

## A

## International Standard Atmosphere (ISA) Table

**Table A.1** International Standard Atmosphere (ISA) (determined as a function of geopotential height, measured in feet)

<i>H</i> (ft)	<i>H</i> (m)	$\theta$	<i>T</i> (K)	<i>T</i> (°C)	$\delta$	<i>p</i> (N/m <sup>2</sup> )	<i>p</i> (lb/ft <sup>2</sup> )	$\sigma$	$\rho$ (kg/m <sup>3</sup> )	$\rho$ (slug/ft <sup>3</sup> )	<i>a</i> (m/s)	<i>a</i> (ft/s)	<i>a</i> (kt)
−2000	−609.6	1.0138	292.11	18.96	1.0744	108866	2273.7	1.0598	1.2983	2.519E-3	342.6	1124	666.0
−1800	−548.6	1.0124	291.72	18.57	1.0668	108092	2257.5	1.0537	1.2908	2.505E-3	342.4	1123	665.6
−1600	−487.7	1.0110	291.32	18.17	1.0592	107322	2241.5	1.0477	1.2834	2.490E-3	342.2	1123	665.1
−1400	−426.7	1.0096	290.92	17.77	1.0516	106557	2225.5	1.0416	1.2760	2.476E-3	341.9	1122	664.7
−1200	−365.8	1.0083	290.53	17.38	1.0441	105797	2209.6	1.0356	1.2686	2.461E-3	341.7	1121	664.2
−1000	−304.8	1.0069	290.13	16.98	1.0367	105041	2193.8	1.0296	1.2612	2.447E-3	341.5	1120	663.7
−800	−243.8	1.0055	289.73	16.58	1.0293	104289	2178.1	1.0236	1.2539	2.433E-3	341.2	1120	663.3
−600	−182.9	1.0041	289.34	16.19	1.0219	103541	2162.5	1.0177	1.2467	2.419E-3	341.0	1119	662.8
−400	−121.9	1.0028	288.94	15.79	1.0145	102798	2147.0	1.0118	1.2394	2.405E-3	340.8	1118	662.4
−200	−61.0	1.0014	288.55	15.40	1.0072	102059	2131.6	1.0059	1.2322	2.391E-3	340.5	1117	661.9
0	0.0	1.0000	288.15	15.00	1.0000	101325	2116.2	1.0000	1.2250	2.377E-3	340.3	1116	661.5
200	61.0	0.9986	287.75	14.60	0.9928	100595	2101.0	0.9942	1.2178	2.363E-3	340.1	1116	661.0
400	121.9	0.9972	287.36	14.21	0.9856	99869	2085.8	0.9883	1.2107	2.349E-3	339.8	1115	660.6
600	182.9	0.9959	286.96	13.81	0.9785	99147	2070.7	0.9826	1.2036	2.335E-3	339.6	1114	660.1
800	243.8	0.9945	286.57	13.42	0.9714	98430	2055.7	0.9768	1.1966	2.322E-3	339.4	1113	659.7
1000	304.8	0.9931	286.17	13.02	0.9644	97717	2040.9	0.9711	1.1896	2.308E-3	339.1	1113	659.2
1200	365.8	0.9917	285.77	12.62	0.9574	97008	2026.0	0.9654	1.1826	2.295E-3	338.9	1112	658.7
1400	426.7	0.9904	285.38	12.23	0.9504	96303	2011.3	0.9597	1.1756	2.281E-3	338.7	1111	658.3
1600	487.7	0.9890	284.98	11.83	0.9435	95602	1996.7	0.9540	1.1687	2.268E-3	338.4	1110	657.8
1800	548.6	0.9876	284.58	11.43	0.9366	94905	1982.1	0.9484	1.1618	2.254E-3	338.2	1110	657.4
2000	609.6	0.9862	284.19	11.04	0.9298	94213	1967.7	0.9428	1.1549	2.241E-3	337.9	1109	656.9
2200	670.6	0.9849	283.79	10.64	0.9230	93525	1953.3	0.9372	1.1481	2.228E-3	337.7	1108	656.5
2400	731.5	0.9835	283.40	10.25	0.9163	92840	1939.0	0.9316	1.1413	2.214E-3	337.5	1107	656.0
2600	792.5	0.9821	283.00	9.85	0.9095	92160	1924.8	0.9261	1.1345	2.201E-3	337.2	1106	655.5
2800	853.4	0.9807	282.60	9.45	0.9029	91484	1910.7	0.9206	1.1277	2.188E-3	337.0	1106	655.1
3000	914.4	0.9794	282.21	9.06	0.8962	90812	1896.6	0.9151	1.1210	2.175E-3	336.8	1105	654.6
3200	975.4	0.9780	281.81	8.66	0.8896	90144	1882.7	0.9097	1.1143	2.162E-3	336.5	1104	654.2
3400	1036.3	0.9766	281.41	8.26	0.8831	89479	1868.8	0.9042	1.1077	2.149E-3	336.3	1103	653.7
3600	1097.3	0.9752	281.02	7.87	0.8766	88819	1855.0	0.8988	1.1011	2.136E-3	336.1	1103	653.2
3800	1158.2	0.9739	280.62	7.47	0.8701	88163	1841.3	0.8934	1.0945	2.124E-3	335.8	1102	652.8

(continued)

Table A.1 (Continued)

