Institute of
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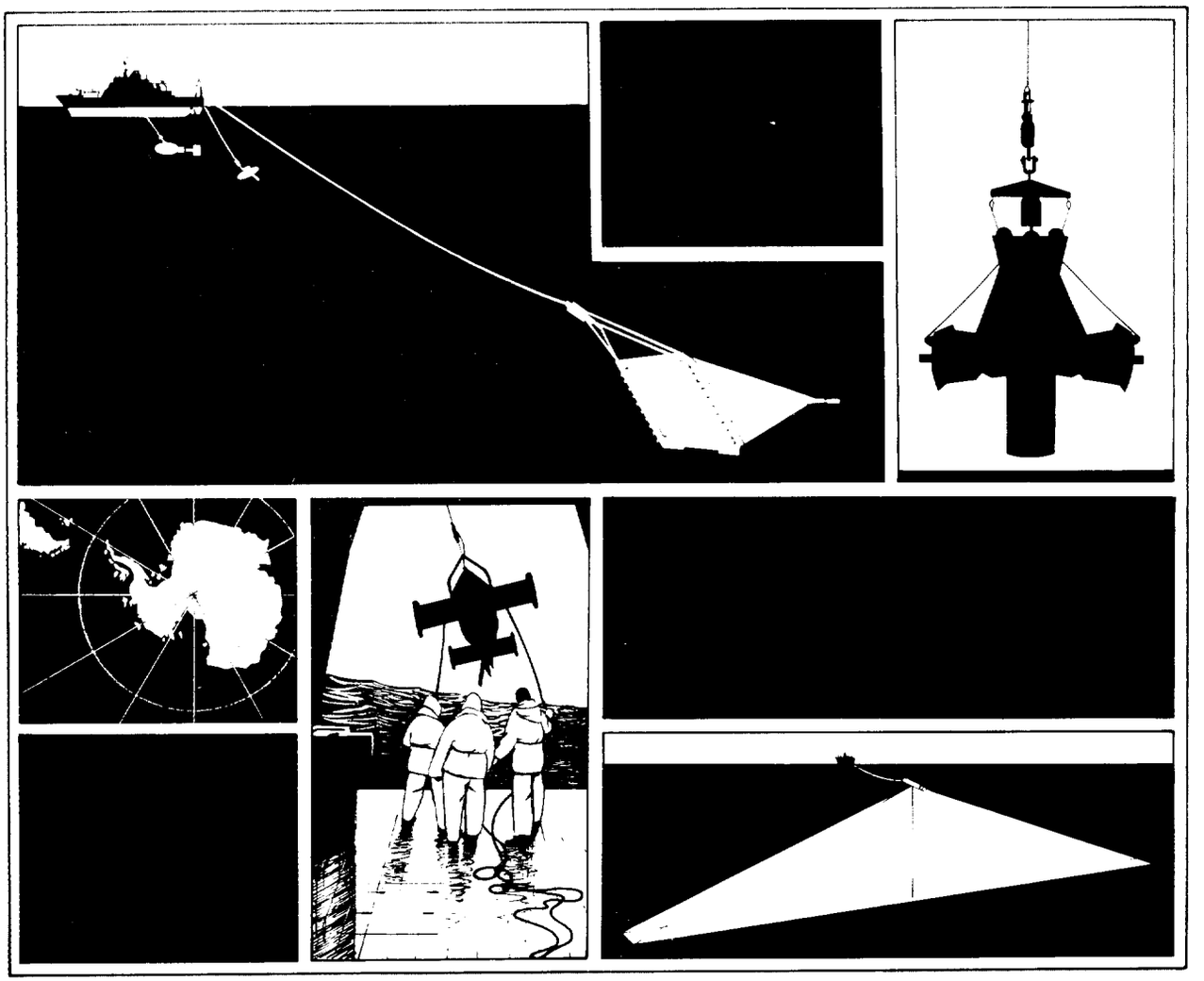
Radiosonde data collected on the third Tyrrhenian Eddy Multi-Platform Observations Experiment (TEMPO-3)

T N Forrester & T H Guymer

Report No 306 1993



Natural Environment Research Council

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ABSTRACT

This report presents radiosonde measurements made between 21 October and 10 November 1991 in a survey region extending over most of the Tyrrhenian Sea (between Italy and Sardinia).

A total of 30 radiosondes were launched (approximately two per day). Data from 26 ascents processed between values of pressure at the surface and 200mb (approximately 11.8km high) are presented in this report.

Atmospheric temperature and relative humidity were observed and height, potential temperature, specific humidity and water vapour density were calculated from these observations.

KEYWORDS

ATMOSPHERIC TEMPERATURE
ERS-1
MEDITERRANEAN(W)
POTENTIAL TEMPERATURE
PROJECT - TEMPO-3
RADIOSONDE
RELATIVE HUMIDITY
SPECIFIC HUMIDITY
TYRRHENIAN SEA
VALIDATION
WATER VAPOUR

ISSUING ORGANISATION

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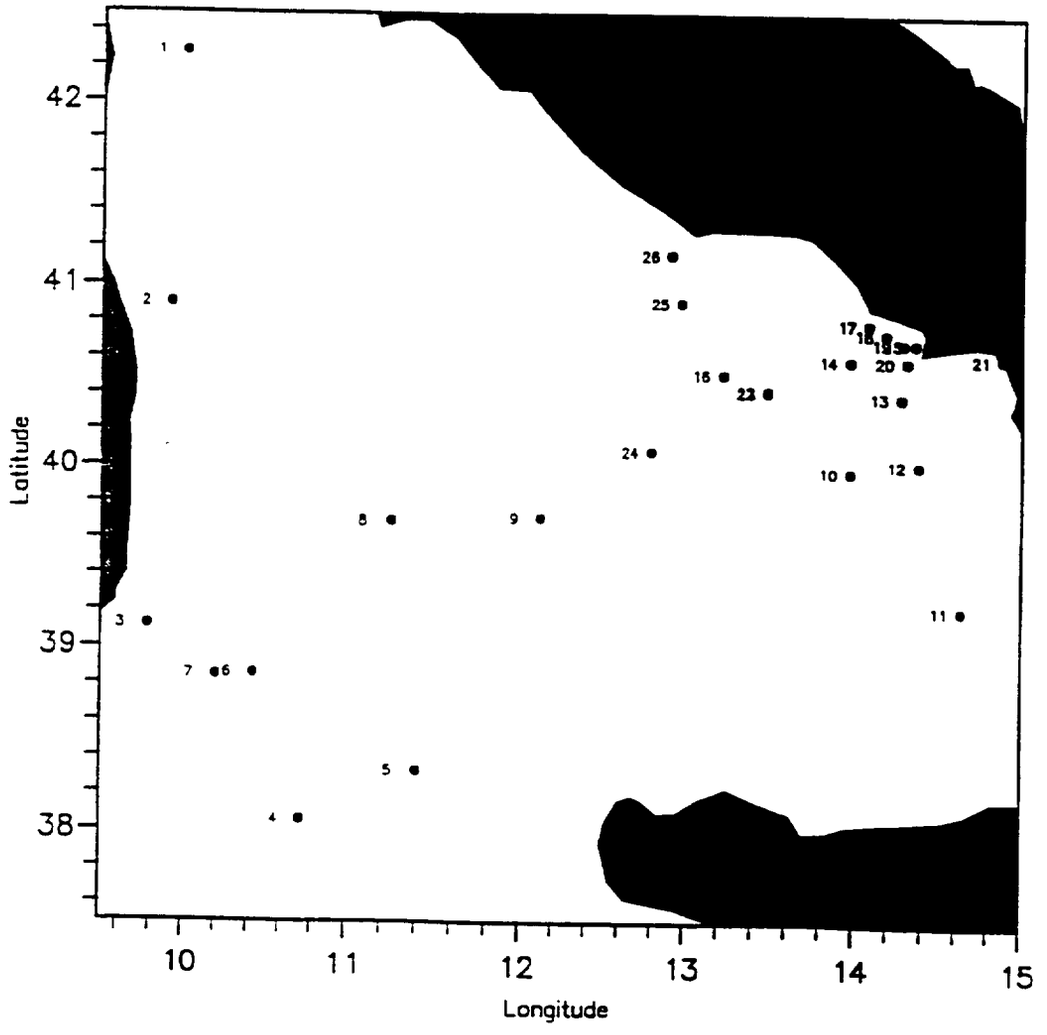
1. INTRODUCTION

The Institute of Oceanographic Sciences Deacon Laboratory (IOSDL) and the James Rennell Centre for Ocean Circulation (JRC) jointly collaborated in the third Tyrrhenian Eddy Multi-Platform Observations experiment (TEMPO-3), between 21 October and 10 November 1991 (TEMPO-Group, in press). The IOSDL/JRC contribution to the cruise included meteorological, wind stress, satellite, sea surface temperature (SST) and radiosonde measurements. The radiosonde data gives a description of the prevailing atmospheric conditions and were used as an input to an atmospheric transference model to provide sky temperatures, which were further used to derive SST from ship borne infra red radiometer data. The specific humidity data may also be used to validate atmospheric water vapour data from the microwave sounder, which is a component of the Along Track Scanning Radiometer (ATSR) onboard the ERS-1 satellite. It can also be used to generate revised coefficients for atmospheric correction algorithms in the generation of SST retrievals from ATSR and Advanced Very High Resolution Radiometer (AVHRR) data. The cruise took place in the Tyrrhenian Sea between Italy, Corsica and Sardinia (see Figure 1).

Figure 1. The location and order of radiosonde ascents during the TEMPO-3 cruise in the Tyrrhenian Sea



2. COLLECTION OF RADIOSONDE DATA

Vaisala RS-80-15 sondes, measuring temperature, pressure and relative humidity were launched twice per day from Days 298 to 313 using 200g TOTEX balloons fitted with string unwinders. Ascents were generally timed for 0000Z and 1200Z but were advanced on days 298, 308 and 311 to accommodate ERS-1 overpasses. A total of 26 successful flights were made most of which reached a height of greater than 50 mb, well into the stratosphere (see Table 1).

The Vaisala RS-80-15 sondes were connected to a power supply and the reception of their signal was tested. The calibration data supplied with each sonde from the manufactures were put into the PTU Processor, as were any corrections for the temperature sensor (T_{cor}, Table 1), which were calibrated against a dry bulb mercury thermometer, plus any corrections to the humidity sensor (U_{cor}, Table 1), which were determined by placing the sensor into a sealed tub containing a dessicant, thereby creating an environment of zero humidity. As close as possible before the launch a water activated battery was connect to the sonde.

Balloons were inflated in a restrainer, placed on the aft portion of the boat deck (port side) with plastic tubing connecting it to helium bottles secured on the aft deck. Launching usually required two people, although in light winds (< 10 m/s) one would be sufficient. Provided the relative wind was at least 20 degrees on the starboard bow balloons could be released clear of obstructions for all wind strengths. In light winds a wide range of relative wind directions could be tolerated. Successful launches were made in winds up to 20 m/s. On two or three of the strong wind occasions, however, the balloons were caught in eddies shed by the ship which caused the sondes to come very close to hitting the sea. The best way of avoiding this was for the person launching the balloon to wait for a suitable lull using the pull of the wind on the balloon to judge the optimum moment for release.

Signals from the sondes were received by a Vaisala UR-15 unit via an omni-directional antenna located on the port rail of the wheelhouse top. The receiver performed extremely well, the only problem being interference from other sondes launched from upper air meteorological stations. This was overcome by re-tuning our sondes' transmitting frequencies to greater than 404 MHz. After passing through the PTU Processor the calibrated data were displayed and written to floppies using a BBC Master microcomputer.

3. PROCESSING OF RADIOSONDE DATA

The data were transferred to 3.5" floppy disks in MSDOS format on the BBC Master and then transferred to the SUN's via an Apple Macintosh. The radiosonde measured temperature (°C), relative humidity (%) and pressure(mb) and the parameters height (km), potential temperature (°C) and specific humidity (g/kg) and water vapour density (g/m^{-3}) were calculated. Radiosonde data can be very spiky owing to a poor transmitted signal, excessive rate of ascent or excess precipitation. Various standard and adapted programs from the IOSDL/JRC in house data processing software (PSTAR) were used to process and plot the data. A shell script linked the processing steps together and automated the process. An outline of the various processing steps is given below:

PROCESS	PROGRAM (*) = PSTAR program
EDIT raw data	-
⇓	
CONVERT to PSTAR format	pascin*
⇓	
LIMIT set max and min thresholds	datpik*
⇓	
DE-SPIKE	pressjump
⇓	
LIMIT	datpik*
⇓	
CREATE **NEW PARAMETERS**	sonde
⇓	
AVERAGE	pavrge*
⇓	
PLOT	sond_plt vdisplay* pgridh*

Data smoothing

Initially the redundant data which were recorded just prior to ascent and after maximum elevation were deleted. Once the data had been converted into PSTAR format initial de-spiking was done by deleting all data outside set threshold limits e.g.:

Variable	maximum	minimum
Pressure (mb)	1150	10
Temperature (°c)	25	-80
Relative Humidity (%)	100	0

The most sensitive parameter to rogue measurements were pressure, so the data were further de-spiked by checking for and deleting any data which corresponded to an increase in pressure as the radiosonde made its ascent through the atmosphere.

Calculating Potential Temperature, Specific Humidity, Water Vapour Density and Height

Potential temperature (θ) was calculated from the observed pressure and temperature. The equation was taken from (Stull, 1988) with the form:

$$\theta = T * (P_o/P)^{0.288}$$

where T is the air temperature (K), P is the air pressure and P_o is a reference pressure set to 1000mb.

Specific humidity was calculated using the observed pressure, temperature and relative humidity in the form:

$$q = [(0.662 * E) / (P-0.378 * E)] * 1000.0$$
$$E = RH * EW/100.$$
$$EW = 6.1078 * \exp [17.2694 * T / (T+237.)]$$

where T is temperature (°C), RH is relative humidity (%) EW is the saturation vapour pressure and q is specific humidity (g/kg).

The equation for water vapour density was in the form:

$$QB = q * [0.622 * (1.004 * EW) / \{P - (1.004 * EW)\}]$$

Where P is pressure (mb) , EW is the saturation vapour pressure, q is specific humidity (g/kg) and QB is water vapour density (g/m^{-3}).

Height was calculated using:

$$H_{i+1} = (H_i + \Delta P/r * g)/ 1000.0$$

$$r = 0.34838 * P / (T_{virt} + 273.15)$$

$$T_{virt} = (T + 273.15) * RW * 0.6078 * (1.0 /(1.0 + RW)) * RH * 0.1 + T$$

$$RW = 0.622* (1.004 * EW) / P - (1.004 * EW)$$

where H_i is the current height, ΔP is the change in pressure (mb), r is air density, T_{virt} is the virtual temperature, T is temperature (°C), RH is relative humidity (%) and g (ms^{-2}) is the acceleration due to gravity.

4. PLOTS AND LISTINGS OF DATA

Atmospheric profiles of temperature and relative humidity and profiles of potential temperature and specific humidity for each ascent are shown in Figures 2 to 27. In these plots a decrease in pressure represents an increase in height through the atmosphere and the data shown has been restricted to pressure levels below 200 mb. Time (Julian days) and height (km) contour plots for temperature, relative humidity, specific humidity and potential temperature covering all ascents over the whole cruise period are shown in Figures 28 to 31.

Listings of the processed data for each ascent are given on pages 43 to 68. They include the maximum and minimum range of values for each variable at 20 mb (pressure) intervals.

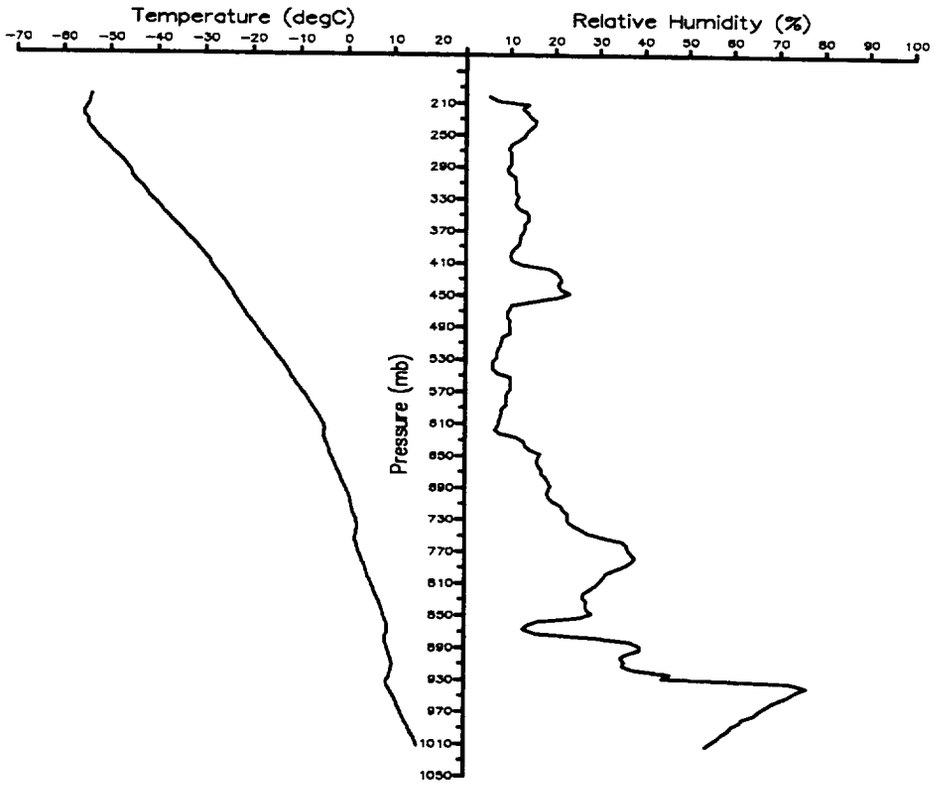
5. REFERENCES

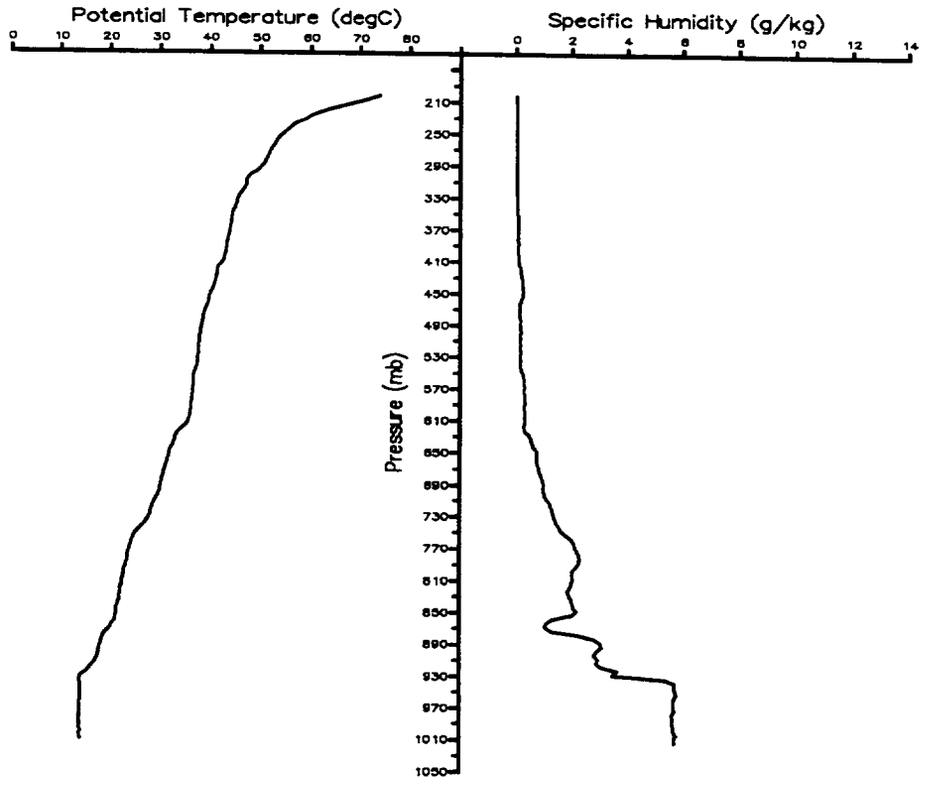
STULL, R., 1988: An introduction to boundary layer meteorology.
Dordrecht: Kluwer Academic Publishers. 649 pp.

TEMPO-Group, 1991: Tyrrhenian Multi-platform Observations 1989 Experiment.
Rome: Telespazio Earth Observing Division. 69pp. (Marine Science and Technology (MAST), Contract number: MAST-0041-C)

Table 1 Radiosonde Ascents During TEMPO-3

Ascent number	Day/Time Julian Day Hours	Tcor (°C)	Ucor (%)	Height Pressure mb	Latitude (°N)	Longitude (°E)
1	298-1030	0.0	0	32	42 17.23	9 59.50
2	298-2355	0.0	0	26	40 54.22	9 55.34
3	299-1200	-0.3	0	32	39 07.96	9 47.78
4	299-2359	-0.3	0	48	38 36.81	10 44.94
5	300-2359	-0.2	0	75	38 20.11	11 24.95
6	301-1000	-0.4	0	40	38 52.60	10 26.91
7	301 -2359	0.0	-1	80	38 51.17	10 12.59
8	303-0100	-0.3	0	50	39 42.64	11 15.25
9	303-1200	-0.1	-1	31	39 43.89	12 07.94
10	303-2345	-0.2	-1	40	39 59.11	13 58.36
11	304-1200	-0.3	0	37	39 14.74	14 38.70
12	305-0015	0.0	1	123	40 02.75	14 22.34
13	305-1200	-0.2	1	63	40 24.40	14 16.07
14	307-1200	-0.5	2	51	40 36.59	13 58.94
15	307-2355	0.0	0	25	40 42.53	14 21.97
16	308-1200	-0.2	-1	26	40 30.59	14 13.49
17	308-2100	-0.1	-1	44	40 48.96	14 05.01
18	309-1200	-02	0	32	40 48.92	14 05.06
19	309-2355	-0.2	1	39	40 48.91	14 05.58
20	310-1200	-0.2	1	32	40 36.02	14 18.92
21	311-0025	-0.3	1	40	40 37.16	14 53.88
22	311-0940	0.0	1	34	40 26.45	13 29.98
23	311-2100	-	-	66	40 25.69	13 28.95
24	312-1200	-	-	43	40 05.59	12 47.69
25	312-2300	-	-	28	40 54.95	12 58.44
26	313-1200	-	-	289	41 10.16	12 54.76





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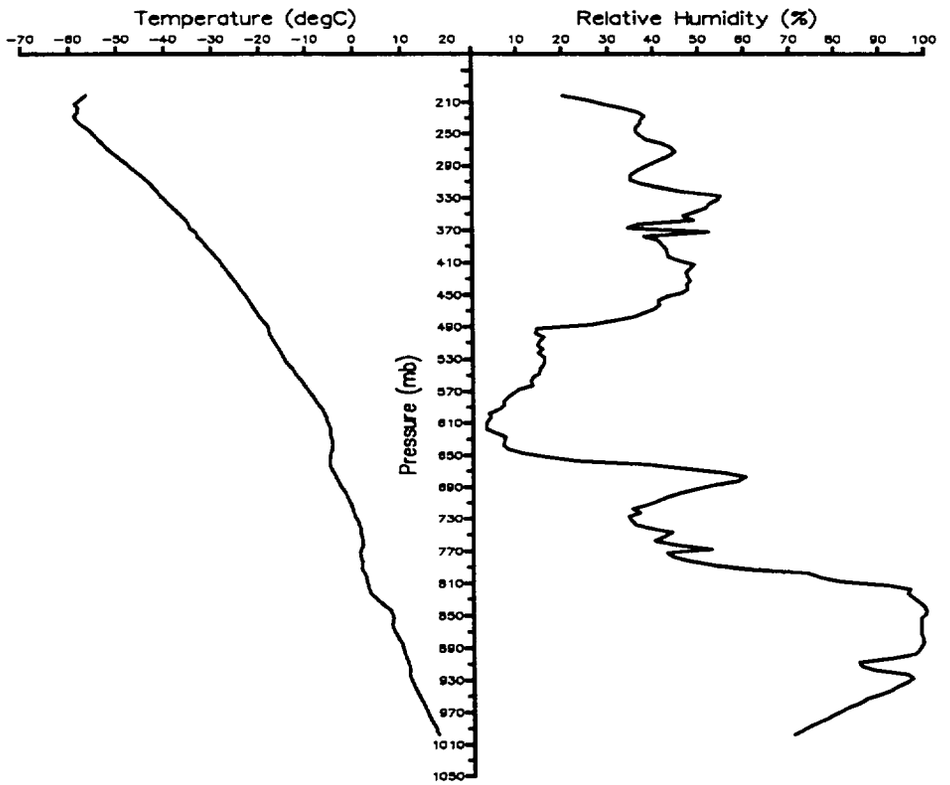
time = 10:30 hrs
Figure 2 . Atmospheric profiles for ascent 1



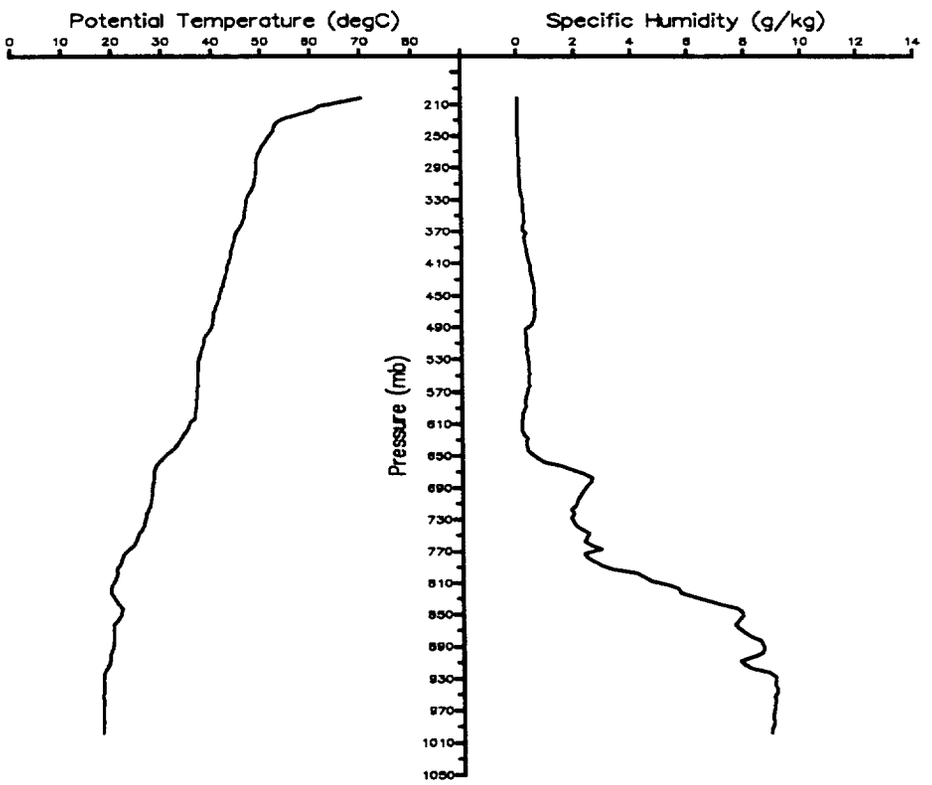


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Figure 3 . Atmospheric profiles for ascent 2

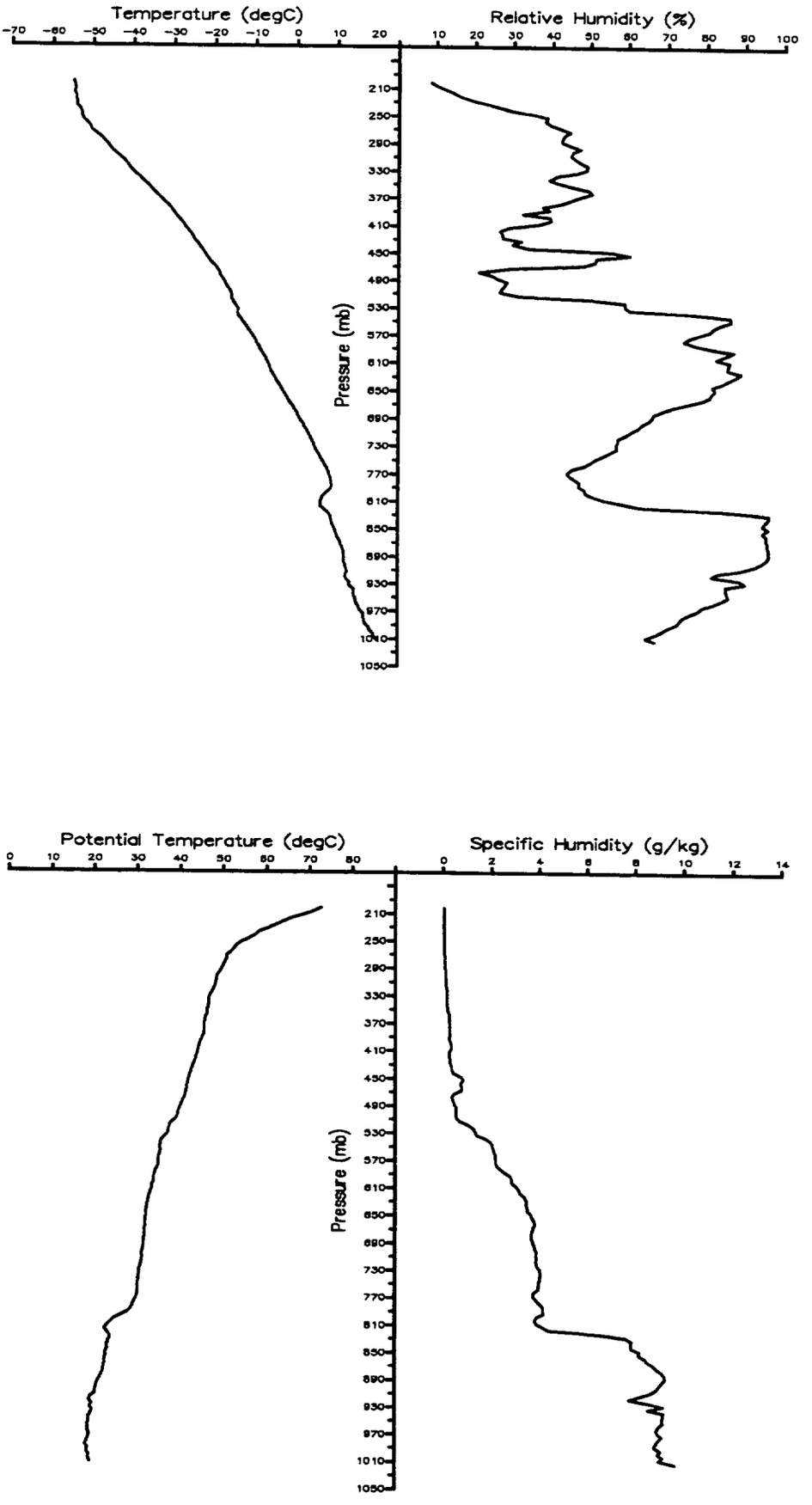

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Figure 4 . Atmospheric profiles for ascent 3

