TECHNICAL NOTE

D-822

TABLES OF AIRSPEED, ALTITUDE, AND MACH NUMBER

BASED ON LATEST INTERNATIONAL VALUES

FOR ATMOSPHERIC PROPERTIES

AND PHYSICAL CONSTANTS

By Sadie P. Livingston and William Gracey

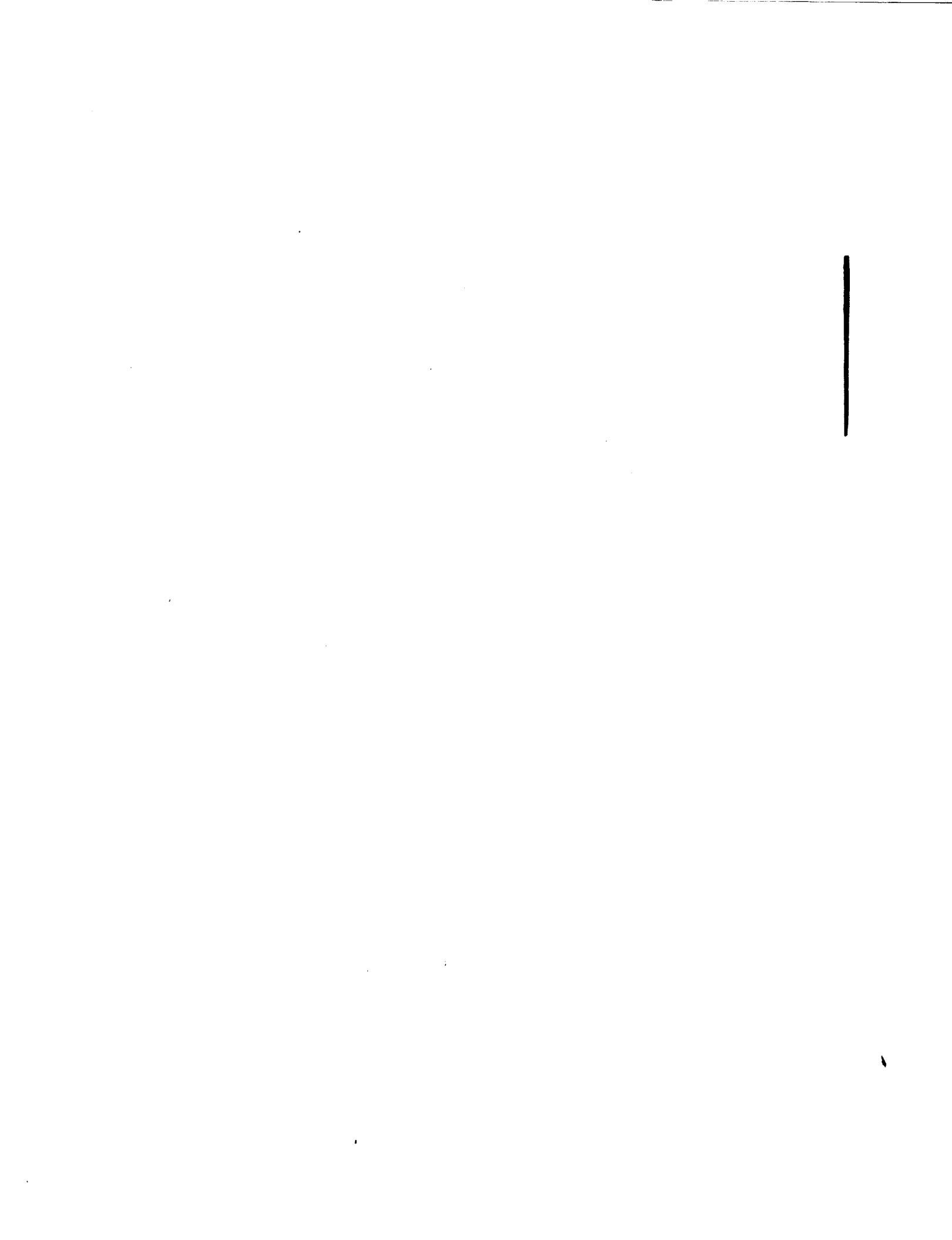Langley Research Center
Langley Field, Va.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WASHINGTON   August 1961

N O T I C E

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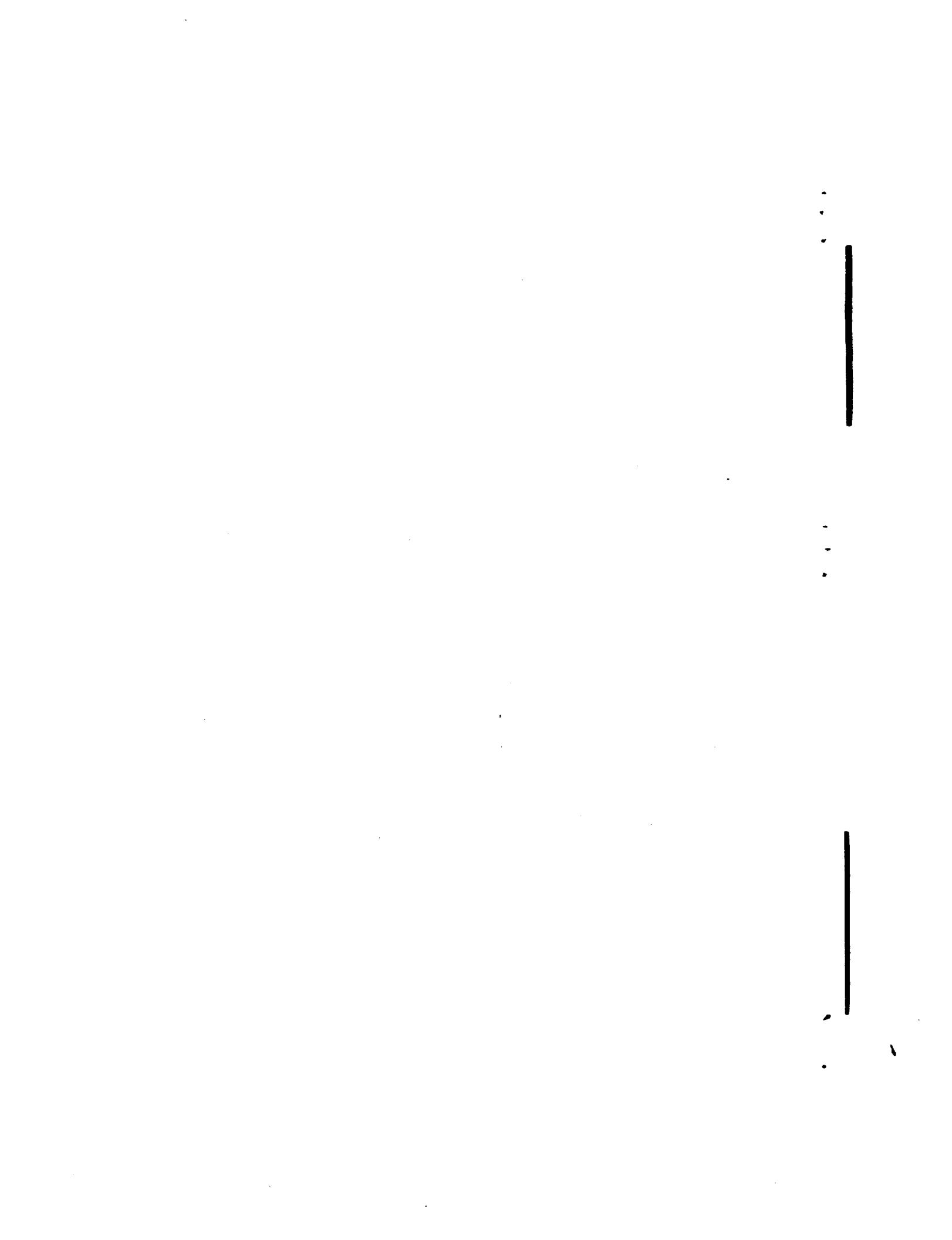August 1961

Page 14: In column 1 of table I, the nine values of calibrated
airspeed, V_c, mph, following the value 1,000 should be corrected
as follows:

Value shown	Correct value
1,100	1,010
1,200	1,020
1,300	1,030
1,400	1,040
1,500	1,050
1,600	1,060
1,700	1,070
1,800	1,080
1,900	1,090

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SUMMARY

Previously published pressure-airspeed tables have been revised to account for the recently established value for the nautical mile and to incorporate the values of the physical constants and atmospheric properties adopted for the International Civil Aviation Organization (ICAO) standard atmosphere. In the revised tables, values of impact pressure are given for airspeeds up to 1,000 knots and 1,100 miles per hour. Pressure-altitude tables, extracted from the ICAO standard atmosphere, are given for altitudes up to 100,000 geopotential feet. For the determination of Mach number, the ratio of impact pressure to free-stream static pressure is given for Mach numbers from 0.10 to 5.00. Abbreviated tables of true airspeed are given for calibrated airspeeds from 100 to 1,000 knots and for altitudes from 0 to 100,000 geopotential feet.

INTRODUCTION

Pressure-airspeed and pressure-altitude tables are needed for the calibration of airspeed meters and altimeters and for the conversion of flight measurements of airspeed and altitude to other related parameters - Mach number, true airspeed, equivalent airspeed, etc. Equations relating these parameters and the procedures for determining them are given in reference 1.

Numerous airspeed and altitude tables have been developed through the years (refs. 1 to 11). The airspeed tables of references 1 to 3 have undergone minor revisions as new values for some of the physical constants and atmospheric properties required for the computations have been introduced. The altitude tables of references 4 to 11, on the other hand, have been revised extensively as new information concerning atmospheric properties (particularly at the higher altitudes)

has become available and because of the introduction of a new unit of height - geopotential feet, a unit that takes account of the decrease of the gravity constant with height.

Concerted efforts have been made in recent years to adopt, on an international basis, the latest accepted values of the atmospheric properties and a consistent system of physical constants. The result of these efforts culminated in the establishment of the ICAO standard atmosphere in 1954 (ref. 8) and an extension of this atmosphere to higher altitudes (ref. 10) in 1958. It may be noted that the pressure-altitude tables of references 7 and 8 are in agreement for altitudes up to 65,800 geopotential feet (the limiting altitude in ref. 8) and the tables of references 9, 10, and 11 are in agreement for altitudes up to at least 100,000 geopotential feet (the upper limit of the altitude range of interest at the present time for the calibration of aircraft altimeters).

With regard to the airspeed tables, a need has arisen for a reevaluation of the pressure-airspeed relation to account for the recently revised value of the nautical mile, with consequent changes of speed in units of knots. At the same time, it appeared desirable, in the interest of standardization, to incorporate in the pressure-airspeed tables the values for the atmospheric properties and physical constants adopted for the ICAO standard atmosphere.

Accordingly, the pressure-airspeed tables of reference 1 have been revised to account for the new value of the nautical mile and the latest accepted values for the pertinent physical and atmospheric-property constants. At the same time, the airspeed tables of reference 1 have been extended to higher speeds to conform to the maximum range of present-day airspeed indicators. In addition, the pressure-altitude tables of reference 1 have been replaced with those of the ICAO standard atmosphere and the Mach number tables have been extended to a Mach number of 5.00.

SYMBOLS

ρ mass density of the ambient air

p free-stream static pressure

p_t free-stream total pressure

q dynamic pressure, $\frac{1}{2}\rho V^2$

q_c impact pressure, $p_t - p$

f	compressibility factor (defined in ref. 1)
V	free-stream velocity or true airspeed, $\sqrt{\dfrac{2q}{\rho}}$
V_c	calibrated airspeed (the indication of a differential-pressure airspeed indicator, calibrated to read true airspeed under standard sea-level conditions and corrected for instrument errors and errors of pitot-static installation), $f_0\sqrt{\dfrac{2q_c}{\rho_0}}$
γ	ratio of specific heat of air at constant pressure to specific heat at constant volume
a	speed of sound in ambient air, $\sqrt{\gamma\dfrac{p}{\rho}}$
M	free-stream Mach number, V/a
Z	geometric altitude
H	geopotential altitude
T_M	molecular-scale temperature (defined in ref. 10)
W_M	molecular weight of air
R	universal gas constant
g	acceleration of gravity
G	proportionality factor depending on units of H (defined in ref. 10)
r	effective radius of earth at latitude 45°32'33"
t	temperature
T	absolute temperature
η	recovery factor of air-temperature sensor

Subscripts:

o	sea-level value
l	local value
m	measured value

PHYSICAL CONSTANTS AND SEA-LEVEL ATMOSPHERIC PROPERTIES

Since the only tables in reference 1 which have been recomputed for the present report are those relating airspeed to pressure and the speed of sound to temperature, only those physical constants and sea-level atmospheric properties applying to these relations are given herein. For the values of the other constants and atmospheric properties used in the computation of the pressure-altitude tables, consult references 9 to 11.

The values of the physical constants and sea-level atmospheric properties used for the computation of the tables given in this report are as follows:

p_0 = 29.92126 inches of mercury or 2116.217 pounds per square foot

ρ_0 = 0.00237692 slug per cubic foot

T = 518.688° R or 288.16° K

γ = 1.4 (exact)

a_0 = 761.2116 miles per hour or 661.4748 knots

The values of p_0, ρ_0, T, and γ are the latest accepted values for these quantities as reported in references 9 to 11. The values of a_0 have been derived from the value of 340.29205 meters per second given in references 9 to 11 and from the following relations:

1 foot = 0.3048 meter

1 statute mile = 5,280 feet

1 nautical mile = 6076.11549 feet

As discussed in reference 12, the relation between the meter and the nautical mile (1 nautical mile = 1,852 meters) was adopted by the U.S. Departments of Commerce and Defense on July 1, 1954; the relation between the foot and the meter was announced by the National Bureau of Standards on July 1, 1959. The value of the nautical mile given herein is based on these two relationships.

In this report the values of airspeed are given for pressures expressed in units of inches of mercury and pounds per square foot. Conversion factors for expressing the tabulated pressures in other units are given in the following table (from ref. 13):

Conversion Factors for Various Pressure Units Equivalent for Unit Value in First Column

Pressure unit value	mm mercury 0° C	in. mercury 0° C	gm/cm²	lb/in.²	lb/ft²	cm water 20° C	in. water 20° C
1 mm mercury	1	0.03937	1.3595	0.019337	2.7845	1.3609	0.53577
1 in. mercury	25.400	1	34.532	0.49116	70.727	34.566	13.609
1 gm/cm²	0.73556	0.028959	1	0.014223	2.0482	1.0010	0.39409
1 lb/in.²	51.715	2.0360	70.307	1	144	70.376	27.707
1 lb/ft²	0.35913	0.014139	0.48824	0.0069444	1	0.48872	0.19241
1 cm water 20° C . . .	0.73424	0.028907	0.99821	0.014198	2.0445	1	0.3937
1 in. water 20° C . .	1.8650	0.073424	2.5355	0.036063	5.1930	2.5400	1

AIRSPEED TABLES

For the conventional method of determining the speed of aircraft from measurements of free-stream total and static pressures, true airspeed is related to these pressures in the subsonic speed range by Bernoulli's formula for the total pressure in compressible flow,

$$p_t = p\left(1 + \frac{\gamma - 1}{2\gamma} \frac{\rho}{p} V^2\right)^{\frac{\gamma}{\gamma - 1}} \tag{1}$$

and in the supersonic range, where a normal shock occurs ahead of the pitot tube, by the relation for the total pressure behind a normal shock,

$$p_t = \frac{1 + \gamma}{2\gamma} \rho V^2 \left[\frac{\frac{(\gamma + 1)^2}{\gamma} \frac{\rho}{p} V^2}{\frac{4\rho}{p} V^2 - 2(\gamma - 1)}\right]^{\frac{1}{\gamma - 1}} \tag{2}$$

Since the impact pressure is defined as the difference between the total and static pressures

$$q_c = p_t - p \tag{3}$$

and the speed of sound in ambient air may be expressed as

6

$$a = \sqrt{\gamma \frac{p}{\rho}} \qquad (4)$$

the total-pressure—airspeed relation in equations (1) and (2) may be expressed in terms of q_c and V as follows:

$$q_c = p\left[\left(1 + \frac{\gamma - 1}{2\gamma} \frac{\rho}{p}V^2\right)^{\frac{\gamma}{\gamma-1}} - 1\right] \qquad (V \leqq a) \qquad (5)$$

and

$$q_c = \frac{1 + \gamma}{2}\left(\frac{V}{a}\right)^2 p\left[\frac{(\gamma + 1)^2}{4\gamma - 2(\gamma - 1)\left(\frac{a}{V}\right)^2}\right]^{\frac{1}{\gamma-1}} - p \qquad (V \geqq a) \qquad (6)$$

Aircraft airspeed indicators are calibrated according to equations (5) and (6) for standard sea-level conditions - that is,

$$q_c = p_0\left[\left(1 + \frac{\gamma - 1}{2\gamma} \frac{\rho_0}{p_0}V_c^2\right)^{\frac{\gamma}{\gamma-1}} - 1\right] \qquad (V_c \leqq a_0) \qquad (7)$$

and

$$q_c = \frac{1 + \gamma}{2}\left(\frac{V_c}{a_0}\right)^2 p_0\left[\frac{(\gamma + 1)^2}{4\gamma - 2(\gamma - 1)\left(\frac{a_0}{V_c}\right)^2}\right]^{\frac{1}{\gamma-1}} - p_0 \qquad (V_c \geqq a_0) \qquad (8)$$

where the subscript o denotes standard sea-level conditions and V_c is the calibrated airspeed. For standard sea-level conditions, therefore, calibrated airspeed is equal to true airspeed. For other values of pressure and density, the true airspeed and the calibrated airspeed may be related by the following equation:

$$V = V_c\frac{f}{f_0}\sqrt{\frac{\rho_0}{\rho}} \qquad (9)$$

where f and f_0 are compressibility factors, the values of which may be found in reference 1. True airspeed can also be determined from calibrated airspeed by another method which is described in a subsequent section.

Values of impact pressure q_c (calculated from eqs. (7) and (8)) in units of inches of mercury and pounds per square foot are given in tables I to IV for calibrated airspeeds V_c from 0 to 1,000 knots and from 0 to 1,100 miles per hour.

<div align="center">ALTITUDE TABLES</div>

Pressure-altitude relations are derived from the barometric equation which may be expressed in the following form:

$$d \log_e p = - \frac{gW_M}{RT} dZ \qquad (10)$$

where Z denotes height in geometric measure.

In the computation of the altitude tables of references 4 to 6, the acceleration of gravity g and the molecular weight of air W_M were assumed to remain constant at their sea-level values. For the pressure-altitude tables in references 7 to 11, the decrease in acceleration of gravity with height was taken into account by the formation of a new parameter - geopotential altitude H (the combination of geometric height and acceleration of gravity). For altitudes above 295,000 feet the decrease in the molecular weight of air was taken into account in references 9 to 11 by the formation of another parameter - molecular-scale temperature T_M (the combination of molecular weight and temperature). In accordance with these new parameters the barometric equation assumes the following form:

$$d \log_e p = - \frac{GW_{M,0}}{RT_M} dH \qquad (11)$$

where G is a proportionality factor depending on the units of geopotential altitude H. It may be noted that in references 9 to 11 the symbol M was assigned to molecular weight; in the present paper W_M is used to avoid confusion with the symbol M for Mach number.

8

The relation between geopotential and geometric altitudes, based on the inverse-square-law variation of acceleration of gravity, is given by the equation:

$$H = \frac{g_0}{G} \frac{rZ}{r + Z} \tag{12}$$

where $r = 6{,}356{,}766$ geometric meters, the effective radius of the earth at latitude $45°32'33''$ (refs. 9 to 11).

Since the current trend in the aviation industry is to adopt geopotential measure for the calibration of altimeters, the pressure-altitude tables in the present report are given in terms of geopotential feet only.

Tables V and VI give values of static pressure p in inches of mercury and pounds per square foot, respectively, for values of pressure altitude up to 100,000 geopotential feet. The values of p for pressure altitudes from -1,000 to 65,800 geopotential feet were taken directly from reference 8 and those for pressure altitudes from 70,000 to 100,000 geopotential feet were taken directly from reference 10.

MACH NUMBER TABLES

Since Mach number M is related to true airspeed V by the equation

$$V = M \sqrt{\gamma \frac{p}{\rho}} \tag{13}$$

M may be related to p_t by substitution into equations (1) and (2). With the additional substitution of $q_c + p$ for p_t, these equations may be expressed in terms of q_c and M as follows:

$$q_c = p\left[\left(1 + \frac{\gamma - 1}{2}M^2\right)^{\frac{\gamma}{\gamma-1}} - 1\right] \qquad (M \leqq 1) \tag{14}$$

and

$$q_c = \frac{1 + \gamma M^2}{2} p\left[\frac{(1 + \gamma)^2 M^2}{4\gamma M^2 - 2(\gamma - 1)}\right]^{\frac{1}{\gamma-1}} - p \qquad (M \geqq 1) \tag{15}$$

Since, as shown by these equations, Mach number is a function of both impact and static pressures, M may be expressed as a function of the ratio q_c/p in the following forms:

$$\frac{q_c}{p} = \left(1 + \frac{\gamma - 1}{2}M^2\right)^{\frac{\gamma}{\gamma-1}} - 1 \qquad (M \leqq 1) \qquad (16)$$

and

$$\frac{q_c}{p} = \frac{1 + \gamma}{2}M^2\left[\frac{(1 + \gamma)^2 M^2}{4\gamma M^2 - 2(\gamma - 1)}\right]^{\frac{1}{\gamma-1}} - 1 \qquad (M \geqq 1) \qquad (17)$$

The application of equation (17), like that for equations (6) and (8), requires that the pitot tube always operate behind a normal shock at supersonic speeds.

Table VII gives the values of the ratio of impact pressure to static pressure q_c/p for values of Mach number M from 0.10 to 5.00; these values were extracted from reference 3.