<i>H</i> (ft)	<i>H</i> (m)	$\theta$	<i>T</i> (K)	<i>T</i> (°C)	$\delta$	<i>p</i> (N/m <sup>2</sup> )	<i>p</i> (lb/ft <sup>2</sup> )	$\sigma$	$\rho$ (kg/m <sup>3</sup> )	$\rho$ (slug/ft <sup>3</sup> )	<i>a</i> (m/s)	<i>a</i> (ft/s)	<i>a</i> (kt)
<b>4000</b>	<b>1219.2</b>	<b>0.9725</b>	<b>280.23</b>	<b>7.08</b>	<b>0.8637</b>	<b>87511</b>	<b>1827.7</b>	<b>0.8881</b>	<b>1.0879</b>	<b>2.111E-3</b>	<b>335.6</b>	<b>1101</b>	<b>652.3</b>
4200	1280.2	0.9711	279.83	6.68	0.8573	86862	1814.2	0.8828	1.0814	2.098E-3	335.3	1100	651.9
4400	1341.1	0.9697	279.43	6.28	0.8509	86218	1800.7	0.8774	1.0749	2.086E-3	335.1	1099	651.4
4600	1402.1	0.9684	279.04	5.89	0.8446	85577	1787.3	0.8722	1.0684	2.073E-3	334.9	1099	650.9
4800	1463.0	0.9670	278.64	5.49	0.8383	84940	1774.0	0.8669	1.0620	2.061E-3	334.6	1098	650.5
<b>5000</b>	<b>1524.0</b>	<b>0.9656</b>	<b>278.24</b>	<b>5.09</b>	<b>0.8320</b>	<b>84307</b>	<b>1760.8</b>	<b>0.8617</b>	<b>1.0555</b>	<b>2.048E-3</b>	<b>334.4</b>	<b>1097</b>	<b>650.0</b>
5200	1585.0	0.9642	277.85	4.70	0.8258	83678	1747.7	0.8565	1.0492	2.036E-3	334.2	1096	649.5
5400	1645.9	0.9629	277.45	4.30	0.8197	83053	1734.6	0.8513	1.0428	2.023E-3	333.9	1096	649.1
5600	1706.9	0.9615	277.06	3.91	0.8135	82431	1721.6	0.8461	1.0365	2.011E-3	333.7	1095	648.6
5800	1767.8	0.9601	276.66	3.51	0.8074	81814	1708.7	0.8410	1.0302	1.999E-3	333.4	1094	648.2
<b>6000</b>	<b>1828.8</b>	<b>0.9587</b>	<b>276.26</b>	<b>3.11</b>	<b>0.8014</b>	<b>81200</b>	<b>1695.9</b>	<b>0.8359</b>	<b>1.0239</b>	<b>1.987E-3</b>	<b>333.2</b>	<b>1093</b>	<b>647.7</b>
6200	1889.8	0.9574	275.87	2.72	0.7954	80589	1683.1	0.8308	1.0177	1.975E-3	333.0	1092	647.2
6400	1950.7	0.9560	275.47	2.32	0.7894	79983	1670.5	0.8257	1.0115	1.963E-3	332.7	1092	646.8
6600	2011.7	0.9546	275.07	1.92	0.7834	79380	1657.9	0.8207	1.0053	1.951E-3	332.5	1091	646.3
6800	2072.6	0.9532	274.68	1.53	0.7775	78781	1645.4	0.8156	0.9992	1.939E-3	332.2	1090	645.8
<b>7000</b>	<b>2133.6</b>	<b>0.9519</b>	<b>274.28</b>	<b>1.13</b>	<b>0.7716</b>	<b>78185</b>	<b>1632.9</b>	<b>0.8106</b>	<b>0.9930</b>	<b>1.927E-3</b>	<b>332.0</b>	<b>1089</b>	<b>645.4</b>
7200	2194.6	0.9505	273.89	0.74	0.7658	77594	1620.6	0.8057	0.9869	1.915E-3	331.8	1088	644.9
7400	2255.5	0.9491	273.49	0.34	0.7600	77005	1608.3	0.8007	0.9809	1.903E-3	331.5	1088	644.4
7600	2316.5	0.9477	273.09	−0.06	0.7542	76421	1596.1	0.7958	0.9749	1.892E-3	331.3	1087	644.0
7800	2377.4	0.9464	272.70	−0.45	0.7485	75840	1583.9	0.7909	0.9688	1.880E-3	331.0	1086	643.5
<b>8000</b>	<b>2438.4</b>	<b>0.9450</b>	<b>272.30</b>	<b>−0.85</b>	<b>0.7428</b>	<b>75262</b>	<b>1571.9</b>	<b>0.7860</b>	<b>0.9629</b>	<b>1.868E-3</b>	<b>330.8</b>	<b>1085</b>	<b>643.0</b>
8200	2499.4	0.9436	271.90	−1.25	0.7371	74689	1559.9	0.7812	0.9569	1.857E-3	330.6	1085	642.6
8400	2560.3	0.9422	271.51	−1.64	0.7315	74118	1548.0	0.7763	0.9510	1.845E-3	330.3	1084	642.1
8600	2621.3	0.9409	271.11	−2.04	0.7259	73551	1536.2	0.7715	0.9451	1.834E-3	330.1	1083	641.6
8800	2682.2	0.9395	270.72	−2.43	0.7203	72988	1524.4	0.7667	0.9392	1.822E-3	329.8	1082	641.2
<b>9000</b>	<b>2743.2</b>	<b>0.9381</b>	<b>270.32</b>	<b>−2.83</b>	<b>0.7148</b>	<b>72428</b>	<b>1512.7</b>	<b>0.7620</b>	<b>0.9334</b>	<b>1.811E-3</b>	<b>329.6</b>	<b>1081</b>	<b>640.7</b>
9200	2804.2	0.9367	269.92	−3.23	0.7093	71872	1501.1	0.7572	0.9276	1.800E-3	329.4	1081	640.2
9400	2865.1	0.9354	269.53	−3.62	0.7039	71319	1489.5	0.7525	0.9218	1.789E-3	329.1	1080	639.7
9600	2926.1	0.9340	269.13	−4.02	0.6984	70770	1478.1	0.7478	0.9161	1.777E-3	328.9	1079	639.3
9800	2987.0	0.9326	268.73	−4.42	0.6931	70224	1466.7	0.7431	0.9103	1.766E-3	328.6	1078	638.8
<b>10000</b>	<b>3048.0</b>	<b>0.9312</b>	<b>268.34</b>	<b>−4.81</b>	<b>0.6877</b>	<b>69682</b>	<b>1455.3</b>	<b>0.7385</b>	<b>0.9046</b>	<b>1.755E-3</b>	<b>328.4</b>	<b>1077</b>	<b>638.3</b>
10200	3109.0	0.9299	267.94	−5.21	0.6824	69143	1444.1	0.7338	0.8990	1.744E-3	328.1	1077	637.9
10400	3169.9	0.9285	267.55	−5.60	0.6771	68607	1432.9	0.7292	0.8933	1.733E-3	327.9	1076	637.4
10600	3230.9	0.9271	267.15	−6.00	0.6718	68074	1421.8	0.7247	0.8877	1.722E-3	327.7	1075	636.9
10800	3291.8	0.9257	266.75	−6.40	0.6666	67545	1410.7	0.7201	0.8821	1.712E-3	327.4	1074	636.4
<b>11000</b>	<b>3352.8</b>	<b>0.9244</b>	<b>266.36</b>	<b>−6.79</b>	<b>0.6614</b>	<b>67020</b>	<b>1399.7</b>	<b>0.7156</b>	<b>0.8766</b>	<b>1.701E-3</b>	<b>327.2</b>	<b>1073</b>	<b>636.0</b>
11200	3413.8	0.9230	265.96	−7.19	0.6563	66497	1388.8	0.7110	0.8710	1.690E-3	326.9	1073	635.5
11400	3474.7	0.9216	265.56	−7.59	0.6512	65978	1378.0	0.7065	0.8655	1.679E-3	326.7	1072	635.0
11600	3535.7	0.9202	265.17	−7.98	0.6461	65463	1367.2	0.7021	0.8600	1.669E-3	326.4	1071	634.6
11800	3596.6	0.9189	264.77	−8.38	0.6410	64950	1356.5	0.6976	0.8546	1.658E-3	326.2	1070	634.1

Table A.1 (Continued)

