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RADIATION FLUX TABLES FOR ICRCCM USING THE GLA GCM RADIATION CODES

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ABSTRACT

This document consists of tabulated values of longwave and shortwave radiation fluxes and also cooling and heating rates in the atmosphere for standard atmospheric profiles. The radiation codes used in the Goddard general circulation model were employed for the computations. These results were obtained for an international intercomparison project called ICRCCM (Intercomparison of Radiation Codes in Climate Models).

RADIATION FLUX TABLES FOR ICRCCM USING THE GLA GCM RADIATION CODES

The following tables were prepared for a project called the Intercomparison of Radiation Codes in Climate Models (ICRCCM, 1984). Table 1 gives the atmospheric profiles used in the model. They are based on standard profiles from McClatchey et al. (1972) except that stratospheric water vapor mixing ratios have been fixed at a constant prescribed value. Water vapor and ozone mixing ratios are in g/g and the altitude is in km. The input profiles give the levels at which fluxes were computed whereas the interpolated profiles give layer mean quantities that were used in the radiation code. Table 2 gives the longwave fluxes and divergences for the various clear sky cases that were run for ICRCCM. The boxed values refer to the surface, tropopause and model top, which were the required levels for the intercomparison. Although cooling rates were not required for the project, they have been included in this compilation. Table 3 gives the shortwave fluxes and heating rates. The radiation model has two wavelength intervals with the boundary at 0.9 μm. Clouds are considered to be conservative scatterers upto 0.9 μm and have a single scattering albedo of 0.99 for the rest of the spectrum. The asymmetry parameter for CS clouds is 0.83 and for CL clouds it is 0.85. The optical depth of the CS cloud is 40 per 140 gm^{-2} and of the CL cloud is 120 per 2500 gm^{-2}. The solar constant used is 1360.3 Wm^{-2}. The solid line in the tables refers to the tropopause and asterisks indicate the location of cloud layers. Details of the radiation parameterization may be found in Harshvardhan and Corsetti (1984) for the longwave and Davies (1982) for the shortwave.

REFERENCES

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McClatchey, R. A., R. W. Fenn, J. E. A. Selby, F. E. Volz and J. S. Garing, 1972: Optical properties of the atmosphere, 3rd ed., AFCRL-72-0497, 108 pp.

ACKNOWLEDGEMENT

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TABLE 1

ATMOSPHERIC PROFILES USED FOR FLUX COMPUTATIONS

TROPICAL INPUT PROFILE

Z	PU	TU	C	OZ
50.0	0.85	270.0	0.3250E-05	0.3906E-05
45.0	1.59	265.0	0.3250E-05	0.6199E-05
40.0	3.05	254.0	0.3250E-05	0.9806E-05
35.0	6.00	243.0	0.3250E-05	0.1070E-04
30.0	12.20	232.0	0.3250E-05	0.1311E-04
25.0	25.70	221.0	0.3250E-05	0.8405E-05
24.0	30.00	219.0	0.3250E-05	0.7138E-05
23.0	35.00	217.0	0.3250E-05	0.5696E-05
22.0	40.90	215.0	0.3250E-05	0.4214E-05
21.0	48.00	211.0	0.3250E-05	0.3023E-05
20.0	56.50	207.0	0.3250E-05	0.1997E-05
19.0	66.60	203.0	0.3250E-05	0.1223E-05
18.0	78.90	199.0	0.3250E-05	0.6512E-06
17.0	93.70	195.0	0.3250E-05	0.4117E-06
16.0	111.00	197.0	0.3230E-05	0.2383E-06
15.0	132.00	204.0	0.3349E-05	0.2080E-06
14.0	156.00	210.0	0.3824E-05	0.1746E-06
13.0	182.00	217.0	0.6111E-05	0.1536E-06
12.0	213.00	224.0	0.1634E-04	0.1297E-06
11.0	247.00	230.0	0.4786E-04	0.1096E-06
10.0	286.00	237.0	0.1166E-03	0.9281E-07
9.0	329.00	244.0	0.2570E-03	0.8284E-07
8.0	378.00	250.0	0.4755E-03	0.7417E-07
7.0	432.00	257.0	0.8044E-03	0.7003E-07
6.0	492.00	264.0	0.1323E-02	0.6614E-07
5.0	559.00	270.0	0.2125E-02	0.6251E-07
4.0	633.00	277.0	0.3345E-02	0.5911E-07
3.0	715.00	284.0	0.5368E-02	0.5825E-07
2.0	805.00	288.0	0.9588E-02	0.5573E-07
1.0	904.00	294.0	0.1222E-01	0.5263E-07
0.5	956.50	297.0	0.1514E-01	0.5026E-07
0.0	1013.00	300.0	0.1628E-01	0.4799E-07

TROPICAL INTERPOLATED PROFILE

PA	TA	CA	OZA
1.18	267.39	0.3250E-05	0.4972E-05
2.24	259.24	0.3250E-05	0.7880E-05
4.35	248.23	0.3250E-05	0.1026E-04
8.71	237.22	0.3250E-05	0.1190E-04
18.06	226.21	0.3250E-05	0.1037E-04
27.79	219.99	0.3250E-05	0.7739E-05
32.43	217.99	0.3250E-05	0.6368E-05
37.87	215.99	0.3250E-05	0.4891E-05
44.35	212.98	0.3250E-05	0.3562E-05
52.13	208.98	0.3250E-05	0.2451E-05
61.40	204.98	0.3250E-05	0.1558E-05
72.56	200.98	0.3250E-05	0.8890E-06
86.07	196.98	0.3250E-05	0.5163E-06
102.09	196.01	0.3240E-05	0.3122E-06
121.17	200.54	0.3250E-05	0.2224E-06
143.64	207.04	0.3581E-05	0.1904E-06
168.64	213.54	0.4847E-05	0.1636E-06
197.06	220.54	0.1065E-04	0.1410E-06
229.55	227.03	0.2978E-04	0.1191E-06
265.99	233.54	0.7505E-04	0.1008E-06
306.96	240.53	0.1738E-03	0.8763E-07
352.89	247.03	0.3506E-03	0.7834E-07
404.36	253.53	0.6200E-03	0.7205E-07
461.30	260.53	0.1034E-02	0.6804E-07
524.73	267.03	0.1680E-02	0.6428E-07
595.18	273.53	0.2671E-02	0.6077E-07
673.11	280.53	0.4246E-02	0.5867E-07
759.04	286.02	0.7192E-02	0.5697E-07
853.47	291.02	0.1084E-01	0.5415E-07
930.18	295.51	0.1361E-01	0.5143E-07
984.66	298.51	0.1570E-01	0.4911E-07

MIDLATITUDE SUMMER INPUT PROFILE

Z	PU	TU	C	OZ
50.0	0.95	276.0	0.4000E-05	0.4521E-05
45.0	1.76	270.0	0.4000E-05	0.7399E-05
40.0	3.33	258.0	0.4000E-05	0.1231E-04
35.0	6.52	245.0	0.4000E-05	0.1411E-04
30.0	13.20	234.0	0.4000E-05	0.1513E-04
25.0	27.70	224.0	0.4000E-05	0.6996E-05
24.0	32.20	223.0	0.4000E-05	0.6382E-05
23.0	37.60	222.0	0.4000E-05	0.5795E-05
22.0	43.70	220.0	0.4000E-05	0.5239E-05
21.0	51.00	219.0	0.4000E-05	0.4469E-05
20.0	59.50	218.0	0.4000E-05	0.3597E-05
19.0	69.50	217.0	0.4000E-05	0.2883E-05
18.0	81.20	216.0	0.4000E-05	0.2146E-05
17.0	95.00	216.0	0.4000E-05	0.1564E-05
16.0	111.00	216.0	0.4000E-05	0.1169E-05
15.0	130.00	216.0	0.4000E-05	0.9030E-06
14.0	153.00	216.0	0.4038E-05	0.7305E-06
13.0	179.00	216.0	0.5759E-05	0.5205E-06
12.0	209.00	222.0	0.1976E-04	0.3671E-06
11.0	243.00	229.0	0.5930E-04	0.2979E-06
10.0	281.00	235.0	0.1546E-03	0.2164E-06
9.0	324.00	242.0	0.2356E-03	0.1842E-06
8.0	372.00	248.0	0.4019E-03	0.1512E-06
7.0	426.00	255.0	0.6364E-03	0.1286E-06
6.0	487.00	261.0	0.9388E-03	0.1064E-06
5.0	554.00	267.0	0.1387E-02	0.9153E-07
4.0	628.00	273.0	0.2363E-02	0.8002E-07
3.0	710.00	279.0	0.3877E-02	0.7009E-07
2.0	802.00	285.0	0.5956E-02	0.6149E-07
1.0	902.00	290.0	0.8611E-02	0.5556E-07
0.5	955.90	292.0	0.1006E-01	0.5290E-07
0.0	1013.00	294.0	0.1175E-01	0.5038E-07

MIDLATITUDE SUMMER INTERPOLATED PROFILE

PA	TA	QA	OZA
1.31	272.87	0.4000E-05	0.5847E-05
2.46	263.73	0.4000E-05	0.9655E-05
4.74	251.19	0.4000E-05	0.1322E-04
9.44	239.22	0.4000E-05	0.1464E-04
19.50	228.74	0.4000E-05	0.1008E-04
29.89	223.49	0.4000E-05	0.6679E-05
34.83	222.49	0.4000E-05	0.6078E-05
40.57	220.99	0.4000E-05	0.5507E-05
47.25	219.49	0.4000E-05	0.4834E-05
55.13	218.49	0.4000E-05	0.4005E-05
64.36	217.49	0.4000E-05	0.3216E-05
75.19	216.49	0.4000E-05	0.2483E-05
87.91	216.00	0.4000E-05	0.1829E-05
102.78	216.00	0.4000E-05	0.1350E-05
120.23	216.00	0.4000E-05	0.1026E-05
141.17	216.00	0.4019E-05	0.8112E-06
165.64	216.00	0.4832E-05	0.6155E-06
193.58	219.03	0.1074E-04	0.4363E-06
225.54	225.54	0.3443E-04	0.3303E-06
261.51	232.03	0.9622E-04	0.2535E-06
301.95	238.54	0.1913E-03	0.1995E-06
347.41	245.03	0.3085E-03	0.1667E-06
398.35	251.53	0.5069E-03	0.1393E-06
455.77	258.03	0.7744E-03	0.1169E-06
519.73	264.03	0.1143E-02	0.9862E-07
590.17	270.03	0.1815E-02	0.8553E-07
668.10	276.03	0.3033E-02	0.7485E-07
755.00	282.03	0.4831E-02	0.6561E-07
850.95	287.52	0.7196E-02	0.5843E-07
928.67	291.00	0.9310E-02	0.5421E-07
984.15	293.00	0.1088E-01	0.5162E-07

MIDLATITUDE WINTER INPUT PROFILE

Z	PU	TU	Q	OZ
50.0	0.68	265.7	0.4000E-05	0.4802E-05
45.0	1.29	258.5	0.4000E-05	0.7467E-05
40.0	2.53	243.2	0.4000E-05	0.1131E-04
35.0	5.18	227.8	0.4000E-05	0.1161E-04
30.0	11.10	217.4	0.4000E-05	0.1066E-04
25.0	24.30	215.2	0.4000E-05	0.8608E-05
24.0	28.60	215.2	0.4000E-05	0.7785E-05
23.0	33.40	215.2	0.4000E-05	0.7202E-05
22.0	39.10	215.2	0.4000E-05	0.6784E-05
21.0	45.80	215.2	0.4000E-05	0.5794E-05
20.0	53.70	215.2	0.4000E-05	0.5178E-05
19.0	62.80	215.2	0.4000E-05	0.4228E-05
18.0	73.50	215.7	0.4000E-05	0.3451E-05
17.0	86.10	216.2	0.4000E-05	0.2810E-05
16.0	100.70	216.7	0.4000E-05	0.2222E-05
15.0	117.80	217.2	0.4042E-05	0.1799E-05
14.0	137.80	217.7	0.5122E-05	0.1451E-05
13.0	161.00	218.2	0.6687E-05	0.1166E-05
12.0	188.20	218.7	0.9070E-05	0.8670E-06
11.0	219.90	219.2	0.1270E-04	0.6007E-06
10.0	256.80	219.7	0.1842E-04	0.3929E-06
9.0	299.20	225.7	0.3464E-04	0.2598E-06
8.0	347.30	231.7	0.6702E-04	0.1723E-06
7.0	401.60	237.7	0.1456E-03	0.1308E-06
6.0	462.70	243.7	0.2856E-03	0.9676E-07
5.0	531.30	249.7	0.5101E-03	0.7826E-07
4.0	608.10	255.7	0.8331E-03	0.5916E-07
3.0	693.80	261.7	0.1257E-02	0.5309E-07
2.0	789.70	265.2	0.1736E-02	0.4725E-07
1.0	897.30	268.7	0.2151E-02	0.4647E-07
0.5	955.70	270.5	0.2406E-02	0.4629E-07
0.0	1018.00	272.2	0.2690E-02	0.4612E-07

MIDLATITUDE WINTER INTERPOLATED PROFILE

PA	TA	QA	QZA
0.95	261.94	0.4000E-05	0.6049E-05
1.84	250.48	0.4000E-05	0.9282E-05
3.69	235.11	0.4000E-05	0.1147E-04
7.74	222.32	0.4000E-05	0.1110E-04
16.79	216.24	0.4000E-05	0.9522E-05
26.39	215.20	0.4000E-05	0.8181E-05
30.93	215.20	0.4000E-05	0.7485E-05
36.17	215.20	0.4000E-05	0.6988E-05
42.36	215.20	0.4000E-05	0.6264E-05
49.64	215.20	0.4000E-05	0.5474E-05
58.12	215.20	0.4000E-05	0.4674E-05
68.00	215.45	0.4000E-05	0.3815E-05
79.62	215.95	0.4000E-05	0.3110E-05
93.20	216.45	0.4000E-05	0.2495E-05
109.01	216.95	0.4021E-05	0.1997E-05
127.52	217.45	0.4556E-05	0.1614E-05
149.08	217.95	0.5861E-05	0.1299E-05
174.22	218.45	0.7801E-05	0.1004E-05
203.61	218.95	0.1075E-04	0.7202E-06
237.84	219.45	0.1533E-04	0.4847E-06
277.42	222.73	0.2535E-04	0.3188E-06
322.61	228.73	0.4835E-04	0.2111E-06
373.75	234.73	0.9918E-04	0.1499E-06
431.38	240.73	0.2046E-03	0.1123E-06
496.15	246.73	0.3828E-03	0.8693E-07
568.77	252.73	0.6534E-03	0.6795E-07
649.94	258.73	0.1025E-02	0.5601E-07
740.64	263.47	0.1479E-02	0.5006E-07
842.27	266.97	0.1934E-02	0.4685E-07
926.17	269.60	0.2276E-02	0.4638E-07
986.50	271.35	0.2545E-02	0.4620E-07

SUBARCTIC SUMMER INPUT PROFILE

Z	PU	TU	C	OZ
50.0	0.99	277.0	0.4000E-05	0.4358E-05
45.0	1.81	274.0	0.4000E-05	0.7155E-05
40.0	3.40	262.0	0.4000E-05	0.1204E-04
35.0	6.61	247.0	0.4000E-05	0.1391E-04
30.0	13.40	235.0	0.4000E-05	0.1046E-04
25.0	27.80	228.0	0.4000E-05	0.6122E-05
24.0	32.27	226.0	0.4000E-05	0.5642E-05
23.0	37.50	225.0	0.4000E-05	0.5168E-05
22.0	43.60	225.0	0.4000E-05	0.4741E-05
21.0	50.70	225.0	0.4000E-05	0.4587E-05
20.0	58.90	225.0	0.4000E-05	0.4273E-05
19.0	68.60	225.0	0.4000E-05	0.3861E-05
18.0	79.80	225.0	0.4000E-05	0.3320E-05
17.0	92.80	225.0	0.4000E-05	0.2716E-05
16.0	108.00	225.0	0.4000E-05	0.2035E-05
15.0	125.00	225.0	0.3999E-05	0.1647E-05
14.0	146.00	225.0	0.4513E-05	0.1239E-05
13.0	170.00	225.0	0.7833E-05	0.9886E-06
12.0	197.70	225.0	0.1373E-04	0.6865E-06
11.0	230.00	225.0	0.2405E-04	0.5058E-06
10.0	267.70	225.0	0.4225E-04	0.3139E-06
9.0	310.70	232.0	0.8964E-04	0.2359E-06
8.0	359.00	239.0	0.2485E-03	0.1510E-06
7.0	413.00	246.0	0.4958E-03	0.1282E-06
6.0	473.00	253.0	0.8329E-03	0.1089E-06
5.0	541.00	260.0	0.1343E-02	0.8835E-07
4.0	616.00	266.0	0.2043E-02	0.7429E-07
3.0	700.00	271.0	0.2994E-02	0.6455E-07
2.0	792.00	276.0	0.4212E-02	0.5616E-07
1.0	896.00	282.0	0.5405E-02	0.4865E-07
0.5	951.30	284.5	0.6350E-02	0.4420E-07
0.0	1010.00	287.0	0.7459E-02	0.4016E-07

SUBARCTIC SUMMER INTERPOLATED PROFILE

PA	TA	OA	OZA
1.36	275.44	0.4000E-05	0.5644E-05
2.52	267.93	0.4000E-05	0.9391E-05
4.82	254.14	0.4000E-05	0.1299E-04
9.58	240.70	0.4000E-05	0.1198E-04
19.67	231.32	0.4000E-05	0.7891E-05
29.58	226.99	0.4000E-05	0.5875E-05
34.81	225.49	0.4000E-05	0.5397E-05
40.47	225.00	0.4000E-05	0.4948E-05
47.05	225.00	0.4000E-05	0.4663E-05
54.69	225.00	0.4000E-05	0.4426E-05
63.62	225.00	0.4000E-05	0.4060E-05
74.05	225.00	0.4000E-05	0.3577E-05
86.12	225.00	0.4000E-05	0.3000E-05
100.19	225.00	0.4000E-05	0.2347E-05
116.28	225.00	0.3999E-05	0.1829E-05
135.21	225.00	0.4251E-05	0.1426E-05
157.67	225.00	0.5963E-05	0.1105E-05
183.48	225.00	0.1040E-04	0.8222E-06
213.41	225.00	0.1823E-04	0.5883E-06
248.34	225.00	0.3197E-04	0.3974E-06
288.63	228.54	0.6179E-04	0.2717E-06
334.23	235.54	0.1500E-03	0.1883E-06
385.32	242.53	0.3522E-03	0.1390E-06
442.27	249.53	0.6472E-03	0.1181E-06
506.18	256.53	0.1060E-02	0.9799E-07
577.63	263.03	0.1660E-02	0.8095E-07
657.04	268.52	0.2478E-02	0.6920E-07
744.99	273.52	0.3557E-02	0.6017E-07
842.85	279.03	0.4777E-02	0.5224E-07
923.35	283.26	0.5860E-02	0.4636E-07
980.33	285.76	0.6885E-02	0.4212E-07

SUBARCTIC WINTER INPUT PROFILE

Z	PU	TU	Q	OZ
50.0	0.58	259.3	0.4000E-05	0.5598E-05
45.0	1.11	247.0	0.4000E-05	0.8286E-05
40.0	2.24	234.7	0.4000E-05	0.1231E-04
35.0	4.70	222.2	0.4000E-05	0.1249E-04
30.0	10.20	216.0	0.4000E-05	0.9119E-05
25.0	22.56	211.2	0.4000E-05	0.8598E-05
24.0	26.49	211.8	0.4000E-05	0.8261E-05
23.0	31.09	212.4	0.4000E-05	0.8431E-05
22.0	36.47	213.0	0.4000E-05	0.7878E-05
21.0	42.77	213.6	0.4000E-05	0.7311E-05
20.0	50.14	214.1	0.4000E-05	0.6867E-05
19.0	58.75	214.8	0.4000E-05	0.6297E-05
18.0	68.82	215.4	0.4000E-05	0.5487E-05
17.0	80.58	216.0	0.4000E-05	0.4769E-05
16.0	94.31	216.6	0.4000E-05	0.4087E-05
15.0	110.30	217.2	0.4141E-05	0.3164E-05
14.0	129.10	217.2	0.5311E-05	0.2366E-05
13.0	151.00	217.2	0.6895E-05	0.1941E-05
12.0	176.60	217.2	0.9104E-05	0.1517E-05
11.0	206.70	217.2	0.1143E-04	0.9653E-06
10.0	241.80	217.2	0.1420E-04	0.6187E-06
9.0	282.90	217.2	0.1844E-04	0.3526E-06
8.0	330.60	220.6	0.2526E-04	0.1722E-06
7.0	385.30	227.3	0.5572E-04	0.1203E-06
6.0	446.70	234.1	0.1472E-03	0.7373E-07
5.0	515.60	240.9	0.3138E-03	0.6303E-07
4.0	593.20	247.7	0.5504E-03	0.5396E-07
3.0	679.60	252.7	0.7976E-03	0.4591E-07
2.0	777.50	255.9	0.9735E-03	0.3875E-07
1.0	887.80	259.1	0.1006E-02	0.3437E-07
0.5	948.30	258.1	0.9380E-03	0.3205E-07
0.0	1013.00	257.1	0.8746E-03	0.2988E-07

SUBARCTIC WINTER INTERPOLATED PROFILE

PA	TA	QA	QZA
0.81	252.87	0.4000E-05	0.6873E-05
1.60	240.54	0.4000E-05	0.1020E-04
3.31	228.12	0.4000E-05	0.1240E-04
7.07	218.93	0.4000E-05	0.1058E-04
15.51	213.46	0.4000E-05	0.8840E-05
24.47	211.50	0.4000E-05	0.8426E-05
28.72	212.10	0.4000E-05	0.8347E-05
33.70	212.70	0.4000E-05	0.8147E-05
39.53	213.30	0.4000E-05	0.7586E-05
46.35	213.85	0.4000E-05	0.7083E-05
54.32	214.45	0.4000E-05	0.6573E-05
63.64	215.10	0.4000E-05	0.5874E-05
74.53	215.70	0.4000E-05	0.5111E-05
87.25	216.30	0.4000E-05	0.4411E-05
102.08	216.90	0.4071E-05	0.3591E-05
119.44	217.20	0.4696E-05	0.2732E-05
139.74	217.20	0.6060E-05	0.2141E-05
163.44	217.20	0.7935E-05	0.1714E-05
191.23	217.20	0.1021E-04	0.1207E-05
223.76	217.20	0.1276E-04	0.7709E-06
261.77	217.20	0.1621E-04	0.4656E-06
306.18	218.92	0.2162E-04	0.2454E-06
357.31	223.99	0.3768E-04	0.1436E-06
415.19	230.74	0.9103E-04	0.9394E-07
480.36	237.53	0.2158E-03	0.6812E-07
553.53	244.33	0.4168E-03	0.5827E-07
635.45	250.22	0.6638E-03	0.4973E-07
727.48	254.32	0.8820E-03	0.4214E-07
831.34	257.51	0.9898E-03	0.3647E-07
917.69	258.60	0.9712E-03	0.3318E-07
980.27	257.60	0.9056E-03	0.3094E-07

TABLE 2

LONGWAVE FLUX COMPUTATIONS

CO2=300PPMV NO H2O NO O3

ISOTHERMAL T=200K

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	90.75	0.0	90.75
0.95	90.75	0.12	90.63
1.76	90.75	0.20	90.55
3.33	90.75	0.37	90.38
6.52	90.75	0.71	90.04
13.20	90.75	1.33	89.42
27.70	90.75	2.43	88.33
32.20	90.75	2.73	88.02
37.60	90.75	3.07	87.68
43.70	90.75	3.43	87.32
51.00	90.75	3.83	86.93
59.50	90.75	4.25	86.50
69.50	90.75	4.71	86.04
81.20	90.75	5.20	85.56
95.00	90.75	5.71	85.04
111.00	90.75	6.24	84.51
130.00	90.75	6.80	83.96
153.00	90.75	7.38	83.37
179.00	90.75	7.94	82.81
209.00	90.75	8.50	82.26
243.00	90.75	9.02	81.73
281.00	90.75	9.52	81.24
324.00	90.75	9.98	80.77
372.00	90.75	10.41	80.34
426.00	90.75	10.81	79.94
487.00	90.75	11.19	79.56
554.00	90.75	11.54	79.22
628.00	90.75	11.86	78.89
710.00	90.75	12.17	78.58
802.00	90.75	12.47	78.28
902.00	90.75	12.77	77.99
955.90	90.75	12.91	77.84
1013.00	90.75	13.96	77.70

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	0.82	50.0	45.0	0.02
1.76	3.33	0.92	45.0	40.0	0.03
3.33	6.52	0.89	40.0	35.0	0.07
6.52	13.20	0.78	35.0	30.0	0.12
13.20	27.70	0.64	30.0	25.0	0.22
27.70	32.20	0.57	25.0	24.0	0.30
32.20	37.60	0.53	24.0	23.0	0.34
37.60	43.70	0.50	23.0	22.0	0.36
43.70	51.00	0.46	22.0	21.0	0.40
51.00	59.50	0.42	21.0	20.0	0.43
59.50	69.50	0.39	20.0	19.0	0.46
69.50	81.20	0.35	19.0	18.0	0.49
81.20	95.00	0.31	18.0	17.0	0.51
95.00	111.00	0.28	17.0	16.0	0.53
111.00	130.00	0.25	16.0	15.0	0.56
130.00	153.00	0.21	15.0	14.0	0.58
153.00	179.00	0.18	14.0	13.0	0.56
179.00	209.00	0.16	13.0	12.0	0.55
209.00	243.00	0.13	12.0	11.0	0.53
243.00	281.00	0.11	11.0	10.0	0.49
281.00	324.00	0.09	10.0	9.0	0.46
324.00	372.00	0.08	9.0	8.0	0.43
372.00	426.00	0.06	8.0	7.0	0.40
426.00	487.00	0.05	7.0	6.0	0.38
487.00	554.00	0.04	6.0	5.0	0.35
554.00	628.00	0.04	5.0	4.0	0.33
628.00	710.00	0.03	4.0	3.0	0.31
710.00	802.00	0.03	3.0	2.0	0.30
802.00	902.00	0.02	2.0	1.0	0.29
902.00	955.90	0.02	1.0	0.5	0.29
955.90	1013.00	0.02	0.5	0.0	0.29

CO2=600PPMV NC H2O NO O3

ISOTHERMAL T=200K

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	90.75	0.0	90.75
0.55	90.75	0.20	90.56
1.76	90.75	0.31	90.44
3.33	90.75	0.55	90.20
6.52	90.75	1.01	89.74
13.20	90.75	1.83	88.92
27.70	90.75	3.24	87.51
32.20	90.75	3.62	87.13
37.60	90.75	4.04	86.71
43.70	90.75	4.47	86.28
51.00	90.75	4.95	85.81
59.50	90.75	5.45	85.31
69.50	90.75	5.97	84.78
81.20	90.75	6.52	84.23
95.00	90.75	7.08	83.67
111.00	90.75	7.65	83.10
130.00	90.75	8.23	82.53
153.00	90.75	8.81	81.94
179.00	90.75	9.37	81.39
209.00	90.75	9.89	80.86
243.00	90.75	10.38	80.37
281.00	90.75	10.83	79.93
324.00	90.75	11.25	79.51
372.00	90.75	11.63	79.12
426.00	90.75	12.00	78.76
487.00	90.75	12.34	78.41
554.00	90.75	12.68	78.08
628.00	90.75	13.00	77.76
710.00	90.75	13.31	77.44
802.00	90.75	13.64	77.12
902.00	90.75	13.95	76.80
955.50	90.75	14.12	76.64
1013.00	90.75	14.28	76.47

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.55	1.76	1.20	50.0	45.0	0.02
1.76	3.33	1.29	45.0	40.0	0.05
3.33	6.52	1.21	40.0	35.0	0.09
6.52	13.20	1.04	35.0	30.0	0.16
13.20	27.70	0.82	30.0	25.0	0.28
27.70	32.20	0.71	25.0	24.0	0.38
32.20	37.60	0.66	24.0	23.0	0.42
37.60	43.70	0.60	23.0	22.0	0.44
43.70	51.00	0.55	22.0	21.0	0.47
51.00	59.50	0.50	21.0	20.0	0.50
59.50	69.50	0.44	20.0	19.0	0.53
69.50	81.20	0.39	19.0	18.0	0.55
81.20	95.00	0.35	18.0	17.0	0.56
95.00	111.00	0.30	17.0	16.0	0.57
111.00	130.00	0.26	16.0	15.0	0.58
130.00	153.00	0.22	15.0	14.0	0.59
153.00	179.00	0.18	14.0	13.0	0.55
179.00	209.00	0.15	13.0	12.0	0.53
209.00	243.00	0.12	12.0	11.0	0.49
243.00	281.00	0.10	11.0	10.0	0.45
281.00	324.00	0.08	10.0	9.0	0.42
324.00	372.00	0.07	9.0	8.0	0.39
372.00	426.00	0.06	8.0	7.0	0.36
426.00	487.00	0.05	7.0	6.0	0.35
487.00	554.00	0.04	6.0	5.0	0.33
554.00	628.00	0.04	5.0	4.0	0.32
628.00	710.00	0.03	4.0	3.0	0.32
710.00	802.00	0.03	3.0	2.0	0.32
802.00	902.00	0.03	2.0	1.0	0.32
902.00	955.50	0.02	1.0	0.5	0.32
955.50	1013.00	0.02	0.5	0.0	0.33

