REPORT No. 538

ALTITUDE-PRESSURE TABLES BASED ON THE UNITED STATES STANDARD ATMOSPHERE

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SUMMARY

The altitude-pressure tables of the United States standard atmosphere given in Technical Report No. 246 (reference 1) are reprinted since that report is out of print. Advantage is taken to make certain revisions in the text and particularly to extend the altitude range of the tables from 50,000 to 80,000 feet. These tables include: (I) Altitude in feet at pressure intervals of 0.1 millimeter of mercury in the range 20 to 200 millimeters of mercury and at intervals of 0.2 millimeter of mercury in the range 200 to 790 millimeters of mercury; (II) altitudes in feet at pressure intervals of 0.01 inch of mercury in the range 0.8 inch to 31.09 inches of mercury; and (III) pressures in both millimeters and inches of mercury and air temperatures for every 500-foot interval in the altitude range —1,000 to 50,000 feet and for every 1,000-foot interval up to 80,000 feet. The mean temperature of the air column is given for each of the altitudes in table III up to 50,000 feet.

The work was carried out at the National Bureau of Standards, in part with the cooperation and financial assistance of the National Advisory Committee for Aeronautics.

INTRODUCTION

A standard atmosphere is essential in aeronautics as a standard of reference in evaluating the performance of aircraft and in calibrating altimeters. The standard atmosphere now in general use in the United States was officially adopted in 1925 by a group of Government organizations interested in aeronautics. For a more complete discussion of the details of establishing this standard atmosphere see Technical Reports Nos. 147, 218, and 246 (references 1, 2, and 3).

The tables especially convenient for the use of the standard atmosphere in calibrating altimeters are given in Technical Report No. 246 (reference 1), but unfortunately that report is out of print. To make these essential tables available a reprint in some form is believed advisable. Advantage is taken to make certain desirable revisions and particularly to extend the altitude range of the tables from 50,000 to 80,000 feet.

STANDARD ATMOSPHERE

A standard atmosphere is usually defined by the altitude-temperature-pressure relation of the La Place barometric formula in which the temperature term is replaced by an assumed value of temperature in terms of altitude or pressure. In the United States standard atmosphere, a simple altitude-temperature relation has been assumed which approximates the yearly average of the observed altitude-temperature relation at latitude 40° in this country. This relation is a slight modification of that proposed by Toussaint in 1919 (reference 4). The standard atmosphere is defined completely in National Advisory Committee for Aeronautics Technical Report No. 218, "Standard Atmosphere—Tables and Data", by Walter S. Diehl (reference 3). The important formulas in this last report are repeated here for reference purposes, together with expressions to be used in computing actual altitudes from pressure and temperature observations. Absolute temperatures are equal to centigrade temperatures plus 273.

Symbols relating to the standard atmosphere:

- Z, Standard altitude above sea level.
- Z_{55}, Altitude at the lower limit of the isothermal layer.
- T, Absolute temperature of the air at altitude Z.
- T_0, Standard sea-level temperature in degrees absolute.
- T_m, Mean temperature of the air column below altitude Z in degrees absolute.
- T_{m55}, Mean temperature of the air column below altitude Z_{55} in degrees absolute.
- P, Pressure of the air at altitude Z.
- P_0, Standard sea-level pressure.

Symbols relating to actual observations:

- H, Actual altitude.
- T_{ma}, Mean temperature, computed from observations, in degrees absolute.
- P, Pressure of the air at altitude H.
- P_0, Pressure of the air at the level at which $H=0$, as at the ground level.
- T_n, Mean temperature of equal small intervals of log P from P_0 to P.
- n, Number of equal intervals of log P from P_0 to P.

Formulas relating to the standard atmosphere:

(*a*) Up to the isothermal layer,

$$T=T_0-aZ \tag{1}$$

$$T_m=\frac{aZ}{\log_e\frac{T_0}{T_0-aZ}} \tag{2}$$

$T_0=288°$ absolute

$a=0.0065000$ for Z in meters

$=0.0019812$ for Z in feet.

(*b*) At the lower limit of the isothermal layer,

$$T=-55°\text{ C.}=218°\text{ absolute}, \tag{3}$$

$P_{55}=175.898$ mm of mercury,

$Z_{55}=35{,}332$ ft.$=10{,}769$ meters,

$T_{m55}=251.378°$ absolute.

(*c*) In the isothermal layer,

$$T=-55°\text{ C.}=218°\text{ absolute}. \tag{4}$$

$$T_m=\frac{Z}{\frac{Z_{55}}{T_{m55}}+\frac{Z-Z_{55}}{218}} \tag{5}$$

(*d*) For all altitudes in the standard atmosphere

$$Z=K\frac{T_m}{T_0}\log_{10}\frac{P_0}{P} \tag{6}$$

(*e*) An alternative expression for altitudes in the isothermal layer,

$$Z=Z_{55}+K\frac{218}{T_0}\log_{10}\frac{P_{55}}{P} \tag{7}$$

$$=35332+48211.1\log_{10}\frac{175.898}{P} \tag{8}$$

where P is in mm of mercury and Z is in feet.

Formulas for computing true or actual altitudes:

$$H=K\frac{T_{ma}}{288}\log\frac{P_0}{P} \tag{9}$$

$$H=221.152\ T_{ma}\log\frac{P_0}{P}\text{ feet} \tag{10}$$

$$H=67.4073\ T_{ma}\log\frac{P_0}{P}\text{ meters} \tag{11}$$

or alternately,

$$H=\frac{T_{ma}-T_m}{T_m}Z+Z \tag{12}$$

$$T_{ma}=\frac{\int_P^{P_0}Td\log P}{\log\frac{P_0}{P}}=\frac{\Sigma T_n}{n} \tag{13}$$

Constants:

For formulas (6), (7), and (9)

$K^*=19{,}413.3$ for Z in meters,

$=63{,}691.8$ for Z in feet.

For formula (6),

$P_0=760$ mm of Hg$=29.921$ in. Hg,

P is in the same unit of pressure as P_0.

* The values of K adopted for the altimeter calibrations standard differ in the last place from the values given in Technical Report No. 218 (reference 3), but the differences are small enough to be inconsequential.

It is to be noted that expression (6) for altitude in the standard atmosphere and (9) for actual altitude differ in that the mean temperature term and the air pressure P_0 have fixed values in the first case and are based upon, or are observed values in the second case. Formula (6) does not readily lend itself to computing differences in altitude in the standard atmosphere in the cases where P_0 differs from the standard sea-level pressure, but this computation is unnecessary when tables such as those given in this report are available.

DESCRIPTION OF THE TABLES

Table I.—Altitudes are given at pressure intervals of 0.1 millimeter of mercury in the range 20 to 200 millimeters of mercury and at intervals of 0.2 millimeter of mercury in the range 200 to 790 millimeters of mercury. The values given in the table are accurate within 1 foot at the lower altitudes and within 2 feet at the higher altitudes.

Table II.—Altitudes are given at pressure intervals of 0.01 inch of mercury in the range 0.8 inch to 31.09 inches of mercury. The accuracy of this table is the same as that of table I.

Table III.—The pressures in inches of mercury and millimeters of mercury and also the air temperature are given for every 500-foot interval in the range $-1{,}000$ to 50,000 feet and for every 1,000-foot interval up to 80,000 feet. The mean temperature of the air column below the altitude is given for each of these altitudes up to 50,000 feet. The values of the pressures are rounded off from computations extending to six significant figures in each case, and for this reason it will be found that the pressures in inches and in millimeters do not always exactly correspond. The temperatures and mean temperatures are rounded off from values extending to six significant figures.

COMPUTATION OF ALTITUDE FROM PRESSURE AND TEMPERATURE OBSERVATIONS

True or actual altitude above the ground level is not given by the altimeter calibrated to the standard atmosphere even if all instrumental corrections have been applied and the altimeter has been adjusted so as to read zero at the ground level. The error remaining is due to the fact that the actual mean temperature of the air column extending from the ground to the level of the aircraft differs in general from the mean temperature assumed for this altitude in the standard atmosphere. In computing altitudes accurately several equivalent methods may be used; one, in which a correction is evaluated and applied to the altitude obtained from the altimeter reading as indicated in formula (12) and another which is preferable, in which the computation is made directly, using formula (9). In either case it is seen that the actual mean tempera-

ture of the air column must be evaluated. Carrying out the necessary computations in flight is usually an impractical procedure, so that for flight use approximate methods have been developed. In these methods the altimeter indication, corrected for instrumental errors, and the observed free-air temperature are used to enter abbreviated tables, or preferably a computer, in order to obtain a value more nearly approximating the true altitude. The discussion here will be restricted to the more accurate method, based on the use of formula (9).

To obtain the actual mean temperature of the air column, observations of the temperature of the free air and the corresponding air pressure P must be available at a number of levels between the ground and the upper level. The air temperatures should be plotted against corresponding values of log P or a quantity proportional to log P. Altitude in an isothermal atmosphere, such as given in tables in the Smithsonian Meteorological Tables (reference 5), or in B. S. Aeronautical Instrument Circular No. 3 (reference 6) is given by the expression $K \log \frac{P_0}{P}$ which is proportional to log P, and may in some cases be convenient to use. The curve thus obtained is subdivided into equal divisions of log P or the quantity proportional to it. The number of divisions is determined largely by the number of observations and the accuracy of the data. The arithmetic mean of the air temperatures at the middle of each log P division, formula (13), gives the actual mean temperature.

Substituting the mean temperature (in degrees centigrade absolute) so obtained, together with the upper and lower level air pressures, into equation (9), or its equivalents (10) or (11), enables the actual altitude above the ground level to be computed. The altitude above sea level is the altitude above the ground plus the elevation of the ground above sea level.

It should be noted that the air pressure at the ground level is required at a point beneath the airplane at the time at which the air pressure is observed in the aircraft. In general, this value can be obtained only by interpolation from observations of atmospheric pressure at fixed stations. The interpolation will have to be made to secure the value at the same time and at the proper point since the air pressure varies with time and place, and a reduction will also have to be made to the proper elevation, since the observed values will be ordinarily for points at elevations differing with each other and from that at the ground level below the aircraft. The procedure in making the interpolations is obvious. The process of the reduction to the proper elevation is, in the final analysis, the same as computing the altitude accurately, using formula (9). In practice, the situation is usually such that no sensible error is introduced if the reduction is made by using the altitude-pressure tables of the standard atmosphere thus neglecting the effect of the difference in the actual and standard mean temperature.

EXAMPLE OF THE COMPUTATION OF ACTUAL ALTITUDE

DATA

Air pressure at the level of the aircraft: 11.18 inches of mercury.

Air pressure at the ground level: 29.24 inches of mercury.

Elevation of ground above sea level: 800 feet.

