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SUMMARY

Measurements of sonic-boom ground overpressures have been made over a period of several months and for several flights each day. Data were obtained both inside and outside of buildings at locations on the ground track and at distances from the ground track of about 5 and 10 miles. Statistical analyses have been performed for both the overpressure and impulse data.

The measured sonic-boom signatures were noted to vary widely both in peak amplitude and in wave shape because of atmospheric dynamic effects. The highest overpressure values were associated with waves having short duration peaks whereas low overpressure values were associated with rounded-off waves resembling sine waves. The variations of the overpressures and impulses may be represented over the significant range by log normal distributions, the overpressures having a markedly wider range of variations than the impulses. Measurements at lateral distances of 5 or more miles indicated wider ranges of variations than similar measurements on the ground track.

For the same values of overpressure outside of a building, the inside pressure values were greater for exposures of longer wave length but did not vary appreciably for marked differences in wave shape for a given wave length.

INTRODUCTION

The effects of sonic booms are an important consideration in the overland operation of supersonic aircraft. Of particular significance in the operation of proposed supersonic transports is the reaction of communities to sonic-boom exposures from repeated flights. Only a limited amount of information relative to this repeated exposure problem is available. This fact has led to the Oklahoma City experiments sponsored by the Federal Aviation Agency and participated in by other agencies and organizations, the NASA being responsible for the measurement of sonic-boom exposures in the test area. The material of this paper is thus primarily concerned with these latter measurements. In addition to describing the sonic-boom exposure of the community, the data illustrate some of the effects of the atmosphere during sonic-boom propagation.

In previous experiments, some variations of wave shape and overpressure values were found to exist and were ascribed to atmospheric effects. (See ref. 1.) These effects were noted to be related to conditions of the atmosphere near the earth's surface. Such results were obtained during a series of studies that were rather limited both in terms of number of flights and time duration. The Oklahoma City experiments have provided the opportunity to evaluate possible effects on the sonic-boom signatures of the atmosphere and weather for an extended period of time and for a relatively large number of flights; however, only a partial analysis has been made to date.

The purpose of this paper is to document the sonic-boom pressure exposures during these experiments and, in particular, at three measuring stations for about 1225 flights in the time period February 3, 1964 to July 30, 1964. Data are tabulated for each flight so that they may be correlated with information generated by other organizations participating in this program. Included are analyses of some specific sets of data such as categorizations of waveforms and statistical breakdowns of overpressures and positive impulses.

SYMBOLS

A	airplane cross-sectional area, sq ft
$A(t)$	nondimensional cross-sectional area A/l^2 at nondimensionalized station $t = x/l$
B	equivalent cross-sectional area due to lift at airplane station x given by $B = \frac{\beta}{2q} \int_0^x F_L' \, dx$
C_L	lift coefficient
F_L'	lifting force per unit length along airplane longitudinal axis
h	airplane flight altitude, ft
I_o	impulse of sonic-boom ground-pressure signature
K_r	ground reflection factor
l	length of airplane, ft
M	Mach number
p	reference pressure, lb/sq ft
Δp	incremental pressure above ambient pressure due to flow field of airplane, lb/sq ft

Δp_i peak positive inside overpressure, lb/sq ft

Δp_o pressure rise across shock wave at ground level, lb/sq ft

q dynamic pressure, lb/sq ft

S wing planform area, sq ft

t nondimensionalized distance along longitudinal axis from airplane

Δt_o time duration of phase of sonic-boom ground-pressure signature

x cylindrical coordinate measured along body axis, ft

$\beta = \sqrt{M^2 - 1}$

Subscripts:

calc calculated

max maximum

meas measured

pos positive

The following symbols and definitions are used in tables I to XXI to denote weather conditions:

Surface winds:

First number in column is direction (true north) from which wind is blowing; second number in column is wind velocity in knots.

Cloud cover:

○ clear

◐ scattered

◍ broken

⊕ overcast

╳ obscuration

Precipitation:

A minus sign before type of precipitation indicates that the precipitation was light; otherwise, precipitation was moderate.

E	sleet
F	fog
GF	ground fog
H	haze
L	drizzle
R	rain
RW	rain showers
S	snow
T	thunderstorm
ZR	freezing rain

APPARATUS AND METHODS

Test Conditions

Test flights for which data are presented were made in the Greater Oklahoma City area along the track indicated in figure 1. This general area has an elevation of about 1,700 feet above sea level and includes a population of about 750,000 people in its urban, suburban, and rural regions. Several flights per day were made starting in February 1964 and continuing through July 1964.

Test Airplanes

Photographs of the airplanes of the types used in these tests are shown in figure 2. Airplane A has an overall length of 54.5 feet and a gross weight varying from 14,000 to 19,000 pounds. Airplane B has an overall length of 67.5 feet and a gross weight varying from 34,000 to 45,000 pounds. Airplane C has an overall length of about 71 feet and a gross weight of about 35,000 pounds. Airplane D has an overall length of 96.8 feet and a gross weight varying from 100,000 to 116,000 pounds. Aircraft of these types have been used in other sonic-boom flight-test programs and some details such as area distributions, fineness ratios, and shape factors are given in references 1 and 2. The airplanes were maintained and operated by U.S. Air Force personnel.

Aircraft Operations and Positioning

The aircraft were operated in the altitude range 21,000 to 50,000 feet and the Mach number range 1.2 to 2.0. The airplanes in all cases were positioned over the test area and along the prescribed ground track (see fig. 1) by means of ground-control procedures with the aid of radar tracking. The ground controller was located in Fort Worth, Texas, and the radar antenna was located within the Oklahoma City area. (See fig. 1.) Most of the flights were made on

a heading of 049° magnetic. On February 19 and 29, the flights were made on a heading of 229° magnetic; on April 28, the heading for flights 1 to 4 was 310° magnetic, and flights 5 to 8 were on 130° magnetic; on April 29, flights 1 to 4 were made on a heading of 170° magnetic, and flights 5 to 8 on 350° magnetic. Flights on March 7 were conducted on the 049° magnetic heading, but the airplane was displaced 8 miles to the north of the original track. Radar plotting-board overlays were obtained for all flights, and the data were used to provide information on aircraft plan position and ground velocity. Altitude was obtained from a Ground Control Intercept station located in Oklahoma City. All altitude values listed in the data tables are separation distances, that is, the actual distance from the airplane to the ground surface.

Each aircraft was directed on the flight track such that the desired Mach number and altitude conditions were reached when the aircraft was in the vicinity of Minco, Oklahoma and were maintained to the general vicinity of Arcadia, Oklahoma. When these procedures were used, the sonic booms observed at the measuring stations indicated in figure 1 were associated with steady-level flight conditions of the aircraft. In some cases the acceleration portion was extended beyond the point shown in figure 1 to permit two passes to be made during one flight. For some of these latter flights, acceleration effects as indicated by a double-boom disturbance (see ref. 3) were noted to exist in the Oklahoma City test area. Only the first to arrive pressure signature, which in all cases was the most intense, has been included in the data tabulations.

Atmospheric Soundings

Rawinsonde observations from the U.S. Air Force weather facility located at Will Rogers Field, Oklahoma (see fig. 1) were taken within 1 hour of the times of all of the supersonic flights. Measured values of temperature and pressure, along with the calculated speed-of-sound and humidity values and wind velocity and direction values, were provided up to at least the airplane test altitude.

In addition to the four rawinsonde observations which were obtained during each day, surface measurements of temperatures, winds, and so forth were obtained along with information relayed by the pilots during their ascent to altitude and during the actual supersonic run. The type of information obtained from the pilots included indications of turbulence, cloud cover, and precipitation.

Pressure Instrumentation

The main components of the measurement systems used for sonic-boom pressures are the same as those described in more detail in reference 1. Each channel of the system as used in the experiments consisted of a specially modified microphone, tuning unit, d-c amplifier, and oscillograph recorder. The usable frequency range was from 0.1 to 5,000 cycles per second, and this range applies to all the data presented herein. The microphones have a dynamic range from about 70 to about 150 dB. They were field-calibrated statically before each test by means of a pressure bellows and a sensitive manometer. Prior to field installation, frequency-response curves were obtained for all microphones.

Sonic-boom pressure measurements were made both inside and outside the three test buildings. Each outside microphone was shock mounted at ground level in the surface of a plywood reflecting board, as shown in figure 9 of reference 1. Wind screens designed so as not to affect the pressure measurements were used at all times. When measurements were made during precipitation, a thin plastic cover was draped loosely over the wind screens.

For the inside measurements, each microphone was shock mounted at approximately 5 feet from the floor level near the center of the room. These setups were used to make inside and outside measurements at each of the three measuring stations noted in figure 1.

In order to obtain information on the sizes of areas affected by given levels of ground overpressure, a special multiple array of microphones was used for simultaneous measurements at selected locations. Simultaneous recordings from each of the 5 microphones were made for several flights for microphone separation distances from 50 to 200 feet in straight lines parallel to and perpendicular to the flight track of the aircraft. These data were taken in open areas at locations near the ground track and also at lateral distances of about 8 miles on either side of it.

Sonic-Boom Calculations

Sonic-boom calculations are included in this paper only for airplanes A and B since these airplanes are the ones for which sufficient data were obtained for statistical analyses. The method of performing the calculations is the same as that outlined in the appendix of reference 1. Both volume and lift were considered and in the manner illustrated in figure 3. The assumed volume distributions and lift distributions for each airplane are shown in figures 3(a) and 3(b), respectively. From the basic lift and volume distributions, the sonic-boom characteristics for each aircraft are determined by machine computing procedures in parametric form as indicated in figure 3(c).

In the calculations for signature wave lengths which are required in determining the impulse functions, it was assumed that far-field conditions existed and that lift effects could be neglected. In the calculations of wave lengths, the method of reference 4 was used and the duration of the positive phase of the wave was assumed to be equal to that of the negative phase.

RESULTS AND DISCUSSION

Wave Shapes

The type of experimental data obtained in the measurements of the present studies is illustrated in figure 4, which shows sample outside and inside sonic-boom pressure signatures. The outside pressure signature is of the N-wave type, whereas the inside pressure signature has the general appearance of a damped

sine wave. The peak overpressure values in either case are defined as the maximum positive deviation from local atmospheric pressure, as indicated in the figure.

From a study of the data obtained, it was found that the outside pressure traces varied markedly in character such that it was useful to categorize them as indicated in figure 5. The characteristic wave shapes are presented on the left-hand side of the figure, and word descriptions, on the right-hand side. In cases where wave shapes did not fall naturally into one of the categories illustrated, a two-letter designation was assigned; for instance, a type "NP" was judged to be intermediate between type "N" and type "P." Also shown on the figure are definitions of such quantities as positive impulse I_o and the duration of the positive phase of the wave Δt_o, which are listed in the main data tables along with peak overpressure and wave-shape categories.

Tabulations of Data

The measured data as determined from time-history records such as those of figures 4 and 5 are listed in tables I to XXI. The data in each table are listed chronologically for each aircraft and altitude combination. In addition to the sonic-boom signature data for the three measurement stations, some associated weather and aircraft operating condition information is included. Where there are no entries in the table, either the data do not exist or could not be properly interpreted.

For the convenience of the reader, and to indicate sample size, table XXII has been prepared to include the number of data records at each measuring station for various flight conditions, along with the number of the appropriate table (see tables I to XXI) in which the data are included. It is obvious from an inspection of table XXII that a larger number of flights were conducted for some test conditions than for others, and thus these results are of greater statistical significance.

Variations for a Series of Flights

The data of tables I to XXI have been studied in detail to determine the manner in which the peak overpressure and impulse values vary. The results of these studies are included in figures 6 to 9. In these figures the data have been plotted as relative cumulative frequency distributions and thus, on the ordinate scales, give the probability of equaling or exceeding the given values of the abscissas.

The data of figures 5, 6, and 7 illustrate the variation of the peak overpressures for the entire range of flight conditions for airplanes A and B at each of three measuring stations. In figures 8 and 9 the variations of the impulse values for these two aircraft are shown by means of similar plots. All the data have been plotted on log normal paper and straight lines have been faired through the data points as an aid in interpretation. For this type of

presentation, the data points would all fall on a straight line if the logarithms of the data fitted a normal distribution.

In each case the opportunity is taken to plot on the abscissa scale the ratio of measured to calculated values of either overpressure or impulse. The measured value of overpressure or positive impulse for any particular flight may be obtained from the appropriate column of tables I to XXI. The calculated values, on the other hand, may be obtained from table XXII. Also shown in each figure is an insert sketch (histogram) showing probability of occurrence of various values of the abscissa quantity.

Several observations can be made from the data of figure 6. Let us first focus our attention on the data of figure 6(a) which relates to the measuring station on the ground track. The data seem to follow a log normal distribution with the exception of the low-valued points and this is a rather general result of the experiments. The median value of the pressure ratio for this case is noticeably less than 1. In fact, about 80 percent of the measurements for this particular condition were lower in amplitude than would be predicted and only about 20 percent equaled or exceeded the predicted value. It can also be seen that there is a probability of about 1 percent (0.01) that the measured value will equal or exceed the predicted value by 50 percent.

Figures 6(b) and 6(c) include similar data but for locations about 5 or 10 miles, respectively, off the track. It can be seen that as the distance from the track is increased, the variation in amplitude tends to be greater and the median value is nearer unity than for the location on the track. It is not known whether these differences are due to sampling variations, a longer ray path in the presence of turbulence, a large-scale temperature anomaly, a shifting of the exposure pattern because of cross winds (see ref. 5), or some combination of these phenomena.

There is also a trend toward greater deviations from the log normal distribution curve in the low-amplitude range for greater lateral distances. The data show about a 1-percent probability of equaling or exceeding measured values which are 2 to $2\frac{1}{2}$ times the predicted values. This result should not be interpreted to mean that the actual overpressures are necessarily higher than for the on-the-track location since the off-the-track calculated values are, of course, generally lower (see table XXII). Similar data for airplane B are shown in figure 7. It can be seen that the same general trends of the data exist. The median values and the range of pressure-ratio values are noted, however, to be higher for airplane B.