CC2=300PPMV NC H2O NO 03

ISOTHERMAL T=250K

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	221.55	0.0	221.55
0.55	221.55	0.45	221.10
1.76	221.55	0.73	220.83
3.33	221.55	1.31	220.24
6.52	221.55	2.45	219.10
13.20	221.55	4.53	217.02
27.70	221.55	8.16	213.39
32.20	221.55	9.15	212.40
37.60	221.55	10.26	211.30
43.70	221.55	11.41	210.15
51.00	221.55	12.67	208.88
59.50	221.55	14.01	207.54
69.50	221.55	15.44	206.12
81.20	221.55	16.93	204.62
95.00	221.55	18.50	203.06
111.00	221.55	20.09	201.46
130.00	221.55	21.73	199.82
153.00	221.55	23.43	198.12
179.00	221.56	25.06	196.49
209.00	221.56	26.64	194.92
243.00	221.56	28.13	193.43
281.00	221.56	29.52	192.04
324.00	221.56	30.83	190.73
372.00	221.56	32.05	189.50
426.00	221.56	33.21	188.34
487.00	221.56	34.32	187.23
554.00	221.56	35.37	186.19
628.00	221.56	36.38	185.18
710.00	221.56	37.36	184.20
802.00	221.56	38.34	183.21
902.00	221.56	39.30	182.25
955.50	221.56	39.78	181.77
1013.00	221.56	40.27	181.29

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.55	1.76	2.88	50.0	45.0	0.06
1.76	3.33	3.15	45.0	40.0	0.12
3.33	6.52	3.01	40.0	35.0	0.23
6.52	13.20	2.63	35.0	30.0	0.42
13.20	27.70	2.11	30.0	25.0	0.73
27.70	32.20	1.86	25.0	24.0	0.99
32.20	37.60	1.72	24.0	23.0	1.10
37.60	43.70	1.59	23.0	22.0	1.15
43.70	51.00	1.46	22.0	21.0	1.26
51.00	59.50	1.33	21.0	20.0	1.34
59.50	69.50	1.20	20.0	19.0	1.43
69.50	81.20	1.08	19.0	18.0	1.49
81.20	95.00	0.96	18.0	17.0	1.56
95.00	111.00	0.84	17.0	16.0	1.59
111.00	130.00	0.73	16.0	15.0	1.64
130.00	153.00	0.62	15.0	14.0	1.70
153.00	179.00	0.53	14.0	13.0	1.63
179.00	209.00	0.44	13.0	12.0	1.58
209.00	243.00	0.37	12.0	11.0	1.49
243.00	281.00	0.31	11.0	10.0	1.39
281.00	324.00	0.26	10.0	9.0	1.31
324.00	372.00	0.22	9.0	8.0	1.22
372.00	426.00	0.18	8.0	7.0	1.16
426.00	487.00	0.15	7.0	6.0	1.11
487.00	554.00	0.13	6.0	5.0	1.05
554.00	628.00	0.11	5.0	4.0	1.01
628.00	710.00	0.10	4.0	3.0	0.98
710.00	802.00	0.09	3.0	2.0	0.98
802.00	902.00	0.08	2.0	1.0	0.96
902.00	955.50	0.08	1.0	0.5	0.96
955.50	1013.00	0.07	0.5	0.0	0.97

CO2=600PPMV NO H2O NO O3

ISOTHERMAL T=250K

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	221.55	0.0	221.55
0.55	221.55	0.71	220.84
1.76	221.55	1.11	220.44
3.33	221.55	1.93	219.62
6.52	221.55	3.48	218.07
13.20	221.55	6.24	215.31
27.70	221.55	10.86	210.70
32.20	221.55	12.08	209.48
37.60	221.55	13.41	208.15
43.70	221.55	14.78	206.78
51.00	221.55	16.25	205.30
59.50	221.55	17.78	203.77
69.50	221.55	19.38	202.18
81.20	221.55	21.01	200.55
95.00	221.55	22.67	198.88
111.00	221.55	24.33	197.23
130.00	221.55	25.99	195.57
153.00	221.55	27.66	193.89
179.00	221.56	29.23	192.33
209.00	221.56	30.71	190.84
243.00	221.56	32.10	189.45
281.00	221.56	33.39	188.16
324.00	221.56	34.62	186.94
372.00	221.56	35.77	185.78
426.00	221.56	36.89	184.66
487.00	221.56	38.00	183.56
554.00	221.56	39.06	182.49
628.00	221.56	40.12	181.44
710.00	221.56	41.16	180.39
802.00	221.56	42.22	179.33
902.00	221.56	43.27	178.29
955.50	221.56	43.79	177.77
1013.00	221.56	44.31	177.24

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.55	1.76	4.15	50.0	45.0	0.08
1.76	3.33	4.41	45.0	40.0	0.16
3.33	6.52	4.11	40.0	35.0	0.31
6.52	13.20	3.49	35.0	30.0	0.55
13.20	27.70	2.69	30.0	25.0	0.92
27.70	32.20	2.28	25.0	24.0	1.22
32.20	37.60	2.08	24.0	23.0	1.33
37.60	43.70	1.89	23.0	22.0	1.37
43.70	51.00	1.70	22.0	21.0	1.47
51.00	59.50	1.52	21.0	20.0	1.53
59.50	69.50	1.35	20.0	19.0	1.59
69.50	81.20	1.18	19.0	18.0	1.63
81.20	95.00	1.02	18.0	17.0	1.67
95.00	111.00	0.87	17.0	16.0	1.65
111.00	130.00	0.74	16.0	15.0	1.66
130.00	153.00	0.61	15.0	14.0	1.67
153.00	179.00	0.51	14.0	13.0	1.56
179.00	209.00	0.42	13.0	12.0	1.49
209.00	243.00	0.35	12.0	11.0	1.39
243.00	281.00	0.29	11.0	10.0	1.29
281.00	324.00	0.24	10.0	9.0	1.22
324.00	372.00	0.20	9.0	8.0	1.16
372.00	426.00	0.18	8.0	7.0	1.12
426.00	487.00	0.15	7.0	6.0	1.10
487.00	554.00	0.13	6.0	5.0	1.07
554.00	628.00	0.12	5.0	4.0	1.05
628.00	710.00	0.11	4.0	3.0	1.05
710.00	802.00	0.10	3.0	2.0	1.06
802.00	902.00	0.09	2.0	1.0	1.04
902.00	955.50	0.08	1.0	0.5	1.04
955.50	1013.00	0.08	0.5	0.0	1.05

CO2=300PPMV NC H2O NO O3

ISOTHERMAL T=300K

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	459.29	0.0	459.29
0.95	459.29	1.25	458.04
1.76	459.29	1.99	457.30
3.33	459.29	3.53	455.76
6.52	459.29	6.49	452.79
13.20	459.29	11.83	447.45
27.70	459.29	20.86	438.43
32.20	459.29	23.26	436.02
37.60	459.29	25.91	433.38
43.70	459.29	28.64	430.64
51.00	459.29	31.61	427.68
59.50	459.29	34.72	424.56
69.50	459.29	37.99	421.29
81.20	459.29	41.38	417.91
95.00	459.29	44.88	414.41
111.00	459.29	48.39	410.89
130.00	459.29	51.97	407.31
153.00	459.29	55.64	403.64
179.00	459.29	59.11	400.17
209.00	459.29	62.46	396.83
243.00	459.29	65.62	393.67
281.00	459.29	68.56	390.72
324.00	459.29	71.36	387.93
372.00	459.29	73.99	385.30
426.00	459.29	76.52	382.77
487.00	459.29	78.97	380.32
554.00	459.29	81.31	377.98
628.00	459.29	83.57	375.72
710.00	459.29	85.79	373.50
802.00	459.29	87.99	371.30
902.00	459.29	90.12	369.17
955.90	459.29	91.17	368.11
1013.00	459.29	92.23	367.06

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	7.70	50.0	45.0	0.15
1.76	3.33	8.29	45.0	40.0	0.31
3.33	6.52	7.85	40.0	35.0	0.59
6.52	13.20	6.74	35.0	30.0	1.07
13.20	27.70	5.26	30.0	25.0	1.81
27.70	32.20	4.51	25.0	24.0	2.40
32.20	37.60	4.14	24.0	23.0	2.65
37.60	43.70	3.78	23.0	22.0	2.73
43.70	51.00	3.43	22.0	21.0	2.97
51.00	59.50	3.09	21.0	20.0	3.11
59.50	69.50	2.76	20.0	19.0	3.27
69.50	81.20	2.44	19.0	18.0	3.39
81.20	95.00	2.14	18.0	17.0	3.50
95.00	111.00	1.86	17.0	16.0	3.52
111.00	130.00	1.59	16.0	15.0	3.58
130.00	153.00	1.35	15.0	14.0	3.67
153.00	179.00	1.13	14.0	13.0	3.47
179.00	209.00	0.94	13.0	12.0	3.35
209.00	243.00	0.78	12.0	11.0	3.16
243.00	281.00	0.65	11.0	10.0	2.94
281.00	324.00	0.55	10.0	9.0	2.79
324.00	372.00	0.46	9.0	8.0	2.63
372.00	426.00	0.39	8.0	7.0	2.53
426.00	487.00	0.34	7.0	6.0	2.45
487.00	554.00	0.29	6.0	5.0	2.34
554.00	628.00	0.26	5.0	4.0	2.26
628.00	710.00	0.23	4.0	3.0	2.22
710.00	802.00	0.20	3.0	2.0	2.20
802.00	902.00	0.18	2.0	1.0	2.13
902.00	955.90	0.16	1.0	0.5	2.11
955.90	1013.00	0.16	0.5	0.0	2.11

CO2=600PPMV NO H2O NO O3

ISOTHERMAL T=300K

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	459.29	0.0	459.29
0.55	459.29	1.95	457.33
1.76	459.29	3.02	456.26
3.33	459.29	5.19	454.10
6.52	459.29	9.23	450.06
13.20	459.29	16.23	443.05
27.70	459.29	27.49	431.80
32.20	459.29	30.37	428.92
37.60	459.29	33.49	425.80
43.70	459.29	36.65	422.63
51.00	459.29	40.02	419.26
59.50	459.29	43.48	415.80
69.50	459.29	47.04	412.25
81.20	459.29	50.63	408.65
95.00	459.29	54.25	405.03
111.00	459.29	57.81	401.47
130.00	459.29	61.35	397.93
153.00	459.29	64.91	394.38
179.00	459.29	68.22	391.07
209.00	459.29	71.37	387.91
243.00	459.29	74.34	384.94
281.00	459.29	77.13	382.16
324.00	459.29	79.80	379.49
372.00	459.29	82.35	376.93
426.00	459.29	84.84	374.45
487.00	459.29	87.29	372.00
554.00	459.29	89.64	369.65
628.00	459.29	91.92	367.36
710.00	459.29	94.15	365.13
802.00	459.29	96.35	362.94
902.00	459.29	98.44	360.85
955.90	459.29	99.46	359.83
1013.00	459.29	100.47	358.82

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.55	1.76	11.13	50.0	45.0	0.21
1.76	3.33	11.64	45.0	40.0	0.43
3.33	6.52	10.69	40.0	35.0	0.81
6.52	13.20	8.85	35.0	30.0	1.40
13.20	27.70	6.95	30.0	25.0	2.25
27.70	32.20	5.40	25.0	24.0	2.88
32.20	37.60	4.88	24.0	23.0	3.12
37.60	43.70	4.38	23.0	22.0	3.16
43.70	51.00	3.90	22.0	21.0	3.37
51.00	59.50	3.44	21.0	20.0	3.46
59.50	69.50	3.00	20.0	19.0	3.55
69.50	81.20	2.59	19.0	18.0	3.59
81.20	95.00	2.22	18.0	17.0	3.62
95.00	111.00	1.88	17.0	16.0	3.56
111.00	130.00	1.57	16.0	15.0	3.54
130.00	153.00	1.30	15.0	14.0	3.55
153.00	179.00	1.07	14.0	13.0	3.31
179.00	209.00	0.89	13.0	12.0	3.16
209.00	243.00	0.74	12.0	11.0	2.97
243.00	281.00	0.62	11.0	10.0	2.78
281.00	324.00	0.52	10.0	9.0	2.67
324.00	372.00	0.45	9.0	8.0	2.55
372.00	426.00	0.39	8.0	7.0	2.49
426.00	487.00	0.34	7.0	6.0	2.45
487.00	554.00	0.30	6.0	5.0	2.35
554.00	628.00	0.26	5.0	4.0	2.28
628.00	710.00	0.23	4.0	3.0	2.23
710.00	802.00	0.20	3.0	2.0	2.20
802.00	902.00	0.18	2.0	1.0	2.09
902.00	955.90	0.16	1.0	0.5	2.04
955.90	1013.00	0.15	0.5	0.0	2.02

CO2=300PPMV NO H2O NO O3

TROPICAL

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	413.88	0.0	413.88
0.85	413.78	0.64	413.14
1.59	413.67	0.98	412.69
3.05	413.42	1.54	411.88
6.00	413.03	2.33	410.71
12.20	412.46	3.39	409.07
25.70	411.60	4.74	406.86
30.00	411.42	5.05	406.37
35.00	411.23	5.36	405.87
40.90	411.01	5.68	405.34
48.00	410.72	5.91	404.81
56.50	410.47	6.07	404.39
66.60	410.28	6.18	404.10
78.90	410.19	6.23	403.96
93.70	410.33	6.21	404.11
111.00	411.01	6.52	404.48
132.00	412.22	7.52	404.70
156.00	413.59	8.96	404.63
182.00	415.23	10.87	404.35
213.00	417.17	13.41	403.76
247.00	419.21	16.21	403.00
286.00	421.73	19.64	402.09
329.00	424.53	23.63	400.90
378.00	427.42	27.90	399.53
432.00	430.90	32.83	398.06
492.00	434.69	38.47	396.22
559.00	438.44	44.30	394.14
633.00	442.87	51.05	391.83
715.00	447.49	58.68	388.81
805.00	450.75	65.17	385.58
904.00	455.31	72.99	382.31
956.50	457.42	77.12	380.30
1013.00	459.29	81.57	377.72

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.85	1.59	5.13	50.0	45.0	0.09
1.59	3.05	4.69	45.0	40.0	0.16
3.05	6.00	3.36	40.0	35.0	0.23
6.00	12.20	2.23	35.0	30.0	0.33
12.20	25.70	1.38	30.0	25.0	0.44
25.70	30.00	0.95	25.0	24.0	0.49
30.00	35.00	0.85	24.0	23.0	0.50
35.00	40.90	0.77	23.0	22.0	0.54
40.90	48.00	0.63	22.0	21.0	0.53
48.00	56.50	0.41	21.0	20.0	0.42
56.50	66.60	0.24	20.0	19.0	0.29
66.60	78.90	0.09	19.0	18.0	0.14
78.90	93.70	-0.08	18.0	17.0	-0.15
93.70	111.00	-0.18	17.0	16.0	-0.37
111.00	132.00	-0.09	16.0	15.0	-0.22
132.00	156.00	0.03	15.0	14.0	0.07
156.00	182.00	0.09	14.0	13.0	0.27
182.00	213.00	0.16	13.0	12.0	0.59
213.00	247.00	0.19	12.0	11.0	0.76
247.00	286.00	0.20	11.0	10.0	0.91
286.00	329.00	0.23	10.0	9.0	1.19
329.00	378.00	0.24	9.0	8.0	1.38
378.00	432.00	0.23	8.0	7.0	1.46
432.00	492.00	0.26	7.0	6.0	1.84
492.00	559.00	0.26	6.0	5.0	2.08
559.00	633.00	0.26	5.0	4.0	2.32
633.00	715.00	0.31	4.0	3.0	3.02
715.00	805.00	0.30	3.0	2.0	3.23
805.00	904.00	0.28	2.0	1.0	3.26
904.00	956.50	0.32	1.0	0.5	4.03
956.50	1013.00	0.39	0.5	0.0	5.16

CO2=600PPMV NO H2O NO O3

TROPICAL

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	409.48	0.0	409.48
0.85	409.33	1.01	408.32
1.59	409.17	1.50	407.67
3.05	408.82	2.27	406.55
6.00	408.28	3.31	404.97
12.20	407.49	4.68	402.82
25.70	406.34	6.32	400.02
30.00	406.10	6.68	399.42
35.00	405.85	7.03	398.81
40.90	405.55	7.39	398.16
48.00	405.15	7.62	397.53
56.50	404.79	7.74	397.05
66.60	404.51	7.79	396.73
78.90	404.34	7.75	396.59
93.70	404.42	7.63	396.79
111.00	405.18	7.94	397.24
132.00	406.60	9.10	397.50
156.00	408.16	10.75	397.42
182.00	410.05	12.93	397.12
213.00	412.28	15.78	396.50
247.00	414.57	18.84	395.73
286.00	417.42	22.58	394.84
329.00	420.58	26.91	393.67
378.00	423.80	31.48	392.32
432.00	427.69	36.81	390.88
492.00	431.94	42.92	389.02
559.00	436.09	49.21	386.88
633.00	441.02	56.58	384.45
715.00	446.18	64.92	381.27
805.00	449.77	71.93	377.83
904.00	454.80	80.46	374.35
956.90	457.16	84.93	372.23
1013.00	459.29	89.73	369.56

PRESSURE (MB) FROM	TO	COOLING RATE (CELCILS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.85	1.59	7.37	50.0	45.0	0.13
1.59	3.05	6.50	45.0	40.0	0.22
3.05	6.00	4.53	40.0	35.0	0.32
6.00	12.20	2.93	35.0	30.0	0.43
12.20	25.70	1.75	30.0	25.0	0.56
25.70	30.00	1.17	25.0	24.0	0.60
30.00	35.00	1.03	24.0	23.0	0.61
35.00	40.90	0.93	23.0	22.0	0.65
40.90	48.00	0.75	22.0	21.0	0.63
48.00	56.50	0.48	21.0	20.0	0.48
56.50	66.60	0.27	20.0	19.0	0.33
66.60	78.90	0.09	19.0	18.0	0.14
78.90	93.70	-0.11	18.0	17.0	-0.20
93.70	111.00	-0.22	17.0	16.0	-0.45
111.00	132.00	-0.10	16.0	15.0	-0.26
132.00	156.00	0.03	15.0	14.0	0.08
156.00	182.00	0.10	14.0	13.0	0.29
182.00	213.00	0.17	13.0	12.0	0.62
213.00	247.00	0.19	12.0	11.0	0.77
247.00	286.00	0.19	11.0	10.0	0.89
286.00	329.00	0.23	10.0	9.0	1.17
329.00	378.00	0.23	9.0	8.0	1.35
378.00	432.00	0.23	8.0	7.0	1.45
432.00	492.00	0.26	7.0	6.0	1.85
492.00	559.00	0.27	6.0	5.0	2.14
559.00	633.00	0.28	5.0	4.0	2.44
633.00	715.00	0.33	4.0	3.0	3.18
715.00	805.00	0.32	3.0	2.0	3.43
805.00	904.00	0.30	2.0	1.0	3.49
904.00	956.90	0.34	1.0	0.5	4.24
956.90	1013.00	0.40	0.5	0.0	5.33

CO2=300PPMV NO H2O NO O3

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	384.94	0.0	384.94
0.95	384.81	0.78	384.03
1.76	384.67	1.20	383.46
3.33	384.36	1.85	382.51
6.52	383.90	2.70	381.19
13.20	383.31	3.84	379.48
27.70	382.58	5.35	377.23
32.20	382.49	5.74	376.75
37.60	382.39	6.17	376.22
43.70	382.27	6.57	375.70
51.00	382.21	7.03	375.18
59.50	382.16	7.52	374.64
69.50	382.14	8.03	374.11
81.20	382.17	8.56	373.61
95.00	382.32	9.19	373.13
111.00	382.51	9.88	372.63
130.00	382.79	10.62	372.18
153.00	383.24	11.41	371.83
179.00	383.99	12.19	371.81
209.00	385.73	13.86	371.87
243.00	387.86	16.40	371.46
281.00	390.07	19.35	370.72
324.00	392.75	23.00	369.74
372.00	395.52	27.01	368.52
426.00	398.80	31.76	367.03
487.00	402.06	36.82	365.24
554.00	405.58	42.24	363.34
628.00	409.37	48.20	361.17
710.00	413.33	54.70	358.62
802.00	417.41	61.86	355.55
902.00	420.98	68.94	352.04
955.90	422.34	72.25	350.09
1013.00	423.54	75.68	347.86

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	5.90	50.0	45.0	0.11
1.76	3.33	5.14	45.0	40.0	0.19
3.33	6.52	3.48	40.0	35.0	0.26
6.52	13.20	2.17	35.0	30.0	0.34
13.20	27.70	1.31	30.0	25.0	0.45
27.70	32.20	0.88	25.0	24.0	0.47
32.20	37.60	0.83	24.0	23.0	0.53
37.60	43.70	0.72	23.0	22.0	0.52
43.70	51.00	0.60	22.0	21.0	0.52
51.00	59.50	0.54	21.0	20.0	0.54
59.50	69.50	0.45	20.0	19.0	0.54
69.50	81.20	0.36	19.0	18.0	0.50
81.20	95.00	0.30	18.0	17.0	0.48
95.00	111.00	0.26	17.0	16.0	0.49
111.00	130.00	0.20	16.0	15.0	0.46
130.00	153.00	0.13	15.0	14.0	0.35
153.00	179.00	0.01	14.0	13.0	0.02
179.00	209.00	-0.02	13.0	12.0	-0.06
209.00	243.00	0.10	12.0	11.0	0.41
243.00	281.00	0.16	11.0	10.0	0.73
281.00	324.00	0.19	10.0	9.0	0.98
324.00	372.00	0.22	9.0	8.0	1.23
372.00	426.00	0.23	8.0	7.0	1.48
426.00	487.00	0.25	7.0	6.0	1.79
487.00	554.00	0.24	6.0	5.0	1.91
554.00	628.00	0.25	5.0	4.0	2.17
628.00	710.00	0.26	4.0	3.0	2.54
710.00	802.00	0.28	3.0	2.0	3.07
802.00	902.00	0.30	2.0	1.0	3.51
902.00	955.90	0.31	1.0	0.5	3.91
955.90	1013.00	0.33	0.5	0.0	4.45

CO2=330PPMV NO H2O NO O3

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	381.37	0.0	381.37
0.65	381.19	1.23	379.96
1.76	380.98	1.83	379.15
3.33	380.54	2.71	377.83
6.52	379.89	3.83	376.06
13.20	379.09	5.28	373.82
27.70	378.10	7.12	370.99
32.20	377.98	7.57	370.42
37.60	377.84	8.07	369.77
43.70	377.68	8.52	369.16
51.00	377.59	9.03	368.56
59.50	377.51	9.57	367.94
69.50	377.45	10.11	367.34
81.20	377.47	10.67	366.80
95.00	377.61	11.32	366.28
111.00	377.80	12.03	365.77
130.00	378.08	12.78	365.30
153.00	378.52	13.56	364.96
179.00	379.30	14.31	364.99
209.00	381.26	16.16	365.10
243.00	383.69	18.99	364.71
281.00	386.19	22.20	363.98
324.00	389.21	26.18	363.03
372.00	392.31	30.48	361.83
426.00	396.00	35.62	360.38
487.00	399.63	41.05	358.58
554.00	403.54	46.92	356.63
628.00	407.76	53.40	354.36
710.00	412.16	60.49	351.66
802.00	416.70	68.31	348.39
902.00	420.66	75.99	344.67
955.90	422.17	79.57	342.60
1013.00	423.54	83.26	340.28

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.00	1.76	8.45	50.0	45.0	0.16
1.76	3.33	7.11	45.0	40.0	0.26
3.33	6.52	4.67	40.0	35.0	0.35
6.52	13.20	2.83	35.0	30.0	0.45
13.20	27.70	1.65	30.0	25.0	0.57
27.70	32.20	1.07	25.0	24.0	0.57
32.20	37.60	1.00	24.0	23.0	0.64
37.60	43.70	0.85	23.0	22.0	0.62
43.70	51.00	0.70	22.0	21.0	0.60
51.00	59.50	0.61	21.0	20.0	0.62
59.50	69.50	0.51	20.0	19.0	0.60
69.50	81.20	0.39	19.0	18.0	0.54
81.20	95.00	0.32	18.0	17.0	0.52
95.00	111.00	0.27	17.0	16.0	0.52
111.00	130.00	0.21	16.0	15.0	0.47
130.00	153.00	0.12	15.0	14.0	0.34
153.00	179.00	-0.01	14.0	13.0	-0.03
179.00	209.00	-0.03	13.0	12.0	-0.11
209.00	243.00	0.10	12.0	11.0	0.39
243.00	281.00	0.16	11.0	10.0	0.72
281.00	324.00	0.19	10.0	9.0	0.95
324.00	372.00	0.21	9.0	8.0	1.20
372.00	426.00	0.23	8.0	7.0	1.46
426.00	487.00	0.25	7.0	6.0	1.79
487.00	554.00	0.25	6.0	5.0	1.95
554.00	628.00	0.26	5.0	4.0	2.27
628.00	710.00	0.28	4.0	3.0	2.69
710.00	802.00	0.30	3.0	2.0	3.27
802.00	902.00	0.31	2.0	1.0	3.73
902.00	955.90	0.32	1.0	0.5	4.13
955.90	1013.00	0.34	0.5	0.0	4.64

CO2=300 PPMV NO H2O NO O3

MIDLATITUDE WINTER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	285.42	0.0	285.42
0.68	285.31	0.50	284.81
1.29	285.20	0.74	284.46
2.53	284.97	1.10	283.87
5.18	284.66	1.57	283.09
11.10	284.37	2.24	282.13
24.30	284.30	3.56	280.75
28.60	284.32	3.97	280.35
33.40	284.34	4.41	279.93
39.10	284.36	4.91	279.45
45.80	284.40	5.46	278.94
53.70	284.45	6.06	278.39
62.80	284.52	6.70	277.82
73.50	284.63	7.41	277.22
86.10	284.76	8.21	276.56
100.70	284.92	9.05	275.87
117.80	285.11	9.94	275.17
137.80	285.36	10.90	274.46
161.00	285.64	11.87	273.76
188.20	286.00	12.87	273.13
219.90	286.49	13.87	272.62
256.80	287.31	14.87	272.44
299.20	289.21	16.93	272.29
347.30	291.36	19.68	271.68
401.60	293.76	22.97	270.79
462.70	296.37	26.72	269.65
531.30	299.20	30.93	268.27
608.10	302.22	35.52	266.60
693.80	305.29	40.81	264.48
789.70	307.40	45.31	262.08
897.30	309.55	49.84	259.71
955.70	310.55	52.14	258.41
1018.00	311.36	54.50	256.87

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.68	1.29	4.86	50.0	45.0	0.07
1.29	2.53	4.05	45.0	40.0	0.12
2.53	5.18	2.47	40.0	35.0	0.15
5.18	11.10	1.38	35.0	30.0	0.19
11.10	24.30	0.88	30.0	25.0	0.23
24.30	28.60	0.78	25.0	24.0	0.40
28.60	33.40	0.74	24.0	23.0	0.42
33.40	39.10	0.70	23.0	22.0	0.47
39.10	45.80	0.65	22.0	21.0	0.51
45.80	53.70	0.59	21.0	20.0	0.55
53.70	62.80	0.53	20.0	19.0	0.57
62.80	73.50	0.48	19.0	18.0	0.60
73.50	86.10	0.44	18.0	17.0	0.66
86.10	100.70	0.40	17.0	16.0	0.68
100.70	117.80	0.35	16.0	15.0	0.70
117.80	137.80	0.30	15.0	14.0	0.71
137.80	161.00	0.25	14.0	13.0	0.69
161.00	188.20	0.20	13.0	12.0	0.64
188.20	219.90	0.13	12.0	11.0	0.51
219.90	256.80	0.04	11.0	10.0	0.18
256.80	299.20	0.03	10.0	9.0	0.15
299.20	347.30	0.11	9.0	8.0	0.60
347.30	401.60	0.14	8.0	7.0	0.89
401.60	462.70	0.16	7.0	6.0	1.14
462.70	531.30	0.17	6.0	5.0	1.38
531.30	608.10	0.18	5.0	4.0	1.67
608.10	693.80	0.21	4.0	3.0	2.12
693.80	789.70	0.21	3.0	2.0	2.39
789.70	897.30	0.19	2.0	1.0	2.37
897.30	955.70	0.19	1.0	0.5	2.61
955.70	1018.00	0.21	0.5	0.0	3.08