Temperature observations (from a flight log in which an altimeter and an air thermometer were read) are given in the table below together with the air pressure, logarithm of the air pressure, and the difference between the log air pressures at 0 and at the other altitudes, designated Δ log P.

Corrected altimeter reading, feet	Air pressure, inches of mercury	Log air pressure, log P	Δ log P	Free air temperature °C.
0	29.24	1.4660	0	28
1,000	28.19	1.4501	0.0159	23
2,000	27.18	1.4342	.0318	20
3,000	26.19	1.4181	.0479	18
4,000	25.23	1.4019	.0641	15
5,000	24.31	1.3858	.0802	12
6,000	23.40	1.3692	.0968	11
7,000	22.53	1.3528	.1132	11
8,000	21.69	1.3363	.1297	11
9,000	20.86	1.3193	.1467	9
10,000	20.07	1.3026	.1634	8
11,000	19.30	1.2856	.1804	7
12,000	18.55	1.2683	.1977	5
13,000	17.83	1.2512	.2148	2.5
14,000	17.13	1.2338	.2322	2
15,000	16.45	1.2162	.2498	−1
16,000	15.80	1.1987	.2673	−1
17,000	15.16	1.1807	.2853	−4
18,000	14.55	1.1629	.3031	−6
21,000	12.83	1.1082	.3578	−11
22,000	12.29	1.0896	.3764	−13
23,000	11.77	1.0708	.3952	−14
24,000	11.28	1.0523	.4137	−17
24,200	11.18	1.0484	.4176	−18

Computations.—The temperatures have been plotted in figure 1 against Δ log P, which is a quantity proportional to log P convenient in making the computations. The graph is shown divided into equal intervals of Δ log P from 1 to 8, inclusive, and a remainder 9. The mean temperature of these intervals is obtained by inspection and is listed below:

Interval no.	Mean temperature of interval °C.
1	22.0
2	13.5
3	10.5
4	7.0
5	2.0
6	−3.0
7	−8.0
8	−13.0
9	−16.5

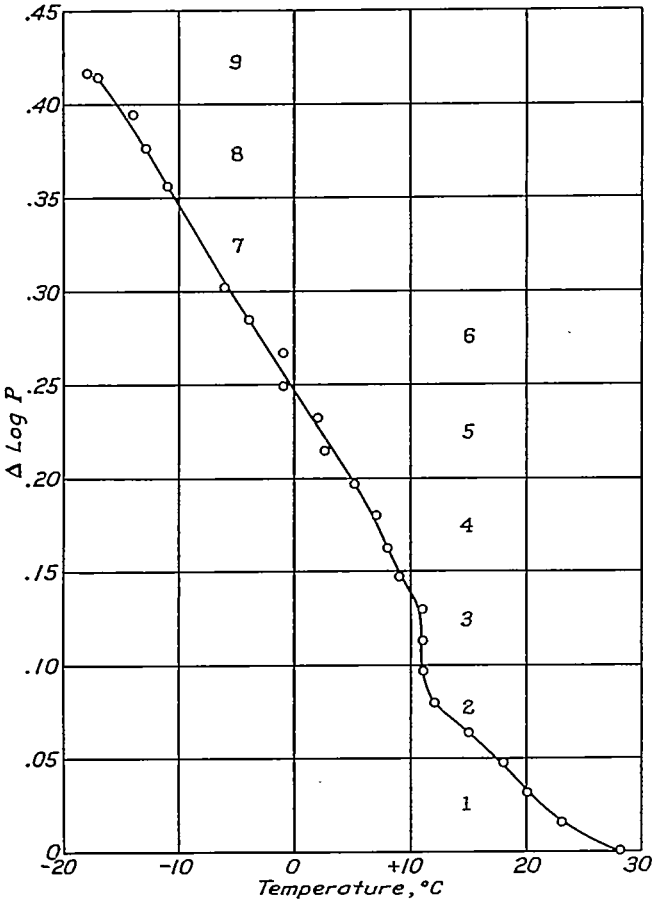

FIGURE 1.—Observed air temperatures plotted against a function of the logarithm of the air pressure, log P, here increments of log P.

Sum of mean temperatures, intervals 1 to 8= 31.0

Mean temperature of air column, interval 9, in °C.= $-.33\times16.5$

Mean temperature of air column, intervals 1 to 9, T_{ma}, in °C.=

$$31-\frac{0.33\times16.5}{8.33}= 3.1$$

Inserting the values of the constants, T_{ma}, P_0, and P into formula (10)

$$H=221.152\ (273+3.1)\log\frac{29.24}{11.18}=25,495$$

Actual altitude above surface,	25, 500
Elevation of ground above sea level,	800
Actual altitude above sea level, in feet,	26, 300

REFERENCES

1. Brombacher, W. G.: Tables for Calibrating Altimeters and Computing Altitudes Based on the Standard Atmosphere. T. R. No. 246, N. A. C. A., 1926.
2. Gregg, Willis Ray: Standard Atmosphere. T. R. No. 147, N. A. C. A., 1922.
3. Diehl, Walter S.: Standard Atmosphere—Tables and Data. T. R. No. 218, N. A. C. A., 1925.
4. Toussaint, A.: Study of the Performance of an Airplane Fitted with a Supercharged Engine. L'Aeronautique, October 1919.
5. Smithsonian Meteorological Tables, Fourth revised edition.
6. Bureau of Standards: Altitude-Pressure Tables. Aeronautic Instruments Circular No. 3. Third edition, 1920.

TABLE I

ALTITUDE-PRESSURE TABLE—FEET-MILLIMETERS

Altitude in feet, pressure in millimeters of mercury

P millimeters	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
20	80854	80749	80645	80542	80439	80337	80235	80134	80033	79933
21	79833	79734	79635	79536	79438	79340	79243	79146	79050	78954
22	78859	78764	78669	78575	78481	78388	78295	78203	78111	78019
23	77928	77837	77747	77657	77567	77478	77389	77300	77212	77124
24	77037	76950	76863	76777	76691	76606	76520	76435	76350	76266
25	76182	76098	76015	75932	75850	75768	75686	75605	75523	75442
26	75361	75280	75200	75121	75041	74962	74883	74805	74727	74649
27	74571	74494	74417	74340	74264	74187	74111	74035	73959	73884
28	73809	73734	73660	73586	73512	73439	73365	73292	73219	73146
29	73074	73002	72931	72859	72788	72717	72646	72576	72505	72435
30	72365	72296	72226	72157	72088	72019	71951	71883	71815	71747
31	71679	71612	71544	71477	71410	71343	71277	71212	71145	71079
32	71014	70948	70883	70818	70753	70689	70624	70560	70496	70433
33	70369	70305	70242	70179	70116	70054	69992	69929	69867	69805
34	69744	69683	69622	69561	69500	69439	69378	69318	69257	69197
35	137	69077	69018	68958	68899	68840	68781	68722	68664	68605
36	68547	68489	68431	68374	68316	68259	68202	68145	68088	68031
37	67974	67918	67861	67805	67749	67693	67637	67581	67526	67471
38	67416	67361	67306	67251	67196	67142	67088	67034	66980	66926
39	66872	66818	66764	66710	66657	66605	66552	66499	66447	66394
40	66341	66288	66236	66184	66132	66081	66029	65978	65926	65875
41	65824	65773	65722	65671	65621	65571	65520	65470	65420	65370
42	65320	65270	65220	65171	65121	65072	65023	64973	64924	64875
43	64827	64779	64730	64682	64634	64585	64537	489	64441	64393
44	64346	64298	64251	64203	64156	64109	64062	64015	63968	63921
45	63875	63828	63782	63736	63690	63644	63598	63552	506	460
46	63415	63369	63324	63279	63234	63189	63144	63099	63054	63010
47	62965	62926	62877	62832	62788	62744	62700	62656	62612	62568
48	524	481	437	62384	62351	62307	62264	62221	62178	62135
49	62092	62049	62007	61964	61922	61880	61838	61795	61753	61711
50	61669	61627	61585	544	502	461	420	61378	61337	61296
51	61255	61214	61173	61132	61091	61050	61010	60970	60929	60889
52	60848	60808	60768	60728	60688	60648	60608	568	528	489
53	449	409	60369	60330	60291	60252	60213	60174	60135	60097
54	60058	60019	59980	59941	59902	59864	59825	59788	59750	59712
55	59674	59636	598	560	522	485	447	409	371	59333
56	59296	59259	59222	59185	59148	59111	59074	59037	59000	58963
57	58926	58890	58853	58816	58780	58744	58707	58671	58634	598
58	562	526	490	454	419	383	58347	58312	58276	58240
59	58204	58168	58133	58098	58062	58027	57992	57957	57922	57887

