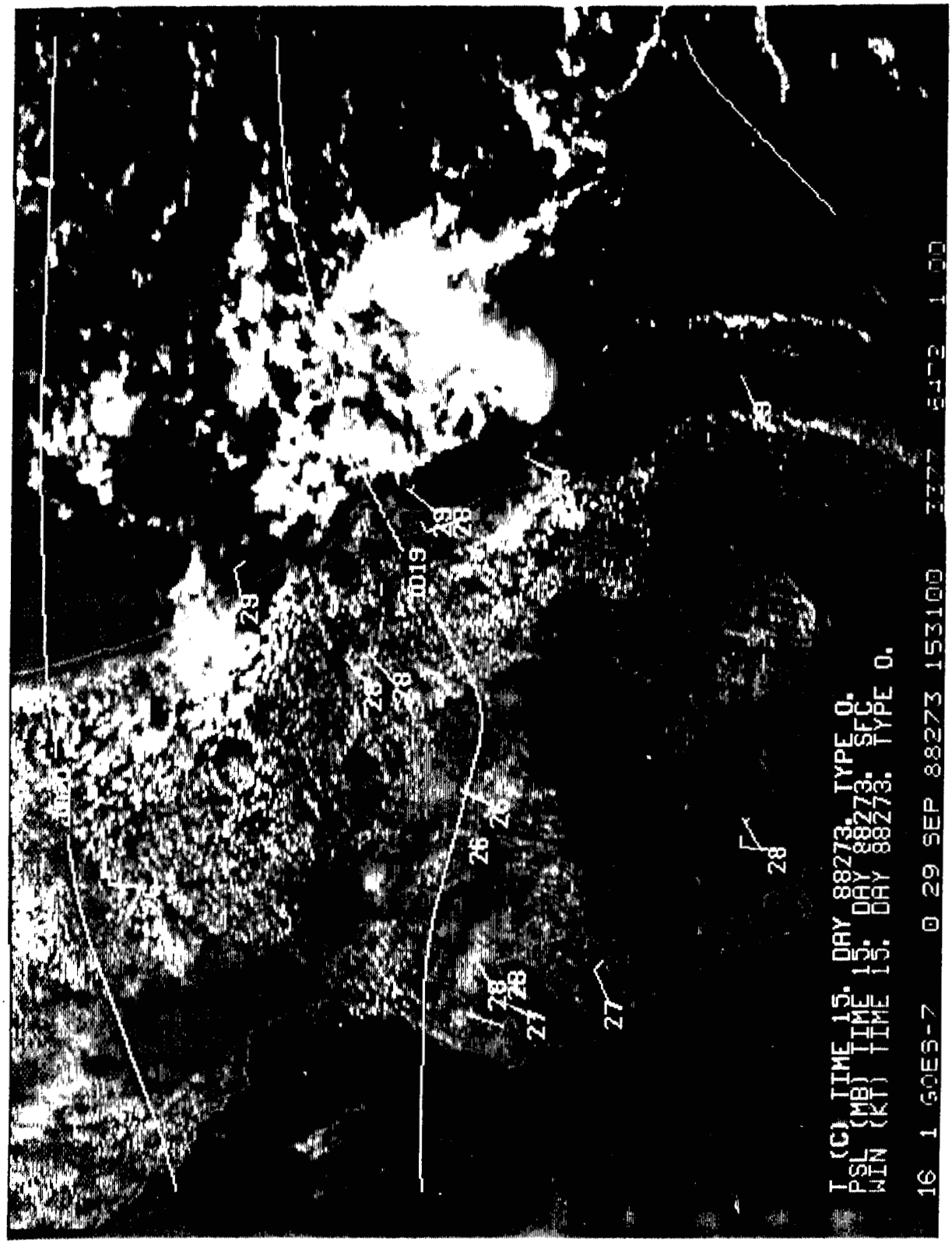


Figure 4.
Enlarged view of GOES-7 visible imagery of cloud cover taken 6 min before launch of STS-26 (1531 UT, September 29, 1988). Surface temperatures, isobaric parameters, and wind barbs for 1500 UT are also included.