CO2=600PPMV NO H2O NO O3

MIDLATITUDE WINTER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	282.89	0.0	282.89
0.68	282.73	0.80	281.93
1.29	282.57	1.15	281.42
2.53	282.24	1.64	280.60
5.18	281.80	2.24	279.55
11.10	281.39	3.11	278.29
24.30	281.30	4.77	276.52
28.60	281.32	5.29	276.03
33.40	281.34	5.83	275.51
39.10	281.36	6.43	274.93
45.80	281.40	7.09	274.31
53.70	281.45	7.79	273.66
62.80	281.53	8.52	273.00
73.50	281.66	9.34	272.32
86.10	281.82	10.22	271.59
100.70	281.99	11.14	270.85
117.80	282.20	12.10	270.11
137.80	282.47	13.09	269.38
161.00	282.77	14.08	268.68
188.20	283.14	15.07	268.07
219.90	283.65	16.05	267.60
256.80	284.48	17.00	267.47
299.20	286.63	19.26	267.37
347.30	289.04	22.24	266.79
401.60	291.73	25.79	265.94
462.70	294.65	29.83	264.82
531.30	297.80	34.37	263.43
608.10	301.17	39.46	261.71
693.80	304.81	45.11	259.50
789.70	306.94	49.99	256.96
897.30	309.32	54.93	254.39
955.70	310.44	57.46	252.98
1018.00	311.36	60.02	251.34

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.68	1.29	7.01	50.0	45.0	0.10
1.29	2.53	5.61	45.0	40.0	0.16
2.53	5.18	3.32	40.0	35.0	0.21
5.18	11.10	1.81	35.0	30.0	0.25
11.10	24.30	1.13	30.0	25.0	0.35
24.30	28.60	0.97	25.0	24.0	0.50
28.60	33.40	0.92	24.0	23.0	0.52
33.40	39.10	0.85	23.0	22.0	0.58
39.10	45.80	0.78	22.0	21.0	0.62
45.80	53.70	0.70	21.0	20.0	0.65
53.70	62.80	0.61	20.0	19.0	0.66
62.80	73.50	0.54	19.0	18.0	0.68
73.50	86.10	0.49	18.0	17.0	0.73
86.10	100.70	0.43	17.0	16.0	0.74
100.70	117.80	0.37	16.0	15.0	0.74
117.80	137.80	0.31	15.0	14.0	0.73
137.80	161.00	0.25	14.0	13.0	0.69
161.00	188.20	0.19	13.0	12.0	0.61
188.20	219.90	0.12	12.0	11.0	0.47
219.90	256.80	0.03	11.0	10.0	0.13
256.80	299.20	0.02	10.0	9.0	0.10
299.20	347.30	0.10	9.0	8.0	0.57
347.30	401.60	0.13	8.0	7.0	0.86
401.60	462.70	0.15	7.0	6.0	1.12
462.70	531.30	0.17	6.0	5.0	1.39
531.30	608.10	0.19	5.0	4.0	1.72
608.10	693.80	0.22	4.0	3.0	2.22
693.80	789.70	0.22	3.0	2.0	2.54
789.70	897.30	0.20	2.0	1.0	2.57
897.30	955.70	0.20	1.0	0.5	2.83
955.70	1018.00	0.22	0.5	0.0	3.28

CO2=300 PPMV NO H2O NO O3

SUBARCTIC SUMMER

PRESSURE (MB)	FLUXES (#/M**2) UP	DOWN	NET
0.0	352.46	0.0	352.46
0.99	352.34	0.82	351.52
1.81	352.20	1.28	350.92
3.40	351.86	2.01	349.85
6.61	351.33	2.91	348.43
13.40	350.74	4.04	346.70
27.80	350.19	5.74	344.45
32.27	350.09	6.15	343.95
37.50	350.06	6.60	343.47
43.60	350.09	7.14	342.95
50.70	350.11	7.76	342.35
58.90	350.14	8.45	341.69
68.60	350.19	9.21	340.97
79.80	350.24	10.02	340.22
92.80	350.31	10.88	339.43
108.00	350.41	11.78	338.63
125.00	350.53	12.67	337.86
146.00	350.70	13.64	337.06
170.00	350.93	14.59	336.33
197.70	351.25	15.54	335.72
230.00	351.75	16.46	335.29
267.70	352.67	17.37	335.30
310.70	355.09	19.73	335.36
359.00	357.86	23.06	334.80
413.00	360.90	27.07	333.83
473.00	364.25	31.74	332.50
541.00	367.84	37.10	330.74
616.00	371.25	42.62	328.62
700.00	374.44	48.13	326.31
792.00	377.81	53.90	323.91
896.00	381.81	60.77	321.04
951.30	385.43	66.14	319.29
1010.00	388.79	67.63	317.16

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.99	1.81	6.16	50.0	45.0	0.12
1.81	3.40	5.70	45.0	40.0	0.21
3.40	6.61	3.74	40.0	35.0	0.28
6.61	13.40	2.15	35.0	30.0	0.35
13.40	27.80	1.32	30.0	25.0	0.45
27.80	32.27	0.94	25.0	24.0	0.50
32.27	37.50	0.77	24.0	23.0	0.48
37.50	43.60	0.72	23.0	22.0	0.52
43.60	50.70	0.71	22.0	21.0	0.60
50.70	58.90	0.67	21.0	20.0	0.65
58.90	68.60	0.62	20.0	19.0	0.72
68.60	79.80	0.57	19.0	18.0	0.75
79.30	92.80	0.51	18.0	17.0	0.78
92.80	108.00	0.45	17.0	16.0	0.80
108.00	125.00	0.38	16.0	15.0	0.77
125.00	146.00	0.32	15.0	14.0	0.80
146.00	170.00	0.26	14.0	13.0	0.73
170.00	197.70	0.19	13.0	12.0	0.62
197.70	230.00	0.11	12.0	11.0	0.43
230.00	267.70	-0.00	11.0	10.0	-0.01
267.70	310.70	-0.01	10.0	9.0	-0.06
310.70	359.00	0.10	9.0	8.0	0.57
359.00	413.00	0.15	8.0	7.0	0.97
413.00	473.00	0.19	7.0	6.0	1.33
473.00	541.00	0.22	6.0	5.0	1.76
541.00	616.00	0.24	5.0	4.0	2.12
616.00	700.00	0.23	4.0	3.0	2.31
700.00	792.00	0.22	3.0	2.0	2.40
792.00	896.00	0.23	2.0	1.0	2.87
896.00	951.30	0.27	1.0	0.5	3.50
951.30	1010.00	0.31	0.5	0.0	4.26

CO2=600PPMV NO H2O NO O3

SUBARCTIC SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	349.67	0.0	349.67
0.99	349.50	1.29	348.21
1.81	349.31	1.95	347.36
3.40	348.82	2.95	345.87
6.61	348.07	4.11	343.96
13.40	347.26	5.55	341.71
27.80	346.52	7.64	338.88
32.27	346.39	8.11	338.28
37.50	346.34	8.63	337.71
43.60	346.36	9.26	337.10
50.70	346.39	9.99	336.40
58.90	346.42	10.77	335.65
68.60	346.47	11.62	334.84
79.80	346.53	12.51	334.01
92.80	346.60	13.43	333.17
108.00	346.70	14.37	332.32
125.00	346.82	15.29	331.53
146.00	346.99	16.25	330.73
170.00	347.21	17.18	330.03
197.70	347.53	18.07	329.46
230.00	348.02	18.93	329.08
267.70	348.93	19.76	329.16
310.70	351.66	22.38	329.27
359.00	354.76	26.03	328.73
413.00	358.16	30.38	327.78
473.00	361.91	35.44	326.47
541.00	365.94	41.25	324.68
616.00	369.74	47.23	322.50
700.00	373.28	53.20	320.08
792.00	377.00	59.50	317.50
896.00	381.43	67.02	314.41
951.30	383.24	70.70	312.54
1010.00	384.79	74.49	310.30

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.99	1.81	8.83	50.0	45.0	0.17
1.81	3.40	7.91	45.0	40.0	0.30
3.40	6.61	5.02	40.0	35.0	0.38
6.61	13.40	2.80	35.0	30.0	0.45
13.40	27.80	1.66	30.0	25.0	0.57
27.80	32.27	1.14	25.0	24.0	0.60
32.27	37.50	0.91	24.0	23.0	0.57
37.50	43.60	0.85	23.0	22.0	0.61
43.60	50.70	0.83	22.0	21.0	0.70
50.70	58.90	0.77	21.0	20.0	0.75
58.90	68.60	0.70	20.0	19.0	0.81
68.60	79.80	0.63	19.0	18.0	0.83
79.80	92.80	0.55	18.0	17.0	0.84
92.80	108.00	0.47	17.0	16.0	0.85
108.00	125.00	0.39	16.0	15.0	0.79
125.00	146.00	0.32	15.0	14.0	0.79
146.00	170.00	0.25	14.0	13.0	0.70
170.00	197.70	0.18	13.0	12.0	0.57
197.70	230.00	0.10	12.0	11.0	0.38
230.00	267.70	-0.02	11.0	10.0	-0.08
267.70	310.70	-0.02	10.0	9.0	-0.11
310.70	359.00	0.10	9.0	8.0	0.54
359.00	413.00	0.15	8.0	7.0	0.95
413.00	473.00	0.19	7.0	6.0	1.32
473.00	541.00	0.22	6.0	5.0	1.78
541.00	616.00	0.25	5.0	4.0	2.18
616.00	700.00	0.24	4.0	3.0	2.43
700.00	792.00	0.24	3.0	2.0	2.58
792.00	896.00	0.25	2.0	1.0	3.09
896.00	951.30	0.29	1.0	0.5	3.74
951.30	1010.00	0.32	0.5	0.0	4.47

CO2=300 PPMV NO H2O NO O3

SUBARCTIC WINTER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	230.34	0.0	230.34
0.58	230.24	0.39	229.85
1.11	230.13	0.57	229.56
2.24	229.98	0.82	229.17
4.70	229.78	1.20	228.57
10.20	229.61	1.88	227.73
22.56	229.49	3.06	226.44
26.49	229.55	3.41	226.13
31.09	229.61	3.84	225.77
36.47	229.68	4.33	225.35
42.77	229.75	4.88	224.87
50.14	229.83	5.49	224.33
58.75	229.92	6.18	223.75
68.82	230.02	6.92	223.10
80.58	230.13	7.73	222.40
94.31	230.24	8.59	221.65
110.30	230.36	9.50	220.85
129.10	230.44	10.40	220.03
151.00	230.54	11.29	219.25
176.60	230.69	12.16	218.53
206.70	230.90	13.03	217.87
241.80	231.22	13.86	217.36
282.90	231.79	14.67	217.12
330.80	233.21	16.12	217.09
385.30	235.47	18.66	216.81
446.70	238.03	21.98	216.05
515.80	240.78	25.88	214.90
593.20	243.67	30.39	213.28
679.80	245.84	34.72	211.11
777.50	247.43	38.47	209.01
887.80	248.79	42.27	206.53
948.30	248.28	43.06	205.22
1013.00	247.82	43.54	204.27

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.58	1.11	4.48	50.0	45.0	0.05
1.11	2.24	2.96	45.0	40.0	0.03
2.24	4.70	2.03	40.0	35.0	0.12
4.70	10.20	1.29	35.0	30.0	0.17
10.20	22.56	0.88	30.0	25.0	0.26
22.56	26.49	0.65	25.0	24.0	0.30
26.49	31.09	0.66	24.0	23.0	0.36
31.09	36.47	0.66	23.0	22.0	0.42
36.47	42.77	0.65	22.0	21.0	0.48
42.77	50.14	0.61	21.0	20.0	0.53
50.14	58.75	0.58	20.0	19.0	0.59
58.75	68.82	0.54	19.0	18.0	0.65
68.82	80.58	0.50	18.0	17.0	0.70
80.58	94.31	0.46	17.0	16.0	0.75
94.31	110.30	0.42	16.0	15.0	0.80
110.30	129.10	0.37	15.0	14.0	0.82
129.10	151.00	0.30	14.0	13.0	0.78
151.00	176.60	0.24	13.0	12.0	0.73
176.60	206.70	0.18	12.0	11.0	0.65
206.70	241.80	0.12	11.0	10.0	0.52
241.80	282.90	0.05	10.0	9.0	0.24
282.90	330.80	0.01	9.0	8.0	0.03
330.80	385.30	0.04	8.0	7.0	0.28
385.30	446.70	0.10	7.0	6.0	0.76
446.70	515.80	0.14	6.0	5.0	1.15
515.80	593.20	0.18	5.0	4.0	1.62
593.20	679.80	0.20	4.0	3.0	2.07
679.80	777.50	0.19	3.0	2.0	2.20
777.50	887.80	0.19	2.0	1.0	2.48
887.80	948.30	0.18	1.0	0.5	2.62
948.30	1013.00	0.12	0.5	0.0	1.89

CO2=600PPMV NO H2O NO O3

SUBARCTIC WINTER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	228.63	0.0	228.63
0.58	228.48	0.63	227.85
1.11	228.33	0.88	227.45
2.24	228.12	1.22	226.90
4.70	227.84	1.73	226.10
10.20	227.60	2.62	224.99
22.56	227.43	4.11	223.32
26.49	227.50	4.56	222.94
31.09	227.57	5.09	222.49
36.47	227.66	5.69	221.97
42.77	227.75	6.37	221.38
50.14	227.85	7.10	220.75
58.75	227.96	7.91	220.06
68.82	228.08	8.77	219.31
80.58	228.21	9.68	218.53
94.31	228.35	10.64	217.71
110.30	228.48	11.63	216.85
129.10	228.56	12.56	215.99
151.00	228.67	13.46	215.21
176.60	228.81	14.31	214.50
206.70	229.02	15.13	213.89
241.80	229.33	15.91	213.42
282.90	229.89	16.65	213.24
330.80	231.43	18.18	213.26
385.30	233.96	20.96	213.00
446.70	236.63	24.57	212.25
515.80	239.90	28.80	211.10
593.20	243.15	33.69	209.46
679.80	245.70	38.36	207.33
777.50	247.41	42.41	205.00
887.80	248.91	46.56	202.35
948.30	248.34	47.38	200.96
1013.00	247.82	47.90	199.92

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.58	1.11	6.42	50.0	45.0	0.08
1.11	2.24	4.09	45.0	40.0	0.11
2.24	4.70	2.74	40.0	35.0	0.16
4.70	10.20	1.71	35.0	30.0	0.22
10.20	22.56	1.14	30.0	25.0	0.33
22.56	26.49	0.82	25.0	24.0	0.38
26.49	31.09	0.83	24.0	23.0	0.45
31.09	36.47	0.81	23.0	22.0	0.52
36.47	42.77	0.78	22.0	21.0	0.59
42.77	50.14	0.73	21.0	20.0	0.64
50.14	58.75	0.67	20.0	19.0	0.69
58.75	68.82	0.62	19.0	18.0	0.74
68.82	80.58	0.56	18.0	17.0	0.78
80.58	94.31	0.50	17.0	16.0	0.82
94.31	110.30	0.45	16.0	15.0	0.86
110.30	129.10	0.38	15.0	14.0	0.86
129.10	151.00	0.30	14.0	13.0	0.78
151.00	176.60	0.23	13.0	12.0	0.71
176.60	206.70	0.17	12.0	11.0	0.61
206.70	241.80	0.11	11.0	10.0	0.47
241.80	282.90	0.04	10.0	9.0	0.18
282.90	330.80	-0.00	9.0	8.0	-0.02
330.80	385.30	0.04	8.0	7.0	0.26
385.30	446.70	0.10	7.0	6.0	0.74
446.70	515.80	0.14	6.0	5.0	1.15
515.80	593.20	0.18	5.0	4.0	1.64
593.20	679.80	0.21	4.0	3.0	2.13
679.80	777.50	0.20	3.0	2.0	2.53
777.50	887.80	0.20	2.0	1.0	2.65
887.80	948.30	0.19	1.0	0.5	2.79
948.30	1013.00	0.14	0.5	0.0	2.09

H2O*0.75 NO CO2 NO O3

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	335.21	0.0	335.21
0.55	335.21	0.33	334.87
1.76	335.20	0.33	334.87
3.33	335.18	0.30	334.87
6.52	335.15	0.28	334.87
13.20	335.11	0.26	334.85
27.70	335.08	0.60	334.48
32.20	335.07	0.63	334.44
37.60	335.06	0.81	334.25
43.70	335.04	0.96	334.08
51.00	335.04	1.10	333.94
59.50	335.04	1.30	333.73
69.50	335.04	1.50	333.54
81.20	335.05	1.83	333.22
95.00	335.08	2.04	333.03
111.00	335.11	2.52	332.59
130.00	335.15	2.78	332.37
153.00	335.20	3.51	331.69
179.00	335.31	4.01	331.30
209.00	335.67	6.09	329.58
243.00	336.50	11.30	325.20
281.00	338.07	20.77	317.30
324.00	340.92	33.02	307.90
372.00	344.42	46.81	297.61
426.00	349.60	63.52	286.08
487.00	355.54	82.98	272.56
554.00	362.94	104.79	258.14
628.00	372.00	131.10	240.89
710.00	383.71	164.91	218.80
802.00	398.01	207.23	190.78
902.00	412.29	254.94	157.35
955.90	418.33	280.15	138.17
1013.00	423.54	306.08	117.47

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	0.00	50.0	45.0	0.00
1.76	3.33	0.00	45.0	40.0	0.00
3.33	6.52	0.01	40.0	35.0	0.00
6.52	13.20	0.02	35.0	30.0	0.00
13.20	27.70	0.22	30.0	25.0	0.07
27.70	32.20	0.07	25.0	24.0	0.04
32.20	37.60	0.29	24.0	23.0	0.19
37.60	43.70	0.24	23.0	22.0	0.17
43.70	51.00	0.16	22.0	21.0	0.14
51.00	59.50	0.21	21.0	20.0	0.21
59.50	69.50	0.16	20.0	19.0	0.19
69.50	81.20	0.23	19.0	18.0	0.32
81.20	95.00	0.12	18.0	17.0	0.19
95.00	111.00	0.23	17.0	16.0	0.44
111.00	130.00	0.10	16.0	15.0	0.22
130.00	153.00	0.25	15.0	14.0	0.68
153.00	179.00	0.13	14.0	13.0	0.39
179.00	209.00	0.48	13.0	12.0	1.72
209.00	243.00	1.09	12.0	11.0	4.38
243.00	281.00	1.75	11.0	10.0	7.90
281.00	324.00	1.85	10.0	9.0	9.41
324.00	372.00	1.81	9.0	8.0	10.29
372.00	426.00	1.80	8.0	7.0	11.53
426.00	487.00	1.87	7.0	6.0	13.52
487.00	554.00	1.82	6.0	5.0	14.42
554.00	628.00	1.97	5.0	4.0	17.25
628.00	710.00	2.27	4.0	3.0	22.09
710.00	802.00	2.57	3.0	2.0	28.02
802.00	902.00	2.82	2.0	1.0	33.43
902.00	955.90	3.00	1.0	0.5	38.35
955.90	1013.00	3.06	0.5	0.0	41.41

H2O*0.75 NO CO2 NO O3 NO E-TYPE

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	341.24	0.0	341.24
0.95	341.24	0.33	340.91
1.76	341.23	0.33	340.91
3.33	341.21	0.30	340.91
6.52	341.18	0.28	340.90
13.20	341.15	0.26	340.88
27.70	341.11	0.60	340.51
32.20	341.10	0.63	340.47
37.60	341.10	0.81	340.29
43.70	341.07	0.96	340.11
51.00	341.07	1.10	339.97
59.50	341.07	1.30	339.77
69.50	341.06	1.50	339.57
81.20	341.09	1.83	339.26
95.00	341.11	2.04	339.07
111.00	341.14	2.52	338.62
130.00	341.18	2.78	338.41
153.00	341.23	3.51	337.72
179.00	341.34	4.01	337.33
209.00	341.70	6.09	335.61
243.00	342.53	11.30	331.23
281.00	344.10	20.76	323.34
324.00	346.94	32.99	313.95
372.00	350.42	46.71	303.70
426.00	355.54	63.27	292.28
487.00	361.38	82.36	279.02
554.00	368.60	103.40	265.20
628.00	377.29	127.90	249.39
710.00	388.21	157.19	231.02
802.00	401.16	189.99	211.17
902.00	413.66	222.39	191.27
955.90	418.89	237.95	180.94
1013.00	423.54	253.11	170.43

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	0.0	50.0	45.0	0.0
1.76	3.33	0.01	45.0	40.0	0.00
3.33	6.52	0.01	40.0	35.0	0.00
6.52	13.20	0.02	35.0	30.0	0.00
13.20	27.70	0.22	30.0	25.0	0.07
27.70	32.20	0.08	25.0	24.0	0.04
32.20	37.60	0.29	24.0	23.0	0.19
37.60	43.70	0.24	23.0	22.0	0.17
43.70	51.00	0.16	22.0	21.0	0.14
51.00	59.50	0.21	21.0	20.0	0.21
59.50	69.50	0.16	20.0	19.0	0.19
69.50	81.20	0.23	19.0	18.0	0.32
81.20	95.00	0.12	18.0	17.0	0.19
95.00	111.00	0.23	17.0	16.0	0.44
111.00	130.00	0.10	16.0	15.0	0.22
130.00	153.00	0.25	15.0	14.0	0.68
153.00	179.00	0.13	14.0	13.0	0.39
179.00	209.00	0.48	13.0	12.0	1.72
209.00	243.00	1.09	12.0	11.0	4.38
243.00	281.00	1.75	11.0	10.0	7.89
281.00	324.00	1.84	10.0	9.0	9.39
324.00	372.00	1.80	9.0	8.0	10.25
372.00	426.00	1.79	8.0	7.0	11.42
426.00	487.00	1.84	7.0	6.0	13.26
487.00	554.00	1.74	6.0	5.0	13.82
554.00	628.00	1.80	5.0	4.0	15.81
628.00	710.00	1.89	4.0	3.0	18.37
710.00	802.00	1.82	3.0	2.0	19.85
802.00	902.00	1.68	2.0	1.0	19.90
902.00	955.90	1.62	1.0	0.5	20.65
955.90	1013.00	1.55	0.5	0.0	21.03

H2O*1.0 NO CO2 NO O3

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	328.06	0.0	328.06
0.95	328.06	0.33	327.72
1.76	328.05	0.33	327.72
3.33	328.02	0.30	327.72
6.52	327.99	0.28	327.72
13.20	327.96	0.33	327.64
27.70	327.92	0.61	327.30
32.20	327.91	0.82	327.09
37.60	327.90	0.98	326.93
43.70	327.89	1.10	326.80
51.00	327.89	1.31	326.58
59.50	327.89	1.49	326.39
69.50	327.89	1.83	326.05
81.20	327.90	2.02	325.88
95.00	327.92	2.51	325.42
111.00	327.96	2.93	325.03
130.00	328.01	3.44	324.57
153.00	328.09	4.07	324.03
179.00	328.22	4.90	323.32
209.00	328.60	6.99	321.61
243.00	329.50	12.63	316.87
281.00	331.27	23.09	308.18
324.00	334.29	36.33	297.95
372.00	337.83	50.53	287.31
426.00	343.39	68.43	274.96
487.00	349.85	88.72	261.13
554.00	357.76	111.73	246.04
628.00	367.53	139.51	228.02
710.00	380.11	176.71	203.40
802.00	395.66	223.27	172.39
902.00	411.24	275.60	135.64
955.90	417.83	302.87	114.97
1013.00	423.54	330.40	93.14

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	0.00	50.0	45.0	0.00
1.76	3.33	0.01	45.0	40.0	0.00
3.33	6.52	0.01	40.0	35.0	0.00
6.52	13.20	0.10	35.0	30.0	0.02
13.20	27.70	0.19	30.0	25.0	0.07
27.70	32.20	0.39	25.0	24.0	0.21
32.20	37.60	0.26	24.0	23.0	0.17
37.60	43.70	0.18	23.0	22.0	0.13
43.70	51.00	0.26	22.0	21.0	0.22
51.00	59.50	0.18	21.0	20.0	0.18
59.50	69.50	0.29	20.0	19.0	0.34
69.50	81.20	0.12	19.0	18.0	0.17
81.20	95.00	0.28	18.0	17.0	0.46
95.00	111.00	0.21	17.0	16.0	0.39
111.00	130.00	0.20	16.0	15.0	0.45
130.00	153.00	0.20	15.0	14.0	0.55
153.00	179.00	0.23	14.0	13.0	0.71
179.00	209.00	0.48	13.0	12.0	1.71
209.00	243.00	1.18	12.0	11.0	4.74
243.00	281.00	1.93	11.0	10.0	8.70
281.00	324.00	2.01	10.0	9.0	10.23
324.00	372.00	1.87	9.0	8.0	10.65
372.00	426.00	1.93	8.0	7.0	12.35
426.00	487.00	1.91	7.0	6.0	13.83
487.00	554.00	1.90	6.0	5.0	15.09
554.00	628.00	2.06	5.0	4.0	18.02
628.00	710.00	2.53	4.0	3.0	24.61
710.00	802.00	2.85	3.0	2.0	31.01
802.00	902.00	3.10	2.0	1.0	36.75
902.00	955.90	3.24	1.0	0.5	41.35
955.90	1013.00	3.23	0.5	0.0	43.65

H2O*1.0 NO CO2 NO O3 NO E-TYPE

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	336.33	0.0	336.83
0.95	336.83	0.33	336.50
1.76	336.82	0.33	336.50
3.33	336.80	0.30	336.50
6.52	336.77	0.28	336.49
13.20	336.74	0.33	336.41
27.70	336.69	0.61	336.08
32.20	336.68	0.82	335.87
37.60	336.68	0.98	335.70
43.70	336.67	1.10	335.57
51.00	336.66	1.31	335.35
59.50	336.66	1.49	335.17
69.50	336.66	1.83	334.83
81.20	336.67	2.02	334.65
95.00	336.70	2.51	334.19
111.00	336.73	2.93	333.80
130.00	336.79	3.44	333.35
153.00	336.87	4.07	332.80
179.00	336.99	4.90	332.10
209.00	337.38	6.99	330.39
243.00	338.28	12.63	325.65
281.00	340.04	23.08	316.96
324.00	343.04	36.28	306.76
372.00	346.55	50.37	296.17
426.00	352.02	68.02	284.00
487.00	358.31	87.71	270.60
554.00	365.92	109.49	256.43
628.00	375.15	134.41	240.74
710.00	386.65	164.58	222.07
802.00	400.21	197.77	202.44
902.00	413.23	230.17	183.06
955.90	418.69	245.63	173.06
1013.00	423.54	261.10	162.44

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	0.00	50.0	45.0	0.00
1.76	3.33	0.01	45.0	40.0	0.00
3.33	6.52	0.01	40.0	35.0	0.00
6.52	13.20	0.10	35.0	30.0	0.02
13.20	27.70	0.20	30.0	25.0	0.07
27.70	32.20	0.39	25.0	24.0	0.21
32.20	37.60	0.26	24.0	23.0	0.17
37.60	43.70	0.18	23.0	22.0	0.13
43.70	51.00	0.26	22.0	21.0	0.22
51.00	59.50	0.18	21.0	20.0	0.18
59.50	69.50	0.29	20.0	19.0	0.34
69.50	81.20	0.12	19.0	18.0	0.17
81.20	95.00	0.28	18.0	17.0	0.46
95.00	111.00	0.21	17.0	16.0	0.39
111.00	130.00	0.20	16.0	15.0	0.45
130.00	153.00	0.20	15.0	14.0	0.55
153.00	179.00	0.23	14.0	13.0	0.71
179.00	209.00	0.48	13.0	12.0	1.70
209.00	243.00	1.18	12.0	11.0	4.74
243.00	281.00	1.93	11.0	10.0	8.69
281.00	324.00	2.00	10.0	9.0	10.20
324.00	372.00	1.86	9.0	8.0	10.59
372.00	426.00	1.90	8.0	7.0	12.17
426.00	487.00	1.85	7.0	6.0	13.40
487.00	554.00	1.79	6.0	5.0	14.17
554.00	628.00	1.79	5.0	4.0	15.69
628.00	710.00	1.92	4.0	3.0	18.68
710.00	802.00	1.80	3.0	2.0	19.63
802.00	902.00	1.64	2.0	1.0	19.38
902.00	955.90	1.57	1.0	0.5	20.00
955.90	1013.00	1.57	0.5	0.0	21.23