It is believed that if the aircraft speed, weight, and altitude were held absolutely constant and the atmospheric conditions constant, the overpressure values would be equal for all flights. The overpressure values from one flight to another are not constant, but rather vary in amplitude over a considerable range. These variations may be due to such factors as small variations in aircraft flight conditions, small variations due to measuring technique and instrument inaccuracies, and variations due to the weather. For the data illustrated, the weather effects are judged to be dominant.

The positive impulse functions have been determined for the experiments of figures 6 and 7 and are presented, respectively, in figures 8 and 9. Log normal plots are presented and the data are coded in the same way as for figures 6 and 7. The variations in the impulse functions are noted to be similar in nature to those for the overpressures; however, the range of values is markedly less. It can be seen from figure 8 that the median value is generally less than the predicted value, whereas the reverse is true in figure 9. This result is not presently understood; however, the use of the far-field theory of reference 4 may result in overestimating calculated impulse values for airplane A and in underestimating them for airplane B.

Variations for a Given Flight

The data presented in tables I to XXI and in figures 6 and 7 indicate the type of variations of the pressure exposures at discrete measuring points over a period of time during which atmospheric changes occurred. In order to provide some information relative to the variations occurring in specific areas on the ground as a result of a single flight, experiments were performed with a special microphone array in which the individual microphones were accurately spaced and oriented relative to the flight track. Sample data obtained in this manner are presented in figures 10 and 11.

The data of figure 10 represent an overall calibration of the individual microphones in the array. They were placed within a few inches of each other for one of the flights in order to check for repeatability and to determine the amount of variation inherent in the field use of these instruments. Tracings were made of the pressure-time history records and are presented in the figure. It is obvious that the wave shapes are nearly identical, since the systems are closely matched in frequency response and are closely grouped to minimize atmospheric effects. As illustrated in figure 10, the variation in the results from the average value which may be ascribed to instrument differences and calibration and reading errors is noted to be less than about ± 7 percent.

For the experiment the sensitive diaphragm element of the microphone was located about 6 inches above and parallel to the reflecting surface, and this location accounts for the small steps in the steeply rising portions of the waves at both the initial and final compressions. The same microphone positioning scheme was used to obtain the data of figure 11.

In figure 11 are presented tracings of the measured waveforms from the accurately calibrated and oriented array of matched microphones. These data illustrate the variations of waveforms obtained for given flights for which the aircraft operating conditions are essentially constant. The waveforms are presented in the proper time sequence and are directly comparable in amplitude. All data of the figure were recorded for microphone separation distances of 200 feet. Data are presented for flights at times 2 hours apart on the same day. It can be seen that a wide variation in wave shape occurred even over a distance on the ground of a few hundred feet, and that the variations were different for the two flights. The widest variation occurred for the data of figure 11(a), where a definite progression was noted from a highly peaked wave of

relatively large overpressure at the first measuring point to a rounded-off wave of relatively low overpressure. The data of figure 11(b) also suggest a definite progression of events. A study of a series of recordings such as these and others of a similar nature taken during the experiments suggests a rising and falling of the peak overpressure values along with corresponding wave shape changes as a function of distance along the ground. The peak overpressure value rises and falls as a function of distance in much the same manner as the surface level of the ocean in the presence of waves. Although not shown in the figure, significant differences in wave shape were measured at separation distances as small as 50 feet. Such variations as these, which have also been observed on other occasions (see ref. 1), are believed to result from temperature and velocity anomalies in the atmosphere, particularly in the lower layers.

Lateral-Spread Patterns

In order to summarize the results pertaining to the lateral-spread patterns in the test area, the comparable pressure data are plotted in figure 12 as a function of distance from the ground track of the aircraft. Data are included for eight flights during a particular day and include measurements made at three permanent measurement stations and with the use of a mobile recording station at an 8-mile distance on the opposite side of the track. For each of the permanent recording stations, one data point was obtained for each flight, whereas five data points were recorded for each flight at the mobile recording station. There is noted to be some scatter in the overpressure values at all measuring stations. The most scatter and the highest overpressures occur at station 3 for the operations on this particular day. From an inspection of similar data for operation on other days, it was noted that the largest scatter and highest overpressures do not always occur at station 3, but also might occur at any of the other stations. Also shown in the figure is a calculated curve of nominal overpressure values for these flight conditions along with the calculated cut-off points for atmospheric refraction, a zero wind condition being assumed. (See ref. 6.) For the data shown in the figure, there was a prevailing wind generally from left to right (northwest to southeast). Such a wind occurred on most days of operation. There is a possibility of a shifting of the whole pressure pattern, generally to the right, for such wind conditions. Such a shift of the pressure pattern is judged to have occurred on some occasions when waveforms of type C (see fig. 5) were measured at the upwind measuring station. Such waveforms are consistently measured near the edge of the pressure pattern. Another result which suggests some shifting of the pressure pattern is the fact that in many cases, as for instance those of figure 12, measured overpressures at station 3 were as high as or higher than those at station 1.

Correlation Between Inside and Outside Measurements

The measured data have been analyzed for the purpose of establishing some correlation, if possible, between the inside measurements and the outside measurements. There is reason to believe that the inside microphone may give an indication of the overall dynamic response of the building since it integrates all the pressure fluctuations in its vicinity because of the motions of the

building components. Such a measurement might, therefore, be significant with regard to judgments of acceptability by indoor observers. One of the findings of these studies is illustrated in figure 13. In the upper part of the figure are shown two markedly different waveforms as measured for airplane A at the outside microphone measuring location of station 1. Even though the overpressure values and the associated wave shapes differ, the wave lengths are nearly the same. The bottom traces are the corresponding pressure-time histories measured at the inside microphone location of the test building. The most obvious result is that the inside pressure traces are very nearly identical despite the marked differences in the outside pressure traces.

The results of figure 13, of course, apply to a particular aircraft. Different results are obtained, as illustrated in figure 14, for different aircraft. In the top part of the figure are the outside pressure traces for aircraft A and D, and in the lower part of the figure are the corresponding inside pressure traces. Although the outside pressure traces differ in some detail, the major difference is in the wave length. The inside pressure traces are seen to differ markedly in character, the trace with the fluctuations of lower frequency being associated with the outside wave of longer duration or wave length.

These results suggest that the peak pressure alone is not the dominant factor in building response, but that a combination of peak pressure and time duration (impulse) may be important. Figure 15 contains a presentation of the comparable inside and outside measurements to illustrate a possible correlation of these data. Inside peak overpressures are plotted as a function of positive impulse values as determined from outside pressure measurements and as listed in tables I to XXI. The large number of data points for both aircraft A and B are represented by the hatched areas. The inside pressure values are noted to increase generally as the outside impulse values increase and thus tend to be higher for the larger aircraft.

Inside Acoustic Measurements

In figures 13 and 14, some examples are shown of the nature of the inside pressure signatures for various flight conditions. In general, the onset of pressure is slow, the peak value is less, and the duration is markedly longer than for the corresponding outside signature. Since the primary building vibration modes are the dominant contributors, the resulting pressure time history has a large low-frequency content, some of which is subaudible. In order to determine the contribution of the high-frequency components, some recordings were made for the range 100 to 5000 cps. The peak noise levels in this latter frequency range did not exceed about 90 dB. The relative importance in the reaction problem of the low-frequency or subaudible components and the high-frequency acoustic components remain to be evaluated.

CONCLUSIONS

Analyses of sonic-boom pressure measurements made in the Oklahoma City area over a 6-month period and for varying atmospheric conditions and flight conditions indicate the following conclusions:

1. Wide variations in ground pressure signature were observed with corresponding wide variations in the peak overpressure and to a lesser degree, variations in the positive impulse function.

2. Variations of overpressure and impulse may be represented by a log normal distribution (normal distribution of their logarithms) over the significant ranges.

3. One percent of the measured overpressures equaled or exceeded the predicted values by a factor of about 1.5 to 3.0 depending on the distance relative to the ground track; the larger factor was associated with the larger distances and with the lower predicted value.

4. One percent of the measured positive impulse values equaled or exceeded the predicted values by a factor of about 1.2 and 2.0 depending on the distance from the ground track, the large factor being associated with the larger distances and with the lower predicted value.

5. Measurements at several points for a given flight show also a variation in wave shape as a function of distance in the direction of flight. An orderly progression of wave shape is suggested by the data from a highly peaked wave at one point to a rounded-off wave at another and vice versa.

6. Measured pressure signatures inside of a building were lower in amplitude and longer in duration than the corresponding outside pressure signatures and were dominated by frequency components corresponding to the principal vibration modes of the building.

7. The levels of the pressures inside of a building in the range of frequencies 100 to 5000 cps are about 30 dB lower than those in the range 0.1 to 5000 cps; thus, an inside observer is subjected to strong pressure variations in the subaudible range and relatively weak pressure variations in the audible range.

8. For equal outside peak overpressures the peak pressures inside a residential-type structure were greater for a longer wave length.

9. Inside peak pressures were found to correlate well with vibration in the positive impulse function of the outside pressure signature. For a given wave length they did not vary appreciably for marked variations in the wave shape.

Langley Research Center,
National Aeronautics and Space Administration,
Langley Station, Hampton, Va., October 14, 1964.

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TABLE I.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE RANGE FROM 36,000 TO 41,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
41,000 feet																					
4-29-64	2/564	726	2.0	53	050/7	○	None	1.07	----	0.042	0.0247	NP	0.91	----	0.045	0.0248	NR	1.0	----	0.042	0.0235	N
4-29-64	3/565	900	2.0	60	050/8	⊕	None	.77	----	.048	.0201	NR	1.04	----	.040	.0243	NR	1.15	----	.040	.0255	NP
4-29-64	4/566	920	2.0	61	050/8	"	None	.65	----	.046	.0189	R	1.17	----	.036	.0245	NR	1.17	----	.043	.0194	NP
38,000 feet																					
2- 7-64	3/11	1256	1.5	38	290/18	○	None	1.00	0.36	0.052	0.0255	NP	0.83	0.30	0.052	0.0283	NR	0.83	0.28	0.046	0.0197	P
2- 7-64	4/12	1530	1.5	41	280/18	"	None	.90	.40	.051	.0251	NR	.42	.17	.058	.0151	R	.51	.22	.052	.0125	NP
2- 7-64	5/13	1805	1.5	39	290/11	"	None	.73	.41	.052	.0233	NR	.80	.29	.050	.0248	N	.66	.28	.046	.0169	NP
2- 9-64	1/20	827	1.5	35	250/15	"	None	.79	.38	.051	.0269	NR	.67	.42	.048	.0225	NR	----	----	-----	------	---
2- 9-64	2/21	1029	1.5	46	250/14	"	None	.81	.41	.047	.0246	NR	.63	.37	.050	.0196	NR	.64	.26	.053	.0172	NP
2- 9-64	3/22	1255	1.5	53	220/17	◑	None	1.16	.45	.041	.0285	N	.96	.31	.050	.0230	NP	.71	.30	.062	.0207	NR
2- 9-64	4/23	1525	1.5	55	270/10	⊕	None	.84	.40	.046	.0245	NR	.58	.27	.048	.0190	NR	.79	.28	.052	.0165	P
2- 9-64	5/24	1627	1.5	54	230/7	◐	None	.88	.41	.045	.0241	NR	.75	.31	.047	.0221	NR	.96	.29	.045	.0185	P
2- 9-64	6/25	1758	1.5	52	230/6	◑	None	.88	.39	.046	.0264	NR	.54	.30	.053	.0203	NR	.52	.30	.056	.0169	NP
2-10-64	1/26	700	1.5	37	340/10	◐	None	----	----	-----	------	---	.67	.34	.053	.0217	NR	----	.25	-----	------	---
2-10-64	2/27	728	1.5	37	340/10	◐	None	.90	.36	.051	.0233	NP	.68	.28	.052	.0177	N	.44	.23	.060	.0182	R
37,000 feet																					
2- 4-64	1/1	1029	1.5	36	030/8	⊕	-R, GF, -E	0.77	0.54	0.056	0.0287	R	----	----	-----	------	---	----	----	-----	------	---
2- 5-64	1/2	1256	1.5	38	360/13	"	-R, F	.94	.52	.051	.0277	NR	----	0.19	-----	------	---	0.34	0.43	0.066	0.0100	R
2- 5-64	3/4	1532	1.5	39	320/15	"	-R, F	.77	.51	.055	.0274	NR	0.84	.31	0.050	0.0225	N	.42	.70	.055	.0150	NR
2- 6-64	4/8	1754	1.5	37	360/14	"	-S	.86	.39	.044	.0243	NR	.83	.28	.043	.0174	N	.57	.21	.050	.0147	NP
2- 7-64	1/9	829	1.5	25	280/8	○	None	1.30	.46	.044	.0285	P	.98	.29	.046	.0235	N	.74	.26	-----	------	P
2- 7-64	2/10	1029	1.5	31	280/14	"	None	.86	.39	.045	.0234	NP	1.04	.31	.047	.0273	N	.74	.27	.051	.0180	P
36,000 feet																					
2- 5-64	2/3	1359	1.5	39	360/15	⊕	-R, F	0.57	0.28	0.052	0.0176	---	----	----	-----	------	---	0.29	0.60	0.060	0.0118	C
2- 6-64	1/5	1032	1.5	40	360/20	◑	None	.70	.28	.047	.0171	NR	1.06	0.25	0.035	0.0186	N	1.01	.30	-----	------	P
2- 6-64	2/6	1259	1.5	42	360/15	⊕	None	1.17	.40	.046	.0274	NP	.87	.23	.047	.0211	N	.63	.25	.048	.0151	NP
2- 6-64	3/7	1529	1.5	40	360/17	◑	None	1.03	.39	.044	.0253	NP	.74	.27	.047	.0226	NR	.55	.20	.054	.0171	NR
2- 8-64	1/14	826	1.5	34	270/10	◑	None	.84	.32	.048	.0213	N	1.03	.34	.046	.0228	NP	1.22	.29	-----	------	P
2- 8-64	2/15	1026	1.5	42	300/14	◐	None	.97	.35	.043	.0237	N	.70	.26	.041	.0169	NR	.81	.29	.049	.0184	NP
2- 8-64	3/16	1300	1.5	52	290/17	○	None	.93	.42	.048	.0283	R	.88	.31	.047	.0214	N	.50	.24	.046	.0158	---
2- 8-64	4/17	1527	1.5	55	280/25	○	None	1.60	.43	.045	.0264	P	.84	.33	.050	.0222	NR	.49	.22	.050	.0167	---
2- 8-64	5/18	1627	1.5	54	300/22	◑	None	.69	.37	.052	.0253	R	1.44	.30	.043	.0190	P	.69	.25	.055	.0141	---
2- 8-64	6/19	1758	1.5	48	280/16	○	None	1.00	.36	.049	.0229	NP	.90	.37	.046	.0268	N	.84	.29	.048	.0204	NP