<i>H</i> (ft)	<i>H</i> (m)	$\theta$	<i>T</i> (K)	<i>T</i> (°C)	$\delta$	<i>p</i> (N/m <sup>2</sup> )	<i>p</i> (lb/ft <sup>2</sup> )	$\sigma$	$\rho$ (kg/m <sup>3</sup> )	$\rho$ (slug/ft <sup>3</sup> )	<i>a</i> (m/s)	<i>a</i> (ft/s)	<i>a</i> (kt)
<b>12000</b>	<b>3657.6</b>	<b>0.9175</b>	<b>264.38</b>	<b>-8.77</b>	<b>0.6360</b>	<b>64441</b>	<b>1345.9</b>	<b>0.6932</b>	<b>0.8491</b>	<b>1.648E-3</b>	<b>326.0</b>	<b>1069</b>	<b>633.6</b>
12200	3718.6	0.9161	263.98	-9.17	0.6310	63935	1335.3	0.6888	0.8437	1.637E-3	325.7	1069	633.1
12400	3779.5	0.9147	263.58	-9.57	0.6260	63432	1324.8	0.6844	0.8384	1.627E-3	325.5	1068	632.7
12600	3840.5	0.9134	263.19	-9.96	0.6211	62932	1314.4	0.6800	0.8330	1.616E-3	325.2	1067	632.2
12800	3901.4	0.9120	262.79	-10.36	0.6162	62436	1304.0	0.6757	0.8277	1.606E-3	325.0	1066	631.7
<b>13000</b>	<b>3962.4</b>	<b>0.9106</b>	<b>262.39</b>	<b>-10.76</b>	<b>0.6113</b>	<b>61943</b>	<b>1293.7</b>	<b>0.6713</b>	<b>0.8224</b>	<b>1.596E-3</b>	<b>324.7</b>	<b>1065</b>	<b>631.2</b>
13200	4023.4	0.9092	262.00	-11.15	0.6065	61453	1283.5	0.6670	0.8171	1.585E-3	324.5	1065	630.7
13400	4084.3	0.9079	261.60	-11.55	0.6017	60966	1273.3	0.6627	0.8119	1.575E-3	324.2	1064	630.3
13600	4145.3	0.9065	261.21	-11.94	0.5969	60482	1263.2	0.6585	0.8066	1.565E-3	324.0	1063	629.8
13800	4206.2	0.9051	260.81	-12.34	0.5922	60001	1253.2	0.6542	0.8014	1.555E-3	323.7	1062	629.3
<b>14000</b>	<b>4267.2</b>	<b>0.9037</b>	<b>260.41</b>	<b>-12.74</b>	<b>0.5875</b>	<b>59524</b>	<b>1243.2</b>	<b>0.6500</b>	<b>0.7963</b>	<b>1.545E-3</b>	<b>323.5</b>	<b>1061</b>	<b>628.8</b>
14200	4328.2	0.9024	260.02	-13.13	0.5828	59049	1233.3	0.6458	0.7911	1.535E-3	323.3	1061	628.4
14400	4389.1	0.9010	259.62	-13.53	0.5781	58578	1223.4	0.6416	0.7860	1.525E-3	323.0	1060	627.9
14600	4450.1	0.8996	259.22	-13.93	0.5735	58110	1213.6	0.6375	0.7809	1.515E-3	322.8	1059	627.4
14800	4511.0	0.8982	258.83	-14.32	0.5689	57644	1203.9	0.6334	0.7759	1.505E-3	322.5	1058	626.9
<b>15000</b>	<b>4572.0</b>	<b>0.8969</b>	<b>258.43</b>	<b>-14.72</b>	<b>0.5643</b>	<b>57182</b>	<b>1194.3</b>	<b>0.6292</b>	<b>0.7708</b>	<b>1.496E-3</b>	<b>322.3</b>	<b>1057</b>	<b>626.4</b>
15200	4633.0	0.8955	258.04	-15.11	0.5598	56723	1184.7	0.6251	0.7658	1.486E-3	322.0	1057	626.0
15400	4693.9	0.8941	257.64	-15.51	0.5553	56266	1175.1	0.6211	0.7608	1.476E-3	321.8	1056	625.5
15600	4754.9	0.8927	257.24	-15.91	0.5508	55813	1165.7	0.6170	0.7558	1.467E-3	321.5	1055	625.0
15800	4815.8	0.8914	256.85	-16.30	0.5464	55363	1156.3	0.6130	0.7509	1.457E-3	321.3	1054	624.5
<b>16000</b>	<b>4876.8</b>	<b>0.8900</b>	<b>256.45</b>	<b>-16.70</b>	<b>0.5420</b>	<b>54915</b>	<b>1146.9</b>	<b>0.6090</b>	<b>0.7460</b>	<b>1.447E-3</b>	<b>321.0</b>	<b>1053</b>	<b>624.0</b>
16200	4937.8	0.8886	256.05	-17.10	0.5376	54471	1137.6	0.6050	0.7411	1.438E-3	320.8	1052	623.6
16400	4998.7	0.8872	255.66	-17.49	0.5332	54029	1128.4	0.6010	0.7362	1.428E-3	320.5	1052	623.1
16600	5059.7	0.8859	255.26	-17.89	0.5289	53590	1119.3	0.5970	0.7314	1.419E-3	320.3	1051	622.6
16800	5120.6	0.8845	254.87	-18.28	0.5246	53155	1110.2	0.5931	0.7266	1.410E-3	320.0	1050	622.1
<b>17000</b>	<b>5181.6</b>	<b>0.8831</b>	<b>254.47</b>	<b>-18.68</b>	<b>0.5203</b>	<b>52722</b>	<b>1101.1</b>	<b>0.5892</b>	<b>0.7218</b>	<b>1.400E-3</b>	<b>319.8</b>	<b>1049</b>	<b>621.6</b>
17200	5242.6	0.8817	254.07	-19.08	0.5161	52292	1092.1	0.5853	0.7170	1.391E-3	319.5	1048	621.1
17400	5303.5	0.8804	253.68	-19.47	0.5119	51865	1083.2	0.5814	0.7122	1.382E-3	319.3	1048	620.7
17600	5364.5	0.8790	253.28	-19.87	0.5077	51440	1074.3	0.5776	0.7075	1.373E-3	319.0	1047	620.2
17800	5425.4	0.8776	252.88	-20.27	0.5035	51019	1065.5	0.5737	0.7028	1.364E-3	318.8	1046	619.7
<b>18000</b>	<b>5486.4</b>	<b>0.8762</b>	<b>252.49</b>	<b>-20.66</b>	<b>0.4994</b>	<b>50600</b>	<b>1056.8</b>	<b>0.5699</b>	<b>0.6981</b>	<b>1.355E-3</b>	<b>318.5</b>	<b>1045</b>	<b>619.2</b>
18200	5547.4	0.8749	252.09	-21.06	0.4953	50184	1048.1	0.5661	0.6935	1.346E-3	318.3	1044	618.7
18400	5608.3	0.8735	251.70	-21.45	0.4912	49771	1039.5	0.5623	0.6889	1.337E-3	318.0	1043	618.2
18600	5669.3	0.8721	251.30	-21.85	0.4871	49360	1030.9	0.5586	0.6843	1.328E-3	317.8	1043	617.7
18800	5730.2	0.8707	250.90	-22.25	0.4831	48953	1022.4	0.5548	0.6797	1.319E-3	317.5	1042	617.2
<b>19000</b>	<b>5791.2</b>	<b>0.8694</b>	<b>250.51</b>	<b>-22.64</b>	<b>0.4791</b>	<b>48548</b>	<b>1013.9</b>	<b>0.5511</b>	<b>0.6751</b>	<b>1.310E-3</b>	<b>317.3</b>	<b>1041</b>	<b>616.8</b>
19200	5852.2	0.8680	250.11	-23.04	0.4752	48145	1005.5	0.5474	0.6706	1.301E-3	317.0	1040	616.3
19400	5913.1	0.8666	249.71	-23.44	0.4712	47746	997.2	0.5437	0.6661	1.292E-3	316.8	1039	615.8
19600	5974.1	0.8652	249.32	-23.83	0.4673	47349	988.9	0.5401	0.6616	1.284E-3	316.5	1039	615.3
19800	6035.0	0.8639	248.92	-24.23	0.4634	46955	980.7	0.5364	0.6571	1.275E-3	316.3	1038	614.8

(continued)

Table A.1 (Continued)