H2O*1.25 NO CO2 NO O3

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	321.70	0.0	321.70
0.95	321.70	0.33	321.37
1.76	321.69	0.33	321.37
3.33	321.67	0.30	321.37
6.52	321.64	0.28	321.36
13.20	321.60	0.36	321.24
27.70	321.55	0.79	320.76
32.20	321.54	0.94	320.60
37.60	321.53	1.05	320.48
43.70	321.52	1.29	320.23
51.00	321.52	1.42	320.09
59.50	321.52	1.76	319.75
69.50	321.52	2.07	319.45
81.20	321.53	2.39	319.14
95.00	321.56	2.80	318.76
111.00	321.59	3.26	318.33
130.00	321.63	3.92	317.71
153.00	321.72	4.49	317.23
179.00	321.85	5.55	316.31
209.00	322.30	7.88	314.43
243.00	323.32	14.09	309.24
281.00	325.20	25.06	300.14
324.00	328.37	38.75	289.62
372.00	332.32	53.99	278.33
426.00	338.19	72.63	265.56
487.00	344.98	93.27	251.71
554.00	353.35	117.07	236.28
628.00	363.66	146.60	217.06
710.00	377.07	186.09	190.98
802.00	393.57	236.92	156.65
902.00	410.29	293.20	117.09
955.90	417.38	321.71	95.67
1013.00	423.54	349.70	73.85

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	0.01	50.0	45.0	0.00
1.76	3.33	0.01	45.0	40.0	0.00
3.33	6.52	0.01	40.0	35.0	0.00
6.52	13.20	0.15	35.0	30.0	0.02
13.20	27.70	0.28	30.0	25.0	0.10
27.70	32.20	0.30	25.0	24.0	0.16
32.20	37.60	0.19	24.0	23.0	0.12
37.60	43.70	0.35	23.0	22.0	0.25
43.70	51.00	0.16	22.0	21.0	0.14
51.00	59.50	0.34	21.0	20.0	0.34
59.50	69.50	0.25	20.0	19.0	0.30
69.50	81.20	0.22	19.0	18.0	0.31
81.20	95.00	0.23	18.0	17.0	0.38
95.00	111.00	0.23	17.0	16.0	0.43
111.00	130.00	0.27	16.0	15.0	0.62
130.00	153.00	0.18	15.0	14.0	0.48
153.00	179.00	0.30	14.0	13.0	0.92
179.00	209.00	0.53	13.0	12.0	1.88
209.00	243.00	1.29	12.0	11.0	5.19
243.00	281.00	2.02	11.0	10.0	9.10
281.00	324.00	2.07	10.0	9.0	10.52
324.00	372.00	1.99	9.0	8.0	11.29
372.00	426.00	2.00	8.0	7.0	12.77
426.00	487.00	1.92	7.0	6.0	13.85
487.00	554.00	1.94	6.0	5.0	15.43
554.00	628.00	2.19	5.0	4.0	19.22
628.00	710.00	2.68	4.0	3.0	26.08
710.00	802.00	3.15	3.0	2.0	34.33
802.00	902.00	3.34	2.0	1.0	39.56
902.00	955.90	3.36	1.0	0.5	42.84
955.90	1013.00	3.23	0.5	0.0	43.65

H2O*1.25 NO CO2 NO O3 NO E-TYPE

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	333.21	0.0	333.21
0.95	333.21	0.33	332.88
1.76	333.20	0.33	332.88
3.33	333.18	0.30	332.87
6.52	333.15	0.28	332.87
13.20	333.11	0.36	332.75
27.70	333.06	0.79	332.27
32.20	333.05	0.94	332.11
37.60	333.04	1.05	331.99
43.70	333.03	1.29	331.74
51.00	333.03	1.42	331.60
59.50	333.02	1.76	331.26
69.50	333.03	2.07	330.96
81.20	333.04	2.39	330.65
95.00	333.07	2.80	330.27
111.00	333.09	3.26	329.84
130.00	333.14	3.92	329.22
153.00	333.22	4.49	328.74
179.00	333.36	5.55	327.81
209.00	333.81	7.88	325.93
243.00	334.83	14.08	320.75
281.00	336.70	25.04	311.66
324.00	339.85	38.67	301.17
372.00	343.74	53.76	289.97
426.00	349.49	72.03	277.46
487.00	356.05	91.82	264.23
554.00	364.05	113.91	250.14
628.00	373.60	139.51	234.09
710.00	385.51	169.58	215.93
802.00	399.49	203.15	196.34
902.00	412.91	235.94	176.96
955.90	418.52	251.65	166.87
1013.00	423.54	267.35	156.19

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	0.01	50.0	45.0	0.00
1.76	3.33	0.01	45.0	40.0	0.00
3.33	6.52	0.01	40.0	35.0	0.00
6.52	13.20	0.15	35.0	30.0	0.02
13.20	27.70	0.28	30.0	25.0	0.10
27.70	32.20	0.30	25.0	24.0	0.16
32.20	37.60	0.19	24.0	23.0	0.12
37.60	43.70	0.35	23.0	22.0	0.25
43.70	51.00	0.16	22.0	21.0	0.14
51.00	59.50	0.34	21.0	20.0	0.34
59.50	69.50	0.25	20.0	19.0	0.30
69.50	81.20	0.22	19.0	18.0	0.31
81.20	95.00	0.23	18.0	17.0	0.38
95.00	111.00	0.23	17.0	16.0	0.43
111.00	130.00	0.27	16.0	15.0	0.62
130.00	153.00	0.18	15.0	14.0	0.48
153.00	179.00	0.30	14.0	13.0	0.92
179.00	209.00	0.53	13.0	12.0	1.88
209.00	243.00	1.29	12.0	11.0	5.19
243.00	281.00	2.02	11.0	10.0	9.08
281.00	324.00	2.06	10.0	9.0	10.49
324.00	372.00	1.97	9.0	8.0	11.20
372.00	426.00	1.96	8.0	7.0	12.51
426.00	487.00	1.83	7.0	6.0	13.23
487.00	554.00	1.77	6.0	5.0	14.08
554.00	628.00	1.83	5.0	4.0	16.06
628.00	710.00	1.87	4.0	3.0	18.15
710.00	802.00	1.80	3.0	2.0	19.59
802.00	902.00	1.64	2.0	1.0	19.38
902.00	955.90	1.58	1.0	0.5	20.19
955.90	1013.00	1.58	0.5	0.0	21.35

O3 9.6 MICRON BAND ONLY

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	413.73	0.0	413.73
0.55	413.68	0.21	413.47
1.76	413.63	0.34	413.29
3.33	413.51	0.57	412.95
6.52	413.39	0.88	412.51
13.20	413.43	1.25	412.18
27.70	413.96	1.57	412.40
32.20	414.17	1.62	412.55
37.60	414.44	1.68	412.76
43.70	414.76	1.73	413.03
51.00	415.18	1.78	413.40
59.50	415.67	1.83	413.84
69.50	416.22	1.88	414.35
81.20	416.83	1.92	414.91
95.00	417.45	1.96	415.50
111.00	418.07	1.99	416.07
130.00	418.70	2.04	416.66
153.00	419.38	2.08	417.31
179.00	420.04	2.12	417.92
209.00	420.63	2.17	418.46
243.00	421.15	2.25	418.90
281.00	421.59	2.35	419.24
324.00	421.97	2.47	419.50
372.00	422.31	2.61	419.70
426.00	422.61	2.78	419.83
487.00	422.87	2.97	419.90
554.00	423.08	3.18	419.90
628.00	423.25	3.41	419.84
710.00	423.38	3.67	419.71
802.00	423.48	3.96	419.51
902.00	423.53	4.28	419.25
955.90	423.54	4.45	419.09
1013.00	423.54	4.62	418.92

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	1.82	50.0	45.0	0.04
1.76	3.33	1.85	45.0	40.0	0.07
3.33	6.52	1.16	40.0	35.0	0.09
6.52	13.20	0.42	35.0	30.0	0.07
13.20	27.70	-0.13	30.0	25.0	-0.04
27.70	32.20	-0.29	25.0	24.0	-0.15
32.20	37.60	-0.33	24.0	23.0	-0.21
37.60	43.70	-0.38	23.0	22.0	-0.27
43.70	51.00	-0.42	22.0	21.0	-0.37
51.00	59.50	-0.43	21.0	20.0	-0.44
59.50	69.50	-0.43	20.0	19.0	-0.51
69.50	81.20	-0.41	19.0	18.0	-0.56
81.20	95.00	-0.36	18.0	17.0	-0.58
95.00	111.00	-0.30	17.0	16.0	-0.58
111.00	130.00	-0.26	16.0	15.0	-0.59
130.00	153.00	-0.24	15.0	14.0	-0.64
153.00	179.00	-0.20	14.0	13.0	-0.62
179.00	209.00	-0.15	13.0	12.0	-0.54
209.00	243.00	-0.11	12.0	11.0	-0.44
243.00	281.00	-0.08	11.0	10.0	-0.34
281.00	324.00	-0.05	10.0	9.0	-0.27
324.00	372.00	-0.03	9.0	8.0	-0.20
372.00	426.00	-0.02	8.0	7.0	-0.13
426.00	487.00	-0.01	7.0	6.0	-0.06
487.00	554.00	-0.00	6.0	5.0	-0.00
554.00	628.00	0.01	5.0	4.0	0.06
628.00	710.00	0.01	4.0	3.0	0.13
710.00	802.00	0.02	3.0	2.0	0.20
802.00	902.00	0.02	2.0	1.0	0.26
902.00	955.90	0.02	1.0	0.5	0.31
955.90	1013.00	0.03	0.5	0.0	0.34

C3 ONLY 25% DECREASE ABOVE 13KM

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	414.38	0.0	414.38
0.95	414.34	0.17	414.17
1.76	414.30	0.27	414.03
3.33	414.21	0.47	413.74
6.52	414.12	0.74	413.38
13.20	414.23	1.08	413.15
27.70	414.82	1.37	413.45
32.20	415.03	1.42	413.61
37.60	415.29	1.47	413.82
43.70	415.61	1.52	414.08
51.00	416.00	1.58	414.42
59.50	416.45	1.63	414.82
69.50	416.95	1.67	415.27
81.20	417.47	1.71	415.76
95.00	418.00	1.75	416.24
111.00	418.50	1.79	416.71
130.00	419.01	1.83	417.18
153.00	419.54	1.88	417.67
179.00	420.04	1.92	418.13
209.00	420.63	1.98	418.65
243.00	421.15	2.07	419.08
281.00	421.59	2.18	419.41
324.00	421.97	2.30	419.67
372.00	422.31	2.45	419.86
426.00	422.61	2.62	419.99
487.00	422.87	2.82	420.05
554.00	423.08	3.04	420.04
628.00	423.25	3.27	419.98
710.00	423.38	3.54	419.84
802.00	423.48	3.84	419.64
902.00	423.53	4.15	419.37
955.90	423.54	4.32	419.21
1013.00	423.54	4.50	419.04

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	1.51	50.0	45.0	0.03
1.76	3.33	1.55	45.0	40.0	0.06
3.33	6.52	0.94	40.0	35.0	0.07
6.52	13.20	0.29	35.0	30.0	0.05
13.20	27.70	-0.18	30.0	25.0	-0.05
27.70	32.20	-0.30	25.0	24.0	-0.16
32.20	37.60	-0.33	24.0	23.0	-0.21
37.60	43.70	-0.36	23.0	22.0	-0.26
43.70	51.00	-0.40	22.0	21.0	-0.34
51.00	59.50	-0.39	21.0	20.0	-0.40
59.50	69.50	-0.38	20.0	19.0	-0.45
69.50	81.20	-0.35	19.0	18.0	-0.48
81.20	95.00	-0.30	18.0	17.0	-0.49
95.00	111.00	-0.25	17.0	16.0	-0.47
111.00	130.00	-0.21	16.0	15.0	-0.47
130.00	153.00	-0.18	15.0	14.0	-0.49
153.00	179.00	-0.15	14.0	13.0	-0.46
179.00	209.00	-0.15	13.0	12.0	-0.53
209.00	243.00	-0.11	12.0	11.0	-0.43
243.00	281.00	-0.07	11.0	10.0	-0.33
281.00	324.00	-0.05	10.0	9.0	-0.26
324.00	372.00	-0.03	9.0	8.0	-0.19
372.00	426.00	-0.02	8.0	7.0	-0.13
426.00	487.00	-0.01	7.0	6.0	-0.06
487.00	554.00	0.00	6.0	5.0	0.00
554.00	628.00	0.01	5.0	4.0	0.07
628.00	710.00	0.01	4.0	3.0	0.13
710.00	802.00	0.02	3.0	2.0	0.20
802.00	902.00	0.02	2.0	1.0	0.27
902.00	955.90	0.02	1.0	0.5	0.31
955.90	1013.00	0.03	0.5	0.0	0.35

O3 ONLY 25% INCREASE BELOW 13KM

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	413.47	0.0	413.47
0.95	413.42	0.21	413.20
1.76	413.37	0.34	413.03
3.33	413.25	0.57	412.68
6.52	413.12	0.88	412.24
13.20	413.15	1.25	411.90
27.70	413.56	1.57	412.10
32.20	413.86	1.62	412.24
37.60	414.12	1.68	412.44
43.70	414.43	1.73	412.70
51.00	414.83	1.78	413.05
59.50	415.29	1.83	413.46
69.50	415.81	1.88	413.94
81.20	415.39	1.92	414.47
95.00	415.97	1.96	415.01
111.00	417.55	1.99	415.55
130.00	418.14	2.04	416.10
153.00	418.77	2.08	416.69
179.00	419.38	2.12	417.26
209.00	420.06	2.19	417.88
243.00	420.67	2.28	418.38
281.00	421.19	2.40	418.78
324.00	421.64	2.55	419.10
372.00	422.06	2.72	419.33
426.00	422.41	2.92	419.49
487.00	422.72	3.15	419.57
554.00	422.98	3.40	419.58
628.00	423.19	3.68	419.51
710.00	423.35	3.99	419.36
802.00	423.46	4.34	419.12
902.00	423.52	4.72	418.81
955.90	423.54	4.92	418.62
1013.00	423.54	5.13	418.42

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.75	1.82	50.0	45.0	0.04
1.76	3.33	1.86	45.0	40.0	0.07
3.33	6.52	1.16	40.0	35.0	0.09
6.52	13.20	0.43	35.0	30.0	0.07
13.20	27.70	-0.11	30.0	25.0	-0.04
27.70	32.20	-0.27	25.0	24.0	-0.15
32.20	37.60	-0.31	24.0	23.0	-0.20
37.60	43.70	-0.36	23.0	22.0	-0.26
43.70	51.00	-0.40	22.0	21.0	-0.35
51.00	59.50	-0.41	21.0	20.0	-0.41
59.50	69.50	-0.41	20.0	19.0	-0.48
59.50	81.20	-0.38	19.0	18.0	-0.53
81.20	95.00	-0.33	18.0	17.0	-0.55
95.00	111.00	-0.28	17.0	16.0	-0.54
111.00	130.00	-0.24	16.0	15.0	-0.55
130.00	153.00	-0.22	15.0	14.0	-0.59
153.00	179.00	-0.18	14.0	13.0	-0.57
179.00	209.00	-0.17	13.0	12.0	-0.62
209.00	243.00	-0.13	12.0	11.0	-0.51
243.00	281.00	-0.09	11.0	10.0	-0.40
281.00	324.00	-0.06	10.0	9.0	-0.31
324.00	372.00	-0.04	9.0	8.0	-0.23
372.00	426.00	-0.03	8.0	7.0	-0.16
426.00	487.00	-0.01	7.0	6.0	-0.08
487.00	554.00	-0.00	6.0	5.0	-0.01
554.00	628.00	0.01	5.0	4.0	0.07
628.00	710.00	0.02	4.0	3.0	0.15
710.00	802.00	0.02	3.0	2.0	0.24
802.00	902.00	0.03	2.0	1.0	0.31
902.00	955.90	0.03	1.0	0.5	0.37
955.90	1013.00	0.03	0.5	0.0	0.41

H2O+CO2+O3 CO2=300 PPMV

TROPICAL

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	300.62	0.0	300.62
0.85	300.49	1.12	299.37
1.59	300.35	1.54	298.81
3.05	300.05	2.26	297.79
6.00	299.64	3.27	296.37
12.20	299.23	4.63	294.61
25.70	299.41	6.59	292.82
30.00	299.69	7.06	292.62
35.00	300.02	7.50	292.52
40.90	300.41	8.00	292.41
48.00	300.79	8.34	292.44
56.50	301.22	8.72	292.50
66.60	301.67	8.93	292.74
78.90	302.10	9.24	292.86
93.70	302.69	9.33	293.35
111.00	303.79	10.05	293.74
132.00	305.41	11.32	294.09
156.00	307.22	13.63	293.60
182.00	309.30	16.50	292.80
213.00	311.90	21.63	290.27
247.00	314.93	30.08	284.85
286.00	319.36	43.28	276.08
329.00	324.85	60.91	263.94
378.00	331.61	81.68	249.93
432.00	340.84	105.97	234.87
492.00	351.80	132.77	219.04
559.00	363.92	162.12	201.81
633.00	379.93	196.80	183.13
715.00	398.12	237.62	160.50
805.00	412.42	279.48	132.94
904.00	436.28	332.42	103.86
956.90	448.32	360.92	87.40
1013.00	459.29	391.64	67.64

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.85	1.59	6.40	50.0	45.0	0.11
1.59	3.05	5.90	45.0	40.0	0.20
3.05	6.00	4.07	40.0	35.0	0.28
6.00	12.20	2.40	35.0	30.0	0.35
12.20	25.70	1.12	30.0	25.0	0.36
25.70	30.00	0.39	25.0	24.0	0.20
30.00	35.00	0.17	24.0	23.0	0.10
35.00	40.90	0.16	23.0	22.0	0.11
40.90	48.00	-0.04	22.0	21.0	-0.03
48.00	56.50	-0.06	21.0	20.0	-0.06
56.50	66.60	-0.20	20.0	19.0	-0.24
66.60	78.90	-0.08	19.0	18.0	-0.12
78.90	93.70	-0.28	18.0	17.0	-0.49
93.70	111.00	-0.19	17.0	16.0	-0.38
111.00	132.00	-0.14	16.0	15.0	-0.35
132.00	156.00	0.17	15.0	14.0	0.49
156.00	182.00	0.26	14.0	13.0	0.80
182.00	213.00	0.69	13.0	12.0	2.53
213.00	247.00	1.35	12.0	11.0	5.42
247.00	286.00	1.90	11.0	10.0	8.77
286.00	329.00	2.38	10.0	9.0	12.14
329.00	378.00	2.41	9.0	8.0	14.01
378.00	432.00	2.35	8.0	7.0	15.06
432.00	492.00	2.23	7.0	6.0	15.83
492.00	559.00	2.17	6.0	5.0	17.23
559.00	633.00	2.13	5.0	4.0	18.68
633.00	715.00	2.33	4.0	3.0	22.63
715.00	805.00	2.59	3.0	2.0	27.55
805.00	904.00	2.48	2.0	1.0	29.08
904.00	956.90	2.63	1.0	0.5	32.92
956.90	1013.00	2.97	0.5	0.0	39.51

H2O+CO2+O3 CO2=600 PPMV

TROPICAL

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	297.87	0.0	297.87
0.85	297.69	1.49	296.20
1.59	297.50	2.06	295.44
3.05	297.09	2.99	294.11
6.00	296.53	4.26	292.28
12.20	295.92	5.92	290.00
25.70	295.80	8.18	287.63
30.00	296.02	8.70	287.32
35.00	296.29	9.18	287.11
40.90	296.60	9.72	286.89
48.00	296.87	10.05	286.82
56.50	297.20	10.39	286.81
66.60	297.56	10.54	287.02
78.90	297.90	10.77	287.13
93.70	298.43	10.75	287.68
111.00	299.61	11.46	288.15
132.00	301.43	12.90	288.54
156.00	303.45	15.41	288.03
182.00	305.77	18.56	287.22
213.00	308.65	23.99	284.66
247.00	311.93	32.70	279.23
286.00	316.69	46.20	270.48
329.00	322.53	64.13	258.40
378.00	329.59	85.11	244.48
432.00	339.18	109.64	229.54
492.00	350.53	136.64	213.89
559.00	362.95	166.01	196.94
633.00	379.29	200.60	178.69
715.00	397.81	240.97	156.84
805.00	412.20	281.62	130.58
904.00	436.14	333.39	102.75
956.90	448.23	361.48	86.75
1013.00	459.29	391.94	67.34

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.85	1.59	8.64	50.0	45.0	0.15
1.59	3.05	7.71	45.0	40.0	0.27
3.05	6.00	5.24	40.0	35.0	0.37
6.00	12.20	3.10	35.0	30.0	0.45
12.20	25.70	1.49	30.0	25.0	0.48
25.70	30.00	0.61	25.0	24.0	0.31
30.00	35.00	0.35	24.0	23.0	0.21
35.00	40.90	0.32	23.0	22.0	0.22
40.90	48.00	0.08	22.0	21.0	0.07
48.00	56.50	0.01	21.0	20.0	0.01
56.50	66.60	-0.17	20.0	19.0	-0.21
66.60	78.90	-0.08	19.0	18.0	-0.11
78.90	93.70	-0.31	18.0	17.0	-0.55
93.70	111.00	-0.23	17.0	16.0	-0.47
111.00	132.00	-0.16	16.0	15.0	-0.39
132.00	156.00	0.18	15.0	14.0	0.50
156.00	182.00	0.27	14.0	13.0	0.82
182.00	213.00	0.70	13.0	12.0	2.56
213.00	247.00	1.35	12.0	11.0	5.43
247.00	286.00	1.89	11.0	10.0	8.75
286.00	329.00	2.37	10.0	9.0	12.09
329.00	378.00	2.40	9.0	8.0	13.92
378.00	432.00	2.33	8.0	7.0	14.93
432.00	492.00	2.20	7.0	6.0	15.65
492.00	559.00	2.14	6.0	5.0	16.96
559.00	633.00	2.08	5.0	4.0	18.25
633.00	715.00	2.25	4.0	3.0	21.85
715.00	805.00	2.46	3.0	2.0	26.26
805.00	904.00	2.37	2.0	1.0	27.83
904.00	956.90	2.55	1.0	0.5	32.02
956.90	1013.00	2.92	0.5	0.0	38.81

H2O+CO2+O3 CO2=300 PPMV

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	291.71	0.0	291.71
0.95	291.53	1.33	290.20
1.76	291.34	1.86	289.48
3.33	290.94	2.72	288.22
6.52	290.36	3.86	286.51
13.20	289.82	5.41	284.41
27.70	289.59	7.53	282.06
32.20	289.70	8.17	281.53
37.60	289.85	8.82	281.03
43.70	290.04	9.40	280.65
51.00	290.38	10.12	280.26
59.50	290.81	10.84	279.96
69.50	291.32	11.74	279.58
81.20	291.95	12.50	279.45
95.00	292.72	13.65	279.07
111.00	293.54	14.80	278.73
130.00	294.48	16.09	278.38
153.00	295.65	17.55	278.10
179.00	297.15	19.20	277.95
209.00	299.79	23.01	276.77
243.00	303.23	31.24	271.99
281.00	307.52	44.64	262.88
324.00	313.38	61.35	252.03
372.00	319.73	79.09	240.65
426.00	328.40	100.77	227.63
487.00	337.72	124.36	213.36
554.00	348.47	149.99	198.49
628.00	360.96	178.96	182.00
710.00	375.91	214.28	161.64
802.00	393.41	254.54	138.87
902.00	410.25	296.69	113.56
955.90	417.27	318.31	98.96
1013.00	423.54	340.98	82.56

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	7.54	50.0	45.0	0.14
1.76	3.33	6.78	45.0	40.0	0.25
3.33	6.52	4.53	40.0	35.0	0.34
6.52	13.20	2.65	35.0	30.0	0.42
13.20	27.70	1.37	30.0	25.0	0.47
27.70	32.20	1.00	25.0	24.0	0.53
32.20	37.60	0.78	24.0	23.0	0.50
37.60	43.70	0.53	23.0	22.0	0.38
43.70	51.00	0.44	22.0	21.0	0.38
51.00	59.50	0.30	21.0	20.0	0.30
59.50	69.50	0.33	20.0	19.0	0.39
69.50	81.20	0.09	19.0	18.0	0.12
81.20	95.00	0.24	18.0	17.0	0.39
95.00	111.00	0.18	17.0	16.0	0.33
111.00	130.00	0.15	16.0	15.0	0.35
130.00	153.00	0.11	15.0	14.0	0.29
153.00	179.00	0.05	14.0	13.0	0.15
179.00	209.00	0.33	13.0	12.0	1.18
209.00	243.00	1.19	12.0	11.0	4.78
243.00	281.00	2.03	11.0	10.0	9.12
281.00	324.00	2.13	10.0	9.0	10.85
324.00	372.00	2.00	9.0	8.0	11.38
372.00	426.00	2.03	8.0	7.0	13.02
426.00	487.00	1.97	7.0	6.0	14.27
487.00	554.00	1.87	6.0	5.0	14.87
554.00	628.00	1.88	5.0	4.0	16.49
628.00	710.00	2.10	4.0	3.0	20.36
710.00	802.00	2.09	3.0	2.0	22.77
802.00	902.00	2.14	2.0	1.0	25.31
902.00	955.90	2.29	1.0	0.5	29.20
955.90	1013.00	2.42	0.5	0.0	32.79

H2O+CO2+O3 CO2=600 PPMV

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	289.33	0.0	289.33
0.95	289.10	1.78	287.32
1.76	286.84	2.49	286.35
3.33	288.30	3.58	284.72
6.52	287.55	4.98	282.56
13.20	286.79	6.85	279.94
27.70	286.30	9.30	277.01
32.20	286.38	10.00	276.37
37.60	286.49	10.72	275.77
43.70	286.64	11.35	275.29
51.00	286.95	12.13	274.82
59.50	287.34	12.90	274.45
69.50	287.82	13.82	274.00
81.20	288.43	14.60	273.83
95.00	289.19	15.78	273.41
111.00	290.01	16.96	273.05
130.00	290.95	18.25	272.69
153.00	292.12	19.71	272.41
179.00	293.64	21.32	272.31
209.00	296.50	25.31	271.19
243.00	300.25	33.82	266.43
281.00	304.81	47.47	257.33
324.00	311.00	64.46	246.54
372.00	317.66	82.42	235.23
426.00	326.70	104.37	222.33
487.00	336.33	128.12	208.21
554.00	347.40	153.88	193.52
628.00	360.20	182.87	177.33
710.00	375.42	217.89	157.53
802.00	393.14	257.43	135.71
902.00	410.12	298.49	111.63
955.90	417.19	319.54	97.66
1013.00	423.54	341.73	81.82

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	10.09	50.0	45.0	0.19
1.76	3.33	8.74	45.0	40.0	0.33
3.33	6.52	5.72	40.0	35.0	0.43
6.52	13.20	3.31	35.0	30.0	0.52
13.20	27.70	1.71	30.0	25.0	0.59
27.70	32.20	1.18	25.0	24.0	0.63
32.20	37.60	0.95	24.0	23.0	0.61
37.60	43.70	0.66	23.0	22.0	0.48
43.70	51.00	0.54	22.0	21.0	0.47
51.00	59.50	0.38	21.0	20.0	0.38
59.50	69.50	0.38	20.0	19.0	0.45
69.50	81.20	0.12	19.0	18.0	0.17
81.20	95.00	0.26	18.0	17.0	0.42
95.00	111.00	0.19	17.0	16.0	0.36
111.00	130.00	0.16	16.0	15.0	0.36
130.00	153.00	0.10	15.0	14.0	0.28
153.00	179.00	0.03	14.0	13.0	0.10
179.00	209.00	0.32	13.0	12.0	1.12
209.00	243.00	1.18	12.0	11.0	4.75
243.00	281.00	2.02	11.0	10.0	9.09
281.00	324.00	2.12	10.0	9.0	10.80
324.00	372.00	1.99	9.0	8.0	11.30
372.00	426.00	2.02	8.0	7.0	12.90
426.00	487.00	1.95	7.0	6.0	14.12
487.00	554.00	1.85	6.0	5.0	14.69
554.00	628.00	1.85	5.0	4.0	16.19
628.00	710.00	2.04	4.0	3.0	19.80
710.00	802.00	2.00	3.0	2.0	21.81
802.00	902.00	2.03	2.0	1.0	24.08
902.00	955.90	2.19	1.0	0.5	27.95
955.90	1013.00	2.34	0.5	0.0	31.68