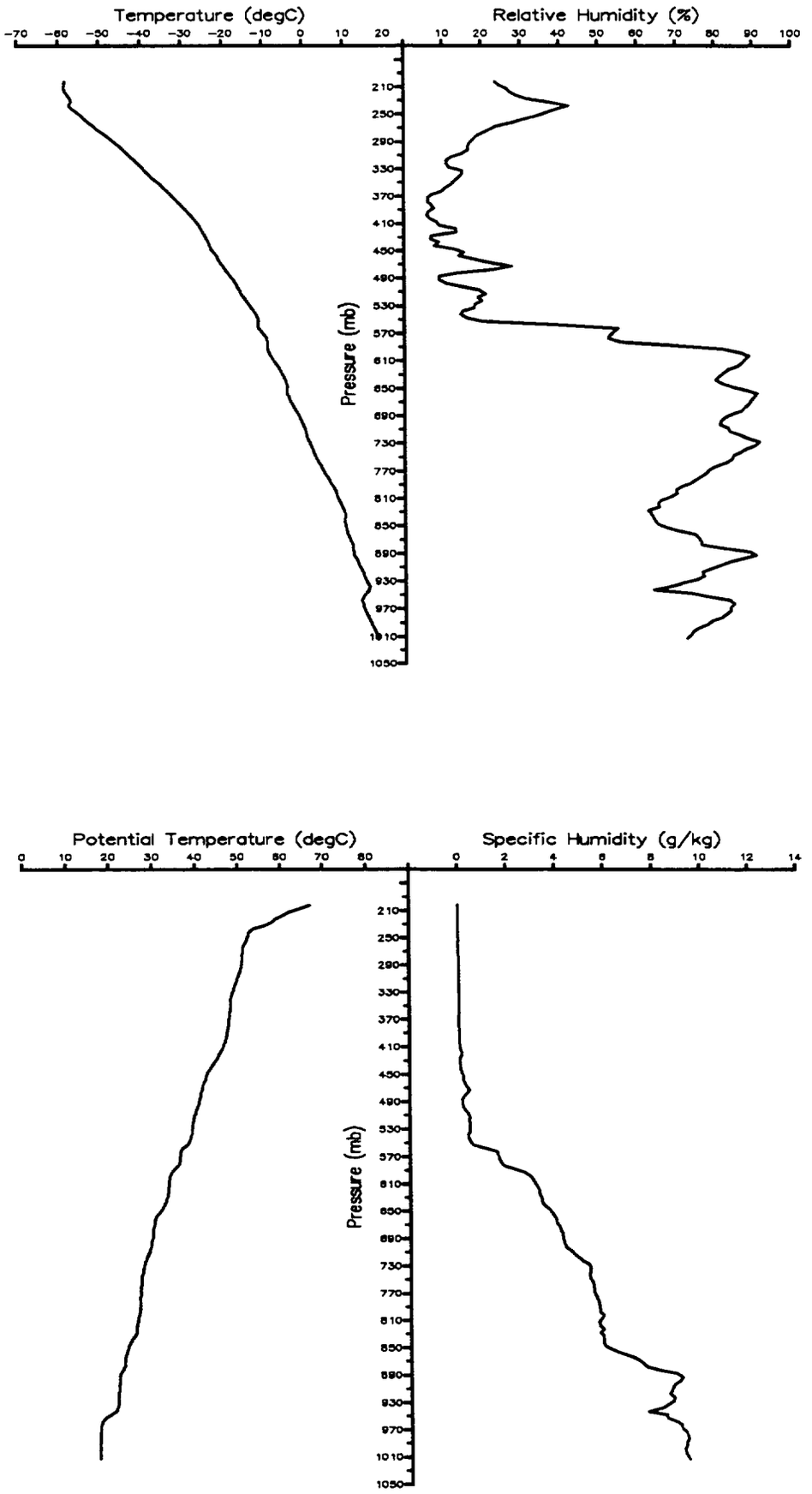

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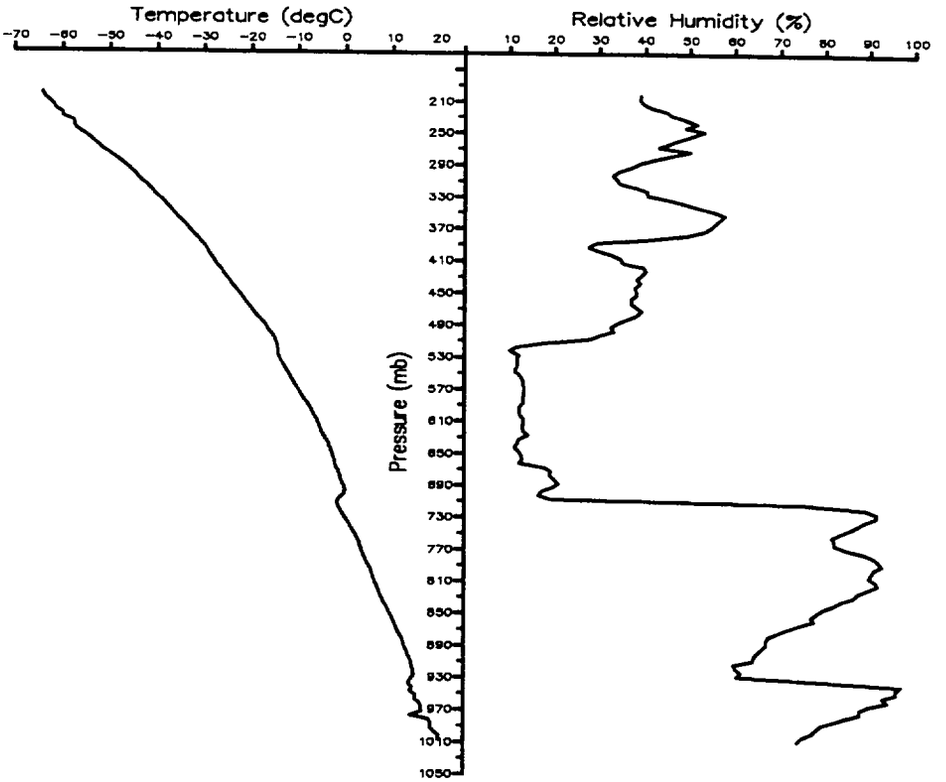
Figure 5 . Atmospheric profiles for ascent 4



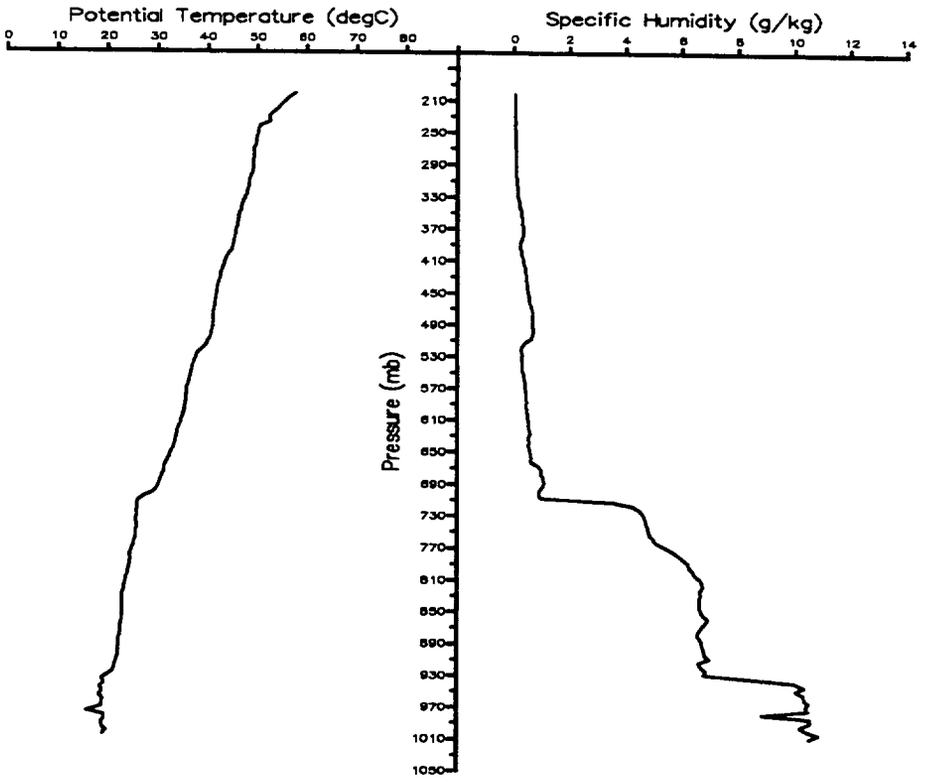


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Figure 6 . Atmospheric profiles for ascent 5

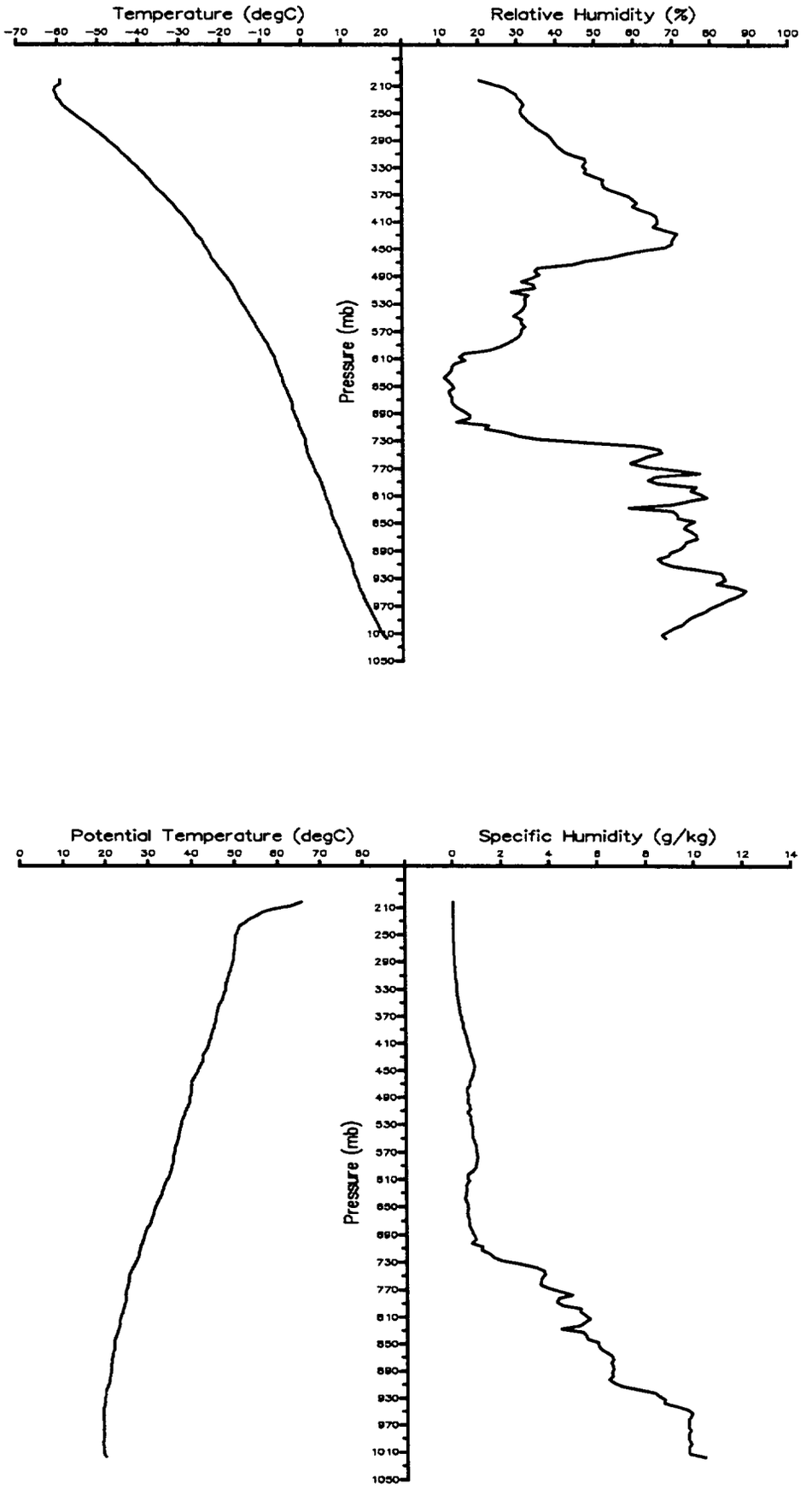

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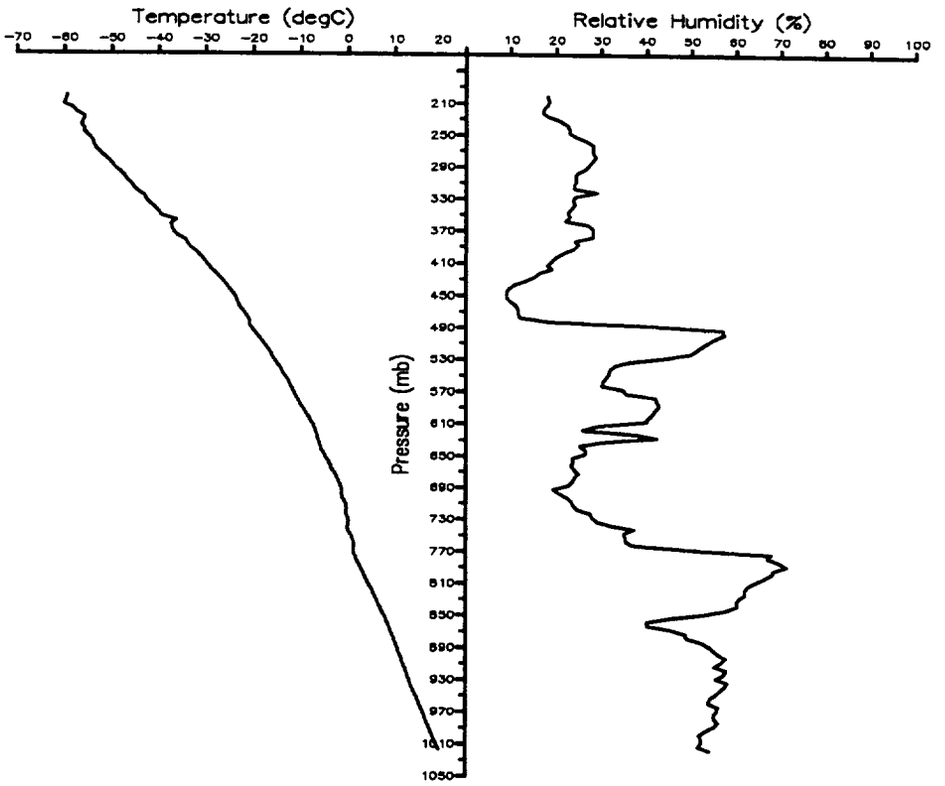
Figure 7 . Atmospheric profiles for ascent 6



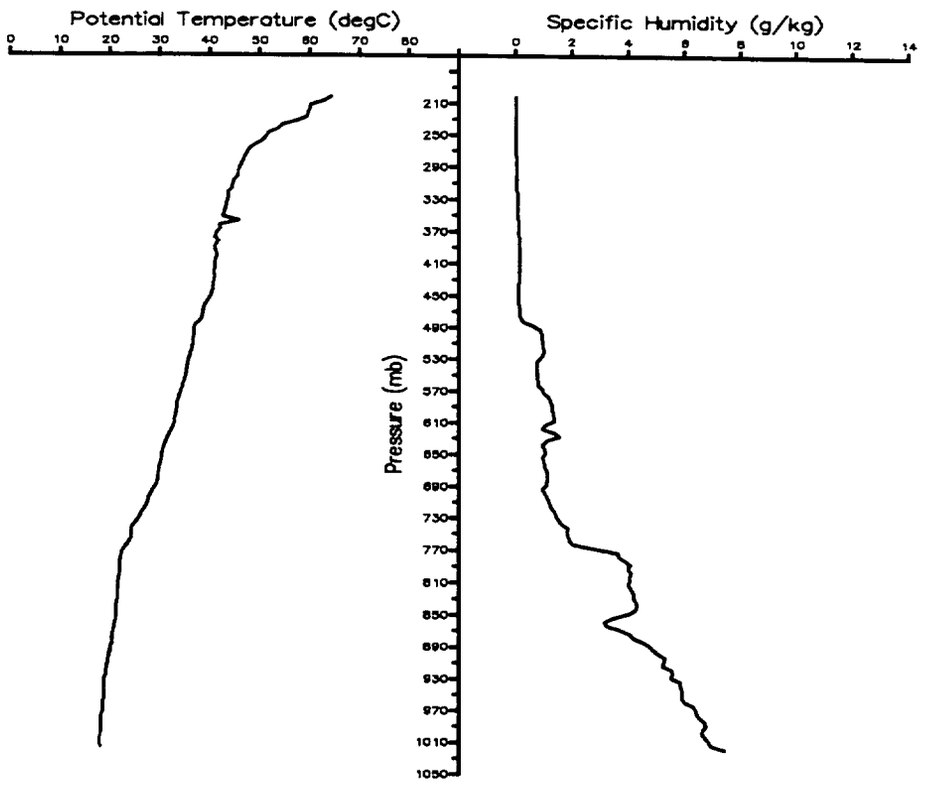


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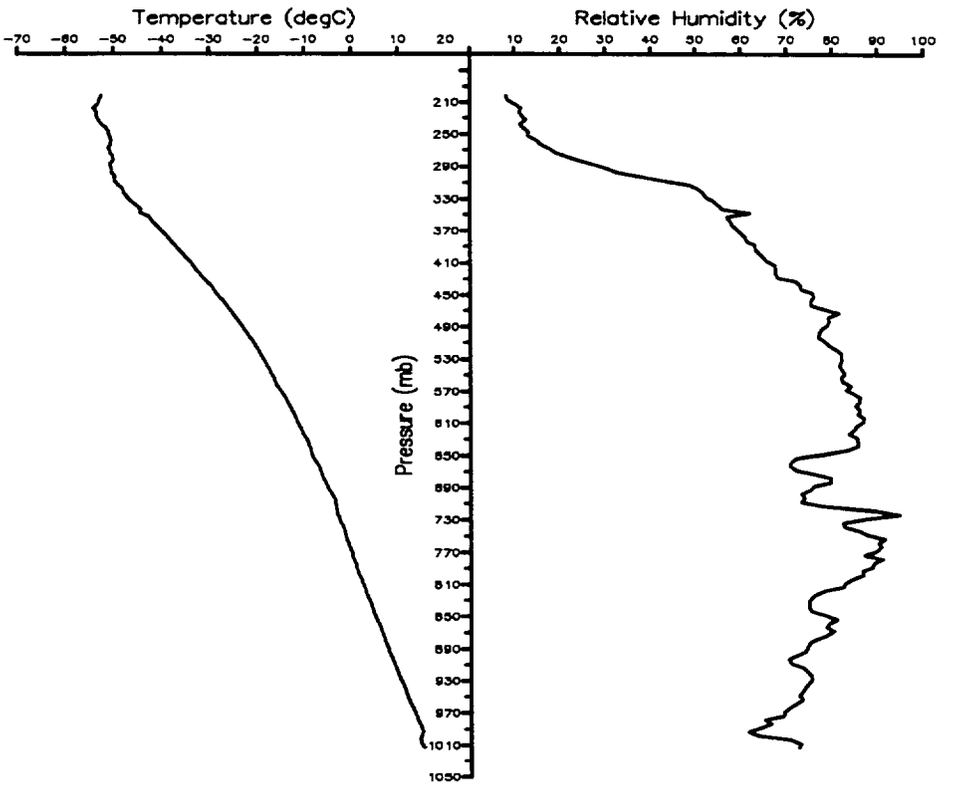
Figure 8 . Atmospheric profiles for ascent 7



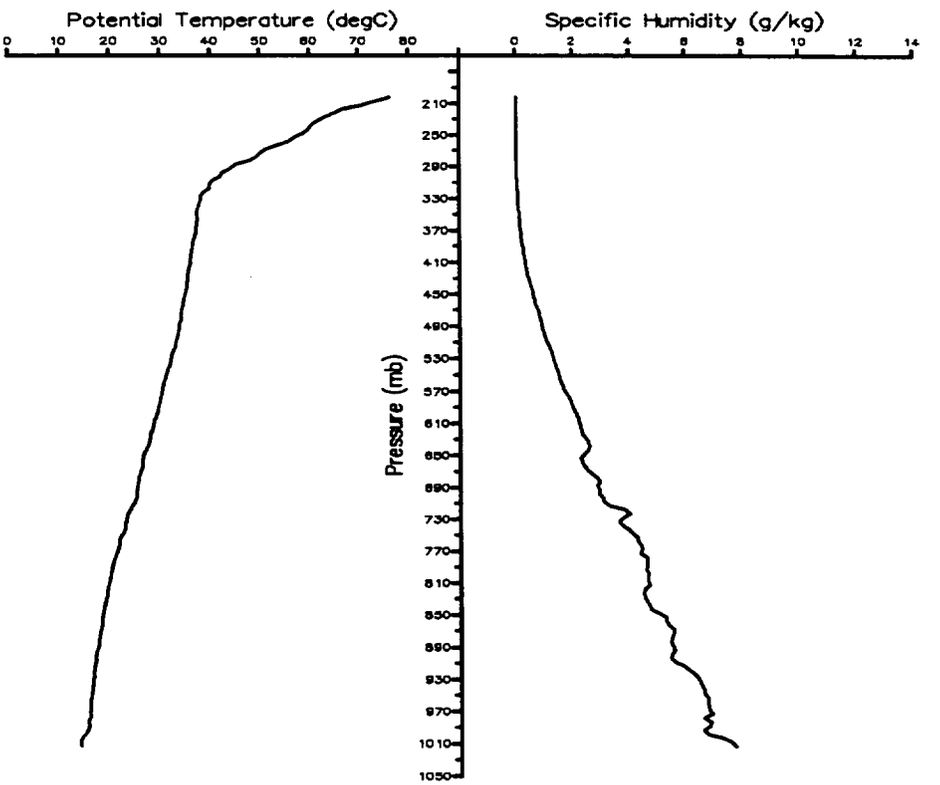


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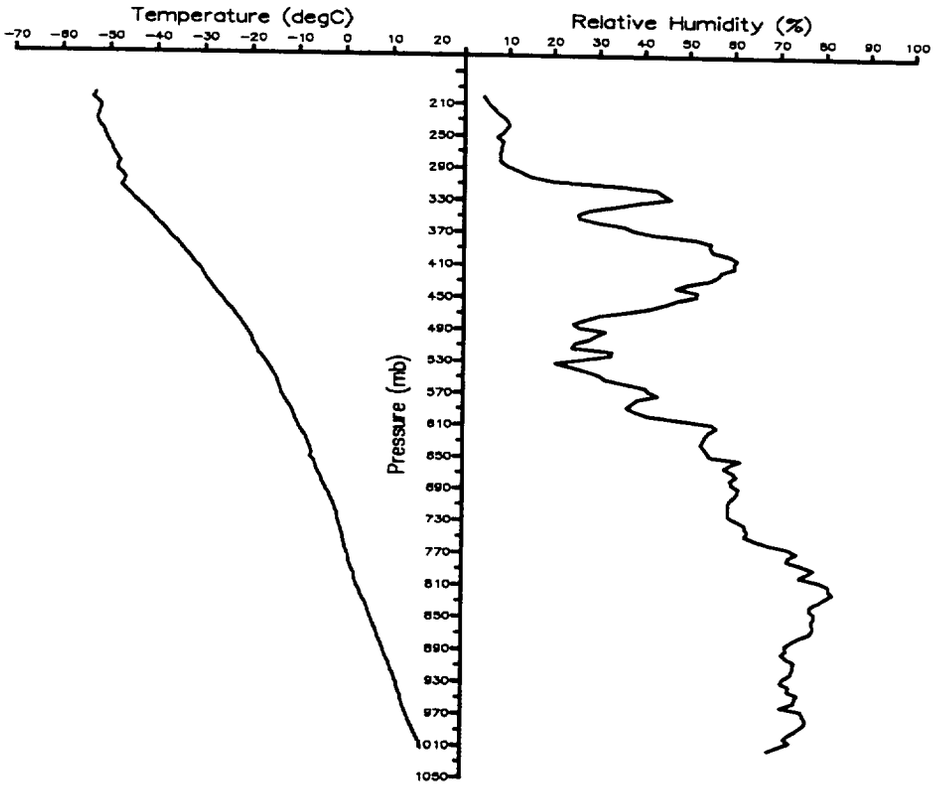
Figure 9 . Atmospheric profiles for ascent 8



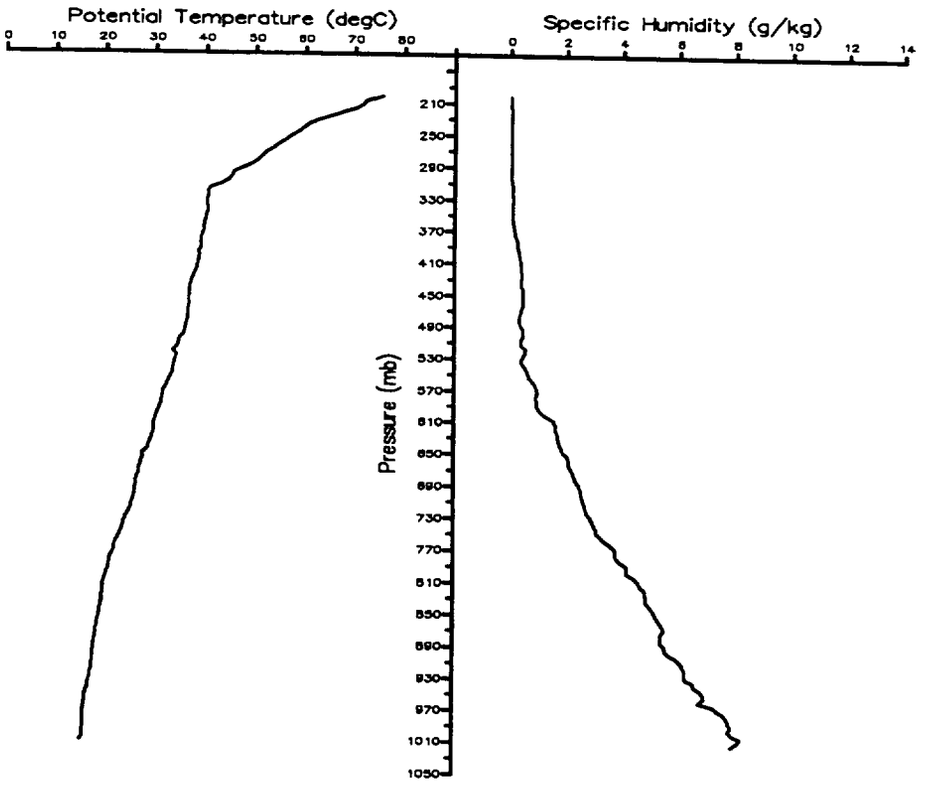


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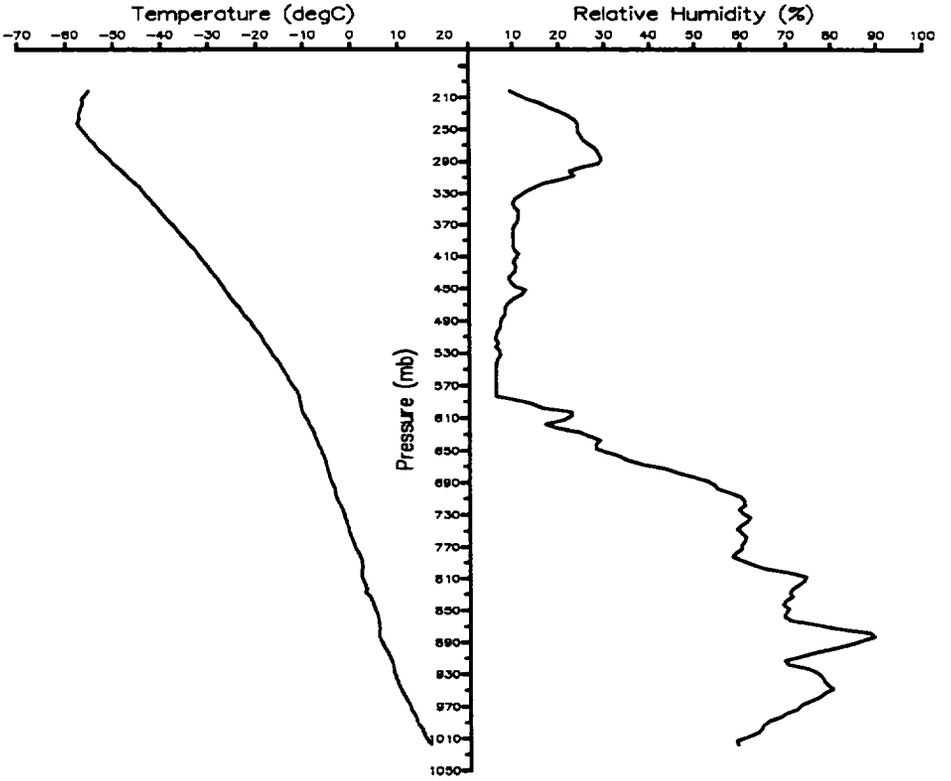
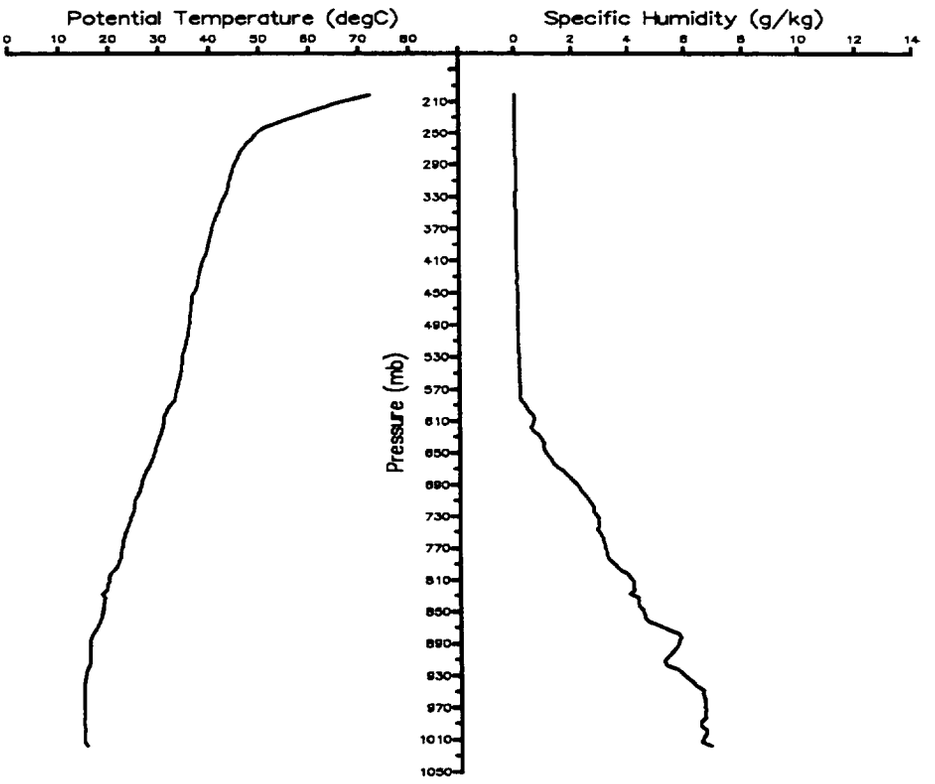
Figure 10. Atmospheric profiles for ascent 9