<i>H</i> (ft)	<i>H</i> (m)	$\theta$	<i>T</i> (K)	<i>T</i> (°C)	$\delta$	<i>p</i> (N/m <sup>2</sup> )	<i>p</i> (lb/ft <sup>2</sup> )	$\sigma$	$\rho$ (kg/m <sup>3</sup> )	$\rho$ (slug/ft <sup>3</sup> )	<i>a</i> (m/s)	<i>a</i> (ft/s)	<i>a</i> (kt)
<b>20000</b>	<b>6096.0</b>	<b>0.8625</b>	<b>248.53</b>	<b>−24.62</b>	<b>0.4595</b>	<b>46563</b>	<b>972.5</b>	<b>0.5328</b>	<b>0.6527</b>	<b>1.266E-3</b>	<b>316.0</b>	<b>1037</b>	<b>614.3</b>
20200	6157.0	0.8611	248.13	−25.02	0.4557	46174	964.4	0.5292	0.6483	1.258E-3	315.8	1036	613.8
20400	6217.9	0.8597	247.73	−25.42	0.4519	45788	956.3	0.5256	0.6439	1.249E-3	315.5	1035	613.3
20600	6278.9	0.8584	247.34	−25.81	0.4481	45405	948.3	0.5220	0.6395	1.241E-3	315.3	1034	612.8
20800	6339.8	0.8570	246.94	−26.21	0.4443	45024	940.3	0.5185	0.6352	1.232E-3	315.0	1034	612.4
<b>21000</b>	<b>6400.8</b>	<b>0.8556</b>	<b>246.54</b>	<b>−26.61</b>	<b>0.4406</b>	<b>44645</b>	<b>932.4</b>	<b>0.5150</b>	<b>0.6308</b>	<b>1.224E-3</b>	<b>314.8</b>	<b>1033</b>	<b>611.9</b>
21200	6461.8	0.8542	246.15	−27.00	0.4369	44269	924.6	0.5115	0.6265	1.216E-3	314.5	1032	611.4
21400	6522.7	0.8529	245.75	−27.40	0.4332	43896	916.8	0.5080	0.6223	1.207E-3	314.3	1031	610.9
21600	6583.7	0.8515	245.36	−27.79	0.4296	43525	909.0	0.5045	0.6180	1.199E-3	314.0	1030	610.4
21800	6644.6	0.8501	244.96	−28.19	0.4259	43157	901.4	0.5010	0.6138	1.191E-3	313.8	1029	609.9
<b>22000</b>	<b>6705.6</b>	<b>0.8487</b>	<b>244.56</b>	<b>−28.59</b>	<b>0.4223</b>	<b>42791</b>	<b>893.7</b>	<b>0.4976</b>	<b>0.6095</b>	<b>1.183E-3</b>	<b>313.5</b>	<b>1029</b>	<b>609.4</b>
22200	6766.6	0.8474	244.17	−28.98	0.4187	42428	886.1	0.4942	0.6053	1.175E-3	313.2	1028	608.9
22400	6827.5	0.8460	243.77	−29.38	0.4152	42068	878.6	0.4908	0.6012	1.166E-3	313.0	1027	608.4
22600	6888.5	0.8446	243.37	−29.78	0.4116	41710	871.1	0.4874	0.5970	1.158E-3	312.7	1026	607.9
22800	6949.4	0.8432	242.98	−30.17	0.4081	41354	863.7	0.4840	0.5929	1.150E-3	312.5	1025	607.4
<b>23000</b>	<b>7010.4</b>	<b>0.8419</b>	<b>242.58</b>	<b>−30.57</b>	<b>0.4046</b>	<b>41001</b>	<b>856.3</b>	<b>0.4807</b>	<b>0.5888</b>	<b>1.142E-3</b>	<b>312.2</b>	<b>1024</b>	<b>606.9</b>
23200	7071.4	0.8405	242.19	−30.96	0.4012	40650	849.0	0.4773	0.5847	1.135E-3	312.0	1024	606.4
23400	7132.3	0.8391	241.79	−31.36	0.3977	40302	841.7	0.4740	0.5807	1.127E-3	311.7	1023	605.9
23600	7193.3	0.8377	241.39	−31.76	0.3943	39956	834.5	0.4707	0.5766	1.119E-3	311.5	1022	605.4
23800	7254.2	0.8364	241.00	−32.15	0.3909	39612	827.3	0.4674	0.5726	1.111E-3	311.2	1021	604.9
<b>24000</b>	<b>7315.2</b>	<b>0.8350</b>	<b>240.60</b>	<b>−32.55</b>	<b>0.3876</b>	<b>39271</b>	<b>820.2</b>	<b>0.4642</b>	<b>0.5686</b>	<b>1.103E-3</b>	<b>311.0</b>	<b>1020</b>	<b>604.4</b>
24200	7376.2	0.8336	240.20	−32.95	0.3842	38932	813.1	0.4609	0.5646	1.096E-3	310.7	1019	603.9
24400	7437.1	0.8322	239.81	−33.34	0.3809	38596	806.1	0.4577	0.5607	1.088E-3	310.4	1019	603.4
24600	7498.1	0.8309	239.41	−33.74	0.3776	38262	799.1	0.4545	0.5567	1.080E-3	310.2	1018	602.9
24800	7559.0	0.8295	239.02	−34.13	0.3743	37930	792.2	0.4513	0.5528	1.073E-3	309.9	1017	602.4
<b>25000</b>	<b>7620.0</b>	<b>0.8281</b>	<b>238.62</b>	<b>−34.53</b>	<b>0.3711</b>	<b>37601</b>	<b>785.3</b>	<b>0.4481</b>	<b>0.5489</b>	<b>1.065E-3</b>	<b>309.7</b>	<b>1016</b>	<b>601.9</b>
25200	7681.0	0.8267	238.22	−34.93	0.3679	37274	778.5	0.4450	0.5451	1.058E-3	309.4	1015	601.4
25400	7741.9	0.8254	237.83	−35.32	0.3647	36949	771.7	0.4418	0.5412	1.050E-3	309.2	1014	600.9
25600	7802.9	0.8240	237.43	−35.72	0.3615	36627	765.0	0.4387	0.5374	1.043E-3	308.9	1013	600.4
25800	7863.8	0.8226	237.04	−36.11	0.3583	36307	758.3	0.4356	0.5336	1.035E-3	308.6	1013	599.9
<b>26000</b>	<b>7924.8</b>	<b>0.8212</b>	<b>236.64</b>	<b>−36.51</b>	<b>0.3552</b>	<b>35989</b>	<b>751.6</b>	<b>0.4325</b>	<b>0.5298</b>	<b>1.028E-3</b>	<b>308.4</b>	<b>1012</b>	<b>599.4</b>
26200	7985.8	0.8199	236.24	−36.91	0.3521	35673	745.0	0.4294	0.5260	1.021E-3	308.1	1011	598.9
26400	8046.7	0.8185	235.85	−37.30	0.3490	35360	738.5	0.4264	0.5223	1.013E-3	307.9	1010	598.4
26600	8107.7	0.8171	235.45	−37.70	0.3459	35049	732.0	0.4233	0.5186	1.006E-3	307.6	1009	597.9
26800	8168.6	0.8157	235.05	−38.10	0.3429	34740	725.6	0.4203	0.5149	9.990E-4	307.3	1008	597.4
<b>27000</b>	<b>8229.6</b>	<b>0.8144</b>	<b>234.66</b>	<b>−38.49</b>	<b>0.3398</b>	<b>34433</b>	<b>719.2</b>	<b>0.4173</b>	<b>0.5112</b>	<b>9.919E-4</b>	<b>307.1</b>	<b>1008</b>	<b>596.9</b>
27200	8290.6	0.8130	234.26	−38.89	0.3368	34129	712.8	0.4143	0.5075	9.848E-4	306.8	1007	596.4
27400	8351.5	0.8116	233.87	−39.28	0.3338	33826	706.5	0.4113	0.5039	9.777E-4	306.6	1006	595.9
27600	8412.5	0.8102	233.47	−39.68	0.3309	33526	700.2	0.4084	0.5003	9.707E-4	306.3	1005	595.4
27800	8473.4	0.8089	233.07	−40.08	0.3279	33228	694.0	0.4054	0.4967	9.637E-4	306.0	1004	594.9