H2O+CO2+O3 CO2=300 PPMV

MIDLATITUDE WINTER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	238.15	0.0	238.15
0.68	238.01	0.95	237.06
1.29	237.85	1.25	236.60
2.53	237.55	1.73	235.82
5.18	237.15	2.30	234.86
11.10	236.88	3.10	233.78
24.30	237.09	4.97	232.12
28.60	237.22	5.49	231.73
33.40	237.37	6.21	231.16
39.10	237.56	6.95	230.60
45.80	237.80	7.74	230.05
53.70	238.09	8.69	229.41
62.80	238.45	9.62	228.83
73.50	238.91	10.78	228.12
86.10	239.42	11.95	227.47
100.70	240.00	13.38	226.62
117.80	240.66	14.73	225.93
137.80	241.43	16.56	224.87
161.00	242.25	18.45	223.81
188.20	243.27	20.93	222.34
219.90	244.48	23.95	220.53
256.80	245.11	27.55	218.56
299.20	249.32	33.95	215.38
347.30	253.06	43.67	209.39
401.60	257.65	57.68	199.96
452.70	263.51	75.52	187.99
531.30	270.75	96.66	174.09
608.10	279.40	120.27	159.12
693.80	289.12	145.32	143.80
789.70	296.27	168.27	127.99
897.30	304.12	190.86	113.26
955.70	308.04	201.65	106.40
1018.00	311.36	213.26	98.10

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.68	1.29	5.33	50.0	45.0	0.09
1.29	2.53	5.29	45.0	40.0	0.16
2.53	5.18	3.08	40.0	35.0	0.19
5.18	11.10	1.54	35.0	30.0	0.22
11.10	24.30	1.06	30.0	25.0	0.33
24.30	28.60	0.77	25.0	24.0	0.39
28.60	33.40	1.00	24.0	23.0	0.57
33.40	39.10	0.82	23.0	22.0	0.55
39.10	45.80	0.69	22.0	21.0	0.55
45.80	53.70	0.69	21.0	20.0	0.65
53.70	62.80	0.53	20.0	19.0	0.57
62.80	73.50	0.56	19.0	18.0	0.71
73.50	86.10	0.43	18.0	17.0	0.65
86.10	100.70	0.49	17.0	16.0	0.85
100.70	117.80	0.34	16.0	15.0	0.70
117.80	137.80	0.45	15.0	14.0	1.06
137.80	161.00	0.39	14.0	13.0	1.06
161.00	188.20	0.46	13.0	12.0	1.47
188.20	219.90	0.48	12.0	11.0	1.81
219.90	256.80	0.45	11.0	10.0	1.97
256.80	299.20	0.63	10.0	9.0	3.18
299.20	347.30	1.05	9.0	8.0	5.99
347.30	401.60	1.47	8.0	7.0	9.43
401.60	452.70	1.65	7.0	6.0	11.97
452.70	531.30	1.71	6.0	5.0	13.90
531.30	608.10	1.65	5.0	4.0	14.97
608.10	693.80	1.51	4.0	3.0	15.32
693.80	789.70	1.39	3.0	2.0	15.81
789.70	897.30	1.16	2.0	1.0	14.74
897.30	955.70	0.99	1.0	0.5	13.72
955.70	1018.00	1.12	0.5	0.0	16.60

H2O+CO2+O3 CO2=600 PPMV

MIDLATITUDE WINTER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	236.02	0.0	236.02
0.68	235.92	1.25	234.56
1.29	235.51	1.67	233.94
2.53	235.20	2.26	232.94
5.18	234.58	2.97	231.71
11.10	234.29	3.97	230.32
24.30	234.47	6.19	228.28
28.60	234.50	6.81	227.79
33.40	234.75	7.63	227.12
39.10	234.94	8.48	226.46
45.80	235.19	9.37	225.81
53.70	235.48	10.42	225.06
62.80	235.85	11.45	224.40
73.50	236.32	12.71	223.61
86.10	236.86	13.96	222.89
100.70	237.46	15.47	221.98
117.80	238.13	16.89	221.25
137.80	238.92	18.75	220.17
161.00	239.77	20.66	219.11
188.20	240.80	23.13	217.66
219.90	242.01	26.12	215.89
256.80	243.56	29.69	213.98
299.20	247.12	36.27	210.85
347.30	251.11	46.22	204.89
401.60	255.98	60.46	195.52
462.70	262.13	78.52	183.62
531.30	269.67	99.87	169.81
608.10	278.51	123.65	154.96
693.80	288.65	148.81	139.83
789.70	295.95	171.64	124.31
897.30	303.95	193.99	109.95
955.70	307.95	204.62	103.34
1018.00	311.36	216.02	95.35

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.68	1.29	8.49	50.0	45.0	0.12
1.29	2.53	6.85	45.0	40.0	0.20
2.53	5.18	3.93	40.0	35.0	0.25
5.18	11.10	1.97	35.0	30.0	0.28
11.10	24.30	1.30	30.0	25.0	0.41
24.30	28.60	0.97	25.0	24.0	0.49
28.60	33.40	1.18	24.0	23.0	0.67
33.40	39.10	0.97	23.0	22.0	0.66
39.10	45.80	0.82	22.0	21.0	0.65
45.80	53.70	0.80	21.0	20.0	0.75
53.70	62.80	0.62	20.0	19.0	0.66
62.80	73.50	0.62	19.0	18.0	0.79
73.50	86.10	0.48	18.0	17.0	0.72
86.10	100.70	0.53	17.0	16.0	0.91
100.70	117.80	0.36	16.0	15.0	0.74
117.80	137.80	0.45	15.0	14.0	1.08
137.80	161.00	0.39	14.0	13.0	1.06
161.00	188.20	0.45	13.0	12.0	1.45
188.20	219.90	0.47	12.0	11.0	1.77
219.90	256.80	0.44	11.0	10.0	1.92
256.80	299.20	0.62	10.0	9.0	3.13
299.20	347.30	1.04	9.0	8.0	5.95
347.30	401.60	1.46	8.0	7.0	9.38
401.60	462.70	1.64	7.0	6.0	11.90
462.70	531.30	1.70	6.0	5.0	13.81
531.30	608.10	1.63	5.0	4.0	14.84
608.10	693.80	1.49	4.0	3.0	15.13
693.80	789.70	1.37	3.0	2.0	15.52
789.70	897.30	1.13	2.0	1.0	14.36
897.30	955.70	0.96	1.0	0.5	13.23
955.70	1018.00	1.08	0.5	0.0	15.98

H2O+CO2+O3 CO2=300 PPMV

SUBARCTIC SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	272.36	0.0	272.36
0.99	272.20	1.38	270.82
1.81	272.02	1.96	270.06
3.40	271.56	2.93	268.63
6.61	270.86	4.12	266.74
13.40	270.22	5.57	264.65
27.80	269.89	7.97	261.92
32.27	269.90	8.62	261.28
37.50	270.02	9.29	260.72
43.60	270.22	10.05	260.17
50.70	270.47	11.00	259.47
58.90	270.78	11.99	258.79
68.60	271.18	13.24	257.94
79.80	271.67	14.40	257.27
92.80	272.24	15.89	256.36
108.00	272.89	17.38	255.52
125.00	273.58	18.86	254.72
146.00	274.41	20.65	253.76
170.00	275.33	22.75	252.58
197.70	276.37	25.58	250.80
230.00	277.64	29.58	248.06
267.70	279.51	34.94	244.57
310.70	283.34	44.38	239.46
359.00	289.38	60.15	229.23
413.00	296.83	81.18	215.65
473.00	305.37	105.05	200.32
541.00	316.87	131.38	185.49
616.00	328.25	159.22	169.03
700.00	339.84	188.25	151.60
792.00	353.24	218.81	134.43
896.00	370.63	254.80	115.83
951.30	377.94	272.70	105.24
1010.00	384.79	292.08	92.71

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.99	1.81	7.90	50.0	45.0	0.15
1.81	3.40	7.59	45.0	40.0	0.29
3.40	6.61	4.97	40.0	35.0	0.38
6.61	13.40	2.60	35.0	30.0	0.42
13.40	27.80	1.60	30.0	25.0	0.54
27.80	32.27	1.22	25.0	24.0	0.64
32.27	37.50	0.89	24.0	23.0	0.55
37.50	43.60	0.77	23.0	22.0	0.56
43.60	50.70	0.83	22.0	21.0	0.70
50.70	58.90	0.70	21.0	20.0	0.68
58.90	68.60	0.74	20.0	19.0	0.85
68.60	79.80	0.50	19.0	18.0	0.67
79.80	92.80	0.59	18.0	17.0	0.92
92.80	108.00	0.47	17.0	16.0	0.84
108.00	125.00	0.39	16.0	15.0	0.80
125.00	146.00	0.39	15.0	14.0	0.96
146.00	170.00	0.42	14.0	13.0	1.18
170.00	197.70	0.54	13.0	12.0	1.79
197.70	230.00	0.72	12.0	11.0	2.74
230.00	267.70	0.78	11.0	10.0	3.49
267.70	310.70	1.00	10.0	9.0	5.11
310.70	359.00	1.79	9.0	8.0	10.23
359.00	413.00	2.12	8.0	7.0	13.58
413.00	473.00	2.09	7.0	6.0	14.83
473.00	541.00	1.90	6.0	5.0	15.33
541.00	616.00	1.85	5.0	4.0	16.47
616.00	700.00	1.75	4.0	3.0	17.43
700.00	792.00	1.58	3.0	2.0	17.17
792.00	896.00	1.51	2.0	1.0	18.61
896.00	951.30	1.62	1.0	0.5	21.17
951.30	1010.00	1.80	0.5	0.0	25.06

H2O+CO2+O3 CO2=600 PPMV

SUBARCTIC SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	270.59	0.0	270.59
0.55	270.37	1.84	268.53
1.81	270.14	2.63	267.51
3.40	269.53	3.86	265.66
6.61	268.61	5.33	263.28
13.40	267.75	7.08	260.67
27.80	267.23	9.86	257.37
32.27	267.20	10.58	256.62
37.50	267.30	11.32	255.98
43.60	267.51	12.17	255.33
50.70	267.76	13.22	254.53
58.90	268.07	14.31	253.76
68.60	268.47	15.65	252.82
79.80	268.96	16.88	252.08
92.80	269.54	18.44	251.10
108.00	270.19	19.97	250.22
125.00	270.88	21.48	249.40
146.00	271.70	23.26	248.45
170.00	272.62	25.33	247.29
197.70	273.66	28.11	245.55
230.00	274.91	32.05	242.86
267.70	276.77	37.33	239.44
310.70	281.40	47.01	234.39
359.00	287.27	63.06	224.21
413.00	295.05	84.34	210.71
473.00	304.45	108.44	196.01
541.00	315.80	134.93	180.87
616.00	327.47	162.78	164.69
700.00	339.27	191.60	147.68
792.00	352.84	221.72	131.12
896.00	370.42	257.09	113.34
951.30	377.83	274.59	103.24
1010.00	384.79	293.53	91.26

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.99	1.81	10.56	50.0	45.0	0.21
1.81	3.40	9.79	45.0	40.0	0.37
3.40	6.61	6.25	40.0	35.0	0.48
6.61	13.40	3.25	35.0	30.0	0.52
13.40	27.80	1.93	30.0	25.0	0.66
27.80	32.27	1.41	25.0	24.0	0.75
32.27	37.50	1.04	24.0	23.0	0.64
37.50	43.60	0.90	23.0	22.0	0.65
43.60	50.70	0.95	22.0	21.0	0.80
50.70	58.90	0.80	21.0	20.0	0.77
58.90	68.60	0.81	20.0	19.0	0.94
68.60	79.80	0.56	19.0	18.0	0.75
79.80	92.80	0.63	18.0	17.0	0.98
92.80	108.00	0.49	17.0	16.0	0.88
108.00	125.00	0.40	16.0	15.0	0.81
125.00	146.00	0.38	15.0	14.0	0.96
146.00	170.00	0.41	14.0	13.0	1.16
170.00	197.70	0.53	13.0	12.0	1.75
197.70	230.00	0.70	12.0	11.0	2.68
230.00	267.70	0.77	11.0	10.0	3.42
267.70	310.70	0.99	10.0	9.0	5.05
310.70	359.00	1.78	9.0	8.0	10.18
359.00	413.00	2.11	8.0	7.0	13.49
413.00	473.00	2.07	7.0	6.0	14.70
473.00	541.00	1.88	6.0	5.0	15.14
541.00	616.00	1.82	5.0	4.0	16.19
616.00	700.00	1.71	4.0	3.0	17.01
700.00	792.00	1.52	3.0	2.0	16.55
792.00	896.00	1.44	2.0	1.0	17.79
896.00	951.30	1.54	1.0	0.5	20.20
951.30	1010.00	1.72	0.5	0.0	23.95

H2O+CO2+O3 CO2=300 PPMV

SUBARCTIC WINTER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	203.85	0.0	203.85
0.58	203.71	0.81	202.90
1.11	203.56	1.02	202.54
2.24	203.36	1.35	202.01
4.70	203.09	1.83	201.27
10.20	202.92	2.63	200.29
22.56	202.90	4.24	198.66
26.49	203.01	4.78	198.23
31.09	203.15	5.37	197.78
36.47	203.31	6.12	197.19
42.77	203.50	6.90	196.60
50.14	203.71	7.87	195.85
58.75	203.98	8.84	195.13
68.82	204.28	10.08	194.20
80.58	204.63	11.24	193.38
94.31	205.03	12.74	192.29
110.30	205.48	14.26	191.22
129.10	205.93	15.90	190.03
151.00	206.47	17.63	188.84
176.60	207.15	20.03	187.12
206.70	207.95	22.56	185.38
241.80	208.84	25.39	183.44
282.90	210.07	28.63	181.44
330.80	212.42	33.65	178.77
385.30	216.15	42.07	174.08
446.70	220.99	56.22	164.77
515.80	227.39	75.55	151.84
593.20	234.94	98.12	136.82
679.80	241.64	119.47	122.17
777.50	246.68	138.12	108.57
887.80	250.83	155.03	95.80
948.30	249.09	158.77	90.32
1013.00	247.82	161.32	86.50

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.58	1.11	5.66	50.0	45.0	0.07
1.11	2.24	3.92	45.0	40.0	0.11
2.24	4.70	2.56	40.0	35.0	0.15
4.70	10.20	1.50	35.0	30.0	0.20
10.20	22.56	1.11	30.0	25.0	0.33
22.56	26.49	0.91	25.0	24.0	0.42
26.49	31.09	0.84	24.0	23.0	0.46
31.09	36.47	0.92	23.0	22.0	0.58
36.47	42.77	0.80	22.0	21.0	0.59
42.77	50.14	0.87	21.0	20.0	0.75
50.14	58.75	0.70	20.0	19.0	0.71
58.75	68.82	0.79	19.0	18.0	0.94
68.82	80.58	0.58	18.0	17.0	0.81
80.58	94.31	0.67	17.0	16.0	1.10
94.31	110.30	0.56	16.0	15.0	1.07
110.30	129.10	0.53	15.0	14.0	1.18
129.10	151.00	0.46	14.0	13.0	1.19
151.00	176.60	0.57	13.0	12.0	1.72
176.60	206.70	0.49	12.0	11.0	1.74
206.70	241.80	0.47	11.0	10.0	1.94
241.80	282.90	0.41	10.0	9.0	2.00
282.90	330.80	0.47	9.0	8.0	2.67
330.80	385.30	0.73	8.0	7.0	4.69
385.30	446.70	1.28	7.0	6.0	9.31
446.70	515.80	1.58	6.0	5.0	12.93
515.80	593.20	1.64	5.0	4.0	15.02
593.20	679.80	1.43	4.0	3.0	14.65
679.80	777.50	1.18	3.0	2.0	13.60
777.50	887.80	0.98	2.0	1.0	12.77
887.80	948.30	0.76	1.0	0.5	10.96
948.30	1013.00	0.50	0.5	0.0	7.65

H20+C02+03 CO2=600 PPMV

SUEARCTIC WINTER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	202.26	0.0	202.26
0.58	202.07	1.05	201.02
1.11	201.88	1.34	200.54
2.24	201.61	1.75	199.86
4.70	201.26	2.35	198.91
10.20	201.02	3.36	197.66
22.56	200.95	5.30	195.65
26.49	201.08	5.92	195.15
31.09	201.23	6.62	194.61
36.47	201.41	7.49	193.93
42.77	201.61	8.38	193.23
50.14	201.85	9.47	192.37
58.75	202.13	10.57	191.56
68.82	202.45	11.93	190.52
80.58	202.82	13.20	189.63
94.31	203.25	14.79	188.46
110.30	203.71	16.39	187.33
129.10	204.17	18.06	186.11
151.00	204.71	19.80	184.91
176.60	205.39	22.18	183.21
206.70	206.18	24.67	181.51
241.80	207.06	27.44	179.62
282.90	208.28	30.60	177.68
330.80	210.75	35.69	175.05
385.30	214.75	44.36	170.39
446.70	219.88	58.77	161.12
515.80	226.59	78.35	148.24
593.20	234.47	101.15	133.32
679.80	241.42	122.61	118.81
777.50	246.61	141.25	105.36
887.80	250.93	158.16	92.76
948.30	249.15	161.77	87.38
1013.00	247.82	164.20	83.61

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.58	1.11	7.59	50.0	45.0	0.10
1.11	2.24	5.05	45.0	40.0	0.14
2.24	4.70	3.27	40.0	35.0	0.19
4.70	10.20	1.92	35.0	30.0	0.25
10.20	22.56	1.37	30.0	25.0	0.40
22.56	26.49	1.07	25.0	24.0	0.50
26.49	31.09	1.00	24.0	23.0	0.54
31.09	36.47	1.07	23.0	22.0	0.68
36.47	42.77	0.93	22.0	21.0	0.70
42.77	50.14	0.98	21.0	20.0	0.86
50.14	58.75	0.80	20.0	19.0	0.81
58.75	68.82	0.87	19.0	18.0	1.03
68.82	80.58	0.64	18.0	17.0	0.90
80.58	94.31	0.72	17.0	16.0	1.17
94.31	110.30	0.60	16.0	15.0	1.13
110.30	129.10	0.55	15.0	14.0	1.22
129.10	151.00	0.46	14.0	13.0	1.20
151.00	176.60	0.56	13.0	12.0	1.70
176.60	206.70	0.48	12.0	11.0	1.70
206.70	241.80	0.45	11.0	10.0	1.89
241.80	282.90	0.40	10.0	9.0	1.94
282.90	330.80	0.46	9.0	8.0	2.62
330.80	385.30	0.72	8.0	7.0	4.66
385.30	446.70	1.28	7.0	6.0	9.27
446.70	515.80	1.57	6.0	5.0	12.87
515.80	593.20	1.63	5.0	4.0	14.92
593.20	679.80	1.41	4.0	3.0	14.52
679.80	777.50	1.16	3.0	2.0	13.45
777.50	887.80	0.96	2.0	1.0	12.59
887.80	948.30	0.75	1.0	0.5	10.77
948.30	1013.00	0.49	0.5	0.0	7.53

H2C+CC2+C3 CO2=300 PPMV NO E-TYPE

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	296.78	0.0	296.78
0.95	296.60	1.33	295.27
1.76	296.41	1.86	294.55
3.33	296.00	2.72	293.29
6.52	295.44	3.86	291.58
13.20	294.91	5.41	289.50
27.70	294.70	7.53	287.17
32.20	294.82	8.17	286.65
37.60	294.97	8.82	286.16
43.70	295.18	9.40	285.79
51.00	295.54	10.12	285.42
59.50	295.98	10.84	285.13
69.50	296.50	11.74	284.76
81.20	297.16	12.50	284.66
95.00	297.94	13.65	284.29
111.00	298.78	14.80	283.98
130.00	299.74	16.09	283.65
153.00	300.94	17.55	283.38
179.00	302.46	19.20	283.26
209.00	305.11	23.01	282.10
243.00	308.58	31.24	277.34
281.00	312.89	44.63	268.26
324.00	318.76	61.31	257.45
372.00	325.13	78.99	246.14
426.00	333.79	100.52	233.27
487.00	343.06	123.76	219.30
554.00	353.69	148.70	204.99
628.00	365.93	176.07	189.85
710.00	380.27	207.40	172.87
802.00	396.49	240.22	156.28
902.00	411.62	270.39	141.23
955.90	417.87	283.98	133.89
1013.00	423.54	297.42	126.12

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	7.54	50.0	45.0	0.14
1.76	3.33	6.77	45.0	40.0	0.25
3.33	6.52	4.51	40.0	35.0	0.34
6.52	13.20	2.63	35.0	30.0	0.42
13.20	27.70	1.35	30.0	25.0	0.47
27.70	32.20	0.98	25.0	24.0	0.52
32.20	37.60	0.77	24.0	23.0	0.49
37.60	43.70	0.51	23.0	22.0	0.37
43.70	51.00	0.43	22.0	21.0	0.37
51.00	59.50	0.28	21.0	20.0	0.29
59.50	69.50	0.31	20.0	19.0	0.37
69.50	81.20	0.08	19.0	18.0	0.19
81.20	95.00	0.22	18.0	17.0	0.37
95.00	111.00	0.17	17.0	16.0	0.31
111.00	130.00	0.15	16.0	15.0	0.33
130.00	153.00	0.10	15.0	14.0	0.25
153.00	179.00	0.04	14.0	13.0	0.13
179.00	209.00	0.32	13.0	12.0	1.15
209.00	243.00	1.18	12.0	11.0	4.75
243.00	281.00	2.02	11.0	10.0	9.09
281.00	324.00	2.12	10.0	9.0	10.81
324.00	372.00	1.99	9.0	8.0	11.31
372.00	426.00	2.01	8.0	7.0	12.87
426.00	487.00	1.93	7.0	6.0	13.97
487.00	554.00	1.80	6.0	5.0	14.31
554.00	628.00	1.73	5.0	4.0	15.13
628.00	710.00	1.75	4.0	3.0	16.99
710.00	802.00	1.52	3.0	2.0	16.59
802.00	902.00	1.27	2.0	1.0	15.05
902.00	955.90	1.15	1.0	0.5	14.68
955.90	1013.00	1.15	0.5	0.0	15.53

H2O+CO2+O3 CO2=600 PPMV NO E-TYPE

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	294.06	0.0	294.06
0.95	293.82	1.78	292.05
1.76	293.57	2.49	291.08
3.33	293.03	3.58	289.45
6.52	292.28	4.98	287.30
13.20	291.54	6.85	284.69
27.70	291.07	9.30	281.78
32.20	291.16	10.00	281.16
37.60	291.28	10.72	280.56
43.70	291.44	11.35	280.09
51.00	291.77	12.12	279.64
59.50	292.17	12.90	279.28
69.50	292.67	13.82	278.84
81.20	293.30	14.60	278.70
95.00	294.08	15.78	278.30
111.00	294.92	16.96	277.96
130.00	295.87	18.25	277.62
153.00	297.07	19.71	277.36
179.00	298.60	21.32	277.28
209.00	301.49	25.31	276.18
243.00	305.27	33.82	271.44
281.00	309.84	47.46	262.38
324.00	316.05	64.43	251.62
372.00	322.72	82.34	240.39
426.00	331.76	104.14	227.62
487.00	341.36	127.58	213.78
554.00	352.32	152.70	199.61
628.00	364.88	180.21	184.67
710.00	379.54	211.56	167.98
802.00	396.06	244.24	151.82
902.00	411.42	274.08	137.34
955.90	417.76	287.43	130.33
1013.00	423.54	300.61	122.93

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	10.08	50.0	45.0	0.19
1.76	3.33	8.74	45.0	40.0	0.32
3.33	6.52	5.71	40.0	35.0	0.43
6.52	13.20	3.30	35.0	30.0	0.52
13.20	27.70	1.69	30.0	25.0	0.58
27.70	32.20	1.17	25.0	24.0	0.62
32.20	37.60	0.93	24.0	23.0	0.60
37.60	43.70	0.64	23.0	22.0	0.46
43.70	51.00	0.52	22.0	21.0	0.45
51.00	59.50	0.36	21.0	20.0	0.36
59.50	69.50	0.37	20.0	19.0	0.43
69.50	81.20	0.11	19.0	18.0	0.15
81.20	95.00	0.24	18.0	17.0	0.40
95.00	111.00	0.18	17.0	16.0	0.34
111.00	130.00	0.15	16.0	15.0	0.31
130.00	153.00	0.09	15.0	14.0	0.26
153.00	179.00	0.03	14.0	13.0	0.08
179.00	209.00	0.31	13.0	12.0	1.10
209.00	243.00	1.18	12.0	11.0	4.74
243.00	281.00	2.01	11.0	10.0	9.07
281.00	324.00	2.11	10.0	9.0	10.75
324.00	372.00	1.98	9.0	8.0	11.24
372.00	426.00	2.00	8.0	7.0	12.77
426.00	487.00	1.92	7.0	6.0	13.84
487.00	554.00	1.78	6.0	5.0	14.17
554.00	628.00	1.70	5.0	4.0	14.94
628.00	710.00	1.72	4.0	3.0	16.69
710.00	802.00	1.48	3.0	2.0	16.16
802.00	902.00	1.22	2.0	1.0	14.49
902.00	955.90	1.10	1.0	0.5	14.02
955.90	1013.00	1.09	0.5	0.0	14.79

H2O ONLY G=0.01G/G

ISOTHERMAL T=200K

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	90.75	0.0	90.75
0.95	90.75	1.01	89.74
1.76	90.75	1.91	88.84
3.33	90.75	3.94	85.82
6.52	90.75	7.66	83.09
13.20	90.75	14.40	76.35
27.70	90.75	25.63	65.13
32.20	90.75	29.00	61.75
37.60	90.75	32.41	58.34
43.70	90.75	35.78	54.97
51.00	90.75	39.66	51.09
59.50	90.75	43.88	46.87
69.50	90.75	48.15	42.60
81.20	90.75	52.53	38.22
95.00	90.75	56.97	33.78
111.00	90.75	61.27	29.49
130.00	90.75	65.49	25.26
153.00	90.75	69.66	21.10
179.00	90.75	73.14	17.61
209.00	90.75	76.42	14.33
243.00	90.75	79.62	11.13
281.00	90.75	82.88	7.87
324.00	90.75	86.76	3.99
372.00	90.75	90.36	0.39
426.00	90.75	90.55	0.20
487.00	90.75	90.66	0.09
554.00	90.75	90.72	0.03
628.00	90.75	90.74	0.01
710.00	90.75	90.75	0.00
802.00	90.75	90.75	0.00
902.00	90.75	90.75	0.0
955.90	90.75	90.75	0.0
1013.00	90.75	90.75	0.00

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	9.35	50.0	45.0	0.18
1.76	3.33	10.89	45.0	40.0	0.41
3.33	6.52	9.85	40.0	35.0	0.74
6.52	13.20	8.52	35.0	30.0	1.35
13.20	27.70	6.54	30.0	25.0	2.25
27.70	32.20	6.33	25.0	24.0	3.38
32.20	37.60	5.33	24.0	23.0	3.41
37.60	43.70	4.65	23.0	22.0	3.36
43.70	51.00	4.49	22.0	21.0	3.88
51.00	59.50	4.19	21.0	20.0	4.22
59.50	69.50	3.61	20.0	19.0	4.27
69.50	81.20	3.16	19.0	18.0	4.38
81.20	95.00	2.72	18.0	17.0	4.44
95.00	111.00	2.27	17.0	16.0	4.29
111.00	130.00	1.88	16.0	15.0	4.23
130.00	153.00	1.53	15.0	14.0	4.16
153.00	179.00	1.13	14.0	13.0	3.49
179.00	209.00	0.92	13.0	12.0	3.28
209.00	243.00	0.79	12.0	11.0	3.20
243.00	281.00	0.72	11.0	10.0	3.26
281.00	324.00	0.76	10.0	9.0	3.88
324.00	372.00	0.63	9.0	8.0	3.60
372.00	426.00	0.03	8.0	7.0	0.19
426.00	487.00	0.02	7.0	6.0	0.11
487.00	554.00	0.01	6.0	5.0	0.06
554.00	628.00	0.00	5.0	4.0	0.02
628.00	710.00	0.00	4.0	3.0	0.01
710.00	802.00	0.00	3.0	2.0	0.00
802.00	902.00	0.00	2.0	1.0	0.00
902.00	955.90	0.0	1.0	0.5	0.0
955.90	1013.00	-0.00	0.5	0.0	-0.00