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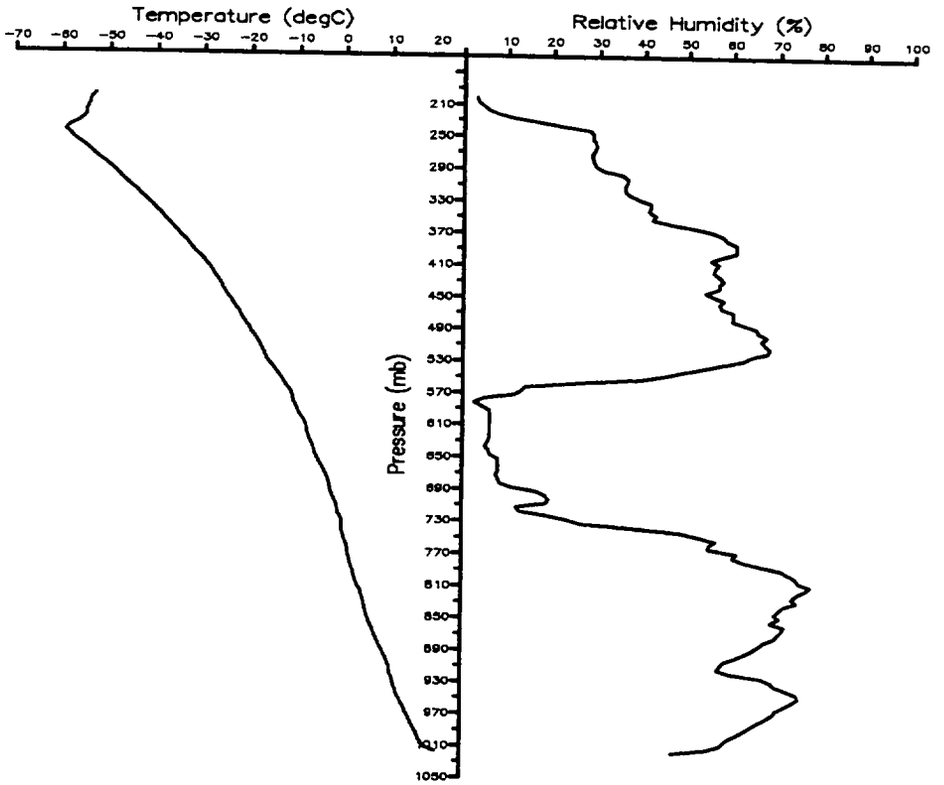

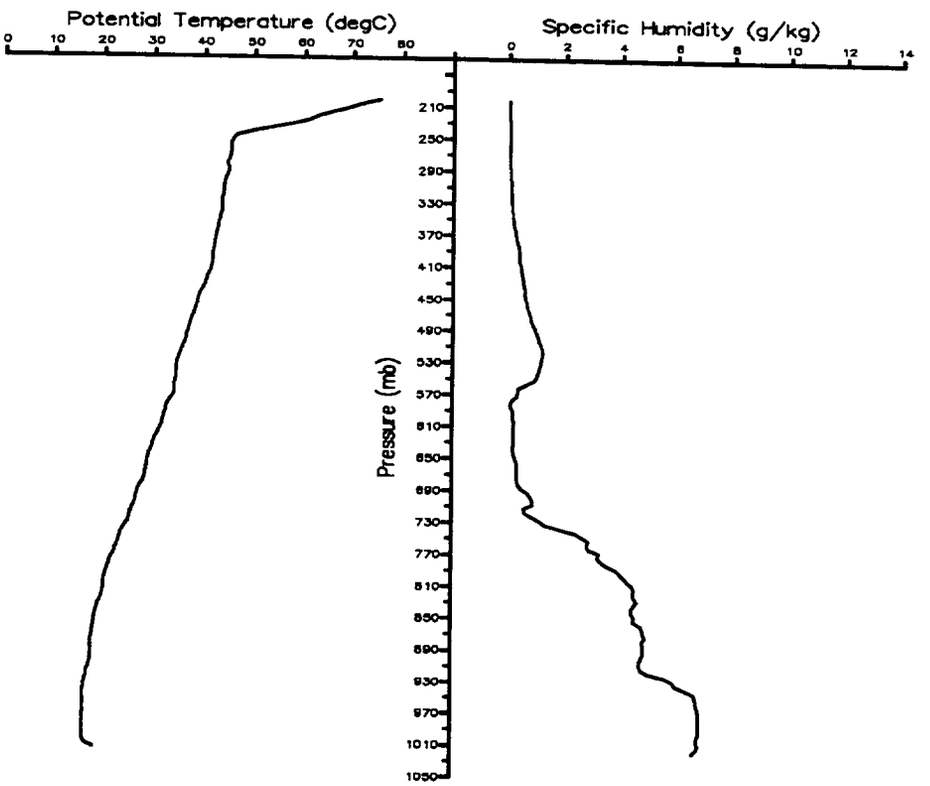

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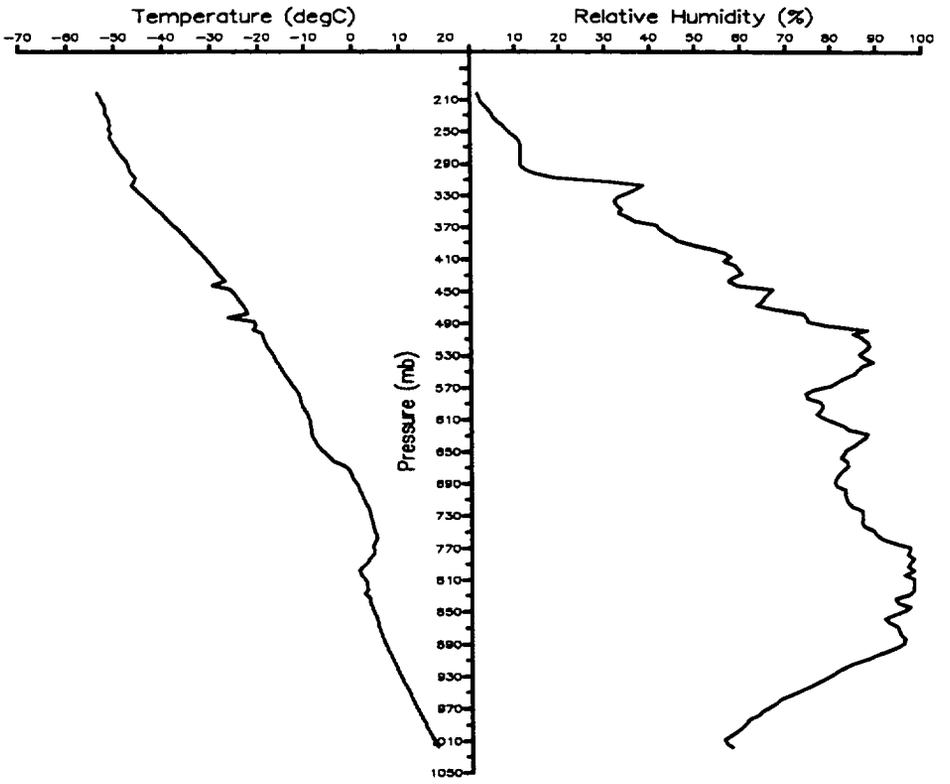
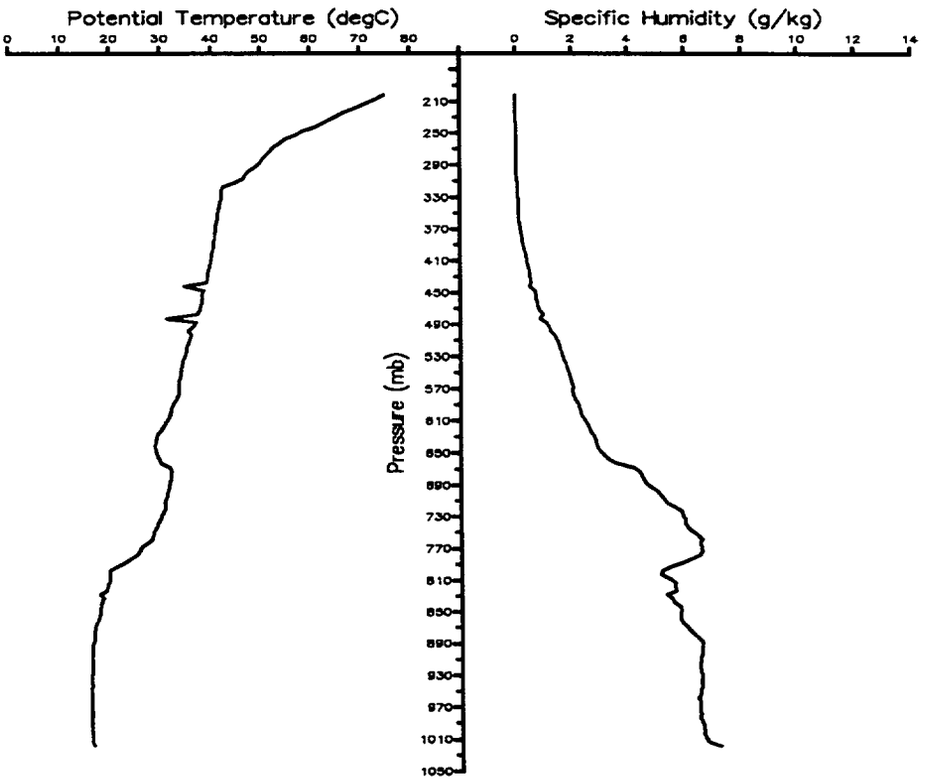
Figure 12. Atmospheric profiles for ascent 11





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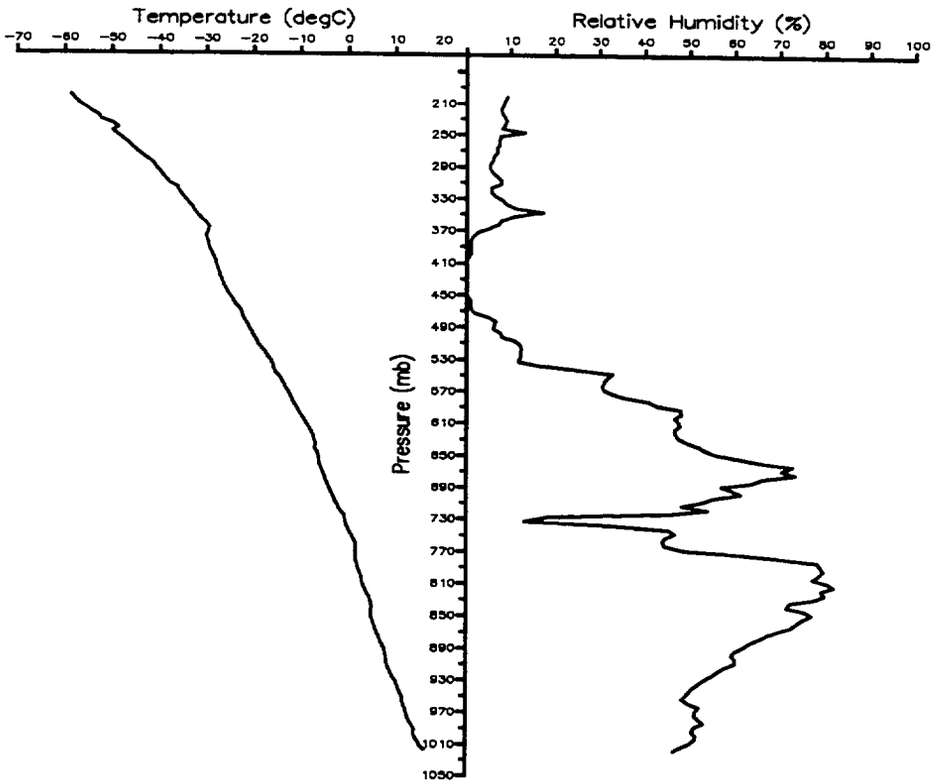

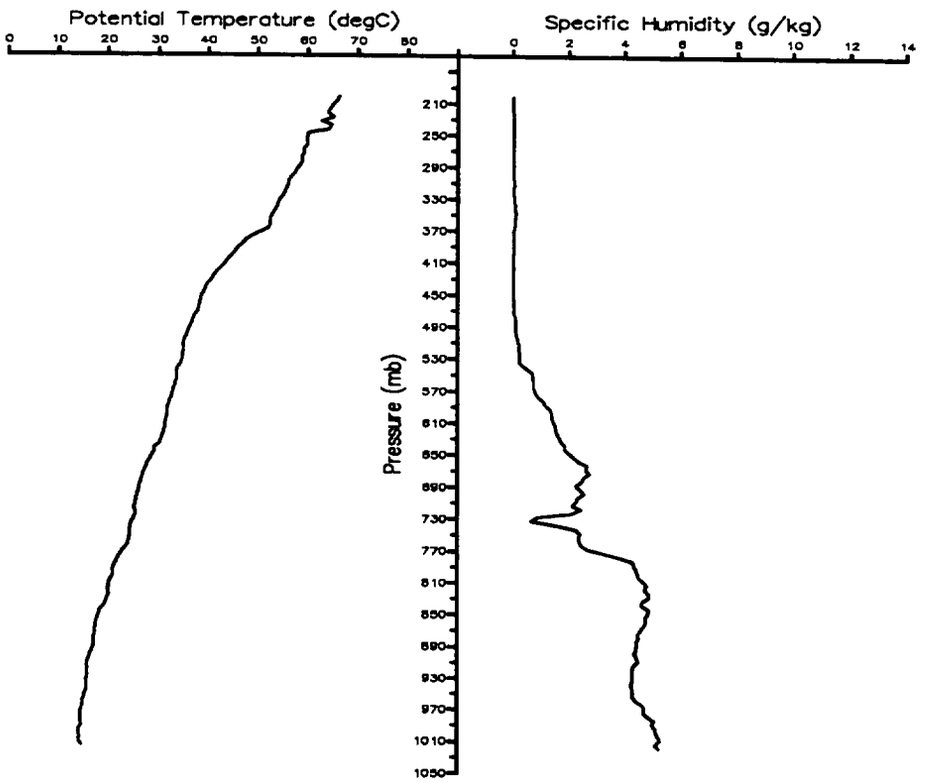

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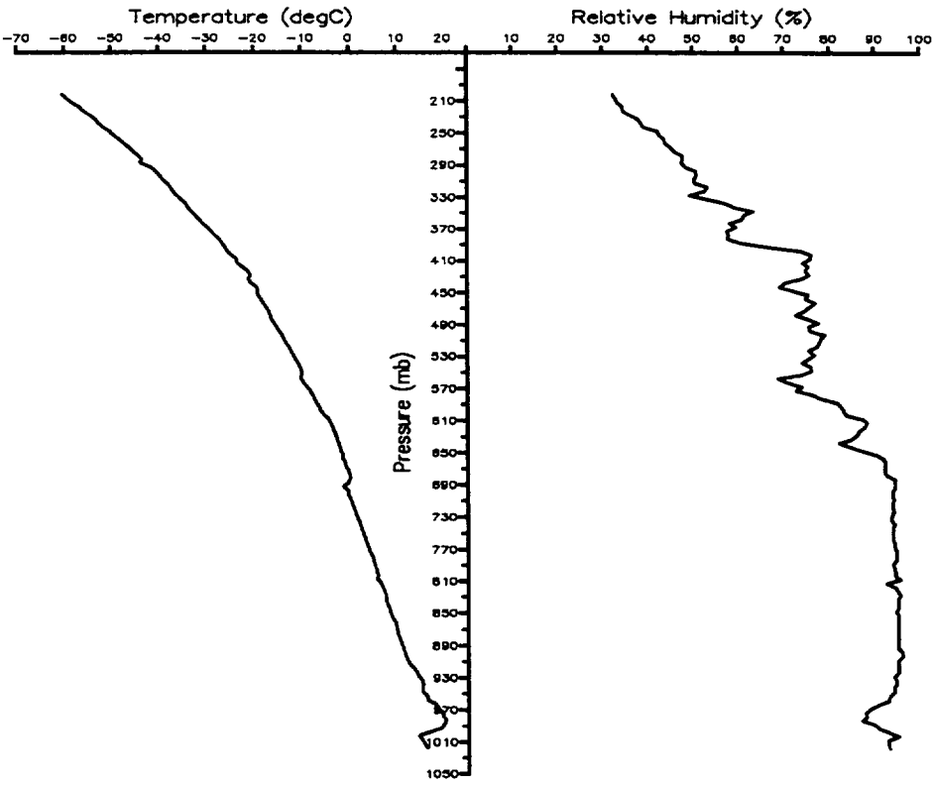
Figure 14. Atmospheric profiles for ascent 13



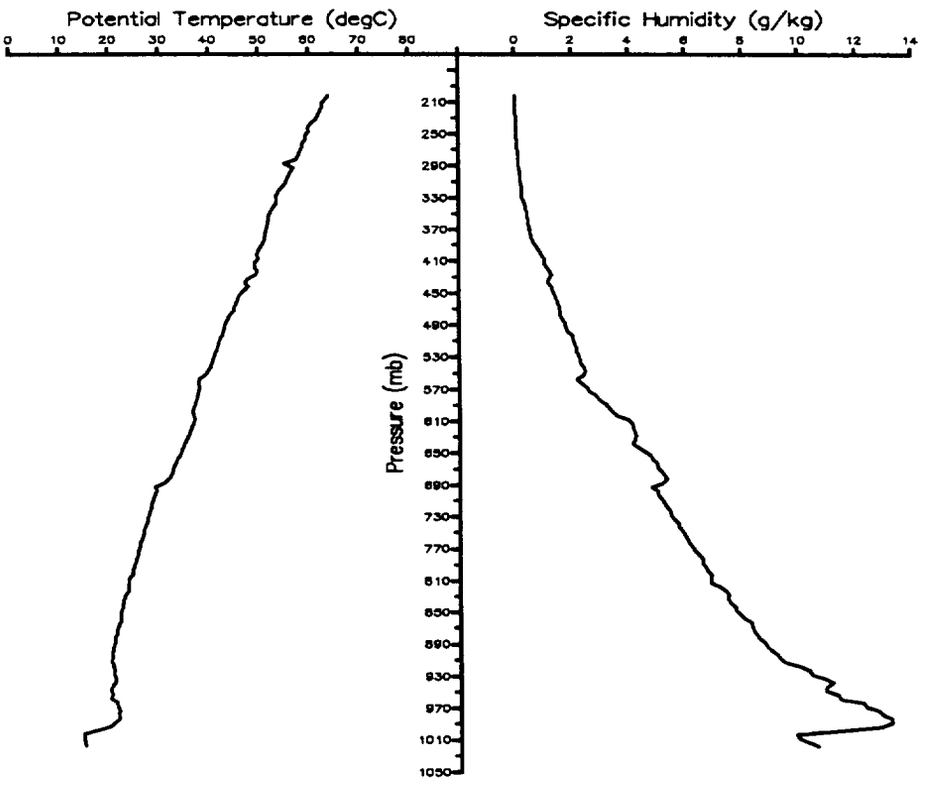


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Figure 15. Atmospheric profiles for ascent 14

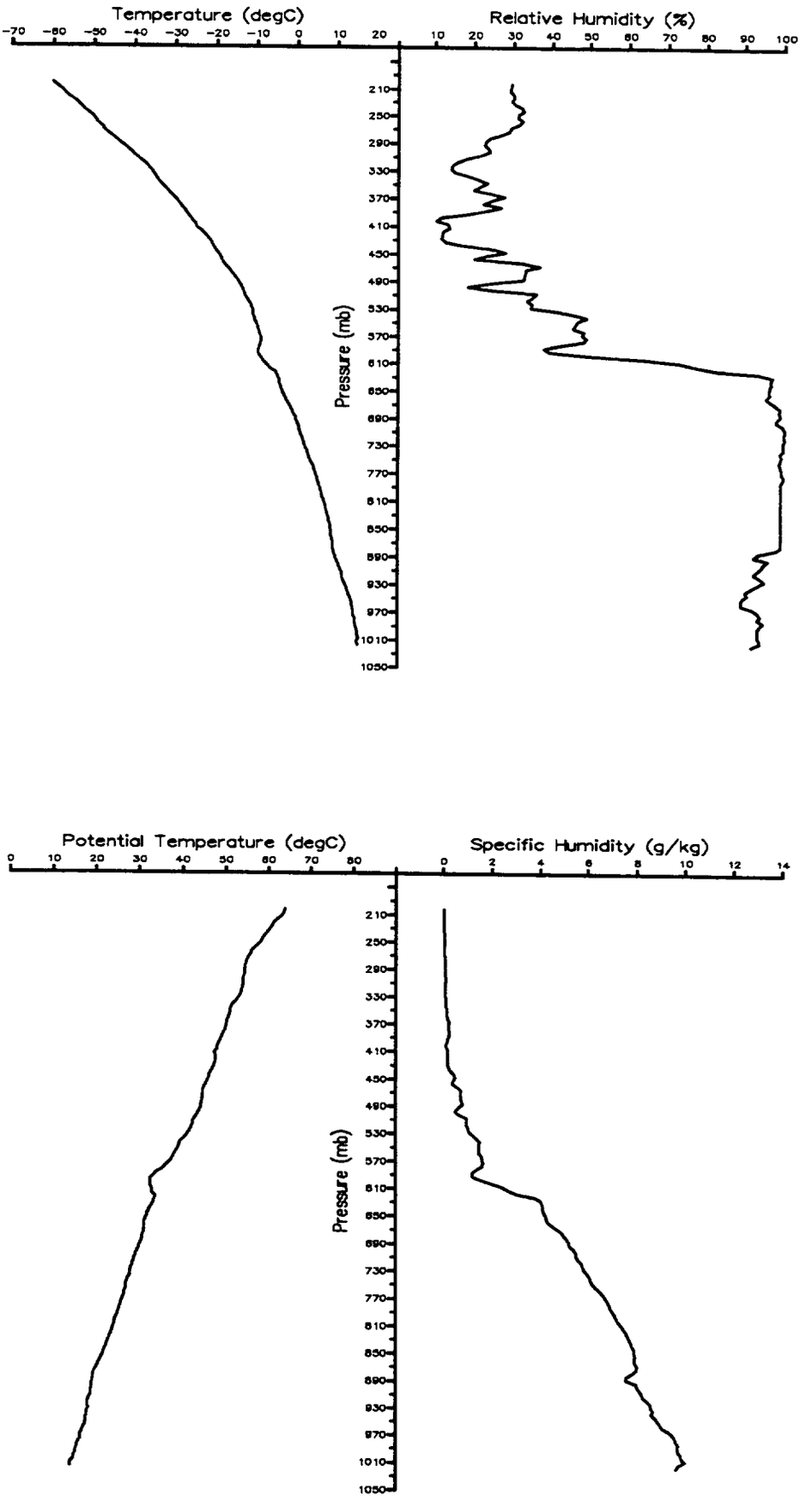

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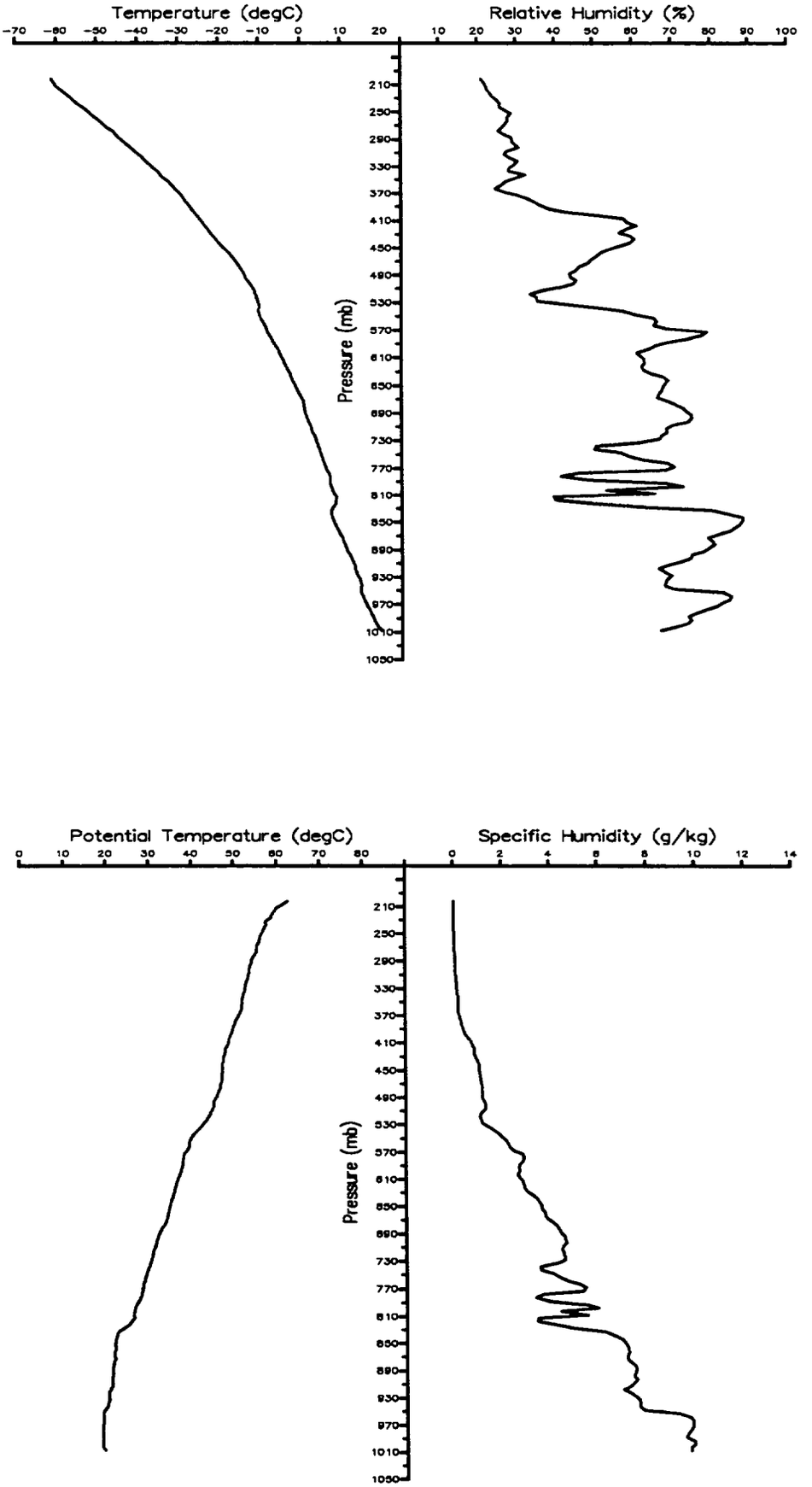
Figure 16. Atmospheric profiles for ascent 15



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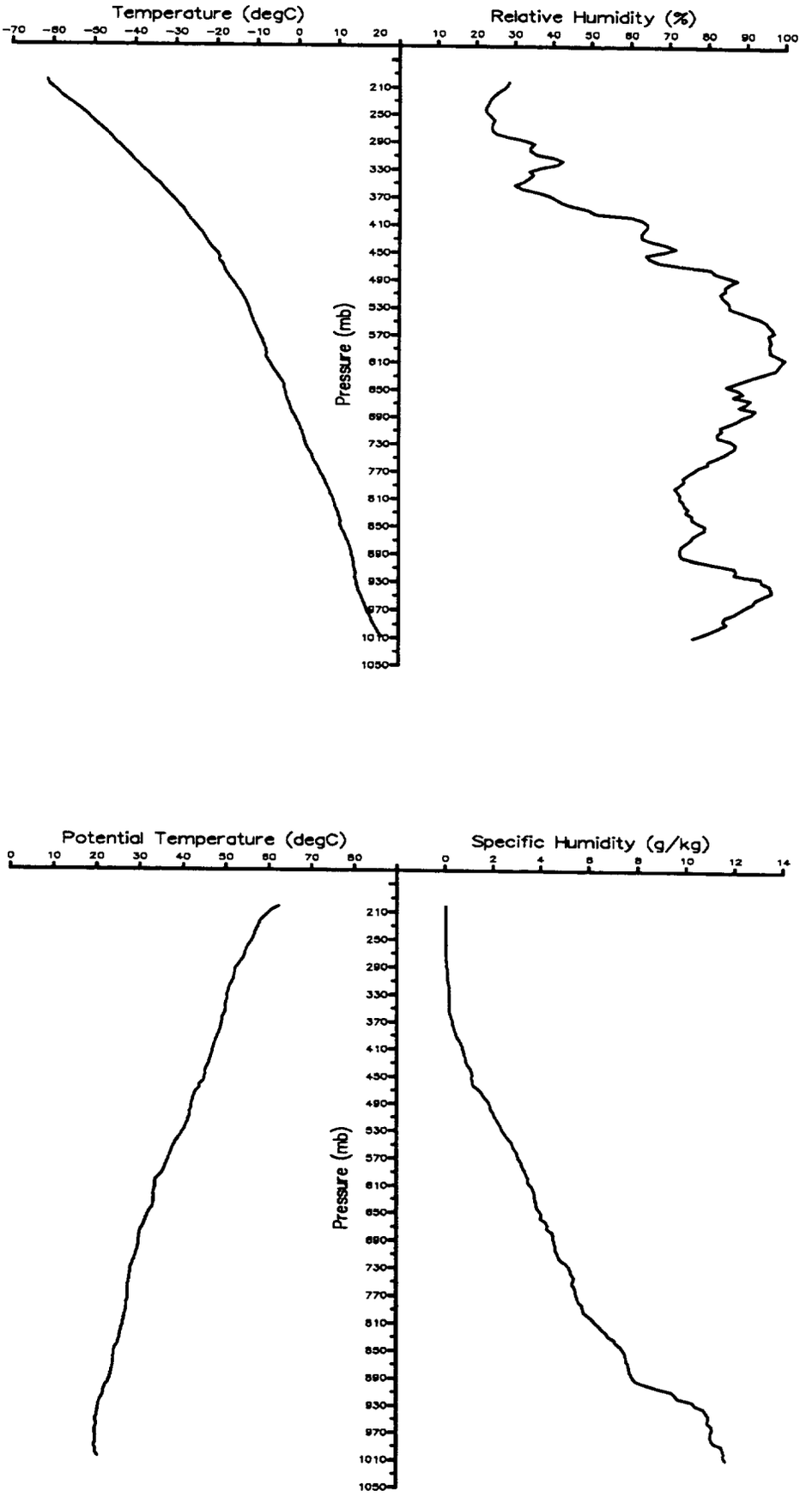