Table A.1 (Continued)

<i>H</i> (ft)	<i>H</i> (m)	$\theta$	<i>T</i> (K)	<i>T</i> (°C)	$\delta$	<i>P</i> (N/m <sup>2</sup> )	<i>P</i> (lb/ft <sup>2</sup> )	$\sigma$	$\rho$ (kg/m <sup>3</sup> )	$\rho$ (slug/ft <sup>3</sup> )	<i>a</i> (m/s)	<i>a</i> (ft/s)	<i>a</i> (kt)
28000	8534.4	0.8075	232.68	-40.47	0.3250	32932	687.8	0.4025	0.4931	9.567E-4	305.8	1003	594.4
28200	8595.4	0.8061	232.28	-40.87	0.3221	32639	681.7	0.3996	0.4895	9.498E-4	305.5	1002	593.9
28400	8656.3	0.8047	231.88	-41.27	0.3192	32347	675.6	0.3967	0.4860	9.429E-4	305.3	1002	593.4
28600	8717.3	0.8034	231.49	-41.66	0.3164	32058	669.5	0.3938	0.4824	9.361E-4	305.0	1001	592.9
28800	8778.2	0.8020	231.09	-42.06	0.3135	31770	663.5	0.3910	0.4789	9.293E-4	304.7	1000	592.4
29000	8839.2	0.8006	230.70	-42.45	0.3107	31485	657.6	0.3881	0.4754	9.225E-4	304.5	999.0	591.9
29200	8900.2	0.7992	230.30	-42.85	0.3079	31202	651.7	0.3853	0.4720	9.158E-4	304.2	998.1	591.4
29400	8961.1	0.7979	229.90	-43.25	0.3052	30921	645.8	0.3825	0.4685	9.091E-4	304.0	997.2	590.9
29600	9022.1	0.7965	229.51	-43.64	0.3024	30642	640.0	0.3797	0.4651	9.025E-4	303.7	996.4	590.3
29800	9083.0	0.7951	229.11	-44.04	0.2997	30365	634.2	0.3769	0.4617	8.958E-4	303.4	995.5	589.8
30000	9144.0	0.7937	228.71	-44.44	0.2970	30090	628.4	0.3741	0.4583	8.893E-4	303.2	994.7	589.3
30200	9205.0	0.7924	228.32	-44.83	0.2943	29817	622.7	0.3714	0.4549	8.827E-4	302.9	993.8	588.8
30400	9265.9	0.7910	227.92	-45.23	0.2916	29546	617.1	0.3686	0.4516	8.762E-4	302.6	992.9	588.3
30600	9326.9	0.7896	227.53	-45.62	0.2889	29277	611.5	0.3659	0.4483	8.698E-4	302.4	992.1	587.8
30800	9387.8	0.7882	227.13	-46.02	0.2863	29010	605.9	0.3632	0.4449	8.633E-4	302.1	991.2	587.3
31000	9448.8	0.7869	226.73	-46.42	0.2837	28745	600.3	0.3605	0.4417	8.569E-4	301.9	990.3	586.8
31200	9509.8	0.7855	226.34	-46.81	0.2811	28482	594.9	0.3579	0.4384	8.506E-4	301.6	989.5	586.3
31400	9570.7	0.7841	225.94	-47.21	0.2785	28221	589.4	0.3552	0.4351	8.443E-4	301.3	988.6	585.7
31600	9631.7	0.7827	225.54	-47.61	0.2760	27961	584.0	0.3526	0.4319	8.380E-4	301.1	987.7	585.2
31800	9692.6	0.7814	225.15	-48.00	0.2734	27704	578.6	0.3499	0.4287	8.317E-4	300.8	986.9	584.7
32000	9753.6	0.7800	224.75	-48.40	0.2709	27449	573.3	0.3473	0.4255	8.255E-4	300.5	986.0	584.2
32200	9814.6	0.7786	224.36	-48.79	0.2684	27195	568.0	0.3447	0.4223	8.194E-4	300.3	985.1	583.7
32400	9875.5	0.7772	223.96	-49.19	0.2659	26944	562.7	0.3421	0.4191	8.132E-4	300.0	984.3	583.2
32600	9936.5	0.7759	223.56	-49.59	0.2635	26694	557.5	0.3396	0.4160	8.071E-4	299.7	983.4	582.6
32800	9997.4	0.7745	223.17	-49.98	0.2610	26447	552.3	0.3370	0.4128	8.010E-4	299.5	982.5	582.1
33000	10058.4	0.7731	222.77	-50.38	0.2586	26201	547.2	0.3345	0.4097	7.950E-4	299.2	981.7	581.6
33200	10119.4	0.7717	222.37	-50.78	0.2562	25957	542.1	0.3319	0.4066	7.890E-4	298.9	980.8	581.1
33400	10180.3	0.7704	221.98	-51.17	0.2538	25715	537.1	0.3294	0.4036	7.830E-4	298.7	979.9	580.6
33600	10241.3	0.7690	221.58	-51.57	0.2514	25474	532.0	0.3269	0.4005	7.771E-4	298.4	979.0	580.1
33800	10302.2	0.7676	221.19	-51.96	0.2491	25236	527.1	0.3245	0.3975	7.712E-4	298.1	978.2	579.5
34000	10363.2	0.7662	220.79	-52.36	0.2467	24999	522.1	0.3220	0.3944	7.653E-4	297.9	977.3	579.0
34200	10424.2	0.7649	220.39	-52.76	0.2444	24764	517.2	0.3195	0.3914	7.595E-4	297.6	976.4	578.5
34400	10485.1	0.7635	220.00	-53.15	0.2421	24531	512.3	0.3171	0.3885	7.537E-4	297.3	975.5	578.0
34600	10546.1	0.7621	219.60	-53.55	0.2398	24300	507.5	0.3147	0.3855	7.480E-4	297.1	974.6	577.5
34800	10607.0	0.7607	219.20	-53.95	0.2376	24070	502.7	0.3123	0.3825	7.422E-4	296.8	973.8	576.9
35000	10668.0	0.7594	218.81	-54.34	0.2353	23842	498.0	0.3099	0.3796	7.365E-4	296.5	972.9	576.4
35200	10729.0	0.7580	218.41	-54.74	0.2331	23616	493.2	0.3075	0.3767	7.309E-4	296.3	972.0	575.9
35400	10789.9	0.7566	218.02	-55.13	0.2309	23392	488.5	0.3051	0.3738	7.253E-4	296.0	971.1	575.4
35600	10850.9	0.7552	217.62	-55.53	0.2287	23169	483.9	0.3028	0.3709	7.197E-4	295.7	970.2	574.9
35800	10911.8	0.7539	217.22	-55.93	0.2265	22948	479.3	0.3004	0.3680	7.141E-4	295.5	969.4	574.3

(continued)

Table A.1 (Continued)