420 ONLY Q=0.01C/G NO E-TYPE

ISOTHERMAL T=200K

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	90.75	0.0	90.75
0.95	90.75	1.00	89.75
1.76	90.75	1.88	88.87
3.33	90.75	3.86	86.90
6.52	90.75	7.41	83.35
13.20	90.75	13.58	77.18
27.70	90.75	22.81	67.94
32.20	90.75	25.04	65.72
37.60	90.75	27.54	63.21
43.70	90.75	29.79	60.96
51.00	90.75	32.33	58.43
59.50	90.75	34.77	55.98
69.50	90.75	37.35	53.41
81.20	90.75	39.81	50.94
95.00	90.75	42.37	48.38
111.00	90.75	44.75	46.00
130.00	90.75	47.26	43.49
153.00	90.75	49.86	40.89
179.00	90.75	52.09	38.67
209.00	90.75	54.44	36.31
243.00	90.75	56.60	34.16
281.00	90.75	58.67	32.08
324.00	90.75	60.73	30.03
372.00	90.75	62.51	28.24
426.00	90.75	64.21	26.54
487.00	90.75	65.92	24.83
554.00	90.75	67.28	23.47
628.00	90.75	68.79	21.96
710.00	90.75	69.85	20.90
802.00	90.75	70.89	19.86
902.00	90.75	72.01	18.74
955.90	90.75	72.44	18.32
1013.00	90.75	72.86	17.89

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	9.17	50.0	45.0	0.18
1.76	3.33	10.60	45.0	40.0	0.39
3.33	6.52	9.40	40.0	35.0	0.71
6.52	13.20	7.80	35.0	30.0	1.23
13.20	27.70	5.38	30.0	25.0	1.85
27.70	32.20	4.17	25.0	24.0	2.22
32.20	37.60	3.91	24.0	23.0	2.50
37.60	43.70	3.12	23.0	22.0	2.25
43.70	51.00	2.93	22.0	21.0	2.53
51.00	59.50	2.43	21.0	20.0	2.45
59.50	69.50	2.17	20.0	19.0	2.58
69.50	81.20	1.78	19.0	18.0	2.46
81.20	95.00	1.57	18.0	17.0	2.56
95.00	111.00	1.25	17.0	16.0	2.38
111.00	130.00	1.12	16.0	15.0	2.51
130.00	153.00	0.95	15.0	14.0	2.60
153.00	179.00	0.72	14.0	13.0	2.23
179.00	209.00	0.66	13.0	12.0	2.35
209.00	243.00	0.54	12.0	11.0	2.16
243.00	281.00	0.46	11.0	10.0	2.07
281.00	324.00	0.40	10.0	9.0	2.06
324.00	372.00	0.31	9.0	8.0	1.78
372.00	426.00	0.27	8.0	7.0	1.70
426.00	487.00	0.24	7.0	6.0	1.71
487.00	554.00	0.17	6.0	5.0	1.36
554.00	628.00	0.17	5.0	4.0	1.51
628.00	710.00	0.11	4.0	3.0	1.06
710.00	802.00	0.10	3.0	2.0	1.04
802.00	902.00	0.09	2.0	1.0	1.12
902.00	955.90	0.07	1.0	0.5	0.85
955.90	1013.00	0.06	0.5	0.0	0.84

420 ONLY G=0.01G/G

ISOTHERMAL T=250K

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	221.56	0.0	221.56
0.95	221.56	2.22	219.33
1.76	221.56	4.25	217.31
3.33	221.56	8.22	213.33
6.52	221.56	16.17	205.39
13.20	221.56	30.03	191.53
27.70	221.56	51.53	170.03
32.20	221.56	57.28	164.28
37.60	221.56	63.06	158.49
43.70	221.56	69.38	152.17
51.00	221.56	76.37	145.19
59.50	221.56	82.85	138.70
69.50	221.56	90.73	130.82
81.20	221.56	98.37	123.19
95.00	221.56	106.62	114.94
111.00	221.56	114.15	107.41
130.00	221.56	122.54	99.02
153.00	221.56	131.76	89.79
179.00	221.56	140.37	81.19
209.00	221.56	149.18	72.38
243.00	221.56	157.04	64.51
281.00	221.56	164.74	56.81
324.00	221.56	172.39	49.17
372.00	221.56	179.14	42.41
426.00	221.56	185.98	35.58
487.00	221.56	191.87	29.69
554.00	221.56	197.97	23.59
628.00	221.56	204.48	17.07
710.00	221.56	211.66	9.89
802.00	221.56	218.83	2.72
902.00	221.56	219.77	1.79
955.90	221.56	220.16	1.40
1013.00	221.56	220.49	1.07

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.75	21.12	50.0	45.0	0.41
1.76	3.33	21.37	45.0	40.0	0.79
3.33	6.52	21.02	40.0	35.0	1.59
6.52	13.20	17.52	35.0	30.0	2.77
13.20	27.70	12.52	30.0	25.0	4.30
27.70	32.20	10.78	25.0	24.0	5.75
32.20	37.60	9.05	24.0	23.0	5.79
37.60	43.70	8.74	23.0	22.0	6.32
43.70	51.00	8.08	22.0	21.0	6.98
51.00	59.50	6.44	21.0	20.0	6.49
59.50	69.50	6.65	20.0	19.0	7.88
69.50	81.20	5.51	19.0	18.0	7.63
81.20	95.00	5.05	18.0	17.0	8.25
95.00	111.00	3.97	17.0	16.0	7.53
111.00	130.00	3.73	16.0	15.0	8.39
130.00	153.00	3.39	15.0	14.0	9.22
153.00	179.00	2.79	14.0	13.0	8.61
179.00	209.00	2.48	13.0	12.0	8.81
209.00	243.00	1.95	12.0	11.0	7.87
243.00	281.00	1.71	11.0	10.0	7.70
281.00	324.00	1.50	10.0	9.0	7.65
324.00	372.00	1.19	9.0	8.0	6.75
372.00	426.00	1.07	8.0	7.0	6.84
426.00	487.00	0.81	7.0	6.0	5.89
487.00	554.00	0.77	6.0	5.0	6.10
554.00	628.00	0.74	5.0	4.0	6.52
628.00	710.00	0.74	4.0	3.0	7.19
710.00	802.00	0.66	3.0	2.0	7.17
802.00	902.00	0.08	2.0	1.0	0.93
902.00	955.90	0.06	1.0	0.5	0.78
955.90	1013.00	0.05	0.5	0.0	0.67

420 ONLY Q=0.01G/G NO F-TYPE

ISOTHERMAL T=250K

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	221.55	0.0	221.55
0.95	221.56	2.22	219.34
1.76	221.56	4.23	217.32
3.33	221.56	8.18	213.38
6.52	221.56	16.03	205.53
13.20	221.56	29.58	191.97
27.70	221.56	50.05	171.50
32.20	221.56	55.37	165.18
37.60	221.56	60.63	160.92
43.70	221.56	66.28	155.27
51.00	221.56	72.40	149.16
59.50	221.56	77.88	143.67
69.50	221.56	84.41	137.14
81.20	221.56	89.90	131.65
95.00	221.56	96.54	125.02
111.00	221.56	102.02	119.53
130.00	221.56	107.98	113.58
153.00	221.56	114.20	107.36
179.00	221.56	119.78	101.78
209.00	221.56	125.62	95.93
243.00	221.56	130.50	91.05
281.00	221.56	135.16	85.39
324.00	221.56	139.88	81.67
372.00	221.56	143.77	77.79
426.00	221.56	147.90	73.66
487.00	221.56	151.10	70.46
554.00	221.56	154.13	67.42
628.00	221.56	157.21	64.35
710.00	221.56	159.79	61.77
802.00	221.56	162.31	59.25
902.00	221.56	164.68	55.87
955.90	221.56	165.84	55.72
1013.00	221.56	166.98	54.58

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	21.01	50.0	45.0	0.40
1.76	3.33	21.22	45.0	40.0	0.79
3.33	6.52	20.77	40.0	35.0	1.57
6.52	13.20	17.13	35.0	30.0	2.71
13.20	27.70	11.92	30.0	25.0	4.09
27.70	32.20	9.99	25.0	24.0	5.32
32.20	37.60	8.22	24.0	23.0	5.26
37.60	43.70	7.82	23.0	22.0	5.65
43.70	51.00	7.07	22.0	21.0	6.12
51.00	59.50	5.45	21.0	20.0	5.49
59.50	69.50	5.51	20.0	19.0	6.53
69.50	81.20	3.96	19.0	18.0	5.49
81.20	95.00	4.06	18.0	17.0	6.63
95.00	111.00	2.89	17.0	16.0	5.49
111.00	130.00	2.65	16.0	15.0	5.96
130.00	153.00	2.28	15.0	14.0	6.22
153.00	179.00	1.81	14.0	13.0	5.58
179.00	209.00	1.65	13.0	12.0	5.85
209.00	243.00	1.21	12.0	11.0	4.88
243.00	281.00	1.04	11.0	10.0	4.66
281.00	324.00	0.93	10.0	9.0	4.72
324.00	372.00	0.68	9.0	8.0	3.89
372.00	426.00	0.65	8.0	7.0	4.13
426.00	487.00	0.44	7.0	6.0	3.20
487.00	554.00	0.38	6.0	5.0	3.04
554.00	628.00	0.35	5.0	4.0	3.08
628.00	710.00	0.27	4.0	3.0	2.58
710.00	802.00	0.23	3.0	2.0	2.52
802.00	902.00	0.20	2.0	1.0	2.38
902.00	955.90	0.18	1.0	0.5	2.31
955.90	1013.00	0.17	0.5	0.0	2.28

42 C ONLY G=0.016/6

ISOTHERMAL T=300K

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	459.28	0.0	459.28
0.95	459.28	4.67	454.62
1.76	459.28	9.26	450.03
3.33	459.28	18.03	441.26
6.52	459.28	34.68	424.60
13.20	459.28	63.64	395.64
27.70	459.28	108.50	350.79
32.20	459.28	120.46	338.82
37.60	459.29	131.67	327.62
43.70	459.29	145.11	314.17
51.00	459.29	156.58	302.71
59.50	459.29	171.52	287.76
69.50	459.29	183.25	276.04
81.20	459.29	196.33	262.96
95.00	459.29	210.73	248.55
111.00	459.29	223.51	235.78
130.00	459.29	237.75	221.54
153.00	459.29	252.13	207.16
179.00	459.29	264.83	194.45
209.00	459.29	277.95	181.34
243.00	459.29	289.78	169.51
281.00	459.29	302.15	157.13
324.00	459.29	313.25	146.03
372.00	459.29	323.85	135.44
426.00	459.29	334.65	124.64
487.00	459.29	345.08	114.20
554.00	459.29	355.45	103.84
628.00	459.29	365.78	93.50
710.00	459.29	376.13	83.15
802.00	459.29	386.67	72.61
902.00	459.29	397.76	61.53
955.90	459.29	404.01	55.27
1013.00	459.29	410.83	48.45

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	47.84	50.0	45.0	0.92
1.76	3.33	47.14	45.0	40.0	1.75
3.33	6.52	44.08	40.0	35.0	3.33
6.52	13.20	36.60	35.0	30.0	5.79
13.20	27.70	26.12	30.0	25.0	8.97
27.70	32.20	22.44	25.0	24.0	11.96
32.20	37.60	17.52	24.0	23.0	11.21
37.60	43.70	18.61	23.0	22.0	13.44
43.70	51.00	13.26	22.0	21.0	11.47
51.00	59.50	14.84	21.0	20.0	14.94
59.50	69.50	9.90	20.0	19.0	11.73
69.50	81.20	9.44	19.0	18.0	13.08
81.20	95.00	8.81	18.0	17.0	14.41
95.00	111.00	6.74	17.0	16.0	12.78
111.00	130.00	6.33	16.0	15.0	14.24
130.00	153.00	5.28	15.0	14.0	14.38
153.00	179.00	4.12	14.0	13.0	12.70
179.00	209.00	3.69	13.0	12.0	13.12
209.00	243.00	2.94	12.0	11.0	11.83
243.00	281.00	2.75	11.0	10.0	12.38
281.00	324.00	2.18	10.0	9.0	11.10
324.00	372.00	1.86	9.0	8.0	10.60
372.00	426.00	1.69	8.0	7.0	10.80
426.00	487.00	1.44	7.0	6.0	10.43
487.00	554.00	1.31	6.0	5.0	10.36
554.00	628.00	1.18	5.0	4.0	10.34
628.00	710.00	1.07	4.0	3.0	10.35
710.00	802.00	0.97	3.0	2.0	10.54
802.00	902.00	0.94	2.0	1.0	11.09
902.00	955.90	0.98	1.0	0.5	12.51
955.90	1013.00	1.01	0.5	0.0	13.64

H2O ONLY C=0.01G/G NO E-TYPE

ISOTHERMAL T=300K

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	459.28	0.0	459.28
0.95	459.28	4.66	454.62
1.76	459.28	9.25	450.04
3.33	459.28	18.00	441.29
6.52	459.28	34.59	424.70
13.20	459.28	63.34	395.94
27.70	459.28	107.55	351.74
32.20	459.28	119.24	340.04
37.60	459.29	130.13	329.15
43.70	459.29	143.16	315.12
51.00	459.29	154.16	305.12
59.50	459.29	168.45	290.83
69.50	459.29	179.50	279.79
81.20	459.29	191.58	267.70
95.00	459.29	204.73	254.56
111.00	459.29	216.35	242.94
130.00	459.29	228.71	230.58
153.00	459.29	240.66	218.63
179.00	459.29	251.47	207.81
209.00	459.29	262.28	197.00
243.00	459.29	271.25	188.04
281.00	459.29	280.64	178.65
324.00	459.29	288.24	171.04
372.00	459.29	295.31	163.98
426.00	459.29	302.21	157.08
487.00	459.29	308.33	150.95
554.00	459.29	314.09	145.20
628.00	459.29	319.54	139.75
710.00	459.29	324.72	134.56
802.00	459.29	329.71	129.58
902.00	459.29	334.36	124.92
955.90	459.29	336.60	122.69
1013.00	459.29	338.80	120.49

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	47.76	50.0	45.0	0.92
1.76	3.33	47.03	45.0	40.0	1.75
3.33	6.52	43.91	40.0	35.0	3.32
6.52	13.20	36.34	35.0	30.0	5.75
13.20	27.70	25.73	30.0	25.0	8.84
27.70	32.20	21.94	25.0	24.0	11.70
32.20	37.60	17.03	24.0	23.0	10.89
37.60	43.70	18.03	23.0	22.0	13.03
43.70	51.00	12.72	22.0	21.0	11.00
51.00	59.50	14.20	21.0	20.0	14.29
59.50	69.50	9.32	20.0	19.0	11.04
69.50	81.20	8.72	19.0	18.0	12.09
81.20	95.00	8.04	18.0	17.0	13.15
95.00	111.00	6.13	17.0	16.0	11.62
111.00	130.00	5.49	16.0	15.0	12.36
130.00	153.00	4.39	15.0	14.0	11.95
153.00	179.00	3.51	14.0	13.0	10.82
179.00	209.00	3.04	13.0	12.0	10.81
209.00	243.00	2.23	12.0	11.0	8.96
243.00	281.00	2.09	11.0	10.0	9.39
281.00	324.00	1.49	10.0	9.0	7.61
324.00	372.00	1.24	9.0	8.0	7.07
372.00	426.00	1.08	8.0	7.0	6.90
426.00	487.00	0.85	7.0	6.0	6.13
487.00	554.00	0.73	6.0	5.0	5.75
554.00	628.00	0.62	5.0	4.0	5.45
628.00	710.00	0.53	4.0	3.0	5.18
710.00	802.00	0.46	3.0	2.0	4.99
802.00	902.00	0.39	2.0	1.0	4.65
902.00	955.90	0.35	1.0	0.5	4.48
955.90	1013.00	0.32	0.5	0.0	4.39

H2O*0.75+CO2+03 CO2=300 PPMV

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	297.00	0.0	297.00
0.95	296.82	1.33	295.49
1.76	296.63	1.86	294.77
3.33	296.23	2.72	293.51
6.52	295.66	3.86	291.80
13.20	295.12	5.35	289.77
27.70	294.91	7.52	287.39
32.20	295.02	7.99	287.03
37.60	295.17	8.65	286.52
43.70	295.36	9.26	286.10
51.00	295.71	9.91	285.80
59.50	296.14	10.65	285.48
69.50	296.66	11.41	285.26
81.20	297.30	12.31	285.00
95.00	298.08	13.19	284.89
111.00	298.90	14.39	284.51
130.00	299.84	15.43	284.41
153.00	300.99	17.00	284.00
179.00	302.49	18.32	284.17
209.00	305.11	22.12	282.99
243.00	308.50	29.92	278.58
281.00	312.61	42.35	270.26
324.00	318.33	58.13	260.21
372.00	324.69	75.57	249.12
426.00	333.05	96.24	236.81
487.00	341.96	119.30	222.65
554.00	352.32	144.19	208.13
628.00	364.28	172.48	191.80
710.00	378.61	205.86	172.75
802.00	395.16	244.07	151.09
902.00	411.04	283.48	127.57
955.90	417.65	303.23	114.42
1013.00	423.54	323.73	99.82

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	7.54	50.0	45.0	0.14
1.76	3.33	6.77	45.0	40.0	0.25
3.33	6.52	4.52	40.0	35.0	0.34
6.52	13.20	2.56	35.0	30.0	0.41
13.20	27.70	1.39	30.0	25.0	0.48
27.70	32.20	0.67	25.0	24.0	0.36
32.20	37.60	0.80	24.0	23.0	0.51
37.60	43.70	0.58	23.0	22.0	0.42
43.70	51.00	0.34	22.0	21.0	0.29
51.00	59.50	0.32	21.0	20.0	0.32
59.50	69.50	0.19	20.0	19.0	0.23
69.50	81.20	0.19	19.0	18.0	0.26
81.20	95.00	0.07	18.0	17.0	0.11
95.00	111.00	0.20	17.0	16.0	0.38
111.00	130.00	0.05	16.0	15.0	0.11
130.00	153.00	0.15	15.0	14.0	0.41
153.00	179.00	-0.06	14.0	13.0	-0.18
179.00	209.00	0.33	13.0	12.0	1.18
209.00	243.00	1.10	12.0	11.0	4.41
243.00	281.00	1.85	11.0	10.0	8.32
281.00	324.00	1.97	10.0	9.0	10.06
324.00	372.00	1.95	9.0	8.0	11.09
372.00	426.00	1.92	8.0	7.0	12.31
426.00	487.00	1.96	7.0	6.0	14.16
487.00	554.00	1.83	6.0	5.0	14.52
554.00	628.00	1.86	5.0	4.0	16.33
628.00	710.00	1.96	4.0	3.0	19.05
710.00	802.00	1.99	3.0	2.0	21.66
802.00	902.00	1.99	2.0	1.0	23.52
902.00	955.90	2.06	1.0	0.5	26.30
955.90	1013.00	2.16	0.5	0.0	29.20

H2O *0.75+CO2+O3 CO2=300 PPMV NO E-TYPE

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	300.36	0.0	300.36
0.95	300.18	1.33	298.85
1.76	299.99	1.86	298.12
3.33	299.58	2.72	296.86
6.52	299.02	3.86	295.16
13.20	298.48	5.35	293.14
27.70	298.29	7.52	290.77
32.20	298.41	7.99	290.42
37.60	298.57	8.65	289.91
43.70	298.76	9.26	289.50
51.00	299.12	9.91	289.21
59.50	299.55	10.65	288.90
69.50	300.09	11.41	288.68
81.20	300.74	12.31	288.43
95.00	301.53	13.19	288.34
111.00	302.36	14.39	287.97
130.00	303.31	15.43	287.88
153.00	304.48	17.00	287.48
179.00	305.99	18.32	287.67
209.00	308.62	22.12	286.50
243.00	312.02	29.92	282.10
281.00	316.15	42.35	273.81
324.00	321.88	58.11	263.78
372.00	328.25	75.51	252.74
426.00	336.61	96.09	240.52
487.00	345.48	118.94	226.55
554.00	355.80	143.40	212.40
628.00	367.60	170.70	196.89
710.00	381.48	201.62	179.86
802.00	397.22	234.61	162.61
902.00	411.97	265.36	145.60
955.90	418.04	279.31	138.73
1013.00	423.54	292.66	130.88

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	7.53	50.0	45.0	0.14
1.76	3.33	6.77	45.0	40.0	0.25
3.33	6.52	4.51	40.0	35.0	0.34
6.52	13.20	2.56	35.0	30.0	0.40
13.20	27.70	1.38	30.0	25.0	0.47
27.70	32.20	0.66	25.0	24.0	0.35
32.20	37.60	0.80	24.0	23.0	0.51
37.60	43.70	0.57	23.0	22.0	0.41
43.70	51.00	0.33	22.0	21.0	0.29
51.00	59.50	0.31	21.0	20.0	0.31
59.50	69.50	0.18	20.0	19.0	0.22
69.50	81.20	0.18	19.0	18.0	0.25
81.20	95.00	0.06	18.0	17.0	0.10
95.00	111.00	0.19	17.0	16.0	0.36
111.00	130.00	0.04	16.0	15.0	0.09
130.00	153.00	0.15	15.0	14.0	0.40
153.00	179.00	-0.06	14.0	13.0	-0.19
179.00	209.00	0.33	13.0	12.0	1.17
209.00	243.00	1.09	12.0	11.0	4.40
243.00	281.00	1.84	11.0	10.0	8.30
281.00	324.00	1.97	10.0	9.0	10.03
324.00	372.00	1.94	9.0	8.0	11.03
372.00	426.00	1.91	8.0	7.0	12.22
426.00	487.00	1.93	7.0	6.0	13.97
487.00	554.00	1.78	6.0	5.0	14.15
554.00	628.00	1.77	5.0	4.0	15.51
628.00	710.00	1.75	4.0	3.0	17.03
710.00	802.00	1.58	3.0	2.0	17.25
802.00	902.00	1.35	2.0	1.0	16.01
902.00	955.90	1.23	1.0	0.5	15.75
955.90	1013.00	1.16	0.5	0.0	15.70

H2O*1.25+CO2+O3 CO2=300 PPMV

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	286.98	0.0	286.98
0.95	286.81	1.33	285.47
1.76	286.61	1.86	284.75
3.33	286.21	2.72	283.49
6.52	285.63	3.86	281.78
13.20	285.08	5.45	279.63
27.70	284.83	7.71	277.12
32.20	284.93	8.30	276.63
37.60	285.07	8.90	276.18
43.70	285.26	9.59	275.67
51.00	285.60	10.23	275.36
59.50	286.01	11.11	274.89
69.50	286.52	11.98	274.54
81.20	287.14	12.87	274.27
95.00	287.90	13.94	273.96
111.00	288.70	15.13	273.57
130.00	289.62	16.57	273.05
153.00	290.79	17.98	272.81
179.00	292.29	19.85	272.44
209.00	294.98	23.90	271.07
243.00	298.53	32.69	265.84
281.00	302.90	46.58	256.33
324.00	308.88	63.68	245.20
372.00	315.59	82.36	233.23
426.00	324.51	104.62	219.89
487.00	334.07	128.28	205.79
554.00	345.16	154.27	190.89
628.00	358.04	184.22	173.82
710.00	373.60	220.45	153.16
802.00	391.80	263.18	128.62
902.00	409.51	308.51	101.01
955.90	416.92	331.89	85.03
1013.00	423.54	356.06	67.48

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	7.54	50.0	45.0	0.14
1.76	3.33	6.79	45.0	40.0	0.25
3.33	6.52	4.53	40.0	35.0	0.34
6.52	13.20	2.71	35.0	30.0	0.43
13.20	27.70	1.46	30.0	25.0	0.50
27.70	32.20	0.91	25.0	24.0	0.49
32.20	37.60	0.72	24.0	23.0	0.46
37.60	43.70	0.70	23.0	22.0	0.51
43.70	51.00	0.35	22.0	21.0	0.31
51.00	59.50	0.47	21.0	20.0	0.47
59.50	69.50	0.30	20.0	19.0	0.35
69.50	81.20	0.19	19.0	18.0	0.27
81.20	95.00	0.19	18.0	17.0	0.31
95.00	111.00	0.20	17.0	16.0	0.39
111.00	130.00	0.23	16.0	15.0	0.52
130.00	153.00	0.09	15.0	14.0	0.24
153.00	179.00	0.12	14.0	13.0	0.38
179.00	209.00	0.38	13.0	12.0	1.36
209.00	243.00	1.30	12.0	11.0	5.24
243.00	281.00	2.11	11.0	10.0	9.51
281.00	324.00	2.18	10.0	9.0	11.12
324.00	372.00	2.11	9.0	8.0	11.98
372.00	426.00	2.08	8.0	7.0	13.34
426.00	487.00	1.95	7.0	6.0	14.10
487.00	554.00	1.88	6.0	5.0	14.90
554.00	628.00	1.95	5.0	4.0	17.07
628.00	710.00	2.13	4.0	3.0	20.66
710.00	802.00	2.25	3.0	2.0	24.54
802.00	902.00	2.33	2.0	1.0	27.61
902.00	955.90	2.50	1.0	0.5	31.55
955.90	1013.00	2.59	0.5	0.0	35.10

H2O*1.25+CO2+O3 CO2=300 PPMV NO E-TYPE

MIDLATITUDE SUMMER

PRESSURE (MB)	FLUXES (W/M**2) UP	DOWN	NET
0.0	293.84	0.0	293.84
0.95	293.66	1.33	292.33
1.76	293.47	1.86	291.61
3.33	293.07	2.72	290.35
6.52	292.50	3.86	288.64
13.20	291.96	5.45	286.52
27.70	291.75	7.71	284.04
32.20	291.86	8.30	283.57
37.60	292.02	8.90	283.12
43.70	292.23	9.59	282.63
51.00	292.58	10.23	282.35
59.50	293.02	11.11	281.90
69.50	293.55	11.98	281.58
81.20	294.20	12.87	281.34
95.00	294.99	13.94	281.05
111.00	295.82	15.13	280.69
130.00	296.77	16.57	280.20
153.00	297.97	17.98	279.99
179.00	299.50	19.85	279.65
209.00	302.22	23.90	278.32
243.00	305.90	32.69	273.11
281.00	310.21	46.56	263.64
324.00	316.21	63.63	252.58
372.00	322.93	82.22	240.70
426.00	331.83	104.25	227.58
487.00	341.32	127.43	213.89
554.00	352.28	152.46	199.82
628.00	364.76	180.23	184.54
710.00	379.43	211.07	168.35
802.00	395.95	243.81	152.14
902.00	411.38	273.96	137.41
955.90	417.74	287.62	130.12
1013.00	423.54	301.14	122.41

PRESSURE (MB) FROM	TO	COOLING RATE (CELCIUS/DAY)	HEIGHT (KM) FROM	TO	DIVERGENCE (MW/M**3)
0.95	1.76	7.54	50.0	45.0	0.14
1.76	3.33	6.77	45.0	40.0	0.25
3.33	6.52	4.51	40.0	35.0	0.34
6.52	13.20	2.68	35.0	30.0	0.42
13.20	27.70	1.44	30.0	25.0	0.49
27.70	32.20	0.89	25.0	24.0	0.48
32.20	37.60	0.69	24.0	23.0	0.44
37.60	43.70	0.68	23.0	22.0	0.49
43.70	51.00	0.33	22.0	21.0	0.29
51.00	59.50	0.44	21.0	20.0	0.45
59.50	69.50	0.28	20.0	19.0	0.33
69.50	81.20	0.17	19.0	18.0	0.24
81.20	95.00	0.17	18.0	17.0	0.29
95.00	111.00	0.19	17.0	16.0	0.36
111.00	130.00	0.22	16.0	15.0	0.49
130.00	153.00	0.08	15.0	14.0	0.20
153.00	179.00	0.11	14.0	13.0	0.34
179.00	209.00	0.37	13.0	12.0	1.33
209.00	243.00	1.29	12.0	11.0	5.20
243.00	281.00	2.10	11.0	10.0	9.47
281.00	324.00	2.17	10.0	9.0	11.06
324.00	372.00	2.09	9.0	8.0	11.88
372.00	426.00	2.05	8.0	7.0	13.13
426.00	487.00	1.89	7.0	6.0	13.68
487.00	554.00	1.77	6.0	5.0	14.07
554.00	628.00	1.74	5.0	4.0	15.29
628.00	710.00	1.67	4.0	3.0	16.18
710.00	802.00	1.49	3.0	2.0	16.21
802.00	902.00	1.24	2.0	1.0	14.72
902.00	955.90	1.14	1.0	0.5	14.60
955.90	1013.00	1.14	0.5	0.0	15.42