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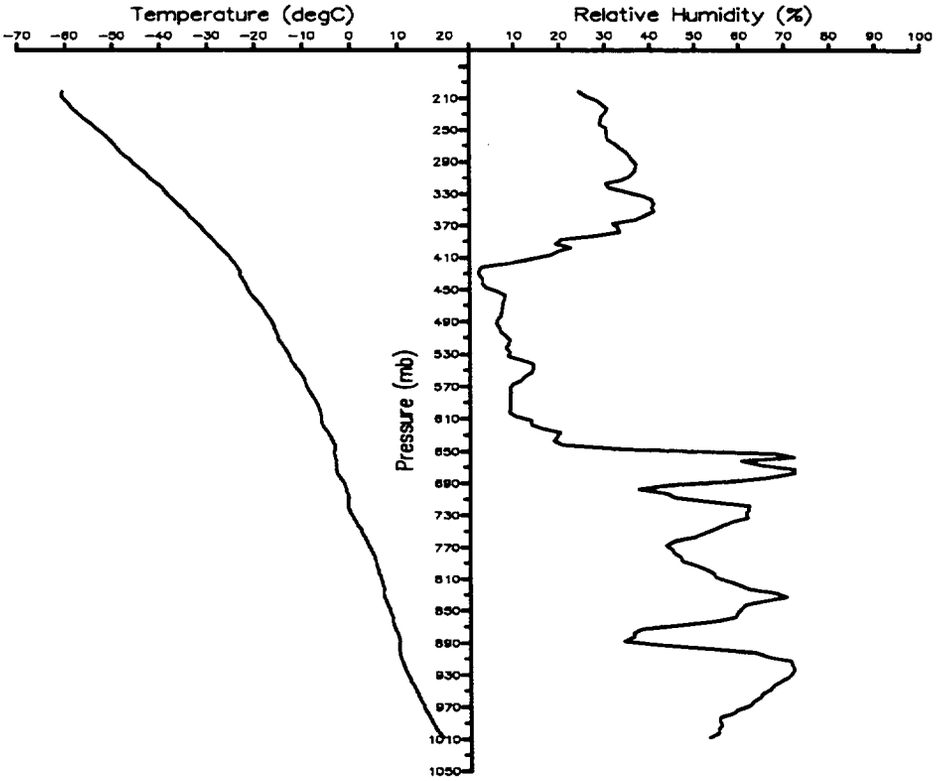
Figure 18. Atmospheric profiles for ascent 17



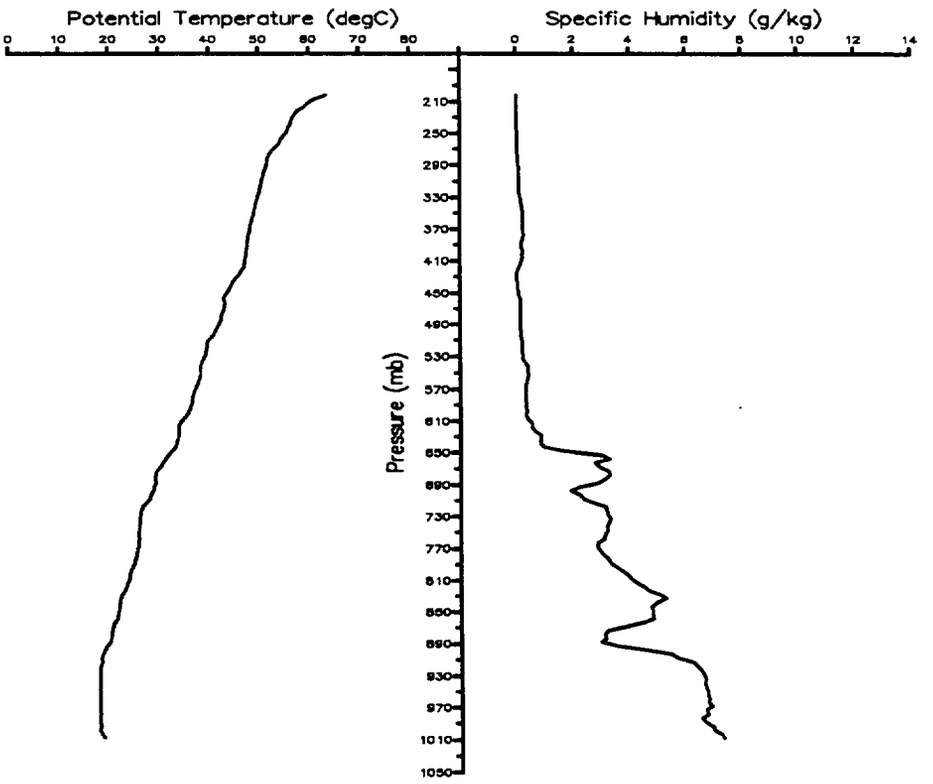


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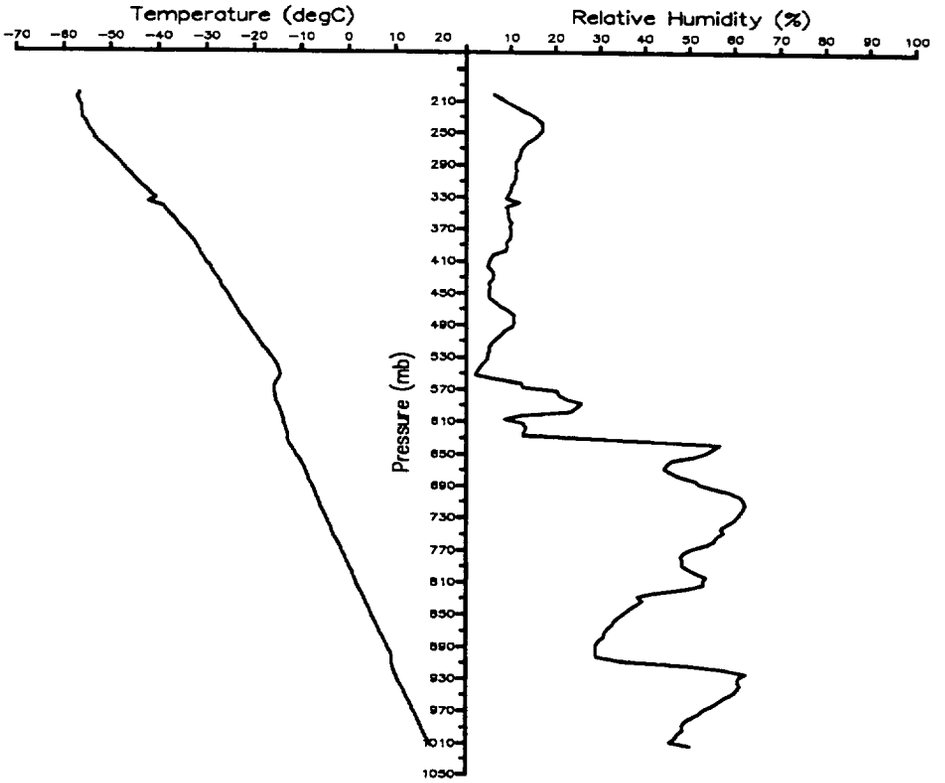
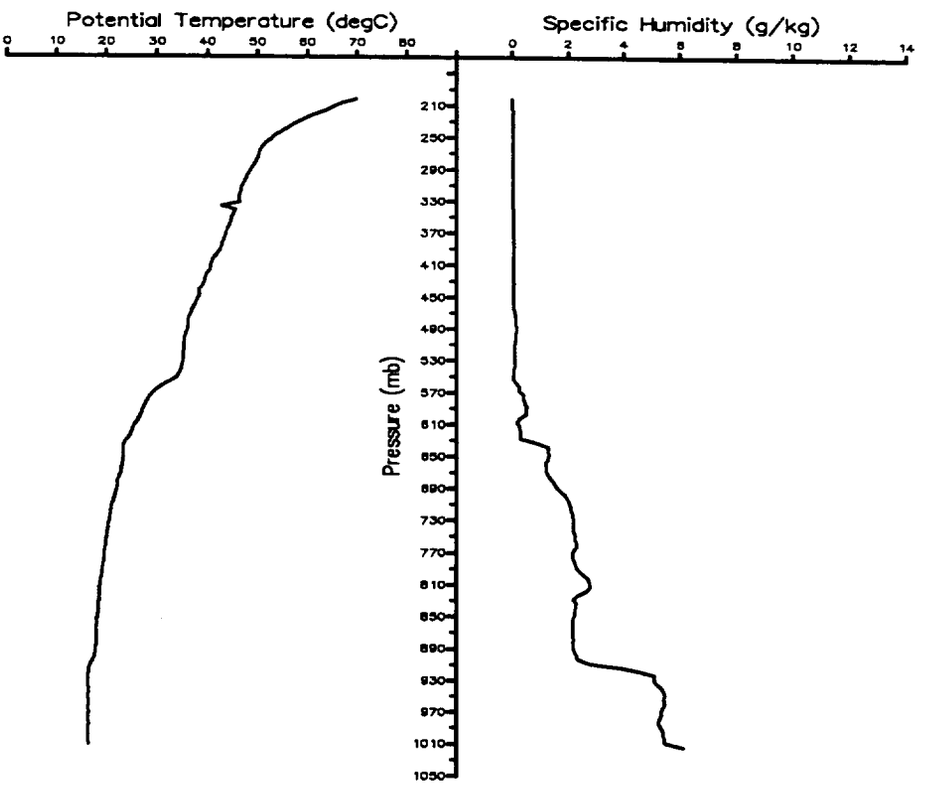
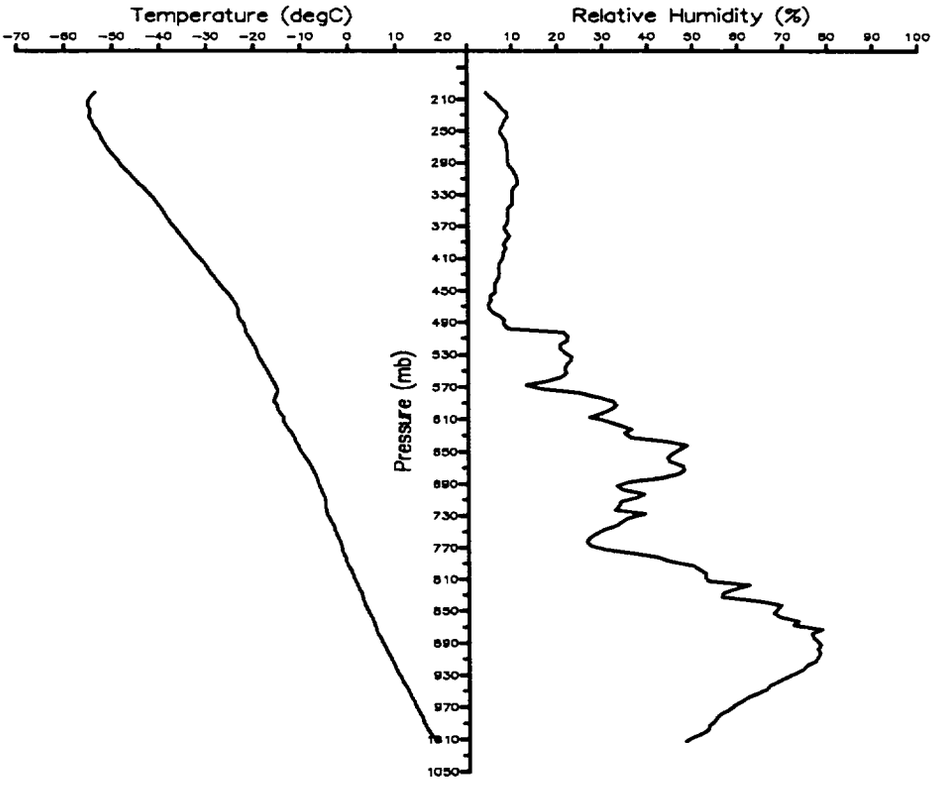
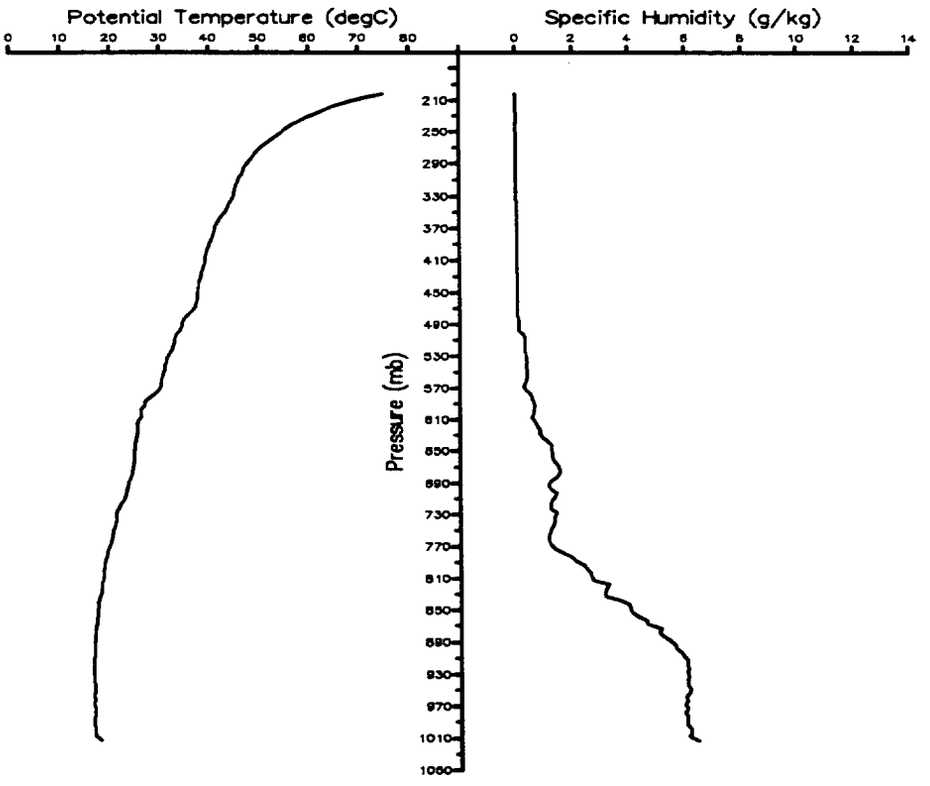
Figure 19. Atmospheric profiles for ascent 18



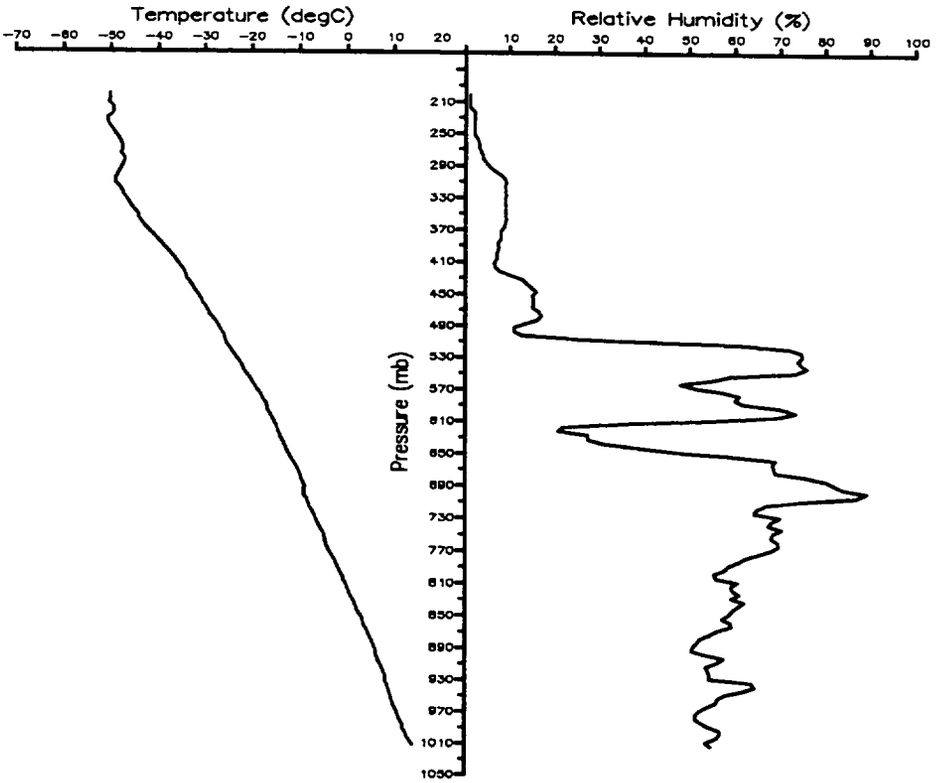


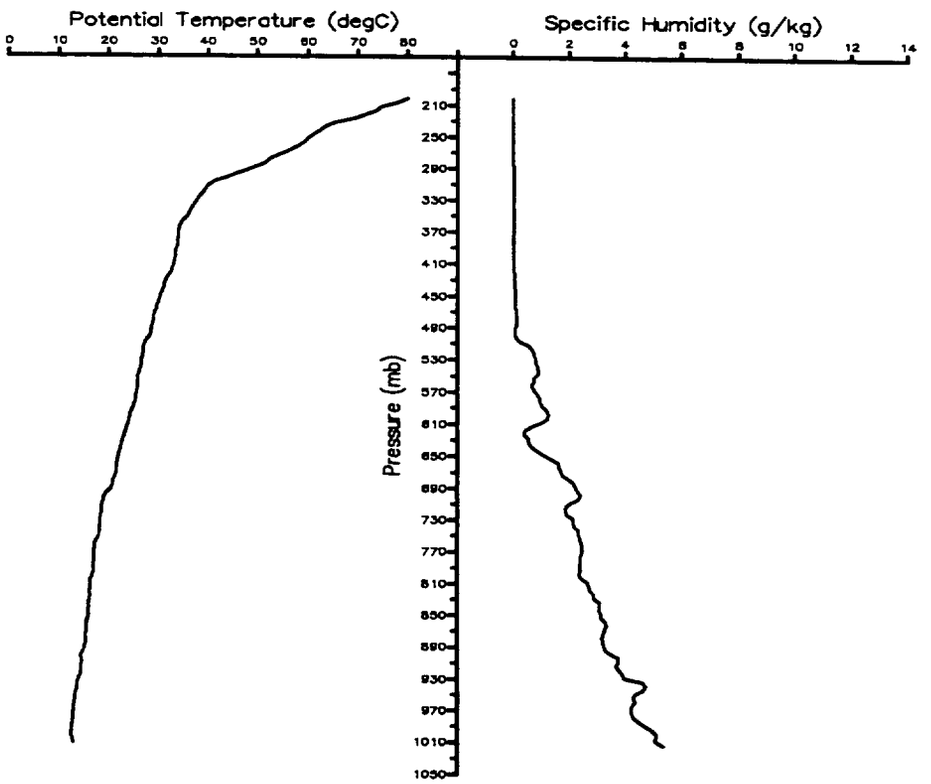
Jday = 309
time = 23:55 hrs
Figure 20. Atmospheric profiles for ascent 19



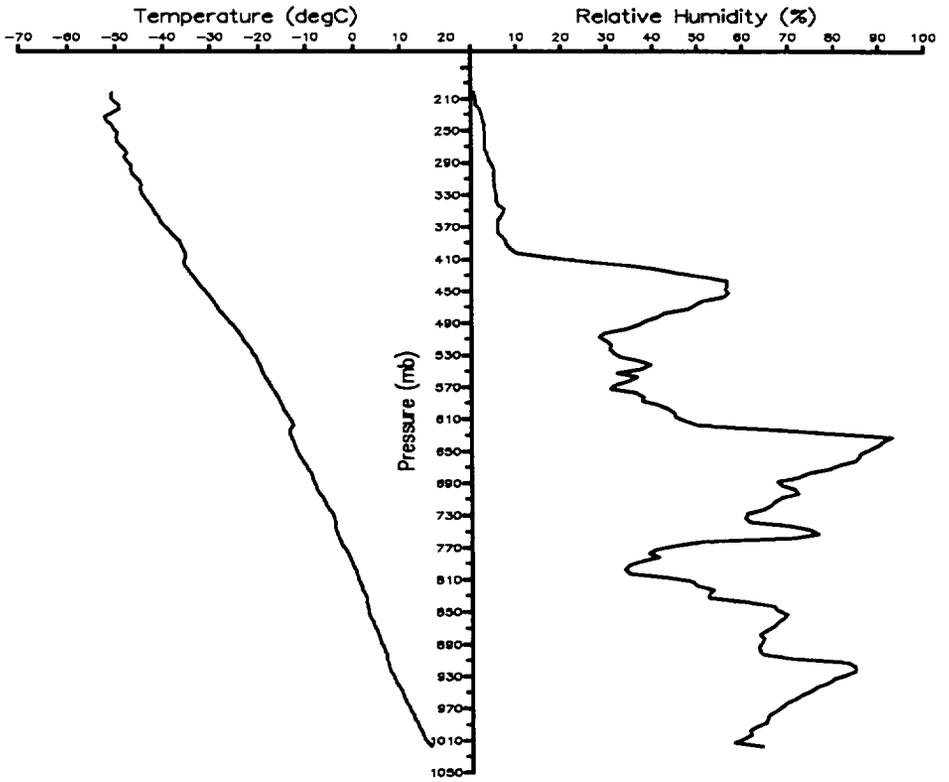


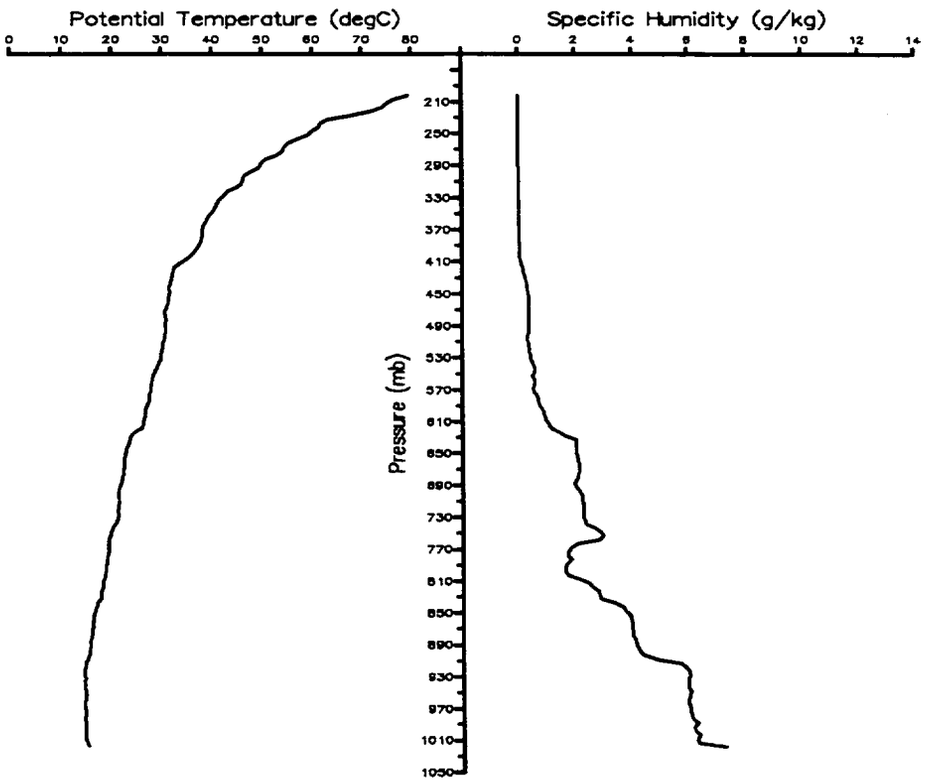
Jday = 310
time = 12:00 hrs
Figure 21. Atmospheric profiles for ascent 20