TABLE I—Continued

ALTITUDE-PRESSURE TABLE—FEET-MILLIMETERS—Continued

Altitude in feet, pressure in millimeters of mercury—Continued

P millimeters	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
60	57852	57817	57782	57748	57713	57679	644	610	575	541
61	506	472	438	403	369	57335	57301	57267	57233	57199
62	57165	57131	57098	57064	57031	56997	56964	56930	56897	56863
63	56830	56797	56764	56731	56698	665	632	599	567	534
64	501	169	436	404	371	339	306	274	241	209
65	56176	56144	56112	56080	56048	56016	55984	55952	55920	55888
66	55856	55824	55793	55761	55730	55698	667	635	604	572
67	541	510	479	448	417	386	355	324	55293	55262
68	55231	55199	55169	55139	55108	55078	55047	55016	54986	54956
69	54926	54895	54865	54835	54805	54774	54744	54714	684	654
70	624	594	565	535	505	475	446	416	386	356
71	327	298	54268	54239	54210	54180	54151	54122	54093	54063
72	54034	54005	53976	53947	53918	53889	53861	53832	53803	53774
73	53746	53717	689	660	632	603	575	546	518	489
74	461	432	404	376	348	320	292	53264	53236	53208
75	53180	53152	53124	53096	53068	53040	53013	52985	52957	52929
76	52902	52874	52847	52819	52792	52765	52737	710	683	656
77	629	602	575	548	521	494	467	440	413	386
78	359	332	306	279	52252	52226	52199	52172	52146	52119
79	52092	52065	52039	52012	51986	51959	51933	51907	51880	51854
80	51828	51802	51776	51750	724	698	672	646	620	594
81	568	542	516	491	465	440	414	388	363	337
82	311	285	260	51235	51210	51184	51159	51134	51108	51083
83	51058	51033	51008	50983	50958	50933	50907	50882	50857	50832
84	50807	50782	50757	732	707	682	658	633	608	583
85	559	534	509	484	459	435	411	386	362	338
86	313	289	265	241	50217	50193	50169	50145	50121	50097
87	50073	50049	50025	50001	49977	49953	49929	49905	49881	49857
88	49833	49810	49786	49762	738	715	691	667	644	620
89	598	573	550	526	503	479	456	433	409	386
90	362	339	316	293	270	247	49223	49200	49177	49154
91	49131	49108	49085	49062	49039	49016	48994	48971	48948	48925
92	48902	48879	48857	48834	48812	48789	766	744	721	698
93	676	653	631	609	586	564	541	519	497	474
94	452	430	407	385	363	341	319	297	275	252
95	230	48208	48186	48164	48143	48121	48099	48077	48055	48033
96	48011	47989	47968	47946	47924	47902	47881	47859	47837	47816
97	47794	773	751	730	708	687	665	644	622	601
98	579	558	537	516	494	473	452	431	409	388
99	367	346	325	304	283	262	241	220	47199	47178
100	47156	47136	47115	47094	47073	47052	47032	47011	46990	46969
101	46948	46928	46907	46886	46866	46845	46824	46804	783	763
102	742	721	701	681	660	640	619	599	579	558
103	538	517	497	477	457	436	416	396	376	355
104	335	315	295	275	255	235	215	46195	46175	46155
105	46135	46115	46095	46075	46055	46036	46016	45996	45976	45956
106	45936	45917	45897	45877	45858	45838	45819	799	779	760
107	740	721	701	682	662	643	623	604	584	565
108	545	526	507	487	468	449	430	410	391	372
109	352	333	314	295	276	257	238	218	199	45180
110	45161	45142	45123	45104	45085	45066	45047	45028	45010	44991
111	44972	44953	44934	44915	44896	44878	44859	44840	44821	803
112	784	765	747	728	709	691	672	654	635	616
113	598	579	561	542	524	506	487	469	450	432
114	413	395	377	358	340	322	304	285	267	249
115	230	212	194	44176	44158	44140	44122	44103	44085	44067
116	44049	44031	44013	43995	43977	43959	43941	43923	43905	43887
117	43869	43851	43834	816	798	780	762	744	727	709
118	691	673	656	638	620	603	585	567	550	532
119	514	497	479	462	444	427	409	392	374	357
120	339	322	304	287	270	252	235	217	200	183
121	43165	43148	43131	43113	43096	43079	43063	43044	43027	43010
122	42993	42976	42958	42941	42924	42907	42890	42873	42856	42839
123	822	805	788	771	754	737	720	703	686	669
124	652	635	618	602	585	568	551	534	517	501
125	484	467	450	434	417	400	384	367	350	334
126	317	300	284	267	251	234	218	201	184	168
127	42151	42135	42118	42102	42086	42069	42053	42036	42020	42004
128	41987	41971	41954	41938	41922	41906	41889	41873	41857	41840
129	824	808	792	776	759	743	727	711	695	679
130	662	646	630	614	598	582	566	550	534	518
131	502	486	470	454	438	422	406	390	375	359
132	343	327	311	295	279	264	248	232	216	200
133	185	169	41153	41138	41122	41106	41091	41075	41059	41043
134	41028	41012	40997	40981	40966	40950	40934	40919	40903	40888
135	40872	40857	841	826	811	795	780	764	749	733
136	718	703	687	672	657	641	626	611	595	580
137	565	549	534	519	504	488	473	458	443	428
138	412	397	382	367	352	337	322	307	292	276
139	261	246	231	216	201	186	171	156	40141	40126
140	40111	40096	40081	40067	40052	40037	40022	40007	39992	39977
141	39962	39947	39933	39918	39903	39888	39873	39859	844	829
142	814	800	785	770	755	741	726	711	697	682
143	667	653	638	623	609	594	580	565	550	536
144	521	507	492	478	463	449	434	420	405	391
145	376	362	348	333	319	304	290	276	261	247
146	232	218	204	190	175	161	147	39132	39118	39104
147	39090	39075	39061	39047	39033	39018	39004	38990	38976	38962
148	38948	38933	38919	38905	38891	38877	38863	849	835	821
149	806	792	778	764	750	736	722	708	694	680

TABLE I—Continued

ALTITUDE-PRESSURE TABLE—FEET-MILLIMETERS—Continued

Altitude in feet, pressure in millimeters of mercury—Continued

P millimeters	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
150	666	652	639	625	611	597	583	569	555	541
151	527	514	500	486	472	458	444	431	417	403
152	389	376	362	348	334	321	307	293	280	266
153	252	238	225	211	198	184	170	157	143	38129
154	38116	38102	38089	38075	38062	38048	38035	38021	38007	37994
155	37980	37967	37953	37940	37927	37913	37900	37886	37873	859
156	846	832	819	806	792	779	765	752	739	725
157	712	699	685	672	659	646	632	619	606	592
158	579	566	553	539	526	513	500	487	473	460
159	447	434	421	408	394	381	368	355	342	329
160	316	303	290	276	263	250	237	224	211	198
161	185	172	159	146	133	37120	37107	37094	37081	37068
162	37056	37043	37030	37017	37004	36991	36978	36965	36952	36939
163	36927	36914	36901	36888	36875	863	850	837	824	811
164	799	786	773	760	748	735	722	710	697	684
165	671	659	646	633	621	608	596	583	570	558
166	545	532	520	507	495	482	469	457	444	432
167	419	407	394	382	369	357	344	332	319	307
168	294	282	269	257	245	232	220	207	195	183
169	170	158	145	133	36121	36108	36096	36084	36071	36059
170	36046	36034	36022	36010	35997	35985	35973	35961	35948	35936
171	35924	35911	35899	35887	875	862	850	838	826	814
172	801	789	777	765	753	741	728	716	704	692
173	680	668	656	644	632	620	607	595	583	571
174	559	547	535	523	511	499	487	475	463	451
175	439	427	415	403	391	379	367	356	344	332
176	320	308	296	284	272	260	248	237	225	213
177	201	189	177	165	154	142	130	118	35106	35095
178	35083	35071	35059	35048	35036	35024	35012	35000	34989	34977
179	34965	34954	34942	34930	34918	34907	34895	34883	872	860
180	848	837	825	813	802	790	778	767	755	743
181	732	720	708	697	685	674	662	650	639	627
182	616	604	592	581	569	558	546	535	523	511
183	500	488	477	465	454	442	431	419	408	396
184	385	373	362	351	339	328	316	305	293	282
185	270	259	248	236	225	213	202	190	179	168
186	156	145	134	122	34111	34099	34088	34077	34065	34054
187	34043	34031	34020	34009	33997	33986	33975	33964	33952	33941
188	33930	33918	33907	33896	885	873	862	851	840	828
189	817	806	795	783	772	761	750	739	727	716
190	705	694	683	671	660	649	638	627	616	604
191	593	582	571	560	549	538	527	516	504	493
192	482	471	460	449	438	427	416	405	394	383
193	372	361	350	339	328	317	306	294	283	272
194	261	250	239	228	218	207	196	185	174	163
195	152	141	130	119	33108	33097	33086	33075	33064	33054
196	33043	33032	33021	33010	32999	32988	32977	32966	32956	32945
197	32934	32923	32912	32901	890	880	869	858	847	836
198	825	815	804	793	782	771	761	750	739	728
199	717	707	696	685	674	664	653	642	631	621

P millimeters	0	0.2	0.4	0.6	0.8	P millimeters	0	0.2	0.4	0.6	0.8
200	610	588	567	546	524	240	630	611	593	574	556
201	503	482	460	439	418	241	537	519	500	482	464
202	396	375	354	332	311	242	445	427	408	390	372
203	290	269	248	226	205	243	353	335	317	298	280
204	184	163	142	121	32100	244	262	244	225	207	189
205	32079	32058	32037	32016	31995	245	171	153	134	116	098
206	31974	31953	31932	31911	890	246	28080	28062	28044	28026	28008
207	869	848	828	807	786	247	27989	27971	27953	27935	27917
208	765	744	724	703	682	248	899	881	863	845	827
209	661	641	620	599	579	249	809	791	773	755	737
210	558	538	517	496	476	250	719	702	684	666	648
211	455	435	414	394	373	251	630	612	594	576	559
212	353	332	312	292	271	252	541	523	505	487	470
213	251	230	210	190	169	253	452	434	416	399	381
214	149	129	109	31088	31068	254	363	346	328	310	293
215	31048	31028	31007	30987	30967	255	275	257	240	222	204
216	30947	30927	30907	886	866	256	187	169	152	134	111
217	846	826	806	786	766	257	099	27082	27064	27047	27029
218	746	726	706	686	666	258	27012	26994	26977	26959	26942
219	646	626	606	586	567	259	26924	907	890	872	855
220	547	527	507	487	467	260	838	820	803	786	768
221	447	428	408	388	368	261	751	734	716	699	682
222	349	329	309	290	270	262	665	647	630	613	596
223	250	231	211	191	172	263	579	561	544	527	510
224	152	133	113	30093	30074	264	493	476	458	441	424
225	30054	30035	30015	29996	29976	265	407	390	373	356	339
226	29957	29938	29918	899	879	266	322	305	288	271	254
227	860	841	821	802	783	267	237	220	203	186	169
228	763	744	725	706	687	268	152	135	118	102	085
229	667	648	629	610	590	269	26068	26051	26034	26017	26000
230	571	552	533	514	495	270	25984	25967	25950	25933	25916
231	476	457	438	419	400	271	900	883	866	849	833
232	380	361	342	323	304	272	816	799	782	766	749
233	285	267	248	229	210	273	732	716	699	682	666
234	191	171	153	134	115	274	649	632	616	599	583
235	096	29077	29059	29040	29021	275	566	550	533	516	500
236	29002	28983	28965	28946	28927	276	483	467	450	434	417
237	28909	890	871	853	834	277	401	384	368	351	335
238	815	797	778	760	741	278	318	302	286	269	253
239	722	704	685	667	648	279	236	220	204	187	171