<i>H</i> (ft)	<i>H</i> (m)	<i>θ</i>	<i>T</i> (K)	<i>T</i> (°C)	<i>δ</i>	<i>p</i> (N/m <sup>2</sup> )	<i>p</i> (lb/ft <sup>2</sup> )	<i>σ</i>	<i>ρ</i> (kg/m <sup>3</sup> )	<i>ρ</i> (slug/ft <sup>3</sup> )	<i>a</i> (m/s)	<i>a</i> (ft/s)	<i>a</i> (kt)
<b>36000</b>	<b>10972.8</b>	<b>0.7525</b>	<b>216.83</b>	<b>−56.32</b>	<b>0.2243</b>	<b>22729</b>	<b>474.7</b>	<b>0.2981</b>	<b>0.3652</b>	<b>7.086E-4</b>	<b>295.2</b>	<b>968.5</b>	<b>573.8</b>
36200	11033.8	0.7519	216.65	−56.50	0.2222	22512	470.2	0.2955	0.3620	7.024E-4	295.1	968.1	573.6
36400	11094.7	0.7519	216.65	−56.50	0.2200	22297	465.7	0.2927	0.3585	6.956E-4	295.1	968.1	573.6
36600	11155.7	0.7519	216.65	−56.50	0.2179	22083	461.2	0.2899	0.3551	6.890E-4	295.1	968.1	573.6
36800	11216.6	0.7519	216.65	−56.50	0.2159	21872	456.8	0.2871	0.3517	6.824E-4	295.1	968.1	573.6
<b>37000</b>	<b>11277.6</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.2138</b>	<b>21663</b>	<b>452.4</b>	<b>0.2844</b>	<b>0.3483</b>	<b>6.759E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
37200	11338.6	0.7519	216.65	−56.50	0.2117	21455	448.1	0.2816	0.3450	6.694E-4	295.1	968.1	573.6
37400	11399.5	0.7519	216.65	−56.50	0.2097	21250	443.8	0.2789	0.3417	6.630E-4	295.1	968.1	573.6
37600	11460.5	0.7519	216.65	−56.50	0.2077	21047	439.6	0.2763	0.3384	6.567E-4	295.1	968.1	573.6
37800	11521.4	0.7519	216.65	−56.50	0.2057	20846	435.4	0.2736	0.3352	6.504E-4	295.1	968.1	573.6
<b>38000</b>	<b>11582.4</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.2038</b>	<b>20646</b>	<b>431.2</b>	<b>0.2710</b>	<b>0.3320</b>	<b>6.442E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
38200	11643.4	0.7519	216.65	−56.50	0.2018	20449	427.1	0.2684	0.3288	6.380E-4	295.1	968.1	573.6
38400	11704.3	0.7519	216.65	−56.50	0.1999	20253	423.0	0.2658	0.3257	6.319E-4	295.1	968.1	573.6
38600	11765.3	0.7519	216.65	−56.50	0.1980	20059	418.9	0.2633	0.3225	6.258E-4	295.1	968.1	573.6
38800	11826.2	0.7519	216.65	−56.50	0.1961	19867	414.9	0.2608	0.3195	6.199E-4	295.1	968.1	573.6
<b>39000</b>	<b>11887.2</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.1942</b>	<b>19677</b>	<b>411.0</b>	<b>0.2583</b>	<b>0.3164</b>	<b>6.139E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
39200	11948.2	0.7519	216.65	−56.50	0.1923	19489	407.0	0.2558	0.3134	6.081E-4	295.1	968.1	573.6
39400	12009.1	0.7519	216.65	−56.50	0.1905	19303	403.1	0.2534	0.3104	6.022E-4	295.1	968.1	573.6
39600	12070.1	0.7519	216.65	−56.50	0.1887	19118	399.3	0.2509	0.3074	5.965E-4	295.1	968.1	573.6
39800	12131.0	0.7519	216.65	−56.50	0.1869	18935	395.5	0.2485	0.3045	5.908E-4	295.1	968.1	573.6
<b>40000</b>	<b>12192.0</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.1851</b>	<b>18754</b>	<b>391.7</b>	<b>0.2462</b>	<b>0.3016</b>	<b>5.851E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
40200	12253.0	0.7519	216.65	−56.50	0.1833	18574	387.9	0.2438	0.2987	5.795E-4	295.1	968.1	573.6
40400	12313.9	0.7519	216.65	−56.50	0.1816	18397	384.2	0.2415	0.2958	5.740E-4	295.1	968.1	573.6
40600	12374.9	0.7519	216.65	−56.50	0.1798	18221	380.5	0.2392	0.2930	5.685E-4	295.1	968.1	573.6
40800	12435.8	0.7519	216.65	−56.50	0.1781	18046	376.9	0.2369	0.2902	5.630E-4	295.1	968.1	573.6
<b>41000</b>	<b>12496.8</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.1764</b>	<b>17874</b>	<b>373.3</b>	<b>0.2346</b>	<b>0.2874</b>	<b>5.577E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
41200	12557.8	0.7519	216.65	−56.50	0.1747	17703	369.7	0.2324	0.2847	5.523E-4	295.1	968.1	573.6
41400	12618.7	0.7519	216.65	−56.50	0.1730	17533	366.2	0.2302	0.2819	5.470E-4	295.1	968.1	573.6
41600	12679.7	0.7519	216.65	−56.50	0.1714	17366	362.7	0.2279	0.2792	5.418E-4	295.1	968.1	573.6
41800	12740.6	0.7519	216.65	−56.50	0.1697	17200	359.2	0.2258	0.2766	5.366E-4	295.1	968.1	573.6
<b>42000</b>	<b>12801.6</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.1681</b>	<b>17035</b>	<b>355.8</b>	<b>0.2236</b>	<b>0.2739</b>	<b>5.315E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
42200	12862.6	0.7519	216.65	−56.50	0.1665	16872	352.4	0.2215	0.2713	5.264E-4	295.1	968.1	573.6
42400	12923.5	0.7519	216.65	−56.50	0.1649	16711	349.0	0.2194	0.2687	5.214E-4	295.1	968.1	573.6
42600	12984.5	0.7519	216.65	−56.50	0.1633	16551	345.7	0.2173	0.2661	5.164E-4	295.1	968.1	573.6
42800	13045.4	0.7519	216.65	−56.50	0.1618	16393	342.4	0.2152	0.2636	5.114E-4	295.1	968.1	573.6
<b>43000</b>	<b>13106.4</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.1602</b>	<b>16236</b>	<b>339.1</b>	<b>0.2131</b>	<b>0.2611</b>	<b>5.066E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
43200	13167.4	0.7519	216.65	−56.50	0.1587	16080	335.8	0.2111	0.2586	5.017E-4	295.1	968.1	573.6
43400	13228.3	0.7519	216.65	−56.50	0.1572	15927	332.6	0.2091	0.2561	4.969E-4	295.1	968.1	573.6
43600	13289.3	0.7519	216.65	−56.50	0.1557	15774	329.5	0.2071	0.2536	4.922E-4	295.1	968.1	573.6
43800	13350.2	0.7519	216.65	−56.50	0.1542	15623	326.3	0.2051	0.2512	4.874E-4	295.1	968.1	573.6

Table A.1 (Continued)