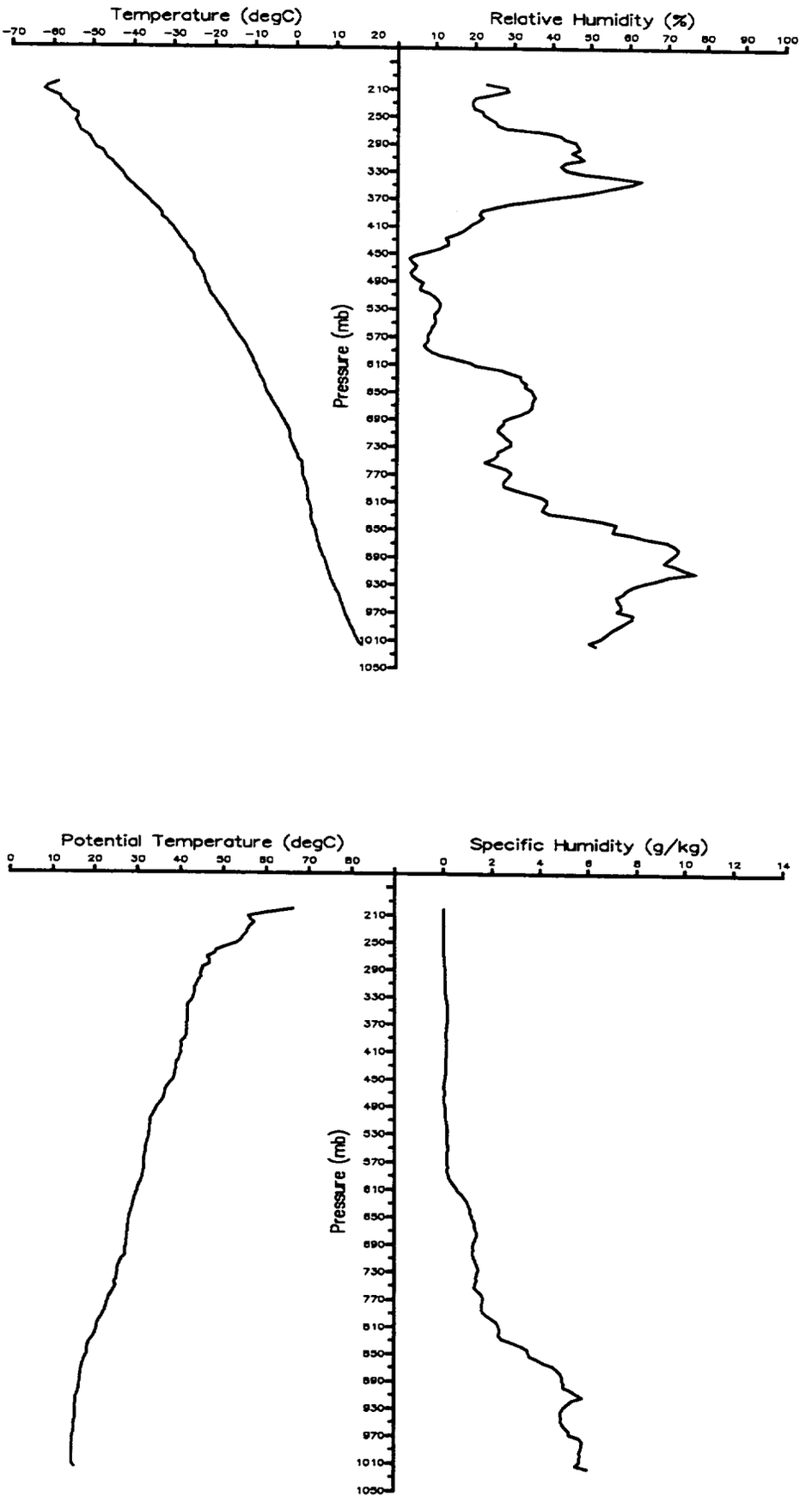


Jday = 311
time = 00:25 hrs
Figure 22. Atmospheric profiles for ascent 21

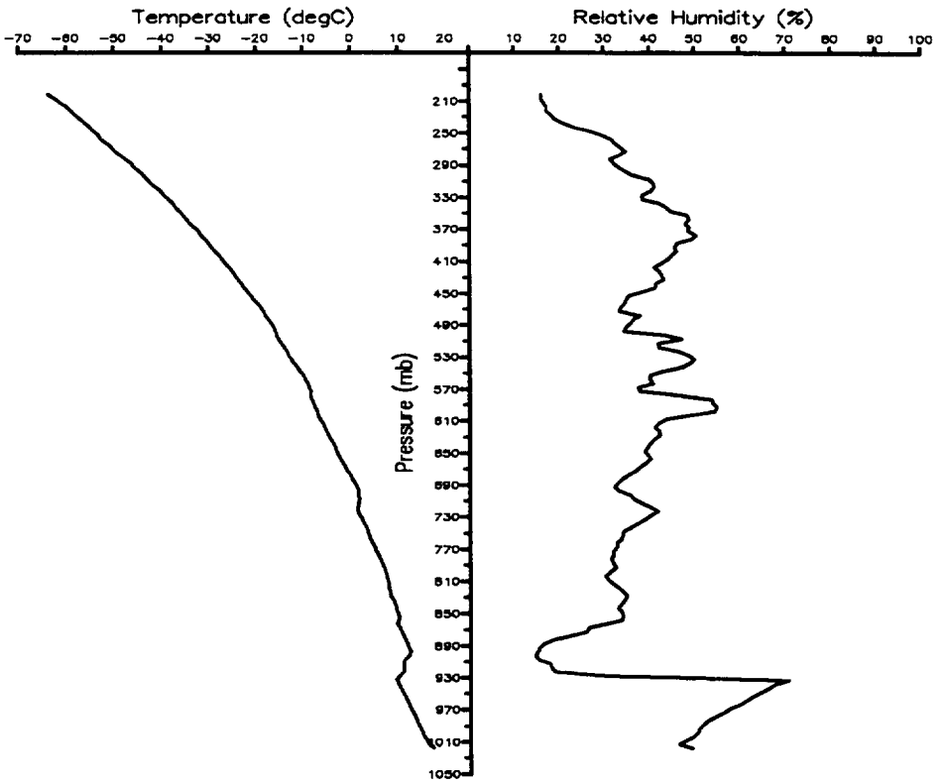


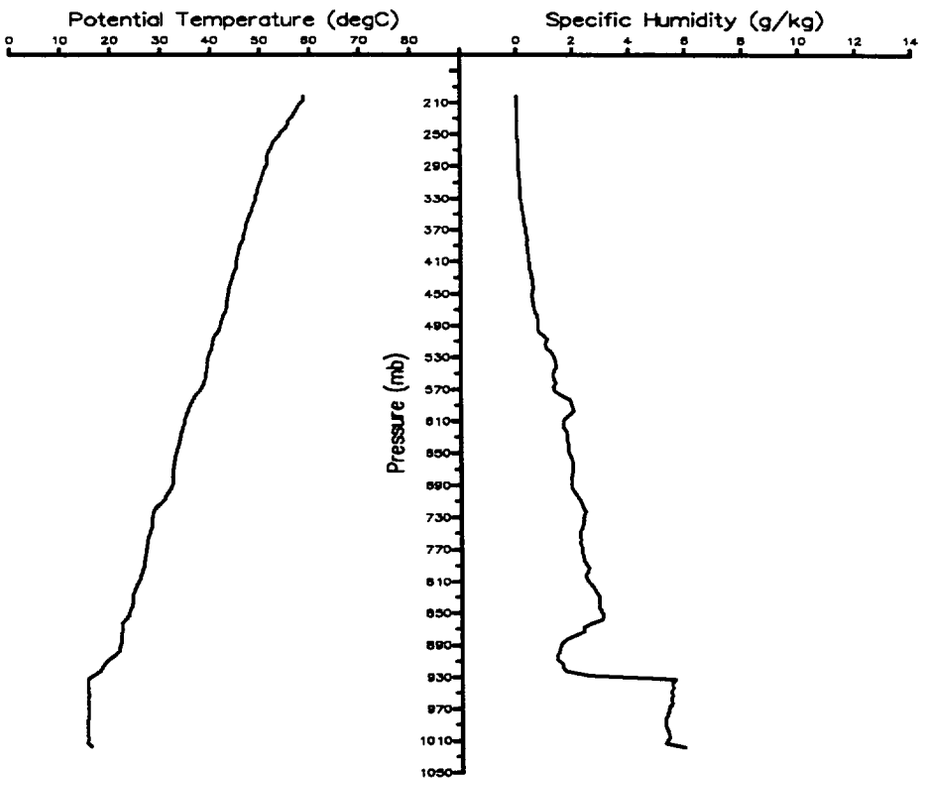


Jday = 311
time = 09:40 hrs
Figure 23. Atmospheric profiles for ascent 22

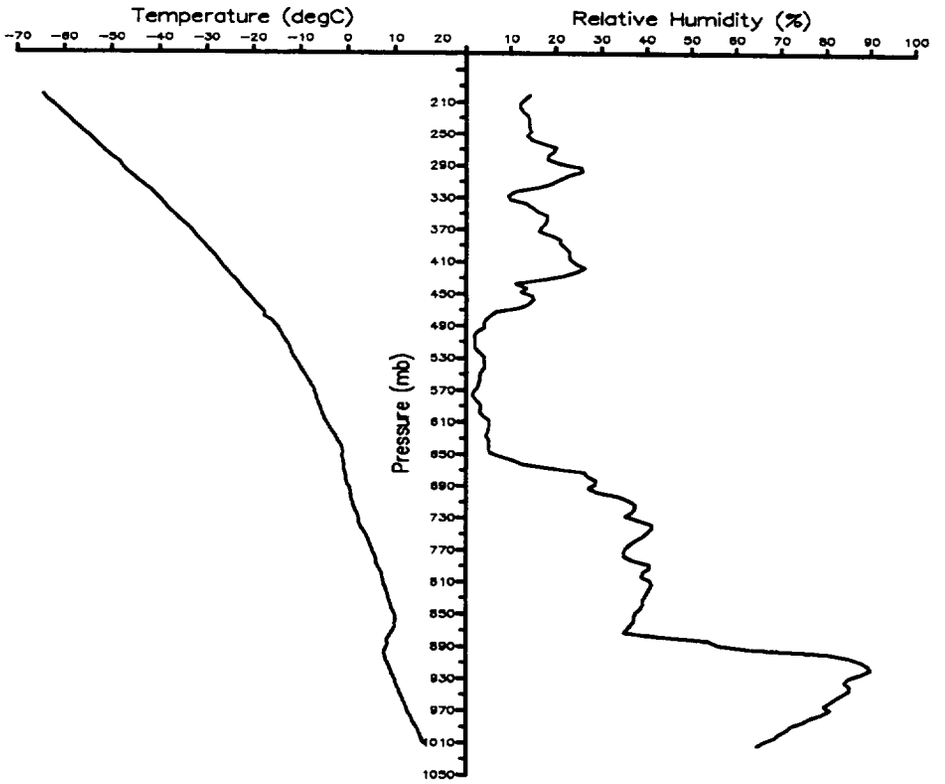


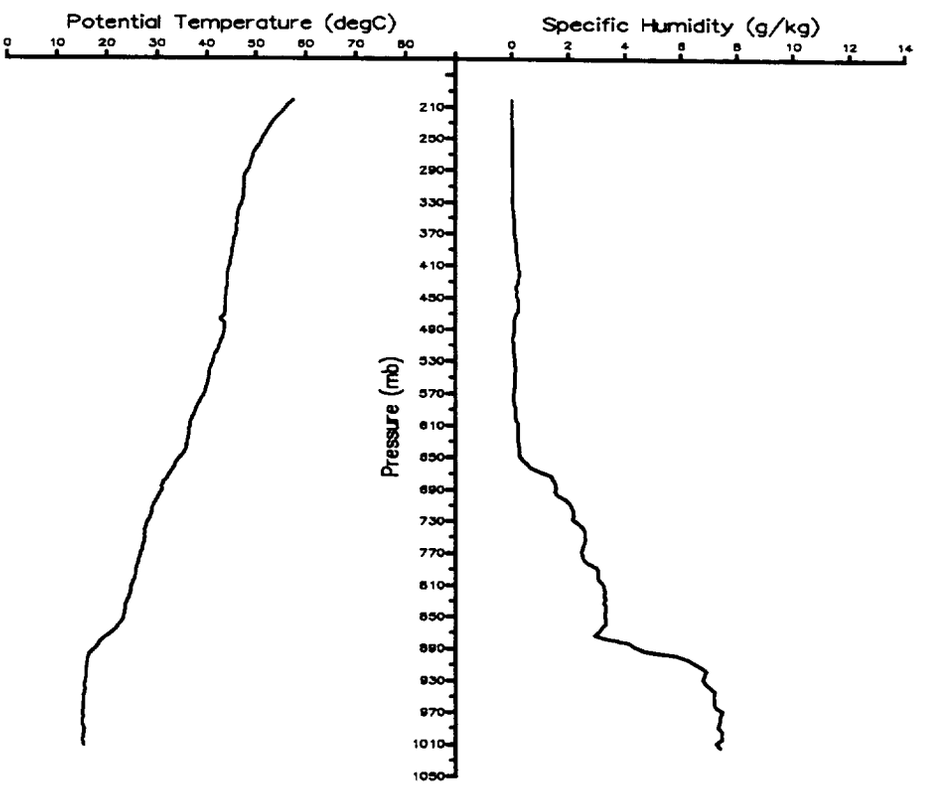
Jday = 311
time = 21:00 hrs
Figure 24. Atmospheric profiles for ascent 23



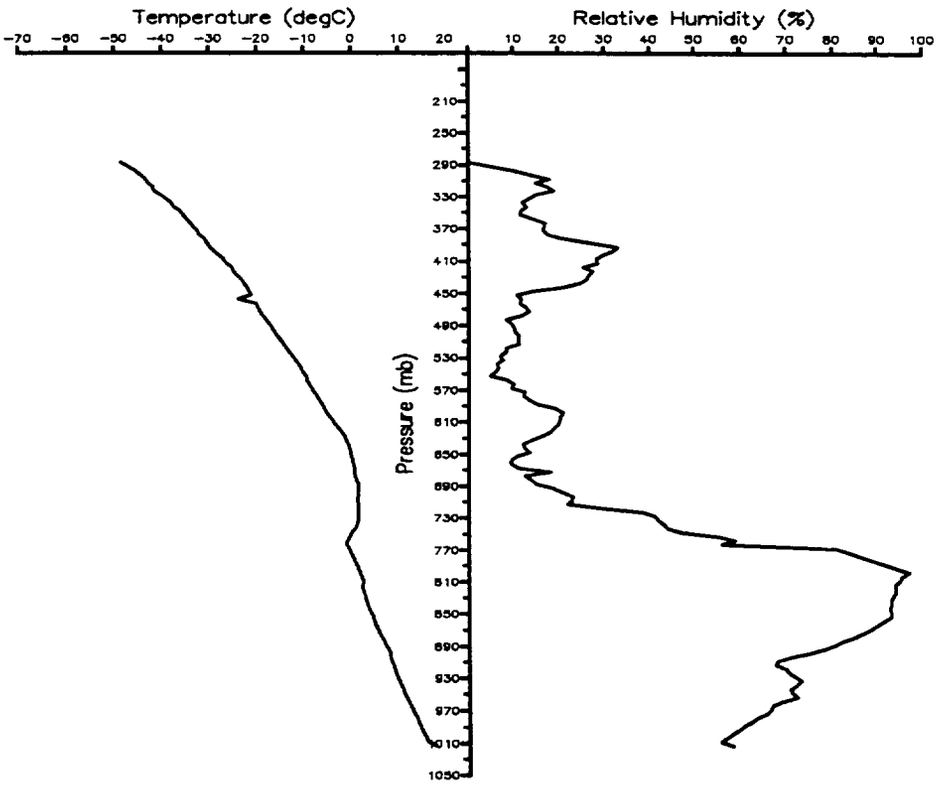


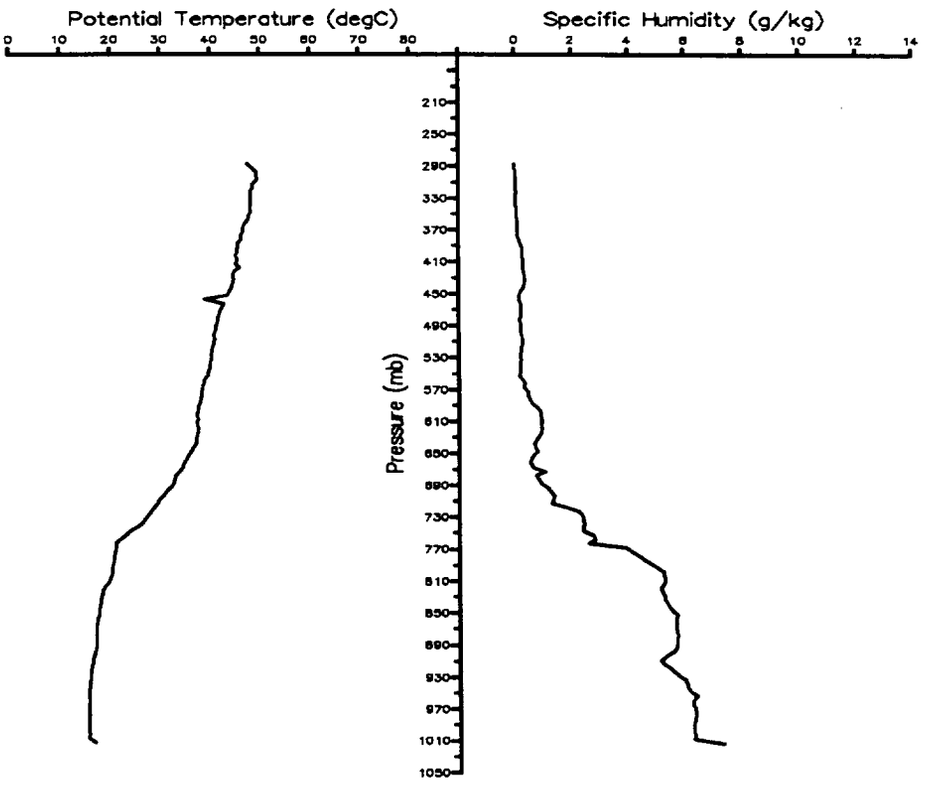
Jday = 312
time = 12:00 hrs
Figure 25. Atmospheric profiles for ascent 24





Jday = 312
time = 23:00 hrs
Figure 26. Atmospheric profiles for ascent 25





Jday = 313
time = 12:00 hrs
Figure 27. Atmospheric profiles for ascent 26

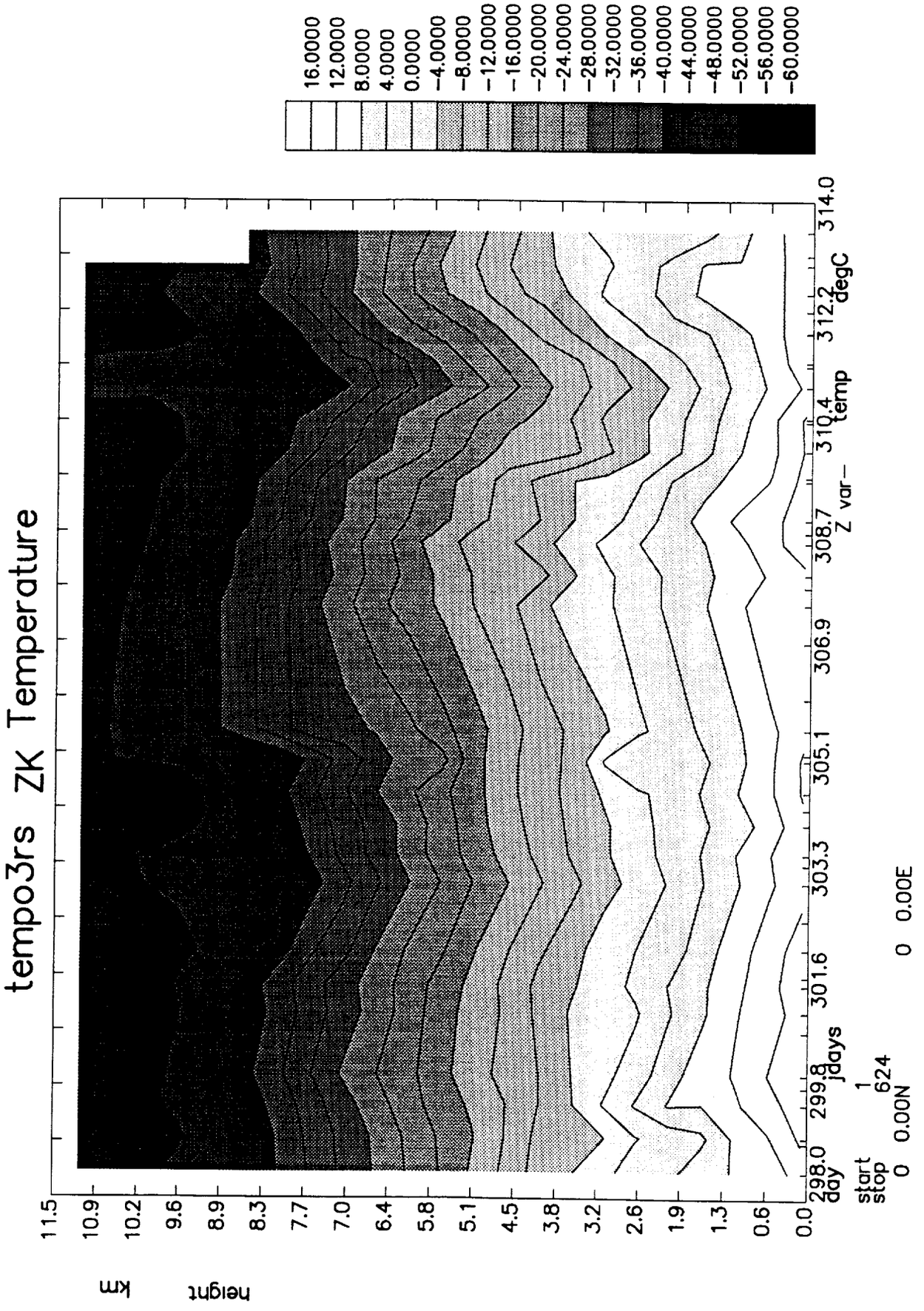


Figure 28. A contour plot of temperature over the duration of the survey

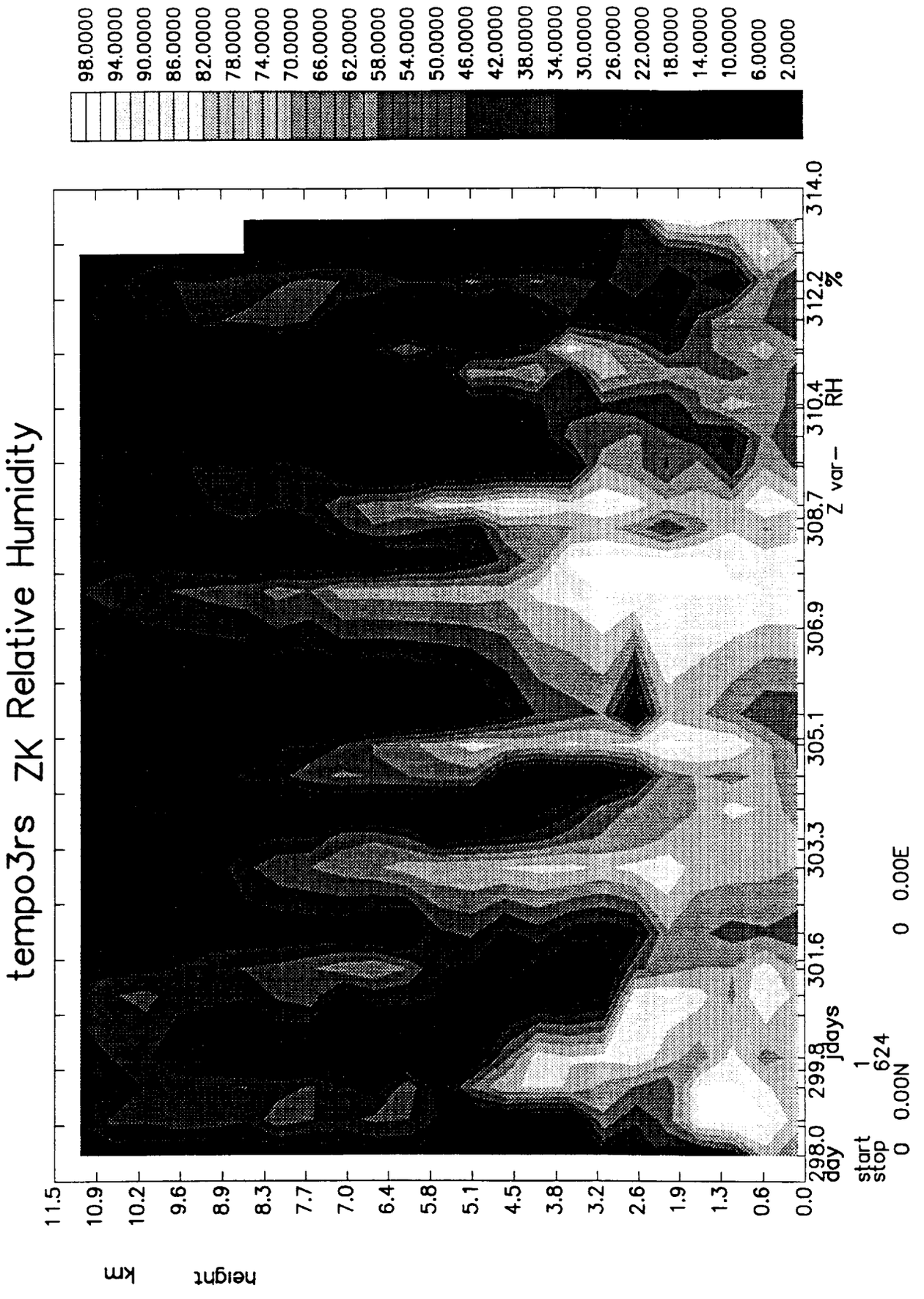


Figure 29. A contour plot of relative humidity over the duration of the survey

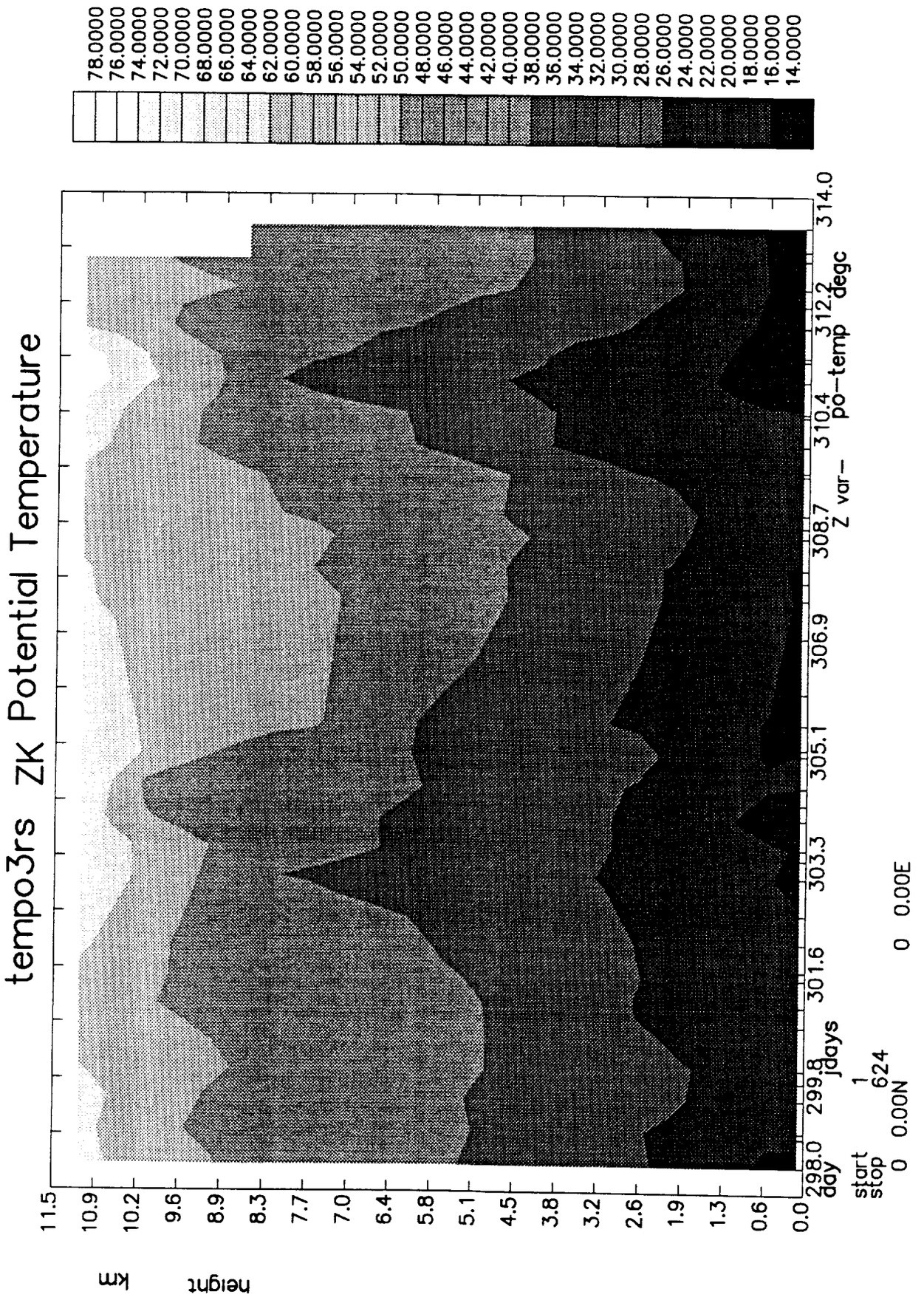


Figure 30. A contour plot of potential temperature over the duration of the survey

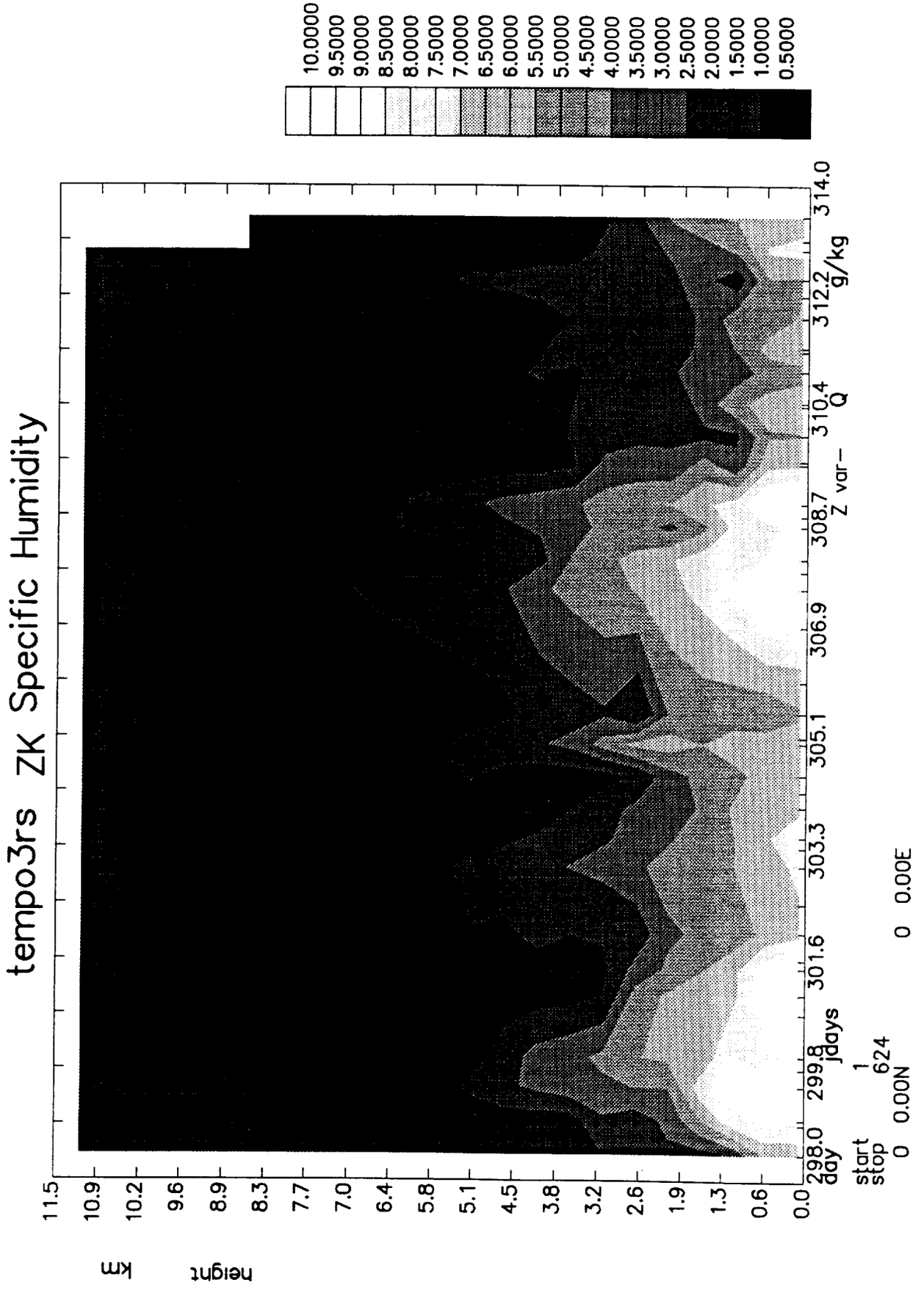


Figure 31. A contour plot of specific humidity over the duration of the survey

Ascent 1

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	km	0.000	11.296	-999.000
2.press	mb	200.000	1020.000	-999.000
3.temp	degC	-55.332	15.000	-999.000
4.RH	%	4.696	73.895	-999.000
5.po-temp	degc	13.974	74.680	-999.000
6.Q	g/kg	0.005	5.703	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0000	1020.0000	15.0000	54.0000	14.0772	5.6906
2.	0.0846	1000.0000	14.0600	56.9333	14.0009	5.7027
3.	0.2515	980.0000	12.3286	61.8571	13.9738	5.6478
4.	0.4247	960.0000	10.6200	68.4000	14.0331	5.6982
5.	0.5903	940.0000	8.9947	73.8947	14.0998	5.6343
6.	0.7581	920.0000	9.5067	40.7333	16.3756	3.2738
7.	0.9263	900.0000	9.2250	36.4167	17.8517	2.9374
8.	1.1183	880.0000	8.4400	29.8400	19.0724	2.3273
9.	1.3194	860.0000	8.3500	18.7857	21.1231	1.4955
10.	1.4857	840.0000	7.2040	27.4800	21.7058	2.0734
11.	1.6854	820.0000	5.7130	27.9565	22.2888	1.9499
12.	1.8637	800.0000	4.4357	31.7857	22.8704	2.0746
13.	2.0643	780.0000	3.0433	37.1667	23.5762	2.2571
14.	2.2661	760.0000	1.9346	34.8462	24.6070	2.0076
15.	2.4695	740.0000	2.0226	25.3548	26.9661	1.5071
16.	2.6862	720.0000	1.1611	22.3056	28.4498	1.2829
17.	2.8976	700.0000	0.1968	18.8710	29.7730	1.0403
18.	3.1096	680.0000	-1.2758	18.2121	30.5498	0.9271
19.	3.3543	660.0000	-2.9030	16.3636	31.5352	0.7618
20.	3.5804	640.0000	-4.2447	14.3158	32.6377	0.6215
21.	3.8272	620.0000	-5.0351	8.0541	34.6242	0.3389
22.	4.0685	600.0000	-6.3028	7.7778	36.0082	0.3072
23.	4.3253	580.0000	-8.5974	9.0526	36.3989	0.3099
24.	4.5848	560.0000	-11.0528	10.0000	36.6368	0.2920
25.	4.8482	540.0000	-13.1585	6.3171	37.3400	0.1615
26.	5.1121	520.0000	-15.5952	7.1667	37.6592	0.1547
27.	5.4055	500.0000	-18.3065	9.0000	38.0159	0.1606
28.	5.6991	480.0000	-20.8178	9.4667	38.6258	0.1424
29.	5.9968	460.0000	-23.0855	14.1636	39.5968	0.1788
30.	6.3139	440.0000	-25.3857	21.5510	40.7892	0.2352
31.	6.6356	420.0000	-28.0056	17.9444	41.6513	0.1621
32.	6.9709	400.0000	-30.4056	10.2593	42.9864	0.0769
33.	7.3121	380.0000	-33.4673	12.1455	43.5550	0.0710
34.	7.6696	360.0000	-36.6509	13.4386	44.1901	0.0602
35.	8.0573	340.0000	-39.9677	11.8871	45.0779	0.0403
36.	8.4394	320.0000	-42.8614	11.1754	46.4843	0.0294
37.	8.8791	300.0000	-45.7607	10.0164	48.7403	0.0205
38.	9.2946	280.0000	-48.2475	9.9836	51.2620	0.0164
39.	9.7664	260.0000	-51.8100	10.9857	53.1163	0.0127
40.	10.2554	240.0000	-54.4959	14.6216	56.5902	0.0133
41.	10.7722	220.0000	-55.3324	13.4559	63.4231	0.0120
42.	11.2964	200.0000	-54.0500	4.6957	74.6802	0.0053