TABLE 3

SHORTWAVE FLUX COMPUTATIONS

H2O NO O3 NO RAYL

SURFALB=0.2 SOLZEN=30

NO CLOUDS

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	981.53		
50.0	0.95	981.53	0.00	
45.0	1.76	981.53	0.00	0.00
40.0	3.33	981.53	0.00	0.00
35.0	6.52	981.53	0.00	0.00
30.0	13.20	981.53	0.00	0.00
25.0	27.70	981.53	0.00	0.00
24.0	32.20	981.52	0.00	0.00
23.0	37.60	981.52	0.00	0.00
22.0	43.70	981.52	0.00	0.00
21.0	51.00	981.51	0.00	0.01
20.0	59.50	981.51	0.01	0.01
19.0	69.50	981.50	0.01	0.01
18.0	81.20	981.49	0.01	0.01
17.0	95.00	981.47	0.02	0.01
16.0	111.00	981.45	0.02	0.01
15.0	130.00	981.42	0.03	0.01
14.0	153.00	981.38	0.04	0.02
13.0	179.00	981.32	0.07	0.02
12.0	209.00	981.12	0.20	0.05
11.0	243.00	980.32	0.80	0.20
10.0	281.00	977.59	2.73	0.61
9.0	324.00	971.48	6.11	1.20
8.0	372.00	962.06	9.42	1.66
7.0	426.00	950.39	11.67	1.82
6.0	487.00	939.70	10.69	1.48
5.0	554.00	928.75	10.95	1.38
4.0	628.00	913.24	15.51	1.77
3.0	710.00	893.05	20.19	2.08
2.0	802.00	872.13	20.92	1.92
1.0	902.00	849.45	22.68	1.91
0.5	955.90	835.64	13.81	2.16
0.0	1013.00	819.72	15.92	2.35

PLANETARY ALBEDO = 0.167

UPFSFC= 204.93 DNFSFC=1024.65 NETSFC= 819.72

UPFTOP= 196.52 DNFTOP=1178.05 NETTOP= 981.53

H20 NO 03 NO RAYL

SURFALB=0.2 SOLZEN=75

NO CLOUDS

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	295.11		
50.0	0.95	295.11	0.00	
45.0	1.76	295.11	0.00	0.00
40.0	3.33	295.11	0.00	0.00
35.0	6.52	295.11	0.00	0.00
30.0	13.20	295.11	0.00	0.00
25.0	27.70	295.11	0.00	0.00
24.0	32.20	295.10	0.00	0.00
23.0	37.60	295.10	0.00	0.00
22.0	43.70	295.10	0.00	0.00
21.0	51.00	295.09	0.00	0.01
20.0	59.50	295.09	0.01	0.01
19.0	69.50	295.08	0.01	0.01
18.0	81.20	295.07	0.01	0.01
17.0	95.00	295.05	0.02	0.01
16.0	111.00	295.03	0.02	0.01
15.0	130.00	295.00	0.03	0.01
14.0	153.00	294.96	0.04	0.01
13.0	179.00	294.90	0.06	0.02
12.0	209.00	294.71	0.19	0.05
11.0	243.00	293.95	0.76	0.19
10.0	281.00	291.64	2.31	0.51
9.0	324.00	287.73	3.91	0.77
8.0	372.00	283.95	3.79	0.67
7.0	426.00	280.38	3.57	0.56
6.0	487.00	275.80	4.58	0.63
5.0	554.00	270.32	5.48	0.69
4.0	628.00	264.51	5.81	0.66
3.0	710.00	258.05	6.46	0.67
2.0	802.00	249.62	8.43	0.77
1.0	902.00	240.46	9.16	0.77
0.5	955.90	236.11	4.35	0.68
0.0	1013.00	231.90	4.21	0.62

PLANETARY ALBEDO = 0.162

UPFSFC= 57.98 DNFSFC= 289.88 NETSFC= 231.90

UPFTOP= 56.96 DNFTOP= 352.07 NETTOP= 295.11

H2O NO 03 NO RAYL

SURFALB=0.2 SOLZEN=30

NO CLOUDS

TROPICAL

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	984.74		
50.0	0.85	984.74	0.00	
45.0	1.59	984.74	0.00	0.00
40.0	3.05	984.74	0.00	0.00
35.0	6.00	984.74	0.00	0.00
30.0	12.20	984.74	0.00	0.00
25.0	25.70	984.74	0.00	0.00
24.0	30.00	984.74	0.00	0.00
23.0	35.00	984.73	0.00	0.00
22.0	40.90	984.73	0.00	0.00
21.0	48.00	984.73	0.00	0.00
20.0	56.50	984.72	0.00	0.00
19.0	66.60	984.72	0.01	0.01
18.0	78.90	984.71	0.01	0.01
17.0	93.70	984.69	0.01	0.01
16.0	111.00	984.67	0.02	0.01
15.0	132.00	984.65	0.03	0.01
14.0	156.00	984.61	0.04	0.01
13.0	182.00	984.54	0.07	0.02
12.0	213.00	984.34	0.20	0.06
11.0	247.00	983.63	0.71	0.18
10.0	286.00	981.39	2.24	0.48
9.0	329.00	975.64	5.76	1.13
8.0	378.00	964.58	11.06	1.91
7.0	432.00	951.46	13.11	2.05
6.0	492.00	939.71	11.75	1.65
5.0	559.00	925.65	14.06	1.77
4.0	633.00	906.92	18.73	2.14
3.0	715.00	886.44	20.48	2.11
2.0	805.00	864.49	21.95	2.06
1.0	904.00	837.77	26.72	2.28
0.5	956.90	822.68	15.09	2.41
0.0	1013.00	806.31	16.37	2.46

PLANETARY ALBEDO = 0.164

UPFSFC= 201.58 DNFSFC=1007.89 NETSFC= 806.31

UPFTOP= 193.31 DNFTOP=1178.05 NETTOP= 984.74

H2O NO O3 NO RAYL

SURFALB=0.2 SOLZEN=75

NO CLOUDS

TROPICAL

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	296.22		
50.0	0.85	296.22	0.00	
45.0	1.59	296.22	0.00	0.00
40.0	3.05	296.22	0.00	0.00
35.0	6.00	296.22	0.00	0.00
30.0	12.20	296.22	0.00	0.00
25.0	25.70	296.22	0.00	0.00
24.0	30.00	296.22	0.00	0.00
23.0	35.00	296.21	0.00	0.00
22.0	40.90	296.21	0.00	0.00
21.0	48.00	296.21	0.00	0.00
20.0	56.50	296.20	0.00	0.00
19.0	66.60	296.20	0.01	0.01
18.0	78.90	296.19	0.01	0.01
17.0	93.70	296.17	0.01	0.01
16.0	111.00	296.16	0.02	0.01
15.0	132.00	296.13	0.03	0.01
14.0	156.00	296.09	0.04	0.01
13.0	182.00	296.02	0.07	0.02
12.0	213.00	295.82	0.20	0.05
11.0	247.00	295.16	0.67	0.17
10.0	286.00	293.22	1.93	0.42
9.0	329.00	289.35	3.87	0.76
8.0	378.00	284.84	4.51	0.78
7.0	432.00	280.73	4.11	0.64
6.0	492.00	275.23	5.49	0.77
5.0	559.00	268.80	6.43	0.81
4.0	633.00	262.61	6.19	0.71
3.0	715.00	255.36	7.24	0.75
2.0	805.00	245.79	9.58	0.90
1.0	904.00	236.43	9.35	0.80
0.5	956.90	232.23	4.21	0.67
0.0	1013.00	227.94	4.29	0.65

PLANETARY ALBEDO = 0.159

UPFSFC= 56.98 DNFSFC= 284.92 NETSFC= 227.94

UPFTOP= 55.85 DNFTOP= 352.07 NETTOP= 296.22

H20 NO 03 NO RAYL

SURFALB=0.2 SOLZEN=30

NO CLOUDS

SUBARCTIC WINTER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	965.54		
50.0	0.58	965.54	0.00	
45.0	1.11	965.54	0.00	0.00
40.0	2.24	965.54	0.00	0.00
35.0	4.70	965.54	0.00	0.00
30.0	10.20	965.54	0.00	0.00
25.0	22.56	965.54	0.00	0.00
24.0	26.49	965.53	0.00	0.00
23.0	31.09	965.53	0.00	0.00
22.0	36.47	965.53	0.00	0.00
21.0	42.77	965.53	0.00	0.00
20.0	50.14	965.52	0.00	0.01
19.0	58.75	965.52	0.01	0.01
18.0	68.82	965.51	0.01	0.01
17.0	80.58	965.50	0.01	0.01
16.0	94.31	965.48	0.02	0.01
15.0	110.30	965.46	0.02	0.01
14.0	129.10	965.43	0.03	0.02
13.0	151.00	965.37	0.06	0.02
12.0	176.60	965.26	0.10	0.03
11.0	206.70	965.08	0.19	0.05
10.0	241.80	964.76	0.31	0.08
9.0	282.90	964.22	0.54	0.11
8.0	330.80	963.27	0.96	0.17
7.0	385.30	961.17	2.10	0.32
6.0	446.70	955.39	5.79	0.80
5.0	515.80	942.94	12.45	1.52
4.0	593.20	928.37	14.57	1.59
3.0	679.80	915.68	12.69	1.24
2.0	777.50	901.08	14.60	1.26
1.0	887.80	885.53	15.55	1.19
0.5	948.30	878.23	7.30	1.02
0.0	1013.00	871.38	6.86	0.89

PLANETARY ALBEDO = 0.180

UPFSFC= 217.84 DNFSFC=1089.22 NETSFC= 871.38

UPFTOP= 212.51 DNFTOP=1178.05 NETTOP= 965.54

H2O NO O3 NO RAYL

SURFALB=0.2 SOLZEN=75

NO CLOUDS

SUBARCTIC WINTER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	289.97		
50.0	0.58	289.97	0.00	
45.0	1.11	289.97	0.00	0.00
40.0	2.24	289.97	0.00	0.00
35.0	4.70	289.97	0.00	0.00
30.0	10.20	289.97	0.00	0.00
25.0	22.56	289.97	0.00	0.00
24.0	26.49	289.97	0.00	0.00
23.0	31.09	289.96	0.00	0.00
22.0	36.47	289.96	0.00	0.00
21.0	42.77	289.96	0.00	0.00
20.0	50.14	289.95	0.00	0.00
19.0	58.75	289.95	0.01	0.01
18.0	68.82	289.94	0.01	0.01
17.0	80.58	289.93	0.01	0.01
16.0	94.31	289.91	0.02	0.01
15.0	110.30	289.89	0.02	0.01
14.0	129.10	289.86	0.03	0.01
13.0	151.00	289.80	0.06	0.02
12.0	176.60	289.70	0.10	0.03
11.0	206.70	289.52	0.18	0.05
10.0	241.80	289.22	0.30	0.07
9.0	282.90	288.72	0.50	0.10
8.0	330.80	287.87	0.85	0.15
7.0	385.30	286.18	1.69	0.26
6.0	446.70	282.55	3.63	0.50
5.0	515.80	277.86	4.69	0.57
4.0	593.20	272.96	4.89	0.53
3.0	679.80	266.72	6.24	0.61
2.0	777.50	260.82	5.90	0.51
1.0	887.80	256.02	4.81	0.37
0.5	948.30	253.85	2.17	0.30
0.0	1013.00	251.78	2.07	0.27

PLANETARY ALBEDO = 0.176

UPFSFC= 62.95 DNFSFC= 314.73 NETSFC= 251.78

UPFTOP= 62.10 DNFTOP= 352.07 NETTOP= 289.97

H2O O3 NO RAYL

SURFALB=0.2 SOLZEN=30

NO CLOUDS

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	991.24		
50.0	0.95	987.98	3.26	
45.0	1.76	986.16	1.82	18.96
40.0	3.33	983.01	3.15	16.93
35.0	6.52	978.95	4.06	10.75
30.0	13.20	973.96	4.99	6.31
25.0	27.70	968.89	5.07	2.95
24.0	32.20	967.97	0.92	1.72
23.0	37.60	967.00	0.97	1.52
22.0	43.70	966.03	0.97	1.34
21.0	51.00	965.03	1.00	1.15
20.0	59.50	964.09	0.94	0.94
19.0	69.50	963.21	0.88	0.74
18.0	81.20	962.43	0.79	0.57
17.0	95.00	961.74	0.68	0.42
16.0	111.00	961.16	0.59	0.31
15.0	130.00	960.62	0.54	0.24
14.0	153.00	960.09	0.52	0.19
13.0	179.00	959.62	0.48	0.16
12.0	209.00	959.08	0.53	0.15
11.0	243.00	957.99	1.09	0.27
10.0	281.00	955.02	2.98	0.66
9.0	324.00	948.69	6.33	1.24
8.0	372.00	939.07	9.62	1.69
7.0	426.00	927.21	11.86	1.85
6.0	487.00	916.33	10.87	1.50
5.0	554.00	905.39	10.95	1.38
4.0	628.00	889.88	15.51	1.77
3.0	710.00	869.69	20.19	2.08
2.0	802.00	848.76	20.92	1.92
1.0	902.00	826.08	22.68	1.91
0.5	955.90	812.27	13.81	2.16
0.0	1013.00	796.35	15.92	2.35

PLANETARY ALBEDO = 0.159

UPFSFC= 199.09 DNFSFC= 995.44 NETSFC= 796.35

UPFTOP= 186.81 DNFTOP=1178.05 NETTOP= 991.24

H2O O3 NO RAYL

SURFALB=0.2 SOLZEN=75

NO CLOUDS

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	299.39		
50.0	0.95	297.30	2.10	
45.0	1.76	296.64	0.66	6.86
40.0	3.33	295.49	1.15	6.20
35.0	6.52	293.82	1.67	4.41
30.0	13.20	291.36	2.46	3.10
25.0	27.70	288.45	2.91	1.70
24.0	32.20	287.90	0.55	1.04
23.0	37.60	287.30	0.59	0.93
22.0	43.70	286.71	0.60	0.83
21.0	51.00	286.09	0.62	0.71
20.0	59.50	285.50	0.59	0.58
19.0	69.50	284.95	0.55	0.47
18.0	81.20	284.45	0.50	0.36
17.0	95.00	284.02	0.43	0.26
16.0	111.00	283.64	0.38	0.20
15.0	130.00	283.30	0.35	0.15
14.0	153.00	282.95	0.34	0.13
13.0	179.00	282.63	0.32	0.10
12.0	209.00	282.23	0.40	0.11
11.0	243.00	281.29	0.94	0.23
10.0	281.00	278.83	2.46	0.55
9.0	324.00	274.78	4.04	0.79
8.0	372.00	270.87	3.91	0.69
7.0	426.00	267.19	3.68	0.58
6.0	487.00	262.49	4.69	0.65
5.0	554.00	257.02	5.48	0.69
4.0	628.00	251.21	5.81	0.66
3.0	710.00	244.75	6.46	0.67
2.0	802.00	236.32	8.43	0.77
1.0	902.00	227.16	9.16	0.77
0.5	955.90	222.80	4.35	0.68
0.0	1013.00	218.60	4.21	0.62

PLANETARY ALBEDO = 0.150

UPFSFC= 54.65 DNFSFC= 273.24 NETSFC= 218.60

UPFTOP= 52.68 DNFTOP= 352.07 NETTOP= 299.39

H2O 03 NO RAYL

SURFALB=0.2 SOLZEN=30

NO CLOUDS

TROPICAL

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	992.61		
50.0	0.85	989.99	2.62	
45.0	1.59	988.37	1.63	18.55
40.0	3.05	985.34	3.02	17.48
35.0	6.00	981.70	3.64	10.42
30.0	12.20	977.10	4.60	6.26
25.0	25.70	971.65	5.45	3.41
24.0	30.00	970.56	1.09	2.15
23.0	35.00	969.55	1.01	1.71
22.0	40.90	968.65	0.89	1.27
21.0	48.00	967.89	0.77	0.91
20.0	56.50	967.26	0.62	0.62
19.0	66.60	966.79	0.47	0.39
18.0	78.90	966.46	0.33	0.23
17.0	93.70	966.23	0.24	0.13
16.0	111.00	966.05	0.18	0.09
15.0	132.00	965.89	0.16	0.07
14.0	156.00	965.72	0.17	0.06
13.0	182.00	965.53	0.19	0.06
12.0	213.00	965.20	0.33	0.09
11.0	247.00	964.38	0.82	0.20
10.0	286.00	962.03	2.35	0.51
9.0	329.00	956.16	5.87	1.15
8.0	378.00	944.99	11.17	1.92
7.0	432.00	931.77	13.23	2.07
6.0	492.00	919.90	11.87	1.67
5.0	559.00	905.84	14.06	1.77
4.0	633.00	887.11	18.73	2.14
3.0	715.00	866.63	20.48	2.11
2.0	805.00	844.67	21.95	2.06
1.0	904.00	817.95	26.72	2.28
0.5	956.90	802.86	15.09	2.41
0.0	1013.00	786.49	16.37	2.46

PLANETARY ALBEDO = 0.157

UPFSFC= 196.62 DNFSFC= 983.12 NETSFC= 786.49

UPFTOP= 185.44 DNFTOP=1178.05 NETTOP= 992.61

H2O O3 NO RAYL

SURFALB=0.2 SOLZEN=75

NO CLOUDS

TROPICAL

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	299.60		
50.0	0.85	297.78	1.82	
45.0	1.59	297.14	0.65	7.39
40.0	3.05	296.07	1.07	6.19
35.0	6.00	294.62	1.44	4.13
30.0	12.20	292.51	2.11	2.87
25.0	25.70	289.54	2.98	1.86
24.0	30.00	288.90	0.64	1.25
23.0	35.00	288.30	0.60	1.01
22.0	40.90	287.77	0.53	0.76
21.0	48.00	287.31	0.46	0.55
20.0	56.50	286.94	0.38	0.37
19.0	66.60	286.65	0.28	0.24
18.0	78.90	286.45	0.20	0.14
17.0	93.70	286.30	0.15	0.08
16.0	111.00	286.19	0.11	0.06
15.0	132.00	286.08	0.11	0.04
14.0	156.00	285.96	0.12	0.04
13.0	182.00	285.82	0.14	0.05
12.0	213.00	285.55	0.27	0.07
11.0	247.00	284.81	0.74	0.18
10.0	286.00	282.81	2.00	0.43
9.0	329.00	278.87	3.93	0.77
8.0	378.00	274.29	4.58	0.79
7.0	432.00	270.12	4.18	0.65
6.0	492.00	264.55	5.56	0.78
5.0	559.00	258.12	6.43	0.81
4.0	633.00	251.93	6.19	0.71
3.0	715.00	244.68	7.24	0.75
2.0	805.00	235.11	9.58	0.90
1.0	904.00	225.75	9.35	0.80
0.5	956.90	221.55	4.21	0.67
0.0	1013.00	217.26	4.29	0.65

PLANETARY ALBEDO = 0.149

UPFSFC= 54.31 DNFSFC= 271.57 NETSFC= 217.26

UPFTOP= 52.47 DNFTOP= 352.07 NETTOP= 299.60

H2O O3 NO RAYL

SURFALB=0.2 SOLZEN=30

NO CLOUDS

SUBARCTIC WINTER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	977.35		
50.0	0.58	974.85	2.50	
45.0	1.11	973.21	1.64	26.11
40.0	2.24	970.14	3.07	22.96
35.0	4.70	966.48	3.66	12.57
30.0	10.20	962.71	3.77	5.79
25.0	22.56	958.19	4.51	3.08
24.0	26.49	957.06	1.13	2.43
23.0	31.09	955.83	1.24	2.27
22.0	36.47	954.49	1.34	2.10
21.0	42.77	953.09	1.39	1.87
20.0	50.14	951.63	1.46	1.67
19.0	58.75	950.10	1.53	1.50
18.0	68.82	948.55	1.55	1.30
17.0	80.58	947.01	1.54	1.11
16.0	94.31	945.48	1.52	0.94
15.0	110.30	944.06	1.43	0.75
14.0	129.10	942.78	1.27	0.57
13.0	151.00	941.60	1.18	0.45
12.0	176.60	940.46	1.15	0.38
11.0	206.70	939.42	1.04	0.29
10.0	241.80	938.47	0.95	0.23
9.0	282.90	937.48	0.99	0.20
8.0	330.80	936.25	1.23	0.22
7.0	385.30	933.97	2.28	0.35
6.0	446.70	928.05	5.92	0.81
5.0	515.80	915.60	12.45	1.52
4.0	593.20	901.03	14.57	1.59
3.0	679.80	888.34	12.69	1.24
2.0	777.50	873.74	14.60	1.26
1.0	887.80	858.20	15.55	1.19
0.5	948.30	850.90	7.30	1.02
0.0	1013.00	844.04	6.86	0.89

PLANETARY ALBEDO = 0.170

UPFSFC= 211.01 DNFSFC=1055.05 NETSFC= 844.04

UPFTOP= 200.70 DNFTOP=1178.05 NETTOP= 977.35

H2O O3 NO RAYL

SURFALB=0.2 SOLZEN=75

NO CLOUDS

SUBARCTIC WINTER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	295.28		
50.0	0.58	293.52	1.76	
45.0	1.11	292.85	0.67	10.64
40.0	2.24	291.76	1.09	8.14
35.0	4.70	290.31	1.46	4.99
30.0	10.20	288.60	1.71	2.62
25.0	22.56	286.18	2.42	1.65
24.0	26.49	285.53	0.66	1.41
23.0	31.09	284.79	0.73	1.35
22.0	36.47	283.98	0.81	1.27
21.0	42.77	283.12	0.86	1.15
20.0	50.14	282.21	0.91	1.05
19.0	58.75	281.24	0.97	0.95
18.0	68.82	280.25	0.99	0.83
17.0	80.58	279.26	0.99	0.71
16.0	94.31	278.28	0.98	0.60
15.0	110.30	277.36	0.92	0.49
14.0	129.10	276.53	0.83	0.37
13.0	151.00	275.75	0.77	0.30
12.0	176.60	274.99	0.77	0.25
11.0	206.70	274.26	0.72	0.20
10.0	241.80	273.56	0.70	0.17
9.0	282.90	272.78	0.78	0.16
8.0	330.80	271.75	1.02	0.18
7.0	385.30	269.95	1.80	0.28
6.0	446.70	266.23	3.72	0.51
5.0	515.80	261.54	4.69	0.57
4.0	593.20	256.64	4.89	0.53
3.0	679.80	250.41	6.24	0.61
2.0	777.50	244.51	5.90	0.51
1.0	887.80	239.70	4.81	0.37
0.5	948.30	237.53	2.17	0.30
0.0	1013.00	235.47	2.07	0.27

PLANETARY ALBEDO = 0.161

UPFSFC= 58.87 DNFSFC= 294.33 NETSFC= 235.47

UPFTOP= 56.79 DNFTOP= 352.07 NETTOP= 295.28

H2O O3 RAYL

SURFALB=0.2 SOLZEN=30

NO CLOUDS

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	965.59		
50.0	0.95	962.32	3.27	
45.0	1.76	960.49	1.83	19.05
40.0	3.33	957.31	3.18	17.08
35.0	6.52	953.17	4.14	10.95
30.0	13.20	948.00	5.17	6.54
25.0	27.70	942.65	5.35	3.11
24.0	32.20	941.68	0.97	1.83
23.0	37.60	940.64	1.04	1.62
22.0	43.70	939.61	1.04	1.43
21.0	51.00	938.54	1.07	1.23
20.0	59.50	937.53	1.01	1.00
19.0	69.50	936.59	0.94	0.80
18.0	81.20	935.74	0.85	0.61
17.0	95.00	935.00	0.74	0.45
16.0	111.00	934.37	0.63	0.33
15.0	130.00	933.79	0.58	0.26
14.0	153.00	933.23	0.56	0.21
13.0	179.00	932.71	0.51	0.17
12.0	209.00	932.15	0.56	0.16
11.0	243.00	931.04	1.12	0.28
10.0	281.00	928.04	3.00	0.67
9.0	324.00	921.69	6.35	1.25
8.0	372.00	912.06	9.64	1.70
7.0	426.00	900.18	11.88	1.86
6.0	487.00	889.29	10.89	1.51
5.0	554.00	878.34	10.95	1.38
4.0	628.00	862.83	15.51	1.77
3.0	710.00	842.64	20.19	2.08
2.0	802.00	821.72	20.92	1.92
1.0	902.00	799.04	22.68	1.91
0.5	955.90	785.22	13.81	2.16
0.0	1013.00	769.31	15.92	2.35

PLANETARY ALBEDO = 0.180

UPFSFC= 192.33 DNFSFC= 961.63 NETSFC= 769.31

UPFTOP= 212.47 DNFTOP=1178.05 NETTOP= 965.59

H20 O3 RAYL

SURFALB=0.8 SOLZEN=30

NO CLOUDS

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	432.44		
50.0	0.95	429.09	3.34	
45.0	1.76	427.20	1.89	19.70
40.0	3.33	423.83	3.38	18.15
35.0	6.52	419.13	4.70	12.43
30.0	13.20	412.64	6.49	8.20
25.0	27.70	405.27	7.37	4.29
24.0	32.20	403.87	1.40	2.63
23.0	37.60	402.36	1.51	2.35
22.0	43.70	400.84	1.52	2.10
21.0	51.00	399.26	1.58	1.83
20.0	59.50	397.74	1.51	1.50
19.0	69.50	396.32	1.43	1.20
18.0	81.20	395.03	1.29	0.93
17.0	95.00	393.91	1.12	0.69
16.0	111.00	392.94	0.97	0.51
15.0	130.00	392.06	0.88	0.39
14.0	153.00	391.20	0.86	0.32
13.0	179.00	390.43	0.77	0.25
12.0	209.00	389.66	0.77	0.22
11.0	243.00	388.36	1.30	0.32
10.0	281.00	385.20	3.16	0.70
9.0	324.00	378.70	6.51	1.28
8.0	372.00	368.89	9.81	1.72
7.0	426.00	356.81	12.08	1.89
6.0	487.00	345.64	11.16	1.55
5.0	554.00	334.41	11.23	1.42
4.0	628.00	318.33	16.08	1.83
3.0	710.00	296.90	21.43	2.21
2.0	802.00	273.29	23.61	2.17
1.0	902.00	244.87	28.43	2.40
0.5	955.90	225.66	19.20	3.01
0.0	1013.00	200.73	24.93	3.69

PLANETARY ALBEDO = 0.633

UPFSFC= 802.91 DNFSFC=1003.63 NETSFC= 200.73

UPFTOP= 745.62 DNFTOP=1178.05 NETTOP= 432.44

H2O O3 RAYL

SURFALB=0.2 SOLZEN=75

NO CLOUDS

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	271.64		
50.0	0.95	269.53	2.10	
45.0	1.76	268.87	0.66	6.90
40.0	3.33	267.71	1.17	6.27
35.0	6.52	266.00	1.71	4.52
30.0	13.20	263.45	2.55	3.22
25.0	27.70	260.40	3.05	1.78
24.0	32.20	259.82	0.58	1.09
23.0	37.60	259.19	0.62	0.98
22.0	43.70	258.57	0.63	0.87
21.0	51.00	257.91	0.65	0.75
20.0	59.50	257.29	0.62	0.62
19.0	69.50	256.71	0.58	0.49
18.0	81.20	256.18	0.52	0.38
17.0	95.00	255.73	0.46	0.28
16.0	111.00	255.33	0.40	0.21
15.0	130.00	254.97	0.37	0.16
14.0	153.00	254.60	0.36	0.13
13.0	179.00	254.26	0.34	0.11
12.0	209.00	253.85	0.41	0.12
11.0	243.00	252.90	0.95	0.24
10.0	281.00	250.43	2.47	0.55
9.0	324.00	246.38	4.05	0.80
8.0	372.00	242.45	3.92	0.69
7.0	426.00	238.76	3.69	0.58
6.0	487.00	234.06	4.70	0.65
5.0	554.00	228.59	5.48	0.69
4.0	628.00	222.78	5.81	0.66
3.0	710.00	216.32	6.46	0.67
2.0	802.00	207.89	8.43	0.77
1.0	902.00	198.73	9.16	0.77
0.5	955.90	194.37	4.35	0.68
0.0	1013.00	190.17	4.21	0.62