TABLE I—Continued

ALTITUDE-PRESSURE TABLE—FEET-MILLIMETERS—Continued

Altitude in feet, pressure in millimeters of mercury—Continued

P millimeters	0	0.2	0.4	0.6	0.8
280	154	138	122	106	089
281	25073	25057	25040	25024	25008
282	24992	24975	24959	24943	24927
283	911	894	878	862	846
284	830	813	797	781	765
285	749	733	717	701	685
286	669	653	637	620	604
287	588	572	556	540	524
288	509	493	477	461	445
289	429	413	397	381	365
290	349	334	318	302	286
291	270	254	238	223	207
292	191	175	159	144	128
293	112	096	081	24065	24049
294	24033	24018	24002	23986	23971
295	23955	23939	23924	908	892
296	877	861	845	830	814
297	799	783	768	752	737
298	721	706	690	674	659
299	643	628	612	597	581
300	566	551	535	520	504
301	489	473	458	443	427
302	412	397	381	366	351
303	335	320	305	289	274
304	259	243	228	213	198
305	182	167	152	137	122
306	106	091	076	23061	23046
307	23031	23015	23000	22985	22970
308	22955	22940	22925	909	894
309	879	864	849	834	819
310	804	789	774	759	744
311	729	714	699	684	669
312	654	639	624	609	594
313	579	564	549	534	519
314	504	490	475	460	445
315	430	415	400	385	371
316	356	341	326	311	296
317	282	267	252	237	223
318	208	193	178	164	149
319	134	120	105	090	076
320	22061	22046	22032	22017	22002
321	21988	21973	21959	21944	21929
322	915	900	886	871	856
323	842	827	813	798	784
324	769	755	740	726	711
325	697	682	668	653	639
326	625	610	596	581	567
327	552	538	524	509	495
328	481	466	452	437	423
329	409	394	380	366	351
330	337	323	308	294	280
331	266	251	237	223	209
332	194	180	166	152	138
333	123	109	095	081	21067
334	21052	21038	21024	21010	20996
335	20982	20968	20953	20939	925
336	911	897	883	869	855
337	841	827	813	799	784
338	770	756	742	728	714
339	700	686	672	658	644
340	630	616	603	589	575
341	561	547	533	519	505
342	491	477	463	450	436
343	422	408	394	380	366
344	352	339	325	311	297
345	283	270	256	242	228
346	215	201	187	173	160
347	146	132	118	105	091
348	077	20064	20050	20036	20023
349	20009	19995	19982	19968	19954
350	941	927	913	900	886
351	872	859	845	832	818
352	804	791	777	764	750
353	737	723	701	696	683
354	669	656	642	629	615
355	602	588	575	561	548
356	534	521	507	494	481
357	467	454	440	427	413
358	400	387	373	360	346
359	333	320	306	293	280
360	266	253	240	226	213
361	200	186	173	160	147
362	133	120	107	094	080
363	067	19054	19041	19027	19014
364	19001	18988	18974	18961	18948
365	18935	922	909	895	882
366	869	856	843	830	817
367	803	790	777	764	751
368	738	725	712	699	685
369	672	659	646	633	620

P millimeters	0	0.2	0.4	0.6	0.8
370	607	594	581	568	555
371	542	529	516	503	490
372	477	464	451	438	425
373	412	399	386	373	361
374	348	335	322	309	296
375	283	270	257	244	232
376	219	206	193	180	167
377	154	141	129	116	103
378	090	077	065	18052	18039
379	18026	18013	18001	17988	17975
380	17962	17950	17937	924	911
381	899	886	873	860	848
382	835	822	810	797	784
383	772	759	746	734	721
384	708	696	683	670	658
385	645	632	620	607	595
386	582	569	557	544	532
387	519	507	494	481	469
388	456	444	431	419	406
389	394	381	369	356	344
390	331	319	306	294	281
391	269	256	244	231	219
392	206	194	182	169	157
393	144	132	119	107	095
394	082	070	17057	17045	17033
395	17020	17008	16996	16983	16971
396	16958	16946	934	921	909
397	897	885	872	860	848
398	835	823	811	798	786
399	774	762	749	737	725
400	16713	16700	16688	16676	16664
401	652	639	627	615	603
402	591	578	566	554	542
403	530	518	505	493	481
404	469	457	445	432	420
405	408	396	384	372	360
406	348	336	324	312	299
407	287	275	263	251	239
408	227	215	203	191	179
409	167	155	143	131	119
410	107	095	083	071	16059
411	16047	16035	16023	16011	15999
412	15987	15975	15963	15951	940
413	928	916	904	892	880
414	868	856	844	832	820
415	809	797	785	773	761
416	749	737	725	714	702
417	690	678	666	654	643
418	631	619	607	595	584
419	572	560	548	536	525
420	513	501	489	478	466
421	454	442	431	419	407
422	395	384	372	360	348
423	337	325	313	302	290
424	278	267	255	243	232
425	220	208	197	185	174
426	162	150	139	127	115
427	104	092	081	069	057
428	15046	15034	15023	15011	15000
429	14988	14976	14965	14953	14942
430	930	919	907	896	884
431	872	861	849	838	826
432	815	803	792	780	769
433	757	746	734	723	711
434	700	689	679	666	654
435	643	631	620	609	597
436	586	574	563	552	540
437	529	517	506	495	483
438	472	460	449	438	426
439	415	404	392	381	370
440	358	347	336	324	313
441	302	290	279	268	256
442	245	234	223	211	200
443	189	178	166	155	144
444	132	121	110	099	088
445	076	065	14054	14043	14031
446	14020	14009	13998	13987	13975
447	13964	13953	942	931	920
448	908	897	886	875	864
449	853	841	830	819	808
450	797	786	775	763	752
451	741	730	719	708	697
452	686	675	664	653	641
453	630	619	608	597	586
454	575	564	553	542	531
455	520	509	498	487	476
456	465	454	443	432	421
457	410	399	388	377	366
458	355	344	333	322	311
459	300	289	278	267	256

TABLE I—Continued

ALTITUDE-PRESSURE TABLE—FEET-MILLIMETERS—Continued

Altitude in feet, pressure in millimeters of mercury—Continued

P millimeters	0	0.2	0.4	0.6	0.8	*P* millimeters	0	0.2	0.4	0.6	0.8
460	245	234	224	213	202	550	8676	8666	8657	8647	8638
461	191	180	169	158	147	551	8629	8619	8610	8600	8591
462	136	125	115	104	093	552	8581	8572	8563	8553	8544
463	082	071	060	13049	13039	553	8534	8525	8516	8506	8497
464	13028	13017	13006	12995	12984	554	8487	8478	8468	8459	8450
465	12974	12963	12952	941	930	555	8440	8431	8422	8412	8403
466	919	908	898	887	876	556	8393	8384	8375	8365	8356
467	865	854	844	833	822	557	8347	8337	8328	8318	8309
468	811	801	790	779	768	558	8300	8290	8281	8272	8262
469	758	747	736	725	714	559	8253	8244	8234	8225	8216
470	704	693	682	671	661	560	8206	8197	8188	8178	8169
471	650	639	629	618	607	561	8160	8150	8141	8132	8123
472	596	586	575	564	554	562	8113	8104	8095	8085	8076
473	543	532	522	511	500	563	8067	8058	8048	8039	8030
474	490	479	468	458	447	564	8020	8011	8002	7993	7983
475	436	426	415	404	394	565	7974	7965	7956	7946	7937
476	383	372	362	351	341	566	7928	7919	7910	7900	7891
477	330	319	309	298	288	567	7882	7873	7863	7854	7845
478	277	266	256	245	235	568	7836	7826	7817	7808	7799
479	224	213	203	192	182	569	7790	7780	7771	7762	7753
480	171	161	150	140	129	570	7744	7734	7725	7716	7707
481	118	108	097	087	076	571	7698	7689	7679	7670	7661
482	066	055	12045	12034	12024	572	7652	7643	7634	7624	7615
483	12013	12003	11992	11982	11971	573	7606	7597	7588	7579	7570
484	11961	11950	940	929	919	574	7560	7551	7542	7533	7524
485	908	898	887	877	866	575	7515	7506	7497	7487	7478
486	856	845	835	825	814	576	7469	7460	7451	7442	7433
487	804	793	783	772	762	577	7424	7415	7405	7396	7387
488	752	741	731	720	710	578	7378	7369	7360	7351	7342
489	700	689	679	668	658	579	7333	7324	7315	7306	7296
490	648	637	627	616	606	580	7287	7278	7269	7260	7251
491	596	585	575	565	554	581	7242	7233	7224	7215	7206
492	544	534	523	513	503	582	7197	7188	7179	7170	7161
493	492	482	472	461	451	583	7152	7143	7134	7125	7116
494	441	430	420	410	399	584	7107	7098	7089	7080	7071
495	389	379	368	358	348	585	7062	7053	7044	7035	7026
496	337	327	317	307	296	586	7017	7008	6999	6990	6981
497	286	276	266	255	245	587	6972	6963	6954	6945	6936
498	235	225	214	204	194	588	6927	6918	6909	6900	6891
499	184	173	163	153	143	589	6882	6873	6864	6855	6847
500	132	122	112	102	092	590	6838	6829	6820	6811	6802
501	081	071	061	051	11041	591	6793	6784	6775	6766	6757
502	11030	11020	11010	11000	10990	592	6748	6739	6730	6722	6713
503	10980	10969	10959	10949	939	593	6704	6695	6686	6677	6668
504	929	919	909	898	888	594	6659	6650	6642	6633	6624
505	878	868	858	848	838	595	6615	6606	6597	6588	6579
506	827	817	807	797	787	596	6571	6562	6553	6544	6535
507	777	767	757	747	736	597	6526	6517	6509	6500	6491
508	726	716	706	696	687	598	6482	6473	6464	6456	6447
509	676	666	656	646	636	599	6438	6429	6420	6411	6403
510	626	616	606	596	586	600	6394	6385	6376	6367	6359
511	576	565	555	545	535	601	6350	6341	6332	6323	6315
512	525	515	505	495	485	602	6306	6297	6288	6279	6271
513	475	465	455	445	435	603	6262	6253	6244	6236	6227
514	425	415	405	395	385	604	6218	6209	6200	6192	6183
515	375	365	355	345	336	605	6174	6165	6157	6148	6139
516	326	316	306	296	286	606	6130	6122	6113	6104	6096
517	276	266	256	246	236	607	6087	6078	6069	6061	6052
518	226	216	206	196	186	608	6043	6034	6026	6017	6008
519	176	167	157	147	137	609	6000	5991	5982	5974	5965
520	127	117	107	097	087	610	5956	5947	5939	5930	5921
521	078	068	058	10048	10038	611	5913	5904	5895	5887	5878
522	10028	10018	10008	9999	9989	612	5869	5861	5852	5843	5835
523	9979	9969	9959	9949	9940	613	5826	5817	5809	5800	5791
524	9930	9920	9910	9900	9890	614	5783	5774	5765	5757	5748
525	9881	9871	9861	9851	9841	615	5739	5731	5722	5713	5705
526	9831	9822	9812	9802	9792	616	5696	5687	5679	5670	5662
527	9782	9773	9763	9753	9743	617	5653	5644	5636	5627	5619
528	9734	9724	9714	9704	9695	618	5610	5601	5593	5584	5576
529	9685	9675	9665	9656	9646	619	5567	5558	5550	5541	5533
530	9636	9626	9617	9607	9597	620	5524	5515	5507	5498	5490
531	9587	9578	9568	9558	9548	621	5481	5473	5464	5455	5447
532	9539	9529	9519	9510	9500	622	5438	5430	5421	5413	5404
533	9490	9480	9471	9461	9451	623	5396	5387	5378	5370	5361
534	9442	9432	9422	9413	9403	624	5353	5344	5336	5327	5319
535	9393	9384	9374	9364	9355	625	5310	5302	5293	5285	5276
536	9345	9335	9326	9316	9306	626	5267	5259	5250	5242	5233
537	9297	9287	9277	9268	9258	627	5225	5216	5208	5199	5191
538	9248	9239	9229	9220	9210	628	5182	5174	5165	5157	5148
539	9200	9191	9181	9172	9162	629	5140	5132	5123	5115	5106
540	9152	9143	9133	9124	9114	630	5098	5089	5081	5072	5064
541	9104	9095	9085	9076	9066	631	5056	5047	5038	5030	5021
542	9056	9047	9037	9028	9018	632	5013	5005	4996	4988	4979
543	9009	8999	8990	8980	8970	633	4971	4962	4954	4945	4937
544	8961	8951	8942	8932	8923	634	4929	4920	4912	4903	4895
545	8913	8904	8894	8885	8875	635	4886	4878	4870	4861	4853
546	8866	8856	8847	8837	8828	636	4844	4836	4828	4819	4811
547	8818	8809	8799	8790	8780	637	4802	4794	4786	4777	4769
548	8771	8761	8752	8742	8733	638	4760	4752	4744	4735	4727
549	8723	8714	8704	8695	8685	639	4718	4710	4702	4693	4685