TABLE II.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE RANGE FROM 33,000 TO 35,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precipitation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
35,000 feet																					
2-15-64	4/66	1359	1.5	40	330/22	⊕	None	1.18	0.38	0.049	0.0319	NR	0.74	0.26	0.046	0.0221	NR	0.55	0.19	0.058	0.0160	NR
2-16-64	1/69	659	1.5	20	120/8	○	None	.92	.35	.048	.0257	R	.98	.31	.046	.0267	NR	.45	.21	.057	.0161	NR
2-17-64	1/77	701	1.5	31	150/15	◐	None	1.26	.38	.040	.0284	N	1.55	.31	.039	.0257	NP	.66	.22	.051	.0157	NR
2-18-64	1/85	659	1.5	35	310/18	○	None	1.32	.32	.048	.0317	NP	.98	.33	.042	.0220	N	.99	.21	.051	.0174	P
2-18-64	2/86	729	1.5	35	310/18	"	None	1.10	.35	.043	.0261	NR	1.33	.31	.043	.0220	NP	1.13	.18	.044	.0149	P
2-19-64	1/93	658	1.5	31	320/20	◐	None	.58	.19	.064	.0162	---	1.74	.52	.040	.0263	P	.42	.11	.056	.0151	R
2-19-64	2/94	726	1.5	30	320/20	"	None	1.10	.29	.052	.0271	NR	.74	.35	.053	.0201	NR	.42	.11	.053	.0128	R
2-20-64	7/106	1559	1.5	36	360/15	◐	None	.71	.26	.059	.0224	R	.39	.27	.061	.0145	R	.55	.10	.046	.0118	R
2-22-64	1/115	700	1.5	19	150/8	○	None	.88	.35	.045	.0267	R	1.04	.36	.042	.0263	N	.80	.26	.043	.0195	N
2-22-64	2/116	731	1.5	20	150/8	◑	None	1.02	.32	.050	.0240	NR	.97	.36	.047	.0271	NP	.81	.29	.048	.0203	N
2-23-64	1/123	700	1.5	32	350/12	◑	None	1.25	.39	.043	.0250	NP	.98	.38	.045	.0263	N	.71	.23	.046	.0163	NR
2-23-64	2/124	730	1.5	32	350/12	"	None	1.06	.33	.041	.0261	R	1.04	.35	.040	.0226	N	.75	.24	.044	.0174	NR
2-24-64	1/131	708	1.5	26	160/7	◑	None	.96	.28	.047	.0248	NR	.86	.29	.050	.0197	N	----	----	-----	------	---
2-24-64	2/132	730	1.5	27	160/7	"	None	.90	.30	.044	.0267	NR	.83	.35	.050	.0233	NR	.52	.20	.048	.0157	R
2-26-64	1/139	659	1.5	18	350/8	◑	None	1.05	.42	.043	.0304	NR	1.04	.40	.040	.0248	N	1.03	.	.041	.0223	NP
2-26-64	2/140	730	1.5	18	350/8	"	None	.92	.41	.045	.0247	NR	1.01	.35	.040	.0227	N	.69	.	.044	.0145	NR
2-29-64	1/164	700	1.5	30	160/10	◑	None	.82	.37	.046	.0228	NR	.97	.37	.042	.0252	R	.99	.28	.036	.0146	NP
2-29-64	2/165	720	1.5	31	160/10	"	None	.85	.38	.046	.0203	NR	.93	.38	-----	------	NR	.70	.24	.046	.0175	NR
2-29-64	3/166	859	1.5	39	170/16	◑	None	.79	.39	.046	.0240	NR	.88	.39	-----	------	NR	1.00	.27	.050	.0209	NP
2-29-64	7/170	1300	1.5	47	180/25	"	None	1.61	.30	.041	.0225	P	1.83	.44	.040	------	NP	.20	.13	.088	.0094	R
2-29-64	8/171	1320	1.5	49	180/25	"	None	.67	.31	.049	.0202	R	1.01	.35	.041	.0243	NR	.73	.23	.050	.0198	R
3- 2-64	1/178	700	1.5	52	150/14	⊕	None	.81	.31	.051	.0234	R	.70	.35	.058	.0236	R	1.17	.25	.049	.0204	NP
3- 2-64	2/179	720	1.5	52	150/14	"	None	1.35	.34	.044	.0345	N	1.35	.41	.044	.0269	P	.50	.14	.053	.0140	NR
3- 2-64	3/180	900	1.5	54	160/15	"	F	1.11	.37	.049	.0363	R	.88	.32	.047	.0228	NR	.78	----	.039	.0140	NR
3- 2-64	4/181	920	1.5	54	160/15	"	F	1.24	.35	.043	.0356	NR	1.03	.34	.041	.0243	NR	1.16	----	.050	.0205	P
3-16-64	7/271	1300	1.5	63	320/12	◑	None	1.59	.44	.038	.0235	P	1.13	.37	.040	.0217	N	.85	.24	.060	.0210	C
3-16-64	8/272	1320	1.7	64	320/12	"	None	.75	.45	.044	.0215	R	1.11	.40	.043	.0243	NR	1.75	.31	.037	.0237	P
4-29-64	1/563	700	2.0	57	230/12	◑	None	1.22	----	.042	.0265	NP	1.33	----	.039	.0240	N	.97	----	.041	.0223	N
34,000 feet																					
2-24-64	7/137	1600	1.8	54	200/22	○	None	0.99	0.31	0.046	0.0278	R	1.05	0.42	0.047	0.0274	NP	1.32	0.27	0.047	0.0199	P
33,000 feet																					
2-29-64	4/167	919	1.5	42	170/16	◐	None	1.46	0.43	0.039	0.0234	P	1.13	0.34	0.041	0.0252	N	1.73	0.35	0.030	0.0233	P
3-16-64	3/269	900	1.5	51	170/12	◑	None	1.02	.40	.044	.0235	NP	1.97	.40	.039	.0238	P	.93	.24	.047	.0173	NP
3-16-64	4/270	921	1.7	53	170/12	"	None	1.15	.38	.041	.0228	N	1.18	.40	.042	.0241	N	1.06	.29	.036	.0194	P

TABLE III.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 32,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
2-10-64	3/28	930	1.5	41	010/12	◐	None	1.10	0.41	0.047	0.0234	N	1.46	0.33	0.045	0.0229	P	0.73	0.27	0.046	0.0191	N
2-10-64	4/29	1002	1.5	43	020/17	◐	None	1.34	.42	.048	.0254	NP	1.24	.37	.046	.0269	C	1.03	.28	.052	.0192	NP
2-10-64	5/30	1326	1.5	52	350/18	○	None	.72	.35	.053	.0210	R	2.29	.30	.046	.0258	P	1.02	.31	.049	.0225	NP
2-10-64	6/31	1358	1.5	52	010/18	◐	None	1.02	.44	.056	.0276	NP	1.11	.33	.049	.0247	NP	.91	.28	.048	.0210	N
2-10-64	7/32	1602	1.5	51	340/14	○	None	.91	.36	.069	.0298	NR	1.11	.34	.050	.0248	NP	.93	.29	.044	.0199	NR
2-10-64	8/33	1631	1.5	51	340/14	"	None	.72	.33	.053	.0219	R	1.33	.36	.047	.0288	NP	.91	.29	.052	.0197	N
2-11-64	1/35	701	1.5	26	110/10	"	None	1.10	.47	.044	.0264	N	.97	.37	.042	.0314	N	.61	.23	.051	.0182	NR
2-11-64	2/36	731	1.5	27	130/10	"	None	----	----	-----	------	---	.99	.34	.040	.0227	N	.81	.30	.047	.0190	NR
2-11-64	3/37	930	1.5	34	150/15	"	None	.97	.34	.045	.0232	NR	1.04	.38	.049	.0299	NR	.89	.23	.050	.0174	NP
2-11-64	4/38	1000	1.5	37	150/15	◐	None	1.12	.39	.043	.0275	N	1.30	.43	.040	.0263	NP	.92	.36	.051	.0235	N
2-11-64	5/39	1328	1.8	47	150/14	⊕	None	1.19	.36	.043	.0263	N	1.15	.39	.042	.0261	N	.90	.29	.042	.0148	NR
2-11-64	6/40	1359	1.8	48	160/15	"	None	.81	.33	.045	.0288	R	1.15	.43	.037	.0239	N	.65	.23	.048	.0198	NR
2-12-64	1/43	703	1.5	45	160/20	⊕	None	.68	.28	.053	.0199	R	----	----	-----	------	---	.24	.10	.086	.0117	R
2-12-64	2/44	729	1.5	45	160/20	◐	None	.87	.29	.045	.0191	R	----	----	-----	------	---	.57	.22	.046	.0151	R
2-12-64	3/45	928	1.5	43	170/19	⊕	-L, F	.68	.26	.042	.0173	R	----	----	-----	------	---	.49	.16	.051	.0133	R
2-12-64	4/46	959	1.5	43	170/18	"	-L, F	1.40	.35	.041	.0276	P	----	----	-----	------	---	.79	.19	.043	.0134	NP
2-13-64	1/47	700	1.5	33	030/10	⊕	None	.81	.35	.047	.0257	R	.66	.25	.056	.0165	R	----	----	-----	------	---
2-13-64	2/48	728	1.5	33	030/10	"	None	1.02	.38	.045	.0284	R	.87	.38	.042	.0239	R	----	.36	-----	------	---
2-13-64	7/53	1559	1.5	48	020/19	○	None	1.12	----	.043	.0272	R	1.22	.35	.041	.0257	NP	1.12	.29	.045	.0183	NP
2-13-64	8/54	1630	1.5	48	020/9	"	None	1.25	----	.043	.0287	NR	.92	.29	.047	.0208	NR	.70	.30	.050	.0169	NR
2-14-64	1/54	701	1.5	28	150/12	○	None	.96	----	-----	------	---	1.18	.33	.041	.0302	N	.88	.34	.043	.0215	NP
2-14-64	2/55	729	1.5	28	150/12	"	None	----	----	-----	------	---	1.23	.34	.039	.0208	N	.96	.35	.039	.0176	NP
2-14-64	3/56	928	1.5	36	150/12	"	None	1.07	----	-----	------	---	.85	.32	.054	.0253	NR	.73	.31	.044	.0160	NR
2-14-64	4/57	1003	1.5	39	150/18	"	None	1.37	.28	.041	.0238	NP	.70	.27	.039	.0135	N	.71	.28	.042	.0155	NR
2-14-64	5/58	1329	1.5	51	150/25	"	None	1.32	.39	.043	.0259	NP	----	----	-----	------	---	1.39	.30	.042	.0219	P
2-14-64	6/59	1357	1.5	52	150/20	◐	None	1.22	.34	.042	.0296	NR	----	----	-----	------	---	1.44	.36	.050	.0219	P
2-14-64	7/60	1558	1.5	51	140/22	⊕	None	1.04	.35	.043	.0253	NR	.82	.30	.040	.0190	NR	.62	.28	.051	.0178	---
2-14-64	8/61	1627	1.5	50	140/22	"	None	.87	.35	.043	.0249	NR	.83	.28	.046	.0198	NR	.47	.18	.077	.0172	---
2-15-64	1/63	701	1.5	37	280/20	"	None	1.24	.30	.050	.0271	NP	1.35	.32	.042	.0260	NP	.47	.23	.050	.0141	NR
2-15-64	2/64	731	1.5	29	310/27	"	-R	1.11	.36	.047	.0227	NR	1.12	.32	.044	.0254	N	.70	.22	.047	.0173	NR
2-15-64	3/65	1329	1.5	41	330/26	"	None	1.94	.37	.045	.0273	P	1.19	.36	.041	.0239	N	.48	.22	.060	.0141	R
2-15-64	5/67	1559	1.5	39	330/17	⊕	None	.81	.21	.046	.0232	R	.52	.20	.048	.0149	R	.30	.12	.059	.0128	R
2-15-64	6/68	1630	1.5	39	310/20	"	None	.58	.26	.056	.0195	R	.67	.27	.050	.0225	R	.66	.17	.049	.0112	NP
2-16-64	2/70	730	1.5	21	120/8	○	None	1.15	.39	.047	.0331	NR	.90	.29	.042	.0228	NR	.54	.20	.050	.0157	NR
2-16-64	3/71	930	1.5	28	290/8	"	None	1.25	.36	.047	.0325	NR	.89	.29	.045	.0249	NR	.56	.21	.050	.0146	NR
2-16-64	4/72	959	1.5	28	320/6	"	None	1.27	.32	.047	.0325	NP	.86	.29	.040	.0195	NR	.53	.18	.050	.0171	NR
2-17-64	2/78	730	1.5	31	150/15	"	None	1.32	.33	.055	.0295	NP	.92	.28	.040	.0204	N	.92	.22	.050	.0188	N

TABLE III.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 32,000 FEET - Continued