TRUE AIRSPEED TABLES

From the definition of Mach number - that is, the ratio of true airspeed to the speed of sound in the ambient air - true airspeed can be calculated from the following equation:

$$V = Ma \qquad (18)$$

Since the speed of sound is a function of the absolute temperature of the ambient air in accordance with the equation

$$a = \sqrt{\gamma \frac{p_o}{\rho_o} \frac{T}{T_o}} \qquad (19)$$

true airspeed can be determined from measurements of M (which can be measured directly or computed from measurements of V_c and H) and of free-air temperature T. From the measurements of T, the speed of

sound can be calculated by using any of the following formulas derived from equation (19):

$$a = 33.42353\sqrt{T} \tag{20}$$

where a is in miles per hour and T is in °F absolute

$$a = 29.04425\sqrt{T} \tag{21}$$

where a is in knots and T is in °F absolute

$$a = 44.84237\sqrt{T} \tag{22}$$

where a is in miles per hour and T is in °C absolute

$$a = 38.96695\sqrt{T} \tag{23}$$

where a is in knots and T is in °C absolute

By the use of formulas (20) and (21) values of the speed of sound, in units of miles per hour and knots, have been calculated for a temperature range from -70° F to 120° F and are given in table VIII. With formulas (22) and (23), values of the speed of sound, in units of miles per hour and knots, have been calculated for a temperature range from -60° C to 50° C and are given in table IX.

In table X values of the speed of sound (in both miles per hour and knots) and of free-stream temperature (in both °F and °C) in the standard atmosphere are given for altitudes from 0 to 100,000 geopotential feet. These values of the speed of sound and of temperature have been converted from those given in other units in reference 10. As an indication of the manner in which true airspeed V varies with calibrated airspeed V_c and altitude H, values of V have been calculated for V_c from 0 to 1,000 knots and for H from 0 to 100,000 geopotential feet and are given in table XI. These values of V were computed by using the values of q_c, p, q_c/p, and a given in tables III, V, VII, and X, respectively.

It should be noted that the value of T required for the calculation of V is the temperature of the free stream. For the usual case, the temperature measured by an aircraft thermometer is greater than the stream value because of the adiabatic heating effect of the air flow on the

temperature sensor. If the sensor measures the full adiabatic temperature increase (that is, if the recovery factor of the sensor is 1.0) or if the sensor is located in a region where the local velocity of the air is equal to the free-stream velocity, the free-air temperature can be calculated from the following expression:

$$T = \frac{T_m}{1 + \frac{\gamma - 1}{2}\eta M^2} \tag{24}$$

where T_m is the measured temperature and η is the recovery factor of the temperature sensor. For the more general case in which the recovery factor is less than 1.0 and the sensor is located in a region where the local velocity differs from the free-stream value, the free-stream temperature can be computed from the following equation:

$$T = \frac{T_m}{1 + \frac{\gamma - 1}{2}\eta M_l^2} \frac{1 + \frac{\gamma - 1}{2}M_l^2}{1 + \frac{\gamma - 1}{2}M^2} \tag{25}$$

where M_l is the local stream Mach number, which can be determined from measurements of the local static pressure in the region in which the temperature sensor is located.

In the calibration of true-airspeed instruments utilizing measurements of total pressure, static pressure, and air temperature, the recovery factor of the thermometer installation must, of course, be taken into account. For the values of true airspeed given in table XI, free-stream temperatures (that is, $\eta = 0$) were assumed.

Langley Research Center,
     National Aeronautics and Space Administration,
          Langley Field, Va., March 8, 1961.

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TABLE I.- IMPACT PRESSURE q_c IN INCHES OF MERCURY FOR VALUES OF CALIBRATED AIRSPEED V_c IN MILES PER HOUR

Calibrated airspeed, V_c, mph	0	1	2	3	4	5	6	7	8	9
0	0.000000	0.000030	0.000147	0.000323	0.000574	0.000901	0.001299	0.001768	0.002313	0.002932
10	.003611	.004377	.005203	.006104	.007088	.008136	.009258	.010451	.011708	.013049
20	.014461	.015959	.017501	.019129	.020825	.022594	.024440	.026358	.028347	.030412
30	.032539	.034751	.037025	.039382	.041806	.044304	.046869	.049508	.052228	.055019
40	.057871	.060806	.063816	.066886	.070034	.073256	.076551	.079920	.083358	.086876
50	.090464	.094126	.097851	.101652	.105535	.109485	.113509	.117603	.121771	.126016
60	.130331	.134712	.139179	.143709	.148323	.152999	.157751	.162574	.167472	.172448
70	.177496	.182606	.187804	.193064	.198411	.203818	.209302	.214859	.220487	.226196
80	.231977	.237832	.243751	.249756	.255824	.261976	.268196	.274489	.280853	.287298
90	.293812	.300397	.307058	.313802	.320606	.327488	.334454	.341485	.348592	.355770
100	.363029	.370347	.377756	.385239	.392785	.400406	.408111	.415888	.423736	.431659
110	.439657	.447733	.455874	.464097	.472391	.480772	.489215	.497731	.506328	.515008
120	.523742	.532566	.541464	.550443	.559480	.568606	.577797	.587070	.596414	.605837
130	.615334	.624912	.634564	.644292	.654085	.663965	.673914	.683940	.694039	.704227
140	.714481	.724804	.735210	.745698	.756263	.766894	.777600	.788395	.799257	.810199
150	.821216	.832311	.843483	.854734	.866050	.877456	.888931	.900480	.912117	.923825
160	.935611	.947472	.959413	.971424	.983524	.995699	1.00795	1.02028	1.03268	1.04516
170	1.05772	1.07036	1.08307	1.09586	1.10873	1.12168	1.13470	1.14782	1.16100	1.17426
180	1.18760	1.20103	1.21451	1.22809	1.24175	1.25548	1.26929	1.28319	1.29716	1.31120
190	1.32533	1.33953	1.35382	1.36819	1.38263	1.39716	1.41176	1.42645	1.44121	1.45605
200	1.47097	1.48597	1.50106	1.51622	1.53146	1.54679	1.56219	1.57768	1.59324	1.60889
210	1.62461	1.64042	1.65630	1.67228	1.68833	1.70445	1.72066	1.73695	1.75333	1.76978
220	1.78631	1.80294	1.81964	1.83642	1.85328	1.87022	1.88725	1.90435	1.92155	1.93882
230	1.95617	1.97362	1.99114	2.00874	2.02643	2.04419	2.06204	2.07998	2.09800	2.11609
240	2.13429	2.15255	2.17090	2.18933	2.20785	2.22645	2.24514	2.26390	2.28276	2.30170
250	2.32071	2.33983	2.35902	2.37829	2.39765	2.41710	2.43662	2.45624	2.47594	2.49572
260	2.51558	2.53555	2.55558	2.57571	2.59592	2.61622	2.63659	2.65706	2.67762	2.69826
270	2.71899	2.73980	2.76070	2.78168	2.80276	2.82392	2.84516	2.86650	2.88792	2.90943
280	2.93102	2.95271	2.97448	2.99634	3.01828	3.04032	3.06244	3.08464	3.10695	3.12933
290	3.15181	3.17436	3.19703	3.21976	3.24260	3.26552	3.28853	3.31163	3.33481	3.35809
300	3.38145	3.40491	3.42845	3.45209	3.47582	3.49963	3.52354	3.54754	3.57163	3.59581
310	3.62008	3.64444	3.66890	3.69343	3.71807	3.74279	3.76761	3.79253	3.81752	3.84262
320	3.86781	3.89308	3.91845	3.94392	3.96947	3.99512	4.02087	4.04670	4.07262	4.09865
330	4.12477	4.15097	4.17728	4.20367	4.23016	4.25674	4.28343	4.31020	4.33707	4.36403
340	4.39109	4.41824	4.44549	4.47282	4.50027	4.52780	4.55544	4.58316	4.61098	4.63890
350	4.66691	4.69502	4.72323	4.75153	4.77993	4.80843	4.83703	4.86572	4.89452	4.92339
360	4.95238	4.98147	5.01064	5.03992	5.06931	5.09878	5.12835	5.15803	5.18780	5.21768
370	5.24764	5.27772	5.30788	5.33816	5.36853	5.39899	5.42957	5.46024	5.49100	5.52187
380	5.55285	5.58392	5.61510	5.64638	5.67775	5.70923	5.74080	5.77249	5.80428	5.83617
390	5.86816	5.90025	5.93244	5.96475	5.99715	6.02965	6.06227	6.09498	6.12780	6.16071
400	6.19573	6.22686	6.26010	6.29343	6.32688	6.36043	6.39407	6.42783	6.46169	6.49566
410	6.52974	6.56393	6.59820	6.63260	6.66710	6.70171	6.73642	6.77124	6.80617	6.84121
420	6.87635	6.91161	6.94696	6.98243	7.01800	7.05369	7.08949	7.12539	7.16140	7.19752
430	7.23375	7.27009	7.30655	7.34310	7.37978	7.41656	7.45344	7.49046	7.52757	7.56479
440	7.60213	7.63958	7.67713	7.71480	7.75258	7.79048	7.82849	7.86660	7.90485	7.94319
450	7.98166	8.02022	8.05891	8.09772	8.13663	8.17566	8.21481	8.25407	8.29345	8.33294
460	8.37254	8.41226	8.45209	8.49205	8.53212	8.57229	8.61261	8.65302	8.69356	8.73421
470	8.77498	8.81587	8.85688	8.89800	8.93924	8.98060	9.02208	9.06368	9.10540	9.14723
480	9.18919	9.23127	9.27346	9.31578	9.35821	9.40077	9.44345	9.48625	9.52917	9.57221
490	9.61537	9.65866	9.70207	9.74560	9.78926	9.83303	9.87693	9.92095	9.96509	10.0094
500	10.0538	10.0983	10.1429	10.1877	10.2326	10.2776	10.3227	10.3680	10.4134	10.4589
510	10.5046	10.5503	10.5962	10.6423	10.6884	10.7347	10.7811	10.8276	10.8743	10.9211
520	10.9680	11.0151	11.0623	11.1096	11.1570	11.2046	11.2523	11.3001	11.3481	11.3962
530	11.4444	11.4927	11.5412	11.5898	11.6386	11.6875	11.7365	11.7856	11.8349	11.8843
540	11.9339	11.9836	12.0334	12.0833	12.1334	12.1836	12.2340	12.2845	12.3351	12.3859
550	12.4367	12.4878	12.5390	12.5903	12.6417	12.6933	12.7450	12.7969	12.8489	12.9010
560	12.9533	13.0057	13.0582	13.1109	13.1638	13.2167	13.2698	13.3231	13.3765	13.4300
570	13.4837	13.5375	13.5915	13.6456	13.6999	13.7542	13.8088	13.8635	13.9183	13.9732
580	14.0283	14.0856	14.1390	14.1945	14.2502	14.3061	14.3620	14.4182	14.4744	14.5309
590	14.5874	14.6441	14.7010	14.7580	14.8152	14.8725	14.9299	14.9875	15.0453	15.1032

L-1477

TABLE I.- IMPACT PRESSURE q_c IN INCHES OF MERCURY FOR VALUES OF CALIBRATED AIRSPEED V_c IN MILES PER HOUR - Concluded

Calibrated airspeed, V_c, mph	0	1	2	3	4	5	6	7	8	9
600	15.1613	15.2195	15.2778	15.3363	15.3950	15.4538	15.5128	15.5719	15.6312	15.6906
610	15.7502	15.8099	15.8698	15.9298	15.9900	16.0503	16.1108	16.1715	16.2323	16.2933
620	16.3544	16.4156	16.4771	16.5387	16.6004	16.6623	16.7244	16.7866	16.8490	16.9116
630	16.9745	17.0371	17.1001	17.1633	17.2267	17.2902	17.3538	17.4176	17.4816	17.5458
640	17.6101	17.6746	17.7392	17.8040	17.8690	17.9341	17.9994	18.0649	18.1305	18.1963
650	18.2622	18.3284	18.3946	18.4611	18.5277	18.5945	18.6615	18.7286	18.7959	18.8634
660	18.9310	18.9988	19.0668	19.1349	19.2032	19.2717	19.3404	19.4092	19.4782	19.5474
670	19.6167	19.6863	19.7560	19.8258	19.8959	19.9661	20.0365	20.1070	20.1778	20.2487
680	20.3198	20.3911	20.4625	20.5341	20.6059	20.6779	20.7501	20.8224	20.8949	20.9676
690	21.0405	21.1136	21.1868	21.2602	21.3338	21.4076	21.4816	21.5557	21.6300	21.7046
700	21.7793	21.8541	21.9292	22.0045	22.0799	22.1555	22.2313	22.3073	22.3835	22.4599
710	22.5364	22.6132	22.6901	22.7672	22.8446	22.9220	22.9997	23.0776	23.1557	23.2339
720	23.3124	23.3911	23.4699	23.5489	23.6281	23.7076	23.7872	23.8670	23.9470	24.0272
730	24.1076	24.1881	24.2689	24.3499	24.4311	24.5125	24.5940	24.6758	24.7578	24.8399
740	24.9223	25.0049	25.0877	25.1706	25.2538	25.3372	25.4207	25.5045	25.5885	25.6727
750	25.7571	25.8417	25.9265	26.0115	26.0967	26.1821	26.2677	26.3535	26.4396	26.5258
760	26.6122	26.6989	26.7861	26.8731	26.9604	27.0479	27.1356	27.2235	27.3116	27.4000
770	27.4885	27.5772	27.6661	27.7553	27.8446	27.9341	28.0239	28.1138	28.2040	28.2943
780	28.3848	28.4756	28.5665	28.6577	28.7490	28.8405	28.9323	29.0242	29.1163	29.2086
790	29.3011	29.3939	29.4868	29.5799	29.6732	29.7667	29.8603	29.9542	30.0483	30.1425
800	30.2370	30.3316	30.4264	30.5214	30.6166	30.7120	30.8076	30.9034	30.9994	31.0955
810	31.1918	31.2884	31.3851	31.4820	31.5791	31.6765	31.7738	31.8714	31.9692	32.0672
820	32.1654	32.2638	32.3624	32.4611	32.5600	32.6591	32.7584	32.8579	32.9575	33.0574
830	33.1574	33.2576	33.3579	33.4585	33.5592	33.6601	33.7612	33.8625	33.9639	34.0655
840	34.1674	34.2693	34.3715	34.4738	34.5763	34.6790	34.7819	34.8849	34.9881	35.0915
850	35.1951	35.2988	35.4027	35.5068	35.6111	35.7155	35.8201	35.9249	36.0299	36.1350
860	36.2403	36.3458	36.4514	36.5572	36.6632	36.7694	36.8757	36.9822	37.0889	37.1957
870	37.3027	37.4099	37.5173	37.6248	37.7325	37.8404	37.9484	38.0566	38.1649	38.2735
880	38.3822	38.4910	38.6001	38.7093	38.8187	38.9282	39.0379	39.1478	39.2578	39.3680
890	39.4784	39.5889	39.6996	39.8105	39.9215	40.0327	40.1441	40.2556	40.3673	40.4792
900	40.5912	40.7034	40.8157	40.9283	41.0409	41.1538	41.2668	41.3799	41.4933	41.6068
910	41.7204	41.8342	41.9482	42.0624	42.1767	42.2911	42.4057	42.5205	42.6355	42.7506
920	42.8659	42.9813	43.0969	43.2126	43.3286	43.4446	43.5609	43.6772	43.7938	43.9105
930	44.0274	44.1444	44.2616	44.3790	44.4965	44.6141	44.7320	44.8499	44.9681	45.0864
940	45.2049	45.3235	45.4422	45.5612	45.6803	45.7995	45.9189	46.0385	46.1581	46.2781
950	46.3981	46.5183	46.6386	46.7591	46.8798	47.0006	47.1216	47.2427	47.3640	47.4854
960	47.6070	47.7288	47.8506	47.9727	48.0949	48.2173	48.3398	48.4625	48.5853	48.7083
970	48.8315	48.9547	49.0782	49.2018	49.3256	49.4495	49.5735	49.6977	49.8221	49.9467
980	50.0713	50.1962	50.3211	50.4463	50.5716	50.6970	50.8226	50.9484	51.0743	51.2003
990	51.3265	51.4529	51.5794	51.7061	51.8329	51.9598	52.0870	52.2142	52.3417	52.4692
1,000	52.5970	52.7248	52.8529	52.9810	53.1094	53.2379	53.3665	53.4953	53.6242	53.7533
1,100	53.8825	54.0119	54.1414	54.2711	54.4010	54.5309	54.6611	54.7914	54.9218	55.0524
1,200	55.1831	55.3140	55.4450	55.5762	55.7076	55.8390	55.9707	56.1024	56.2344	56.3665
1,300	56.4987	56.6311	56.7636	56.8963	57.0291	57.1621	57.2952	57.4285	57.5619	57.6954
1,400	57.8292	57.9630	58.0970	58.2312	58.3655	58.4999	58.6345	58.7693	58.9042	59.0392
1,500	59.1744	59.3098	59.4452	59.5809	59.7167	59.8526	59.9887	60.1249	60.2613	60.3978
1,600	60.5344	60.6712	60.8082	60.9453	61.0826	61.2200	61.3575	61.4952	61.6330	61.7710
1,700	61.9091	62.0474	62.1858	62.3244	62.4631	62.6020	62.7410	62.8801	63.0194	63.1589
1,800	63.2985	63.4382	63.5781	63.7181	63.8583	63.9986	64.1391	64.2797	64.4204	64.5613
1,900	64.7023	64.8435	64.9849	65.1263	65.2680	65.4097	65.5517	65.6937	65.8359	65.9783
2,000	66.1208	--------	--------	--------	--------	--------	--------	--------	--------	--------

L-1477

TABLE II.- IMPACT PRESSURE q_c IN POUNDS PER SQUARE FOOT FOR VALUES OF CALIBRATED AIRSPEED V_c IN MILES PER HOUR

Calibrated airspeed, V_c, mph	0	1	2	3	4	5	6	7	8	9
0	0.000000	0.002116	0.010369	0.022655	0.040631	0.063698	0.091844	0.125068	0.167584	0.207389
10	.255427	.309603	.368010	.431708	.501332	.575399	.654758	.739195	.828076	.922882
20	1.02277	1.12731	1.23778	1.35290	1.47289	1.59796	1.72853	1.86418	2.00490	2.15092
30	2.30139	2.45777	2.61861	2.78536	2.95678	3.13548	3.31484	3.50149	3.69586	3.89150
40	4.09298	4.30058	4.51347	4.73059	4.95322	5.18113	5.41413	5.65242	5.89557	6.14444
50	6.39817	6.65720	6.92066	7.18942	7.46411	7.74345	8.02808	8.31758	8.61257	8.91266
60	9.21782	9.52763	9.84558	10.1640	10.4903	10.8211	11.1571	11.4985	11.8447	12.1966
70	12.5536	12.9151	13.2826	13.6547	14.0328	14.4152	14.8032	15.1961	15.5942	15.9980
80	16.4068	16.8210	17.2396	17.6643	18.0934	18.5265	18.9685	19.4135	19.8637	20.3195
90	20.7802	21.2460	21.7170	22.1940	22.6753	23.1620	23.6547	24.1520	24.6546	25.1622
100	25.6756	26.1933	26.7172	27.2465	27.7802	28.3192	28.8641	29.4141	29.9692	30.5296
110	31.0953	31.6664	32.2423	32.8238	33.4104	34.0032	34.6001	35.2026	35.8106	36.4245
120	37.0423	37.6663	38.2957	38.9308	39.5699	40.2153	40.8654	41.5212	42.1821	42.8485
130	43.5202	44.1976	44.8803	45.5685	46.2609	46.9997	47.6635	48.3725	49.0867	49.8073
140	50.5325	51.2626	51.9986	52.7404	53.4876	54.2395	54.9967	55.7602	56.5284	57.3023
150	58.0815	58.8662	59.6564	60.4521	61.2524	62.0591	62.8707	63.6876	64.5105	65.3386
160	66.1722	67.0111	67.8557	68.7051	69.5609	70.4220	71.2882	72.1605	73.0372	73.9201
170	74.8083	75.7024	76.6016	77.5062	78.4162	79.3321	80.2531	81.1806	82.1130	83.0507
180	83.9943	84.9441	85.8979	86.8582	87.8241	88.7956	89.7723	90.7550	91.7429	92.7362
190	93.7355	94.7401	95.7508	96.7666	97.7885	98.8161	99.8486	100.887	101.931	102.981
200	104.036	105.097	106.164	107.236	108.315	109.399	110.488	111.583	112.683	113.790
210	114.903	116.021	117.144	118.274	119.409	120.549	121.696	122.848	124.006	125.170
220	126.339	127.515	128.696	129.883	131.075	132.274	133.478	134.688	135.904	137.125
230	138.353	139.587	140.826	142.071	143.322	144.578	145.841	147.109	148.383	149.663
240	150.950	152.242	153.539	154.843	156.153	157.469	158.790	160.117	161.451	162.790
250	164.135	165.487	166.844	168.208	169.577	170.952	172.333	173.720	175.114	176.513
260	177.918	179.330	180.747	182.170	183.599	185.035	186.476	187.924	189.378	190.857
270	192.304	193.776	195.254	196.738	198.228	199.723	201.228	202.737	204.251	205.773
280	207.300	208.834	210.374	211.919	213.472	215.030	216.595	218.165	219.742	221.326
290	222.915	224.511	226.114	227.722	229.337	230.958	232.585	234.219	235.858	237.505
300	239.157	240.817	242.481	244.153	245.831	247.516	249.207	250.904	252.608	254.318
310	256.035	257.757	259.487	261.222	262.965	264.714	266.469	268.231	269.999	271.774
320	273.556	275.343	277.157	278.939	280.746	282.560	284.381	286.208	288.041	289.882
330	291.729	293.582	295.443	297.310	299.183	301.063	302.950	304.844	306.745	308.652
340	310.565	312.485	314.412	316.346	318.287	320.234	322.189	324.149	326.117	328.092
350	330.073	332.061	334.056	336.058	338.066	340.082	342.105	344.134	346.171	348.213
360	350.263	352.320	354.384	356.455	358.533	360.618	362.709	364.808	366.914	369.026
370	371.146	373.273	375.406	377.548	379.695	381.850	384.013	386.182	388.358	390.541
380	392.732	394.930	397.134	399.347	401.566	403.792	406.025	408.266	410.514	412.770
390	415.032	417.302	419.579	421.864	424.155	426.454	428.761	431.074	433.396	435.724
400	438.059	440.402	442.753	445.110	447.476	449.849	452.228	454.616	457.011	459.414
410	461.824	464.242	466.666	469.099	471.539	473.987	476.442	478.904	481.575	483.853
420	486.338	488.832	491.332	493.841	496.357	498.881	501.413	503.952	506.499	509.053
430	511.616	514.186	516.764	519.350	521.944	524.545	527.155	529.772	532.396	535.029
440	537.670	540.318	542.974	545.639	548.311	550.991	553.679	556.375	559.080	561.792
450	564.513	567.240	569.976	572.721	575.473	578.233	581.002	583.779	586.564	589.357
460	592.158	594.967	597.784	600.610	603.445	606.286	609.137	611.996	614.862	617.737
470	620.621	623.513	626.413	629.322	632.238	635.164	638.097	641.040	643.990	646.949
480	649.916	652.892	655.877	658.870	661.871	664.881	667.899	670.926	673.962	677.006
490	680.059	683.120	686.191	689.269	692.357	695.453	698.558	701.671	704.793	707.925
500	711.065	714.213	717.369	720.536	723.711	726.895	730.088	733.290	736.500	739.719
510	742.948	746.185	749.431	752.687	755.951	759.225	762.507	765.798	769.098	772.408
520	775.726	779.054	782.391	785.737	789.093	792.457	795.830	799.213	802.605	806.007
530	809.418	812.857	816.267	819.705	823.153	826.610	830.077	833.552	837.038	840.533
540	844.037	847.551	851.075	854.607	858.149	861.701	865.263	868.835	872.414	876.004
550	879.604	883.214	886.833	890.462	894.100	897.748	901.406	905.074	908.751	912.438
560	916.135	919.843	923.560	927.287	931.024	934.770	938.526	942.293	946.070	949.856
570	953.652	957.459	961.275	965.102	968.939	972.786	976.642	980.509	984.386	988.274
580	992.171	996.080	999.998	1003.93	1007.86	1011.81	1015.77	1019.74	1023.72	1027.71
590	1031.71	1035.72	1039.75	1043.78	1047.82	1051.87	1055.94	1060.01	1064.10	1068.19