<i>H</i> (ft)	<i>H</i> (m)	$\theta$	<i>T</i> (K)	<i>T</i> (°C)	$\delta$	<i>p</i> (N/m <sup>2</sup> )	<i>p</i> (lb/ft <sup>2</sup> )	$\sigma$	$\rho$ (kg/m <sup>3</sup> )	$\rho$ (slug/ft <sup>3</sup> )	<i>a</i> (m/s)	<i>a</i> (ft/s)	<i>a</i> (kt)
<b>44000</b>	<b>13411.2</b>	<b>0.7519</b>	<b>216.65</b>	<b>-56.50</b>	<b>0.1527</b>	<b>15474</b>	<b>323.2</b>	<b>0.2031</b>	<b>0.2488</b>	<b>4.828E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
44200	13472.2	0.7519	216.65	-56.50	0.1513	15326	320.1	0.2012	0.2464	4.782E-4	295.1	968.1	573.6
44400	13533.1	0.7519	216.65	-56.50	0.1498	15179	317.0	0.1992	0.2441	4.736E-4	295.1	968.1	573.6
44600	13594.1	0.7519	216.65	-56.50	0.1484	15034	314.0	0.1973	0.2417	4.691E-4	295.1	968.1	573.6
44800	13655.0	0.7519	216.65	-56.50	0.1470	14890	311.0	0.1955	0.2394	4.646E-4	295.1	968.1	573.6
<b>45000</b>	<b>13716.0</b>	<b>0.7519</b>	<b>216.65</b>	<b>-56.50</b>	<b>0.1455</b>	<b>14748</b>	<b>308.0</b>	<b>0.1936</b>	<b>0.2371</b>	<b>4.601E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
45200	13777.0	0.7519	216.65	-56.50	0.1442	14607	305.1	0.1917	0.2349	4.557E-4	295.1	968.1	573.6
45400	13837.9	0.7519	216.65	-56.50	0.1428	14467	302.1	0.1899	0.2326	4.514E-4	295.1	968.1	573.6
45600	13898.9	0.7519	216.65	-56.50	0.1414	14328	299.3	0.1881	0.2304	4.470E-4	295.1	968.1	573.6
45800	13959.8	0.7519	216.65	-56.50	0.1401	14191	296.4	0.1863	0.2282	4.428E-4	295.1	968.1	573.6
<b>46000</b>	<b>14020.8</b>	<b>0.7519</b>	<b>216.65</b>	<b>-56.50</b>	<b>0.1387</b>	<b>14056</b>	<b>293.6</b>	<b>0.1845</b>	<b>0.2260</b>	<b>4.385E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
46200	14081.8	0.7519	216.65	-56.50	0.1374	13921	290.7	0.1827	0.2238	4.343E-4	295.1	968.1	573.6
46400	14142.7	0.7519	216.65	-56.50	0.1361	13788	288.0	0.1810	0.2217	4.302E-4	295.1	968.1	573.6
46600	14203.7	0.7519	216.65	-56.50	0.1348	13656	285.2	0.1793	0.2196	4.261E-4	295.1	968.1	573.6
46800	14264.6	0.7519	216.65	-56.50	0.1335	13525	282.5	0.1775	0.2175	4.220E-4	295.1	968.1	573.6
<b>47000</b>	<b>14325.6</b>	<b>0.7519</b>	<b>216.65</b>	<b>-56.50</b>	<b>0.1322</b>	<b>13396</b>	<b>279.8</b>	<b>0.1758</b>	<b>0.2154</b>	<b>4.180E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
47200	14386.6	0.7519	216.65	-56.50	0.1309	13268	277.1	0.1742	0.2133	4.140E-4	295.1	968.1	573.6
47400	14447.5	0.7519	216.65	-56.50	0.1297	13141	274.5	0.1725	0.2113	4.100E-4	295.1	968.1	573.6
47600	14508.5	0.7519	216.65	-56.50	0.1285	13015	271.8	0.1708	0.2093	4.061E-4	295.1	968.1	573.6
47800	14569.4	0.7519	216.65	-56.50	0.1272	12891	269.2	0.1692	0.2073	4.022E-4	295.1	968.1	573.6
<b>48000</b>	<b>14630.4</b>	<b>0.7519</b>	<b>216.65</b>	<b>-56.50</b>	<b>0.1260</b>	<b>12767</b>	<b>266.7</b>	<b>0.1676</b>	<b>0.2053</b>	<b>3.983E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
48200	14691.4	0.7519	216.65	-56.50	0.1248	12645	264.1	0.1660	0.2033	3.945E-4	295.1	968.1	573.6
48400	14752.3	0.7519	216.65	-56.50	0.1236	12524	261.6	0.1644	0.2014	3.908E-4	295.1	968.1	573.6
48600	14813.3	0.7519	216.65	-56.50	0.1224	12404	259.1	0.1628	0.1995	3.870E-4	295.1	968.1	573.6
48800	14874.2	0.7519	216.65	-56.50	0.1213	12286	256.6	0.1613	0.1976	3.833E-4	295.1	968.1	573.6
<b>49000</b>	<b>14935.2</b>	<b>0.7519</b>	<b>216.65</b>	<b>-56.50</b>	<b>0.1201</b>	<b>12168</b>	<b>254.1</b>	<b>0.1597</b>	<b>0.1957</b>	<b>3.796E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
49200	14996.2	0.7519	216.65	-56.50	0.1189	12052	251.7	0.1582	0.1938	3.760E-4	295.1	968.1	573.6
49400	15057.1	0.7519	216.65	-56.50	0.1178	11937	249.3	0.1567	0.1919	3.724E-4	295.1	968.1	573.6
49600	15118.1	0.7519	216.65	-56.50	0.1167	11822	246.9	0.1552	0.1901	3.689E-4	295.1	968.1	573.6
49800	15179.0	0.7519	216.65	-56.50	0.1156	11709	244.6	0.1537	0.1883	3.653E-4	295.1	968.1	573.6
<b>50000</b>	<b>15240.0</b>	<b>0.7519</b>	<b>216.65</b>	<b>-56.50</b>	<b>0.1145</b>	<b>11597</b>	<b>242.2</b>	<b>0.1522</b>	<b>0.1865</b>	<b>3.618E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
50200	15301.0	0.7519	216.65	-56.50	0.1134	11486	239.9	0.1508	0.1847	3.584E-4	295.1	968.1	573.6
50400	15361.9	0.7519	216.65	-56.50	0.1123	11376	237.6	0.1493	0.1829	3.549E-4	295.1	968.1	573.6
50600	15422.9	0.7519	216.65	-56.50	0.1112	11268	235.3	0.1479	0.1812	3.515E-4	295.1	968.1	573.6
50800	15483.8	0.7519	216.65	-56.50	0.1101	11160	233.1	0.1465	0.1794	3.482E-4	295.1	968.1	573.6
<b>51000</b>	<b>15544.8</b>	<b>0.7519</b>	<b>216.65</b>	<b>-56.50</b>	<b>0.1091</b>	<b>11053</b>	<b>230.8</b>	<b>0.1451</b>	<b>0.1777</b>	<b>3.449E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
51200	15605.8	0.7519	216.65	-56.50	0.1080	10947	228.6	0.1437	0.1760	3.416E-4	295.1	968.1	573.6
51400	15666.7	0.7519	216.65	-56.50	0.1070	10843	226.5	0.1423	0.1743	3.383E-4	295.1	968.1	573.6
51600	15727.7	0.7519	216.65	-56.50	0.1060	10739	224.3	0.1410	0.1727	3.350E-4	295.1	968.1	573.6
51800	15788.6	0.7519	216.65	-56.50	0.1050	10636	222.1	0.1396	0.1710	3.318E-4	295.1	968.1	573.6