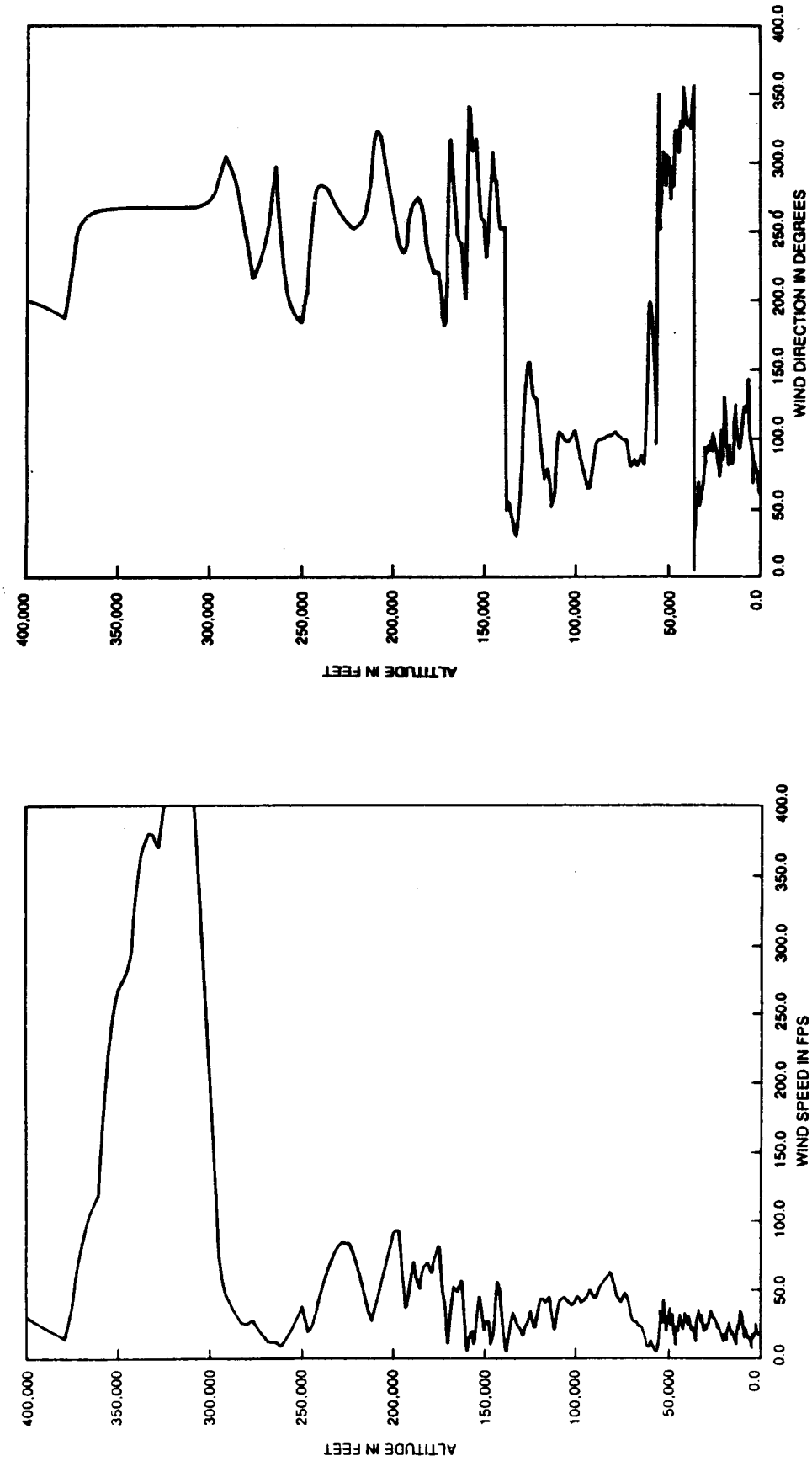


Figure 5. Scalar wind speed and direction at launch time of STS-26.