TABLE II.- IMPACT PRESSURE q_c IN POUNDS PER SQUARE FOOT FOR VALUES OF CALIBRATED AIRSPEED V_c IN MILES PER HOUR - Concluded

Calibrated airspeed, V_c, mph	0	1	2	3	4	5	6	7	8	9
600	1072.30	1076.42	1080.54	1084.68	1088.83	1092.99	1097.16	1101.34	1105.53	1109.73
610	1113.95	1118.17	1122.41	1126.65	1130.91	1135.18	1139.46	1143.75	1148.05	1152.36
620	1156.68	1161.02	1165.36	1169.72	1174.09	1178.46	1182.85	1187.25	1191.67	1196.09
630	1200.53	1204.97	1209.43	1213.90	1218.38	1222.87	1227.37	1231.88	1236.41	1240.95
640	1245.49	1250.06	1254.63	1259.21	1263.81	1268.41	1273.03	1277.66	1282.30	1286.95
650	1291.62	1296.30	1300.98	1305.68	1310.40	1315.12	1319.86	1324.60	1329.36	1334.13
660	1338.92	1343.71	1348.52	1353.34	1358.17	1363.02	1367.87	1372.74	1377.62	1382.51
670	1387.42	1392.33	1397.26	1402.21	1407.16	1412.12	1417.10	1422.09	1427.10	1432.11
680	1437.14	1442.18	1447.24	1452.30	1457.38	1462.47	1467.57	1472.69	1477.82	1482.96
690	1488.12	1493.28	1498.46	1503.66	1508.86	1514.08	1519.31	1524.55	1529.81	1535.08
700	1540.37	1545.66	1550.97	1556.29	1561.63	1566.98	1572.34	1577.71	1583.10	1588.50
710	1593.92	1599.34	1604.79	1610.24	1615.71	1621.19	1626.68	1632.19	1637.71	1643.25
720	1648.80	1654.36	1659.94	1665.53	1671.13	1676.75	1682.38	1688.02	1693.68	1699.35
730	1705.04	1710.74	1716.45	1722.18	1727.92	1733.67	1739.44	1745.23	1751.02	1756.83
740	1762.66	1768.50	1774.35	1780.22	1786.10	1792.00	1797.91	1803.84	1809.78	1815.73
750	1821.70	1827.68	1833.68	1839.69	1845.72	1851.76	1857.81	1863.88	1869.97	1876.07
760	1882.18	1888.31	1894.48	1900.64	1906.81	1913.00	1919.20	1925.42	1931.65	1937.89
770	1944.16	1950.43	1956.72	1963.02	1969.34	1975.68	1980.02	1988.38	1994.76	2001.15
780	2007.55	2013.97	2020.40	2026.85	2033.31	2039.78	2046.27	2052.77	2059.29	2065.82
790	2072.36	2078.92	2085.49	2092.07	2098.67	2105.28	2111.91	2118.55	2125.20	2131.86
800	2138.54	2145.24	2151.94	2158.67	2165.40	2172.15	2178.91	2185.68	2192.47	2199.27
810	2206.08	2212.91	2219.75	2226.60	2233.47	2240.35	2247.24	2254.14	2261.06	2267.99
820	2274.94	2281.90	2288.87	2295.85	2302.85	2309.86	2316.88	2323.91	2330.96	2338.02
830	2345.09	2352.18	2359.28	2366.39	2373.52	2380.65	2387.80	2394.97	2402.14	2409.33
840	2416.53	2423.74	2430.96	2438.20	2445.45	2452.71	2459.99	2467.28	2474.58	2481.89
850	2489.22	2496.55	2503.90	2511.26	2518.64	2526.02	2533.42	2540.83	2548.26	2555.69
860	2563.14	2570.60	2578.07	2585.55	2593.05	2600.56	2608.08	2615.61	2623.16	2630.71
870	2638.28	2645.86	2653.45	2661.06	2668.68	2676.30	2683.94	2691.60	2699.26	2706.94
880	2714.62	2722.32	2730.04	2737.76	2745.50	2753.24	2761.00	2768.77	2776.56	2784.35
890	2792.16	2799.98	2807.80	2815.65	2823.50	2831.36	2839.24	2847.13	2855.03	2862.94
900	2870.87	2878.80	2886.74	2894.70	2902.67	2910.65	2918.64	2926.65	2934.66	2942.69
910	2950.73	2958.78	2966.84	2974.91	2982.99	2991.09	2999.20	3007.32	3015.45	3023.59
920	3031.74	3039.90	3048.08	3056.27	3064.46	3072.67	3080.89	3089.13	3097.37	3105.62
930	3113.89	3122.17	3130.46	3138.76	3147.07	3155.39	3163.72	3172.07	3180.42	3188.79
940	3197.17	3205.56	3213.96	3222.37	3230.79	3239.22	3247.67	3256.13	3264.59	3273.07
950	3281.56	3290.06	3298.57	3307.09	3315.63	3324.17	3332.73	3341.30	3349.87	3358.46
960	3367.06	3375.67	3384.29	3392.93	3401.37	3410.23	3418.89	3427.57	3436.25	3444.95
970	3453.66	3462.38	3471.11	3479.86	3488.61	3497.77	3506.15	3514.93	3523.73	3532.54
980	3541.36	3550.18	3559.02	3567.87	3576.73	3585.61	3594.49	3603.38	3612.29	3621.20
990	3630.13	3639.07	3648.02	3656.97	3665.94	3674.92	3683.91	3692.92	3701.93	3710.95
1,000	3719.98	3729.03	3738.08	3747.15	3756.22	3765.31	3774.41	3783.52	3792.64	3801.77
1,010	3810.91	3820.06	3829.22	3838.39	3847.57	3856.77	3865.97	3875.19	3884.41	3893.65
1,020	3902.89	3912.15	3921.42	3930.70	3939.98	3949.28	3958.59	3967.91	3977.24	3986.59
1,030	3995.94	4005.30	4014.67	4024.06	4033.45	4042.86	4052.27	4061.70	4071.13	4080.58
1,040	4090.04	4099.50	4108.98	4118.47	4127.97	4137.48	4147.00	4156.53	4166.07	4175.62
1,050	4185.18	4194.75	4204.34	4213.93	4223.53	4233.15	4242.77	4252.41	4262.05	4271.71
1,060	4281.37	4291.05	4300.73	4310.43	4320.14	4329.85	4339.58	4349.32	4359.07	4368.83
1,070	4378.60	4388.38	4398.17	4407.97	4417.78	4427.60	4437.43	4447.27	4457.13	4466.99
1,080	4476.86	4486.74	4496.64	4506.54	4516.45	4526.38	4536.31	4546.26	4556.21	4566.18
1,090	4576.15	4586.14	4596.13	4606.14	4616.16	4626.18	4636.22	4646.27	4656.32	4666.39
1,100	4676.47	-------	-------	-------	-------	-------	-------	-------	-------	-------

TABLE III.- IMPACT PRESSURE qc IN INCHES OF MERCURY FOR VALUES OF CALIBRATED AIRSPEED Vc IN KNOTS

Calibrated airspeed, Vc, knots	0	1	2	3	4	5	6	7	8	9
0	0.000000	0.000051	0.000189	0.000428	0.000763	0.001194	0.001726	0.002346	0.003067	0.003875
10	.004784	.005790	.006891	.008085	.009383	.010766	.012253	.013833	.015508	.017283
20	.019150	.021118	.023171	.025331	.027581	.029930	.032372	.034909	.037551	.040274
30	.043108	.046031	.049047	.052165	.055375	.058676	.062087	.065590	.069175	.072867
40	.076655	.080548	.084528	.088606	.092777	.097047	.101412	.105870	.110430	.115092
50	.119841	.124691	.129640	.134682	.139822	.145052	.150381	.155815	.161347	.166958
60	.172679	.178492	.184417	.190422	.196526	.202732	.209039	.215433	.221929	.228521
70	.235205	.242000	.248888	.255866	.262945	.270120	.277409	.284773	.292241	.299811
80	.307483	.315247	.323108	.331067	.339119	.347281	.355539	.363887	.372334	.380886
90	.389530	.398282	.407121	.416067	.425109	.434250	.443490	.452825	.462257	.471798
100	.481424	.491160	.500993	.510923	.520953	.531078	.541317	.551637	.562068	.572597
110	.583225	.593949	.604783	.615708	.626740	.637855	.649085	.660413	.671840	.683375
120	.694996	.706731	.718562	.730483	.742511	.754653	.766882	.779212	.791651	.804191
130	.816826	.829561	.842403	.855344	.868384	.881528	.894780	.908125	.921578	.935129
140	.948779	.962531	.976394	.990364	1.00442	1.01859	1.03286	1.04723	1.06170	1.07628
150	1.09097	1.10575	1.12063	1.13563	1.15072	1.16591	1.18122	1.19663	1.21213	1.22774
160	1.24347	1.25929	1.27521	1.29125	1.30738	1.32362	1.33996	1.35641	1.37298	1.38963
170	1.40640	1.42327	1.44025	1.45733	1.47452	1.49181	1.50921	1.52671	1.54432	1.56205
180	1.57987	1.59780	1.61584	1.63398	1.65223	1.67059	1.68906	1.70763	1.72632	1.74510
190	1.76400	1.78300	1.80211	1.82133	1.84066	1.86009	1.87964	1.89930	1.91905	1.93893
200	1.95891	1.97900	1.99920	2.01951	2.03992	2.06045	2.08108	2.10183	2.12269	2.14366
210	2.16473	2.18593	2.20722	2.22864	2.25016	2.27179	2.29354	2.31539	2.33735	2.35944
220	2.38162	2.40392	2.42634	2.44887	2.47151	2.49426	2.51713	2.54011	2.56320	2.58641
230	2.60972	2.63315	2.65670	2.68036	2.70412	2.72802	2.75202	2.77614	2.80037	2.82471
240	2.84918	2.87375	2.89845	2.92325	2.94818	2.97321	2.99838	3.02365	3.04904	3.07455
250	3.10015	3.12590	3.15176	3.17773	3.20381	3.23003	3.25636	3.28281	3.30937	3.33605
260	3.36284	3.38977	3.41680	3.44396	3.47124	3.49864	3.52615	3.55378	3.58154	3.60941
270	3.63741	3.66553	3.69377	3.72212	3.75060	3.77921	3.80792	3.83678	3.86574	3.89483
280	3.92404	3.95337	3.98283	4.01241	4.04212	4.07194	4.10189	4.13197	4.16216	4.19250
290	4.22293	4.25351	4.28421	4.31505	4.34597	4.37704	4.40825	4.43957	4.47102	4.50260
300	4.53430	4.56613	4.59809	4.63017	4.66238	4.69473	4.72719	4.75978	4.79252	4.82537
310	4.85834	4.89146	4.92469	4.95806	4.99156	5.02519	5.05896	5.09284	5.12687	5.16101
320	5.19529	5.22971	5.26425	5.29892	5.33374	5.36868	5.40375	5.43896	5.47430	5.50977
330	5.54538	5.58111	5.61699	5.65300	5.68914	5.72542	5.76183	5.79838	5.83506	5.87187
340	5.90883	5.94592	5.98315	6.02051	6.05801	6.09565	6.13343	6.17135	6.20939	6.24758
350	6.28590	6.32438	6.36298	6.40173	6.44061	6.47963	6.51880	6.55811	6.59755	6.63713
360	6.67687	6.71674	6.75674	6.79690	6.83719	6.87764	6.91822	6.95894	6.99981	7.04082
370	7.08198	7.12328	7.16472	7.20631	7.24804	7.28991	7.33194	7.37412	7.41643	7.45889
380	7.50151	7.54427	7.58717	7.63021	7.67342	7.71677	7.76027	7.80391	7.84770	7.89165
390	7.93575	7.98000	8.02439	8.06894	8.11363	8.15847	8.20347	8.24863	8.29393	8.33939
400	8.38499	8.43075	8.47668	8.52274	8.56897	8.61535	8.66188	8.70856	8.75540	8.80241
410	8.84955	8.89687	8.94434	8.99196	9.03974	9.08768	9.13578	9.18403	9.23244	9.28102
420	9.32975	9.37864	9.42769	9.47691	9.52628	9.57581	9.62551	9.67536	9.72538	9.77556
430	9.82591	9.87640	9.92708	9.97791	10.0289	10.0801	10.1314	10.1829	10.2345	10.2864
440	10.3384	10.3905	10.4428	10.4953	10.5480	10.6008	10.6538	10.7070	10.7603	10.8138
450	10.8675	10.9213	10.9753	11.0295	11.0838	11.1383	11.1930	11.2479	11.3029	11.3582
460	11.4135	11.4691	11.5248	11.5807	11.6368	11.6931	11.7495	11.8061	11.8629	11.9199
470	11.9770	12.0343	12.0918	12.1495	12.2074	12.2654	12.3236	12.3820	12.4406	12.4993
480	12.5583	12.6174	12.6767	12.7362	12.7958	12.8557	12.9157	12.9759	13.0363	13.0969
490	13.1577	13.2186	13.2798	13.3411	13.4026	13.4643	13.5262	13.5883	13.6505	13.7130

L-1477

TABLE III.- IMPACT PRESSURE q_c IN INCHES OF MERCURY FOR VALUES OF CALIBRATED AIRSPEED V_c IN KNOTS - Concluded

Calibrated airspeed, V_c, knots	0	1	2	3	4	5	6	7	8	9
500	13.7756	13.8385	13.9015	13.9647	14.0281	14.0917	14.1555	14.2195	14.2836	14.3480
510	14.4126	14.4773	14.5423	14.6074	14.6727	14.7383	14.8040	14.8699	14.9361	15.0024
520	15.0689	15.1356	15.2026	15.2697	15.3370	15.4045	15.4722	15.5402	15.6083	15.6766
530	15.7451	15.8139	15.8828	15.9519	16.0213	16.0908	16.1606	16.2305	16.3007	16.3711
540	16.4417	16.5125	16.5835	16.6547	16.7261	16.7977	16.8695	16.9416	17.0138	17.0863
550	17.1590	17.2319	17.3050	17.3783	17.4518	17.5256	17.5996	17.6737	17.7481	17.8228
560	17.8976	17.9726	18.0479	18.1234	18.1991	18.2750	18.3512	18.4275	18.5041	18.5809
570	18.6580	18.7352	18.8127	18.8904	18.9683	19.0465	19.1248	19.2034	19.2823	19.3613
580	19.4406	19.5201	19.5999	19.6798	19.7600	19.8405	19.9211	20.0020	20.0831	20.1645
590	20.2461	20.3279	20.4099	20.4922	20.5748	20.6575	20.7405	20.8238	20.9072	20.9909
600	21.0749	21.1591	21.2435	21.3282	21.4131	21.4982	21.5836	21.6693	21.7551	21.8413
610	21.9276	22.0142	22.1011	22.1882	22.2755	22.3631	22.4510	22.5391	22.6274	22.7160
620	22.8048	22.8939	22.9833	23.0729	23.1627	23.2528	23.3432	23.4338	23.5246	23.6158
630	23.7071	23.7987	23.8906	23.9828	24.0752	24.1679	24.2608	24.3540	24.4474	24.5411
640	24.6351	24.7293	24.8238	24.9186	25.0136	25.1089	25.2044	25.3003	25.3964	25.4927
650	25.5893	25.6862	25.7834	25.8809	25.9786	26.0765	26.1748	26.2733	26.3721	26.4712
660	26.5705	26.6702	26.7701	26.8703	26.9707	27.0714	27.1724	27.2737	27.3753	27.4771
670	27.5792	27.6815	27.7842	27.8871	27.9902	28.0937	28.1974	28.3013	28.4056	28.5100
680	28.6148	28.7198	28.8251	28.9306	29.0364	29.1425	29.2488	29.3554	29.4622	29.5693
690	29.6767	29.7843	29.8922	30.0003	30.1086	30.2173	30.3261	30.4353	30.5447	30.6543
700	30.7642	30.8743	30.9847	31.0953	31.2062	31.3173	31.4287	31.5403	31.6522	31.7643
710	31.8766	31.9892	32.1021	32.2151	32.3285	32.4421	32.5559	32.6699	32.7842	32.8988
720	33.0135	33.1285	33.2438	33.3593	33.4750	33.5910	33.7072	33.8236	33.9403	34.0572
730	34.1744	34.2918	34.4094	34.5272	34.6453	34.7636	34.8822	35.0010	35.1200	35.2393
740	35.3587	35.4785	35.5984	35.7186	35.8390	35.9596	36.0805	36.2016	36.3229	36.4444
750	36.5662	36.6882	36.8104	36.9329	37.0555	37.1785	37.3016	37.4249	37.5485	37.6723
760	37.7964	37.9206	38.0451	38.1698	38.2947	38.4198	38.5452	38.6708	38.7966	38.9226
770	39.0489	39.1754	39.3021	39.4290	39.5561	39.6835	39.8110	39.9388	40.0668	40.1951
780	40.3235	40.4522	40.5811	40.7102	40.8395	40.9690	41.0988	41.2287	41.3589	41.4893
790	41.6199	41.7507	41.8818	42.0130	42.1445	42.2762	42.4081	42.5402	42.6725	42.8051
800	42.9378	43.0708	43.2040	43.3374	43.4710	43.6048	43.7388	43.8730	44.0075	44.1422
810	44.2770	44.4121	44.5474	44.6829	44.8186	44.9545	45.0907	45.2270	45.3635	45.5003
820	45.6373	45.7744	45.9118	46.0494	46.1872	46.3252	46.4634	46.6019	46.7405	46.8793
830	47.0184	47.1576	47.2971	47.4367	47.5766	47.7167	47.8569	47.9974	48.1381	48.2790
840	48.4201	48.5614	48.7029	48.8446	48.9866	49.1287	49.2710	49.4135	49.5563	49.6992
850	49.8423	49.9857	50.1292	50.2730	50.4169	50.5611	50.7055	50.8500	50.9948	51.1397
860	51.2849	51.4303	51.5758	51.7216	51.8676	52.0138	52.1601	52.3067	52.4535	52.6004
870	52.7476	52.8950	53.0426	53.1904	53.3383	53.4865	53.6349	53.7834	53.9322	54.0812
880	54.2304	54.3798	54.5293	54.6791	54.8291	54.9792	55.1296	55.2801	55.4309	55.5819
890	55.7330	55.8844	56.0359	56.1877	56.3396	56.4918	56.6441	56.7966	56.9494	57.1023
900	57.2554	57.4088	57.5623	57.7160	57.8699	58.0240	58.1783	58.3328	58.4875	58.6424
910	58.7975	58.9528	59.1083	59.2640	59.4198	59.5759	59.7321	59.8886	60.0453	60.2021
920	60.3591	60.5164	60.6738	60.8314	60.9892	61.1473	61.3055	61.4639	61.6225	61.7812
930	61.9402	62.0994	62.2588	62.4183	62.5781	62.7380	62.8982	63.0585	63.2190	63.3798
940	63.5407	63.7018	63.8631	64.0246	64.1862	64.3481	64.5102	64.6725	64.8349	64.9976
950	65.1604	65.3234	65.4867	65.6500	65.8137	65.9774	66.1414	66.3056	66.4700	66.6346
960	66.7993	66.9643	67.1294	67.2947	67.4602	67.6259	67.7918	67.9579	68.1242	68.2907
970	68.4573	68.6242	68.7912	68.9585	69.1259	69.2935	69.4613	69.6293	69.7975	69.9659
980	70.1344	70.3032	70.4721	70.6413	70.8106	70.9801	71.1498	71.3197	71.4897	71.6600
990	71.8305	72.0011	72.1719	72.3430	72.5142	72.6856	72.8572	73.0290	73.2009	73.3731
1,000	73.5454	-------	-------	-------	-------	-------	-------	-------	-------	-------