(continued)

Table A.1 (Continued)

<i>H</i> (ft)	<i>H</i> (m)	<i>θ</i>	<i>T</i> (K)	<i>T</i> (°C)	<i>δ</i>	<i>p</i> (N/m <sup>2</sup> )	<i>p</i> (lb/ft <sup>2</sup> )	<i>σ</i>	<i>ρ</i> (kg/m <sup>3</sup> )	<i>ρ</i> (slug/ft <sup>3</sup> )	<i>a</i> (m/s)	<i>a</i> (ft/s)	<i>a</i> (kt)
<b>52000</b>	<b>15849.6</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.1040</b>	<b>10534</b>	<b>220.0</b>	<b>0.1383</b>	<b>0.1694</b>	<b>3.287E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
52200	15910.6	0.7519	216.65	−56.50	0.1030	10434	217.9	0.1370	0.1678	3.255E-4	295.1	968.1	573.6
52400	15971.5	0.7519	216.65	−56.50	0.1020	10334	215.8	0.1356	0.1662	3.224E-4	295.1	968.1	573.6
52600	16032.5	0.7519	216.65	−56.50	0.1010	10235	213.8	0.1343	0.1646	3.193E-4	295.1	968.1	573.6
52800	16093.4	0.7519	216.65	−56.50	0.1000	10137	211.7	0.1331	0.1630	3.163E-4	295.1	968.1	573.6
<b>53000</b>	<b>16154.4</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.0991</b>	<b>10040</b>	<b>209.7</b>	<b>0.1318</b>	<b>0.1614</b>	<b>3.132E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
53200	16215.4	0.7519	216.65	−56.50	0.0981	9944	207.7	0.1305	0.1599	3.102E-4	295.1	968.1	573.6
53400	16276.3	0.7519	216.65	−56.50	0.0972	9849	205.7	0.1293	0.1584	3.073E-4	295.1	968.1	573.6
53600	16337.3	0.7519	216.65	−56.50	0.0963	9755	203.7	0.1280	0.1569	3.043E-4	295.1	968.1	573.6
53800	16398.2	0.7519	216.65	−56.50	0.0953	9661	201.8	0.1268	0.1554	3.014E-4	295.1	968.1	573.6
<b>54000</b>	<b>16459.2</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.0944</b>	<b>9569</b>	<b>199.8</b>	<b>0.1256</b>	<b>0.1539</b>	<b>2.985E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
54200	16520.2	0.7519	216.65	−56.50	0.0935	9477	197.9	0.1244	0.1524	2.957E-4	295.1	968.1	573.6
54400	16581.1	0.7519	216.65	−56.50	0.0926	9387	196.0	0.1232	0.1509	2.929E-4	295.1	968.1	573.6
54600	16642.1	0.7519	216.65	−56.50	0.0918	9297	194.2	0.1220	0.1495	2.901E-4	295.1	968.1	573.6
54800	16703.0	0.7519	216.65	−56.50	0.0909	9208	192.3	0.1209	0.1481	2.873E-4	295.1	968.1	573.6
<b>55000</b>	<b>16764.0</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.0900</b>	<b>9120</b>	<b>190.5</b>	<b>0.1197</b>	<b>0.1466</b>	<b>2.845E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
55200	16825.0	0.7519	216.65	−56.50	0.0891	9033	188.6	0.1186	0.1452	2.818E-4	295.1	968.1	573.6
55400	16885.9	0.7519	216.65	−56.50	0.0883	8946	186.8	0.1174	0.1439	2.791E-4	295.1	968.1	573.6
55600	16946.9	0.7519	216.65	−56.50	0.0874	8861	185.1	0.1163	0.1425	2.764E-4	295.1	968.1	573.6
55800	17007.8	0.7519	216.65	−56.50	0.0866	8776	183.3	0.1152	0.1411	2.738E-4	295.1	968.1	573.6
<b>56000</b>	<b>17068.8</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.0858</b>	<b>8692</b>	<b>181.5</b>	<b>0.1141</b>	<b>0.1398</b>	<b>2.712E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
56200	17129.8	0.7519	216.65	−56.50	0.0850	8609	179.8	0.1130	0.1384	2.686E-4	295.1	968.1	573.6
56400	17190.7	0.7519	216.65	−56.50	0.0841	8526	178.1	0.1119	0.1371	2.660E-4	295.1	968.1	573.6
56600	17251.7	0.7519	216.65	−56.50	0.0833	8445	176.4	0.1108	0.1358	2.635E-4	295.1	968.1	573.6
56800	17312.6	0.7519	216.65	−56.50	0.0825	8364	174.7	0.1098	0.1345	2.610E-4	295.1	968.1	573.6
<b>57000</b>	<b>17373.6</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.0818</b>	<b>8284</b>	<b>173.0</b>	<b>0.1087</b>	<b>0.1332</b>	<b>2.585E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
57200	17434.6	0.7519	216.65	−56.50	0.0810	8205	171.4	0.1077	0.1319	2.560E-4	295.1	968.1	573.6
57400	17495.5	0.7519	216.65	−56.50	0.0802	8126	169.7	0.1067	0.1307	2.535E-4	295.1	968.1	573.6
57600	17556.5	0.7519	216.65	−56.50	0.0794	8048	168.1	0.1056	0.1294	2.511E-4	295.1	968.1	573.6
57800	17617.4	0.7519	216.65	−56.50	0.0787	7971	166.5	0.1046	0.1282	2.487E-4	295.1	968.1	573.6
<b>58000</b>	<b>17678.4</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.0779</b>	<b>7895</b>	<b>164.9</b>	<b>0.1036</b>	<b>0.1270</b>	<b>2.463E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
58200	17739.4	0.7519	216.65	−56.50	0.0772	7820	163.3	0.1026	0.1257	2.440E-4	295.1	968.1	573.6
58400	17800.3	0.7519	216.65	−56.50	0.0764	7745	161.8	0.1017	0.1245	2.416E-4	295.1	968.1	573.6
58600	17861.3	0.7519	216.65	−56.50	0.0757	7671	160.2	0.1007	0.1233	2.393E-4	295.1	968.1	573.6
58800	17922.2	0.7519	216.65	−56.50	0.0750	7597	158.7	0.0997	0.1222	2.370E-4	295.1	968.1	573.6
<b>59000</b>	<b>17983.2</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.0743</b>	<b>7525</b>	<b>157.2</b>	<b>0.0988</b>	<b>0.1210</b>	<b>2.348E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>
59200	18044.2	0.7519	216.65	−56.50	0.0736	7453	155.7	0.0978	0.1198	2.325E-4	295.1	968.1	573.6
59400	18105.1	0.7519	216.65	−56.50	0.0728	7381	154.2	0.0969	0.1187	2.303E-4	295.1	968.1	573.6
59600	18166.1	0.7519	216.65	−56.50	0.0722	7311	152.7	0.0960	0.1176	2.281E-4	295.1	968.1	573.6
59800	18227.0	0.7519	216.65	−56.50	0.0715	7241	151.2	0.0950	0.1164	2.259E-4	295.1	968.1	573.6
<b>60000</b>	<b>18288.0</b>	<b>0.7519</b>	<b>216.65</b>	<b>−56.50</b>	<b>0.0708</b>	<b>7172</b>	<b>149.8</b>	<b>0.0941</b>	<b>0.1153</b>	<b>2.238E-4</b>	<b>295.1</b>	<b>968.1</b>	<b>573.6</b>