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
2-17-64	4/80	957	1.5	43	150/15	◑	None	1.37	0.31	0.046	0.0274	NP	1.31	0.33	0.036	0.0230	NP	1.12	0.25	0.047	0.0192	P
2-17-64	5/81	1329	1.5	45	160/10	⊕	-R	1.09	.33	.047	.0271	NR	.87	.36	.041	.0177	N	.78	.19	.052	.0135	NP
2-17-64	6/82	1359	1.5	43	220/9	"	-R	1.33	.37	.042	.0294	NP	.71	.33	.047	.0197	NR	.81	.22	.053	.0167	NP
2-17-64	7/83	1558	1.5	42	180/5	"	-R, F	.95	.33	.048	.0250	NR	.76	.32	.053	.0169	NR	.62	.20	.051	.0141	NR
2-18-64	3/87	929	1.8	38	320/20	○	None	1.89	.40	.042	.0314	NP	.76	.30	.041	.0187	NR	.78	----	.048	.0138	NP
2-18-64	4/88	957	1.5	40	330/20	"	None	1.32	.33	.045	.0327	N	.91	.35	.034	.0224	NR	.70	----	.052	.0185	N
2-18-64	5/89	1329	1.5	49	320/21	◑	None	1.70	.28	.047	.0263	P	1.01	.35	.040	.0181	N	.32	.15	.073	.0146	R
2-18-64	6/90	1359	1.5	49	330/26	◑	None	.76	.35	.050	.0256	R	1.95	.34	.046	.0238	C	.69	.19	.047	.0145	---
2-18-64	7/91	1559	1.5	50	320/24	"	None	1.21	.29	.060	.0242	C	1.23	.29	.040	.0207	C	.59	.22	.051	.0173	R
2-18-64	8/92	1633	1.5	50	320/24	"	None	1.33	.33	.044	.0269	NP	1.05	.31	.048	.0200	C	.72	.26	.065	.0237	---
2-19-64	3/95	927	1.5	32	310/18	○	None	1.03	.28	.049	.0252	NR	.91	.56	.045	.0224	N	.42	.12	.064	.0134	R
2-19-64	4/96	957	1.5	34	310/18	"	None	1.18	.31	.045	.0314	NR	1.35	.56	.041	.0200	NP	.37	.08	.054	.0106	R
2-19-64	7/99	1600	1.5	45	350/10	◑	None	1.22	.34	.050	.0352	NP	.86	.56	.051	.0218	N	.63	.17	.055	.0199	NR
2-20-64	1/100	700	1.5	32	020/16	◑	None	1.18	.27	.052	.0273	NR	1.31	.48	.052	.0293	P	.48	.11	.060	.0170	R
2-20-64	2/101	730	1.5	32	020/16	"	None	1.01	.27	.050	.0276	NR	1.99	.39	.046	.0207	P	.41	.09	.060	.0160	R
2-20-64	3/102	931	1.5	31	020/14	"	-S	1.17	.29	.049	.0296	NR	.90	.49	.055	.0285	NR	.45	.14	.062	.0171	R
2-20-64	4/103	959	1.5	32	360/15	◑	None	.82	.33	.060	.0269	R	1.24	.35	.051	.0225	P	.36	.12	.067	.0126	R
2-20-64	5/104	1329	1.5	36	010/16	○	None	.75	.26	.056	.0283	R	1.25	.38	.063	.0313	P	.31	.10	.087	.0152	R
2-20-64	6/105	1400	1.5	37	360/16	◑	None	.90	.29	.055	.0277	R	.96	.48	.051	.0287	NR	.19	.05	.066	.0084	R
2-21-64	1/107	658	1.5	19	320/5	◑	None	----	----	-----	------	---	1.00	.33	.042	.0194	N	.70	.24	.047	.0159	N
2-21-64	2/108	730	1.5	19	320/5	"	None	1.36	.40	.043	.0316	N	1.19	.35	.041	.0247	N	.91	.27	.050	.0213	N
2-21-64	3/109	929	1.5	25	330/10	◑	None	1.29	.41	.045	.0308	NR	1.18	.42	.045	.0272	N	1.02	.30	.049	.0215	NP
2-21-64	4/110	959	1.5	27	340/11	○	None	1.16	.34	.042	.0242	NR	1.30	.43	.043	.0344	N	.90	.29	.050	.0231	NP
2-21-64	5/111	1329	1.5	35	360/13	◑	None	1.14	.39	.052	.0301	NR	.92	.33	.050	.0249	NR	.80	.20	.058	.0133	NP
2-21-64	6/112	1400	1.5	35	020/15	◑	None	1.79	.47	.045	.0345	P	.85	.30	.046	.0213	N	.62	.20	.051	.0183	NR
2-21-64	7/113	1601	1.5	37	360/9	◑	None	.90	.42	.052	.0279	R	.56	.23	.056	.0180	R	1.23	.33	.051	.0236	P
2-21-64	8/114	1629	1.5	37	360/9	"	None	.88	.36	.052	.0243	R	.80	.27	.047	.0181	NR	1.09	.31	.054	.0237	NP
2-22-64	3/117	931	1.5	30	180/10	◑	None	----	----	-----	------	---	1.32	.42	.045	.0308	NP	.91	.28	.046	.0221	N
2-22-64	4/118	1000	1.5	34	180/10	"	None	1.17	.35	.048	.0285	N	1.24	.39	.040	.0251	N	.90	.26	.052	.0196	NP
2-22-64	5/119	1330	1.5	45	170/7	○	None	1.36	.56	.056	.0366	N	1.06	.36	.040	.0233	NP	1.00	.25	.052	.0189	P
2-22-64	6/120	1400	1.5	47	160/9	◑	None	1.34	.49	.051	.0323	N	.93	.30	.050	.0233	NR	.52	.26	.070	.0198	R
2-22-64	7/121	1559	1.5	50	240/13	"	None	1.15	.41	.049	.0261	NR	.72	.28	.057	.0196	R	.90	.41	.057	.0259	---
2-22-64	8/122	1629	1.5	50	240/13	"	None	1.60	.42	.042	.0233	NP	.75	.30	.044	------	R	.27	.13	.070	.0112	R
2-23-64	3/125	929	1.5	34	010/18	◑	None	1.40	.34	.044	.0343	NP	1.54	.37	.040	.0294	P	.94	.24	.046	.0184	NP
2-23-64	4/126	959	1.5	35	010/18	"	None	1.16	.35	-----	------	---	1.33	.31	.046	------	P	1.17	.22	.043	.0150	P
2-23-64	5/127	1330	1.5	38	010/10	⊕	None	1.31	.37	.042	.0273	NP	1.36	.41	.046	.0313	P	1.13	.25	.044	.0181	P
2-23-64	6/128	1400	1.5	38	010/10	"	None	1.06	.32	.048	.0284	NR	1.59	.31	.039	------	P	.98	.28	.040	.0187	NP

TABLE III.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 32,000 FEET - Concluded

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
2-23-64	7/129	1600	1.5	37	360/13	⊕	None	1.16	0.34	0.044	0.0250	NR	0.93	0.36	0.043	0.0251	N	0.89	0.25	0.043	0.0177	NP
2-23-64	8/130	1631	1.5	37	360/13	"	None	1.34	.25	.039	.0231	NR	.69	.26	.036	.0152	R	.47	.19	.050	.0141	R
2-24-64	3/133	931	1.5	36	180/12	⊕	None	1.03	.35	.052	.0256	NR	.93	.39	.050	.0237	N	.57	.24	.058	.0168	NR
2-24-64	4/134	1000	1.5	39	200/10	⊕	None	1.22	.30	.045	.0289	NP	.90	.33	.042	.0202	NP	1.04	.27	.050	.0209	P
2-24-64	5/135	1330	1.5	53	180/14	"	None	1.37	.38	.049	.0378	R	.93	.29	.055	.0209	NP	1.42	.20	.050	.0142	P
2-24-64	6/136	1400	1.5	56	180/18	⊕	None	.98	.34	.053	.0267	NR	1.49	.38	.046	.0269	P	.57	.19	.061	.0174	R
2-24-64	8/138	1630	1.5	54	200/22	○	None	1.52	.37	.048	.0305	NP	.74	.28	.054	.0219	NR	.63	.30	.052	.0222	R
2-26-64	3/141	932	1.5	25	360/10	⊕	None	.92	.36	.045	.0252	NR	.95	.36	.038	.0215	NR	.76	.22	.044	.0175	NR
2-26-64	4/142	1000	1.5	27	360/10	"	None	1.13	.43	.046	.0252	NP	1.24	.35	.044	.0254	NP	1.19	.23	.033	.0164	NP
2-27-64	1/147	700	1.5	22	120/4	○	None	.90	.34	.044	.0236	NR	.87	.35	.044	.0179	NR	.54	.22	.052	.0149	NR
2-27-64	2/148	730	1.5	23	120/4	"	None	.85	.40	.044	.0241	NR	1.14	.41	.041	.0276	NP	.83	.25	.044	.0188	NR
2-27-64	7/153	1600	1.5	42	050/12	⊕	None	1.70	.36	.039	.0229	P	1.86	.42	.040	.0267	P	.53	.17	.061	.0147	---
2-27-64	8/154	1616	1.5	41	050/12	"	None	1.63	.39	-----	------	P	1.06	.32	.042	.0194	---	.20	.10	.060	.0091	R
2-28-64	1/156	700	1.5	28	310/10	○	None	1.03	.50	.046	.0244	NP	1.10	.37	.044	.0260	N	.81	.29	.051	.0200	NR
2-28-64	2/157	721	1.5	28	310/10	"	None	.90	.49	.047	.0244	NR	1.06	.36	.046	.0243	N	.71	.27	.052	.0187	N
2-28-64	3/158	901	1.5	34	310/17	"	None	.81	.48	.052	.0223	NR	.83	.35	.048	.0258	N	.84	.29	.050	.0215	N
2-28-64	4/159	921	1.5	35	310/17	"	None	.89	.41	.045	.0216	N	.95	.38	.044	.0284	NR	.59	.23	.049	.0173	NR
3- 1-64	1/172	900	1.5	44	210/16	"	None	.99	.38	.044	.0234	NR	1.27	.32	.041	.0267	NP	1.10	.30	.036	.0182	NP
3- 1-64	2/173	919	1.5	45	210/16	"	None	.96	.38	.043	.0210	NR	1.34	.34	.043	.0250	NP	.79	.27	.046	.0187	N
3- 1-64	3/174	1100	1.5	54	210/14	"	None	1.16	.42	.040	.0220	NP	.97	.34	.044	.0258	NR	.69	.24	.053	.0183	NR
3- 1-64	4/175	1119	1.5	56	210/14	"	None	.70	.34	.047	.0170	R	1.06	.34	.047	.0251	N	.88	.26	.047	.0169	N
3- 1-64	5/176	1301	1.5	63	220/9	"	None	.73	.36	.047	.0269	R	.94	.32	.043	.0212	N	.98	.27	.049	.0196	N
3- 1-64	6/177	1320	1.5	64	220/9	"	None	.90	.36	.043	.0224	NR	1.02	.34	.045	.0267	N	1.21	.33	.032	.0188	P
3- 2-64	5/182	1100	1.5	61	160/17	⊕	None	1.31	.40	.046	.0338	NR	.79	.29	.041	.0191	N	.68	.19	.048	.0204	NR
3- 2-64	6/183	1120	1.5	62	160/17	"	None	1.48	.39	.047	.0309	NP	1.07	.32	.043	.0239	N	.75	.19	.052	.0203	NR
3- 3-64	1/184	700	1.5	45	150/16	⊕	None	1.00	.40	.046	.0230	NR	1.15	.33	.045	.0236	N	.72	.24	.050	.0160	N
3- 3-64	2/185	720	1.5	46	150/16	"	None	.76	.38	.049	.0217	R	1.19	.33	.040	.0199	N	.67	.24	.048	.0174	N
3- 3-64	3/186	900	1.5	52	150/18	⊕	None	.56	.30	.048	.0155	R	1.11	.42	.049	.0272	NR	.94	.26	.050	.0201	NP
3- 3-64	4/187	920	1.5	54	150/18	"	None	.56	.33	.049	.0162	R	1.40	.41	.044	.0308	P	.92	.26	.048	.0210	NP
3- 3-64	5/188	1059	1.5	60	150/25	⊕	None	1.49	.39	.043	.0255	P	.80	.33	.055	.0220	NR	.63	.20	.054	.0148	NR
3- 3-64	6/189	1120	1.5	61	150/25	"	None	1.56	.39	.042	.0248	P	.80	.30	.052	.0237	---	.75	.27	.055	.0212	NR
3- 3-64	7/190	1300	1.5	67	170/18	"	None	1.06	.41	.050	.0240	P	1.79	.54	.032	.0304	P	.38	.20	.060	.0129	R
3- 3-64	8/191	1320	1.5	67	170/18	"	None	1.01	.39	.041	.0194	NP	.91	.35	.037	.0200	R	.87	.35	.069	.0241	R
3- 4-64	2/191	721	1.5	30	360/13	"	None	----	.46	-----	------		.70	.21	.055	.0166	R	.44	.17	.061	.0148	R
3- 4-64	3/192	901	1.5	29	330/18	⊕	-S	.80	.59	.065	.0279	C	.65	.25	.063	.0197	---	----	----	-----	------	---
3- 5-64	1/193	701	1.5	29	220/9	○	None	.87	.45	.051	.0233	N	----	----	-----	------	---	.87	.28	.042	.0162	NP
3- 5-64	2/194	720	1.5	29	220/9	"	None	.92	.42	.050	.0249	N	1.01	.34	.047	.0266	N	.91	.27	.044	.0161	NP