L-1477

TABLE IV.- IMPACT PRESSURE q_c IN POUNDS PER SQUARE FOOT FOR VALUES OF CALIBRATED AIRSPEED V_c IN KNOTS

Calibrated airspeed, V_c, knots	0	1	2	3	4	5	6	7	8	9
0	0.000000	0.003598	0.013532	0.030262	0.053964	0.084457	0.122106	0.165911	0.216912	0.274050
10	.338983	.409488	.487765	.571002	.663646	.761415	.866591	.978327	1.09684	1.22235
20	1.35438	1.49363	1.63980	1.79159	1.95073	2.11685	2.28954	2.46899	2.65585	2.84843
30	3.04685	3.25559	3.46890	3.68941	3.91648	4.14990	4.39115	4.63996	4.89248	5.15362
40	5.42154	5.69606	5.97831	6.26675	6.56175	6.86374	7.17249	7.48781	7.81032	8.14005
50	8.47587	8.81891	9.16895	9.52552	9.88908	10.2590	10.6559	11.0202	11.4115	11.8085
60	12.2129	12.6241	13.0431	13.4678	13.8995	14.3384	14.7845	15.2358	15.6962	16.1624
70	16.6552	17.1158	17.6029	18.0964	18.5971	19.1046	19.6201	20.1409	20.6691	21.2045
80	21.7471	22.2965	22.8522	23.4151	23.9846	24.5619	25.1459	25.7364	26.3358	26.9396
90	27.5500	28.1690	28.7941	29.4268	30.0664	30.7129	31.3664	32.0266	32.6936	33.3685
100	34.0493	34.7379	35.4333	36.1357	36.8450	37.5612	38.2853	39.0132	39.7529	40.4976
110	41.2493	42.0078	42.7740	43.5467	44.3269	45.1131	45.9071	46.7085	47.5167	48.3325
120	49.1544	49.9844	50.8212	51.6645	52.5150	53.3737	54.2386	55.1107	55.9904	56.8774
130	57.7710	58.6717	59.5800	60.4952	61.4175	62.3471	63.2844	64.2282	65.1797	66.1381
140	67.1035	68.0762	69.0566	70.0447	71.0391	72.0411	73.0501	74.0665	75.0899	76.1212
150	77.1598	78.2076	79.2576	80.3187	81.3861	82.4607	83.5434	84.6530	85.7234	86.8557
160	87.9462	89.0650	90.1911	91.3253	92.4658	93.6147	94.7705	95.9340	97.1094	98.2835
170	99.4696	100.662	101.865	103.071	104.287	105.510	106.741	107.978	109.224	110.478
180	111.738	113.006	114.282	115.565	116.856	118.155	119.460	120.774	122.096	123.424
190	124.761	126.105	127.456	128.816	130.183	131.557	132.939	134.330	135.727	137.133
200	138.346	139.967	141.395	142.832	144.276	145.728	147.187	148.655	150.130	151.613
210	153.103	154.602	156.108	157.623	159.145	160.677	162.213	163.779	165.312	166.874
220	168.443	170.020	171.606	173.199	174.800	176.410	178.027	179.652	181.285	182.927
230	184.576	186.233	187.898	189.572	191.252	192.942	194.640	196.346	198.059	199.781
240	201.511	203.250	204.996	206.750	208.513	210.284	212.064	213.851	215.647	217.451
250	219.262	221.083	222.912	224.749	226.594	228.448	230.310	232.181	234.059	235.946
260	237.841	239.746	241.657	243.578	245.507	247.445	249.391	251.345	253.309	255.280
270	257.260	259.249	261.246	263.252	265.266	267.289	269.320	271.361	273.409	275.467
280	277.533	279.607	281.691	283.782	285.884	287.993	290.111	292.238	294.374	296.519
290	298.672	300.835	303.006	305.186	307.374	309.572	311.779	313.994	316.218	318.452
300	320.694	322.945	325.205	327.474	329.733	332.040	334.336	336.641	338.996	341.280
310	343.612	345.954	348.304	350.665	353.034	355.413	357.801	360.197	362.604	365.019
320	367.443	369.877	372.320	374.773	377.235	379.706	382.187	384.677	387.177	389.685
330	392.203	394.731	397.269	399.815	402.371	404.957	407.512	410.097	412.692	415.295
340	417.909	420.533	423.166	425.808	428.460	431.122	433.794	436.476	439.166	441.867
350	444.578	447.300	450.090	452.770	455.520	458.280	461.050	463.830	466.620	469.419
360	472.290	475.049	477.879	480.719	483.569	486.429	489.299	492.179	495.070	497.971
370	500.861	503.802	506.753	509.675	512.626	515.588	518.560	521.545	524.536	527.539
380	530.553	533.577	536.612	539.656	542.712	545.778	548.854	551.941	555.098	558.147
390	561.285	564.399	567.535	570.685	573.846	577.018	580.200	583.394	586.598	589.813
400	593.099	596.275	599.523	602.781	606.050	609.331	612.622	615.923	619.236	622.561
410	625.895	629.241	632.599	635.967	639.346	642.737	646.139	649.551	652.976	656.412
420	659.858	663.316	666.785	670.266	673.757	677.261	680.776	684.301	687.839	691.388
430	694.949	698.520	702.105	705.700	709.307	712.925	716.555	720.197	723.850	727.516
440	731.193	734.881	738.582	742.294	746.018	749.754	753.502	757.262	761.034	764.818
450	768.613	772.421	776.241	780.073	783.917	787.773	791.641	795.522	799.414	803.320
460	807.237	811.166	815.108	819.062	823.029	827.008	830.999	835.003	839.020	843.049
470	847.090	851.143	855.210	859.289	863.381	867.485	871.602	875.732	879.875	884.030
480	888.199	892.379	896.573	900.780	905.000	909.232	913.479	917.737	922.009	926.294
490	930.591	934.903	939.227	943.564	947.915	952.276	956.656	961.046	965.450	969.867

TABLE IV.- IMPACT PRESSURE q_c IN POUNDS PER SQUARE FOOT FOR VALUES OF CALIBRATED AIRSPEED V_c IN KNOTS - Concluded

Calibrated airspeed, V_c, knots	0	1	2	3	4	5	6	7	8	9
500	978.298	978.741	983.199	987.669	992.154	996.651	1001.16	1005.69	1010.25	1014.78
510	1023.35	1023.93	1028.52	1033.13	1037.75	1042.38	1047.05	1051.69	1056.31	1061.06
520	1065.77	1070.49	1075.22	1079.97	1084.73	1089.50	1094.29	1099.10	1103.89	1108.77
530	1113.59	1118.45	1123.33	1128.22	1133.12	1138.04	1142.98	1147.92	1152.89	1157.87
540	1162.86	1167.86	1172.88	1177.92	1182.97	1188.04	1193.12	1198.21	1203.32	1208.45
550	1213.59	1218.73	1223.92	1229.10	1234.30	1239.52	1244.75	1250.00	1255.26	1260.54
560	1265.85	1271.14	1276.46	1281.80	1287.15	1292.52	1297.91	1303.31	1308.73	1314.16
570	1319.61	1325.07	1330.55	1336.05	1341.56	1347.08	1352.63	1358.19	1363.76	1369.35
580	1374.96	1380.58	1386.22	1391.88	1397.55	1403.24	1408.94	1414.67	1420.40	1426.16
590	1431.93	1437.72	1443.52	1449.34	1455.17	1461.03	1466.90	1472.78	1478.69	1484.61
600	1490.55	1496.50	1502.47	1508.46	1514.47	1520.49	1526.53	1532.58	1538.66	1544.72
610	1550.86	1556.98	1563.13	1569.29	1575.46	1581.66	1587.87	1594.10	1600.35	1606.62
620	1612.90	1619.20	1625.52	1631.86	1638.21	1644.58	1650.97	1657.38	1663.81	1670.25
630	1676.71	1683.19	1689.69	1696.21	1702.75	1709.30	1715.87	1722.46	1729.07	1735.70
640	1742.35	1749.01	1755.69	1762.40	1769.12	1775.86	1782.61	1789.39	1796.19	1803.00
650	1809.84	1816.69	1823.56	1830.45	1837.36	1844.29	1851.24	1858.21	1865.20	1872.21
660	1879.25	1886.28	1893.35	1900.43	1907.54	1914.66	1921.80	1928.97	1936.15	1943.35
670	1950.57	1957.81	1965.07	1972.35	1979.64	1986.96	1994.29	2001.65	2009.02	2016.41
680	2023.82	2031.24	2038.69	2046.15	2053.64	2061.14	2068.66	2076.20	2083.75	2091.33
690	2098.92	2106.55	2114.16	2121.81	2129.47	2137.15	2144.85	2152.57	2160.31	2168.06
700	2175.83	2183.62	2191.43	2199.25	2207.09	2214.95	2222.83	2230.73	2238.64	2246.57
710	2254.51	2262.48	2270.46	2278.45	2286.47	2294.50	2302.55	2310.62	2318.70	2326.80
720	2334.92	2343.06	2351.21	2359.38	2367.56	2375.76	2383.98	2392.22	2400.47	2408.74
730	2417.05	2425.33	2433.65	2441.98	2450.33	2458.70	2467.09	2475.49	2483.91	2492.34
740	2500.79	2509.26	2517.74	2526.24	2534.75	2543.29	2551.85	2560.40	2568.98	2577.57
750	2586.19	2594.82	2603.46	2612.12	2620.80	2629.49	2638.20	2646.92	2655.66	2664.42
760	2673.19	2681.98	2690.78	2699.60	2708.44	2717.29	2726.16	2735.04	2743.94	2752.85
770	2761.78	2770.72	2779.69	2788.66	2797.65	2806.66	2815.68	2824.72	2833.78	2842.84
780	2851.93	2861.03	2870.14	2879.27	2888.42	2897.58	2906.76	2915.95	2925.16	2934.38
790	2943.62	2952.87	2962.14	2971.42	2980.72	2990.04	2999.36	3008.71	3018.07	3027.44
800	3036.83	3046.23	3055.65	3065.09	3074.54	3084.00	3093.48	3102.97	3112.48	3122.01
810	3131.54	3141.10	3150.67	3160.25	3169.85	3179.46	3189.09	3198.73	3208.39	3218.06
820	3227.75	3237.45	3247.17	3256.90	3266.65	3276.41	3286.18	3295.97	3305.78	3315.60
830	3325.43	3335.28	3345.14	3355.02	3364.91	3374.82	3384.74	3394.68	3404.63	3414.59
840	3424.57	3434.56	3444.57	3454.60	3464.63	3474.69	3484.75	3494.83	3504.93	3515.04
850	3525.16	3535.29	3545.45	3555.62	3565.80	3575.99	3586.20	3596.43	3606.67	3616.92
860	3627.19	3637.47	3647.76	3658.07	3668.40	3678.75	3689.09	3699.45	3709.84	3720.23
870	3730.64	3741.06	3751.50	3761.95	3772.42	3782.90	3793.39	3803.90	3814.42	3824.96
880	3835.51	3846.07	3856.65	3867.24	3877.85	3888.47	3899.11	3909.75	3920.42	3931.09
890	3941.78	3952.49	3963.21	3973.94	3984.69	3995.45	4006.22	4017.01	4027.81	4038.63
900	4049.46	4060.30	4071.16	4082.03	4092.92	4103.82	4114.73	4125.66	4136.60	4147.55
910	4158.52	4169.51	4180.50	4191.51	4202.54	4213.58	4224.63	4235.69	4246.77	4257.86
920	4268.97	4280.09	4291.23	4302.37	4313.54	4324.71	4335.90	4347.11	4358.32	4369.55
930	4380.80	4392.06	4403.33	4414.61	4425.91	4437.22	4448.55	4459.89	4471.24	4482.61
940	4493.99	4505.39	4516.79	4528.21	4539.65	4551.10	4562.56	4574.04	4585.55	4597.05
950	4608.55	4620.08	4631.62	4643.18	4654.75	4666.33	4677.93	4689.54	4701.17	4712.81
960	4724.46	4736.13	4747.81	4759.50	4771.21	4782.93	4794.66	4806.41	4818.17	4829.94
970	4841.73	4853.53	4865.34	4877.17	4889.01	4900.87	4912.73	4924.62	4936.51	4948.42
980	4960.34	4972.28	4984.22	4996.19	5008.16	5020.15	5032.15	5044.17	5056.20	5068.24
990	5080.30	5092.36	5104.45	5116.54	5128.65	5140.78	5152.91	5165.06	5177.22	-------
1,000	5201.59	-------	-------	-------	-------	-------	-------	-------	-------	-------

TABLE V.- STATIC PRESSURE p IN INCHES OF MERCURY FOR VALUES OF

PRESSURE ALTITUDE H IN GEOPOTENTIAL FEET

[These values are from refs. 8 and 10]

Pressure altitude, H, geopotential ft	0	100	200	300	400	500	600	700	800	900
-1,000	31.0185									
-0		30.0295	30.1382	30.2471	30.3563	30.4659	30.5758	30.6860	30.7965	30.9073
0	29.9213	29.8133	29.7056	29.5983	29.4913	29.3846	29.2782	29.1721	29.0663	28.9608
1,000	28.8557	28.7508	28.6463	28.5421	28.4382	28.3345	28.2312	28.1282	28.0255	27.9231
2,000	27.8210	27.7193	27.6178	27.5166	27.4157	27.3151	27.2148	27.1148	27.0151	26.9158
3,000	26.8167	26.7179	26.6193	26.5211	26.4232	26.3256	26.2283	26.1312	26.0345	25.9380
4,000	25.8418	25.7459	25.6504	25.5550	25.4600	25.3653	25.2708	25.1767	25.0828	24.9892
5,000	24.8959	24.8029	24.7101	24.6177	24.5255	24.4336	24.3419	24.2506	24.1595	24.0687
6,000	23.9782	23.8880	23.7980	23.7083	23.6189	23.5297	23.4409	23.3523	23.2639	23.1759
7,000	23.0881	23.0006	22.9133	22.8263	22.7396	22.6532	22.5670	22.4811	22.3954	22.3100
8,000	22.2249	22.1401	22.0555	21.9711	21.8871	21.8033	21.7197	21.6364	21.5534	21.4706
9,000	21.3881	21.3058	21.2238	21.1421	21.0606	20.9793	20.8983	20.8176	20.7371	20.6569
10,000	20.5769	20.4972	20.4177	20.3385	20.2595	20.1808	20.1023	20.0241	19.9461	19.8684
11,000	19.7909	19.7136	19.6366	19.5599	19.4834	19.4071	19.3310	19.2553	19.1797	19.1044
12,000	19.0293	18.9545	18.8799	18.8055	18.7314	18.6575	18.5839	18.5105	18.4373	18.3644
13,000	18.2917	18.2192	18.1470	18.0749	18.0032	17.9316	17.8603	17.7892	17.7184	17.6477
14,000	17.5773	17.5072	17.4372	17.3675	17.2980	17.2287	17.1597	17.0909	17.0223	16.9539
15,000	16.8858	16.8178	16.7501	16.6827	16.6154	16.5483	16.4815	16.4149	16.3485	16.2824
16,000	16.2164	16.1507	16.0851	16.0198	15.9547	15.8899	15.8252	15.7608	15.6965	15.6325
17,000	15.5687	15.5051	15.4417	15.3785	15.3155	15.2528	15.1902	15.1279	15.0657	15.0038
18,000	14.9421	14.8806	14.8192	14.7581	14.6972	14.6365	14.5760	14.5157	14.4556	14.3957
19,000	14.3360	14.2765	14.2173	14.1582	14.0993	14.0406	13.9821	13.9238	13.8657	13.8078
20,000	13.7501	13.6926	13.6352	13.5781	13.5212	13.4644	13.4079	13.3516	13.2954	13.2394
21,000	13.1836	13.1281	13.0727	13.0175	12.9624	12.9076	12.8530	12.7985	12.7442	12.6902
22,000	12.6363	12.5826	12.5290	12.4757	12.4225	12.3696	12.3168	12.2642	12.2117	12.1595
23,000	12.1074	12.0556	12.0039	11.9523	11.9010	11.8498	11.7988	11.7480	11.6974	11.6469
24,000	11.5967	11.5466	11.4966	11.4469	11.3973	11.3479	11.2987	11.2496	11.2007	11.1520
25,000	11.1035	11.0551	11.0069	10.9589	10.9110	10.8634	10.8158	10.7685	10.7213	10.6743
26,000	10.6274	10.5808	10.5342	10.4879	10.4417	10.3957	10.3498	10.3041	10.2586	10.2133
27,000	10.1681	10.1230	10.0781	10.0334	9.98887	9.94447	9.90023	9.85616	9.81224	9.76848
28,000	9.72488	9.68144	9.63815	9.59502	9.55205	9.50923	9.46658	9.42407	9.38172	9.33952
29,000	9.29748	9.25559	9.21385	9.17227	9.13083	9.08956	9.04843	9.00745	8.96662	8.92594
30,000	8.88541	8.84503	8.80480	8.76472	8.72479	8.68500	8.64536	8.60587	8.56652	8.52732
31,000	8.48826	8.44935	8.41059	8.37197	8.33349	8.29515	8.25696	8.21891	8.18100	8.14324
32,000	8.10561	8.06813	8.03079	7.99358	7.95652	7.91960	7.88281	7.84616	7.80966	7.77328
33,000	7.73705	7.70095	7.66499	7.62917	7.59348	7.55793	7.52251	7.48722	7.45208	7.41706
34,000	7.38218	7.34743	7.31281	7.27833	7.24397	7.20975	7.17566	7.14170	7.10787	7.07417
35,000	7.04060	7.00716	6.97385	6.94066	6.90761	6.87468	6.84188	6.80920	6.77665	6.74423
36,000	6.71194	6.67977	6.64774		6.58414		6.52115		6.45877	
37,000	6.39698		6.33578		6.27517		6.21514		6.15568	
38,000	6.09679		6.03846		5.98070		5.92348		5.86681	
39,000	5.81069		5.75510		5.70004		5.64551		5.59151	
40,000	5.53801		5.48503		5.43256		5.38059		5.32911	
41,000	5.27813		5.22764		5.17763		5.12809		5.07904	
42,000	5.03045		4.98232		4.93466		4.88745		4.84069	
43,000	4.79439		4.74852		4.70309		4.65810		4.61354	
44,000	4.56940		4.52569		4.48239		4.43951		4.39704	
45,000	4.35497		4.31331		4.27205		4.23118		4.19070	
46,000	4.15061		4.11090		4.07157		4.03262		3.99405	
47,000	3.95584		3.91799		3.88051		3.84339		3.80662	
48,000	3.77020		3.73413		3.69841		3.66303		3.62799	
49,000	3.59328		3.55890		3.52486		3.49113		3.45774	

TABLE V.- STATIC PRESSURE p IN INCHES OF MERCURY FOR VALUES OF

PRESSURE ALTITUDE H IN GEOPOTENTIAL FEET - Concluded

[These values are from refs. 8 and 10]

Pressure altitude, H, geopotential ft	0	200	400	500	600	800
50,000	3.42466	3.39189	3.35945		3.32731	3.29548
51,000	3.26395	3.23273	3.20180		3.17117	3.14083
52,000	3.11078	3.08103	3.05155		3.02236	2.99344
53,000	2.96481	2.93644	2.90835		2.88053	2.85297
54,000	2.82568	2.79864	2.77187		2.74535	2.71909
55,000	2.69308	2.66731	2.64180		2.61652	2.59149
56,000	2.56670	2.54215	2.51783		2.49374	2.46988
57,000	2.44625	2.42285	2.39967		2.37672	2.35398
58,000	2.33146	2.30916	2.28706		2.26519	2.24351
59,000	2.22205	2.20079	2.17974		2.15889	2.13823
60,000	2.11778	2.09752	2.07745		2.05758	2.03789
61,000	2.01840	1.99909	1.97996		1.96102	1.94226
62,000	1.92368	1.90528	1.88705		1.86900	1.85112
63,000	1.83341	1.81587	1.79850		1.78129	1.76425
64,000	1.74737	1.73066	1.71410		1.69770	1.68146
65,000	1.66538	1.64944	1.63366		1.61804	1.60256
66,000	1.5872			1.5495		
67,000	1.5127			1.4768		
68,000	1.4417			1.4075		
69,000	1.3741			1.3415		
70,000	1.3096			1.2785		
71,000	1.2482			1.2185		
72,000	1.1896			1.1613		
73,000	1.1338			1.1068		
74,000	1.0806			1.0549		
75,000	1.0298			1.0054		
76,000	.98152			.95822		
77,000	.93546			.91325		
78,000	.89156			.87039		
79,000	.84973			.82955		
80,000	.80985			.79062		
81,000	.77185			.75352		
82,000	.73563			.71818		
83,000	.70117			.68461		
84,000	.66847			.65274		
85,000	.63742			.62248		
86,000	.60795			.59374		
87,000	.57992			.56644		
88,000	.55330			.54050		
89,000	.52801			.51584		
90,000	.50398			.49241		
91,000	.48113			.47012		
92,000	.45940			.44893		
93,000	.43873			.42878		
94,000	.41907			.40960		
95,000	.40037			.39136		
96,000	.38257			.37399		
97,000	.36563			.35746		
98,000	.34950			.34172		
99,000	.33414			.32674		
100,000	.31951					

L-1477

TABLE VI.- STATIC PRESSURE p IN POUNDS PER SQUARE FOOT FOR VALUES

OF PRESSURE ALTITUDE H IN GEOPOTENTIAL FEET

[These values are from refs. 8 and 10]

