

APPENDIX H

Properties of the 1976 U.S. Standard Atmosphere

Table H.1 Properties of the 1976 U.S. Standard Atmosphere (SI units)

Table H.2 Properties of the 1976 U.S. Standard Atmosphere (English units)

TABLE H.1 Properties of the 1976 U.S. Standard Atmosphere (SI units)

Geometric Altitude (m)	Temperature		Pressure (atm)
	°K	°C	
0.00	288.150	15.000	1.0000
500.00	284.900	11.750	9.4212E-01
1,000.00	281.651	8.501	8.8700E-01
1,500.00	278.402	5.252	8.3453E-01
2,000.00	275.154	2.004	7.8461E-01
2,500.00	271.906	-1.244	7.3715E-01
3,000.00	268.659	-4.491	6.9204E-01
3,500.00	265.413	-7.737	6.4920E-01
4,000.00	262.166	-10.984	6.0854E-01
4,500.00	258.921	-14.229	5.6997E-01
5,000.00	255.676	-17.474	5.3341E-01
5,500.00	252.431	-20.719	4.9878E-01
6,000.00	249.187	-23.963	4.6600E-01
6,500.00	245.943	-27.207	4.3499E-01
7,000.00	242.700	-30.450	4.0567E-01
7,500.00	239.457	-33.693	3.7798E-01
8,000.00	236.215	-36.935	3.5185E-01
8,500.00	232.974	-40.176	3.2720E-01
9,000.00	229.733	-43.417	3.0397E-01
9,500.00	226.492	-46.658	2.8210E-01
10,000.00	223.252	-49.898	2.6153E-01
10,500.00	220.013	-53.137	2.4219E-01
11,000.00	216.774	-56.376	2.2403E-01
11,500.00	216.650	-56.500	2.0710E-01
12,000.00	216.650	-56.500	1.9145E-01
12,500.00	216.650	-56.500	1.7699E-01
13,000.00	216.650	-56.500	1.6362E-01
13,500.00	216.650	-56.500	1.5127E-01
14,000.00	216.650	-56.500	1.3985E-01
14,500.00	216.650	-56.500	1.2929E-01
15,000.00	216.650	-56.500	1.1953E-01
15,500.00	216.650	-56.500	1.1051E-01

TABLE H.1 (continued)

Geometric Altitude (m)	Temperature		Pressure (atm)
	°K	°C	
16,000.00	216.650	-56.500	1.0217E-01
16,500.00	216.650	-56.500	9.4465E-02
17,000.00	216.650	-56.500	8.7340E-02
17,500.00	216.650	-56.500	8.0752E-02
18,000.00	216.650	-56.500	7.4663E-02
18,500.00	216.650	-56.500	6.9033E-02
19,000.00	216.650	-56.500	6.3829E-02
19,500.00	216.650	-56.500	5.9017E-02
20,000.00	216.650	-56.500	5.4570E-02

Source: U.S. Standard Atmosphere, 1976, National Oceanic and Atmospheric Administration, National Aeronautics and Space Administration, and the U.S. Air Force. NOAA-S/T 76-1562 (Washington, D.C.: U.S. Government Printing Office, October 1976). Reprinted by permission of NOAA.

TABLE H.2 Properties of the 1976 U.S. Standard Atmosphere (English Units)