Ascent 2

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.029	11.204	-999.000
2.press	*mb	200.000	1000.000	-999.000
3.temp	*degC	-58.480	17.230	-999.000
4.RH	*%	4.442	99.222	-999.000
5.po-temp	*degc	17.688	69.828	-999.000
6.Q	*g/kg	0.016	9.008	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0289	1000.0000	17.2300	71.4000	17.7002	8.8391
2.	0.1510	980.0000	15.9739	76.9565	17.6878	8.9245
3.	0.3147	960.0000	14.3400	84.1500	17.7227	8.9631
4.	0.4900	940.0000	12.5947	92.7368	17.7632	9.0082
5.	0.6619	920.0000	11.4350	91.8000	18.3691	8.4376
6.	0.8354	900.0000	10.5789	93.5789	19.3063	8.2940
7.	1.0130	880.0000	9.3667	99.2222	19.9230	8.3006
8.	1.2018	860.0000	8.0062	99.0000	20.5131	7.7284
9.	1.5789	820.0000	3.4174	95.9565	19.7213	5.7241
10.	1.7813	800.0000	2.1174	71.6957	20.5383	3.9958
11.	1.9672	780.0000	1.3520	46.4400	21.7548	2.5010
12.	2.1671	760.0000	1.5875	44.4688	24.2142	2.4942
13.	2.3782	740.0000	1.0069	37.9655	25.9286	2.1032
14.	2.5734	720.0000	-0.1303	36.0606	26.8698	1.8840
15.	2.7920	700.0000	-1.5893	44.3929	27.7265	2.1413
16.	3.0209	680.0000	-3.5800	56.5667	28.1172	2.4294
17.	3.2466	660.0000	-5.0229	31.1429	29.0918	1.2352
18.	3.4855	640.0000	-4.6850	8.1250	32.2449	0.3394
19.	3.7200	620.0000	-5.0904	4.4423	34.5254	0.1866
20.	3.9733	600.0000	-6.2478	4.6087	36.1836	0.1820
21.	4.2118	580.0000	-8.1882	7.7059	36.7679	0.2708
22.	4.4896	560.0000	-10.8500	12.7000	36.9834	0.3759
23.	4.7506	540.0000	-13.4259	15.4815	37.0984	0.3865
24.	5.0264	520.0000	-15.7316	15.0789	37.7234	0.3236
25.	5.3057	500.0000	-17.6604	14.7917	38.8568	0.2803
26.	5.5935	480.0000	-19.5519	32.3889	40.1503	0.5390
27.	5.8994	460.0000	-22.0031	41.3750	40.9986	0.5840
28.	6.2115	440.0000	-24.4109	47.3818	41.9899	0.5640
29.	6.5319	420.0000	-26.9980	47.8800	42.8747	0.4709
30.	6.8696	400.0000	-29.7622	43.4000	43.7723	0.3464
31.	7.1707	380.0000	-32.3853	41.0882	44.3960	0.2660
32.	7.4569	360.0000	-35.2000	41.0000	44.5611	0.2090
33.	7.3633	380.0000	-34.2750	34.8750	44.5296	0.1933
34.	7.5616	360.0000	-35.2444	40.1333	45.9484	0.2053
35.	7.9608	340.0000	-38.6831	51.8154	46.8252	0.1997
36.	8.3554	320.0000	-41.9403	44.7917	47.9094	0.1315
37.	8.7787	300.0000	-45.5848	35.9394	48.8736	0.0748
38.	9.2107	280.0000	-49.7686	42.5571	49.2182	0.0587
39.	9.6793	260.0000	-53.5473	40.1622	50.7148	0.0384
40.	10.1512	240.0000	-57.0373	36.6000	52.7165	0.0244
41.	10.6853	220.0000	-58.4802	34.2099	58.9003	0.0206
42.	11.2036	200.0000	-56.8214	20.3214	69.8277	0.0163

Ascent 3

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.004	11.359	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-54.975	19.980	-999.000
4.RH	*%	8.633	95.947	-999.000
5.po-temp	*degc	17.222	72.412	-999.000
6.Q	*g/kg	0.009	9.633	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0044	1020.0000	19.9800	66.6000	18.9946	9.6332
2.	0.1041	1000.0000	18.3900	68.0000	18.4220	9.0069
3.	0.2865	980.0000	16.5571	74.2857	18.4515	8.9634
4.	0.4324	960.0000	15.0750	80.2500	18.4572	8.9627
5.	0.5994	940.0000	13.8500	85.2500	18.9424	8.9845
6.	0.4840	960.0000	13.3000	86.0000	17.2219	8.6447
7.	0.6038	940.0000	12.8600	88.7000	18.0231	8.7684
8.	0.7817	920.0000	12.5458	79.4167	19.5765	7.8574
9.	0.9334	900.0000	11.8708	92.0417	20.4818	8.8821
10.	1.1296	880.0000	11.2737	95.9474	21.9302	9.1237
11.	1.3091	860.0000	9.9833	95.2500	22.4905	8.4965
12.	1.4971	840.0000	8.6696	95.4348	23.1222	7.9736
13.	1.6973	820.0000	6.4032	74.7742	22.8830	5.5507
14.	1.8851	800.0000	6.9061	50.7273	25.4634	3.9332
15.	2.0859	780.0000	8.2824	46.2353	29.1273	4.0436
16.	2.2903	760.0000	7.0765	46.7353	30.0774	3.8565
17.	2.5064	740.0000	5.1000	54.4054	30.3289	4.0261
18.	2.7167	720.0000	3.4743	57.6857	30.9020	3.9141
19.	2.9500	700.0000	1.4636	63.3030	31.3136	3.8335
20.	3.1631	680.0000	-0.4390	68.2439	31.6193	3.6992
21.	3.3923	660.0000	-2.5687	78.9792	31.8580	3.7702
22.	3.6293	640.0000	-4.6227	83.3636	32.2748	3.5196
23.	3.8646	620.0000	-6.4378	86.6667	32.9497	3.2878
24.	4.1105	600.0000	-8.2422	85.0444	33.7676	2.8971
25.	4.3620	580.0000	-10.0820	76.9800	34.6197	2.3481
26.	4.6223	560.0000	-12.2804	81.0217	35.1645	2.1422
27.	4.8972	540.0000	-14.3137	75.9020	36.0935	1.7653
28.	5.1661	520.0000	-15.6962	49.4615	37.7374	1.0671
29.	5.4433	500.0000	-17.0774	27.1774	39.5044	0.5402
30.	5.7356	480.0000	-19.0348	24.9091	40.7765	0.4359
31.	6.0412	460.0000	-21.5129	52.6774	41.5836	0.7740
32.	6.3479	440.0000	-23.9692	38.4000	42.4445	0.4815
33.	6.6727	420.0000	-26.4000	27.1846	43.5859	0.2822
34.	7.0098	400.0000	-29.1167	37.0455	44.5367	0.3142
35.	7.3622	380.0000	-32.0333	40.7971	45.4417	0.2739
36.	7.7339	360.0000	-35.4608	47.7838	45.9489	0.2429
37.	8.1100	340.0000	-38.8714	41.9740	46.5439	0.1584
38.	8.5088	320.0000	-42.1074	47.6420	47.7143	0.1363
39.	8.9334	300.0000	-45.6469	45.4938	48.8496	0.0941
40.	9.3562	280.0000	-48.9636	43.0455	50.2956	0.0653
41.	9.8253	260.0000	-52.0800	39.4222	52.7647	0.0447
42.	10.3243	240.0000	-53.7632	28.1158	57.8854	0.0282
43.	10.8553	220.0000	-54.5939	15.4444	64.9371	0.0152
44.	11.3590	200.0000	-54.9747	8.6329	72.4120	0.0088

Ascent 4

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	km	0.012	11.385	-999.000
2.press	mb	200.000	1020.000	-999.000
3.temp	degC	-58.371	18.300	-999.000
4.RH	%	6.707	89.500	-999.000
5.po-temp	degc	17.305	67.159	-999.000
6.Q	g/kg	0.015	9.452	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0119	1020.0000	18.3000	72.6000	17.3054	9.4523
2.	0.1201	1000.0000	17.2200	75.5333	17.3274	9.3055
3.	0.2764	980.0000	15.7233	81.9667	17.4235	9.3564
4.	0.4510	960.0000	14.5522	82.4348	18.0377	8.9135
5.	0.6105	940.0000	15.8571	68.7143	21.0123	8.2318
6.	0.7972	920.0000	14.6526	77.0263	21.7230	8.7465
7.	0.9649	900.0000	13.1355	85.4194	21.9192	8.9677
8.	1.1522	880.0000	12.0900	80.8667	22.8127	8.1159
9.	1.3465	860.0000	10.8475	71.6500	23.5803	6.7819
10.	1.5276	840.0000	10.2474	64.1316	24.8896	5.9578
11.	1.7204	820.0000	9.3605	64.9070	26.0280	5.8187
12.	1.9032	800.0000	8.0290	69.7419	26.5959	5.8457
13.	2.1181	780.0000	6.0450	76.0250	26.8190	5.7120
14.	2.3159	760.0000	4.2026	81.7632	27.0096	5.5381
15.	2.5234	740.0000	2.4974	87.6053	27.4586	5.4002
16.	2.7388	720.0000	1.1031	87.6875	28.3406	5.0317
17.	2.9480	700.0000	-0.0952	82.3333	29.3755	4.4472
18.	3.1723	680.0000	-1.8941	87.0000	29.9229	4.2370
19.	3.4117	660.0000	-3.6237	89.5000	30.7290	3.9536
20.	3.6304	640.0000	-4.2423	82.0769	32.5602	3.5621
21.	3.8909	620.0000	-6.1463	85.1707	33.4256	3.3072
22.	4.1152	600.0000	-8.0851	86.4681	33.8355	2.9809
23.	4.3771	580.0000	-9.0723	57.9574	35.8053	1.9135
24.	4.6362	560.0000	-10.8745	43.0000	36.8033	1.2734
25.	4.8990	540.0000	-11.8750	16.0455	38.8087	0.4532
26.	5.1792	520.0000	-14.3161	19.6786	39.3228	0.4733
27.	5.4642	500.0000	-16.4462	13.7500	40.2799	0.2918
28.	5.7601	480.0000	-18.7984	18.3125	41.1125	0.3217
29.	6.0593	460.0000	-21.0855	17.4839	42.0789	0.2694
30.	6.3766	440.0000	-23.1368	9.1324	43.5889	0.1225
31.	6.6984	420.0000	-24.8508	10.6825	45.6050	0.1274
32.	7.0453	400.0000	-27.3176	6.7941	47.0066	0.0687
33.	7.3933	380.0000	-30.4440	6.7067	47.5794	0.0532
34.	7.7558	360.0000	-33.8269	9.9744	48.0181	0.0586
35.	8.1446	340.0000	-37.5824	14.3059	48.3246	0.0617
36.	8.5385	320.0000	-40.9088	11.4945	49.2999	0.0372
37.	8.9468	300.0000	-44.3306	16.1529	50.3647	0.0384
38.	9.3940	280.0000	-48.4946	19.5946	50.9573	0.0312
39.	9.8683	260.0000	-52.9231	29.5769	51.5887	0.0299
40.	10.3738	240.0000	-56.6009	39.1379	53.8427	0.0275
41.	10.8781	220.0000	-57.8500	28.8039	59.8278	0.0189
42.	11.3853	200.0000	-58.3705	22.9615	67.1587	0.0152

Ascent 5

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	km	0.068	11.255	-999.000
2.press	mb	200.000	1000.000	-999.000
3.temp	degC	-63.972	18.900	-999.000
4.RH	%	11.426	96.333	-999.000
5.po-temp	degc	17.905	58.057	-999.000
6.Q	g/kg	0.012	10.456	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0682	1000.0000	18.9000	76.3333	18.9650	10.4562
2.	0.2245	980.0000	16.2556	83.3333	17.9049	9.9646
3.	0.4098	960.0000	15.2429	91.5714	18.7870	10.3684
4.	0.5542	940.0000	13.8000	96.3333	18.8169	10.1150
5.	0.7461	920.0000	14.3200	60.5500	21.3481	6.7197
6.	0.9277	900.0000	13.1125	64.9167	22.0107	6.8103
7.	1.1046	880.0000	11.6739	67.8696	22.3894	6.6192
8.	1.2800	860.0000	10.1964	75.3929	22.7141	6.8105
9.	1.4795	840.0000	8.3045	81.3636	22.8637	6.6319
10.	1.6714	820.0000	6.7467	89.1667	23.2866	6.6939
11.	1.8664	800.0000	5.4864	90.8636	24.0616	6.4100
12.	2.0560	780.0000	3.9619	91.0952	24.5015	5.9174
13.	2.2693	760.0000	2.6148	82.6667	25.3966	5.0128
14.	2.4686	740.0000	0.7875	86.6250	25.6227	4.7222
15.	2.6717	720.0000	-1.1440	87.6000	25.7791	4.2636
16.	2.8888	700.0000	-0.5111	17.8889	28.9330	0.9366
17.	3.1170	680.0000	-1.1194	19.7778	30.8518	1.0195
18.	3.3347	660.0000	-2.3450	13.8750	31.9776	0.6724
19.	3.5792	640.0000	-3.6000	11.7209	33.3903	0.5332
20.	3.8253	620.0000	-5.3455	13.0682	34.2752	0.5387
21.	4.0739	600.0000	-7.0467	12.2000	35.2480	0.4563
22.	4.3146	580.0000	-9.1548	12.9524	35.6629	0.4241
23.	4.5669	560.0000	-11.2417	12.7083	36.2466	0.3650
24.	4.8423	540.0000	-13.3204	11.4259	37.1283	0.2874
25.	5.1248	520.0000	-14.5978	12.9348	39.0710	0.3042
26.	5.3973	500.0000	-16.0944	30.8889	40.6386	0.6655
27.	5.6978	480.0000	-18.8096	36.7115	41.0810	0.6549
28.	6.0039	460.0000	-21.6161	37.4643	41.4881	0.5481
29.	6.3163	440.0000	-24.3392	38.2549	42.0886	0.4585
30.	6.6257	420.0000	-26.8553	38.7021	42.9205	0.3860
31.	6.9654	400.0000	-29.2449	31.3469	44.3310	0.2627
32.	7.3370	380.0000	-32.2135	44.5962	45.4275	0.2919
33.	7.6900	360.0000	-35.3417	56.1000	46.0758	0.2877
34.	8.0668	340.0000	-38.5333	49.9649	46.9800	0.1974
35.	8.4690	320.0000	-41.9016	38.2698	48.0140	0.1125
36.	8.8740	300.0000	-45.4519	34.5000	48.8519	0.0726
37.	9.2151	280.0000	-48.7286	40.9286	49.1632	0.0625
38.	9.5977	260.0000	-52.5500	46.0000	49.3376	0.0477
39.	9.5095	280.0000	-51.3000	33.5000	49.8509	0.0396
40.	9.7001	260.0000	-53.3333	43.3333	49.7573	0.0415
41.	10.1951	240.0000	-57.7579	49.5789	50.7990	0.0299
42.	10.8250	220.0000	-61.8255	41.7843	54.4931	0.0166
43.	11.2555	200.0000	-63.9721	39.0820	58.0569	0.0124

Ascent 6

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.011	11.356	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-60.397	20.655	-999.000
4.RH	*%	12.051	85.056	-999.000
5.po-temp	*degc	18.881	65.870	-999.000
6.Q	*g/kg	0.012	10.163	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0107	1020.0000	20.6545	67.6364	19.2986	10.1630
2.	0.1404	1000.0000	18.9143	70.8571	18.8809	9.6956
3.	0.3119	980.0000	17.1895	77.2632	18.9023	9.6848
4.	0.4851	960.0000	15.4333	85.0556	18.9098	9.7340
5.	0.6541	940.0000	13.9500	84.5417	19.1520	8.9804
6.	0.8220	920.0000	12.7385	77.9231	19.6619	7.8045
7.	1.0010	900.0000	11.7577	67.6923	20.5301	6.4874
8.	1.1817	880.0000	10.2739	73.6087	20.9018	6.5360
9.	1.3631	860.0000	8.9591	74.5909	21.4597	6.2050
10.	1.5558	840.0000	7.4889	71.8148	21.9807	5.5361
11.	1.7494	820.0000	6.3538	71.1154	22.8681	5.1810
12.	1.9438	800.0000	5.1346	73.4615	23.6828	5.0558
13.	2.1362	780.0000	3.7960	69.2800	24.3533	4.4369
14.	2.3338	760.0000	2.2920	61.8400	24.9082	3.6541
15.	2.5376	740.0000	1.0458	62.1250	25.8196	3.4472
16.	2.7548	720.0000	0.2296	28.5185	27.3576	1.5372
17.	2.9728	700.0000	-1.1485	18.0000	28.2999	0.8996
18.	3.2028	680.0000	-2.3200	14.2286	29.6176	0.6717
19.	3.4231	660.0000	-3.4758	12.9697	30.8516	0.5776
20.	3.6556	640.0000	-4.7436	12.0513	32.1121	0.5033
21.	3.8949	620.0000	-6.1079	14.0526	33.3527	0.5448
22.	4.1345	600.0000	-7.3558	19.4651	34.7414	0.7045
23.	4.3882	580.0000	-9.2854	29.2683	35.5183	0.9470
24.	4.6521	560.0000	-11.4422	31.2889	36.1588	0.8853
25.	4.9202	540.0000	-13.5065	30.8478	36.9664	0.7645
26.	5.1903	520.0000	-15.5520	31.3400	37.8313	0.6822
27.	5.4743	500.0000	-17.4442	33.4615	39.0640	0.6458
28.	5.7668	480.0000	-19.9674	37.4565	39.6425	0.6037
29.	6.0555	460.0000	-22.3098	54.8780	40.4065	0.7501
30.	6.3876	440.0000	-24.4022	69.6957	42.0512	0.8307
31.	6.7187	420.0000	-26.8787	67.1702	43.2184	0.6700
32.	7.0478	400.0000	-29.3896	64.4792	44.3277	0.5337
33.	7.3909	380.0000	-32.1882	59.8627	45.2653	0.3979
34.	7.7676	360.0000	-35.5000	53.4615	45.9922	0.2711
35.	8.1396	340.0000	-38.4078	49.2500	47.2132	0.1963
36.	8.5498	320.0000	-41.9689	46.5574	48.0942	0.1357
37.	8.9520	300.0000	-45.4438	40.8630	48.9986	0.0867
38.	9.3914	280.0000	-49.4629	37.1714	49.6852	0.0537
39.	9.8509	260.0000	-53.9500	32.5882	50.0041	0.0298
40.	10.3467	240.0000	-58.2133	31.1867	51.2301	0.0180
41.	10.8666	220.0000	-60.3975	28.6203	56.0506	0.0135
42.	11.3564	200.0000	-59.1493	20.0435	65.8702	0.0120

Ascent 7

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	km	0.011	11.193	-999.000
2.press	mb	200.000	1020.000	-999.000
3.temp	degC	-59.712	18.940	-999.000
4.RH	%	6.000	68.789	-999.000
5.po-temp	degc	17.794	65.314	-999.000
6.Q	g/kg	0.010	7.026	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0111	1020.0000	18.9400	52.0000	17.7943	7.0257
2.	0.1175	1000.0000	17.9895	52.1053	17.9300	6.7167
3.	0.2924	980.0000	16.4571	55.2500	18.1824	6.6033
4.	0.4585	960.0000	15.1321	54.8571	18.5549	6.1465
5.	0.6088	940.0000	13.7440	56.4000	18.7025	5.8799
6.	0.8056	920.0000	12.2200	56.4333	19.1986	5.4562
7.	0.9808	900.0000	10.9719	56.2188	19.7545	5.1147
8.	1.1591	880.0000	9.6889	50.7778	20.3105	4.3366
9.	1.3410	860.0000	8.3235	42.6471	20.8246	3.3920
10.	1.5340	840.0000	6.6559	58.1176	21.1432	4.2239
11.	1.7129	820.0000	5.0838	61.7297	21.4127	4.1187
12.	1.9015	800.0000	3.4429	66.4571	21.7164	4.0456
13.	2.1087	780.0000	1.6921	68.7895	22.1087	3.7991
14.	2.3109	760.0000	1.0556	39.6667	23.6522	2.1450
15.	2.5103	740.0000	-0.0091	33.5000	24.7128	1.7185
16.	2.7222	720.0000	-0.3391	26.1304	26.7254	1.3458
17.	2.9354	700.0000	-1.2237	21.4737	28.1569	1.0664
18.	3.1605	680.0000	-2.2667	23.7778	29.5580	1.1245
19.	3.3869	660.0000	-4.0977	23.7442	30.1047	1.0096
20.	3.6165	640.0000	-5.7739	26.8478	30.8685	1.0355
21.	3.8589	620.0000	-6.9545	33.4773	32.3535	1.2212
22.	4.1075	600.0000	-8.7580	40.9000	33.2061	1.3366
23.	4.3498	580.0000	-10.7447	41.0263	33.7812	1.1859
24.	4.6147	560.0000	-12.5373	31.5490	34.8624	0.8177
25.	4.8621	540.0000	-14.5362	32.9574	35.4955	0.7481
26.	5.1454	520.0000	-16.7467	49.1111	36.3242	0.9633
27.	5.4259	500.0000	-19.2809	55.6383	36.7327	0.9159
28.	5.7170	480.0000	-21.1925	22.0566	38.0483	0.3227
29.	6.0276	460.0000	-23.3167	10.2381	39.3623	0.1290
30.	6.3307	440.0000	-25.4659	10.4091	40.5630	0.1116
31.	6.6066	420.0000	-28.0478	16.3913	40.8741	0.1444
32.	6.1071	460.0000	-32.1000	7.0000	29.6273	0.0392
33.	6.7330	420.0000	-29.9000	17.5000	41.0275	0.1336
34.	6.9023	400.0000	-31.5000	20.5000	41.2154	0.1375
35.	6.7519	420.0000	-29.2000	16.0000	42.2191	0.1310
36.	7.0163	400.0000	-32.6333	23.0000	41.3160	0.1403
37.	7.1790	380.0000	-34.3800	25.3000	41.2268	0.1332
38.	7.0102	400.0000	-31.4000	16.0000	42.9322	0.1103
39.	7.3012	380.0000	-35.2000	22.7500	41.9197	0.1114
40.	7.4998	360.0000	-37.2000	28.0000	42.0642	0.1167
41.	7.3169	380.0000	-35.3500	22.0000	42.0753	0.1073
42.	7.0466	400.0000	-35.7000	6.0000	38.0856	0.0273
43.	7.2925	380.0000	-33.2000	17.0000	44.7564	0.1022
44.	7.7065	360.0000	-38.8286	23.4286	42.9230	0.0859
45.	7.9414	340.0000	-41.1209	23.2093	43.0811	0.0689
46.	8.2093	320.0000	-43.5000	25.2500	43.5870	0.0602
47.	8.0500	340.0000	-42.4000	20.0000	42.9173	0.0526
48.	8.4524	320.0000	-45.4967	23.9667	44.3729	0.0479
49.	8.7745	300.0000	-48.0426	24.9444	45.4353	0.0392
50.	9.1990	280.0000	-51.3947	28.0175	46.8613	0.0320
51.	9.6593	260.0000	-54.1475	26.8136	49.7356	0.0237
52.	10.1379	240.0000	-56.0478	22.2464	54.2269	0.0167
53.	10.6154	220.0000	-57.3750	17.4583	59.6463	0.0121
54.	11.1932	200.0000	-59.7119	17.0952	65.3136	0.0096

Ascent 8

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.004	11.199	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-53.677	15.200	-999.000
4.RH	*%	7.674	90.556	-999.000
5.po-temp	*degc	14.142	76.089	-999.000
6.Q	*g/kg	0.010	7.737	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0036	1020.0000	15.2000	72.5000	14.1416	7.7366
2.	0.1048	1000.0000	14.7600	67.2667	14.7340	7.0554
3.	0.2696	980.0000	14.1115	66.3077	15.7685	6.8089
4.	0.4392	960.0000	12.6269	71.1923	16.0161	6.7754
5.	0.6165	940.0000	11.2333	73.9048	16.4373	6.5584
6.	0.7845	920.0000	9.8053	74.5789	16.7298	6.1444
7.	0.9581	900.0000	8.4440	71.9600	17.1524	5.5222
8.	1.1400	880.0000	7.1545	76.4545	17.7387	5.4964
9.	1.3261	860.0000	5.7923	79.8846	18.2994	5.3537
10.	1.4957	840.0000	4.5348	75.9130	18.7968	4.7615
11.	1.6926	820.0000	3.1429	78.1429	19.4505	4.5519
12.	1.8799	800.0000	1.8087	85.0435	20.0658	4.6151
13.	2.0807	780.0000	0.5111	89.1852	20.8728	4.5245
14.	2.2756	760.0000	-0.6296	90.5556	21.7893	4.3350
15.	2.4846	740.0000	-1.7607	84.5357	22.8807	3.8282
16.	2.6875	720.0000	-3.0000	88.4286	23.7954	3.7475
17.	2.9063	700.0000	-4.0290	74.0000	25.1277	2.9867
18.	3.1181	680.0000	-5.7781	78.0938	25.5907	2.8379
19.	3.3541	660.0000	-7.4528	71.6111	26.4206	2.3599
20.	3.5705	640.0000	-8.9024	83.1707	27.2859	2.5177
21.	3.8147	620.0000	-10.5526	84.8684	28.2533	2.3308
22.	4.0564	600.0000	-12.1812	86.3438	29.2265	2.1497
23.	4.3043	580.0000	-14.0000	85.5429	30.0610	1.8993
24.	4.5623	560.0000	-16.0343	82.9429	30.7739	1.6111
25.	4.8177	540.0000	-17.7780	82.1463	31.8075	1.4267
26.	5.0925	520.0000	-19.8000	81.0500	32.7573	1.2297
27.	5.3746	500.0000	-22.0191	77.5319	33.5681	1.0075
28.	5.6494	480.0000	-24.3654	79.7500	34.1409	0.8731
29.	5.9515	460.0000	-26.9712	76.1538	34.7476	0.6863
30.	6.2622	440.0000	-29.6407	73.4444	35.3903	0.5392
31.	6.5700	420.0000	-32.4929	67.6786	35.7735	0.3945
32.	6.8997	400.0000	-35.4611	64.5000	36.3003	0.2945
33.	7.2512	380.0000	-38.5864	61.2273	36.9244	0.2140
34.	7.5606	360.0000	-41.4226	58.1613	37.3662	0.1580
35.	8.0636	340.0000	-46.1348	54.6087	38.0030	0.0958
36.	8.3550	320.0000	-48.2418	50.6545	39.2222	0.0732
37.	8.7706	300.0000	-50.2682	35.3788	42.3557	0.0432
38.	9.1965	280.0000	-50.4920	22.7955	48.2773	0.0290
39.	9.6493	260.0000	-50.7972	15.2593	54.6006	0.0200
40.	10.1623	240.0000	-52.1989	12.1809	60.3299	0.0148
41.	10.7099	220.0000	-53.6772	10.9561	66.6691	0.0121
42.	11.1992	200.0000	-52.6739	7.6739	76.0892	0.0103

Ascent 9

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	km	0.007	11.259	-999.000
2.press	mb	200.000	1020.000	-999.000
3.temp	degC	-53.318	16.333	-999.000
4.RH	%	4.408	80.571	-999.000
5.po-temp	degc	15.214	75.030	-999.000
6.Q	g/kg	0.005	7.979	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0070	1020.0000	16.3333	68.0000	15.2139	7.8838
2.	0.1242	1000.0000	15.6500	71.6429	15.7277	7.9787
3.	0.2875	980.0000	14.0800	75.5500	15.8230	7.7560
4.	0.4513	960.0000	12.7300	73.9500	16.1464	7.0935
5.	0.6147	940.0000	11.7190	73.2857	16.8117	6.7092
6.	0.7938	920.0000	10.4960	72.1200	17.4285	6.2200
7.	0.9662	900.0000	9.0640	72.5600	17.7654	5.8102
8.	1.1410	880.0000	7.6957	72.6957	18.1954	5.4175
9.	1.3254	860.0000	6.3440	77.4800	18.7480	5.3869
10.	1.5113	840.0000	5.0000	77.5769	19.3290	5.0298
11.	1.6950	820.0000	3.4321	80.5714	19.6541	4.7877
12.	1.9014	800.0000	2.1400	77.6400	20.5225	4.3212
13.	2.0829	780.0000	1.0391	74.2174	21.3293	3.9056
14.	2.2971	760.0000	-0.0292	69.3333	22.5385	3.4710
15.	2.4971	740.0000	-0.8885	62.8077	23.8271	3.0295
16.	2.7030	720.0000	-1.8143	59.4000	25.1186	2.7488
17.	2.9260	700.0000	-3.2889	59.9630	26.0079	2.5591
18.	3.1400	680.0000	-4.9242	60.1515	26.6235	2.3346
19.	3.3655	660.0000	-6.5639	59.8056	27.3720	2.1102
20.	3.5960	640.0000	-7.5575	53.7750	28.9171	1.8113
21.	3.8341	620.0000	-9.2585	54.4878	29.7550	1.6571
22.	4.0733	600.0000	-10.9881	45.5000	30.5851	1.2498
23.	4.3279	580.0000	-12.8634	39.1707	31.4342	0.9521
24.	4.5755	560.0000	-14.3261	37.1522	32.6965	0.8322
25.	4.8388	540.0000	-16.1429	25.7347	33.7388	0.5159
26.	5.1142	520.0000	-18.5435	28.7174	34.2440	0.4862
27.	5.3927	500.0000	-20.2980	28.4902	35.5768	0.4288
28.	5.6874	480.0000	-22.6435	27.0435	36.4008	0.3448
29.	5.9808	460.0000	-25.4449	42.9184	36.6536	0.4423
30.	6.2917	440.0000	-28.3723	50.1915	36.9771	0.4154
31.	6.6094	420.0000	-30.7532	57.1489	38.0903	0.3938
32.	6.9380	400.0000	-33.6260	58.5000	38.7266	0.3213
33.	7.2879	380.0000	-36.8540	50.4000	39.1934	0.2118
34.	7.6450	360.0000	-40.0293	31.7241	39.8364	0.1018
35.	8.0060	340.0000	-43.4278	31.4444	40.2390	0.0719
36.	8.4105	320.0000	-46.8672	41.6066	41.2173	0.0703
37.	8.8086	300.0000	-47.7753	14.8630	45.6599	0.0244
38.	9.2406	280.0000	-48.6789	8.2500	50.6914	0.0129
39.	9.7204	260.0000	-50.4802	8.0930	55.2360	0.0111
40.	10.2190	240.0000	-52.1914	9.2903	60.3051	0.0112
41.	10.7599	220.0000	-52.2822	6.9556	68.6453	0.0090
42.	11.2594	200.0000	-53.3183	4.4085	75.0304	0.0055