Pressure altitude, H, geopotential ft	0	100	200	300	400	500	600	700	800	900
-1,000	2193.82									
-0		2123.87	2131.56	2139.26	2146.99	2154.73	2162.51	2170.30	2178.12	2185.96
0	2116.22	2108.58	2100.97	2093.37	2085.80	2078.26	2070.73	2063.23	2055.75	2048.29
1,000	2040.85	2033.44	2026.04	2018.67	2011.32	2003.99	1996.69	1989.40	1982.14	1974.90
2,000	1967.68	1960.48	1953.30	1946.14	1939.01	1931.89	1924.80	1917.73	1910.68	1903.65
3,000	1896.64	1889.65	1882.68	1875.74	1868.81	1861.91	1855.02	1848.16	1841.32	1834.50
4,000	1827.69	1820.91	1814.15	1807.41	1800.69	1793.99	1787.31	1780.65	1774.01	1767.39
5,000	1760.79	1754.21	1747.65	1741.11	1734.59	1728.09	1721.61	1715.15	1708.71	1702.29
6,000	1695.89	1689.50	1683.14	1676.80	1670.47	1664.17	1657.88	1651.62	1645.37	1639.14
7,000	1632.93	1626.74	1620.57	1614.42	1608.29	1602.17	1596.08	1590.00	1583.94	1577.90
8,000	1571.88	1565.88	1559.90	1553.93	1547.99	1542.06	1536.15	1530.26	1524.39	1518.53
9,000	1512.70	1506.88	1501.08	1495.30	1489.53	1483.79	1478.06	1472.35	1466.66	1460.98
10,000	1455.33	1449.69	1444.07	1438.47	1432.88	1427.31	1421.76	1416.23	1410.71	1405.21
11,000	1399.73	1394.27	1388.82	1383.39	1377.98	1372.59	1367.21	1361.85	1356.51	1351.18
12,000	1345.87	1340.58	1335.30	1330.04	1324.80	1319.58	1314.37	1309.18	1304.00	1298.84
13,000	1293.70	1288.57	1283.46	1278.37	1273.30	1268.23	1263.19	1258.16	1253.15	1248.16
14,000	1243.18	1238.21	1233.27	1228.34	1223.42	1218.52	1213.64	1208.77	1203.92	1199.09
15,000	1194.27	1189.46	1184.67	1179.90	1175.14	1170.40	1165.67	1160.96	1156.27	1151.59
16,000	1146.92	1142.27	1137.64	1133.02	1128.42	1123.83	1119.26	1114.70	1110.15	1105.63
17,000	1101.11	1096.61	1092.13	1087.66	1083.21	1078.77	1074.35	1069.94	1065.54	1061.16
18,000	1056.80	1052.44	1048.11	1043.79	1039.48	1035.18	1030.91	1026.64	1022.39	1018.16
19,000	1013.93	1009.73	1005.53	1001.35	997.188	993.056	988.899	984.776	980.667	976.571
20,000	972.490	968.422	964.368	960.328	956.302	952.289	948.290	944.304	940.332	936.374
21,000	932.429	928.497	924.579	920.675	916.783	912.906	909.041	905.190	901.351	897.527
22,000	893.715	889.916	886.130	882.358	878.598	874.852	871.118	867.398	863.690	859.995
23,000	856.313	852.643	848.986	845.343	841.711	838.093	834.487	830.893	827.312	823.744
24,000	820.188	816.645	813.114	809.595	806.089	802.595	799.113	795.643	792.186	788.741
25,000	785.308	781.887	778.478	775.081	771.697	768.324	764.963	761.614	758.277	754.952
26,000	751.638	748.337	745.047	741.769	738.502	735.248	732.005	728.773	725.553	722.345
27,000	719.148	715.962	712.788	709.625	706.474	703.334	700.206	697.088	693.982	690.887
28,000	687.803	684.731	681.670	678.619	675.580	672.552	669.535	666.528	663.533	660.548
29,000	657.575	654.612	651.660	648.719	645.789	642.869	639.960	637.062	634.175	631.298
30,000	628.431	625.575	622.730	619.895	617.071	614.257	611.453	608.660	605.877	603.105
31,000	600.342	597.590	594.849	592.117	589.396	586.684	583.983	581.292	578.611	575.940
32,000	573.279	570.628	567.987	565.355	562.734	560.123	557.521	554.929	552.347	549.775
33,000	547.212	544.659	542.115	539.582	537.058	534.543	532.038	529.543	527.057	524.580
34,000	522.113	519.655	517.207	514.768	512.338	509.918	507.507	505.105	502.712	500.329
35,000	497.955	495.589	493.233	490.887	488.549	486.220	483.900	481.589	479.287	476.994
36,000	474.710	472.434	470.169		465.671		461.216		456.804	
37,000	452.434		448.106		443.819		439.573		435.368	
38,000	431.203		427.077		422.992		418.945		414.937	
39,000	410.968		407.036		403.142		399.286		395.466	
40,000	391.682		387.935		384.224		380.548		376.908	
41,000	373.302		369.731		366.194		362.690		359.221	
42,000	355.784		352.381		349.010		345.671		342.364	
43,000	339.088		335.845		332.632		329.450		326.298	
44,000	323.176		320.084		317.022		313.990		310.986	
45,000	308.011		305.064		302.145		299.255		296.392	
46,000	293.557		290.748		287.967		285.212		282.484	
47,000	279.781		277.105		274.454		271.828		269.228	
48,000	266.652		264.101		261.574		259.072		256.594	
49,000	254.139		251.708		249.300		246.915		244.552	

TABLE VI.- STATIC PRESSURE p IN POUNDS PER SQUARE FOOT FOR VALUES

OF PRESSURE ALTITUDE H IN GEOPOTENTIAL FEET - Concluded

[These values are from refs. 8 and 10]

Pressure altitude, H, geopotential ft	0	200	400	500	600	800
50,000	242.213	239.896	237.601		235.328	233.076
51,000	230.847	228.638	226.451		224.285	222.139
52,000	220.014	217.909	215.824		213.760	211.715
53,000	209.689	207.683	205.696		203.729	201.780
54,000	199.849	197.937	196.044		194.168	192.311
55,000	190.471	188.649	186.844		185.057	183.286
56,000	181.533	179.796	178.076		176.373	174.685
57,000	173.014	171.359	169.720		168.096	166.488
58,000	164.895	163.318	161.755		160.208	158.675
59,000	157.157	155.654	154.165		152.690	151.229
60,000	149.782	148.349	146.930		145.525	144.132
61,000	142.754	141.388	140.035		138.696	137.369
62,000	136.055	134.753	133.464		132.187	130.923
63,000	129.670	128.430	127.201		125.984	124.779
64,000	123.585	122.403	121.232		120.072	118.923
65,000	117.786	116.659	115.543		114.437	113.343
66,000	112.26			109.59		
67,000	106.99			104.45		
68,000	101.97			99.548		
69,000	97.184			94.877		
70,000	92.624			90.424		
71,000	88.277			86.181		
72,000	84.135			82.137		
73,000	80.187			78.282		
74,000	76.424			74.609		
75,000	72.837			71.108		
76,000	69.419			67.771		
77,000	66.162			64.591		
78,000	63.057			61.560		
79,000	60.098			58.671		
80,000	57.278			55.918		
81,000	54.590			53.294		
82,000	52.028			50.794		
83,000	49.591			48.420		
84,000	47.278			46.166		
85,000	45.082			44.026		
86,000	42.996			41.993		
87,000	41.015			40.062		
88,000	39.133			38.227		
89,000	37.344			36.484		
90,000	35.644			34.826		
91,000	34.028			33.250		
92,000	32.491			31.751		
93,000	31.030			30.326		
94,000	29.639			28.970		
95,000	28.317			27.679		
96,000	27.058			26.451		
97,000	25.859			25.282		
98,000	24.719			24.169		
99,000	23.632			23.109		
100,000	22.598					

TABLE VII.- RATIO OF IMPACT PRESSURE TO STATIC PRESSURE q_c/p FOR VALUES OF MACH NUMBER

[These values are from ref. 3]

Mach number, M	0	1	2	3	4	5	6	7	8	9
0.10	0.00702	0.00716	0.00730	0.00745	0.00759	0.00774	0.00789	0.00804	0.00819	0.00834
.11	.00850	.00865	.00881	.00897	.00913	.00929	.00945	.00962	.00978	.00995
.12	.01012	.01029	.01046	.01063	.01080	.01098	.01116	.01134	.01152	.01170
.13	.01188	.01206	.01225	.01244	.01263	.01282	.01301	.01320	.01339	.01359
.14	.01379	.01399	.01419	.01439	.01459	.01480	.01500	.01521	.01542	.01563
.15	.01584	.01605	.01627	.01648	.01670	.01692	.01714	.01736	.01758	.01781
.16	.01804	.01826	.01849	.01872	.01895	.01919	.01942	.01966	.01990	.02014
.17	.02038	.02062	.02086	.02111	.02135	.02160	.02185	.02210	.02236	.02261
.18	.02286	.02312	.02338	.02364	.02390	.02416	.02443	.02469	.02496	.02523
.19	.02550	.02577	.02604	.02632	.02659	.02687	.02715	.02743	.02771	.02800
.20	.02828	.02857	.02886	.02914	.02944	.02973	.03002	.03032	.03061	.03091
.21	.03121	.03151	.03182	.03212	.03243	.03273	.03304	.03335	.03366	.03398
.22	.03429	.03461	.03493	.03525	.03557	.03589	.03621	.03654	.03686	.03719
.23	.03752	.03785	.03819	.03852	.03886	.03919	.03953	.03987	.04022	.04056
.24	.04090	.04125	.04160	.04195	.04230	.04265	.04301	.04336	.04372	.04408
.25	.04444	.04480	.04516	.04553	.04589	.04626	.04663	.04700	.04738	.04775
.26	.04813	.04850	.04888	.04926	.04964	.05003	.05041	.05080	.05119	.05158
.27	.05197	.05236	.05275	.05315	.05355	.05395	.05435	.05475	.05515	.05556
.28	.05596	.05637	.05678	.05719	.05761	.05802	.05844	.05886	.05927	.05970
.29	.06012	.06054	.06097	.06140	.06182	.06225	.06269	.06312	.06356	.06399
.30	.06443	.06487	.06531	.06575	.06620	.06665	.06709	.06754	.06799	.06845
.31	.06890	.06936	.06982	.07027	.07074	.07120	.07166	.07213	.07259	.07306
.32	.07353	.07401	.07448	.07496	.07543	.07591	.07639	.07687	.07736	.07784
.33	.07833	.07882	.07931	.07980	.08029	.08079	.08128	.08178	.08228	.08278
.34	.08329	.08379	.08430	.08481	.08531	.08583	.08634	.08685	.08737	.08789
.35	.08841	.08893	.08945	.08998	.09050	.09103	.09156	.09209	.09263	.09316
.36	.09370	.09424	.09478	.09532	.09586	.09641	.09695	.09750	.09805	.09860
.37	.09916	.09971	.10027	.10083	.10139	.10195	.10251	.10308	.10364	.10421
.38	.10478	.10535	.10593	.10650	.10708	.10766	.10824	.10882	.10941	.10999
.39	.11058	.11117	.11176	.11235	.11295	.11354	.11414	.11474	.11534	.11595
.40	.11655	.11716	.11777	.11838	.11899	.11960	.12022	.12084	.12146	.12208
.41	.12270	.12332	.12395	.12458	.12521	.12584	.12647	.12711	.12774	.12838
.42	.12902	.12966	.13031	.13095	.13160	.13225	.13290	.13355	.13421	.13487
.43	.13552	.13618	.13685	.13751	.13818	.13884	.13951	.14018	.14086	.14153
.44	.14221	.14289	.14357	.14425	.14493	.14562	.14630	.14699	.14768	.14838
.45	.14907	.14977	.15047	.15117	.15187	.15257	.15328	.15399	.15470	.15541
.46	.15612	.15684	.15755	.15827	.15899	.15972	.16044	.16117	.16190	.16263
.47	.16336	.16409	.16483	.16557	.16631	.16705	.16779	.16854	.16928	.17003
.48	.17079	.17154	.17229	.17305	.17381	.17457	.17533	.17610	.17686	.17763
.49	.17840	.17917	.17995	.18072	.18150	.18228	.18307	.18385	.18463	.18542
.50	.18621	.18700	.18780	.18859	.18939	.19019	.19099	.19180	.19260	.19341
.51	.19422	.19503	.19584	.19666	.19748	.19830	.19912	.19994	.20077	.20159
.52	.20242	.20326	.20409	.20492	.20576	.20660	.20744	.20829	.20913	.20998
.53	.21083	.21168	.21253	.21339	.21425	.21511	.21597	.21683	.21770	.21857
.54	.21944	.22031	.22118	.22206	.22294	.22382	.22470	.22559	.22647	.22736
.55	.22825	.22914	.23004	.23094	.23184	.23274	.23364	.23455	.23545	.23636
.56	.23727	.23819	.23910	.24002	.24094	.24186	.24279	.24372	.24464	.24558
.57	.24651	.24744	.24838	.24932	.25026	.25121	.25215	.25310	.25405	.25500
.58	.25596	.25691	.25787	.25883	.25980	.26076	.26173	.26270	.26367	.26464
.59	.26562	.26660	.26758	.26856	.26955	.27053	.27152	.27252	.27351	.27451
.60	.27550	.27650	.27751	.27851	.27952	.28053	.28154	.28255	.28357	.28459
.61	.28561	.28663	.28766	.28869	.28972	.29075	.29178	.29282	.29386	.29490
.62	.29594	.29699	.29804	.29909	.30014	.30119	.30225	.30331	.30437	.30544
.63	.30650	.30757	.30864	.30972	.31079	.31187	.31295	.31403	.31512	.31621
.64	.31729	.31839	.31948	.32058	.32168	.32278	.32388	.32499	.32610	.32721
.65	.32832	.32944	.33056	.33168	.33280	.33393	.33505	.33618	.33732	.33845
.66	.33959	.34073	.34187	.34301	.34416	.34531	.34646	.34762	.34877	.34993
.67	.35110	.35226	.35343	.35460	.35577	.35694	.35812	.35930	.36048	.36166
.68	.36285	.36404	.36523	.36642	.36762	.36882	.37002	.37122	.37243	.37364
.69	.37485	.37606	.37728	.37850	.37972	.38094	.38217	.38340	.38463	.38586

TABLE VII.- RATIO OF IMPACT PRESSURE TO STATIC PRESSURE q_c/p FOR VALUES OF MACH NUMBER - Continued

[These values are from ref. 3]

Mach number, M	0	1	2	3	4	5	6	7	8	9
0.70	0.38710	0.38834	0.38958	0.39083	0.39207	0.39332	0.39458	0.39583	0.39709	0.39835
.71	.39961	.40088	.40214	.40341	.40469	.40596	.40724	.40852	.40980	.41109
.72	.41238	.41367	.41496	.41626	.41756	.41886	.42017	.42147	.42278	.42410
.73	.42541	.42673	.42805	.42937	.43070	.43203	.43336	.43469	.43603	.43737
.74	.43871	.44005	.44140	.44275	.44410	.44546	.44682	.44818	.44954	.45091
.75	.45228	.45365	.45503	.45640	.45778	.45917	.46055	.46194	.46333	.46473
.76	.46612	.46752	.46893	.47033	.47174	.47315	.47457	.47598	.47740	.47882
.77	.48025	.48168	.48311	.48454	.48598	.48742	.48886	.49030	.49175	.49320
.78	.49466	.49611	.49757	.49903	.50050	.50197	.50344	.50491	.50639	.50787
.79	.50935	.51084	.51233	.51382	.51531	.51681	.51831	.51981	.52132	.52283
.80	.52434	.52586	.52737	.52889	.53042	.53195	.53347	.53501	.53654	.53808
.81	.53962	.54117	.54272	.54427	.54582	.54738	.54894	.55050	.55207	.55364
.82	.55521	.55679	.55836	.55994	.56153	.56312	.56471	.56630	.56790	.56950
.83	.57110	.57271	.57432	.57593	.57754	.57916	.58078	.58241	.58404	.58567
.84	.58730	.58894	.59058	.59222	.59387	.59552	.59717	.59883	.60049	.60215
.85	.60382	.60549	.60716	.60884	.61051	.61220	.61388	.61557	61726	.61896
.86	.62066	.62236	.62406	.62577	.62748	.62920	.63091	.63263	.63436	.63609
.87	.63782	.63955	.64129	.64303	.64477	.64652	.64827	.65003	.65178	.65354
.88	.65531	.65708	.65885	.66062	.66240	.66418	.66596	.66775	.66954	.67134
.89	.67314	.67494	.67674	.67855	.68036	.68218	.68399	.68582	.68764	.68947
.90	.69130	.69314	.69498	.69682	.69867	.70052	.70237	.70423	.70609	.70795
.91	.70982	.71169	.71356	.71544	.71732	.71920	.72109	.72298	.72488	.72678
.92	.72868	.73059	.73250	.73441	.73633	.73825	.74017	.74210	.74403	.74596
.93	.74790	.74984	.75179	.75374	.75569	.75765	.75961	.76157	.76354	.76551
.94	.76749	.76946	.77145	.77343	.77542	.77742	.77941	.78141	.78342	.78543
.95	.78744	.78945	.79147	.79350	.79552	.79755	.79959	.80163	.80367	.80571
.96	.80776	.80982	.81187	.81394	.81600	.81807	.82014	.82222	.82430	.82638
.97	.82847	.83056	.83266	.83476	.83686	.83897	.84108	.84319	.84531	.84744
.98	.84956	.85169	.85383	.85597	.85811	.86025	.86241	.86456	.86672	.86888
.99	.87105	.87322	.87539	.87757	.87975	.88194	.88413	.88632	.88852	.89072
1.00	.89293	.89514	.89735	.89957	.90180	.90402	.90625	.90849	.91073	.91297
1.01	.91521	.91746	.91972	.92198	.92424	.92651	.92878	.93105	.93333	.93561
1.02	.93790	.94019	.94248	.94478	.94708	.94938	.95169	.95401	.95632	.95864
1.03	.96097	.96330	.96563	.96796	.97030	.97265	.97500	.97735	.97970	.98206
1.04	.98442	.98679	.98916	.99153	.99391	.99629	.99868	1.00106	1.00346	1.00585
1.05	1.00825	1.01066	1.01306	1.01547	1.01789	1.02031	1.02273	1.02515	1.02758	1.03002
1.06	1.03245	1.03489	1.03734	1.03978	1.04224	1.04469	1.04715	1.04961	1.05208	1.05455
1.07	1.05702	1.05949	1.06197	1.06446	1.06694	1.06944	1.07193	1.07443	1.07693	1.07943
1.08	1.08194	1.08445	1.08697	1.08949	1.09201	1.09454	1.09707	1.09960	1.10214	1.10468
1.09	1.10722	1.10977	1.11232	1.11487	1.11743	1.11999	1.12255	1.12512	1.12769	1.13027
1.10	1.13285	1.13543	1.13801	1.14060	1.14320	1.14579	1.14839	1.15099	1.15360	1.15621
1.11	1.15882	1.16144	1.16406	1.16668	1.16930	1.17193	1.17457	1.17720	1.17984	1.18249
1.12	1.18513	1.18778	1.19044	1.19309	1.19575	1.19842	1.20108	1.20375	1.20643	1.20910
1.13	1.21178	1.21447	1.21715	1.21985	1.22254	1.22524	1.22794	1.23064	1.23335	1.23606
1.14	1.23877	1.24149	1.24421	1.24693	1.24966	1.25239	1.25512	1.25785	1.26059	1.26334
1.15	1.26608	1.26883	1.27159	1.27434	1.27710	1.27986	1.28263	1.28540	1.28817	1.29095
1.16	1.29372	1.29651	1.29929	1.30208	1.30487	1.30767	1.31047	1.31327	1.31607	1.31888
1.17	1.32169	1.32450	1.32732	1.33014	1.33297	1.33579	1.33862	1.34146	1.34429	1.34713
1.18	1.34998	1.35282	1.35567	1.35852	1.36138	1.36424	1.36710	1.36997	1.37284	1.37571
1.19	1.37858	1.38146	1.38434	1.38722	1.39011	1.39300	1.39590	1.39879	1.40169	1.40460
1.20	1.40750	1.41041	1.41332	1.41624	1.41916	1.42208	1.42500	1.42793	1.43086	1.43380
1.21	1.43674	1.43968	1.44262	1.44557	1.44852	1.45147	1.45442	1.45738	1.46035	1.46331
1.22	1.46628	1.46925	1.47223	1.47520	1.47818	1.48117	1.48416	1.48715	1.49014	1.49313
1.23	1.49613	1.49914	1.50214	1.50515	1.50816	1.51118	1.51419	1.51721	1.52024	1.52326
1.24	1.52629	1.52933	1.53236	1.53540	1.53844	1.54149	1.54454	1.54759	1.55064	1.55370
1.25	1.55676	1.55982	1.56289	1.56596	1.56903	1.57210	1.57518	1.57826	1.58135	1.58444
1.26	1.58753	1.59062	1.59372	1.59682	1.59992	1.60302	1.60613	1.60924	1.61236	1.61548
1.27	1.61860	1.62172	1.62485	1.62797	1.63111	1.63424	1.63738	1.64052	1.64367	1.64681
1.28	1.64996	1.65321	1.65627	1.65943	1.66260	1.66576	1.66893	1.67210	1.67527	1.67845
1.29	1.68163	1.68481	1.68800	1.69119	1.69438	1.69758	1.70077	1.70397	1.70718	1.71038

TABLE VII.- RATIO OF IMPACT PRESSURE TO STATIC PRESSURE q_c/p FOR VALUES OF MACH NUMBER - Continued

[These values are from ref. 3]