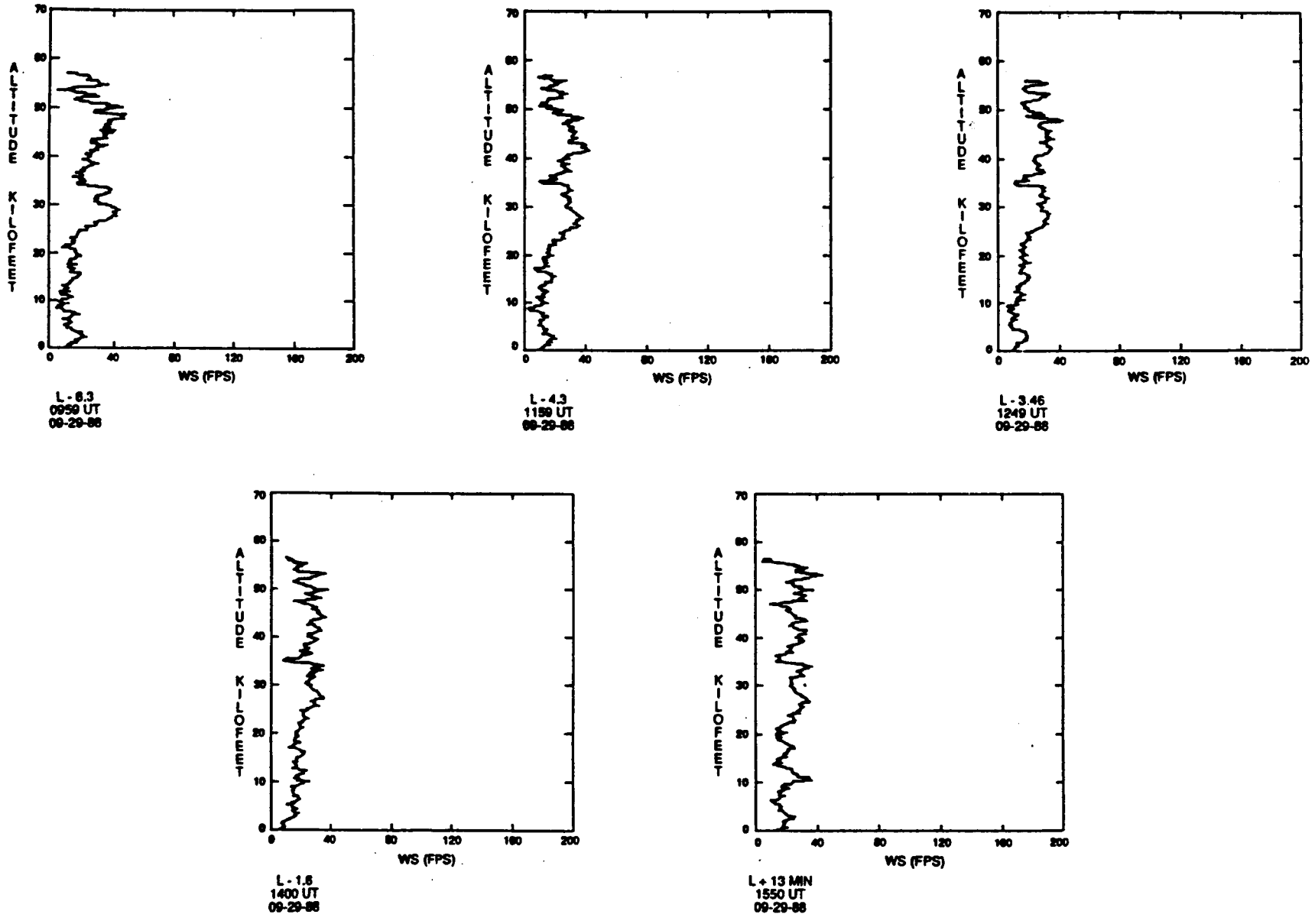


Figure 6. STS-26 prelaunch/launch Jimsphere-measured wind speeds (FPS).