TABLE I—Continued

ALTITUDE-PRESSURE TABLE—FEET-MILLIMETERS—Continued

Altitude in feet, pressure in millimeters of mercury—Continued

P millimeters	0	0.2	0.4	0.6	0.8
640	4677	4668	4660	4652	4643
641	4635	4626	4618	4610	4601
642	4593	4585	4576	4568	4560
643	4551	4543	4535	4526	4518
644	4510	4501	4493	4485	4476
645	4468	4460	4452	4443	4435
646	4427	4418	4410	4402	4393
647	4385	4377	4369	4360	4352
648	4344	4335	4327	4319	4311
649	4302	4294	4286	4278	4269
650	4261	4253	4244	4236	4228
651	4220	4211	4203	4195	4187
652	4178	4170	4162	4154	4146
653	4137	4129	4121	4113	4104
654	4096	4088	4080	4072	4063
655	4055	4047	4039	4030	4022
656	4014	4006	3998	3990	3981
657	3973	3965	3957	3949	3940
658	3932	3924	3916	3908	3899
659	3891	3883	3875	3867	3859
660	3850	3842	3834	3826	3818
661	3810	3802	3793	3785	3777
662	3769	3761	3753	3745	3736
663	3728	3720	3712	3704	3696
664	3688	3680	3671	3663	3655
665	3647	3639	3631	3623	3615
666	3607	3598	3590	3582	3574
667	3566	3558	3550	3542	3534
668	3526	3518	3509	3501	3493
669	3485	3477	3469	3461	3453
670	3445	3437	3429	3421	3413
671	3405	3397	3389	3381	3372
672	3364	3356	3348	3340	3332
673	3324	3316	3308	3300	3292
674	3284	3276	3268	3260	3252
675	3244	3236	3228	3220	3212
676	3204	3196	3188	3180	3172
677	3164	3156	3148	3140	3132
678	3124	3116	3108	3100	3092
679	3084	3076	3068	3060	3052
680	3044	3036	3028	3020	3012
681	3004	2996	2989	2981	2973
682	2965	2957	2949	2941	2933
683	2925	2917	2909	2901	2893
684	2885	2877	2869	2862	2854
685	2846	2838	2830	2822	2814
686	2806	2798	2790	2782	2775
687	2767	2759	2751	2743	2735
688	2727	2719	2711	2704	2696
689	2688	2680	2672	2664	2656
690	2648	2640	2633	2625	2617
691	2609	2601	2593	2585	2578
692	2570	2562	2554	2546	2538
693	2531	2523	2515	2507	2499
694	2491	2483	2476	2468	2460
695	2452	2444	2437	2429	2421
696	2413	2405	2397	2390	2382
697	2374	2366	2358	2351	2343
698	2335	2327	2319	2312	2304
699	2296	2288	2280	2273	2265
700	2257	2249	2242	2234	2226
701	2218	2210	2203	2195	2187
702	2179	2172	2164	2156	2148
703	2141	2133	2125	2117	2110
704	2102	2094	2086	2079	2071
705	2063	2055	2048	2040	2032
706	2024	2017	2009	2001	1994
707	1986	1978	1970	1963	1955
708	1947	1940	1932	1924	1916
709	1909	1901	1893	1886	1878
710	1870	1863	1855	1847	1840
711	1832	1824	1817	1809	1801
712	1793	1786	1778	1770	1763
713	1755	1747	1740	1732	1724
714	1717	1709	1702	1694	1686
715	1679	1671	1663	1656	1648

P millimeters	0	0.2	0.4	0.6	0.8
716	1640	1633	1625	1617	1610
717	1602	1595	1587	1579	1572
718	1564	1556	1549	1541	1534
719	1526	1518	1511	1503	1496
720	1488	1480	1473	1465	1458
721	1450	1442	1435	1427	1420
722	1412	1404	1397	1389	1382
723	1374	1366	1359	1351	1344
724	1336	1329	1321	1313	1306
725	1298	1291	1283	1276	1268
726	1261	1253	1245	1238	1230
727	1223	1215	1208	1200	1193
728	1185	1178	1170	1162	1155
729	1147	1140	1132	1125	1117
730	1110	1102	1095	1087	1080
731	1072	1065	1057	1050	1042
732	1035	1027	1020	1012	1005
733	997	990	982	975	967
734	960	952	945	937	930
735	922	915	907	900	892
736	885	877	870	863	855
737	848	840	833	825	818
738	810	803	795	788	780
739	773	766	758	751	743
740	736	728	721	714	706
741	699	691	684	676	669
742	662	654	647	639	632
743	624	617	610	602	595
744	587	580	573	565	558
745	550	543	536	528	521
746	513	506	499	491	484
747	476	469	462	454	447
748	440	432	425	417	410
749	403	395	388	381	373
750	366	359	351	344	336
751	329	322	314	307	300
752	292	285	278	270	263
753	256	248	241	234	226
754	219	212	204	197	190
755	182	175	168	161	153
756	146	139	131	124	117
757	109	102	95	87	80
758	73	66	58	51	44
759	36	29	22	15	7
760	0	−7	−15	−22	−29
761	−36	−44	−51	−58	−65
762	−73	−80	−87	−94	−102
763	−109	−116	−124	−131	−138
764	−145	−153	−160	−167	−174
765	−181	−189	−196	−203	−210
766	−218	−225	−232	−239	−247
767	−254	−261	−268	−275	−283
768	−290	−297	−304	−312	−319
769	−326	−333	−340	−348	−355
770	−362	−369	−376	−384	−391
771	−398	−405	−412	−420	−427
772	−434	−441	−448	−456	−463
773	−470	−477	−484	−491	−499
774	−506	−513	−520	−527	−534
775	−542	−549	−556	−563	−570
776	−577	−585	−592	−599	−606
777	−613	−620	−627	−635	−642
778	−649	−656	−663	−670	−677
779	−685	−692	−699	−706	−713
780	−720	−727	−735	−742	−749
781	−756	−763	−770	−777	−784
782	−791	−799	−806	−813	−820
783	−827	−834	−841	−848	−855
784	−863	−870	−877	−884	−891
785	−898	−905	−912	−919	−926
786	−933	−941	−948	−955	−962
787	−969	−976	−983	−990	−997
788	−1004	−1011	−1018	−1025	−1032
789	−1040	−1047	−1054	−1061	−1068
790	−1075				