TABLE IV.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 31,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
2-16-64	5/73	1330	1.5	47	160/11	○	None	1.05	0.38	0.047	0.0276	R	1.14	0.29	0.045	0.0255	NR	0.52	0.21	0.059	0.0167	NR
2-16-64	6/74	1359	1.5	48	160/16	"	None	1.13	.33	.048	.0348	NR	1.31	.36	.045	.0249	NR	.68	.24	.050	.0192	NR
2-16-64	7/75	1559	1.5	50	160/14	"	None	1.45	.33	.051	.0314	NP	.82	.25	.029	.0143	NR	.78	.29	.044	.0172	NR
2-16-64	8/76	1631	1.5	50	160/14	"	None	1.69	.34	.047	.0316	NP	1.03	.33	.039	.0248	NR	.67	.23	.050	.0162	NR
2-17-64	3/79	929	1.5	40	150/15	◑	None	1.43	.36	.044	.0236	NP	1.46	.33	.042	.0222	P	.84	.22	.048	.0161	N
2-17-64	8/84	1630	1.5	42	180/5	⊕	-R, F	.97	.30	.046	.0251	R	.74	.26	.051	.0128	R	.31	.12	.066	.0091	R
2-19-64	5/97	1330	1.5	42	320/15	◑	None	1.18	.24	.051	.0306	NR	1.38	.70	.047	.0314	P	.85	.18	.056	.0239	NP
2-19-64	6/98	1358	1.5	43	350/10	"	None	1.65	.33	.050	.0311	P	.90	.58	.051	.0225	N	.38	.12	.067	.0127	R
2-26-64	5/143	1330	1.5	36	020/10	○	None	1.28	.45	.042	.0292	N	1.24	.34	.041	.0264	P	1.08	.28	.036	.0183	NP
2-26-64	6/144	1400	1.5	37	040/10	"	None	1.31	.39	.038	.0261	N	.91	.35	.039	.0221	NR	1.40	.27	.037	.0221	P
2-27-64	3/149	930	1.5	33	140/18	"	None	.88	.41	.046	.0248	N	1.04	.35	.041	.0257	N	1.13	.32	.044	.0197	NP
2-27-64	4/150	1000	1.5	36	110/5	◑	None	.94	.47	.046	.0242	NR	1.34	.41	.041	.0267	NP	1.04	.27	.049	.0191	NP
2-28-64	5/160	1100	1.5	42	320/11	○	None	.68	.47	.051	.0221	R	.97	.34	.048	.0241	NR	.92	.24	.052	.0161	NP
2-28-64	6/161	1119	1.5	42	320/11	"	None	.76	.44	.052	.0201	NR	1.05	.34	.048	.0274	N	.67	.21	.053	.0160	NR
2-28-64	7/162	1301	1.5	46	320/11	"	None	1.12	.44	.051	.0222	NP	1.03	.43	.047	.0282	NR	2.15	.41	.049	.0283	P
2-29-64	5/168	1100	1.5	48	180/19	◑	None	.99	.34	.042	.0234	NP	1.30	.42	.039	.0241	N	1.18	.30	.046	.0267	NP
2-29-64	6/169	1120	1.5	49	180/19	"	None	1.41	.33	.040	.0222	P	1.62	.39	.041	------	NP	.81	.24	.045	.0181	NR

TABLE V.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 30,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
2-11-64	7/41	1559	1.8	50	150/20	⊕	None	1.10	0.33	0.040	0.0252	N	1.15	0.41	0.045	0.0287	N	1.10	0.35	0.042	0.0242	NP
2-11-64	8/42	1628	1.8	50	150/20	"	None	.64	.27	.053	.0207	NR	1.50	.33	.048	.0209	P	----	----	-----	------	---
2-13-64	3/49	929	1.5	34	340/10	⊕	None	1.78	.44	.038	.0365	N	.90	.35	.039	.0211	NR	.72	.29	-----	------	---
2-13-64	4/50	958	1.5	35	340/10	"	None	1.02	.41	.050	.0286	N	.97	.27	.045	.0166	C	.76	.31	.042	.0182	NR
2-13-64	5/51	1328	1.5	45	360/11	"	None	----	----	-----	------	---	1.88	.39	.036	.0274	P	1.60	.33	-----	------	P
2-13-64	6/52	1400	1.5	45	360/11	"	None	1.36	----	.046	.0328	N	2.28	.47	.039	.0294	P	.80	.24	.058	.0143	NP
2-26-64	7/145	1600	1.5	40	340/5	○	None	1.38	.47	.042	.0293	NP	1.25	.33	.039	.0216	C	.43	.18	.052	.0135	NR
2-26-64	8/146	1630	1.5	40	010/7	"	None	1.17	.46	.046	.0269	NP	1.51	.39	.037	.0254	P	.89	.34	.051	.0236	---
2-27-64	5/151	1330	1.5	42	200/5	⊕	None	1.07	.39	.047	.0256	NR	1.12	.38	.047	.0261	NR	.58	.29	.062	.0191	NR
2-27-64	6/152	1400	1.5	44	050/4	"	None	1.48	.47	.043	.0258	P	2.35	.42	.038	.0340	P	.96	.23	.049	.0166	NP
2-28-64	8/163	1320	1.5	46	320/11	○	None	1.29	.39	.041	.0210	NP	1.03	.34	.053	.0244	NR	.46	.18	.062	.0140	R
3- 5-64	3/195	900	1.5	38	200/10	"	None	1.14	.44	.044	.0238	N	1.49	.41	.041	.0318	N	.85	.26	.040	.0173	N
3- 5-64	4/196	920	1.7	39	200/10	"	None	1.08	.39	.043	.0225	N	1.15	.37	.036	.0245	N	1.05	.27	.037	.0189	NP
3- 5-64	5/197	1100	1.5	53	200/15	"	None	.98	.42	.046	.0247	NR	1.14	.44	.042	.0264	N	.88	.28	.047	.0184	NP
3- 5-64	6/198	1119	1.7	54	200/15	"	None	.87	.38	.044	.0218	NR	1.48	.43	.041	.0252	NP	.86	.28	.040	.0189	NR
3- 5-64	7/199	1300	1.5	59	210/21	"	None	.75	.39	.051	.0225	R	1.23	.43	.042	.0271	N	.96	.26	.049	.0168	NP
3- 5-64	8/200	1320	1.7	59	210/21	"	None	1.25	.35	.041	.0195	NP	1.32	.43	.050	.0243	P	.79	.23	.042	.0188	NR
3- 6-64	1/200	700	1.5	47	180/15	◑	None	.75	.35	.049	.0203	R	.95	.30	.044	.0219	NR	.67	.23	.049	.0164	NR
3- 6-64	2/201	720	1.7	47	180/15	"	None	1.40	.38	.041	.0219	NP	1.13	.35	.041	.0228	N	.90	.27	.046	.0187	NP
3- 6-64	3/202	900	1.5	54	180/20	"	None	.66	.36	.049	.0208	R	.99	.32	.044	.0244	NR	1.02	.32	.048	.0209	NP
3- 6-64	4/203	920	1.7	54	180/20	"	None	1.21	.33	.042	.0197	NP	1.02	.39	.047	.0258	R	.88	.24	.065	.0215	C
3- 6-64	5/204	1100	1.5	64	220/30	"	None	.94	.35	.044	.0274	N	1.06	.29	.036	.0178	NR	.79	.22	.047	.0166	NR
3- 6-64	6/205	1120	1.7	64	220/30	"	None	1.34	.36	.043	.0250	NP	1.14	.35	.040	.0261	NR	.67	.21	.054	.0164	NR
3- 6-64	7/206	1300	1.5	72	220/22	◑	None	1.83	.58	.042	.0249	P	.73	.33	.049	.0221	R	.49	.17	.052	.0151	R
3- 6-64	8/207	1319	1.7	72	220/22	"	None	1.03	.45	.042	.0190	NP	1.11	.34	.039	.0226	NP	.80	.19	.034	.0131	C
3- 7-64	1/208	701	1.7	37	050/18	⊕	None	.32	.13	.045	.0085	R	.38	.16	.056	.0127	---	----	----	-----	------	---
3- 7-64	2/209	720	1.7	37	050/18	"	None	.46	----	.049	.0121	R	.45	.18	.048	.0104	R	.28	.12	.055	.0081	R
3- 7-64	3/210	900	1.5	37	050/19	"	None	----	----	-----	------	---	.50	.29	.049	.0149	R	.78	.25	.049	.0157	P
3- 7-64	4/211	----	1.5	37	050/19	"	None	.56	.22	.049	.0117	R	.69	.31	.052	.0147	NP	.41	.18	.061	.0136	R
3- 7-64	5/212	1100	1.5	39	050/16	"	None	.53	.21	.057	.0116	R	.71	.29	.051	.0151	P	----	----	-----	------	---
3- 7-64	6/213	1120	1.7	39	050/16	"	None	.64	.24	.053	.0165	NR	.42	.28	.050	.0144	R	.55	.17	.048	.0111	---
3- 7-64	7/214	1300	1.5	42	040/11	"	None	.58	.22	.048	.0150	N	.32	.20	.062	.0101	R	.28	.11	.061	.0081	R
3- 7-64	8/215	1320	1.7	42	040/11	"	None	.63	.19	.050	.0136	NR	.81	.35	.044	.0172	NP	.30	.11	.060	.0081	---
3- 9-64	1/216	700	1.5	30	010/17	"	GF	.83	.36	.061	.0218	R	.68	.25	.057	.0220	R	.37	.14	.067	.0107	R
3- 9-64	2/217	721	1.7	30	010/17	"	None	1.13	.41	.043	.0230	NP	1.02	.33	.040	.0225	N	.63	.21	.048	.0146	R
3-15-64	2/260	720	1.7	38	260/6	○	None	.82	.42	.043	.0259	NR	1.14	.41	.043	.0292	N	.82	.25	.044	.0205	NR
3-15-64	3/261	900	1.5	44	210/8	"	None	1.20	.47	.046	.0256	N	1.23	.36	.044	.0263	N	.87	.28	.052	.0176	N

TABLE V.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 30,000 FEET - Continued

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
3-15-64	4/262	920	1.7	47	210/8	○	None	1.31	0.38	0.045	0.0270	NP	1.33	0.45	0.035	0.0284	N	1.11	0.30	0.040	0.0195	NP
3-15-64	5/263	1100	1.5	57	210/18	"	None	1.29	.47	.051	.0261	NP	2.20	.42	.049	.0337	P	1.96	.32	.036	.0231	P
3-15-64	6/264	1120	1.7	58	210/18	"	None	1.48	.41	.038	.0204	P	1.46	.43	.039	.0268	NP	.97	.33	.052	.0232	NP
3-15-64	7/265	1301	1.5	63	220/17	"	None	.72	.46	.054	.0229	R	1.41	.49	.050	.0340	NP	1.69	.53	.036	.0325	P
3-15-64	8/266	1320	1.7	63	220/17	"	None	.94	.42	.046	.0195	N	2.25	.38	.041	.0245	P	1.25	.33	.028	.0196	P
3-16-64	1/267	700	1.5	39	150/12	◐	None	1.23	.44	.043	.0244	N	1.45	.41	.041	.0284	N	.74	.27	.050	.0193	NR
3-16-64	2/268	720	1.7	39	150/12	"	None	1.27	.41	.042	.0238	NP	1.42	.40	.040	.0290	NP	.92	.23	.047	.0173	NP
3-21-64	6/300	1300	1.7	42	010/8	○	None	2.09	.52	.047	.0339	NP	1.66	.51	.030	.0265	P	.56	.25	.064	.0165	R
3-22-64	1/302	700	1.5	31	150/13	"	None	1.18	.48	.039	.0226	NR	1.43	.44	.041	.0310	N	1.08	.30	.042	.0181	N
3-22-64	2/303	720	1.7	31	150/13	"	None	1.00	.43	.040	.0200	N	1.10	.39	.043	.0294	NR	1.23	.29	.043	.0200	NP
3-22-64	3/304	859	1.7	42	150/18	"	None	1.51	.45	.041	.0283	NR	1.61	.36	.038	.0242	NP	.88	.25	.049	.0172	NR
3-22-64	4/305	920	1.5	43	150/18	"	None	1.51	.39	.043	.0221	N	1.92	.41	.042	.0268	P	1.23	.27	.039	.0172	NP
3-22-64	5/306	1100	1.5	52	160/15	○	None	1.16	.41	.043	.0246	R	----	----	-----	------	---	.93	.27	.050	.0207	N
3-22-64	6/307	1120	1.7	52	160/15	"	None	1.43	.37	.040	.0214	P	1.39	.39	.039	.0269	N	----	----	-----	------	---
3-22-64	7/308	1303	1.5	60	140/18	"	None	.74	.37	.048	.0201	R	1.09	.43	.044	.0263	NR	.55	.27	.055	.0184	R
3-22-64	8/309	1319	1.7	60	140/18	"	None	1.09	.36	.040	.0185	NR	1.05	.44	.052	.0307	R	.77	.25	.046	.0202	NR
3-23-64	1/310	700	1.5	50	170/15	◐	None	1.14	.39	.044	.0260	NR	1.32	.39	.042	.0246	N	1.51	.30	.035	.0191	P
3-23-64	2/311	720	1.5	50	170/15	"	None	1.18	.65	-----	------	---	1.17	.47	.052	.0192	NP	.64	.20	.059	.0145	NR
3-23-64	3/312	906	1.5	57	180/15	◐	None	1.06	.40	-----	------	---	1.34	.40	.060	.0378	N	.98	.26	.045	.0198	NR
3-23-64	5/314	1100	1.5	62	200/22	"	None	1.49	.45	.043	.0296	NP	1.07	.37	.048	.0231	NR	.56	.22	.056	.0179	R
3-23-64	6/315	1120	1.7	62	200/22	"	None	1.02	.66	.041	.0216	NP	1.83	.73	.040	.0293	NP	.74	.30	.045	.0239	NR
3-23-64	7/316	1300	1.5	69	210/15	○	None	.86	.40	.049	.0222	NR	1.29	.36	.045	.0241	NP	.81	.22	.053	.0176	NR
3-23-64	8/317	1320	1.7	69	210/15	"	None	1.22	.71	.042	.0271	NR	1.07	.80	.043	.0279	R	.84	.28	.041	.0161	NR
3-24-64	1/318	700	1.5	59	180/14	◐	None	1.37	.52	.043	.0265	NP	1.30	.38	.040	.0225	N	.69	.22	.054	.0153	NR
3-24-64	2/319	720	1.7	59	180/14	"	None	1.35	.81	.039	.0259	NR	1.52	.78	.039	.0301	NP	.76	.29	.047	.0131	NR
3-24-64	3/320	900	1.5	65	200/18	◐	None	1.02	.36	.044	.0186	NR	1.32	.42	.044	.0322	NP	1.09	.26	.050	.0210	NP
3-24-64	4/321	920	1.7	65	200/18	"	None	1.25	.79	.037	.0226	NP	2.30	.85	.037	.0305	P	1.02	.31	.042	.0203	NR
3-24-64	5/322	1106	1.5	69	200/17	⊕	None	.80	.68	.047	.0235	R	.66	.39	.050	.0149	R	1.30	.30	.034	.0157	P
3-24-64	6/323	1119	1.5	69	200/17	"	None	.80	.39	.047	.0215	NR	1.10	.33	.045	.0270	N	.26	.14	.068	.0121	R
3-24-64	7/324	1301	1.7	51	340/12	◐	H	1.07	.43	.040	.0249	NR	1.31	.41	.038	.0284	N	1.06	.27	.040	.0208	NP
3-24-64	8/325	1320	1.7	50	340/12	"	H	.84	.63	.046	.0240	R	1.14	.69	.039	.0209	NR	----	----	-----	------	---
3-25-64	2/327	1100	1.7	27	350/15	⊕	-S	1.36	.45	.041	.0242	NP	1.25	----	.042	.0229	N	.49	----	.051	.0136	R
3-25-64	3/328	1119	1.7	27	350/15	"	-S	1.04	----	.043	.0215	NR	1.05	----	.042	.0190	N	.39	----	.052	.0132	R
3-25-64	4/329	1300	1.7	28	330/20	"	None	1.04	----	.041	.0259	NR	.88	----	.042	.0187	N	.39	----	.047	.0103	R
3-25-64	5/330	1320	1.7	28	330/20	"	None	1.14	----	.043	.0256	N	.88	----	.041	.0224	NR	.85	----	.040	.0159	NR
3-26-64	1/331	700	1.5	19	360/3	○	None	.88	----	.049	.0252	R	1.28	----	.046	.0256	N	.65	----	.045	.0161	NR
3-26-64	2/332	721	1.7	19	360/3	"	None	1.24	----	.040	.0281	NP	1.25	----	.040	.0304	N	.96	----	.041	.0201	N