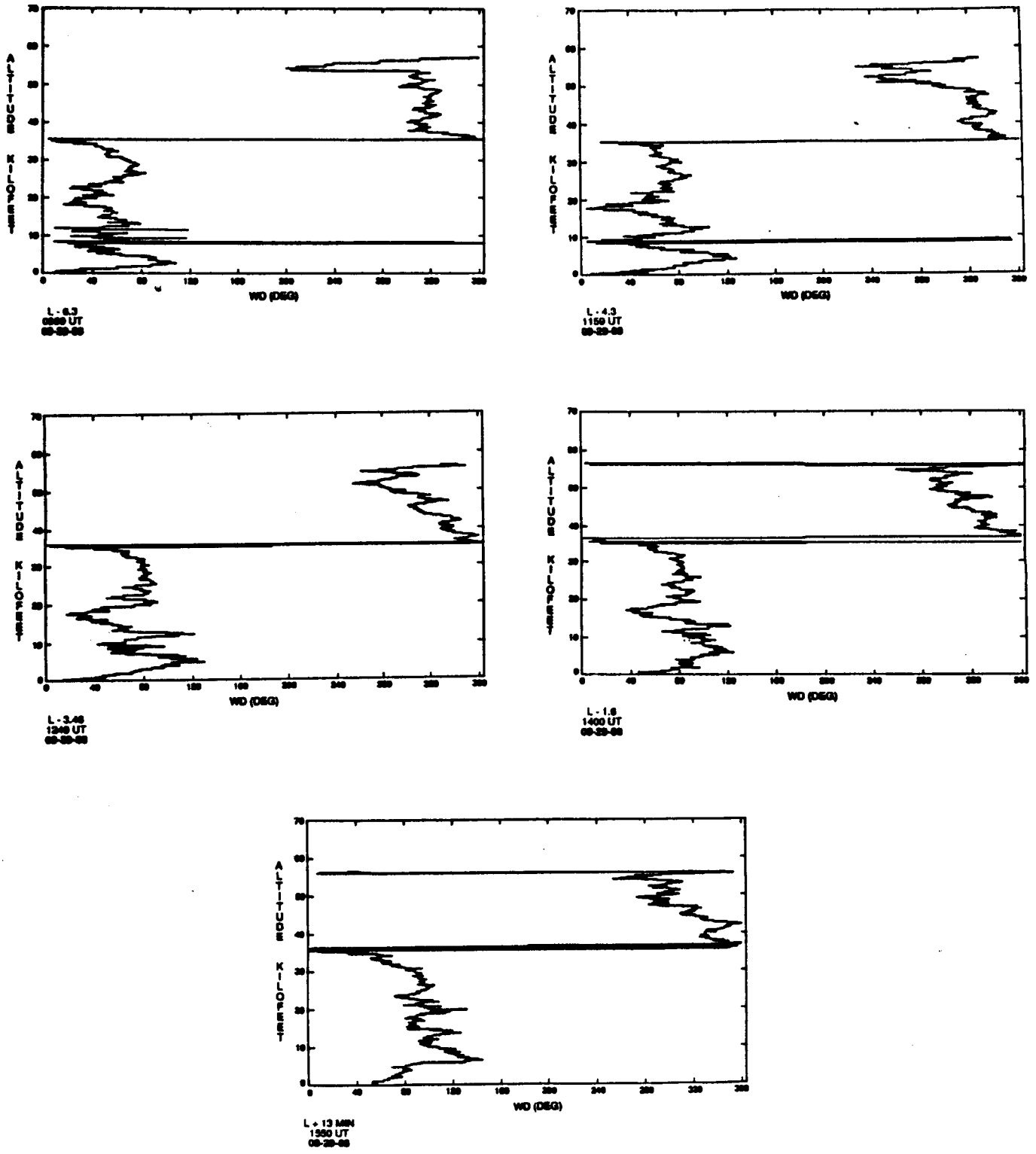


Figure 7. STS-26 prelaunch/launch Jimsphere-measured wind directions (degrees).