TABLE II

ALTITUDE-PRESSURE TABLE—FEET-INCHES

Altitude in feet, pressure in inches of mercury

P inches	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.8	80,522	80,262	80,005	79,751	79,501	79,253	79,008	78,766	78,526	78,289
0.9	78,056	77,825	77,596	77,369	77,145	76,924	76,706	76,488	76,273	76,060
1.0	75,850	75,641	75,435	75,231	75,029	74,828	74,629	74,433	74,238	74,045
1.1	73,854	73,665	73,477	73,291	73,107	72,924	72,743	72,563	72,384	72,207
1.2	72,032	71,858	71,686	71,515	71,346	71,178	71,011	70,845	70,681	70,518
1.3	70,357	70,196	70,037	69,879	69,722	69,566	69,411	69,258	69,106	68,955
1.4	68,805	68,656	68,508	68,361	68,215	68,070	67,926	67,784	67,642	67,501
1.5	67,361	67,221	67,082	66,945	66,809	66,674	66,539	66,405	66,272	66,140
1.6	66,009	65,879	65,749	65,620	65,492	65,365	65,239	65,113	64,988	64,864
1.7	64,740	64,617	64,495	64,374	64,253	64,133	64,014	63,895	63,777	63,660
1.8	63,543	63,427	63,311	63,196	63,082	62,969	62,856	62,744	62,632	62,521
1.9	62,411	62,301	62,191	62,082	61,974	61,867	61,760	61,654	61,548	61,442
2.0	61,337	61,232	61,128	61,025	60,922	60,820	60,618	60,617	60,516	60,416
2.1	60,315	60,215	60,116	60,018	59,920	59,823	59,726	59,629	59,533	59,437
2.2	59,341	59,246	59,152	59,058	58,964	58,871	58,778	58,686	58,594	58,502
2.3	58,411	58,320	58,229	58,139	58,049	57,960	57,871	57,782	57,694	57,606
2.4	57,519	57,432	57,345	57,259	57,173	57,088	57,003	56,918	56,833	56,749
2.5	56,665	56,581	56,498	56,415	56,332	56,250	56,168	56,086	56,005	55,924
2.6	55,844	55,763	55,683	55,603	55,524	55,445	55,366	55,287	55,209	55,131
2.7	55,053	54,975	54,898	54,821	54,745	54,669	54,593	54,517	54,442	54,367
2.8	54,292	54,217	54,143	54,069	53,995	53,921	53,848	53,775	53,702	53,629
2.9	53,557	53,485	53,413	53,341	53,270	53,199	53,127	53,057	52,987	52,917
3.0	52,847	52,777	52,707	52,638	52,570	52,501	52,432	52,364	52,296	52,228
3.1	52,161	52,093	52,026	51,959	51,892	51,826	51,760	51,693	51,627	51,561
3.2	51,496	51,430	51,365	51,300	51,235	51,171	51,107	51,043	50,979	50,916
3.3	50,852	50,789	50,726	50,663	50,600	50,537	50,475	50,413	50,351	50,290
3.4	50,228	50,167	50,104	50,044	49,982	49,922	49,862	49,801	49,741	49,680
3.5	49,620	49,561	49,501	49,442	49,382	49,323	49,264	49,206	49,147	49,089
3.6	49,030	48,972	48,915	48,857	48,799	48,741	48,684	48,627	48,570	48,513
3.7	48,456	48,400	48,344	48,288	48,232	48,175	48,120	48,065	48,009	47,954
3.8	47,898	47,843	47,789	47,734	47,679	47,624	47,570	47,516	47,462	47,408
3.9	47,354	47,301	47,248	47,194	47,141	47,088	47,035	46,982	46,930	46,877
4.0	46,824	46,772	46,720	46,668	46,616	46,564	46,513	46,461	46,410	46,358
4.1	46,307	46,256	46,206	46,155	46,104	46,053	46,003	45,953	45,903	45,853
4.2	45,803	45,753	45,704	45,654	45,605	45,555	45,506	45,458	45,408	45,359
4.3	45,310	45,262	45,213	45,165	45,117	45,068	45,020	44,973	44,925	44,877
4.4	44,829	44,782	44,734	44,687	44,640	44,592	44,546	499	44,452	44,405
4.5	44,358	44,312	44,266	44,220	44,173	44,127	44,081	44,036	43,990	43,944
4.6	43,898	43,853	43,808	43,762	43,717	43,672	43,627	43,582	537	492
4.7	448	43,403	43,359	43,315	43,270	43,226	43,182	43,138	43,094	43,050
4.8	43,007	42,963	42,920	42,876	42,833	42,790	42,747	42,704	42,661	42,618
4.9	42,575	532	490	447	42,404	42,362	42,320	42,278	42,236	42,193
5.0	42,151	42,110	42,068	42,026	41,985	41,943	41,902	41,861	41,819	41,778
5.1	41,737	41,696	41,655	41,614	573	532	492	451	411	370
5.2	41,330	41,290	41,250	41,210	41,170	41,130	41,090	41,050	41,011	40,971
5.3	40,931	40,892	40,853	40,813	40,774	40,735	40,696	40,657	40,618	579
5.4	540	502	463	425	386	40,347	40,309	40,271	40,233	40,195
5.5	40,156	40,118	40,080	40,043	40,005	39,967	39,929	39,892	39,854	39,816
5.6	39,779	39,742	39,704	39,667	39,630	593	556	519	482	445
5.7	408	372	39,335	39,298	39,262	39,225	39,189	39,153	39,117	39,080
5.8	39,044	39,008	38,972	38,936	38,900	38,864	38,829	38,793	38,757	38,722
5.9	38,686	38,651	615	580	545	509	474	439	404	369
6.0	38,334	38,300	38,265	38,230	38,200	38,161	38,126	38,092	38,057	38,023
6.1	37,989	37,954	37,920	37,886	37,852	37,818	37,784	37,750	37,716	37,682
6.2	648	615	581	547	514	480	447	413	380	346
6.3	37,313	37,280	37,247	37,214	37,181	37,147	37,115	37,082	37,049	37,016
6.4	36,983	36,951	36,918	36,886	36,853	36,820	36,788	36,756	36,723	36,691
6.5	659	627	595	563	531	498	467	435	403	371
6.6	339	36,308	36,276	36,245	36,213	36,181	36,150	36,119	36,087	36,056
6.7	36,024	35,993	35,962	35,931	35,900	35,869	35,838	35,807	35,776	35,745
6.8	35,714	683	653	622	591	560	530	499	469	438
6.9	408	378	347	317	35,287	35,257	35,227	35,197	35,167	35,136
7.0	35,106	35,077	35,047	35,017	34,987	34,957	34,927	34,898	34,868	34,838
7.1	34,809	34,779	34,749	34,720	690	661	631	602	573	543
7.2	514	485	455	426	397	368	339	310	34,281	34,251
7.3	34,222	34,194	34,165	34,136	34,107	34,078	34,049	34,020	33,992	33,963
7.4	33,934	33,906	33,877	33,848	33,820	33,791	33,763	33,734	706	678
7.5	649	621	593	564	536	508	480	452	424	395
7.6	367	339	311	283	33,255	33,227	33,200	33,172	33,144	33,116
7.7	33,088	33,061	33,033	33,005	32,978	32,950	32,922	32,895	32,867	32,840
7.8	32,812	32,785	32,758	32,730	703	676	648	621	594	567
7.9	539	512	485	458	431	404	377	350	323	296
8.0	269	32,242	32,215	32,188	32,161	32,135	32,108	32,081	32,054	32,028
8.1	32,001	31,975	31,948	31,921	31,895	31,868	31,842	31,815	31,789	31,763
8.2	31,736	710	684	657	631	605	578	552	526	500
8.3	474	448	422	396	370	344	318	292	266	31,240
8.4	31,214	31,188	31,163	31,137	31,111	31,085	31,060	31,034	31,008	30,983
8.5	30,957	30,931	30,906	30,880	30,855	30,829	30,804	30,778	30,753	728
8.6	702	677	652	626	601	576	550	525	500	475
8.7	449	424	399	374	349	324	299	274	249	30,224
8.8	30,199	30,174	30,149	30,125	30,100	30,075	30,050	30,025	30,001	29,976
8.9	29,951	29,927	29,902	29,877	29,853	29,828	29,804	29,779	29,755	730
9.0	706	681	657	633	608	584	560	535	511	487
9.1	462	438	414	390	366	342	317	293	269	245
9.2	29,221	29,197	29,173	29,149	29,125	29,101	29,077	29,053	29,029	29,005
9.3	28,982	28,958	28,934	28,910	28,887	28,863	28,839	28,816	28,792	28,768
9.4	745	721	698	674	650	627	603	580	556	533
9.5	510	486	463	439	416	393	369	346	323	300
9.6	276	253	230	28,207	28,184	28,161	28,138	28,115	28,092	28,069
9.7	28,046	28,023	28,000	27,977	27,954	27,931	27,908	27,885	27,862	27,839
9.8	27,816	27,794	27,771	748	725	702	680	657	634	612
9.9	589	566	544	521	499	476	453	431	408	386

TABLE II—Continued

ALTITUDE-PRESSURE TABLE—FEET-INCHES—Continued

Altitude in feet, pressure in inches of mercury—Continued

P inches	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
10.0	363	341	318	296	274	251	229	27,206	27,184	27,162
10.1	27,140	117	095	073	050	028	006	26,984	26,962	26,940
10.2	26,917	895	873	851	829	807	785	763	741	719
10.3	697	676	654	632	610	588	566	544	523	501
10.4	479	457	436	27,414	27,392	27,371	27,349	327	306	284
10.5	262	27,241	27,219	26,198	26,176	26,155	26,133	26,112	26,090	26,069
10.6	26,048	26,026	26,005	25,984	25,962	25,941	25,919	25,898	25,877	25,856
10.7	25,834	25,813	25,792	771	749	728	707	686	665	644
10.8	622	601	580	559	538	517	496	475	454	433
10.9	412	391	370	350	329	308	287	266	245	224
11.0	25,204	25,183	25,162	25,141	25,121	25,100	25,079	25,059	25,038	25,017
11.1	24,996	24,976	24,955	24,935	24,914	24,894	24,873	24,852	24,832	24,811
11.2	791	770	750	730	709	689	668	648	628	607
11.3	587	567	546	526	506	486	465	445	425	405
11.4	384	364	344	324	304	284	263	243	223	203
11.5	24,183	24,163	24,143	24,123	24,103	24,083	24,063	24,043	24,023	24,003
11.6	23,983	23,963	23,944	23,924	23,904	23,884	23,864	23,844	23,824	23,805
11.7	785	765	745	726	706	686	666	647	627	607
11.8	588	568	549	529	509	490	470	451	431	412
11.9	392	373	353	334	314	295	275	256	237	217
12.0	198	23,178	23,159	23,140	23,121	23,101	23,082	23,063	23,043	23,024
12.1	23,006	22,986	22,966	22,947	22,928	22,909	22,890	22,870	22,851	22,832
12.2	22,813	794	775	756	737	718	698	679	660	641
12.3	622	603	584	565	547	528	509	490	471	452
12.4	433	414	395	377	358	339	320	301	282	264
12.5	245	226	207	189	22,170	22,151	22,133	22,114	22,095	22,077
12.6	22,058	22,040	22,021	22,002	21,984	21,965	21,947	21,928	21,910	21,891
12.7	21,872	21,854	21,836	21,817	799	780	762	743	725	706
12.8	688	670	651	633	615	596	578	560	542	523
12.9	505	487	469	450	432	414	396	377	359	341
13.0	323	305	287	268	250	232	214	196	21,178	21,160
13.1	21,142	21,124	21,106	21,088	21,070	21,052	21,034	21,016	20,998	20,980
13.2	20,962	20,944	20,926	20,908	20,890	20,873	20,855	20,837	819	801
13.3	783	765	748	730	712	694	677	659	641	623
13.4	605	588	570	552	535	517	499	482	464	446
13.5	429	411	394	376	358	341	323	306	288	271
13.6	253	236	218	201	183	20,166	20,149	20,131	20,114	20,096
13.7	20,079	20,061	20,044	20,027	20,009	19,992	19,975	19,957	19,940	19,922
13.8	19,905	19,888	19,871	19,853	19,836	819	802	784	767	750
13.9	733	715	698	681	664	647	630	613	595	578
14.0	561	544	527	510	493	476	459	442	425	408
14.1	391	374	357	340	323	306	289	272	255	238
14.2	221	204	187	170	19,154	19,137	19,120	19,103	19,086	19,069
14.3	19,052	19,036	19,019	19,002	18,985	18,969	18,952	18,935	18,918	18,902
14.4	18,885	18,868	18,852	18,835	818	802	785	768	752	735
14.5	718	702	685	668	652	635	619	602	586	569
14.6	553	536	520	503	487	470	454	437	421	404
14.7	388	371	355	339	322	306	289	273	257	240
14.8	224	208	191	175	18,159	18,142	18,126	18,110	18,093	18,077
14.9	18,061	18,045	18,028	18,012	17,996	17,980	17,963	17,947	17,931	17,915
15.0	17,899	17,882	17,866	17,850	834	818	802	786	770	754
15.1	737	721	705	689	673	657	641	625	609	593
15.2	577	561	545	529	513	497	481	465	449	433
15.3	417	402	386	370	354	338	322	306	290	275
15.4	259	243	227	211	196	180	164	17,148	17,132	17,117
15.5	17,101	17,085	17,069	17,054	17,038	17,022	17,007	16,991	16,975	16,959
15.6	16,944	16,928	16,912	16,897	16,881	16,866	16,850	834	819	803
15.7	787	772	756	741	725	710	694	679	663	648
15.8	632	617	601	586	570	555	539	524	508	493
15.9	477	462	447	431	416	400	385	370	354	339
16.0	324	308	293	278	262	247	232	216	201	186
16.1	171	155	16,140	16,125	16,110	16,094	16,079	16,064	16,049	16,034
16.2	16,018	16,003	15,988	15,973	15,958	15,943	15,927	15,912	15,897	15,882
16.3	15,867	15,852	837	822	806	791	776	761	746	731
16.4	716	701	686	671	656	641	626	611	596	581
16.5	566	551	536	521	506	491	476	461	446	431
16.6	416	402	387	372	357	342	327	312	298	283
16.7	268	253	238	224	209	194	179	164	150	15,135
16.8	15,120	15,105	15,091	15,076	15,061	15,047	15,032	15,017	15,002	14,988
16.9	14,973	14,958	14,944	14,929	14,914	14,900	14,885	14,870	14,856	841
17.0	826	812	797	783	768	753	739	724	710	695
17.1	681	666	652	637	622	608	594	579	564	550
17.2	536	521	507	492	478	463	449	434	420	406
17.3	391	377	362	348	334	319	305	291	276	262
17.4	247	233	219	204	190	176	162	147	14,133	14,119
17.5	14,104	14,090	14,076	14,062	14,047	14,033	14,019	14,005	13,990	13,976
17.6	13,962	13,948	13,934	13,919	13,905	13,891	13,877	13,863	849	834
17.7	820	806	792	778	764	750	736	722	707	693
17.8	679	665	651	637	623	609	595	581	567	553
17.9	539	525	511	497	483	469	455	441	427	413
18.0	399	385	371	357	343	329	315	301	287	274
18.1	260	246	232	218	204	190	176	163	149	13,135
18.2	13,121	13,107	13,094	13,080	13,066	13,052	13,038	13,025	13,011	12,997
18.3	12,983	12,970	12,956	12,942	12,928	12,915	12,901	12,887	12,873	860
18.4	846	832	819	805	791	778	764	750	736	723
18.5	709	695	682	668	655	641	627	614	600	587
18.6	573	559	546	532	519	505	492	478	464	451
18.7	437	424	410	397	383	370	356	343	329	316
18.8	302	289	275	262	249	235	222	208	195	181
18.9	168	155	141	12,128	12,114	12,101	12,088	12,074	12,061	12,048