Mach number, M	0	1	2	3	4	5	6	7	8	9
1.30	1.71359	1.71681	1.72002	1.72324	1.72646	1.72969	1.73291	1.73614	1.73938	1.74261
1.31	1.74585	1.74909	1.75234	1.75559	1.75884	1.76209	1.76535	1.76861	1.77187	1.77513
1.32	1.77840	1.78167	1.78495	1.78823	1.79151	1.79479	1.79807	1.80136	1.80465	1.80795
1.33	1.81125	1.81455	1.81785	1.82116	1.82447	1.82778	1.83109	1.83441	1.83773	1.84105
1.34	1.84438	1.84771	1.85104	1.85438	1.85772	1.86106	1.86440	1.86775	1.87110	1.87445
1.35	1.87781	1.88116	1.88452	1.88789	1.89126	1.89463	1.89800	1.90137	1.90475	1.90813
1.36	1.91152	1.91491	1.91830	1.92169	1.92508	1.92848	1.93188	1.93529	1.93870	1.94211
1.37	1.94552	1.94893	1.95235	1.95577	1.95920	1.96263	1.96606	1.96949	1.97293	1.97636
1.38	1.97981	1.98325	1.98670	1.99015	1.99360	1.99706	2.00052	2.00398	2.00744	2.01091
1.39	2.01438	2.01785	2.02133	2.02481	2.02829	2.03177	2.03526	2.03875	2.04224	2.04574
1.40	2.04924	2.05274	2.05624	2.05975	2.06326	2.06677	2.07029	2.07380	2.07733	2.08085
1.41	2.08438	2.08791	2.09144	2.09497	2.09851	2.10205	2.10560	2.10914	2.11269	2.11624
1.42	2.11980	2.12336	2.12692	2.13048	2.13405	2.13762	2.14119	2.14476	2.14834	2.15192
1.43	2.15551	2.15909	2.16268	2.16627	2.16987	2.17346	2.17706	2.18067	2.18427	2.18788
1.44	2.19149	2.19511	2.19872	2.20234	2.20597	2.20959	2.21322	2.21685	2.22048	2.22412
1.45	2.22776	2.23140	2.23505	2.23869	2.24234	2.24600	2.24965	2.25331	2.25697	2.26064
1.46	2.26431	2.26798	2.27165	2.27532	2.27900	2.28268	2.28637	2.29005	2.29374	2.29744
1.47	2.30113	2.30483	2.30853	2.31223	2.31594	2.31965	2.32336	2.32707	2.33079	2.33451
1.48	2.33823	2.34196	2.34569	2.34942	2.35315	2.35689	2.36063	2.36437	2.36812	2.37187
1.49	2.37562	2.37937	2.38313	2.38688	2.39065	2.39441	2.39818	2.40195	2.40572	2.40950
1.50	2.41327	2.41706	2.42084	2.42463	2.42842	2.43221	2.43600	2.43980	2.44360	2.44740
1.51	2.45121	2.45502	2.45883	2.46264	2.46646	2.47028	2.47410	2.47793	2.48176	2.48559
1.52	2.48942	2.49326	2.49710	2.50094	2.50478	2.50863	2.51248	2.51633	2.52019	2.52405
1.53	2.52791	2.53177	2.53564	2.53951	2.54338	2.54725	2.55113	2.55501	2.55889	2.56278
1.54	2.56667	2.57056	2.57445	2.57835	2.58225	2.58615	2.59005	2.59396	2.59787	2.60179
1.55	2.60570	2.60962	2.61354	2.61747	2.62139	2.62532	2.62925	2.63319	2.63713	2.64107
1.56	2.64501	2.64896	2.65290	2.65686	2.66081	2.66477	2.66873	2.67269	2.67665	2.68062
1.57	2.68459	2.68856	2.69254	2.69652	2.70050	2.70449	2.70847	2.71246	2.71645	2.72045
1.58	2.72445	2.72845	2.73245	2.73646	2.74046	2.74448	2.74849	2.75251	2.75653	2.76055
1.59	2.76457	2.76860	2.77263	2.77666	2.78070	2 78474	2.78878	2.79282	2.79687	2.80092
1.60	2.80497	2.80903	2.81308	2.81714	2.82121	2.82527	2.82934	2.83341	2.83749	2.84156
1.61	2.84564	2.84972	2.85381	2.85790	2.86199	2.86608	2.87017	2.87427	2.87837	2.88248
1.62	2.88658	2.89069	2.89480	2.89892	2.90304	2.90716	2.91128	2.91540	2.91953	2.92366
1.63	2.92780	2.93193	2.93607	2.94021	2.94436	2.94850	2.95265	2.95681	2.96096	2.96512
1.64	2.96928	2.97344	2.97761	2.98178	2.98595	2.99012	2.99430	2.99848	3.00266	3.00684
1.65	3.01103	3.01522	3.01941	3.02361	3.02781	3.03201	3.03621	3.04042	3.04463	3.04884
1.66	3.05305	3.05727	3.06149	3.06571	3.06994	3.07417	3.07840	3.08263	3.08687	3.09110
1.67	3.09535	3.09959	3.10384	3.10809	3.11234	3.11659	3.12085	3.12511	3.12937	3.13364
1.68	3.13791	3.14218	3.14645	3.15073	3.15501	3.15929	3.16357	3.16786	3.17215	3.17644
1.69	3.18074	3.18503	3.18933	3.19364	3.19794	3.20225	3.20656	3.21088	3.21519	3.21951
1.70	3.22383	3.22816	3.23248	3.23681	3.24115	3.24548	3.24982	3.25416	3.25850	3.26285
1.71	3.26720	3.27155	3.27590	3.28026	3.28462	3.28898	3.29335	3.29771	3.30208	3.30646
1.72	3.31083	3.31521	3.31959	3.32397	3.32836	3.33275	3.33714	3.34154	3.34593	3.35033
1.73	3.35473	3.35914	3.36355	3.36796	3.37237	3.37679	3.38120	3.38562	3.39005	3.39447
1.74	3.39890	3.40333	3.40777	3.41221	3.41665	3.42109	3.42553	3.42998	3.43443	3.43888
1.75	3.44334	3.44780	3.45226	3.45672	3.46119	3.46566	3.47013	3.47460	3.47908	3.48356
1.76	3.48804	3.49253	3.49701	3.50150	3.50600	3.51049	3.51499	3.51949	3.52400	3.52850
1.77	3.53301	3.53752	3.54204	3.54655	3.55107	3.55560	3.56012	3.56465	3.56918	3.57371
1.78	3.57825	3.58278	3.58733	3.59187	3.59642	3.60096	3.60552	3.61007	3.61463	3.61919
1.79	3.62375	3.62831	3.63288	3.63745	3.64202	3.64660	3.65118	3.65576	3.66034	3.66493
1.80	3.66952	3.67411	3.67870	3.68330	3.68790	3.69250	3.69710	3.70171	3.70632	3.71093
1.81	3.71555	3.72017	3.72479	3.72941	3.73404	3.73867	3.74330	3.74793	3.75257	3.75721
1.82	3.76185	3.76649	3.77114	3.77579	3.78044	3.78510	3.78975	3.79442	3.79908	3.80374
1.83	3.80841	3.81308	3.81776	3.82243	3.82711	3.83179	3.83648	3.84117	3.84585	3.85055
1.84	3.85524	3.85994	3.86464	3.86934	3.87405	3.87876	3.88347	3.88818	3.89290	3.89761
1.85	3.90234	3.90706	3.91179	3.91652	3.92125	3.92598	3.93072	3.93546	3.94020	3.94495
1.86	3.94970	3.95445	3.95920	3.96396	3.96871	3.97347	3.97824	3.98300	3.98777	3.99255
1.87	3.99732	4.00210	4.00688	4.01166	4.01644	4.02123	4.02602	4.03081	4.03561	4.04041
1.88	4.04521	4.05001	4.05482	4.05963	4.06444	4.06925	4.07407	4.07889	4.08371	4.08853
1.69	4.09336	4.09819	4.10302	4.10786	4.11270	4.11754	4.12238	4.12722	4.13207	4.13692

L-1477

TABLE VII.- RATIO OF IMPACT PRESSURE TO STATIC PRESSURE q_c/p FOR VALUES OF MACH NUMBER - Continued

[These values are from ref. 3]

Mach number, M	0	1	2	3	4	5	6	7	8	9
1.90	4.14178	4.14663	4.15149	4.15635	4.16122	4.16608	4.17095	4.17583	4.18070	4.18558
1.91	4.19046	4.19534	4.20023	4.20511	4.21000	4.21490	4.21979	4.22469	4.22959	4.23450
1.92	4.23940	4.24431	4.24922	4.25414	4.25905	4.26397	4.26890	4.27382	4.27875	4.28368
1.93	4.28861	4.29355	4.29848	4.30342	4.30837	4.31331	4.31826	4.32321	4.32817	4.33312
1.94	4.33808	4.34304	4.34801	4.35298	4.35795	4.36292	4.36789	4.37287	4.37785	4.38283
1.95	4.38782	4.39281	4.39780	4.40279	4.40779	4.41278	4.41779	4.42279	4.42780	4.43280
1.96	4.43782	4.44283	4.44785	4.45287	4.45789	4.46291	4.46794	4.47297	4.47800	4.48304
1.97	4.48808	4.49312	4.49816	4.50321	4.50826	4.51331	4.51836	4.52342	4.52848	4.53354
1.98	4.53860	4.54367	4.54874	4.55381	4.55889	4.56396	4.56904	4.57413	4.57921	4.58430
1.99	4.58939	4.59448	4.59958	4.60468	4.60978	4.61488	4.61999	4.62510	4.63021	4.63532
2.00	4.64044	4.64556	4.65068	4.65581	4.66093	4.66606	4.67120	4.67633	4.68147	4.68661
2.01	4.69175	4.69690	4.70205	4.70720	4.71235	4.71751	4.72267	4.72783	4.73299	4.73816
2.02	4.74333	4.74850	4.75368	4.75885	4.76403	4.76922	4.77440	4.77959	4.78478	4.78997
2.03	4.79517	4.80037	4.80557	4.81077	4.81598	4.82119	4.82640	4.83161	4.83683	4.34205
2.04	4.84727	4.85249	4.85772	4.86295	4.86818	4.87342	4.87865	4.88389	4.88914	4.89438
2.05	4.89963	4.90488	4.91014	4.91539	4.92065	4.92591	4.93117	4.93644	4.94171	4.94698
2.06	4.95226	4.95753	4.96281	4.96809	4.97338	4.97867	4.98396	4.98925	4.99454	4.99984
2.07	5.00514	5.01045	5.01575	5.02106	5.02637	5.03168	5.03700	5.04232	5.04764	5.05296
2.08	5.05829	5.06362	5.06895	5.07429	5.07962	5.08496	5.09031	5.09565	5.10100	5.10635
2.09	5.11170	5.11706	5.12242	5.12778	5.13314	5.13851	5.14387	5.14925	5.15462	5.16000
2.10	5.16538	5.17076	5.17614	5.18153	5.18692	5.19231	5.19770	5.20310	5.20850	5.21390
2.11	5.21931	5.22472	5.23013	5.23554	5.24096	5.24637	5.25180	5.25722	5.26265	5.26807
2.12	5.27351	5.27894	5.28438	5.28981	5.29526	5.30070	5.30615	5.31160	5.31705	5.32250
2.13	5.32796	5.33342	5.33889	5.34435	5.34982	5.35529	5.36076	5.36624	5.37172	5.37720
2.14	5.38268	5.38817	5.39366	5.39915	5.40464	5.41014	5.41564	5.42114	5.42664	5.43215
2.15	5.43766	5.44317	5.44869	5.45421	5.45973	5.46525	5.47077	5.47630	5.48183	5.48737
2.16	5.49290	5.49844	5.50398	5.50953	5.51507	5.52062	5.52617	5.53173	5.53728	5.54284
2.17	5.54841	5.55397	5.55954	5.56511	5.57063	5.57625	5.58133	5.58741	5.59300	5.59858
2.18	5.60417	5.60976	5.61535	5.62095	5.62655	5.63215	5.63775	5.64336	5.64897	5.65458
2.19	5.66019	5.66581	5.67143	5.67705	5.68268	5.68830	5.69393	5.69957	5.70520	5.71084
2.20	5.71648	5.72212	5.72777	5.73342	5.73907	5.74472	5.75038	5.75604	5.76170	5.76736
2.21	5.77303	5.77870	5.78437	5.79004	5.79572	5.80140	5.80708	5.81276	5.81845	5.82414
2.22	5.82983	5.83553	5.84123	5.84693	5.85263	5.85834	5.86404	5.86976	5.87547	5.88118
2.23	5.88690	5.89262	5.89835	5.90407	5.90980	5.91554	5.92127	5.92701	5.93275	5.93849
2.24	5.94423	5.94998	5.95573	5.96148	5.96724	5.97299	5.97875	5.98452	5.99028	5.99605
2.25	6.00182	6.00760	6.01337	6.01915	6.02493	6.03071	6.03650	6.04229	6.04808	6.05388
2.26	6.05967	6.06547	6.07127	6.07708	6.08289	6.08870	6.09451	6.10032	6.10614	6.11196
2.27	6.11778	6.12361	6.12944	6.13527	6.14110	6.14694	6.15278	6.15862	6.16446	6.17031
2.28	6.17616	6.18201	6.18786	6.19372	6.19958	6.20544	6.21130	6.21717	6.22304	6.22891
2.29	6.23479	6.24066	6.24654	6.25243	6.25831	6.26420	6.27009	6.27598	6.28188	6.28778
2.30	6.29368	6.29958	6.30549	6.31140	6.31731	6.32322	6.32914	6.33506	6.34098	6.34691
2.31	6.35283	6.35876	6.36469	6.37063	6.37657	6.38251	6.38845	6.39439	6.40034	6.40629
2.32	6.41225	6.41820	6.42416	6.43012	6.43608	6.44205	6.44802	6.45399	6.45996	6.46594
2.33	6.47192	6.47790	6.48388	6.48987	6.49586	6.50185	6.50785	6.51384	6.51984	6.52585
2.34	6.53185	6.53786	6.54387	6.54988	6.55590	6.56192	6.56794	6.57396	6.57999	6.58601
2.35	6.59205	6.59808	6.60412	6.61015	6.61620	6.62224	6.62829	6.63434	6.64039	6.64644
2.36	6.65250	6.65856	6.66462	6.67069	6.67675	6.68282	6.68890	6.69497	6.70105	6.70713
2.37	6.71321	6.71930	6.72539	6.73148	6.73757	6.74367	6.74977	6.75587	6.76197	6.76808
2.38	6.77419	6.78030	6.78641	6.79253	6.79865	6.80477	6.81090	6.81702	6.82315	6.82929
2.39	6.83542	6.84156	6.84770	6.85384	6.85999	6.86613	6.87229	6.87844	6.88459	6.89075
2.40	6.89691	6.90308	6.90924	6.91541	6.92158	6.92776	6.93393	6.94011	6.94630	6.95248
2.41	6.95867	6.96486	6.97105	6.97724	6.98344	6.98964	6.99584	7.00205	7.00826	7.01447
2.42	7.02068	7.02690	7.03311	7.03934	7.04556	7.05178	7.05801	7.06424	7.07048	7.07672
2.43	7.08295	7.08920	7.09544	7.10169	7.10794	7.11419	7.12044	7.12670	7.13296	7.13922
2.44	7.14549	7.15175	7.15802	7.16430	7.17057	7.17685	7.18313	7.18941	7.19570	7.20199
2.45	7.20828	7.21457	7.22087	7.22717	7.23347	7.23977	7.24608	7.25239	7.25870	7.26501
2.46	7.27133	7.27765	7.28397	7.29030	7.29663	7.30296	7.30929	7.31562	7.32196	7.32830
2.47	7.33464	7.34099	7.34734	7.35369	7.36004	7.36640	7.37275	7.37912	7.38548	7.39185
2.48	7.39821	7.40459	7.41096	7.41734	7.42372	7.43010	7.43648	7.44287	7.44926	7.45565
2.49	7.46205	7.46844	7.47484	7.48125	7.48765	7.49406	7.50047	7.50688	7.51330	7.51972

L-1477

TABLE VII.- RATIO OF IMPACT PRESSURE TO STATIC PRESSURE qc/p FOR VALUES OF MACH NUMBER - Continued

[These values are from ref. 3]

Mach number, M	0	1	2	3	4	5	6	7	8	9
2.50	7.52614	7.53256	7.53899	7.54541	7.55184	7.55828	7.56471	7.57115	7.57760	7.58404
2.51	7.59049	7.59694	7.60339	7.60984	7.61630	7.62276	7.62922	7.63568	7.64215	7.64862
2.52	7.65510	7.66157	7.66805	7.67453	7.68101	7.68750	7.69399	7.70048	7.70697	7.71347
2.53	7.71996	7.72647	7.73297	7.73948	7.74598	7.75250	7.75901	7.76553	7.77205	7.77857
2.54	7.78509	7.79162	7.79815	7.80468	7.81122	7.81775	7.82429	7.83084	7.83738	7.84393
2.55	7.85048	7.85703	7.86359	7.87015	7.87671	7.88327	7.88984	7.89641	7.90298	7.90955
2.56	7.91613	7.92271	7.92929	7.93587	7.94246	7.94905	7.95564	7.96223	7.96883	7.97543
2.57	7.98203	7.98864	7.99525	8.00186	8.00847	8.01508	8.02170	8.02832	8.03494	8.04157
2.58	8.04820	8.05483	8.06146	8.06810	8.07474	8.08138	8.08802	8.09467	8.10132	8.10797
2.59	8.11462	8.12128	8.12794	8.13460	8.14127	8.14793	8.15460	8.16128	8.16795	8.17463
2.60	8.18131	8.18799	8.19468	8.20136	8.20805	8.21475	8.22144	8.22814	8.23484	8.24154
2.61	8.24825	8.25496	8.26167	8.26838	8.27510	8.28182	8.28854	8.29527	8.30199	8.30872
2.62	8.31545	8.32219	8.32892	8.33566	8.34241	8.34915	8.35590	8.36265	8.36940	8.37616
2.63	8.38291	8.38968	8.39644	8.40320	8.40997	8.41674	8.42352	8.43029	8.43707	8.44385
2.64	8.45064	8.45742	8.46421	8.47100	8.47780	8.48459	3.49139	8.49819	8.50500	8.51181
2.65	8.51862	8.52543	8.53224	8.53906	8.54588	8.55270	8.55953	8.56636	8.57319	8.58002
2.66	8.58685	8.59369	8.60053	8.60738	8.61422	8.62107	8.62792	8.63478	8.64163	8.64849
2.67	8.65535	8.66222	8.66908	8.67595	8.68282	8.68970	8.69657	8.70345	8.71034	8.71722
2.68	8.72411	8.73100	8.73789	8.74479	8.75168	8.75858	8.76549	8.77239	8.77930	8.78621
2.69	8.79312	8.80004	8.80696	8.81388	8.82080	8.82773	8.83466	8.84159	8.84852	8.85546
2.70	8.86240	8.86934	8.87629	8.88323	8.89018	8.89713	8.90409	8.91105	8.91801	8.92497
2.71	8.93193	8.93890	8.94587	8.95284	8.95982	8.96680	8.97378	8.98076	8.98775	8.99473
2.72	9.00173	9.00872	9.01572	9.02271	9.02971	9.03672	9.04373	9.05073	9.05775	9.06476
2.73	9.07178	9.07880	9.08582	9.09284	9.09987	9.10690	9.11393	9.12097	9.12800	9.13505
2.74	9.14209	9.14913	9.15618	9.16323	9.17028	9.17734	9.18440	9.19146	9.19852	9.20559
2.75	9.21266	9.21973	9.22680	9.23388	9.24096	9.24804	9.25512	9.26221	9.26930	9.27639
2.76	9.28348	9.29058	9.29768	9.30478	9.31189	9.31900	9.32611	9.33322	9.34033	9.34745
2.77	9.35457	9.36169	9.36882	9.37595	9.38308	9.39021	9.39735	9.40449	9.41163	9.41877
2.78	9.42592	9.43307	9.44022	9.44737	9.45453	9.46169	9.46885	9.47601	9.48318	9.49035
2.79	9.49752	9.50470	9.51187	9.51905	9.52624	9.53342	9.54061	9.54780	9.55499	9.56219
2.80	9.56939	9.57659	9.58379	9.59099	9.59820	9.60541	9.61263	9.61984	9.62706	9.63428
2.81	9.64151	9.64873	9.65596	9.66319	9.67043	9.67767	9.68490	9.69215	9.69939	9.70664
2.82	9.71389	9.72114	9.72840	9.73565	9.74291	9.75018	9.75744	9.76471	9.77198	9.77925
2.83	9.78653	9.79381	9.80109	9.80837	9.81566	9.82294	9.83024	9.83753	9.84483	9.85212
2.84	9.85943	9.86673	9.87404	9.88135	9.88866	9.89597	9.90329	9.91061	9.91793	9.92526
2.85	9.93258	9.93991	9.94725	9.95458	9.96192	9.96926	9.97660	9.98395	9.99129	9.99865
2.86	10.00600	10.01335	10.02071	10.02807	10.03544	10.04280	10.05017	10.05754	10.06492	10.07229
2.87	10.07967	10.08705	10.09444	10.10183	10.10921	10.11661	10.12400	10.13140	10.13880	10.14620
2.88	10.15361	10.16101	10.16842	10.17584	10.18325	10.19067	10.19809	10.20551	10.21294	10.22037
2.89	10.22780	10.23523	10.24267	10.25010	10.25755	10.26499	10.27244	10.27988	10.28734	10.29479
2.90	10.30225	10.30971	10.31717	10.32463	10.33210	10.33957	10.34704	10.35452	10.36199	10.36947
2.91	10.37695	10.38444	10.39193	10.39942	10.40691	10.41441	10.42190	10.42940	10.43691	10.44441
2.92	10.45192	10.45943	10.46695	10.47446	10.48198	10.48950	10.49703	10.50455	10.51208	10.51961
2.93	10.52715	10.53468	10.54222	10.54977	10.55731	10.56486	10.57241	10.57996	10.58751	10.59507
2.94	10.60263	10.61019	10.61776	10.62533	10.63290	10.64047	10.64805	10.65562	10.66321	10.67079
2.95	10.67837	10.68596	10.69355	10.70115	10.70874	10.71634	10.72394	10.73155	10.73915	10.74676
2.96	10.75438	10.76199	10.76961	10.77723	10.78485	10.79247	10.80010	10.80773	10.81536	10.82300
2.97	10.83064	10.83828	10.84592	10.85356	10.86121	10.86886	10.87651	10.88417	10.89183	10.89949
2.98	10.90715	10.91482	10.92249	10.93016	10.93783	10.94551	10.95319	10.96087	1096855	10.97624
2.99	10.98393	10.99162	10.99932	11.00701	11.01471	11.02241	11.03012	11.03783	11.04554	11.05325
3.00	11.06096	11.06868	11.07640	11.08413	11.09185	11.09958	11.10731	11.11504	11.12278	11.13052
3.01	11.13826	11.14600	11.15375	11.16150	11.16925	11.17700	11.18476	11.19252	11.20028	11.20804
3.02	11.21581	11.22358	11.23135	11.23913	11.24690	11.25468	11.26247	11.27025	11.27804	11.28583
3.03	11.29362	11.30142	11.30921	11.31701	11.32482	11.33262	11.34043	11.34824	11.35605	11.36387
3.04	11.37169	11.37951	11.38733	11.39516	11.40299	11.41082	11.41865	11.42649	11.43433	11.44217
3.05	11.45002	11.45786	11.46571	11.47356	11.48142	11.48928	11.49714	11.50500	11.51286	11.52073
3.06	11.52860	11.53647	11.54435	11.55223	11.56011	11.56799	11.57588	11.58377	11.59166	11.59955
3.07	11.60745	11.61534	11.62325	11.63115	11.63906	11.64696	11.65488	11.66279	11.67071	11.67863
3.08	11.68655	11.69447	11.70240	11.71033	11.71826	11.72620	11.73413	11.74207	11.75002	11.75796
3.09	11.76591	11.77386	11.78181	11.78977	11.79772	11.80569	11.81365	11.82161	11.82958	11.83755