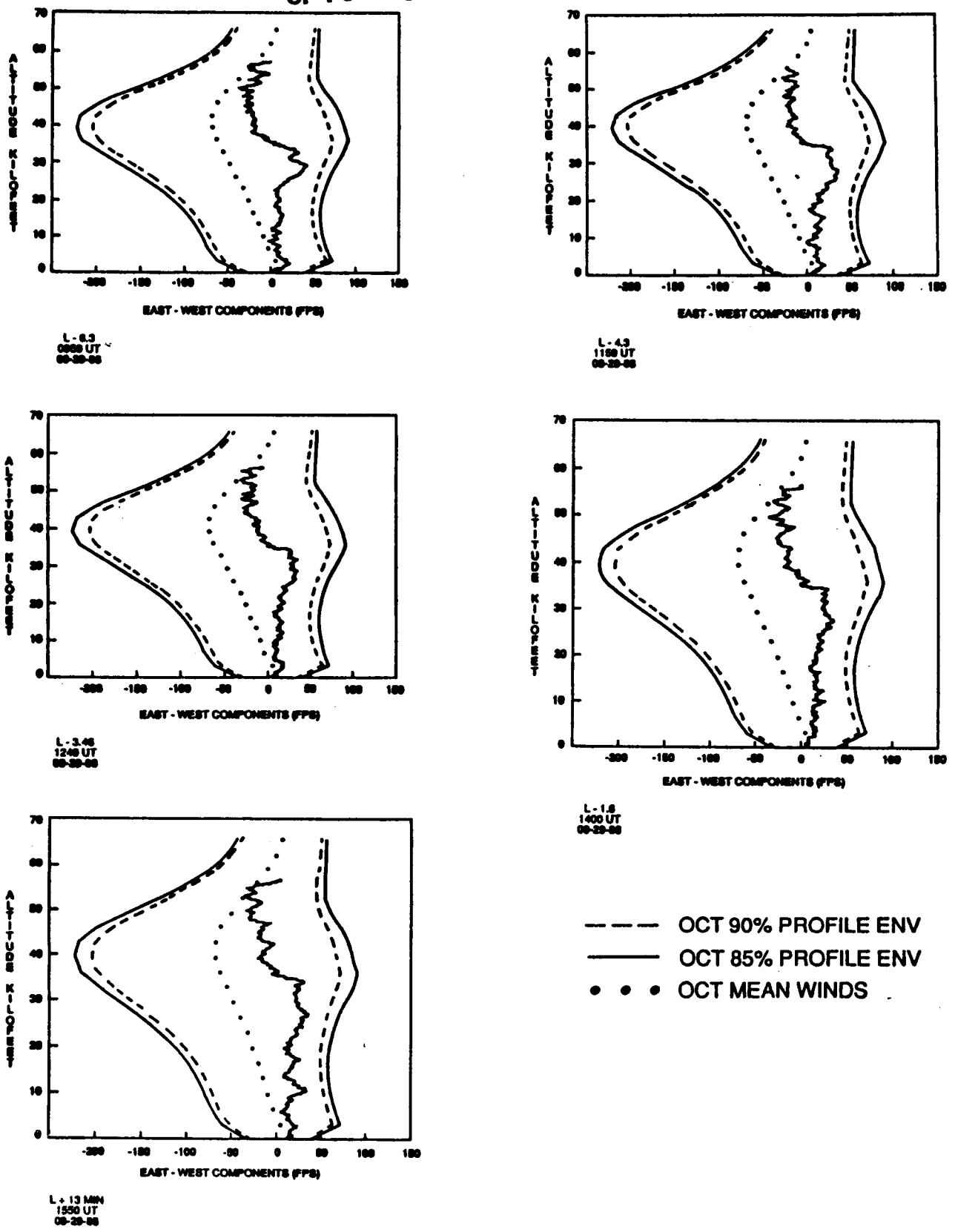


Figure 8. STS-26 prelaunch/launch Jimsphere-measured in-plane component winds (FPS). Flight azimuth = 90 deg.