TABLE II—Continued

ALTITUDE-PRESSURE TABLE—FEET-INCHES—Continued

Altitude in feet, pressure in inches of mercury—Continued

P inches	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
19.0	12,034	12,021	12,008	11,994	11,981	11,968	11,954	11,941	11,928	11,914
19.1	11,901	11,888	11,874	861	848	835	821	808	795	781
19.2	768	755	742	729	715	702	689	676	663	649
19.3	636	623	610	597	584	570	557	544	531	518
19.4	505	491	478	465	452	439	426	413	400	387
19.5	374	360	347	334	321	308	295	282	269	256
19.6	243	230	217	204	191	178	165	152	139	11,126
19.7	11,113	11,100	11,087	11,074	11,061	11,048	11,035	11,023	11,010	10,997
19.8	10,984	10,971	10,958	10,945	10,932	10,919	10,906	10,894	10,881	868
19.9	855	842	829	816	804	791	778	765	752	739
20.0	726	714	701	688	675	662	650	637	624	611
20.1	599	586	573	560	548	535	522	509	497	484
20.2	471	459	446	433	421	408	395	383	370	357
20.3	344	332	319	307	294	281	269	256	243	231
20.4	218	206	193	180	168	155	143	130	10,117	10,105
20.5	10,092	10,080	10,067	10,055	10,042	10,030	10,017	10,005	9,992	9,980
20.6	9,967	9,955	9,942	9,930	9,917	9,905	9,892	9,880	9,867	9,855
20.7	9,842	9,830	9,817	9,805	9,793	9,780	9,768	9,755	9,743	9,730
20.8	9,718	9,706	9,693	9,681	9,668	9,656	9,644	9,631	9,619	9,607
20.9	9,594	9,582	9,570	9,557	9,545	9,532	9,520	9,508	9,495	9,483
21.0	9,471	9,458	9,446	9,434	9,422	9,409	9,397	9,385	9,372	9,360
21.1	9,348	9,336	9,323	9,311	9,299	9,287	9,274	9,262	9,250	9,238
21.2	9,225	9,213	9,201	9,189	9,176	9,164	9,152	9,140	9,128	9,116
21.3	9,103	9,091	9,079	9,067	9,055	9,043	9,030	9,018	9,006	8,994
21.4	8,982	8,970	8,958	8,946	8,933	8,921	8,909	8,897	8,885	8,873
21.5	8,861	8,849	8,837	8,825	8,813	8,801	8,789	8,776	8,764	8,752
21.6	8,740	8,728	8,716	8,704	8,692	8,680	8,668	8,656	8,644	8,632
21.7	8,620	8,608	8,596	8,584	8,572	8,560	8,548	8,536	8,524	8,512
21.8	8,500	8,489	8,477	8,465	8,453	8,441	8,429	8,417	8,405	8,393
21.9	8,381	8,369	8,357	8,346	8,334	8,322	8,310	8,298	8,286	8,274
22.0	8,262	8,250	8,239	8,227	8,215	8,203	8,191	8,179	8,168	8,156
22.1	8,144	8,132	8,120	8,109	8,097	8,085	8,073	8,061	8,050	8,038
22.1	8,026	8,014	8,003	7,991	7,979	7,967	7,956	7,944	7,932	7,920
22.3	7,909	7,897	7,885	7,873	7,862	7,850	7,838	7,827	7,815	7,803
22.4	7,791	7,780	7,768	7,756	7,745	7,733	7,721	7,710	7,698	7,686
22.5	7,675	7,663	7,652	7,640	7,628	7,617	7,605	7,593	7,582	7,570
22.6	7,559	7,547	7,535	7,524	7,512	7,501	7,489	7,478	7,466	7,454
22.7	7,443	7,431	7,420	7,408	7,397	7,385	7,374	7,362	7,350	7,339
22.8	7,327	7,316	7,304	7,293	7,281	7,270	7,258	7,247	7,235	7,224
22.9	7,212	7,201	7,189	7,178	7,167	7,155	7,144	7,132	7,121	7,109
23.0	7,098	7,086	7,075	7,064	7,052	7,041	7,029	7,018	7,006	6,995
23.1	6,984	6,972	6,961	6,949	6,938	6,927	6,915	6,904	6,893	6,881
23.2	6,870	6,858	6,847	6,836	6,824	6,813	6,802	6,790	6,779	6,768
23.3	6,756	6,745	6,734	6,722	6,711	6,700	6,688	6,677	6,666	6,655
23.4	6,643	6,632	6,621	6,610	6,598	6,587	6,576	6,564	6,553	6,542
23.5	6,531	6,519	6,508	6,497	6,486	6,475	6,463	6,452	6,441	6,430
23.6	6,418	6,407	6,396	6,385	6,374	6,363	6,351	6,340	6,329	6,318
23.7	6,307	6,296	6,284	6,273	6,262	6,251	6,240	6,229	6,218	6,206
23.8	6,195	6,184	6,173	6,162	6,151	6,140	6,129	6,118	6,106	6,095
23.9	6,084	6,073	6,062	6,051	6,040	6,029	6,018	6,007	5,996	5,985
24.0	5,974	5,962	5,951	5,940	5,929	5,918	5,907	5,896	5,885	5,874
24.1	5,863	5,852	5,841	5,830	5,819	5,808	5,797	5,786	5,775	5,764
24.2	5,753	5,742	5,731	5,720	5,709	5,698	5,687	5,676	5,666	5,655
24.3	5,644	5,633	5,622	5,611	5,600	5,589	5,578	5,567	5,555	5,545
24.4	5,534	5,524	5,513	5,502	5,491	5,480	5,469	5,458	5,447	5,436
24.5	5,425	5,415	5,404	5,393	5,382	5,371	5,360	5,350	5,339	5,328
24.6	5,317	5,306	5,295	5,285	5,274	5,263	5,252	5,241	5,230	5,220
24.7	5,209	5,198	5,187	5,176	5,166	5,155	5,144	5,133	5,123	5,112
24.8	5,101	5,090	5,080	5,069	5,058	5,047	5,037	5,026	5,015	5,004
24.9	4,994	4,983	4,972	4,961	4,951	4,940	4,929	4,919	4,908	4,897
25.0	4,886	4,876	4,865	4,854	4,844	4,833	4,822	4,812	4,801	4,790
25.1	4,780	4,769	4,758	4,748	4,737	4,726	4,716	4,705	4,695	4,684
25.2	4,673	4,663	4,652	4,642	4,631	4,620	4,610	4,599	4,588	4,578
25.3	4,567	4,557	4,546	4,536	4,525	4,514	4,504	4,493	4,483	4,472
25.4	4,462	4,451	4,440	4,430	4,419	4,409	4,398	4,388	4,377	4,367
25.5	4,356	4,346	4,335	4,325	4,314	4,304	4,293	4,283	4,272	4,262
25.6	4,251	4,241	4,230	4,220	4,209	4,199	4,188	4,178	4,167	4,157
25.7	4,146	4,136	4,125	4,115	4,105	4,094	4,084	4,073	4,063	4,052
25.8	4,042	4,032	4,021	4,011	4,000	3,990	3,980	3,969	3,959	3,948
25.9	3,938	3,928	3,917	3,907	3,896	3,886	3,876	3,865	3,855	3,845
26.0	3,834	3,824	3,814	3,803	3,793	3,782	3,772	3,762	3,751	3,741
26.1	3,731	3,720	3,710	3,700	3,689	3,679	3,669	3,659	3,648	3,638
26.2	3,628	3,617	3,607	3,597	3,586	3,576	3,566	3,556	3,545	3,535
26.3	3,525	3,515	3,504	3,494	3,484	3,474	3,463	3,453	3,443	3,433
26.4	3,422	3,412	3,402	3,392	3,382	3,371	3,361	3,351	3,341	3,331
26.5	3,320	3,310	3,300	3,290	3,279	3,269	3,259	3,249	3,239	3,229
26.6	3,218	3,208	3,198	3,188	3,178	3,168	3,157	3,147	3,137	3,127
26.7	3,117	3,107	3,097	3,086	3,076	3,066	3,056	3,046	3,036	3,026
26.8	3,016	3,005	2,995	2,985	2,975	2,965	2,955	2,945	2,935	2,925
26.9	2,915	2,905	2,895	2,884	2,874	2,864	2,854	2,844	2,834	2,824
27.0	2,814	2,804	2,794	2,784	2,774	2,764	2,754	2,744	2,734	2,724
27.1	2,714	2,704	2,694	2,684	2,674	2,664	2,654	2,644	2,634	2,624
27.2	2,614	2,604	2,594	2,584	2,574	2,564	2,554	2,544	2,534	2,524
27.3	2,514	2,504	2,494	2,484	2,474	2,464	2,454	2,444	2,434	2,425
27.4	2,415	2,405	2,395	2,385	2,375	2,365	2,356	2,345	2,335	2,325
27.5	2,315	2,306	2,296	2,286	2,276	2,266	2,256	2,246	2,236	2,226
27.6	2,217	2,207	2,197	2,187	2,177	2,167	2,158	2,148	2,138	2,128
27.7	2,118	2,108	2,098	2,088	2,079	2,069	2,059	2,049	2,040	2,030
27.8	2,020	2,010	2,000	1,990	1,981	1,971	1,961	1,951	1,942	1,932
27.9	1,922	1,912	1,902	1,893	1,883	1,873	1,863	1,854	1,844	1,834