TABLE VII.- RATIO OF IMPACT PRESSURE TO STATIC PRESSURE q_c/p FOR VALUES OF MACH NUMBER - Continued

[These values are from ref. 3]

Mach number, M	0	1	2	3	4	5	6	7	8	9
3.10	11.84553	11.85350	11.86148	11.86946	11.87745	11.88543	11.89342	11.90141	11.90941	11.91740
3.11	11.92540	11.93341	11.94141	11.94942	11.95743	11.96544	11.97345	11.98147	11.98949	11.99751
3.12	12.00554	12.01357	12.02160	12.02963	12.03767	12.04570	12.05374	12.06179	12.06983	12.07788
3.13	12.08593	12.09399	12.10204	12.11010	12.11816	12.12623	12.13429	12.14236	12.15043	12.15851
3.14	12.16659	12.17466	12.18275	12.19083	12.19892	12.20701	12.21510	12.22320	12.23129	12.23939
3.15	12.24750	12.25560	12.26371	12.27182	12.27993	12.28805	12.29617	12.30429	12.31241	12.32054
3.16	12.32866	12.33679	12.34493	12.35307	12.36120	12.36934	12.37749	12.38564	12.39378	12.40194
3.17	12.41009	12.41825	12.42641	12.43457	12.44273	12.45090	12.45907	12.46724	12.47542	12.48360
3.18	12.49176	12.49996	12.50814	12.51633	12.52452	12.53272	12.54091	12.54911	12.55731	12.56551
3.19	12.57372	12.58193	12.59014	12.59835	12.60657	12.61479	12.62301	12.63123	12.63946	12.64769
3.20	12.65592	12.66415	12.67239	12.68063	12.68887	12.69712	12.70537	12.71362	12.72187	12.73012
3.21	12.73838	12.74664	12.75490	12.76317	12.77144	12.77971	12.78798	12.79626	12.80453	12.81281
3.22	12.82110	12.82938	12.83767	12.84596	12.85426	12.86255	12.87085	12.87915	12.88746	12.89577
3.23	12.90407	12.91239	12.92070	12.92902	12.93734	12.94566	12.95398	12.96231	12.97064	12.97897
3.24	12.98731	12.99565	13.00399	13.01233	13.02067	13.02902	13.03737	13.04573	13.05408	13.06244
3.25	13.07080	13.07917	13.08753	13.09590	13.10427	13.11264	13.12102	13.12940	13.13778	13.14617
3.26	13.15455	13.16294	13.17133	13.17973	13.18812	13.19652	13.20493	13.21333	13.22174	13.23015
3.27	13.23856	13.24698	13.25539	13.26381	13.27224	13.28066	13.28909	13.29752	13.30595	13.31439
3.28	13.32283	13.33127	13.33971	13.34816	13.35661	13.36506	13.37351	13.38197	13.39043	13.39889
3.29	13.40735	13.41582	13.42429	13.43276	13.44124	13.44971	13.45819	13.46667	13.47516	13.48365
3.30	13.49215	13.50063	13.50912	13.51762	13.52612	13.53462	13.54313	13.55164	13.56015	13.56866
3.31	13.57718	13.58570	13.59422	13.60274	13.61127	13.61980	13.62833	13.63686	13.64540	13.65394
3.32	13.66248	13.67102	13.67957	13.68812	13.69667	13.70522	13.71378	13.72234	13.73090	13.73947
3.33	13.74803	13.75661	13.76518	13.77375	13.78233	13.79091	13.79949	13.80808	13.81667	13.82526
3.34	13.83385	13.84245	13.85105	13.85965	13.86825	13.87686	13.88546	13.89408	13.90269	13.91131
3.35	13.91992	13.92855	13.93717	13.94580	13.95443	13.96306	13.97169	13.98033	13.98897	13.99761
3.36	14.00626	14.01490	14.02355	14.03221	14.04086	14.04952	14.05818	14.06684	14.07551	14.08418
3.37	14.09285	14.10152	14.11020	14.11887	14.12755	14.13624	14.14492	14.15361	14.16230	14.17100
3.38	14.17969	14.18839	14.19710	14.20580	14.21451	14.22322	14.23193	14.24064	14.24936	14.25808
3.39	14.26680	14.27553	14.28425	14.29298	14.30172	14.31045	14.31919	14.32793	14.33667	14.34542
3.40	14.35417	14.36292	14.37167	14.38043	14.38918	14.39794	14.40671	14.41547	14.42424	14.43301
3.41	14.44179	14.45056	14.45934	14.46812	14.47691	14.48570	14.49449	14.50328	14.51207	14.52087
3.42	14.52967	14.53847	14.54728	14.55608	14.56489	14.57371	14.58252	14.59134	14.60016	14.60898
3.43	14.61781	14.62663	14.63547	14.64430	14.65313	14.66197	14.67081	14.67966	14.68850	14.69735
3.44	14.70620	14.71506	14.72392	14.73277	14.74163	14.75050	14.75937	14.76823	14.77711	14.78598
3.45	14.79486	14.80374	14.81262	14.82150	14.83039	14.83928	14.84817	14.85707	14.86597	14.87487
3.46	14.88377	14.89268	14.90158	14.91049	14.91941	14.92832	14.93724	14.94616	14.95509	14.96401
3.47	14.97294	14.98187	14.99081	14.99974	15.00868	15.01762	15.02657	15.03551	15.04446	15.05342
3.48	15.06237	15.07133	15.08029	15.08925	15.09821	15.10718	15.11615	15.12512	15.13410	15.14308
3.49	15.15206	15.16104	15.17002	15.17901	15.18800	15.19700	15.20599	15.21499	15.22399	15.23299
3.50	15.24200	15.25101	15.26002	15.26903	15.27805	15.28707	15.29609	15.30512	15.31414	15.32317
3.51	15.33220	15.34124	15.35027	15.35931	15.36836	15.37740	15.38645	15.39550	15.40455	15.41361
3.52	15.42266	15.43172	15.44079	15.44985	15.45892	15.46799	15.47706	15.48614	15.49522	15.50430
3.53	15.51338	15.52247	15.53156	15.54065	15.54974	15.55884	15.56794	15.57704	15.58614	15.59525
3.54	15.60436	15.61347	15.62259	15.63170	15.64082	15.64994	15.65907	15.66820	15.67733	15.68646
3.55	15.69559	15.70473	15.71387	15.72301	15.73216	15.74131	15.75046	15.75961	15.76877	15.77793
3.56	15.78709	15.79625	15.80542	15.81458	15.82376	15.83293	15.84211	15.85128	15.86047	15.86965
3.57	15.87884	15.88803	15.89722	15.90641	15.91561	15.92481	15.93401	15.94322	15.95242	15.96163
3.58	15.97085	15.98006	15.98928	15.99850	16.00772	16.01695	16.02617	16.03540	16.04464	16.05387
3.59	16.06311	16.07235	16.08160	16.09084	16.10009	16.10934	16.11860	16.12785	16.13711	16.14637
3.60	16.15564	16.16490	16.17417	16.18344	16.19272	16.20200	16.21127	16.22056	16.22984	16.23913
3.61	16.24842	16.25771	16.26701	16.27630	16.28560	16.29491	16.30421	16.31352	16.32283	16.33214
3.62	16.34146	16.35078	16.36010	16.36942	16.37875	16.38808	16.39741	16.40674	16.41608	16.42542
3.63	16.43476	16.44410	16.45345	16.46280	16.47215	16.48150	16.49086	16.50022	16.50958	16.51895
3.64	16.52831	16.53768	16.54706	16.55643	16.56581	16.57519	16.58457	16.59396	16.60334	16.61273
3.65	16.62213	16.63152	16.64092	16.65032	16.65973	16.66913	16.67854	16.68795	16.69736	16.70678
3.66	16.71620	16.72562	16.73504	16.74447	16.75390	16.76333	16.77277	16.78220	16.79164	16.80108
3.67	16.81053	16.81998	16.82943	16.83888	16.84833	16.85779	16.86725	16.87671	16.88618	16.89565
3.68	16.90512	16.91459	16.92407	16.93354	16.94302	16.95251	16.96199	16.97148	16.98097	16.99047
3.69	16.99996	17.00946	17.01896	17.02847	17.03797	17.04748	17.05699	17.06651	17.07603	17.08554

L-1477

TABLE VII.- RATIO OF IMPACT PRESSURE TO STATIC PRESSURE qc/p FOR VALUES OF MACH NUMBER - Continued

[These values are from ref. 3]

Mach number, M	0	1	2	3	4	5	6	7	8	9
3.70	17.09507	17.10459	17.11412	17.12365	17.13318	17.14271	17.15225	17.16179	17.17133	17.18088
3.71	17.19043	17.19998	17.20953	17.21909	17.22864	17.23821	17.24777	17.25733	17.26690	17.27647
3.72	17.28605	17.29562	17.30520	17.31478	17.32437	17.33395	17.34354	17.35313	17.36273	17.37233
3.73	17.38192	17.39153	17.40113	17.41074	17.42035	17.42996	17.43957	17.44919	17.45881	17.46843
3.74	17.47806	17.48769	17.49732	17.50695	17.51659	17.52622	17.53586	17.54551	17.55515	17.56480
3.75	17.57445	17.58411	17.59376	17.60342	17.61308	17.62275	17.63241	17.64208	17.65175	17.66143
3.76	17.67110	17.68078	17.69046	17.70015	17.70984	17.71953	17.72922	17.73891	17.74861	17.75831
3.77	17.76801	17.77772	17.78743	17.79714	17.80685	17.81656	17.82628	17.83600	17.84573	17.85545
3.78	17.86518	17.87491	17.88464	17.89438	17.90412	17.91386	17.92360	17.93335	17.94310	17.95285
3.79	17.96260	17.97236	17.98212	17.99188	18.00165	18.01141	18.02118	18.03095	18.04073	18.05051
3.80	18.06029	18.07007	18.07985	18.08964	18.09943	18.10922	18.11902	18.12882	18.13862	18.14842
3.81	18.15823	18.16804	18.17784	18.18766	18.19747	18.20729	18.21712	18.22694	18.23676	18.24659
3.82	18.25642	18.26626	18.27610	18.28593	18.29578	18.30562	18.31547	18.32532	18.33517	18.34502
3.83	18.35488	18.36474	18.37460	18.38447	18.39434	18.40421	18.41408	18.42395	18.43383	18.44371
3.84	18.45360	18.46348	18.47337	18.48326	18.49315	18.50305	18.51295	18.52285	18.53275	18.54266
3.85	18.55257	18.56248	18.57239	18.58231	18.59223	18.60215	18.61207	18.62200	18.63193	18.64186
3.86	18.65180	18.66173	18.67167	18.68161	18.69156	18.70151	18.71146	18.72141	18.73136	18.74132
3.87	18.75128	18.76125	18.77121	18.78118	18.79115	18.80112	18.81110	18.82108	18.83106	18.84104
3.88	18.85103	18.86102	18.87101	18.88100	18.89100	18.90100	18.91100	18.92100	18.93101	18.94102
3.89	18.95103	18.96105	18.97106	18.98108	18.99111	19.00113	19.01116	19.02119	19.03122	19.04125
3.90	19.05129	19.06133	19.07137	19.08142	19.09147	19.10152	19.11157	19.12163	19.13169	19.14175
3.91	19.15181	19.16188	19.17195	19.18202	19.19209	19.20217	19.21225	19.22233	19.23241	19.24250
3.92	19.25259	19.26268	19.27277	19.28287	19.29297	19.30307	19.31318	19.32328	19.33339	19.34351
3.93	19.35362	19.36374	19.37386	19.38398	19.39411	19.40424	19.41437	19.42450	19.43463	19.44477
3.94	19.45491	19.46506	19.47520	19.48535	19.49550	19.50566	19.51581	19.52597	19.53613	19.54630
3.95	19.55646	19.56663	19.57680	19.58698	19.59716	19.60733	19.61752	19.62770	19.63789	19.64808
3.96	19.65827	19.66847	19.67866	19.68886	19.69907	19.70927	19.71948	19.72969	19.73990	19.75012
3.97	19.76034	19.77056	19.78078	19.79101	19.80124	19.81147	19.82170	19.83194	19.84218	19.85242
3.98	19.86266	19.87291	19.88316	19.89341	19.90366	19.91392	19.92418	19.93444	19.94470	19.95497
3.99	19.96524	19.97551	19.98579	19.99607	20.00635	20.01663	20.02691	20.03720	20.04749	20.05779
4.00	20.06808	20.07838	20.08868	20.09898	20.10929	20.11960	20.12991	20.14022	20.15054	20.16086
4.01	20.17118	20.18150	20.19183	20.20216	20.21249	20.22282	20.23316	20.24350	20.25384	20.26419
4.02	20.27453	20.28488	20.29523	20.30559	20.31595	20.32631	20.33667	20.34703	20.35740	20.36777
4.03	20.37815	20.38852	20.39890	20.40928	20.41966	20.43005	20.44044	20.45083	20.46122	20.47162
4.04	20.48201	20.49242	20.50282	20.51323	20.52364	20.53405	20.54446	20.55488	20.56530	20.57572
4.05	20.58614	20.59657	20.60700	20.61743	20.62787	20.63830	20.64874	20.65919	20.66963	20.68008
4.06	20.69053	20.70098	20.71144	20.72189	20.73236	20.74282	20.75328	20.76375	20.77422	20.78470
4.07	20.79517	20.80565	20.81613	20.82662	20.83710	20.84759	20.85808	20.86858	20.87907	20.88957
4.08	20.90007	20.91058	20.92108	20.93159	20.94211	20.95262	20.96314	20.97366	20.98418	20.99470
4.09	21.00523	21.01576	21.02629	21.03683	21.04737	21.05791	21.06845	21.07900	21.08954	21.10009
4.10	21.11065	21.12121	21.13176	21.14232	21.15289	21.16345	21.17402	21.18459	21.19517	21.20575
4.11	21.21632	21.22690	21.23749	21.24808	21.25867	21.26926	21.27985	21.29045	21.30105	21.31165
4.12	21.32226	21.33286	21.34347	21.35409	21.36470	21.37532	21.38594	21.39656	21.40719	21.41782
4.13	21.42845	21.43908	21.44972	21.46035	21.47099	21.48164	21.49228	21.50293	21.51358	21.52424
4.14	21.53489	21.54555	21.55621	21.56688	21.57755	21.58822	21.59889	21.60956	21.62024	21.63092
4.15	21.64160	21.65228	21.66297	21.67366	21.68435	21.69505	21.70575	21.71645	21.72715	21.73786
4.16	21.74856	21.75927	21.76999	21.78070	21.79142	21.80214	21.81286	21.82359	21.83432	21.84505
4.17	21.85578	21.86652	21.87726	21.88800	21.89874	21.90949	21.92024	21.93099	21.94175	21.95250
4.18	21.96326	21.97402	21.98479	21.99556	22.00633	22.01710	22.02787	22.03865	22.04943	22.06021
4.19	22.07100	22.08179	22.09258	22.10337	22.11417	22.12496	22.13577	22.14657	22.15737	22.16818
4.20	22.17899	22.18981	22.20062	22.21144	22.22226	22.23309	22.24391	22.25474	22.26557	22.27641
4.21	22.28725	22.29808	22.30893	22.31977	22.33062	22.34147	22.35232	22.36317	22.37403	22.38489
4.22	22.39576	22.40662	22.41749	22.42836	22.43923	22.45011	22.46099	22.47186	22.48275	22.49363
4.23	22.50452	22.51541	22.52631	22.53720	22.54810	22.55900	22.56991	22.58081	22.59172	22.60263
4.24	22.61355	22.62446	22.63538	22.64631	22.65723	22.66816	22.67909	22.69002	22.70095	22.71189
4.25	22.72283	22.73377	22.74472	22.75567	22.76662	22.77757	22.78852	22.79948	22.81044	22.82141
4.26	22.83237	22.84334	22.85431	22.86528	22.87626	22.88724	22.89822	22.90921	22.92019	22.93118
4.27	22.94217	22.95317	22.96416	22.97516	22.98616	22.99717	23.00817	23.01918	23.03020	23.04121
4.28	23.05223	23.06325	23.07427	23.08529	23.09632	23.10735	23.11838	23.12942	23.14046	23.15150
4.29	23.16254	23.17359	23.18463	23.19569	23.20674	23.21779	23.22885	23.23991	23.25098	23.26204

TABLE VII.- RATIO OF IMPACT PRESSURE TO STATIC PRESSURE q_c/p FOR VALUES OF MACH NUMBER - Continued

[These values are from ref. 5]