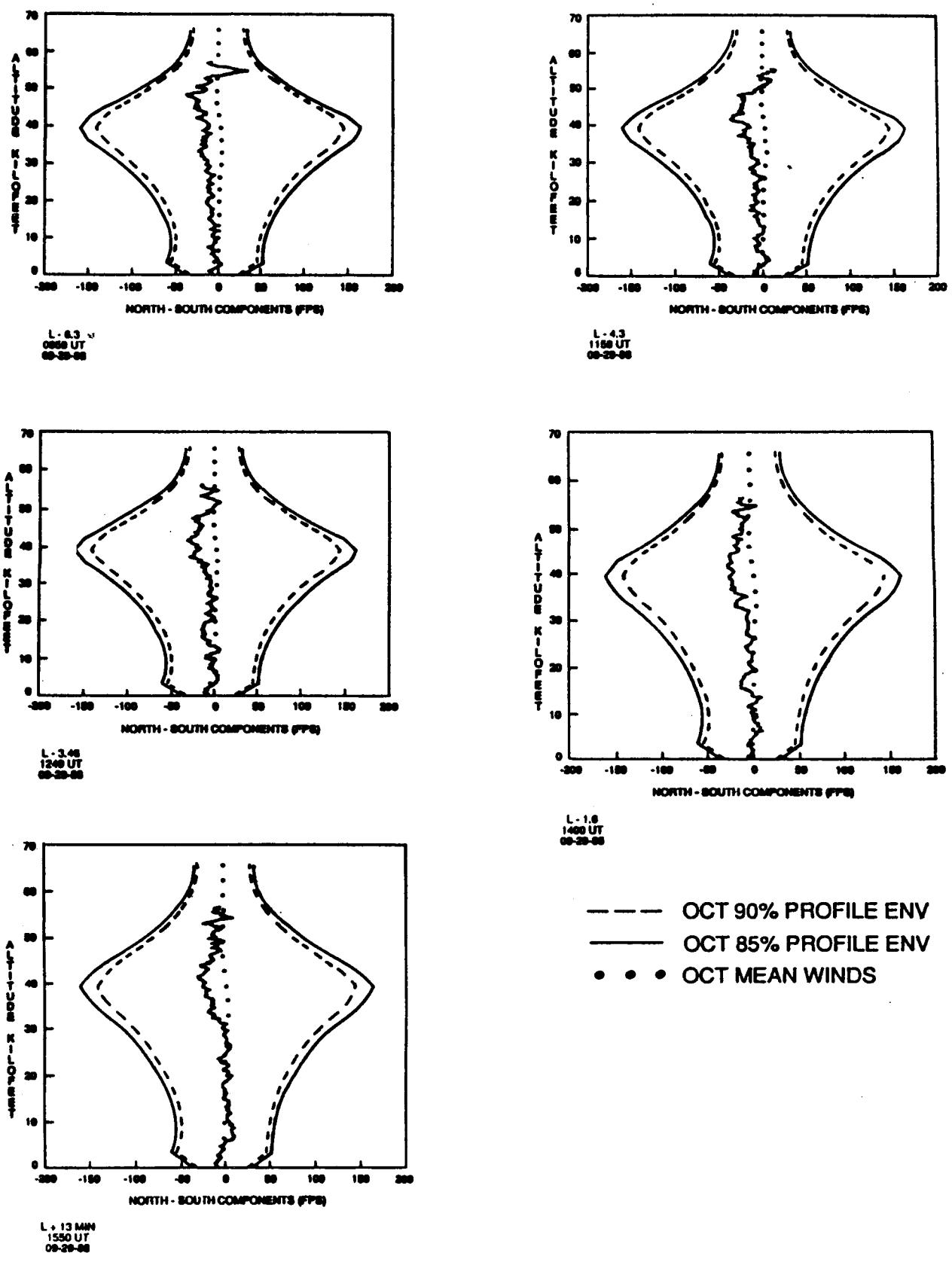


Figure 9. STS-26 prelaunch/launch Jimsphere-measured out-of-plane component winds (FPS). Flight azimuth = 90 deg.