TABLE II—Continued

ALTITUDE-PRESSURE TABLE—FEET-INCHES—Continued

Altitude in feet, pressure in inches of mercury—Continued

P inches	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
28.0	1,824	1,814	1,805	1,795	1,785	1,776	1,766	1,756	1,746	1,737
28.1	1,727	1,717	1,707	1,698	1,688	1,678	1,668	1,659	1,649	1,639
28.2	1,630	1,620	1,610	1,601	1,591	1,581	1,572	1,562	1,552	1,542
28.3	1,533	1,523	1,513	1,504	1,494	1,484	1,475	1,465	1,456	1,446
28.4	1,436	1,427	1,417	1,407	1,398	1,388	1,378	1,369	1,359	1,350
28.5	1,340	1,330	1,321	1,311	1,302	1,292	1,282	1,273	1,263	1,254
28.6	1,244	1,234	1,225	1,215	1,206	1,196	1,186	1,177	1,167	1,158
28.7	1,148	1,139	1,129	1,120	1,110	1,000	1,091	1,081	1,072	1,062
28.8	1,053	1,043	1,034	1,024	1,015	1,005	995	986	976	967
28.9	957	948	938	929	919	910	900	891	881	872
29.0	863	853	844	834	825	815	806	796	787	777
29.1	768	758	749	739	730	721	711	702	692	683
29.2	673	664	655	645	636	626	617	607	598	589
29.3	579	570	560	551	542	532	523	514	504	495
29.4	485	476	467	457	448	439	429	420	410	401
29.5	392	382	373	364	354	345	336	326	318	308
29.6	298	289	280	270	261	252	242	233	224	215
29.7	205	196	187	177	168	159	149	140	131	122
29.8	112	103	94	85	75	66	57	47	38	29
29.9	20	10	1	−8	−17	−26	−36	−45	−54	−63
30.0	−73	−82	−91	−100	−110	−119	−128	−137	−146	−156
30.1	−165	−174	−183	−192	−202	−211	−220	−229	−238	−248
30.2	−257	−266	−275	−284	−293	−303	−312	−321	−330	−339
30.3	−348	−358	−367	−376	−385	−394	−403	−412	−421	−431
30.4	−440	−449	−458	−467	−476	−485	−494	−504	−513	−522
30.5	−531	−540	−549	−558	−567	−576	−585	−594	−604	−613
30.6	−622	−631	−640	−649	−658	−667	−676	−685	−694	−703
30.7	−712	−721	−730	−740	−749	−758	−767	−776	−785	−794
30.8	−803	−812	−821	−830	−839	−848	−857	−866	−875	−884
30.9	−893	−902	−911	−920	−929	−938	−947	−956	−965	−974
31.0	−983	−992	−1,001	−1,010	−1,019	−1,028	−1,037	−1,046	−1,055	−1,064

TABLE III

ALTITUDE-PRESSURE-TEMPERATURE TABLE

Altitude, feet	Pressure		Temperature, °C.	Mean temperature, °C.	Altitude, feet	Pressure		Temperature, °C.	Mean temperature, °C.
	in. Hg	mm Hg				in. Hg	mm Hg		
−1,000	31.02	787.9	17.0	16.0	22,000	12.63	320.8	−28.6	−7.4
−500	30.47	773.8	16.0	15.5	22,500	12.36	314.1	−29.6	−7.9
					23,000	12.10	307.4	−30.6	−8.4
0	29.921	760.0	15.0	15.0	23,500	11.84	300.9	−31.6	−9.0
500	29.38	746.4	14.0	14.5	24,000	11.59	294.4	−32.5	−9.5
1,000	28.86	732.9	13.0	14.0	24,500	11.34	288.1	−33.5	−10.0
1,500	28.33	719.7	12.0	13.5					
2,000	27.82	706.6	11.0	13.0	25,000	11.10	281.9	−34.5	−10.5
2,500	27.31	693.8	10.0	12.5	25,500	10.86	275.8	−35.5	−11.1
3,000	26.81	681.1	9.1	12.0	26,000	10.62	269.8	−36.5	−11.6
3,500	26.32	668.6	8.1	11.5	26,500	10.39	263.9	−37.5	−12.1
4,000	25.84	656.3	7.1	11.0	27,000	10.16	258.1	−38.5	−12.7
4,500	25.36	644.2	6.1	10.5	27,500	9.94	252.5	−39.5	−13.2
					28,000	9.72	246.9	−40.5	−13.7
5,000	24.89	632.3	5.1	10.0	28,500	9.50	241.4	−41.5	−14.3
5,500	24.43	620.6	4.1	9.5	29,000	9.29	236.0	−42.5	−14.8
6,000	23.98	609.0	3.1	9.0	29,500	9.08	230.7	−43.4	−15.3
6,500	23.53	597.6	2.1	8.5					
7,000	23.09	586.4	1.1	8.0	30,000	8.88	225.6	−44.4	−15.9
7,500	22.65	575.3	0.1	7.5	30,500	8.68	220.5	−45.4	−16.4
8,000	22.22	564.4	−0.8	7.0	31,000	8.48	215.5	−46.4	−16.9
8,500	21.80	553.7	−1.8	6.5	31,500	8.29	210.6	−47.4	−17.5
9,000	21.38	543.2	−2.8	6.0	32,000	8.10	205.8	−48.4	−18.0
9,500	20.98	532.8	−3.8	5.5	32,500	7.91	201.0	−49.4	−18.6
					33,000	7.73	196.4	−50.4	−19.1
10,000	20.58	522.6	−4.8	5.0	33,500	7.55	191.8	−51.4	−19.6
10,500	20.18	512.5	−5.8	4.5	34,000	7.38	187.4	−52.4	−20.2
11,000	19.79	502.6	−6.8	4.0	34,500	7.20	183.0	−53.4	−20.7
11,500	19.40	492.8	−7.8	3.5					
12,000	19.03	483.3	−8.8	2.9	35,000	7.04	178.7	−54.3	−21.3
12,500	18.65	473.8	−9.8	2.4	35,332	6.93	175.9	−55.0	−21.6
13,000	18.29	464.5	−10.8	1.9	35,500	6.87	174.5	−55.0	−21.8
13,500	17.93	455.4	−11.7	1.4	36,000	6.71	170.4	−55.0	−22.3
14,000	17.57	446.4	−12.7	0.9	36,500	6.55	166.4	−55.0	−22.8
14,500	17.22	437.5	−13.7	0.4	37,000	6.39	162.4	−55.0	−23.3
					37,500	6.24	158.6	−55.0	−23.8
15,000	16.88	428.8	−14.7	−0.1	38,000	6.10	154.9	−55.0	−24.3
15,500	16.54	420.2	−15.7	−0.6	38,500	5.95	151.2	−55.0	−24.8
16,000	16.21	411.8	−16.7	−1.2	39,000	5.81	147.6	−55.0	−25.2
16,500	15.89	403.5	−17.7	−1.7	39,500	5.68	144.1	−55.0	−25.6
17,000	15.56	395.3	−18.7	−2.2					
17,500	15.25	387.3	−19.7	−2.7	40,000	5.54	140.7	−55.0	−26.0
18,000	14.94	379.4	−20.7	−3.2	40,500	5.41	137.4	−55.0	−26.4
18,500	14.63	371.7	−21.7	−3.7	41,000	5.28	134.2	−55.0	−26.8
19,000	14.33	364.0	−22.6	−4.3	41,500	5.16	131.0	−55.0	−27.2
19,500	14.04	356.5	−23.6	−4.8	42,000	5.04	127.9	−55.0	−27.6
					42,500	4.92	124.9	−55.0	−28.0
20,000	13.75	349.1	−24.6	−5.3	43,000	4.80	122.0	−55.0	−28.3
20,500	13.46	341.9	−25.6	−5.8	43,500	4.69	119.1	−55.0	−28.6
21,000	13.18	334.7	−26.6	−6.3	44,000	4.58	116.3	−55.0	−29.0
21,500	12.90	327.7	−27.6	−6.9	44,500	4.47	113.5	−55.0	−29.3

TABLE III—Continued

ALTITUDE-PRESSURE-TEMPERATURE TABLE—Continued

Altitude, feet	Pressure		Temperature, °C.	Mean temperature, °C.	Altitude, feet	Pressure		Temperature, °C.	Mean temperature, °C.
	in. Hg	mm Hg				in. Hg	mm Hg		
45,000	4.36	110.8	−55.0	−29.6	60,000	2.132	54.15	−55	----------
45,500	4.26	108.2	−55.0	−29.9	61,000	2.033	51.63	−55	----------
46,000	4.16	105.7	−55.0	−30.2	62,000	1.938	49.22	−55	----------
46,500	4.06	103.2	−55.0	−30.5	63,000	1.847	46.92	−55	----------
47,000	3.97	100.7	−55.0	−30.8	64,000	1.761	44.73	−55	----------
47,500	3.873	98.38	−55.0	−31.1	65,000	1.679	42.65	−55	----------
48,000	3.781	96.05	−55.0	−31.4	66,000	1.601	40.66	−55	----------
48,500	3.693	93.79	−55.0	−31.7	67,000	1.526	38.76	−55	----------
49,000	3.605	91.57	−55.0	−31.9	68,000	1.455	36.95	−55	----------
49,500	3.520	89.41	−55.0	−32.2	69,000	1.387	35.23	−55	----------
50,000	3.436	87.30	−55.0	−32.4					
					70,000	1.322	33.59	−55	----------
51,000	3.276	83.22	−55	----------	71,000	1.261	32.02	−55	----------
52,000	3.124	79.34	−55	----------	72,000	1.202	30.53	−55	----------
53,000	2.978	75.64	−55	----------	73,000	1.146	29.10	−55	----------
54,000	2.839	72.12	−55	----------	74,000	1.093	27.75	−55	----------
55,000	2.707	68.76	−55	----------	75,000	1.041	26.45	−55	----------
56,000	2.581	65.55	−55	----------	76,000	0.993	25.22	−55	----------
57,000	2.460	62.49	−55	----------	77,000	0.946	24.04	−55	----------
58,000	2.346	59.58	−55	----------	78,000	0.902	22.92	−55	----------
59,000	2.236	56.80	−55	----------	79,000	0.860	21.85	−55	----------
					80,000	0.820	20.83	−55	----------