Geometric Altitude (ft)	Temperature			Pressure (atm)
	°R	°K	°C	
0.00	518.67	288.150	15.000	1.0000
1,000.00	515.10	286.169	13.019	9.6438E-01
2,000.00	511.54	284.188	11.038	9.2981E-01
3,000.00	507.97	282.207	9.057	8.9625E-01
4,000.00	504.41	280.227	7.077	8.6368E-01
5,000.00	500.84	278.246	5.096	8.3208E-01
6,000.00	497.28	276.266	3.116	8.0142E-01
7,000.00	493.71	274.286	1.136	7.7169E-01
8,000.00	490.15	272.306	-0.844	7.4286E-01
9,000.00	486.59	270.327	-2.823	7.1492E-01
10,000.00	483.02	268.347	-4.803	6.8783E-01
11,000.00	479.46	266.368	-6.782	6.6158E-01
12,000.00	475.90	264.389	-8.761	6.3615E-01
13,000.00	472.34	262.410	-10.740	6.1152E-01
14,000.00	468.78	260.432	-12.718	5.8767E-01
15,000.00	465.22	258.453	-14.697	5.6458E-01
16,000.00	461.66	256.475	-16.675	5.4224E-01
17,000.00	458.09	254.497	-18.653	5.2061E-01
18,000.00	454.53	252.519	-20.631	4.9970E-01
19,000.00	450.97	250.541	-22.609	4.7947E-01
20,000.00	447.42	248.564	-24.586	4.5991E-01
21,000.00	443.86	246.587	-26.563	4.4100E-01
22,000.00	440.30	244.609	-28.541	4.2273E-01
23,000.00	436.74	242.632	-30.518	4.0508E-01
24,000.00	433.18	240.656	-32.494	3.8803E-01
25,000.00	429.62	238.679	-34.471	3.7157E-01
26,000.00	426.07	236.703	-36.447	3.5568E-01
27,000.00	422.51	234.727	-38.423	3.4035E-01
28,000.00	418.95	232.751	-40.399	3.2556E-01
29,000.00	415.40	230.775	-42.375	3.1129E-01
30,000.00	411.84	228.799	-44.351	2.9754E-01

TABLE H.2 (continued)

Geometric Altitude (ft)	Temperature			Pressure (atm)
	°R	°K	°C	
31,000.00	408.28	226.824	-46.326	2.8428E-01
32,000.00	404.73	224.849	-48.301	2.7151E-01
33,000.00	401.17	222.874	-50.276	2.5921E-01
34,000.00	397.62	220.899	-52.251	2.4736E-01
35,000.00	394.06	218.924	-54.226	2.3596E-01
36,000.00	390.51	216.950	-56.200	2.2498E-01
37,000.00	389.97	216.650	-56.500	2.1446E-01
38,000.00	389.97	216.650	-56.500	2.0443E-01
39,000.00	389.97	216.650	-56.500	1.9488E-01
40,000.00	389.97	216.650	-56.500	1.8576E-01
41,000.00	389.97	216.650	-56.500	1.7708E-01
42,000.00	389.97	216.650	-56.500	1.6880E-01
43,000.00	389.97	216.650	-56.500	1.6091E-01
44,000.00	389.97	216.650	-56.500	1.5339E-01
45,000.00	389.97	216.650	-56.500	1.4622E-01
46,000.00	389.97	216.650	-56.500	1.3939E-01
47,000.00	389.97	216.650	-56.500	1.3288E-01
48,000.00	389.97	216.650	-56.500	1.2667E-01
49,000.00	389.97	216.650	-56.500	1.2075E-01
50,000.00	389.97	216.650	-56.500	1.1511E-01
51,000.00	389.97	216.650	-56.500	1.0973E-01
52,000.00	389.97	216.650	-56.500	1.0461E-01
53,000.00	389.97	216.650	-56.500	9.9729E-02
54,000.00	389.97	216.650	-56.500	9.5072E-02
55,000.00	389.97	216.650	-56.500	9.0633E-02
56,000.00	389.97	216.650	-56.500	8.6402E-02
57,000.00	389.97	216.650	-56.500	8.2369E-02
58,000.00	389.97	216.650	-56.500	7.8524E-02
59,000.00	389.97	216.650	-56.500	7.4859E-02
60,000.00	389.97	216.650	-56.500	7.1366E-02

Source: *U.S. Standard Atmosphere, 1976*. National Oceanic and Atmospheric Administration, National Aeronautics and Space Administration, and the U.S. Air Force. NOAA-S/T 76-1562 (Washington, D.C.: U.S. Government Printing Office, October 1976). Reprinted by permission of NOAA.