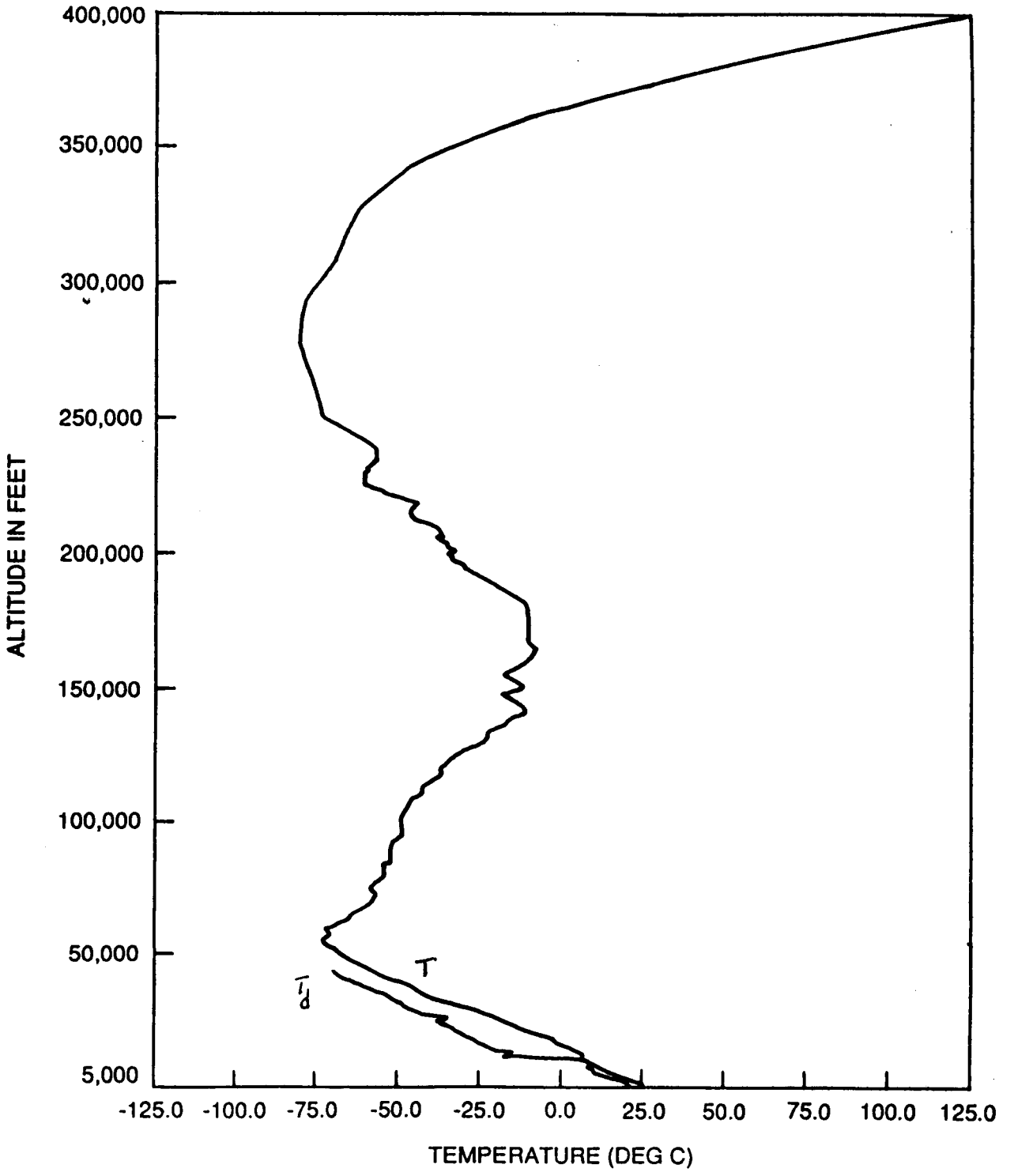


Figure 10. STS-26 temperature profiles versus altitude for launch (ascent).

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APPROVAL

ATMOSPHERIC ENVIRONMENT FOR SPACE SHUTTLE (STS-26) LAUNCH

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The information in this report has been reviewed for technical content. Review of any information concerning Department of Defense or nuclear energy activities or programs has been made by the MSFC Security Classification Officer. This report, in its entirety, has been determined to be unclassified.

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