Mach number, M	0	1	2	3	4	5	6	7	8	9
4.30	23.27311	23.28418	23.29526	23.30633	23.31741	23.32849	23.33958	23.35067	23.36176	23.37285
4.31	23.38394	23.39504	23.40614	23.41724	23.42835	23.43945	23.45056	23.46168	23.47279	23.48391
4.32	23.49503	23.50615	23.51728	23.52840	23.53954	23.55067	23.56181	23.57294	23.58408	23.59523
4.33	23.60637	23.61752	23.62867	23.63983	23.65098	23.66214	23.67331	23.68557	23.69564	23.70680
4.34	23.71798	23.72914	23.74033	23.75151	23.76269	23.77387	23.78506	23.79625	23.80744	23.81864
4.35	23.82984	23.84104	23.85224	23.86345	23.87465	23.88586	23.89708	23.90829	23.91951	23.93073
4.36	23.94196	23.95318	23.96441	23.97564	23.98687	23.99811	24.00935	24.02059	24.03184	24.04308
4.37	24.05433	24.06558	24.07684	24.08809	24.09935	24.11061	24.12188	24.13315	24.14442	24.15569
4.38	24.16696	24.17824	24.18952	24.20080	24.21209	24.22338	24.23467	24.24596	24.25726	24.26856
4.39	24.27985	24.29116	24.30246	24.31377	24.32508	24.33640	24.34771	24.35903	24.37035	24.38168
4.40	24.39300	24.40433	24.41566	24.42700	24.43834	24.44967	24.46102	24.47236	24.48371	24.49506
4.41	24.50641	24.51776	24.52912	24.54048	24.55185	24.56321	24.57458	24.58595	24.59732	24.60870
4.42	24.62008	24.63145	24.64284	24.65422	24.66561	24.67700	24.68840	24.69979	24.71119	24.72259
4.43	24.73400	24.74540	24.75681	24.76822	24.77964	24.79105	24.80247	24.81389	24.82532	24.83674
4.44	24.84818	24.85961	24.87104	24.88248	24.89392	24.90536	24.91681	24.92825	24.93970	24.95116
4.45	24.96261	24.97407	24.98553	24.99699	25.00846	25.01993	25.03140	25.04287	25.05435	25.06583
4.46	25.07731	25.08879	25.10028	25.11177	25.12326	25.13475	25.14625	25.15775	25.16925	25.18076
4.47	25.19226	25.20377	25.21538	25.22680	25.23831	25.24983	25.26136	25.27288	25.28441	25.29594
4.48	25.30747	25.31901	25.33055	25.34208	25.35363	25.36517	25.37672	25.38827	25.39982	25.41138
4.49	25.42294	25.43450	25.44607	25.45763	25.46920	25.48077	25.49234	25.50392	25.51550	25.52708
4.50	25.53866	25.55025	25.56184	25.57343	25.58503	25.59663	25.60823	25.61983	25.63143	25.65304
4.51	25.65465	24.66626	25.67788	25.68949	25.70111	25.71274	25.72436	25.73599	25.74762	25.75925
4.52	25.77089	25.78253	25.79417	25.80581	25.81746	25.82911	25.84076	25.85241	25.86407	25.87573
4.53	25.88739	25.89905	25.91072	25.92239	25.93406	25.94573	25.95741	25.96909	25.98077	25.99246
4.54	26.00414	26.01583	26.02753	26.03922	26.05092	26.06262	26.07432	26.08603	26.09774	26.10945
4.55	26.12116	26.13288	26.14459	26.15631	26.16804	26.17976	26.19149	26.20322	26.21496	26.22669
4.56	26.23843	26.25017	26.26192	26.27366	26.28541	26.29716	26.30892	26.32068	26.33243	26.34420
4.57	26.35596	26.36773	26.37950	26.39127	26.40304	26.41482	26.42660	26.43838	26.45017	26.46196
4.58	26.47375	26.48554	26.49733	26.50913	26.52094	26.53274	26.54454	26.55635	26.56816	26.57998
4.59	26.59179	26.60361	26.61543	26.62726	26.63908	26.65091	26.66274	26.67458	26.68641	26.69825
4.60	26.71010	26.72194	26.73379	26.74564	26.75749	26.76934	26.78120	26.79306	26.80492	26.81679
4.61	26.82865	26.84053	26.85240	26.86427	26.87615	26.88803	26.89991	26.91180	26.92369	26.93558
4.62	26.94747	26.95937	26.97127	26.98317	26.99507	27.00698	27.01889	27.03080	27.04271	27.05463
4.63	27.06655	27.07847	27.09039	27.10232	27.11425	27.12618	27.13812	27.15005	27.16199	27.17394
4.64	27.18588	27.19783	27.20978	27.22173	27.23369	27.24565	27.25761	27.26957	27.28153	27.29350
4.65	27.30547	27.31744	27.32942	27.34140	27.35338	27.36536	27.37735	27.38934	27.40133	27.41332
4.66	27.42532	27.43732	27.44932	27.46133	27.47333	27.48534	27.49735	27.50937	27.52139	27.53341
4.67	27.54543	27.55745	27.56948	27.58151	27.59354	27.60558	27.61761	27.62966	27.64170	27.65374
4.68	27.66579	27.67784	27.68990	27.70195	27.71401	27.72607	27.73813	27.75020	27.76227	27.77434
4.69	27.78641	27.79849	27.81057	27.82265	27.83473	27.84682	47.85891	27.87100	27.88310	27.89519
4.70	27.90729	27.91939	27.93150	27.94361	27.95572	27.96783	27.97994	27.99206	28.00418	28.01630
4.71	28.02843	28.04056	28.05269	28.06482	28.07695	28.08909	28.10124	28.11338	28.12552	28.13767
4.72	28.14982	28.16198	28.17413	28.18629	28.19845	28.21062	28.22278	28.23495	28.24713	28.25930
4.73	28.27148	28.28366	28.29584	28.30802	28.32021	28.33240	28.34459	28.35679	28.36898	28.38118
4.74	28.39339	28.40559	28.41780	28.43001	28.44222	28.45444	28.46666	28.47888	28.49110	28.50332
4.75	28.51555	28.52778	28.54002	28.55225	28.56449	28.57673	28.58898	28.60122	28.61347	28.62572
4.76	28.63798	28.65023	28.66249	28.67476	28.68702	28.69929	28.71156	28.72383	28.73610	28.74838
4.77	28.76066	28.77294	28.78523	28.79732	28.80981	28.82210	28.83439	28.84669	28.85899	28.87130
4.78	28.88360	28.89591	28.90822	28.92054	28.93285	28.94517	28.95749	28.96981	28.98214	28.99447
4.79	29.00680	29.01913	29.03147	29.04381	29.05615	29.06849	29.08084	29.09319	29.10554	29.11790
4.80	29.13025	29.14261	29.15498	29.16734	29.17971	29.19208	29.20445	29.21683	29.22920	29.24159
4.81	29.25397	29.26635	29.27874	29.29113	29.30353	29.31592	29.32832	29.34072	29.35313	29.36553
4.82	29.37794	29.39035	29.40276	29.41518	29.42760	29.44002	29.45245	29.46487	29.47730	29.48973
4.83	29.50217	29.51461	29.52704	29.53949	29.55193	29.56438	29.57683	29.58928	29.60174	29.61419
4.84	29.62665	29.63912	29.65158	29.66405	29.67652	29.68899	29.70147	29.71395	29.72643	29.73891
4.85	29.75140	29.76389	29.77658	29.78887	29.80137	29.81387	29.82637	29.83887	29.85138	29.86389
4.86	29.87640	29.88891	29.90143	29.91395	29.92647	29.93900	29.95152	29.96405	29.97659	29.98912
4.87	30.00166	30.01420	30.02674	30.03929	30.05184	30.06439	30.07694	30.08949	30.10205	30.11461
4.88	30.12718	30.13974	30.15231	30.16488	30.17746	30.19003	30.20261	30.21519	30.22778	30.24036
4.89	30.25295	30.26554	30.27814	30.29073	30.30333	30.31593	30.32854	30.34115	30.35376	30.36637

L-1477

TABLE VII.- RATIO OF IMPACT PRESSURE TO STATIC PRESSURE q_c/p FOR VALUES OF MACH NUMBER - Concluded

[These values are from ref. 5]

Mach number, M	0	1	2	3	4	5	6	7	8	9
4.90	30.37898	30.39160	30.40422	30.41684	30.42947	30.44210	30.45473	30.46736	30.47999	30.49263
4.91	30.50527	30.51792	30.53056	30.54321	30.55586	30.56851	30.58117	30.59383	30.60649	30.61915
4.92	30.63182	30.64449	30.65716	30.66984	30.68251	30.69519	30.70787	30.72056	30.73324	30.74593
4.93	30.75863	30.77132	30.78402	30.79672	30.80942	30.82212	30.83483	30.84754	30.86025	30.87297
4.94	30.88569	30.89841	30.91113	30.92386	30.93659	30.94932	30.96205	30.97478	30.98752	31.00027
4.95	31.01301	31.02576	31.03850	31.05126	31.06401	31.07677	31.08952	31.10229	31.11505	31.12782
4.96	31.14059	31.15336	31.16613	31.17891	31.19169	31.20447	31.21726	31.23004	31.24284	31.25563
4.97	31.26842	31.28122	31.29402	31.30682	31.31963	31.33244	31.34525	31.35806	31.37088	31.38369
4.98	31.39651	31.40934	31.42217	31.43499	31.44782	31.46066	31.47349	31.48633	31.49917	31.51202
4.99	31.52487	31.53771	31.55057	31.56342	31.57628	31.58914	31.60200	31.61486	31.62773	31.64060
5.00	31.65347									

TABLE VIII.- SPEED OF SOUND a FOR VALUES OF FREE-AIR TEMPERATURE t IN DEGREES FAHRENHEIT

Speed of sound, mph

Temp, t, °F	0	1	2	3	4	5	6	7	8	9
-70	659.798									
-60	668.210	667.373	666.536	665.697	664.858	664.017	663.175	662.333	661.489	660.644
-50	676.517	675.691	674.864	674.036	673.207	672.376	671.545	670.713	669.880	669.045
-40	684.724	683.908	683.091	682.272	681.453	680.633	679.812	678.990	678.167	677.343
-30	692.834	692.027	691.219	690.411	689.601	688.791	687.979	687.167	686.354	685.539
-20	700.849	700.052	699.253	698.454	697.654	696.853	696.051	695.248	694.444	693.639
-10	708.774	707.986	707.196	706.406	705.615	704.823	704.030	703.236	702.441	701.646
-0	716.612	715.852	715.051	714.270	713.487	712.704	711.920	711.135	710.349	709.562
0	716.612	717.391	718.169	718.946	719.725	720.498	721.273	722.047	722.820	723.593
10	724.364	725.135	725.905	726.674	727.442	728.210	728.976	729.742	730.507	731.271
20	732.035	732.797	733.559	734.320	735.081	735.840	736.599	737.357	738.114	738.870
30	739.626	740.381	741.135	741.888	742.640	743.392	744.143	744.893	745.643	746.392
40	747.140	747.887	748.633	749.379	750.124	750.868	751.612	752.355	753.097	753.838
50	754.579	755.319	756.058	756.796	757.534	758.271	759.007	759.743	760.477	761.212
60	761.945	762.678	763.410	764.141	764.872	765.602	766.331	767.059	767.787	768.514
70	769.241	769.967	770.692	771.416	772.140	772.863	773.585	774.307	775.028	775.749
80	776.468	777.187	777.906	778.623	779.340	780.057	780.773	781.488	782.202	782.916
90	783.629	784.341	785.053	785.764	786.475	787.185	787.894	788.603	789.311	790.018
100	790.725	791.431	792.136	792.841	793.545	794.249	794.952	795.654	796.356	797.057
110	797.757	798.457	799.157	799.855	800.553	801.251	801.947	802.644	803.339	804.034
120	804.729									

Speed of sound, knots

Temp, t, °F	0	1	2	3	4	5	6	7	8	9
-70	573.349									
-60	580.658	579.932	579.204	578.475	577.746	577.015	576.284	575.551	574.818	574.084
-50	587.877	587.160	586.441	585.721	585.001	584.279	583.557	582.835	582.109	581.384
-40	595.009	594.300	593.589	592.878	592.167	591.454	590.740	590.026	589.311	588.594
-30	602.056	601.355	600.653	599.950	599.247	598.543	597.838	597.132	596.425	595.717
-20	609.021	608.328	607.635	606.940	606.245	605.549	604.852	604.154	603.455	602.756
-10	615.908	615.223	614.537	613.850	613.163	612.474	611.785	611.095	610.405	609.713
-0	622.719	622.041	621.362	620.683	620.002	619.323	618.641	617.959	617.276	616.592
0	622.718	623.395	624.072	624.747	625.422	626.096	626.769	627.442	628.114	628.785
10	629.455	630.125	630.794	631.462	632.130	632.797	633.463	634.129	634.793	635.457
20	636.121	636.784	637.446	638.107	638.768	639.427	640.087	640.745	641.403	642.061
30	642.717	643.373	644.028	644.683	645.337	645.990	646.643	647.295	647.946	648.597
40	649.247	649.896	650.545	651.193	651.840	652.487	653.133	653.778	654.423	655.067
50	655.711	656.354	656.996	657.638	658.279	658.919	659.559	660.198	660.837	661.475
60	662.112	662.749	663.385	664.020	664.655	665.290	665.923	666.556	667.189	667.821
70	668.452	669.083	669.713	670.342	670.971	671.600	672.227	672.854	673.481	674.107
80	674.732	675.357	675.981	676.605	677.228	677.851	678.473	679.094	679.715	680.335
90	680.955	681.574	682.193	682.810	683.428	684.045	684.661	685.277	685.892	686.507
100	687.121	687.734	688.348	688.960	689.572	690.185	690.794	691.404	692.014	692.623
110	693.232	693.840	694.448	695.055	695.662	696.268	696.873	697.478	698.083	698.687
120	699.290									

L-1477

TABLE IX.- SPEED OF SOUND a FOR VALUES OF FREE-AIR TEMPERATURE t IN DEGREES CENTIGRADE

Speed of sound, mph

Temp., t, °C	0	1	2	3	4	5	6	7	8	9
-60	654.699									
-50	669.880	668.377	666.871	665.362	663.849	662.333	660.813	659.290	657.763	656.233
-40	684.724	683.254	681.781	680.305	678.825	677.342	675.856	674.367	672.875	671.579
-30	699.253	697.814	696.372	694.927	693.478	692.027	690.573	689.115	687.654	686.191
-20	713.487	712.077	710.663	709.247	707.828	706.406	704.981	703.554	702.123	700.690
-10	727.442	726.059	724.673	723.284	721.893	720.498	719.102	717.702	716.300	714.895
-0	741.135	739.777	738.416	737.054	735.688	734.320	732.950	731.577	730.201	728.823
0	741.135	742.490	743.843	745.193	746.541	747.887	749.230	750.571	751.909	753.245
10	754.579	755.910	757.239	758.565	759.890	761.212	762.531	763.849	765.164	766.477
20	767.787	769.096	770.402	771.706	773.008	774.307	775.604	776.900	778.193	779.484
30	780.772	782.059	783.344	784.626	785.907	787.185	788.461	789.735	791.007	792.277
40	793.545	794.811	796.075	797.337	798.597	799.855	801.111	802.365	803.617	804.867
50	806.116									

Speed of sound, knots

Temp., t, °C	0	1	2	3	4	5	6	7	8	9
-60	568.917									
-50	582.109	580.804	579.495	578.183	576.869	575.551	574.231	572.907	571.580	570.250
-40	595.009	593.732	592.451	591.169	589.883	588.594	587.303	586.009	584.712	583.412
-30	607.635	606.384	605.131	603.875	602.616	601.355	600.091	598.825	597.555	596.283
-20	620.003	618.778	617.549	616.319	615.086	613.850	612.612	611.371	610.128	608.883
-10	632.130	630.928	629.723	628.516	627.307	626.096	624.882	623.666	622.447	621.227
-0	644.028	642.848	641.666	640.482	639.296	638.107	636.916	635.723	634.527	633.330
0	644.028	645.206	646.382	647.555	648.727	649.896	651.063	652.228	653.391	654.552
10	655.711	656.868	658.022	659.175	660.326	661.475	662.621	663.766	664.909	666.050
20	667.189	668.326	669.461	670.594	671.725	672.854	673.982	675.107	676.231	677.353
30	678.473	679.591	680.707	681.821	682.934	684.045	685.154	686.261	687.366	688.470
40	689.572	690.672	691.770	692.867	693.962	695.055	696.147	697.236	698.324	699.411
50	700.495									

TABLE X.- TEMPERATURE t IN DEGREES FAHRENHEIT AND CENTIGRADE AND SPEED OF SOUND a IN MILES PER HOUR

AND KNOTS FOR VALUES OF PRESSURE ALTITUDE H IN GEOPOTENTIAL FEET

Pressure altitude, H, geopotential ft	Temp., t, °F	Temp., t, °C	Speed of sound, a, mph	Speed of sound, a, knots	Pressure altitude, H, geopotential ft	Temp., t, °F	Temp., t, °C	Speed of sound, a, mph	Speed of sound, a, knots
0	+59.000	+15.000	761.212	661.475	28,000	-40.852	-40.473	684.029	594.405
500	+57.217	+14.009	759.902	660.337	28,500	-42.636	-41.464	682.570	593.137
1,000	+55.434	+13.019	758.590	659.197	29,000	-44.419	-42.455	681.110	591.868
1,500	+53.651	+12.028	757.276	658.055	29,500	-46.202	-43.446	679.646	590.596
2,000	+51.868	+11.038	755.960	656.911	30,000	-47.985	-44.436	678.179	589.321
2,500	+50.085	+10.047	754.642	655.766	30,500	-49.768	-45.427	676.709	588.044
3,000	+48.302	+9.057	753.321	654.618	31,000	-51.551	-46.417	675.236	586.764
3,500	+46.518	+8.066	751.997	653.467	31,500	-53.334	-47.408	673.759	585.481
4,000	+44.735	+7.075	750.671	652.315	32,000	-55.117	-48.398	672.279	584.195
4,500	+42.952	+6.084	749.343	651.161	32,500	-56.900	-49.389	670.796	582.906
5,000	+41.169	+5.094	748.013	650.006	33,000	-58.683	-50.379	669.310	581.614
5,500	+39.386	+4.103	746.680	648.848	33,500	-60.466	-51.370	667.820	580.320
6,000	+37.603	+3.113	745.345	647.687	34,000	-62.249	-52.361	666.327	579.022
6,500	+35.820	+2.122	744.008	646.525	34,500	-64.033	-53.352	664.830	577.721
7,000	+34.037	+1.132	742.668	645.351	35,000	-65.816	-54.342	663.330	576.418
7,500	+32.254	+.141	741.326	644.195	35,500	-67.599	-55.333	661.827	575.112
8,000	+30.471	-.849	739.981	643.026	36,000	-69.382	-56.323	660.321	573.803
8,500	+28.688	-1.840	738.634	641.856	36,500 thru 82,000	-69.700	-56.500	660.052	573.569
9,000	+26.905	-2.831	737.285	640.683	82,500	-68.912	-56.062	660.718	574.148
9,500	+25.121	-3.822	735.932	639.507	83,000	-68.089	-55.605	661.414	574.753
10,000	+23.338	-4.812	734.577	638.330	83,500	-67.266	-55.148	662.108	575.356
10,500	+21.555	-5.803	733.220	637.151	84,000	-66.443	-54.691	662.802	575.959
11,000	+19.772	-6.793	731.861	635.970	84,500	-65.620	-54.233	663.495	576.562
11,500	+17.989	-7.784	730.499	634.786	85,000	-64.797	-53.776	664.188	577.163
12,000	+16.206	-8.774	729.134	633.600	85,500	-63.974	-53.319	664.880	577.765
12,500	+14.423	-9.765	727.767	632.412	86,000	-63.151	-52.862	665.571	578.365
13,000	+12.640	-10.756	726.397	631.222	86,500	-62.328	-52.404	666.261	578.965
13,500	+10.857	-11.746	725.025	630.029	87,000	-61.505	-51.947	666.951	579.564
14,000	+9.074	-12.737	723.650	628.835	87,500	-60.682	-51.490	667.640	580.163
14,500	+7.291	-13.727	722.272	627.637	88,000	-59.859	-51.033	668.328	580.761
15,000	+5.508	-14.718	720.892	626.438	88,500	-59.036	-50.576	669.015	581.358
15,500	+3.725	-16.264	719.509	625.236	89,000	-58.213	-50.118	669.702	581.955
16,000	+1.941	-16.699	718.123	624.032	89,500	-57.390	-49.661	670.388	582.551
16,500	+.158	-17.690	716.735	622.825	90,000	-56.567	-59.204	671.073	583.147
17,000	-1.625	-18.681	715.344	621.617	90,500	-55.744	-48.747	671.758	583.742
17,500	-3.408	-19.671	713.950	620.406	91,000	-54.921	-48.289	672.442	584.336
18,000	-5.191	-20.662	712.554	619.192	91,500	-54.098	-47.832	673.125	584.930
18,500	-6.974	-21.652	711.155	617.977	92,000	-53.275	-47.375	673.808	585.523
19,000	-8.757	-22.643	709.753	616.759	92,500	-52.452	-46.918	674.490	586.116
19,500	-10.540	-23.633	708.349	615.538	93,000	-51.629	-46.461	675.171	586.708
20,000	-12.323	-24.624	706.941	614.315	93,500	-50.806	-46.003	675.852	587.299
20,500	-14.106	-25.614	705.531	613.090	94,000	-49.984	-45.547	676.531	587.889
21,000	-15.889	-26.605	704.118	611.862	94,500	-49.161	-45.089	677.210	588.479
21,500	-17.672	-27.596	702.702	610.631	95,000	-48.338	-44.632	677.888	589.069
22,000	-19.456	-28.587	701.283	609.398	95,500	-47.515	-44.175	678.566	589.658
22,500	-21.239	-29.577	699.861	608.163	96,000	-46.692	-43.718	679.243	590.246
23,000	-23.022	-30.568	698.437	606.925	96,500	-45.869	-43.261	679.920	590.834
23,500	-24.805	-31.558	697.009	605.684	97,000	-45.046	-42.803	680.595	591.421
24,000	-26.588	-32.549	695.579	604.441	97,500	-44.223	-42.346	681.270	592.008
24,500	-28.371	-33.539	694.146	603.196	98,000	-43.400	-41.889	681.945	592.594
25,000	-30.154	-34.530	692.709	601.948	98,500	-42.577	-41.432	682.619	593.179
25,500	-31.937	-35.521	691.270	600.697	99,000	-41.754	-40.974	683.292	593.764
26,000	-33.720	-36.511	689.828	599.444	99,500	-40.931	-40.517	683.964	594.349
26,500	-35.503	-37.502	688.383	598.188	100,000	-40.108	-40.060	684.636	594.932
27,000	-37.286	-38.492	686.934	596.930					
27,500	-39.069	-39.483	685.483	595.668					

TABLE XI.- TRUE AIRSPEED V IN KNOTS FOR VALUES OF CALIBRATED AIRSPEED Vc IN KNOTS

AND VALUES OF PRESSURE ALTITUDE H IN GEOPOTENTIAL FEET

[Computation of V based on standard temperature at each altitude]

H, geopotential ft	100	200	300	400	500	600	700	800	900	1,000
0	100.0	200.0	300.0	400.0	500.0	600.0	700.0	800.0	900.0	1000.0
5,000	107.7	215.0	321.6	427.4	532.2	635.8	740.3	847.3	955.2	1063.7
10,000	116.2	231.6	345.4	457.2	566.8	674.5	785.0	900.5	1017.8	1135.7
15,000	125.8	250.0	371.5	489.4	603.8	716.3	835.2	960.9	1088.9	1217.5
20,000	137.2	270.5	400.1	524.4	643.4	763.0	892.4	1029.8	1170.0	1310.8
25,000	148.7	293.4	431.5	562.0	686.6	816.2	958.0	1109.1	1263.1	1417.7
30,000	162.4	318.9	465.9	602.6	735.4	877.5	1033.8	1200.6	1370.3	1540.7
35,000	178.0	347.4	503.6	646.9	791.5	948.7	1121.9	1306.6	1494.4	1682.7
40,000	199.1	385.6	553.7	708.9	871.5	1049.3	1245.3	1454.1	1666.2	1878.4
45,000	223.6	429.1	610.0	782.4	967.0	1169.2	1392.1	1628.9	1869.3	
50,000	251.0	476.4	671.4	865.7	1075.6	1305.6	1558.6	1827.2	2099.4	
55,000	281.3	527.3	740.2	960.3	1199.2	1460.4	1747.4	2051.7		
60,000	314.9	581.8	817.9	1068.0	1339.6	1636.2	1961.4	2305.7		
65,000	351.8	640.4	906.0	1190.5	1499.0	1835.4	2203.6			
70,000	392.3	705.4	1006.2	1329.8	1679.9	2060.9	2477.6			
75,000	436.5	778.5	1120.2	1488.0	1885.0	2316.3				
80,000	484.3	861.2	1249.9	1667.1	2117.1	2604.9				
85,000	539.0	960.9	1405.3	1881.6	2393.6					
90,000	599.2	1076.8	1585.8	2129.4	2713.0					
95,000	663.6	1206.8	1787.3	2405.8						
100,000	733.8	1351.9	2011.6	2713.1						

L-1477