TABLE V.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 30,000 FEET - Continued

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precipitation	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
3-26-64	3/333	900	1.7	26	Calm	○	None	1.16	---	0.040	0.0262	NR	1.04	---	0.039	0.0263	NR	0.96	---	0.041	0.0179	N
3-26-64	5/335	1100	1.5	34	360/4	◐	None	1.30	---	.048	.0276	NP	1.28	---	.042	.0259	N	1.20	---	.040	.0192	NP
3-26-64	6/336	1119	1.7	34	360/4	"	None	-----	---	-----	------	---	1.34	---	.037	.0259	NP	.93	---	.040	.0172	NR
3-26-64	7/337	1300	1.5	43	200/10	◐	None	1.16	---	.045	.0294	NR	.96	---	.042	.0231	NR	.75	---	.048	.0166	NR
3-26-64	8/338	1320	1.7	43	200/10	"	None	1.56	---	.040	.0256	NP	.99	---	.045	.0238	NR	2.35	---	.039	.0202	P
3-27-64	12339	659	1.5	33	110/7	●	None	1.14	---	.043	.0255	NR	1.26	---	.042	.0239	N	1.07	---	.040	.0189	NR
3-27-64	2/340	719	1.7	33	110/7	•	None	1.12	---	.055	.0280	NR	.79	---	.049	.0190	N	.81	---	.058	.0154	NR
3-27-64	3/341	900	1.7	46	170/7	◐	None	.89	---	.042	.0234	R	1.59	---	.039	.0328	NP	1.02	---	.040	.0223	NR
3-27-64	5/343	1101	1.5	53	290/5	○	None	-----	---	-----	------	---	1.42	---	.042	.0245	N	.86	---	.044	.0282	NR
3-27-64	6/344	1120	1.7	53	290/5	"	None	-----	---	-----	------	---	1.54	---	.039	.0311	N	1.39	---	.039	.0278	P
3-27-64	7/345	1300	1.5	59	170/4	◐	None	1.40	---	.042	.0271	NP	1.20	---	.041	.0288	N	2.15	---	.034	.0261	P
3-27-64	8/346	1321	1.7	59	170/4	"	None	1.33	---	.038	.0227	NP	1.56	---	.040	.0281	N	1.07	---	.042	.0246	NR
3-28-64	1/347	700	1.5	37	020/18	⊕	F	1.03	---	.040	.0203	R	1.04	---	.046	.0184	C	.61	---	.044	.0132	R
3-28-64	2/348	720	1.7	37	020/18	"	F	1.29	---	.043	.0279	NP	.78	---	.042	.0198	R	.46	---	.048	.0142	R
3-28-64	3/349	900	1.5	38	030/16	×	GF	.99	---	.045	.0232	NR	1.23	---	..046	.0241	N	.61	---	.046	.0158	NR
3-28-64	4/350	919	1.7	38	030/16	"	GF	1.25	---	.041	.0266	NP	1.71	---	..039	.0287	NP	1.02	---	.042	.0206	N
3-28-64	5/351	1101	1.5	47	050/10	○	None	1.25	---	.044	.0319	NR	2.30	---	.042	.0292	P	.89	---	.043	.0158	N
3-28-64	6/352	1120	1.7	47	050/10	"	None	.96	---	.043	.0259	R	1.43	---	.038	.0255	NP	.61	---	.042	.0128	R
3-28-64	7/353	1300	1.5	52	050/10	"	None	1.21	---	.048	.0260	NR	1.45	---	.037	.0269	N	.36	---	.054	.0094	R
3-28-64	8/354	1319	1.7	52	050/10	"	None	1.19	---	.043	.0256	NP	.68	---	.047	.0174	R	.83	---	.046	.0158	NR
3-30-64	1/355	659	1.5	25	090/10	◐	None	.95	---	.048	.0229	NR	1.23	---	.044	.0295	N	1.20	---	.042	.0218	N
3-30-64	2/356	719	1.7	26	090/10	"	None	.77	---	.047	.0155	NR	1.43	---	.041	.0324	N	.89	---	.042	.0195	NR
3-30-64	3/357	900	1.5	30	150/10	⊕	None	1.10	---	.047	.0269	NR	.89	---	.044	.0226	NR	.56	---	.049	.0153	R
3-30-64	4/358	920	1.7	31	150/10	"	None	1.01	---	.044	.0222	NR	1.58	---	.033	.0246	NP	.74	---	.050	.0185	R
3-30-64	5/359	1059	1.7	32	210/5	⊕	-ZR, -E	1.04	---	.046	.0255	NR	.75	---	.051	.0185	C	.25	---	.060	.0090	R
3-30-64	6/360	1120	1.7	32	210/5	"	-ZR, -E	.54	---	.049	.0153	R	1.17	---	.059	.0217	C	-----	---	-----	------	---
3-30-64	7/361	1300	1.7	32	230/8	"	None	1.76	---	.043	.0286	P	.75	---	.050	.0222	---	.84	---	.039	.0147	NR
3-30-64	8/362	1320	1.7	32	230/8	"	None	.66	---	.054	.0231	R	.65	---	.054	.0200	---	.39	---	.059	.0131	R
5- 8-64	1/629	700	1.7	69	180/12	⊕	None	1.00	---	.046	.0234	NR	1.92	---	.041	.0289	P	1.40	---	.045	.0227	P
5- 8-64	2/630	721	1.7	69	180/12	"	None	1.04	---	.045	.0239	N	.95	---	.049	.0201	---	.61	---	.053	.0217	R
5- 8-64	3/631	901	1.5	74	220/20	◐	None	1.49	---	.045	.0289	NP	2.78	---	.036	------	P	1.70	---	.028	.0178	P
5- 8-64	4/632	919	1.7	71	220/20	"	None	1.00	---	.043	.0248	NR	.73	---	.049	.0193	R	.69	---	.052	.0228	R
5- 8-64	5/633	1100	1.5	75	260/20	"	None	.93	---	.044	.0211	NR	1.35	---	.047	.0259	N	1.00	---	.061	.0167	---
5- 8-64	6/634	1120	1.7	76	260/20	"	None	1.93	---	.042	.0251	P	1.68	---	.042	------	NP	1.12	---	.055	.0282	---
5- 8-64	7/635	1259	1.5	78	240/22	⊕	None	.75	---	.056	.0193	R	1.47	---	.047	.0299	NP	.82	---	.058	.0214	---
5- 8-64	8/636	1319	1.7	78	240/22	"	None	.75	---	.051	.0221	R	.90	---	.057	.0303		.36	---	.070	.0147	---

TABLE V.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 30,000 FEET - Concluded

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precipitation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
5- 9-64	1/637	700	1.5	57	140/6	⊕	None	1.04	---	0.047	0.0216	N	1.08	---	0.046	0.0306	NR	0.91	---	0.046	0.0219	N
5- 9-64	2/638	719	1.7	57	140/6	"	None	1.32	---	.041	.0251	N	1.02	---	.043	.0254	NR	1.09	---	.040	.0234	N
5- 9-64	3/639	859	1.5	67	130/17	⊕	None	1.16	---	.046	.0251	N	1.34	---	.046	.0299	NP	1.67	---	..052	.0241	P
5- 9-64	4/640	919	1.7	67	130/17	"	None	1.16	---	.044	.0242	N	.90	---	.050	.0287	R	.93	---	.053	.0197	N
5- 9-64	5/641	1100	1.5	74	120/13	"	None	.86	---	.045	.0205	NR	1.31	---	.038	.0289	NR	.75	---	.059	.0246	R
5- 9-64	6/642	1259	1.5	78	140/8	"	None	.86	---	.052	.0229	R	1.58	---	.041	.0318	NP	.86	---	.048	.0201	N
5- 9-64	7/643	1320	1.7	78	140/8	"	None	1.19	---	.045	.0263	NR	1.02	---	.042	.0290	NR	1.19	---	.034	.0199	NP
5-10-64	1/644	700	1.5	63	140/10	⊕	None	.53	---	.053	.0152	R	.86	---	.046	.0262	---	2.04	---	.041	.0130	P
5-10-64	2/645	720	1.7	63	140/10	"	None	1.02	---	.048	.0207	NR	2.41	---	.039	.0266	P	.42	---	.050	.0131	---
5-10-64	3/646	859	1.7	66	120/12	⊕	None	.49	---	.054	.0151	R	.39	---	.052	.0151	---	.42	---	.060	.0106	---
5-10-64	4/647	919	1.5	66	120/12	"	None	1.34	---	.079	.0316	C	.76	---	.055	.0260	---	1.04	---	.078	.0256	---
5-11-64	1/648	700	1.7	57	290/10	⊕	None	1.02	---	.038	.0202	N	1.08	---	.042	.0266	N	.85	---	.042	.0193	N
5-11-64	2/649	719	1.7	57	290/10	"	None	1.11	---	.041	.0251	NR	1.23	---	.040	.0191	NP	.87	---	.036	.0131	NR
5-11-64	3/650	859	1.7	59	330/12	⊕	None	.93	---	.043	.0275	NR	1.15	---	.042	.0284	N	.82	---	.044	.0220	NR
5-11-64	4/651	919	1.7	59	330/12	"	None	1.06	---	.041	.0230	NR	1.32	---	.040	.0230	NP	1.11	---	.039	.0208	P
5-11-64	5/652	1059	1.7	62	320/10	"	None	1.02	---	.042	.0241	N	1.02	---	.041	.0241	N	.55	---	.049	.0125	NR
5-11-64	6/653	1300	1.5	67	320/10	⊕	None	1.14	---	.044	.0295	N	1.37	---	.042	.0208	NP	.59	---	.056	.0189	NR
5-11-64	7/654	1320	1.7	67	320/10	"	None	1.40	---	.041	.0254	P	.98	---	.042	.0251	NR	.66	---	.050	.0169	NR
5-12-64	1/655	700	1.5	57	340/10	⊕	-RW	.65	---	.051	.0242	R	.42	---	.058	.0144	R	.35	---	.076	.0147	---
5-12-64	2/656	720	1.7	57	340/10	"	-RW	.54	---	.048	.0139	R	.58	---	.052	.0127	R	.58	---	.043	.0128	NR
5-12-64	3/657	859	1.5	55	340/15	"	None	.83	---	.047	.0243	R	1.11	---	.046	.0270	NR	.54	---	.058	.0150	---
5-12-64	4/658	920	1.5	55	340/15	"	None	.92	---	.048	.0234	NR	.92	---	.044	.0186	NR	----	---	-----	------	---
5-12-64	5/659	1059	1.5	60	340/18	⊕	None	1.07	---	.052	.0184	R	.83	---	.050	.0237	R	1.01	---	.052	.0172	NP
5-12-64	6/660	1119	1.7	60	340/18	"	None	1.16	---	.045	.0262	NR	1.09	---	.051	.0208	NR	.66	---	.053	.0128	R
5-12-64	7/661	1300	1.5	65	330/17	⊕	None	1.21	---	.048	.0281	NR	1.41	---	.045	.0283	C	.33	---	.063	.0147	R
5-12-64	8/662	1320	1.7	65	330/17	"	None	1.10	---	.044	.0218	R	1.16	---	.038	.0244	C	.47	---	.056	.0142	NR
5-14-64	1/663	700	1.5	58	150/11	⊕	None	.79	---	.046	.0227	R	1.01	---	.051	.0212	N	.50	---	.049	.0182	NR
5-14-64	2/664	720	1.7	58	150/11	"	None	.97	---	.045	.0228	NR	1.14	---	.048	.0194	NP	.85	---	.045	.0165	N
5-14-64	3/665	900	1.5	62	160/12	⊕	None	.92	---	.053	.0214	NR	.96	---	.055	.0247	N	.74	---	.050	.0160	N
5-14-64	4/666	920	1.7	62	160/12	"	None	1.80	---	.042	.0196	P	1.64	---	.038	.0279	NP	1.28	---	.038	.0193	NR
5-14-64	5/667	1100	1.5	71	160/15	"	None	.79	---	.052	.0237	R	.58	---	.059	.0206	NR	.54	---	.068	.0146	NR
5-14-64	6/668	1122	1.7	71	160/15	"	None	1.05	---	.045	.0268	NR	.94	---	.039	.0211	N	1.08	---	.052	.0190	NP
5-14-64	7/669	1300	1.5	77	160/15	⊕	None	1.12	---	.049	.0261	NR	.81	---	.059	.0205	NR	.70	---	.053	.0205	NR
5-14-64	8/670	1320	1.7	77	160/15	"	None	1.40	---	.037	.0225	NP	.47	---	.049	.0125	---	.28	---	------	------	---
5-15-64	1/671	1100	1.7	69	190/15	⊕	None	1.18	---	.044	.0237	NR	.73	---	.054	.0144	---	.76	---	.060	.0143	R
5-15-64	2/672	1120	1.7	69	190/15	"	None	.92	---	.043	.0224	R	.32	---	.061	.0134	---	.15	---	.060	.0055	R
5-15-64	3/673	1259	1.7	68	170/24	"	-RW	1.64	---	.042	.0290	P	.94	---	.045	------	R	.76	---	.060	.0214	NR
5-16-64	1/675	700	1.5	63	160/12	⊕	None	.99	---	.048	.0235	NR	1.29	---	.044	.0238	NP	.88	---	.049	.0175	N
5-16-64	2/676	719	1.7	63	160/12	"	None	.79	---	.051	.0225	N	.92	---	.046	.0242	NR	.81	---	.049	.0173	NR
5-16-64	3/677	900	1.5	73	200/12	"	None	1.08	---	.053	.0292	N	1.39	---	.053	.0259	N	.50	---	.056	.0155	R
5-16-64	4/678	920	1.7	73	200/12	"	None	1.08	---	.042	.0236	N	1.41	---	.040	------	N	.70	---	.052	.0211	NR