PLANETARY ALBEDO = 0.228

UPFSFC= 47.54 DNFSFC= 237.71 NETSFC= 190.17

UPFTOP= 80.43 DNFTOP= 352.07 NETTOP= 271.64

H2O O3 RAYL

SURFALB=0.8 SOLZEN=75

NO CLOUDS

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	136.48		
50.0	0.95	134.36	2.12	
45.0	1.76	133.68	0.68	7.06
40.0	3.33	132.47	1.21	6.53
35.0	6.52	130.63	1.84	4.87
30.0	13.20	127.77	2.86	3.61
25.0	27.70	124.25	3.52	2.05
24.0	32.20	123.57	0.68	1.28
23.0	37.60	122.84	0.73	1.14
22.0	43.70	122.10	0.74	1.02
21.0	51.00	121.33	0.77	0.89
20.0	59.50	120.60	0.73	0.73
19.0	69.50	119.91	0.69	0.58
18.0	81.20	119.29	0.62	0.45
17.0	95.00	118.74	0.54	0.33
16.0	111.00	118.27	0.47	0.25
15.0	130.00	117.84	0.43	0.19
14.0	153.00	117.42	0.42	0.16
13.0	179.00	117.03	0.39	0.13
12.0	209.00	116.57	0.46	0.13
11.0	243.00	115.58	0.99	0.25
10.0	281.00	113.07	2.51	0.56
9.0	324.00	108.99	4.09	0.80
8.0	372.00	105.03	3.95	0.70
7.0	426.00	101.30	3.73	0.58
6.0	487.00	96.55	4.75	0.66
5.0	554.00	91.03	5.52	0.70
4.0	628.00	85.12	5.90	0.67
3.0	710.00	78.47	6.66	0.69
2.0	802.00	69.63	8.83	0.81
1.0	902.00	59.71	9.92	0.84
0.5	955.90	54.73	4.97	0.78
0.0	1013.00	49.65	5.08	0.75

PLANETARY ALBEDO = 0.612

UPFSFC= 198.61 DNFSFC= 248.26 NETSFC= 49.65

UPFTOP= 215.59 DNFTOP= 352.07 NETTOP= 136.48

H2O 03 RAYL

SURFALB=0.2 SOLZEN=30

NO CLOUDS

TROPICAL

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	966.46		
50.0	0.85	963.83	2.63	
45.0	1.59	962.19	1.63	18.63
40.0	3.05	959.15	3.04	17.61
35.0	6.00	955.45	3.70	10.59
30.0	12.20	950.70	4.75	6.46
25.0	25.70	944.95	5.75	3.59
24.0	30.00	943.79	1.17	2.29
23.0	35.00	942.71	1.08	1.82
22.0	40.90	941.75	0.96	1.37
21.0	48.00	940.93	0.82	0.98
20.0	56.50	940.25	0.67	0.67
19.0	66.60	939.75	0.51	0.42
18.0	78.90	939.39	0.36	0.24
17.0	93.70	939.14	0.25	0.15
16.0	111.00	938.95	0.19	0.09
15.0	132.00	938.77	0.17	0.07
14.0	156.00	938.59	0.18	0.06
13.0	182.00	938.39	0.20	0.07
12.0	213.00	938.05	0.34	0.09
11.0	247.00	937.22	0.83	0.21
10.0	286.00	934.86	2.36	0.51
9.0	329.00	928.98	5.88	1.15
8.0	378.00	917.80	11.18	1.93
7.0	432.00	904.57	13.24	2.07
6.0	492.00	892.69	11.88	1.67
5.0	559.00	878.63	14.06	1.77
4.0	633.00	859.90	18.73	2.14
3.0	715.00	839.42	20.48	2.11
2.0	805.00	817.46	21.95	2.06
1.0	904.00	790.74	26.72	2.28
0.5	956.90	775.65	15.09	2.41
0.0	1013.00	759.29	16.37	2.46

PLANETARY ALBEDO = 0.180

UPFSFC= 189.82 DNFSFC= 949.11 NETSFC= 759.29

UPFTOP= 211.60 DNFTOP=1178.05 NETTOP= 966.46

H20 O3 RAYL

SURFALB=0.8 SOLZEN=30

NO CLOUDS

TROPICAL

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	437.95		
50.0	0.85	435.26	2.69	
45.0	1.59	433.58	1.69	19.23
40.0	3.05	430.37	3.21	18.56
35.0	6.00	426.23	4.14	11.84
30.0	12.20	420.40	5.83	7.94
25.0	25.70	412.51	7.89	4.93
24.0	30.00	410.81	1.70	3.33
23.0	35.00	409.22	1.60	2.70
22.0	40.90	407.78	1.43	2.05
21.0	48.00	406.53	1.25	1.49
20.0	56.50	405.50	1.03	1.02
19.0	66.60	404.72	0.78	0.65
18.0	78.90	404.18	0.55	0.38
17.0	93.70	403.79	0.39	0.22
16.0	111.00	403.50	0.29	0.14
15.0	132.00	403.24	0.26	0.10
14.0	156.00	402.98	0.27	0.09
13.0	182.00	402.70	0.28	0.09
12.0	213.00	402.28	0.42	0.11
11.0	247.00	401.37	0.91	0.23
10.0	286.00	398.94	2.44	0.53
9.0	329.00	392.98	5.96	1.17
8.0	378.00	381.70	11.28	1.94
7.0	432.00	368.32	13.38	2.09
6.0	492.00	356.22	12.10	1.70
5.0	559.00	341.87	14.36	1.81
4.0	633.00	322.55	19.31	2.20
3.0	715.00	300.88	21.68	2.23
2.0	805.00	276.27	24.60	2.31
1.0	904.00	243.81	32.46	2.77
0.5	956.90	223.51	20.30	3.24
0.0	1013.00	198.27	25.24	3.80

PLANETARY ALBEDO = 0.628

UPFSFC= 793.09 DNFSFC= 991.36 NETSFC= 198.27

UPFTOP= 740.10 DNFTOP=1178.05 NETTOP= 437.95

H2O O3 RAYL

SURFALB=0.2 SOLZEN=75

NO CLOUDS

TROPICAL

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	271.23		
50.0	0.85	269.41	1.82	
45.0	1.59	268.76	0.65	7.43
40.0	3.05	267.68	1.08	6.26
35.0	6.00	266.20	1.48	4.22
30.0	12.20	264.02	2.18	2.97
25.0	25.70	260.90	3.12	1.95
24.0	30.00	260.22	0.67	1.32
23.0	35.00	259.59	0.63	1.06
22.0	40.90	259.03	0.56	0.80
21.0	48.00	258.55	0.49	0.58
20.0	56.50	258.15	0.40	0.40
19.0	66.60	257.85	0.30	0.25
18.0	78.90	257.63	0.21	0.15
17.0	93.70	257.48	0.16	0.09
16.0	111.00	257.36	0.12	0.06
15.0	132.00	257.25	0.11	0.05
14.0	156.00	257.12	0.12	0.04
13.0	182.00	256.98	0.14	0.05
12.0	213.00	256.70	0.28	0.08
11.0	247.00	255.96	0.74	0.18
10.0	286.00	253.95	2.01	0.43
9.0	329.00	250.01	3.94	0.77
8.0	378.00	245.43	4.58	0.79
7.0	432.00	241.25	4.18	0.65
6.0	492.00	235.68	5.57	0.78
5.0	559.00	229.24	6.43	0.81
4.0	633.00	223.05	6.19	0.71
3.0	715.00	215.81	7.24	0.75
2.0	805.00	206.23	9.58	0.90
1.0	904.00	196.88	9.35	0.80
0.5	956.90	192.67	4.21	0.67
0.0	1013.00	188.39	4.29	0.65

PLANETARY ALBEDO = 0.230

UPFSFC= 47.10 DNFSFC= 235.48 NETSFC= 188.39

UPFTOP= 80.84 DNFTOP= 352.07 NETTOP= 271.23

H20 O3 RAYL

SURFALB=0.8 SOLZEN=75

NO CLOUDS

TROPICAL

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	137.21		
50.0	0.85	135.38	1.84	
45.0	1.59	134.71	0.66	7.57
40.0	3.05	133.59	1.12	6.49
35.0	6.00	132.01	1.58	4.52
30.0	12.20	129.57	2.44	3.32
25.0	25.70	125.96	3.61	2.26
24.0	30.00	125.17	0.79	1.55
23.0	35.00	124.43	0.74	1.26
22.0	40.90	123.76	0.67	0.95
21.0	48.00	123.18	0.58	0.69
20.0	56.50	122.71	0.47	0.47
19.0	66.60	122.35	0.36	0.30
18.0	78.90	122.10	0.25	0.17
17.0	93.70	121.91	0.18	0.10
16.0	111.00	121.78	0.14	0.07
15.0	132.00	121.65	0.13	0.05
14.0	156.00	121.50	0.14	0.05
13.0	182.00	121.34	0.16	0.05
12.0	213.00	121.05	0.29	0.08
11.0	247.00	120.29	0.76	0.19
10.0	286.00	118.27	2.02	0.44
9.0	329.00	114.31	3.95	0.78
8.0	378.00	109.71	4.60	0.79
7.0	432.00	105.50	4.21	0.66
6.0	492.00	99.89	5.61	0.79
5.0	559.00	93.40	6.49	0.82
4.0	633.00	87.10	6.30	0.72
3.0	715.00	79.64	7.46	0.77
2.0	805.00	69.60	10.04	0.94
1.0	904.00	59.36	10.25	0.87
0.5	956.90	54.46	4.89	0.78
0.0	1013.00	49.24	5.22	0.79

PLANETARY ALBEDO = 0.610

UPFSFC= 196.96 DNFSFC= 246.20 NETSFC= 49.24

UPFTOP= 214.86 DNFTOP= 352.07 NETTOP= 137.21

H2O O3 RAYL

SURFALB=0.2 SOLZEN=30

NO CLOUDS

SUBARCTIC WINTER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	952.28		
50.0	0.58	949.78	2.50	
45.0	1.11	948.13	1.65	26.21
40.0	2.24	945.04	3.09	23.11
35.0	4.70	941.33	3.71	12.74
30.0	10.20	937.46	3.87	5.94
25.0	22.56	932.75	4.70	3.21
24.0	26.49	931.57	1.19	2.55
23.0	31.09	930.26	1.30	2.39
22.0	36.47	928.85	1.42	2.22
21.0	42.77	927.37	1.48	1.98
20.0	50.14	925.81	1.56	1.78
19.0	58.75	924.18	1.63	1.60
18.0	68.82	922.52	1.66	1.39
17.0	80.58	920.87	1.65	1.19
16.0	94.31	919.23	1.64	1.01
15.0	110.30	917.69	1.54	0.81
14.0	129.10	916.32	1.37	0.62
13.0	151.00	915.05	1.27	0.49
12.0	176.60	913.82	1.23	0.41
11.0	206.70	912.70	1.11	0.31
10.0	241.80	911.70	1.00	0.24
9.0	282.90	910.67	1.03	0.21
8.0	330.80	909.42	1.26	0.22
7.0	385.30	907.12	2.29	0.36
6.0	446.70	901.19	5.93	0.82
5.0	515.80	888.74	12.45	1.52
4.0	593.20	874.17	14.57	1.59
3.0	679.80	861.48	12.69	1.24
2.0	777.50	846.88	14.60	1.26
1.0	887.80	831.33	15.55	1.19
0.5	948.30	824.04	7.30	1.02
0.0	1013.00	817.18	6.86	0.89

PLANETARY ALBEDO = 0.192

UPFSFC= 204.29 DNFSFC=1021.47 NETSFC= 817.18

UPFTOP= 225.77 DNFTOP=1178.05 NETTOP= 952.28

H20 O3 RAYL

SURFALB=0.8 SOLZEN=30

NO CLOUDS

SUBARCTIC WINTER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	376.87		
50.0	0.58	374.32	2.55	
45.0	1.11	372.63	1.69	26.92
40.0	2.24	369.39	3.24	24.17
35.0	4.70	365.30	4.09	14.04
30.0	10.20	360.71	4.59	7.05
25.0	22.56	354.63	6.08	4.15
24.0	26.49	353.02	1.61	3.46
23.0	31.09	351.23	1.79	3.29
22.0	36.47	349.25	1.98	3.11
21.0	42.77	347.15	2.10	2.81
20.0	50.14	344.91	2.24	2.56
19.0	58.75	342.53	2.38	2.33
18.0	68.82	340.07	2.45	2.06
17.0	80.58	337.61	2.47	1.77
16.0	94.31	335.14	2.47	1.52
15.0	110.30	332.80	2.34	1.23
14.0	129.10	330.70	2.10	0.94
13.0	151.00	328.76	1.94	0.75
12.0	176.60	326.89	1.87	0.62
11.0	206.70	325.24	1.65	0.46
10.0	241.80	323.83	1.41	0.34
9.0	282.90	322.51	1.32	0.27
8.0	330.80	321.06	1.44	0.25
7.0	385.30	318.62	2.44	0.38
6.0	446.70	312.52	6.10	0.84
5.0	515.80	299.81	12.70	1.55
4.0	593.20	284.61	15.20	1.66
3.0	679.80	270.59	14.02	1.37
2.0	777.50	253.53	17.06	1.47
1.0	887.80	233.82	19.71	1.51
0.5	948.30	223.50	10.33	1.44
0.0	1013.00	212.64	10.86	1.42

PLANETARY ALBEDO = 0.680

UPFSFC= 850.55 DNFSFC=1063.19 NETSFC= 212.64

UPFTOP= 801.19 DNFTOP=1178.05 NETTOP= 376.87

H2O O3 RAYL

SURFALB=0.2 SOLZEN=75

NO CLOUDS

SUBARCTIC WINTER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	268.22		
50.0	0.58	266.46	1.76	
45.0	1.11	265.79	0.67	10.69
40.0	2.24	264.69	1.10	8.21
35.0	4.70	263.21	1.48	5.08
30.0	10.20	261.45	1.76	2.70
25.0	22.56	258.94	2.51	1.72
24.0	26.49	258.25	0.68	1.47
23.0	31.09	257.49	0.77	1.41
22.0	36.47	256.64	0.85	1.33
21.0	42.77	255.74	0.90	1.21
20.0	50.14	254.78	0.96	1.10
19.0	58.75	253.76	1.02	1.00
18.0	68.82	252.72	1.04	0.87
17.0	80.58	251.67	1.04	0.75
16.0	94.31	250.64	1.04	0.64
15.0	110.30	249.66	0.97	0.51
14.0	129.10	248.79	0.87	0.39
13.0	151.00	247.97	0.82	0.32
12.0	176.60	247.16	0.81	0.27
11.0	206.70	246.40	0.76	0.21
10.0	241.80	245.68	0.73	0.17
9.0	282.90	244.88	0.80	0.16
8.0	330.80	243.84	1.03	0.18
7.0	385.30	242.03	1.81	0.28
6.0	446.70	238.31	3.72	0.51
5.0	515.80	233.62	4.69	0.57
4.0	593.20	228.72	4.89	0.53
3.0	679.80	222.48	6.24	0.61
2.0	777.50	216.58	5.90	0.51
1.0	887.80	211.78	4.81	0.37
0.5	948.30	209.61	2.17	0.30
0.0	1013.00	207.54	2.07	0.27

PLANETARY ALBEDO = 0.238

UPFSFC= 51.89 DNFSFC= 259.43 NETSFC= 207.54

UPFTOP= 83.85 DNFTOP= 352.07 NETTOP= 268.22

H20 O3 RAYL

SURFALB=0.8 SOLZEN=75

NO CLOUDS

SUBARCTIC WINTER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	120.14		
50.0	0.58	118.36	1.77	
45.0	1.11	117.68	0.68	10.86
40.0	2.24	116.55	1.13	8.46
35.0	4.70	114.98	1.57	5.39
30.0	10.20	113.05	1.93	2.96
25.0	22.56	110.22	2.83	1.93
24.0	26.49	109.44	0.78	1.68
23.0	31.09	108.56	0.88	1.62
22.0	36.47	107.58	0.98	1.54
21.0	42.77	106.54	1.04	1.40
20.0	50.14	105.42	1.12	1.28
19.0	58.75	104.23	1.19	1.17
18.0	68.82	103.01	1.22	1.03
17.0	80.58	101.78	1.23	0.88
16.0	94.31	100.56	1.22	0.75
15.0	110.30	99.41	1.15	0.61
14.0	129.10	98.37	1.03	0.46
13.0	151.00	97.41	0.96	0.37
12.0	176.60	96.46	0.95	0.31
11.0	206.70	95.59	0.87	0.24
10.0	241.80	94.77	0.81	0.20
9.0	282.90	93.91	0.86	0.18
8.0	330.80	92.84	1.07	0.19
7.0	385.30	91.00	1.84	0.29
6.0	446.70	87.24	3.76	0.52
5.0	515.80	82.49	4.74	0.58
4.0	593.20	77.47	5.02	0.55
3.0	679.80	70.97	6.50	0.63
2.0	777.50	64.61	6.36	0.55
1.0	887.80	59.10	5.50	0.42
0.5	948.30	56.50	2.60	0.36
0.0	1013.00	53.96	2.55	0.33

PLANETARY ALBEDO = 0.659

UPFSFC= 215.84 DNFSFC= 269.79 NETSFC= 53.96

UPFTOP= 231.93 DNFTOP= 352.07 NETTOP= 120.14

H2O O3 RAYL

SURFALB=0.2 SOLZEN=30

CS CLOUD TOP=13 LWP=10

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	830.71		
50.0	0.95	827.42	3.29	
45.0	1.76	825.58	1.84	19.18
40.0	3.33	822.36	3.22	17.30
35.0	6.52	818.11	4.26	11.26
30.0	13.20	812.66	5.45	6.89
25.0	27.70	806.87	5.78	3.37
24.0	32.20	805.81	1.07	2.00
23.0	37.60	804.67	1.14	1.78
22.0	43.70	803.52	1.14	1.58
21.0	51.00	802.34	1.18	1.37
20.0	59.50	801.22	1.13	1.12
19.0	69.50	800.16	1.06	0.89
18.0	81.20	799.21	0.95	0.69
17.0	95.00	798.38	0.83	0.51
16.0	111.00	797.66	0.72	0.38
15.0	130.00	797.00	0.66	0.29
14.0	153.00	796.36	0.65	0.24
13.0	179.00	795.76	0.59	0.19
12.0	209.00	776.47	19.30 *	5.43 *
11.0	243.00	775.68	0.79	0.20
10.0	281.00	773.05	2.63	0.58
9.0	324.00	767.38	5.66	1.11
8.0	372.00	759.29	8.09	1.42
7.0	426.00	750.18	9.11	1.42
6.0	487.00	741.82	8.37	1.16
5.0	554.00	732.31	9.51	1.20
4.0	628.00	719.21	13.10	1.49
3.0	710.00	703.36	15.85	1.63
2.0	802.00	686.79	16.57	1.52
1.0	902.00	667.59	19.19	1.62
0.5	955.90	656.21	11.38	1.78
0.0	1013.00	643.68	12.53	1.85

PLANETARY ALBEDO = 0.295

UPFSFC= 160.92 DNFSFC= 804.60 NETSFC= 643.68

UPFTOP= 347.34 DNFTOP=1178.05 NETTOP= 830.71

H2O O3 RAYL

SURFALB=0.2 SOLZEN=30

CS CLOUD TOP=2 LWP=10

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	860.49		
50.0	0.95	857.20	3.29	
45.0	1.76	855.36	1.84	19.17
40.0	3.33	852.14	3.22	17.29
35.0	6.52	847.90	4.25	11.24
30.0	13.20	842.47	5.43	6.86
25.0	27.70	836.73	5.74	3.34
24.0	32.20	835.67	1.06	1.98
23.0	37.60	834.54	1.13	1.76
22.0	43.70	833.41	1.13	1.56
21.0	51.00	832.25	1.17	1.35
20.0	59.50	831.14	1.11	1.10
19.0	69.50	830.10	1.04	0.88
18.0	81.20	829.16	0.93	0.67
17.0	95.00	828.35	0.81	0.50
16.0	111.00	827.66	0.70	0.37
15.0	130.00	827.02	0.64	0.28
14.0	153.00	826.40	0.62	0.23
13.0	179.00	825.83	0.56	0.18
12.0	209.00	825.23	0.60	0.17
11.0	243.00	824.08	1.15	0.29
10.0	281.00	821.05	3.03	0.67
9.0	324.00	814.66	6.39	1.25
8.0	372.00	804.98	9.69	1.70
7.0	426.00	793.03	11.95	1.87
6.0	487.00	782.03	11.00	1.52
5.0	554.00	770.92	11.11	1.40
4.0	628.00	755.07	15.84	1.81
3.0	710.00	734.13	20.94	2.16
2.0	802.00	711.45	22.68	2.08
1.0	902.00	671.48	39.96 *	3.37 *
0.5	955.90	659.03	12.46	1.95
0.0	1013.00	645.45	13.58	2.01

PLANETARY ALBEDO = 0.270

UPFSFC= 161.36 DNFSFC= 806.81 NETSFC= 645.45

UPFTOP= 317.57 DNFTOP=1178.05 NETTOP= 860.49

H2O O3 RAYL

SURFALB=0.2 SOLZEN=30

CL CLOUD TOP=13 LWP=10

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	949.88		
50.0	0.95	946.61	3.27	
45.0	1.76	944.78	1.83	19.07
40.0	3.33	941.60	3.18	17.12
35.0	6.52	937.44	4.16	11.00
30.0	13.20	932.22	5.22	6.60
25.0	27.70	926.79	5.43	3.16
24.0	32.20	925.80	0.99	1.86
23.0	37.60	924.74	1.06	1.65
22.0	43.70	923.69	1.06	1.46
21.0	51.00	922.60	1.09	1.26
20.0	59.50	921.56	1.04	1.03
19.0	69.50	920.59	0.97	0.82
18.0	81.20	919.72	0.87	0.63
17.0	95.00	918.97	0.76	0.46
16.0	111.00	918.32	0.65	0.34
15.0	130.00	917.72	0.60	0.27
14.0	153.00	917.14	0.58	0.21
13.0	179.00	916.60	0.53	0.17
12.0	209.00	913.62	2.98 *	0.84 *
11.0	243.00	912.81	0.82	0.20
10.0	281.00	910.04	2.77	0.61
9.0	324.00	903.91	6.13	1.20
8.0	372.00	894.62	9.29	1.63
7.0	426.00	883.35	11.27	1.76
6.0	487.00	873.02	10.33	1.43
5.0	554.00	862.20	10.82	1.36
4.0	628.00	846.97	15.23	1.74
3.0	710.00	827.45	19.52	2.01
2.0	802.00	807.18	20.27	1.86
1.0	902.00	784.89	22.29	1.88
0.5	955.90	771.39	13.50	2.11
0.0	1013.00	755.99	15.40	2.28

PLANETARY ALBEDO = 0.194

UPFSFC= 189.00 DNFSFC= 944.99 NETSFC= 755.99

UPFTOP= 228.17 DNFTOP=1178.05 NETTOP= 949.88

H20 O3 RAYL

SURFALB=0.2 SOLZEN=30

CL CLOUD TOP=13 LWP=200

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	637.42		
50.0	0.95	634.11	3.31	
45.0	1.76	632.25	1.86	19.39
40.0	3.33	628.96	3.28	17.65
35.0	6.52	624.53	4.44	11.74
30.0	13.20	618.65	5.87	7.42
25.0	27.70	612.21	6.44	3.75
24.0	32.20	611.01	1.21	2.26
23.0	37.60	609.71	1.29	2.02
22.0	43.70	608.41	1.30	1.80
21.0	51.00	607.06	1.35	1.56
20.0	59.50	605.77	1.29	1.28
19.0	69.50	604.55	1.22	1.03
18.0	81.20	603.45	1.10	0.79
17.0	95.00	602.49	0.96	0.59
16.0	111.00	601.66	0.83	0.44
15.0	130.00	600.89	0.77	0.34
14.0	153.00	600.13	0.76	0.28
13.0	179.00	599.43	0.70	0.23
12.0	209.00	530.05	69.38 *	19.52 *
11.0	243.00	529.52	0.53	0.13
10.0	281.00	527.75	1.77	0.39
9.0	324.00	524.02	3.73	0.73
8.0	372.00	518.90	5.12	0.90
7.0	426.00	513.45	5.45	0.85
6.0	487.00	508.44	5.01	0.69
5.0	554.00	502.38	6.06	0.76
4.0	628.00	494.16	8.22	0.94
3.0	710.00	484.64	9.52	0.98
2.0	802.00	474.62	10.01	0.92
1.0	902.00	462.56	12.07	1.02
0.5	955.90	455.51	7.04	1.10
0.0	1013.00	447.96	7.55	1.12

PLANETARY ALBEDO = 0.459

UPFSFC= 111.99 DNFSFC= 559.95 NETSFC= 447.96

UPFTOP= 540.64 DNFTOP=1178.05 NETTOP= 637.42

H2O O3 RAYL

SURFALB=0.2 SOLZEN=30

CL CLOUD TOP=2 LWP=10

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	955.31		
50.0	0.95	952.03	3.27	
45.0	1.76	950.20	1.83	19.06
40.0	3.33	947.02	3.18	17.10
35.0	6.52	942.87	4.15	10.98
30.0	13.20	937.67	5.20	6.57
25.0	27.70	932.27	5.40	3.14
24.0	32.20	931.29	0.98	1.85
23.0	37.60	930.24	1.05	1.64
22.0	43.70	929.19	1.05	1.45
21.0	51.00	928.12	1.08	1.25
20.0	59.50	927.09	1.02	1.02
19.0	69.50	926.14	0.96	0.81
18.0	81.20	925.28	0.86	0.62
17.0	95.00	924.54	0.74	0.46
16.0	111.00	923.89	0.64	0.34
15.0	130.00	923.31	0.59	0.26
14.0	153.00	922.74	0.57	0.21
13.0	179.00	922.22	0.52	0.17
12.0	209.00	921.65	0.57	0.16
11.0	243.00	920.53	1.12	0.28
10.0	281.00	917.53	3.00	0.67
9.0	324.00	911.18	6.35	1.25
8.0	372.00	901.53	9.64	1.70
7.0	426.00	889.64	11.89	1.86
6.0	487.00	878.74	10.91	1.51
5.0	554.00	867.77	10.97	1.38
4.0	628.00	852.21	15.56	1.77
3.0	710.00	831.91	20.30	2.09
2.0	802.00	810.73	21.18	1.94
1.0	902.00	785.30	25.43 *	2.15 *
0.5	955.90	771.48	13.82	2.16
0.0	1013.00	755.77	15.71	2.32

PLANETARY ALBEDO = 0.189

UPFSFC= 188.94 DNFSFC= 944.72 NETSFC= 755.77

UPFTOP= 222.75 DNFTOP=1178.05 NETTOP= 955.31

H20 O3 RAYL

SURFALB=0.2 SOLZEN=30

CL CLOUD TOP=2 LWP=200

MIDLATITUDE SUMMER

HEIGHT (KM)	PRESSURE (MB)	NET DOWNWARD FLUX (W/M**2)	ABSORBED FLUX (W/M**2)	HEATING RATE (CELSIUS/DAY)
TOA	0.0	697.79		
50.0	0.95	694.49	3.31	
45.0	1.76	692.63	1.86	19.38
40.0	3.33	689.35	3.28	17.63
35.0	6.52	684.93	4.42	11.70
30.0	13.20	679.08	5.84	7.38
25.0	27.70	672.70	6.38	3.71
24.0	32.20	671.51	1.19	2.23
23.0	37.60	670.24	1.27	1.99
22.0	43.70	668.96	1.28	1.77
21.0	51.00	667.63	1.33	1.54
20.0	59.50	666.36	1.27	1.26
19.0	69.50	665.17	1.19	1.00
18.0	81.20	664.10	1.07	0.77
17.0	95.00	663.17	0.93	0.57
16.0	111.00	662.36	0.80	0.42
15.0	130.00	661.63	0.73	0.33
14.0	153.00	660.92	0.71	0.26
13.0	179.00	660.27	0.64	0.21
12.0	209.00	659.60	0.67	0.19
11.0	243.00	658.39	1.21	0.30
10.0	281.00	655.31	3.09	0.69
9.0	324.00	648.86	6.44	1.27
8.0	372.00	639.11	9.75	1.72
7.0	426.00	627.07	12.04	1.88
6.0	487.00	615.91	11.15	1.54
5.0	554.00	604.59	11.32	1.43
4.0	628.00	588.32	16.28	1.86
3.0	710.00	566.41	21.90	2.25
2.0	802.00	541.46	24.95	2.29
1.0	902.00	465.24	76.22 *	6.43 *
0.5	955.90	457.49	7.75	1.21
0.0	1013.00	449.25	8.24	1.22

PLANETARY ALBEDO = 0.408

UPFSFC= 112.31 DNFSFC= 561.57 NETSFC= 449.25

UPFTOP= 480.26 DNFTOP=1178.05 NETTOP= 697.79

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16. Abstract

This document consists of tabulated values of longwave and shortwave radiation fluxes and also cooling and heating rates in the atmosphere for standard atmospheric profiles. The radiation codes used in the Goddard general circulation model were employed for the computations. These results were obtained for an international intercomparison project called ICRCCM (Intercomparison of Radiation Codes in Climate Models).

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