Ascent 10

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	km	0.011	11.242	-999.000
2.press	mb	200.000	1020.000	-999.000
3.temp	degC	-57.222	16.060	-999.000
4.RH	%	6.000	86.240	-999.000
5.po-temp	degc	14.592	72.304	-999.000
6.Q	g/kg	0.009	6.614	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
****	********	********	********	********	********	********
1.	0.0108	1020.0000	16.0600	58.8000	14.8258	6.6141
2.	0.1329	1000.0000	14.6158	63.2105	14.6285	6.5736
3.	0.3057	980.0000	12.8529	69.7059	14.6290	6.6015
4.	0.4724	960.0000	11.1150	76.3500	14.5916	6.5826
5.	0.6292	940.0000	9.6222	78.7222	14.7001	6.2673
6.	0.8031	920.0000	8.5550	72.3500	15.4241	5.4739
7.	0.9831	900.0000	7.0913	78.7391	15.8073	5.5070
8.	1.1601	880.0000	5.7840	86.2400	16.3260	5.6417
9.	1.3422	860.0000	5.4920	70.9200	17.9575	4.6515
10.	1.5026	840.0000	4.4375	70.0417	18.5689	4.3544
11.	1.7093	820.0000	2.8192	72.0385	19.0907	4.1053
12.	1.8993	800.0000	2.1308	67.8462	20.4240	3.7643
13.	2.0898	780.0000	1.6125	59.1250	21.9506	3.2414
14.	2.2966	760.0000	0.0719	60.3750	22.5694	3.0409
15.	2.4957	740.0000	-1.0065	60.5161	23.6102	2.8895
16.	2.7131	720.0000	-2.2406	60.1875	24.6913	2.6996
17.	2.9224	700.0000	-3.5387	56.7419	25.6232	2.3747
18.	3.1419	680.0000	-4.7657	47.8571	26.7553	1.8801
19.	3.3711	660.0000	-5.7806	34.1944	28.2496	1.2816
20.	3.6054	640.0000	-7.1550	27.8750	29.4086	0.9685
21.	3.8354	620.0000	-8.6293	20.4390	30.4134	0.6543
22.	4.0803	600.0000	-10.4462	18.8205	31.2102	0.5394
23.	4.3290	580.0000	-11.4571	7.0000	32.9978	0.1916
24.	4.5871	560.0000	-13.4143	6.0000	33.8048	0.1446
25.	4.8503	540.0000	-15.6089	6.4000	34.3981	0.1330
26.	5.1321	520.0000	-18.0447	6.2979	34.9404	0.1112
27.	5.4022	500.0000	-20.2200	6.6000	35.6568	0.1000
28.	5.6928	480.0000	-22.8532	7.8511	36.0789	0.0983
29.	5.9894	460.0000	-25.6060	10.8400	36.4330	0.1098
30.	6.2993	440.0000	-27.9481	9.6346	37.4809	0.0830
31.	6.6171	420.0000	-30.6296	10.3333	38.2113	0.0722
32.	6.9556	400.0000	-33.2586	10.3103	39.2957	0.0587
33.	7.3037	380.0000	-36.1763	10.0339	40.1451	0.0449
34.	7.6627	360.0000	-39.1734	10.9531	41.0519	0.0380
35.	8.0265	340.0000	-41.9694	10.5968	42.3098	0.0288
36.	8.4157	320.0000	-44.9905	16.3333	43.6395	0.0335
37.	8.8245	300.0000	-48.5898	24.8644	44.4623	0.0365
38.	9.2669	280.0000	-52.1552	28.5373	45.8465	0.0299
39.	9.7193	260.0000	-55.2406	25.0781	48.1120	0.0194
40.	10.2099	240.0000	-57.2221	23.2059	52.6715	0.0151
41.	10.7298	220.0000	-56.6526	16.7051	61.6843	0.0126
42.	11.2425	200.0000	-55.1292	9.4000	72.3040	0.0093

Ascent 11

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.028	11.269	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-57.614	18.025	-999.000
4.RH	*%	2.706	74.629	-999.000
5.po-temp	*degc	16.013	74.777	-999.000
6.Q	*g/kg	0.003	6.830	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0276	1020.0000	18.0250	52.7500	16.8940	6.7090
2.	0.1310	1000.0000	16.0867	59.4000	16.0132	6.7832
3.	0.3020	980.0000	14.3824	65.3529	16.0544	6.8300
4.	0.4592	960.0000	12.7812	70.6875	16.0569	6.7865
5.	0.6419	940.0000	11.1125	72.6250	16.2557	6.3925
6.	0.8198	920.0000	10.0556	62.4444	17.0314	5.2335
7.	0.9882	900.0000	8.9138	60.0345	17.6237	4.7510
8.	1.1667	880.0000	7.2414	66.8276	17.7801	4.8279
9.	1.3475	860.0000	5.7914	70.3714	18.1927	4.7095
10.	1.5333	840.0000	4.6056	70.3611	18.9398	4.4362
11.	1.7209	820.0000	3.6257	74.6286	19.9266	4.4980
12.	1.9141	800.0000	2.2121	74.5152	20.5220	4.1650
13.	2.1112	780.0000	1.1595	64.5405	21.5514	3.4303
14.	2.3141	760.0000	0.3324	56.4412	22.8956	2.8990
15.	2.5102	740.0000	-0.5086	42.0571	24.1624	2.0807
16.	2.7302	720.0000	-1.4381	16.0000	25.6092	0.7639
17.	2.9387	700.0000	-2.6585	18.1220	26.6172	0.8102
18.	3.1601	680.0000	-3.7146	8.7073	27.9649	0.3705
19.	3.3855	660.0000	-5.3786	7.9286	28.6867	0.3061
20.	3.6168	640.0000	-6.9326	5.5814	29.6103	0.1972
21.	3.8492	620.0000	-8.1766	5.9787	30.9084	0.1976
22.	4.0993	600.0000	-9.7304	6.0870	32.0689	0.1842
23.	4.3439	580.0000	-11.2261	5.7391	33.2456	0.1586
24.	4.6051	560.0000	-13.0739	23.1522	34.2152	0.5633
25.	4.8728	540.0000	-15.5622	51.5111	34.5130	1.0737
26.	5.1497	520.0000	-17.6500	65.6458	35.4123	1.1967
27.	5.4278	500.0000	-19.5982	66.3818	36.5008	1.0661
28.	5.7151	480.0000	-21.8190	61.7414	37.3859	0.8509
29.	6.0134	460.0000	-24.0182	58.0909	38.4476	0.6860
30.	6.3169	440.0000	-26.1509	55.8113	39.6757	0.5658
31.	6.6449	420.0000	-28.4625	56.5357	41.0101	0.4854
32.	6.9774	400.0000	-31.3582	57.3455	41.6655	0.3915
33.	7.3273	380.0000	-34.5651	59.2857	42.1596	0.3122
34.	7.6846	360.0000	-37.7269	48.8507	42.8216	0.1984
35.	8.0569	340.0000	-41.1058	41.5652	43.4071	0.1245
36.	8.4555	320.0000	-44.9529	36.6029	43.7321	0.0770
37.	8.8699	300.0000	-48.7600	34.5429	44.3464	0.0505
38.	9.3035	280.0000	-52.8803	28.6479	44.8036	0.0275
39.	9.7458	260.0000	-57.0459	28.9324	45.3357	0.0179
40.	10.2454	240.0000	-57.6135	23.4054	52.1822	0.0141
41.	10.7627	220.0000	-54.8326	7.1395	64.5055	0.0067
42.	11.2693	200.0000	-53.4603	2.7059	74.7773	0.0033

Ascent 12

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.031	11.222	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-53.401	17.417	-999.000
4.RH	*%	1.512	97.571	-999.000
5.po-temp	*degc	15.894	74.992	-999.000
6.Q	*g/kg	0.002	7.032	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0306	1020.0000	17.4167	57.3333	16.1722	7.0320
2.	0.1692	1000.0000	15.7846	58.6923	15.9557	6.5933
3.	0.3131	980.0000	14.2538	62.6538	15.8940	6.4904
4.	0.4829	960.0000	12.5238	68.2857	15.8958	6.4513
5.	0.6578	940.0000	10.7619	75.8095	15.9187	6.5138
6.	0.8272	920.0000	9.1464	82.3214	16.0336	6.4830
7.	0.9966	900.0000	7.4875	90.8750	16.1052	6.5303
8.	1.1764	880.0000	6.0087	95.3478	16.4731	6.3345
9.	1.3602	860.0000	4.9069	92.9310	17.2793	5.8502
10.	1.5392	840.0000	3.7500	95.4231	17.9819	5.6667
11.	1.7112	820.0000	2.7143	97.5714	18.7429	5.5172
12.	1.9508	800.0000	1.9429	97.0000	20.5269	5.3411
13.	2.1009	780.0000	3.6571	97.1429	24.0057	6.1727
14.	2.3167	760.0000	4.6000	92.9091	27.3951	6.4712
15.	2.5314	740.0000	4.0720	87.3600	29.2013	6.0276
16.	2.7504	720.0000	3.0333	85.4444	30.5118	5.6365
17.	2.9745	700.0000	1.4417	82.5833	31.2813	5.0005
18.	3.1995	680.0000	-0.3179	81.7143	31.8808	4.4807
19.	3.4161	660.0000	-4.1208	83.1250	30.0918	3.5533
20.	3.6497	640.0000	-7.5471	85.4412	28.9217	2.8803
21.	3.8847	620.0000	-8.9218	83.7455	30.0992	2.6163
22.	4.1228	600.0000	-9.9130	77.7174	31.7618	2.3182
23.	4.3790	580.0000	-11.3800	75.8000	33.1056	2.0817
24.	4.6389	560.0000	-13.5711	82.4667	33.6539	1.9627
25.	4.9027	540.0000	-15.8412	87.3725	34.1635	1.7875
26.	5.1620	520.0000	-17.7609	87.5217	35.0445	1.5783
27.	5.3254	500.0000	-18.8250	87.2500	35.7803	1.4690
28.	4.3092	580.0000	-10.6000	73.0000	33.8132	2.1286
29.	5.4001	500.0000	-20.2450	81.3000	36.2247	1.2420
30.	5.6411	480.0000	-22.6057	72.5429	36.3703	0.9648
31.	5.9203	460.0000	-24.1250	64.7778	38.0430	0.7543
32.	6.0972	440.0000	-25.9000	69.0000	38.0894	0.7008
33.	5.6500	480.0000	-22.1000	59.0000	37.2546	0.7934
34.	6.0678	460.0000	-25.7000	68.0000	38.2215	0.7025
35.	6.2238	440.0000	-27.7718	60.6410	37.6263	0.5550
36.	6.5636	420.0000	-29.7367	58.4667	39.5515	0.4465
37.	6.8858	400.0000	-32.5836	54.5246	40.1366	0.3324
38.	7.2357	380.0000	-35.7678	44.0847	40.6600	0.2062
39.	7.5837	360.0000	-39.0289	36.6842	41.0626	0.1299
40.	7.9555	340.0000	-42.4030	32.9701	41.6508	0.0859
41.	8.3444	320.0000	-45.6297	35.5135	42.6978	0.0685
42.	8.7640	300.0000	-46.5035	14.1294	47.4955	0.0268
43.	9.1958	280.0000	-48.5125	11.0000	50.9426	0.0176
44.	9.6627	260.0000	-50.6489	10.2727	54.8098	0.0137
45.	10.1739	240.0000	-51.2030	6.5859	61.7978	0.0089
46.	10.7133	220.0000	-52.2385	3.4862	68.6583	0.0046
47.	11.2221	200.0000	-53.4012	1.5122	74.9919	0.0019

Ascent 13

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.024	11.345	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-58.351	15.917	-999.000
4.RH	*%	0.000	80.000	-999.000
5.po-temp	*degc	14.173	66.879	-999.000
6.Q	*g/kg	0.000	5.184	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0235	1020.0000	15.9167	46.6667	14.5192	5.1839
2.	0.1567	1000.0000	14.2071	50.9286	14.1729	5.1518
3.	0.3274	980.0000	12.7937	51.6875	14.5040	4.8703
4.	0.4974	960.0000	11.6533	50.0667	15.1066	4.4688
5.	0.6564	940.0000	10.5588	50.5294	15.6438	4.2745
6.	0.8295	920.0000	8.8778	55.5556	15.7325	4.2887
7.	1.0093	900.0000	7.8778	59.8333	16.5950	4.4170
8.	1.1866	880.0000	6.6227	64.3636	17.1692	4.4559
9.	1.3602	860.0000	5.3409	72.4091	17.6821	4.6907
10.	1.5584	840.0000	4.7947	73.7895	19.2329	4.7198
11.	1.7499	820.0000	3.5440	80.0000	19.9757	4.8025
12.	1.9327	800.0000	2.4308	79.3077	20.7784	4.5039
13.	2.1252	780.0000	1.5667	72.6250	21.9596	3.9724
14.	2.3220	760.0000	1.2778	45.4074	23.8160	2.4940
15.	2.5298	740.0000	-0.3071	36.1071	24.4036	1.8247
16.	2.7397	720.0000	-1.7808	41.3846	25.1417	1.8963
17.	2.9512	700.0000	-3.4667	56.7667	25.6698	2.3842
18.	3.1820	680.0000	-4.9828	65.6552	26.6097	2.5336
19.	3.3926	660.0000	-6.0781	68.0000	27.7994	2.4874
20.	3.6360	640.0000	-6.9455	52.4242	29.6370	1.8532
21.	3.8638	620.0000	-8.1162	47.1081	30.9592	1.5659
22.	4.1063	600.0000	-10.1303	47.5152	31.4987	1.3921
23.	4.3620	580.0000	-12.0462	37.8718	32.3157	0.9881
24.	4.6179	560.0000	-13.9024	31.1190	33.2127	0.7201
25.	4.8824	540.0000	-15.9769	21.3590	33.9669	0.4352
26.	5.1640	520.0000	-18.1595	12.0811	34.8079	0.2111
27.	5.4378	500.0000	-20.3159	8.0909	35.5961	0.1229
28.	5.7197	480.0000	-22.0605	5.1395	36.9995	0.0696
29.	6.0156	460.0000	-24.0930	0.7442	38.2394	0.0089
30.	6.3372	440.0000	-26.2326	0.0000	39.6956	0.0000
31.	6.6600	420.0000	-27.6160	0.0000	42.1505	0.0000
32.	6.9924	400.0000	-28.8855	0.6364	44.9108	0.0054
33.	7.3424	380.0000	-29.8759	1.5741	48.3199	0.0132
34.	7.7146	360.0000	-30.7065	7.8871	52.2805	0.0625
35.	8.1111	340.0000	-33.7117	10.9833	53.7125	0.0716
36.	8.4637	320.0000	-36.1975	6.2750	55.2633	0.0329
37.	8.9342	300.0000	-39.8343	6.4328	56.9323	0.0252
38.	9.3817	280.0000	-43.1403	6.0484	58.7544	0.0175
39.	9.6788	260.0000	-45.9250	6.7500	59.1304	0.0151
40.	9.5812	280.0000	-45.4000	3.0000	58.4579	0.0070
41.	9.8313	260.0000	-47.1200	7.1000	59.7344	0.0143
42.	10.3639	240.0000	-50.9111	9.5556	62.3436	0.0133
43.	10.6395	220.0000	-51.0000	9.0000	66.6142	0.0131
44.	10.3919	240.0000	-51.6143	6.7143	61.9158	0.0087
45.	10.7169	220.0000	-52.4000	10.0000	65.8893	0.0125
46.	10.5494	240.0000	-52.9750	10.5000	62.4196	0.0113
47.	10.6279	220.0000	-52.9800	8.2000	63.6539	0.0095
48.	10.5475	240.0000	-52.6000	4.0000	62.9870	0.0048
49.	10.6737	220.0000	-53.4333	7.8333	63.7011	0.0086
50.	10.4797	240.0000	-52.3000	0.0000	62.4459	0.0000
51.	10.9242	220.0000	-55.6271	8.0000	64.3771	0.0070
52.	11.3447	200.0000	-58.3513	9.0769	66.8786	0.0060

Ascent 14

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.000	11.513	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-60.451	19.794	-999.000
4.RH	*%	32.000	95.571	-999.000
5.po-temp	*degc	14.849	63.928	-999.000
6.Q	*g/kg	0.016	13.027	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0000	1020.0000	16.3000	93.0000	14.8492	10.6170
2.	0.1383	1000.0000	16.7917	92.2500	16.7582	11.1468
3.	0.3069	980.0000	19.7944	88.0556	21.4904	13.0268
4.	0.4849	960.0000	17.2000	91.6500	20.6967	11.7694
5.	0.6606	940.0000	15.3308	94.2308	20.6168	10.9614
6.	0.8237	920.0000	13.6000	94.7600	20.5425	10.0542
7.	1.0219	900.0000	11.5143	95.5714	20.4756	9.0505
8.	1.1793	880.0000	10.4882	95.0000	21.0738	8.5666
9.	1.3481	860.0000	9.5187	95.0000	21.8548	8.1970
10.	1.5362	840.0000	8.2133	94.9333	22.4969	7.6744
11.	1.7546	820.0000	7.0000	94.4167	23.5683	7.2206
12.	1.9713	800.0000	5.6667	94.5000	24.5194	6.7724
13.	2.1444	780.0000	4.7143	94.5714	25.3990	6.4827
14.	2.3381	760.0000	3.5294	94.1765	26.2546	6.0865
15.	2.5519	740.0000	2.2769	93.9615	27.2652	5.7085
16.	2.7650	720.0000	0.9650	94.0000	28.2105	5.3405
17.	2.9752	700.0000	-0.4174	94.1739	29.0545	4.9788
18.	3.1969	680.0000	-0.0864	93.4091	31.9443	5.1996
19.	3.3163	660.0000	-0.7000	92.0000	32.6208	4.9722
20.	3.3048	680.0000	-0.3667	92.0000	32.8634	5.0878
21.	3.4504	660.0000	-1.2263	91.5789	33.5709	4.8462
22.	3.6697	640.0000	-2.2069	84.4828	34.9974	4.2780
23.	3.9117	620.0000	-3.4486	87.1892	36.4040	4.1524
24.	4.1477	600.0000	-5.4300	84.2750	36.8973	3.5699
25.	4.4166	580.0000	-7.5755	77.0408	37.6016	2.8657
26.	4.6663	560.0000	-9.6111	71.8667	38.2112	2.3547
27.	4.9444	540.0000	-10.6511	75.4468	40.3540	2.3603
28.	5.2230	520.0000	-12.5156	76.9556	41.5371	2.1510
29.	5.5089	500.0000	-14.4609	77.0870	42.7265	1.9121
30.	5.8019	480.0000	-16.4071	75.1429	44.0195	1.6490
31.	6.1161	460.0000	-18.3754	75.5965	45.5682	1.4665
32.	6.4297	440.0000	-20.1450	71.4667	47.3787	1.2440
33.	6.7580	420.0000	-22.0333	74.9500	49.2542	1.1607
34.	7.0986	400.0000	-24.9934	73.1803	49.9378	0.9121
35.	7.4592	380.0000	-27.7828	58.3621	51.1210	0.5913
36.	7.8282	360.0000	-31.0258	60.0303	51.8345	0.4710
37.	8.2165	340.0000	-34.0825	58.1429	53.0815	0.3597
38.	8.6239	320.0000	-37.2700	51.3333	54.4403	0.2435
39.	9.0328	300.0000	-40.1574	50.0328	56.2609	0.1874
40.	9.5024	280.0000	-44.2852	47.0741	57.2402	0.1240
41.	9.9851	260.0000	-47.9771	43.5286	59.0590	0.0804
42.	10.4763	240.0000	-52.0410	39.2892	60.5083	0.0489
43.	11.0242	220.0000	-56.4195	34.4943	62.3902	0.0275
44.	11.5133	200.0000	-60.4507	32.0000	63.9278	0.0164

Ascent 15

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.023	11.488	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-60.718	14.857	-999.000
4.RH	*%	12.043	99.800	-999.000
5.po-temp	*degc	13.717	63.996	-999.000
6.Q	*g/kg	0.015	9.818	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0227	1020.0000	14.8571	92.4286	13.7169	9.6492
2.	0.1386	1000.0000	14.7882	93.1176	14.8265	9.8177
3.	0.3082	980.0000	14.0571	93.7857	15.8266	9.6283
4.	0.4685	960.0000	13.5381	90.5714	16.9501	9.1668
5.	0.6291	940.0000	12.5632	90.1579	17.6211	8.7293
6.	0.8092	920.0000	11.1750	93.4167	18.0775	8.4375
7.	0.9865	900.0000	9.9929	94.4286	18.7200	8.0555
8.	1.1707	880.0000	8.8381	95.9048	19.4689	7.7429
9.	1.3516	860.0000	8.3826	99.0000	20.9141	7.9302
10.	1.5376	840.0000	7.8100	99.0000	22.3014	7.8070
11.	1.7287	820.0000	6.9760	99.0000	23.4773	7.5523
12.	1.9253	800.0000	5.9138	99.0000	24.4794	7.1937
13.	2.1256	780.0000	4.8600	99.2500	25.5387	6.8727
14.	2.3263	760.0000	3.7565	99.0000	26.5560	6.5082
15.	2.5463	740.0000	2.3115	99.2308	27.4259	6.0546
16.	2.7553	720.0000	1.0520	99.8000	28.3837	5.7120
17.	2.9577	700.0000	0.0154	99.4231	29.5212	5.4177
18.	3.1849	680.0000	-1.2793	98.6552	30.6609	5.0353
19.	3.4214	660.0000	-3.2161	96.3226	31.1982	4.3916
20.	3.6383	640.0000	-4.4378	96.2703	32.3255	4.1164
21.	3.8834	620.0000	-6.2815	87.8519	33.0769	3.4067
22.	4.1162	600.0000	-9.1421	59.3684	32.5269	1.8935
23.	4.3973	580.0000	-9.3608	45.0000	35.6279	1.4579
24.	4.6421	560.0000	-9.8250	46.9107	38.0252	1.5098
25.	4.9157	540.0000	-11.0358	45.6226	39.9130	1.3830
26.	5.1882	520.0000	-12.1695	34.3898	41.8985	0.9875
27.	5.4903	500.0000	-13.9767	24.7667	43.4608	0.6413
28.	5.7685	480.0000	-16.1159	32.7143	44.3293	0.7350
29.	6.0808	460.0000	-18.7379	27.8966	45.0460	0.5278
30.	6.3914	440.0000	-20.8340	20.7600	46.4118	0.3431
31.	6.7156	420.0000	-23.4370	12.0435	47.3227	0.1633
32.	7.0876	400.0000	-26.5396	13.6250	48.2418	0.1462
33.	7.4284	380.0000	-29.0183	24.0282	49.5697	0.2164
34.	7.7803	360.0000	-31.9581	23.4865	50.4534	0.1694
35.	8.1730	340.0000	-34.9573	19.2533	51.8415	0.1093
36.	8.5770	320.0000	-37.8053	15.2632	53.6122	0.0680
37.	9.0100	300.0000	-41.8552	22.5862	54.1515	0.0708
38.	9.4345	280.0000	-45.8311	25.3378	54.6865	0.0544
39.	9.9208	260.0000	-49.4667	30.9247	56.6552	0.0476
40.	10.4003	240.0000	-52.6971	31.5429	59.1592	0.0359
41.	10.9578	220.0000	-56.7506	29.5060	61.6950	0.0223
42.	11.4884	200.0000	-60.7176	29.6667	63.9958	0.0147

Ascent 16

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.066	11.432	-999.000
2.press	*mb	200.000	1000.000	-999.000
3.temp	*degC	-61.062	19.120	-999.000
4.RH	*%	21.038	85.389	-999.000
5.po-temp	*degc	18.836	62.819	-999.000
6.Q	*g/kg	0.010	9.820	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0665	1000.0000	19.1200	71.0000	18.9918	9.8203
2.	0.2445	980.0000	17.1500	77.5000	18.8356	9.6857
3.	0.4209	960.0000	15.4308	84.4615	18.9145	9.6726
4.	0.5850	940.0000	14.7800	68.8000	19.9530	7.6982
5.	0.7573	920.0000	13.6294	68.4706	20.5735	7.2626
6.	0.9336	900.0000	12.3783	74.9130	21.1346	7.4780
7.	1.1203	880.0000	10.7800	80.2667	21.4505	7.3807
8.	1.2963	860.0000	9.1842	85.1053	21.6584	7.1840
9.	1.4841	840.0000	7.7667	85.3889	22.1817	6.7055
10.	1.6803	820.0000	8.6222	48.0741	25.2002	4.0700
11.	1.8795	800.0000	7.7893	64.7857	26.4750	5.3440
12.	2.0749	780.0000	7.0812	50.6875	27.8535	4.0727
13.	2.2787	760.0000	5.7519	65.5556	28.6646	4.9543
14.	2.4901	740.0000	4.5435	55.2174	29.6990	3.9305
15.	2.6958	720.0000	3.3321	68.0357	30.6729	4.5683
16.	2.9228	700.0000	1.9036	73.8214	31.6562	4.6084
17.	3.1455	680.0000	0.9171	71.8571	33.0911	4.3014
18.	3.3674	660.0000	-0.2806	67.1389	34.2890	3.7903
19.	3.6112	640.0000	-2.0154	67.6923	35.1469	3.4732
20.	3.8530	620.0000	-3.6324	62.8824	36.1224	2.9499
21.	4.0959	600.0000	-5.1952	63.2619	37.1839	2.7207
22.	4.3652	580.0000	-7.2658	75.2632	37.9786	2.8589
23.	4.6191	560.0000	-8.7825	66.6750	39.2485	2.3321
24.	4.8799	540.0000	-9.9833	54.1667	40.9943	1.7815
25.	5.1695	520.0000	-10.6457	35.2826	43.7563	1.1451
26.	5.4505	500.0000	-12.4000	44.1500	45.1150	1.2923
27.	5.7646	480.0000	-14.5324	46.4054	46.4459	1.1898
28.	6.0713	460.0000	-17.1048	51.7143	47.1505	1.1159
29.	6.3875	440.0000	-20.1980	59.2200	47.3303	1.0250
30.	6.6982	420.0000	-22.8318	58.6591	48.0287	0.8407
31.	7.0743	400.0000	-25.7591	46.5682	49.2261	0.5450
32.	7.4079	380.0000	-28.2717	33.4348	50.4127	0.3240
33.	7.7692	360.0000	-30.9792	26.3333	51.7338	0.2071
34.	8.1770	340.0000	-34.7341	29.7045	52.3046	0.1722
35.	8.5678	320.0000	-38.1906	28.8679	53.0582	0.1251
36.	9.0083	300.0000	-42.1269	29.3269	53.8666	0.0894
37.	9.4338	280.0000	-45.7500	27.0741	54.9199	0.0595
38.	9.9274	260.0000	-50.0660	28.0189	56.0022	0.0404
39.	10.4156	240.0000	-54.1864	25.9318	57.3179	0.0249
40.	10.9748	220.0000	-58.5578	22.8906	59.3997	0.0139
41.	11.4315	200.0000	-61.0623	21.0377	62.8193	0.0099

Ascent 17

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.029	11.348	-999.000
2.press	*mb	200.000	1000.000	-999.000
3.temp	*degC	-61.531	20.190	-999.000
4.RH	*%	22.694	98.216	-999.000
5.po-temp	*degc	19.585	61.919	-999.000
6.Q	*g/kg	0.012	11.548	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0287	1000.0000	20.1900	78.1000	19.9254	11.5481
2.	0.2171	980.0000	17.9312	85.1250	19.5849	11.1878
3.	0.3867	960.0000	16.3769	90.6923	19.7591	11.0244
4.	0.5538	940.0000	14.9800	95.6000	20.0676	10.8447
5.	0.7235	920.0000	14.1643	91.5000	20.9999	10.0496
6.	0.9184	900.0000	13.6250	78.8000	22.4862	8.5517
7.	1.1021	880.0000	12.7714	73.4286	23.5392	7.7056
8.	1.2913	860.0000	11.2588	77.4118	23.9735	7.5242
9.	1.4700	840.0000	10.2941	77.3529	24.8948	7.2113
10.	1.6654	820.0000	9.2154	74.2308	25.8736	6.5952
11.	1.8614	800.0000	7.8828	72.3448	26.5831	6.0173
12.	2.0487	780.0000	6.4087	73.6522	27.0510	5.6658
13.	2.2689	760.0000	4.3966	78.6897	27.3056	5.4090
14.	2.4835	740.0000	2.6212	85.1515	27.7568	5.3060
15.	2.6900	720.0000	1.3485	84.3333	28.6737	4.9279
16.	2.9048	700.0000	-0.0029	84.9429	29.6032	4.6238
17.	3.1266	680.0000	-1.7187	90.2500	30.2148	4.4594
18.	3.3473	660.0000	-2.8970	89.0606	31.4238	4.1497
19.	3.5849	640.0000	-3.9963	87.4074	32.9269	3.8673
20.	3.8297	620.0000	-6.1233	95.9000	33.3543	3.7267
21.	4.0714	600.0000	-7.8135	98.2162	34.2572	3.4595
22.	4.3162	580.0000	-8.7571	96.0000	36.0704	3.2457
23.	4.5891	560.0000	-10.3974	96.1053	37.4220	2.9604
24.	4.8514	540.0000	-11.7048	91.6190	39.0575	2.6335
25.	5.1376	520.0000	-13.0902	84.7073	40.9083	2.2625
26.	5.4194	500.0000	-15.2810	84.3810	41.7468	1.9544
27.	5.7034	480.0000	-17.6000	83.6571	42.4699	1.6602
28.	6.0210	460.0000	-19.3483	67.0000	44.3404	1.1974
29.	6.3369	440.0000	-21.7186	68.8605	45.4250	1.0446
30.	6.6747	420.0000	-24.2773	63.4545	46.5737	0.8028
31.	6.9977	400.0000	-26.9057	59.5660	47.4535	0.6233
32.	7.3581	380.0000	-29.6453	44.0755	48.7003	0.3763
33.	7.7146	360.0000	-32.7450	34.6333	49.4352	0.2316
34.	8.0994	340.0000	-36.2433	33.4833	50.0332	0.1658
35.	8.5168	320.0000	-39.9167	40.3472	50.8647	0.1452
36.	8.9039	300.0000	-43.1359	34.8281	51.9069	0.0948
37.	9.3641	280.0000	-46.6368	27.4386	53.6433	0.0549
38.	9.8451	260.0000	-50.5278	24.0926	55.1559	0.0329
39.	10.3245	240.0000	-54.3265	22.6939	56.8141	0.0213
40.	10.8876	220.0000	-58.8644	25.2874	58.7063	0.0146
41.	11.3478	200.0000	-61.5311	27.8919	61.9193	0.0123