TABLE VI.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 29,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
3- 9-64	3/218	900	1.5	30	390/14	⊕	F	0.77	0.35	0.048	0.0208	NR	0.69	0.27	0.050	0.0179	NR	0.25	0.14	0.072	0.0102	R
3- 9-64	4/219	920	1.7	30	390/14	"	F	.98	.35	.047	.0181	NP	.43	.16	.067	.0158	---	.24	.10	.091	.0078	R
3-10-64	1/220	700	1.5	26	160/9	○	None	1.15	.46	-----	------	---	1.24	.40	.040	.0276	N	.88	.26	.047	.0175	NR
3-10-64	2/221	720	1.7	27	160/9	"	None	1.31	.41	-----	------	---	1.08	.38	.037	.0238	N	.64	.19	.046	.0155	NR
3-10-64	3/222	900	1.5	35	160/14	"	None	1.31	.56	-----	------	---	.96	.39	.043	.0222	NR	.66	.23	.052	.0165	NR
3-10-64	4/223	920	1.7	36	160/14	"	None	1.25	.41	-----	------	---	1.26	.46	.041	.0262	NP	.75	.20	.046	.0161	N
3-10-64	5/224	1100	1.5	46	140/22	⊕	None	1.12	.41	.046	.0262	N	1.31	.46	.042	.0284	NP	.62	.21	.053	.0189	NR
3-10-64	6/225	1120	1.7	47	140/22	"	None	1.73	.38	.043	.0251	P	1.25	.49	.042	.0271	NP	1.21	.26	.041	.0211	NP
3-10-64	7/226	1300	1.5	53	170/20	○	None	.83	.41	.051	.0232	NR	.92	.38	.047	.0251	NR	1.07	.26	.045	.0198	NP
3-10-64	8/227	1320	1.7	54	170/20	"	None	1.44	.46	.045	.0292	P	1.20	.36	.036	.0227	N	.57	.23	.052	.0170	R
3-11-64	1/228	700	1.5	37	330/16	⊕	None	1.43	.49	.043	.0243	NP	.82	.32	.047	.0226	R	.71	.19	.039	.0159	---
3-11-64	2/229	719	1.7	37	330/16	"	None	.88	.44	.046	.0251	R	1.04	.42	.044	.0279	R	.75	.22	.043	.0164	NR
3-11-64	3/230	900	1.5	41	330/18	"	None	1.20	.44	.044	.0259	N	.87	.31	.057	.0212	R	.34	.14	.056	.0110	---
3-11-64	4/231	920	1.7	42	330/18	"	None	1.41	.42	.040	.0294	NP	1.63	.49	.035	.0308	P	1.11	.26	.053	.0211	NP
3-11-64	5/232	1100	1.5	48	320/23	○	None	1.67	.48	.042	.0263	P	1.71	.44	.040	.0292	NP	.47	.21	.060	.0155	NR
3-11-64	6/233	1120	1.7	49	320/23	"	None	1.14	.45	.042	.0202	N	.99	.43	.052	.0321	R	1.13	.29	.042	.0220	NP
3-11-64	7/234	1300	1.5	54	320/20	"	None	.66	.35	.047	.0206	NR	1.06	.38	.046	.0249	NR	.46	.19	.054	.0168	R
3-11-64	8/235	1320	1.7	54	320/20	"	None	.82	.38	.052	.0252	R	1.44	.45	.044	.0327	C	1.07	.33	.045	.0288	NP
3-12-64	1/236	700	1.5	31	160/10	"	None	1.30	.49	.044	.0244	NP	.97	.38	.041	.0229	N	1.07	.26	.048	.0188	NP
3-12-64	2/237	720	1.7	33	160/10	"	None	1.09	.47	.042	.0229	N	1.16	.39	.041	.0249	N	.88	.25	.049	.0187	NR
3-12-64	3/238	900	1.5	47	160/14	"	None	1.30	.49	.043	.0256	N	1.21	.37	.045	.0277	N	.82	.26	.051	.0195	NR
3-12-64	4/239	920	1.7	49	160/14	"	None	1.44	.45	.042	.0239	NP	1.21	.44	.040	.0297	N	.84	.24	.050	.0207	NR
3-12-64	5/240	1100	1.5	59	180/17	"	None	.89	.48	.047	.0211	NR	1.26	.39	.048	.0312	N	1.10	.30	.048	.0220	NP
3-12-64	6/241	1119	1.7	60	180/17	"	None	.94	.44	.046	.0191	NR	1.49	.40	.040	.0250	NP	1.81	.31	.044	.0256	P
3-12-64	7/242	1300	1.5	65	180/16	"	None	1.19	.44	.047	.0228	NP	1.15	.46	.047	.0319	NR	1.00	.36	.054	.0270	NP
3-12-64	8/243	1320	1.7	65	180/16	"	None	1.16	.44	.039	.0207	NP	1.43	.47	.043	.0347	N	1.42	.32	.044	.0237	P
3-13-64	1/244	700	1.5	48	160/13	⊕	None	.92	.60	.046	.0269	NR	1.20	.37	.045	.0278	N	.78	.30	.040	.0188	NR
3-13-64	2/245	720	1.7	49	160/13	"	None	1.80	.41	.039	.0207	P	.87	.33	.041	.0217	NR	.64	.19	.050	.0156	NR
3-13-64	3/246	900	1.5	55	190/20	⊕	None	1.04	.39	.043	.0239	N	1.70	.40	.037	.0283	P	.54	.22	.051	.0174	NR
3-13-64	4/247	920	1.7	56	190/20	"	None	1.31	.34	.046	.0250	NP	----	----	-----	------	---	.33	.17	.062	.0157	R
3-13-64	5/248	1100	1.5	62	200/24	"	None	1.25	.46	.046	.0255	P	1.64	.37	.044	.0260	P	.90	.26	.048	.0197	NR
3-13-64	6/249	1121	1.7	63	200/24	"	None	.82	.41	.046	.0220	NR	1.49	.39	.045	.0310	P	1.10	.27	.044	.0211	P
3-13-64	7/250	1301	1.5	70	190/20	"	None	1.00	.53	.043	.0231	N	.66	.28	.047	.0218	R	1.08	.26	.054	.0187	P
3-13-64	8/251	1320	1.7	71	190/20	"	None	1.38	.42	.039	.0249	NP	1.15	.38	.046	.0255	NR	.78	.32	.060	.0246	C

TABLE VI.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 29,000 FEET - Concluded

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
3-14-64	1/252	701	1.5	44	360/11	◐	None	1.16	0.41	0.044	0.0231	N	1.88	0.36	0.030	0.0241	P	0.57	0.19	0.056	0.0152	R
3-14-64	2/253	719	1.7	44	360/11	"	None	1.38	.39	.037	.0224	NP	1.48	.46	.039	.0309	N	1.19	.27	.042	.0204	NP
3-14-64	3/254	900	1.5	49	360/12	◐	None	1.09	.38	.040	.0240	N	.89	.30	.045	.0249	NR	.78	.24	.054	.0178	NR
3-14-64	4/255	920	1.7	50	360/12	"	None	1.16	.40	.037	.0215	NR	1.34	.41	.041	.0292	NP	1.12	.26	.052	.0223	NP
3-14-64	5/256	1100	1.5	51	010/12	"	None	1.33	.44	.041	.0285	N	1.13	.34	.042	.0219	NP	.40	.16	.061	.0139	R
3-14-64	6/257	1119	1.7	52	010/12	"	None	.75	.38	.042	.0197	R	2.25	.45	.037	.0298	P	.87	.22	.046	.0189	NR
3-14-64	7/258	1259	1.5	57	020/16	◐	None	2.24	.50	.038	.0260	P	2.10	.48	.038	.0300	P	2.03	.36	.029	.0282	P
3-14-64	8/259	1320	1.7	58	020/16	"	None	.78	.39	.044	.0183	R	1.69	.47	.043	.0334	P	----	----	-----	------	---
3-17-64	1/273	700	1.5	34	310/8	○	None	1.17	.45	.044	.0262	N	.99	.38	.042	.0274	NR	.55	.21	-----	------	---
3-17-64	2/274	719	1.7	35	310/8	"	None	.95	.39	.044	.0228	N	1.47	.42	.037	.0259	NP	1.01	.30	-----	------	---
3-17-64	3/275	900	1.5	49	310/3	"	None	1.48	.64	.042	.0286	N	.99	.38	.051	.0259	N	.59	.19	.046	.0103	N
3-17-64	4/276	919	1.7	51	310/3	"	None	.97	.45	.042	.0201	N	1.29	.41	.041	.0274	N	.72	.24	.044	.0144	NR
3-18-64	1/281	700	1.5	46	150/10	◐	None	1.18	.50	.044	.0197	N	1.42	.50	.046	.0338	N	1.08	.33	.041	.0221	N
3-18-64	2/282	720	1.7	47	150/10	"	None	1.14	.50	.042	.0244	NR	1.31	.48	.037	.0256	N	.74	.22	.044	.0152	N
3-20-64	4/292	922	1.5	32	310/30	⊕	-S	.79	.28	.045	.0205	R	.98	.32	.029	.0188	R	.66	.17	.051	.0136	R
3-21-64	7/301	1320	1.7	43	010/8	○	None	1.10	.47	.046	.0266	NR	1.39	.44	.039	.0264	NP	.85	.27	.051	.0224	NR
3-31-64	1/363	700	1.5	36	210/10	⊕	None	.99	----	.048	.0273	NR	1.17	----	.045	.0258	N	----	----	-----	------	---
3-31-64	2/364	719	1.7	38	210/10	"	None	1.24	----	.042	.0249	N	1.31	----	.040	.0253	N	----	----	-----	------	---
3-31-64	3/365	900	1.5	47	200/8	"	None	1.22	----	.045	.0274	N	1.35	----	.044	.0303	N	----	----	-----	------	---
3-31-64	4/366	920	1.8	49	200/8	"	None	1.06	----	.044	.0269	NR	1.20	----	.038	.0246	NR	----	----	-----	------	---
3-31-64	5/367	1100	1.5	60	200/12	"	None	1.03	----	.048	.0269	NR	1.22	----	.044	.0233	N	----	----	-----	------	---
3-31-64	6/368	1119	1.7	62	200/12	"	None	1.20	----	.046	.0287	N	.90	----	.040	.0200	NR	.94	----	.046	.0174	NP
3-31-64	7/369	1300	1.5	71	220/10	◐	None	1.14	----	.052	.0229	NR	1.23	----	.047	.0283	NP	.79	----	.052	.0198	NR
3-31-64	8/370	1319	1.7	73	220/10	"	None	1.03	----	.051	.0232	NR	2.10	----	.044	.0264	P	1.42	----	.051	.0217	NP