Ascent 18

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.067	11.296	-999.000
2.press	*mb	200.000	1000.000	-999.000
3.temp	*degC	-60.719	17.900	-999.000
4.RH	*%	2.875	71.538	-999.000
5.po-temp	*degc	17.791	63.208	-999.000
6.Q	*g/kg	0.012	7.062	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0666	1000.0000	17.9000	54.9091	18.1020	7.0616
2.	0.2139	980.0000	16.0864	57.0909	17.7909	6.6578
3.	0.3871	960.0000	14.3556	63.7778	17.8271	6.7999
4.	0.5629	940.0000	12.6105	68.6842	17.8766	6.6774
5.	0.7276	920.0000	11.1154	71.5385	18.0668	6.4334
6.	0.8934	900.0000	10.0800	56.8000	18.7444	4.8611
7.	1.0654	880.0000	9.7833	35.8333	20.2546	3.0667
8.	1.2724	860.0000	8.5733	55.8000	21.1995	4.5221
9.	1.4554	840.0000	7.4182	64.5455	21.9474	4.9445
10.	1.6505	820.0000	6.6333	60.6667	23.2241	4.5183
11.	1.8399	800.0000	5.6905	52.2857	24.2789	3.7370
12.	2.0442	780.0000	4.5870	45.6522	25.3336	3.0991
13.	2.2409	760.0000	2.9917	47.9167	25.7810	2.9732
14.	2.4590	740.0000	1.0043	58.4348	26.0455	3.2372
15.	2.6573	720.0000	-0.4412	59.0882	26.6857	3.0263
16.	2.8664	700.0000	-0.8875	42.7250	28.5518	2.1762
17.	3.0947	680.0000	-2.5483	67.3103	29.3016	3.1164
18.	3.3147	660.0000	-3.2786	65.8571	31.0088	2.9796
19.	3.5498	640.0000	-3.7125	23.3438	33.2391	1.0556
20.	3.7961	620.0000	-5.6393	15.7143	33.9175	0.6372
21.	4.0337	600.0000	-6.5844	9.2812	35.6353	0.3588
22.	4.2872	580.0000	-8.2457	9.0286	36.7214	0.3174
23.	4.5597	560.0000	-10.0585	11.9268	37.8728	0.3756
24.	4.8202	540.0000	-12.1911	11.9778	38.5076	0.3327
25.	5.0936	520.0000	-14.2026	8.7179	39.4542	0.2120
26.	5.3827	500.0000	-15.8233	6.8837	41.0844	0.1524
27.	5.6748	480.0000	-17.6146	6.8537	42.5568	0.1354
28.	5.9775	460.0000	-20.2282	7.2821	43.1611	0.1206
29.	6.2971	440.0000	-22.3700	2.8750	44.5903	0.0413
30.	6.6269	420.0000	-24.0375	6.8333	46.7716	0.0856
31.	6.9679	400.0000	-26.9764	19.8000	47.4847	0.2049
32.	7.3135	380.0000	-30.1758	28.5968	47.9310	0.2277
33.	7.6830	360.0000	-33.4500	37.0972	48.6109	0.2284
34.	8.0564	340.0000	-36.7000	39.9508	49.3877	0.1895
35.	8.4608	320.0000	-40.2250	32.7885	50.2366	0.1147
36.	8.8715	300.0000	-43.8283	36.4340	51.0830	0.0919
37.	9.3307	280.0000	-47.8904	34.8462	52.0038	0.0601
38.	9.7164	260.0000	-50.5147	31.1765	53.9395	0.0420
39.	10.3265	240.0000	-55.2167	29.2407	56.2881	0.0248
40.	10.7789	220.0000	-58.6250	29.7639	58.1703	0.0176
41.	11.2965	200.0000	-60.7190	24.3621	63.2083	0.0119

Ascent 19

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.006	11.221	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-56.462	17.357	-999.000
4.RH	*%	3.622	61.581	-999.000
5.po-temp	*degc	16.282	70.250	-999.000
6.Q	*g/kg	0.005	6.140	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0059	1020.0000	17.3571	50.1429	16.3715	6.1403
2.	0.1104	1000.0000	16.2000	47.1053	16.2819	5.4241
3.	0.2719	980.0000	14.5944	49.9444	16.3247	5.2899
4.	0.4389	960.0000	12.9059	55.7647	16.3416	5.4017
5.	0.6009	940.0000	11.2250	60.5000	16.3138	5.3554
6.	0.7652	920.0000	9.6714	58.1905	16.4413	4.7431
7.	0.9447	900.0000	8.9826	30.3478	17.6187	2.4096
8.	1.1282	880.0000	7.3958	30.0833	17.9186	2.1921
9.	1.3197	860.0000	5.5500	33.2083	18.0363	2.1828
10.	1.4990	840.0000	4.0333	37.5417	18.3691	2.2701
11.	1.6834	820.0000	2.3286	45.9524	18.5607	2.5152
12.	1.8679	800.0000	0.8654	51.9231	19.0118	2.6309
13.	2.0778	780.0000	-0.8087	48.3043	19.5176	2.2244
14.	2.2770	760.0000	-2.5000	54.2381	19.8920	2.2600
15.	2.4755	740.0000	-4.1231	58.1538	20.3359	2.2040
16.	2.6756	720.0000	-5.6323	61.5806	20.9247	2.1372
17.	2.8871	700.0000	-7.0364	59.4848	21.7629	1.9081
18.	3.0985	680.0000	-8.5912	49.5588	22.4398	1.4487
19.	3.3244	660.0000	-10.2350	46.5750	23.1886	1.2289
20.	3.5618	640.0000	-12.3976	49.5854	23.4915	1.1409
21.	3.7816	620.0000	-13.3195	12.9024	25.0111	0.2828
22.	4.0258	600.0000	-14.3479	17.3542	26.7084	0.3588
23.	4.2756	580.0000	-15.5302	22.4651	28.3114	0.4394
24.	4.5228	560.0000	-15.0659	8.2439	31.8400	0.1681
25.	4.7940	540.0000	-15.3838	3.6216	34.7552	0.0764
26.	5.0719	520.0000	-17.8596	5.1915	35.1986	0.0928
27.	5.3448	500.0000	-20.3370	8.4444	35.5859	0.1262
28.	5.6220	480.0000	-22.6265	10.2857	36.2600	0.1319
29.	5.9188	460.0000	-24.7804	6.2826	37.3624	0.0696
30.	6.2532	440.0000	-27.0951	5.4146	38.7618	0.0503
31.	6.5633	420.0000	-29.2352	5.3889	40.0839	0.0431
32.	6.8932	400.0000	-31.4557	7.3607	41.5837	0.0494
33.	7.2424	380.0000	-33.8129	9.6452	43.1811	0.0545
34.	7.6071	360.0000	-36.6390	9.6610	44.3939	0.0436
35.	7.9691	340.0000	-39.8121	9.5152	45.1211	0.0320
36.	8.3790	320.0000	-42.9900	9.9600	46.5336	0.0258
37.	8.7917	300.0000	-46.2984	11.0161	47.8252	0.0212
38.	9.2174	280.0000	-49.4339	11.6935	49.5770	0.0167
39.	9.7054	260.0000	-53.1319	14.6944	51.4810	0.0146
40.	10.1753	240.0000	-55.2767	16.6712	55.4712	0.0138
41.	10.7260	220.0000	-56.4133	11.7067	62.3676	0.0092
42.	11.2210	200.0000	-56.4616	6.0959	70.2500	0.0051

Ascent 20

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.000	11.197	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-54.919	18.700	-999.000
4.RH	*%	4.213	77.920	-999.000
5.po-temp	*degc	16.363	74.487	-999.000
6.Q	*g/kg	0.005	6.397	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0000	1020.0000	18.7000	48.0000	17.7074	6.3967
2.	0.0985	1000.0000	16.4533	52.0667	16.4687	6.0908
3.	0.2619	980.0000	14.8000	55.8571	16.4840	5.9955
4.	0.4392	960.0000	12.9937	61.6875	16.4874	6.0166
5.	0.6055	940.0000	11.2824	68.1176	16.4732	6.0595
6.	0.7636	920.0000	9.5600	74.6000	16.3630	6.0331
7.	0.9437	900.0000	7.8320	77.9200	16.4766	5.7355
8.	1.1313	880.0000	6.1100	77.4000	16.6768	5.1808
9.	1.3040	860.0000	4.7455	70.5000	17.0925	4.3874
10.	1.4865	840.0000	3.2043	64.4783	17.4321	3.6851
11.	1.6767	820.0000	1.8727	57.5455	18.0781	3.0614
12.	1.8669	800.0000	0.3160	51.3200	18.4916	2.5009
13.	2.0578	780.0000	-1.0731	38.5769	19.0951	1.7428
14.	2.2608	760.0000	-2.2229	27.1429	20.0961	1.1532
15.	2.4605	740.0000	-3.5974	33.0526	20.8229	1.3000
16.	2.6722	720.0000	-4.9778	34.5833	21.6854	1.2616
17.	2.8834	700.0000	-5.7975	35.7500	23.1645	1.2622
18.	3.0990	680.0000	-7.1824	43.0882	24.0792	1.4015
19.	3.3170	660.0000	-8.9147	45.3824	24.6384	1.3326
20.	3.5438	640.0000	-11.0286	44.2500	24.8733	1.1341
21.	3.7753	620.0000	-13.0061	33.9394	25.3218	0.7648
22.	4.0106	600.0000	-14.6862	29.9655	26.1629	0.6044
23.	4.2764	580.0000	-15.3971	24.5588	28.5097	0.4822
24.	4.5298	560.0000	-16.4020	18.5102	30.3754	0.3459
25.	4.7830	540.0000	-18.3354	22.2917	31.1587	0.3685
26.	5.0484	520.0000	-19.9696	20.9783	32.4607	0.3128
27.	5.3257	500.0000	-21.7932	15.3409	33.6957	0.2045
28.	5.6187	480.0000	-23.3000	6.3864	35.5327	0.0770
29.	5.9162	460.0000	-24.7696	5.1739	37.4901	0.0566
30.	6.2265	440.0000	-27.5776	6.3878	37.9557	0.0566
31.	6.5508	420.0000	-30.2211	7.1579	38.8218	0.0519
32.	6.8706	400.0000	-32.9574	8.1475	39.5188	0.0476
33.	7.2109	380.0000	-35.6423	8.7308	40.5685	0.0412
34.	7.5918	360.0000	-38.4267	8.9500	42.0611	0.0335
35.	7.9549	340.0000	-40.6587	9.7143	44.0720	0.0304
36.	8.3452	320.0000	-43.7433	10.5522	45.3268	0.0251
37.	8.7790	300.0000	-47.1632	9.9853	46.7636	0.0175
38.	9.2005	280.0000	-49.9073	8.9268	49.0158	0.0121
39.	9.6511	260.0000	-52.1347	8.1111	52.5054	0.0091
40.	10.1746	240.0000	-54.2343	8.2090	57.3770	0.0077
41.	10.6901	220.0000	-54.9190	7.5000	64.4089	0.0071
42.	11.1970	200.0000	-53.6869	4.2131	74.4868	0.0049

Ascent 21

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.007	11.138	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-50.345	13.900	-999.000
4.RH	*%	0.971	82.923	-999.000
5.po-temp	*degc	12.588	80.328	-999.000
6.Q	*g/kg	0.002	5.352	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0067	1020.0000	13.9000	54.6667	12.8045	5.3525
2.	0.1145	1000.0000	12.5812	55.8125	12.5879	5.0788
3.	0.2786	980.0000	11.1737	52.2632	12.8570	4.4241
4.	0.4458	960.0000	9.7437	54.8125	13.1382	4.3023
5.	0.6098	940.0000	8.6190	62.0952	13.6979	4.6120
6.	0.7743	920.0000	7.6810	54.2857	14.4559	3.8627
7.	0.9524	900.0000	6.2280	54.3600	14.8341	3.5797
8.	1.1291	880.0000	4.9600	52.4000	15.3901	3.2280
9.	1.3067	860.0000	3.4522	57.9565	15.7109	3.2861
10.	1.4972	840.0000	1.7792	60.3333	15.9987	3.1108
11.	1.6827	820.0000	0.1444	59.7778	16.2754	2.8062
12.	1.8685	800.0000	-1.3526	57.1053	16.7121	2.4612
13.	2.0636	780.0000	-3.0720	62.0800	17.0121	2.4129
14.	2.2641	760.0000	-4.6800	68.9200	17.4913	2.4390
15.	2.4616	740.0000	-5.9923	68.6154	18.2593	2.2565
16.	2.6495	720.0000	-7.6588	66.5294	18.5401	1.9727
17.	2.8684	700.0000	-9.0308	82.9231	19.5001	2.2709
18.	3.0819	680.0000	-9.8433	77.0333	21.0253	2.0405
19.	3.3078	660.0000	-11.5893	66.5000	21.6591	1.5801
20.	3.5454	640.0000	-13.3111	35.1481	22.4647	0.7531
21.	3.7738	620.0000	-14.8161	26.3548	23.4175	0.5095
22.	4.0217	600.0000	-16.5042	69.8750	24.3989	1.2179
23.	4.2526	580.0000	-18.0647	59.8529	25.3344	0.9459
24.	4.5118	560.0000	-20.3529	54.0882	25.7638	0.7241
25.	4.7605	540.0000	-22.4286	74.5357	26.3227	0.8642
26.	5.0288	520.0000	-24.7545	70.2424	26.8290	0.6894
27.	5.2941	500.0000	-26.4441	15.4118	28.0779	0.1355
28.	5.5652	480.0000	-28.6022	15.7174	28.8360	0.1158
29.	5.8800	460.0000	-30.9660	15.0638	29.9070	0.0931
30.	6.1693	440.0000	-33.0904	14.3462	30.9626	0.0755
31.	6.4769	420.0000	-35.0937	7.8125	32.4272	0.0354
32.	6.7997	400.0000	-37.7100	7.1400	33.3170	0.0258
33.	7.1503	380.0000	-40.8857	7.7959	33.8613	0.0213
34.	7.5026	360.0000	-43.8143	8.9592	34.7722	0.0189
35.	7.8831	340.0000	-46.1231	9.0000	36.9244	0.0156
36.	8.2544	320.0000	-48.3375	9.0469	39.1128	0.0129
37.	8.6589	300.0000	-48.3452	7.1918	44.9293	0.0108
38.	9.0874	280.0000	-47.5594	4.0145	52.3131	0.0071
39.	9.5766	260.0000	-48.3659	2.6707	58.4426	0.0047
40.	10.0704	240.0000	-50.3449	2.0000	63.0415	0.0030
41.	10.6138	220.0000	-49.8519	1.4805	72.3036	0.0026
42.	11.1377	200.0000	-50.0971	0.9714	80.3279	0.0018

Ascent 22

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.039	11.204	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-51.332	15.700	-999.000
4.RH	*%	0.719	90.595	-999.000
5.po-temp	*degc	14.292	78.977	-999.000
6.Q	*g/kg	0.001	6.526	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0386	1020.0000	15.7000	59.2000	14.6030	6.5261
2.	0.1563	1000.0000	14.2727	61.5455	14.3781	6.2668
3.	0.3101	980.0000	12.6538	65.6923	14.3291	6.1343
4.	0.4818	960.0000	10.8786	70.5714	14.3064	5.9838
5.	0.6546	940.0000	9.1000	77.7857	14.2916	5.9814
6.	0.8020	920.0000	7.6250	83.8333	14.3227	5.9428
7.	1.0000	900.0000	6.4375	65.0625	15.1821	4.3564
8.	1.1667	880.0000	5.1643	64.3214	15.6265	4.0243
9.	1.3465	860.0000	3.6621	68.1724	15.9747	3.9265
10.	1.5189	840.0000	2.6864	62.5000	16.8003	3.4351
11.	1.7173	820.0000	1.5731	51.2308	17.7658	2.6672
12.	1.9058	800.0000	0.2571	36.3714	18.4164	1.7652
13.	2.1042	780.0000	-1.3214	39.6071	18.8991	1.7537
14.	2.2957	760.0000	-3.0233	59.7000	19.1761	2.3772
15.	2.5026	740.0000	-4.0962	66.4231	20.3115	2.5220
16.	2.7101	720.0000	-5.5000	64.6667	21.0968	2.2661
17.	2.9208	700.0000	-7.5517	70.1034	21.2107	2.1598
18.	3.1340	680.0000	-9.0459	73.2162	21.9754	2.0612
19.	3.3456	660.0000	-10.9091	84.0606	22.3138	2.1023
20.	3.5939	640.0000	-12.7541	90.5946	23.1013	2.0192
21.	3.8213	620.0000	-13.2925	58.9250	25.1492	1.2892
22.	4.0592	600.0000	-14.5317	43.4878	26.5240	0.8942
23.	4.2941	580.0000	-16.2894	35.8723	27.2772	0.6588
24.	4.5464	560.0000	-18.3725	33.6750	27.8655	0.5349
25.	4.8090	540.0000	-20.0513	36.5128	29.0664	0.5216
26.	5.0780	520.0000	-22.1024	30.7561	29.9093	0.3812
27.	5.3610	500.0000	-24.4667	32.4524	30.5568	0.3365
28.	5.6371	480.0000	-27.2395	42.2632	30.6240	0.3539
29.	5.9405	460.0000	-29.9152	53.4783	31.1615	0.3643
30.	6.2345	440.0000	-32.5659	55.3409	31.6153	0.3063
31.	6.5554	420.0000	-35.1064	35.6809	32.5696	0.1620
32.	6.8726	400.0000	-35.6687	10.8750	36.0464	0.0486
33.	7.2130	380.0000	-37.7745	6.6383	37.8508	0.0254
34.	7.5782	360.0000	-40.7917	6.3958	38.8194	0.0186
35.	7.9412	340.0000	-43.0267	6.0833	40.8263	0.0149
36.	8.3328	320.0000	-44.7070	5.2281	44.0448	0.0112
37.	8.7388	300.0000	-46.4750	4.8846	47.3931	0.0092
38.	9.1961	280.0000	-47.9552	3.5517	51.9786	0.0060
39.	9.6665	260.0000	-49.6063	3.0000	56.6042	0.0045
40.	10.1558	240.0000	-51.3324	2.7297	61.4969	0.0037
41.	10.7060	220.0000	-49.9000	1.5068	72.3187	0.0026
42.	11.2042	200.0000	-50.7491	0.7193	78.9770	0.0012

Ascent 23

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.029	11.198	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-59.440	16.022	-999.000
4.RH	*%	4.238	72.250	-999.000
5.po-temp	*degc	14.598	64.877	-999.000
6.Q	*g/kg	0.012	5.710	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0290	1020.0000	16.0222	50.6667	14.8104	5.6870
2.	0.1456	1000.0000	14.6182	54.4545	14.5978	5.6579
3.	0.3103	980.0000	12.9773	59.9091	14.6382	5.7099
4.	0.4855	960.0000	11.5684	57.6316	15.0212	5.1168
5.	0.6484	940.0000	10.2318	59.0000	15.3523	4.8868
6.	0.8121	920.0000	8.7250	69.5000	15.5217	5.3048
7.	0.9942	900.0000	7.6269	71.5385	16.3041	5.1943
8.	1.1758	880.0000	6.1821	72.2500	16.7274	4.8571
9.	1.3464	860.0000	5.2630	62.8889	17.5853	4.0525
10.	1.5306	840.0000	4.1769	53.4615	18.4194	3.2688
11.	1.7352	820.0000	3.7133	38.4333	20.1393	2.3313
12.	1.9260	800.0000	2.9719	34.2500	21.4263	2.0192
13.	2.1319	780.0000	2.1739	28.2174	22.8276	1.6135
14.	2.3209	760.0000	1.5897	25.9655	24.2853	1.4588
15.	2.5251	740.0000	0.1750	26.2188	25.0185	1.3660
16.	2.7222	720.0000	-1.1697	28.6061	25.7559	1.3861
17.	2.9534	700.0000	-2.2692	26.8077	27.1531	1.2334
18.	3.1668	680.0000	-4.1800	32.6571	27.4566	1.3373
19.	3.3918	660.0000	-6.1800	35.2000	27.7972	1.2781
20.	3.6241	640.0000	-7.8091	33.2273	28.6459	1.0974
21.	3.8597	620.0000	-9.4293	26.8293	29.5498	0.8075
22.	4.0926	600.0000	-10.9057	13.9714	30.5972	0.3872
23.	4.3509	580.0000	-12.8889	7.6667	31.3666	0.1861
24.	4.6071	560.0000	-15.2214	8.8571	31.7088	0.1834
25.	4.8671	540.0000	-17.3109	10.0217	32.3910	0.1808
26.	5.1336	520.0000	-19.6545	10.5227	32.8533	0.1618
27.	5.4174	500.0000	-21.7457	6.7391	33.8455	0.0896
28.	5.7057	480.0000	-23.0595	4.2381	35.8601	0.0522
29.	6.0081	460.0000	-24.9898	4.2449	37.3134	0.0459
30.	6.3126	440.0000	-26.9692	11.4808	38.7443	0.1073
31.	6.6190	420.0000	-29.4250	15.4000	39.6167	0.1197
32.	6.9810	400.0000	-32.5029	20.8571	40.4337	0.1276
33.	7.3408	380.0000	-35.4520	29.5200	41.4075	0.1402
34.	7.6677	360.0000	-38.7127	49.2909	41.5283	0.1774
35.	8.0370	340.0000	-42.0281	56.7895	42.1652	0.1545
36.	8.4007	320.0000	-44.9323	43.7097	43.2952	0.0910
37.	8.7403	300.0000	-47.6000	45.7368	44.4452	0.0746
38.	9.2370	280.0000	-51.5250	42.2500	46.1517	0.0476
39.	9.7572	260.0000	-53.9806	25.1944	50.4081	0.0227
40.	10.2840	240.0000	-56.2381	19.9762	55.1042	0.0150
41.	10.5947	220.0000	-58.7611	20.6111	56.1167	0.0116
42.	11.1981	200.0000	-59.4400	23.8000	64.8767	0.0136

Ascent 24

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.027	11.383	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-63.484	16.633	-999.000
4.RH	*%	15.000	67.333	-999.000
5.po-temp	*degc	15.011	58.670	-999.000
6.Q	*g/kg	0.006	5.593	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0272	1020.0000	16.6333	47.8889	15.4079	5.5929
2.	0.1554	1000.0000	14.9263	49.9474	15.0112	5.3003
3.	0.3132	980.0000	13.3812	53.8125	15.0777	5.2655
4.	0.4770	960.0000	11.7650	60.4500	15.1347	5.4289
5.	0.6486	940.0000	10.0333	67.3333	15.1544	5.5049
6.	0.8056	920.0000	10.7250	22.2000	17.5022	1.9082
7.	0.9942	900.0000	11.9333	15.0000	20.7268	1.4510
8.	1.1801	880.0000	11.0588	21.3529	21.7874	1.9880
9.	1.3575	860.0000	9.9158	31.1579	22.4885	2.7601
10.	1.5477	840.0000	9.2750	33.7917	23.8542	2.9348
11.	1.7384	820.0000	8.0679	33.4286	24.6390	2.7405
12.	1.9308	800.0000	7.3097	31.1613	25.9234	2.4838
13.	2.1281	780.0000	5.9429	31.8571	26.6196	2.3705
14.	2.3265	760.0000	4.4000	33.2174	27.1451	2.2752
15.	2.5377	740.0000	2.9897	36.5862	27.9597	2.3289
16.	2.7607	720.0000	1.5586	40.1379	28.8924	2.3753
17.	2.9763	700.0000	1.5086	34.4000	31.2712	2.0866
18.	3.2040	680.0000	0.0281	34.9062	32.2140	1.9567
19.	3.4258	660.0000	-1.9030	39.1212	32.5940	1.9604
20.	3.6636	640.0000	-3.6187	39.9688	33.4057	1.8179
21.	3.9126	620.0000	-5.4333	41.9333	34.2452	1.7189
22.	4.1605	600.0000	-7.1000	51.7027	35.2487	1.9243
23.	4.4083	580.0000	-8.2921	47.0789	36.8149	1.6535
24.	4.6668	560.0000	-9.4189	39.5946	38.6001	1.3164
25.	4.9251	540.0000	-11.6105	47.1316	39.1361	1.3603
26.	5.2159	520.0000	-13.8667	44.3077	40.0017	1.1122
27.	5.4838	500.0000	-15.7333	40.0667	41.0675	0.8935
28.	5.7874	480.0000	-17.7425	36.2000	42.4156	0.7097
29.	6.0877	460.0000	-20.1140	34.6512	43.2884	0.5772
30.	6.4020	440.0000	-22.8318	41.0455	43.9197	0.5617
31.	6.7303	420.0000	-25.4349	42.0930	44.8876	0.4785
32.	7.0718	400.0000	-28.4190	45.1667	45.5504	0.4088
33.	7.4225	380.0000	-31.2556	48.6444	46.5429	0.3533
34.	7.7914	360.0000	-34.4093	48.4815	47.3769	0.2733
35.	8.1646	340.0000	-37.3354	42.3333	48.5898	0.1885
36.	8.5695	320.0000	-40.8308	40.1923	49.4881	0.1314
37.	8.9834	300.0000	-44.2796	36.2245	50.5970	0.0877
38.	9.4212	280.0000	-48.0660	32.9245	51.5933	0.0554
39.	9.9013	260.0000	-52.0981	31.6667	52.8931	0.0361
40.	10.3990	240.0000	-55.6226	22.4032	55.2425	0.0182
41.	10.8942	220.0000	-59.3836	17.2727	57.2490	0.0094
42.	11.3833	200.0000	-63.4844	16.2222	58.6701	0.0055

Ascent 25

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.016	11.355	-999.000
2.press	*mb	200.000	1020.000	-999.000
3.temp	*degC	-64.404	16.160	-999.000
4.RH	*%	2.113	87.316	-999.000
5.po-temp	*degc	15.023	57.631	-999.000
6.Q	*g/kg	0.004	7.437	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0157	1020.0000	16.1600	64.6000	15.1547	7.3350
2.	0.1188	1000.0000	15.1556	69.0000	15.2026	7.4371
3.	0.2765	980.0000	13.3684	75.4211	15.0232	7.3790
4.	0.4480	960.0000	11.7381	80.8095	15.1440	7.2594
5.	0.6113	940.0000	10.3267	84.4000	15.4018	7.0440
6.	0.7732	920.0000	9.0053	87.3158	15.7385	6.8007
7.	0.9609	900.0000	7.8760	77.9200	16.5490	5.7429
8.	1.1361	880.0000	8.4773	48.3636	19.0220	3.7808
9.	1.3260	860.0000	9.8600	36.6333	22.4819	3.2351
10.	1.5141	840.0000	8.9970	38.5758	23.5918	3.2897
11.	1.7024	820.0000	7.9667	40.3000	24.5363	3.2816
12.	1.9060	800.0000	6.8350	39.7000	25.5447	3.0692
13.	2.0956	780.0000	5.6088	36.7647	26.3079	2.6765
14.	2.2991	760.0000	4.3263	37.1053	27.1684	2.5307
15.	2.4969	740.0000	2.7061	40.4545	27.6061	2.5260
16.	2.7204	720.0000	1.4978	36.6222	28.7861	2.1568
17.	2.9361	700.0000	0.5356	31.4889	30.1605	1.7802
18.	3.1514	680.0000	-0.4561	27.6829	31.5086	1.4961
19.	3.3890	660.0000	-1.0391	12.0217	33.5831	0.6426
20.	3.6260	640.0000	-1.6532	5.0213	35.6347	0.2643
21.	3.8798	620.0000	-3.6500	4.8261	36.3223	0.2260
22.	4.1164	600.0000	-5.3796	3.6939	37.1235	0.1573
23.	4.3672	580.0000	-6.6377	2.1132	38.6500	0.0845
24.	4.6285	560.0000	-8.1455	2.7818	40.0220	0.1018
25.	4.9008	540.0000	-10.3327	3.7818	40.7373	0.1210
26.	5.1826	520.0000	-12.1865	2.6346	41.9774	0.0760
27.	5.4630	500.0000	-14.0590	2.5738	43.1901	0.0652
28.	5.7596	480.0000	-16.8414	5.0345	43.5016	0.1052
29.	6.0686	460.0000	-19.8362	13.8621	43.7119	0.2356
30.	6.3764	440.0000	-22.7853	13.3824	43.9676	0.1831
31.	6.7058	420.0000	-25.9329	24.2857	44.2557	0.2628
32.	7.0369	400.0000	-28.7972	22.8732	44.9362	0.1999
33.	7.3948	380.0000	-32.0394	19.3380	45.4919	0.1312
34.	7.7659	360.0000	-35.3915	17.6197	46.0872	0.0899
35.	8.1381	340.0000	-38.8178	13.5068	46.6116	0.0521
36.	8.5342	320.0000	-42.2775	13.9250	47.4322	0.0380
37.	8.9423	300.0000	-46.2932	23.6351	47.6628	0.0450
38.	9.3943	280.0000	-49.9857	19.0714	49.0027	0.0258
39.	9.8452	260.0000	-53.6852	16.4659	50.3463	0.0156
40.	10.3413	240.0000	-57.4842	14.1579	52.2597	0.0090
41.	10.8561	220.0000	-61.1452	12.6989	54.7274	0.0055
42.	11.3549	200.0000	-64.4044	13.6324	57.6306	0.0041

Ascent 26

Field	Units	Lower Limit	Upper Limit	Absent data val
1.height	*km	0.011	8.954	-999.000
2.press	*mb	280.000	1020.000	-999.000
3.temp	*degC	-48.700	17.710	-999.000
4.RH	*%	0.000	97.312	-999.000
5.po-temp	*degc	15.385	49.415	-999.000
6.Q	*g/kg	0.000	7.312	-999.000

DATA CYC.	height km	press mb	temp degC	RH %	po-temp degc	Q g/kg
1.	0.0108	1020.0000	17.7100	58.4000	16.6820	7.3115
2.	0.1137	1000.0000	15.3750	57.7000	15.3999	6.3010
3.	0.2681	980.0000	13.7850	62.9500	15.3854	6.3211
4.	0.4408	960.0000	12.0800	68.8000	15.4430	6.3109
5.	0.6232	940.0000	10.4056	72.0556	15.6337	6.0521
6.	0.7840	920.0000	9.0533	70.0667	15.9292	5.4840
7.	0.9548	900.0000	7.9696	73.1304	16.6081	5.4270
8.	1.1355	880.0000	6.4000	83.5789	16.8921	5.6991
9.	1.3105	860.0000	4.8562	90.6875	17.1454	5.6816
10.	1.5000	840.0000	3.4571	92.9524	17.7068	5.4076
11.	1.6792	820.0000	2.4412	93.8824	18.5664	5.1982
12.	1.8844	800.0000	1.7750	97.3125	20.0843	5.2733
13.	2.2712	760.0000	-0.7308	61.8846	21.6369	2.9418
14.	2.4789	740.0000	0.8690	43.8621	25.6843	2.3996
15.	2.6909	720.0000	1.2939	32.8485	28.5227	1.9019
16.	2.9168	700.0000	1.3024	21.1220	31.0844	1.2605
17.	3.1374	680.0000	0.8857	15.0857	33.1329	0.8999
18.	3.3676	660.0000	0.2350	10.1750	35.0476	0.5964
19.	3.5963	640.0000	-0.5600	12.9143	36.7989	0.7359
20.	3.8273	620.0000	-2.3613	18.0645	37.4397	0.9268
21.	4.1030	600.0000	-5.1148	20.2222	37.5202	0.8779
22.	4.3412	580.0000	-7.0385	13.5385	38.1219	0.5249
23.	4.6200	560.0000	-9.1793	7.7586	38.9641	0.2647
24.	4.8965	540.0000	-11.1643	6.8571	39.9701	0.2055
25.	5.1500	520.0000	-13.4071	8.6071	40.3963	0.2219
26.	5.4430	500.0000	-15.9429	10.6571	40.9613	0.2340
27.	5.7182	480.0000	-18.2774	10.6452	41.5569	0.1974
28.	6.0205	460.0000	-21.0094	11.7500	42.0080	0.1855
29.	6.3448	440.0000	-22.4600	21.5600	44.3612	0.3030
30.	6.6574	420.0000	-25.1812	27.1875	44.9758	0.3149
31.	6.9950	400.0000	-28.4187	30.3750	45.2632	0.2734
32.	7.3900	380.0000	-31.8042	19.8333	46.1390	0.1390
33.	7.7248	360.0000	-34.4036	14.5000	47.2506	0.0826
34.	8.0543	340.0000	-37.1187	12.2500	48.1454	0.0550
35.	8.5116	320.0000	-41.6091	16.3636	48.4348	0.0493
36.	8.8651	300.0000	-44.5500	14.0000	49.4152	0.0333
37.	8.9542	280.0000	-48.7000	0.0000	47.5030	0.0000