TABLE VII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 28,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
3-17-64	5/277	1101	1.5	59	Calm	O	None	1.09	0.51	0.048	0.0219	NR	1.16	0.40	0.052	0.0278	N	0.55	0.25	0.050	0.0145	NR
3-17-64	6/278	1120	1.7	71	Calm	"	None	1.11	.55	.043	.0229	N	2.04	.42	.039	.0270	NP	1.04	.27	.044	.0190	NP
3-17-64	7/279	1300	1.5	66	180/4	"	None	1.07	.74	.049	.0248	NR	1.10	.42	.043	.0286	NR	.55	.22	.050	.0145	R
3-17-64	8/280	1320	1.7	66	180/4	"	None	1.23	.55	.041	.0228	N	1.18	.41	.039	.0245	N	.77	.22	.044	.0159	NR
3-18-64	3/283	900	1.5	58	150/12	◑	None	1.02	.59	.043	.0231	N	1.17	.42	.042	.0245	N	1.08	.27	.049	.0184	NP
4- 1-64	1/371	700	1.5	59	200/15	◑	None	1.31	----	.045	.0264	N	1.09	----	.045	.0209	N	1.02	----	.044	.0145	NP
4- 1-64	2/372	719	1.7	60	200/15	"	None	1.82	----	.043	.0271	NP	1.20	----	.040	.0202	NP	1.18	----	.042	.0158	P
4- 1-64	3/373	900	1.5	63	200/23	"	None	1.19	----	.049	.0241	N	1.35	----	.043	.0256	N	1.18	----	.042	.0270	NP
4- 1-64	4/374	921	1.7	64	200/23	"	None	1.10	----	.049	.0240	N	1.16	----	.040	.0282	NR	.33	----	.061	.0137	R
4- 1-64	5/375	1059	1.5	70	190/20	◑	None	1.21	----	.047	.0268	N	.98	----	.050	.0293	NR	.51	----	.064	.0181	R
4- 1-64	6/376	1120	1.7	71	190/20	"	None	1.21	----	.043	.0252	N	1.11	----	.041	.0254	NR	.76	----	.048	.0153	NR
4- 1-64	7/377	1259	1.5	76	190/21	"	None	1.44	----	.047	.0321	NR	1.92	----	.040	.0324	P	1.07	----	.050	.0176	NP
4- 1-64	8/378	1320	1.7	76	190/21	"	None	.81	----	.052	.0227	R	.92	----	.049	.0182	NR	.49	----	.054	.0157	R
4- 2-64	1/379	659	1.5	64	210/20	O	None	.95	----	.042	.0252	NR	.94	----	.045	.0180	R	.59	----	.054	.0159	R
4- 2-64	2/380	720	1.7	65	210/20	"	None	1.10	----	.043	.0304	N	1.59	----	.038	.0269	R	.80	----	.050	.0186	N
4- 2-64	3/381	859	1.7	69	230/30	"	None	1.14	----	.043	.0275	N	1.74	----	.040	.0269	NP	.69	----	.053	.0155	NP
4- 2-64	4/382	919	1.7	70	230/30	"	None	1.17	----	.043	.0226	N	1.46	----	.040	.0346	C	1.70	----	.032	.0326	P
4- 3-64	1/383	659	1.5	59	120/8	◑	GF	1.56	----	.041	.0259	NP	1.12	----	.039	.0201	C	.64	----	.060	.0111	C
4- 3-64	2/384	720	1.7	61	120/8	"	GF	1.03	----	.042	.0233	NR	.93	----	.039	.0235	NR	1.04	----	.042	.0211	C
4- 3-64	3/385	900	1.5	61	350/6	"	None	1.30	----	.044	.0230	N	1.08	----	.039	.0189	NR	1.33	----	.034	.0108	NP
4- 3-64	4/386	925	1.7	61	350/6	"	None	1.09	----	.043	.0227	NR	.90	----	.041	.0183	NR	1.00	----	.040	.0218	N
4- 3-64	5/387	1059	1.7	69	030/7	◑	None	.97	----	.044	.0248	NR	1.68	----	.038	.0286	NP	.79	----	.048	.0139	NR
4- 3-64	6/388	1120	1.7	70	030/7	"	None	1.26	----	.043	.0219	N	1.12	----	.038	.0292	N	.55	----	.050	.0188	R
4- 3-64	7/389	1300	1.5	78	090/16	◑	None	1.35	----	.047	.0255	NP	.80	----	.053	.0213	R	.76	----	.055	.0139	NR
4- 3-64	8/390	1320	1.7	76	090/16	"	None	.76	----	.048	.0201	R	.93	----	.049	.0221	R	1.77	----	.038	.0208	P
4- 5-64	1/391	659	1.7	42	320/6	⊕	None	1.54	----	.041	.0233	NP	.92	----	.039	.0202	NR	.25	----	.071	.0118	R
4- 5-64	2/392	720	1.7	42	320/6	"	None	1.04	----	.044	.0196	NR	1.60	----	.037	.0279	NP	.67	----	.049	.0139	NR
4- 5-64	3/393	859	1.7	43	190/5	"	None	.92	----	.044	.0243	NR	.84	----	.046	.0226	NR	.64	----	.051	.0144	NR
4- 5-64	4/394	919	1.7	44	190/5	"	None	1.04	----	.044	.0304	NR	1.18	----	.037	.0254	NR	.74	----	.038	.0198	NR
4- 5-64	5/395	1100	1.5	52	200/14	◑	None	.69	----	.055	.0249	R	.67	----	.047	.0196	R	.80	----	.046	.0181	NR
4- 5-64	6/396	1118	1.7	54	200/14	"	None	1.94	----	.034	.0261	P	1.01	----	.038	.0274	R	.74	----	.044	.0155	NP
4- 5-64	7/397	1259	1.5	62	210/18	◑	None	.90	----	.051	.0277	R	1.11	----	.034	.0237	R	.45	----	.065	.0183	R
4- 5-64	8/398	1319	1.7	63	210/18	"	None	2.27	----	.040	.0366	P	1.13	----	.042	.0288	NR	1.04	----	.038	.0177	P

TABLE VII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 28,000 FEET - Continued

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
4- 6-64	1/399	659	1.5	48	180/8	O	None	1.11	----	0.043	0.0205	N	1.43	---	0.042	0.0294	N	1.02	---	0.040	0.0166	NP
4- 6-64	2/400	719	1.7	49	180/8	"	None	1.29	----	.039	.0231	N	1.14	---	.040	.0248	N	1.08	---	.039	.0143	NP
4- 6-64	3/401	900	1.5	60	210/17	"	None	.96	----	.041	.0209	NR	2.25	---	.040	.0352	NP	1.17	---	.041	.0217	NP
4- 6-64	4/402	919	1.7	62	210/17	"	None	1.32	----	.040	.0264	NR	1.24	---	.038	.0240	NR	.65	---	.046	.0176	NR
4- 6-64	5/403	1100	1.5	71	210/16	Φ	None	.96	----	.045	.0235	NR	1.91	---	.037	.0275	NP	1.26	---	.031	.0215	NP
4- 6-64	6/404	1119	1.7	72	210/16	"	None	1.11	----	.042	.0226	NR	1.41	---	.038	.0258	NP	.59	---	.043	.0138	NR
4 -6-64	7/405	1300	1.5	76	220/25	"	None	.77	----	.047	.0212	R	.53	---	.058	.0163	---	.79	---	.051	.0171	NR
4- 6-64	8/406	1318	1.7	77	220/25	"	None	1.27	----	.042	.0213	NP	1.28	---	.039	.0250	N	1.06	---	.048	.0132	P
4- 7-64	1/407	659	1.5	41	360/18	⊕	None	1.40	----	.040	.0270	N	1.98	---	.040	.0267	NP	.55	---	.051	.0140	R
4- 7-64	2/408	719	1.7	41	360/18	"	None	1.58	----	.040	.0249	N	.99	---	.038	.0228	R	.86	---	.049	.0197	NR
4- 7-64	3/409	859	1.5	43	360/20	"	None	1.17	----	.046	.0274	NR	1.06	---	.037	.0273	R	.82	---	.040	.0177	NR
4- 7-64	4/410	919	1.7	43	360/20	"	None	1.15	----	.042	.0244	NR	1.75	---	.036	.0354	N	.94	---	.036	.0173	NP
4- 7-64	5/411	1059	1.5	47	020/20	Φ	None	1.11	----	.044	.0259	NR	1.94	---	.028	.0262	NP	2.54	---	.031	.0241	P
4- 7-64	6/412	1120	1.7	48	020/20	"	None	1.48	----	.043	.0241	NP	1.91	---	.040	.0327	NP	1.48	---	.038	.0245	P
4- 7-64	7/413	1301	1.5	50	020/20	"	None	1.65	----	.044	.0252	NP	1.47	---	.041	.0243	NR	1.15	---	.051	.0205	NP
4- 7-64	8/414	1319	1.7	50	020/20	"	None	1.73	----	.040	.0175	NP	1.33	---	.042	.0274	N	.83	---	.057	.0193	NR
4- 8-64	1/415	700	1.5	33	360/10	O	None	1.09	----	.041	.0231	NE	1.16	---	.036	.0285	N	.62	---	.041	.0151	NR
4- 8-64	2/416	721	1.7	34	360/10	"	None	1.25	----	.039	.0210	N	1.35	---	.041	.0340	N	1.13	---	.032	.0207	NP
4- 8-64	3/417	900	1.5	39	010/15	"	None	1.27	----	.044	.0259	NR	1.33	---	.042	.0319	NR	1.08	---	.040	.0187	NP
4- 8-64	4/418	919	1.7	40	010/15	"	None	.86	----	.041	.0222	R	1.39	---	.040	.0293	NP	1.04	---	.042	.0246	NR
4- 8-64	5/419	1100	1.5	45	020/10	"	None	1.23	0.73	.044	.0259	NR	1.14	---	.042	.0269	NR	.84	---	.034	.0179	R
4- 8-64	6/420	1119	1.7	46	020/10	"	None	1.00	.84	.045	.0263	NR	1.77	---	.039	.0282	NP	.87	---	.049	.0159	C
4- 8-64	7/421	1300	1.5	50	340/13	"	None	1.59	.90	.040	.0275	NP	1.66	---	.040	.0274	NP	.83	---	.038	.0198	NR
4- 8-64	8/422	1320	1.7	51	340/13	"	None	1.38	.83	.042	.0269	NP	1.28	---	.040	.0279	NR	1.05	---	.053	.0284	C
4- 9-64	1/423	700	1.5	37	180/7	"	None	1.40	.93	.043	.0304	NR	1.05	---	.040	.0273	N	.83	---	.048	.0192	N
4- 9-64	2/424	719	1.7	39	180/7	"	None	1.48	.86	.041	.0277	NP	1.37	---	.039	.0292	N	.91	---	.038	.0172	N
4- 9-64	3/425	900	1.5	52	200/10	"	None	1.17	.92	.043	.0232	N	2.35	---	.038	.0298	NP	1.04	---	.040	.0173	NP
4- 9-64	4/426	920	1.5	53	200/10	"	None	1.31	.79	.046	.0250	N	1.14	---	.045	.0251	N	-----	---	-----	------	---
4- 9-64	5/427	1100	1.5	58	210/15	"	None	1.75	.89	.042	.0333	NP	2.31	---	.042	.0304	NP	.72	---	.045	.0190	NR
4- 9-64	6/428	1119	1.7	60	210/15	"	None	1.01	.74	.040	.0219	NR	1.62	---	.040	.0304	NP	1.06	---	.038	.0198	N
4- 9-64	7/429	1300	1.5	63	220/13	"	None	1.13	.82	.045	.0254	NR	2.56	---	.030	.0269	P	.31	---	.062	.0137	R
4- 9-64	8/430	1320	1.5	64	220/13	"	None	.90	.77	.052	.0248	R	1.14	---	.049	.0229	NR	.54	---	.054	.0107	---
4-10-64	1/431	700	1.5	47	190/10	Φ	None	1.12	.53	.047	.0234	NR	1.47	---	.052	.0298	NR	.78	---	.046	.0192	N
4-10-64	2/432	720	1.5	49	190/10	"	None	1.35	.57	.043	.0247	NP	1.49	---	.044	.0287	N	.87	---	.050	.0193	NR
4-10-64	3/433	900	1.5	60	180/15	O	None	1.14	.63	.050	.0247	NR	1.41	---	.046	.0281	N	1.70	---	.039	.0258	P

TABLE VII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 28,000 FEET - Continued

Operating conditions				Weather				Sonic-boom pressure signature data												
								Station 1				Station 3					Station 4			
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
4-10-64	4/434	919	1.5	62	190/15	○	None	0.93	0.51	0.051	0.0209	R	2.15	---	0.044	0.0355	NP	1.13	---	0.051	0.0253	NP
4-10-64	5/435	1100	1.5	68	200/20	"	None	.97	.42	.051	.0184	NR	1.53	---	.048	.0357	NR	.51	---	.056	.0146	R
4-10-64	6/436	1119	1.5	69	200/20	"	None	.85	.46	.050	.0198	NR	1.98	---	.030	.0312	NP	1.24	---	.046	.0176	NP
4-11-64	4/442	1100	1.5	62	180/18	⊕	None	1.80	.75	.050	.0293	---	1.21	---	.054	.0234	---	1.32	---	.059	.0234	P
4-11-64	5/443	1119	1.5	64	180/18	"	None	1.03	.75	.045	.0273	NR	1.08	---	.054	.0214	---	.72	---	.048	.0147	NR
4-11-64	6/444	1300	1.5	71	180/16	◐	None	1.10	.74	.046	.0223	NR	1.31	---	.048	.0274	NR	.85	---	.056	.0189	NR
4-11-64	7/445	1320	1.5	72	180/16	"	None	1.62	.77	.044	.0207	NP	1.87	---	.040	.0243	NP	1.04	---	.057	.0162	P
4-12-64	1/446	700	1.5	59	160/13	◐	None	1.21	.83	.044	.0252	NR	1.18	---	.045	.0273	N	.66	---	.048	.0152	NR
4-12-64	2/447	720	1.5	61	160/13	"	None	1.00	.74	.045	.0228	NR	1.38	---	.040	.0231	N	.67	---	.052	.0152	NR
4-12-64	3/448	900	1.5	69	190/20	◐	None	1.06	.59	.050	.0164	NP	1.29	---	.050	.0304	NR	1.28	---	.052	.0203	P
4-12-64	4/449	920	1.5	71	190/20	"	None	.88	.80	.051	.0263	R	.78	---	.065	.0263	---	1.26	---	.050	.0290	C
4-12-64	5/450	1104	1.5	79	200/30	"	None	1.25	.81	.043	.0238	NR	1.12	---	.048	.0303	NR	1.35	---	.027	.0166	P
4-12-64	6/451	1119	1.5	80	200/30	"	None	1.36	.79	.048	.0226	NR	1.44	---	.047	.0317	---	.88	---	.046	.0195	NP
4-12-64	7/452	1259	1.5	86	200/28	○	None	.86	.57	.050	.0187	R	1.18	---	.053	.0303	C	1.25	---	.062	.0258	C
4-12-64	8/453	1320	1.5	87	200/28	"	None	.73	.62	.049	.0193	R	1.12	---	.053	.0259	R	.40	---	.062	.0121	R
4-13-64	1/454	659	1.5	43	290/10	"	None	1.36	.56	.042	.0248	NP	1.03	---	.039	.0222	NR	.85	---	.036	.0152	NR
4-13-64	2/455	719	1.5	45	290/10	"	None	1.34	.57	.043	.0276	NP	1.36	---	.038	.0228	N	.91	---	.047	.0178	NP
4-13-64	3/456	900	1.5	56	290/12	"	None	1.36	.59	.043	.0264	NP	1.38	---	.040	.0249	N	.99	---	.043	.0186	NP
4-13-64	4/457	919	1.5	57	290/12	"	None	1.44	.56	.043	.0299	NP	1.36	---	.038	.0220	N	.62	---	.048	.0151	NR
4-13-64	5/458	1100	1.5	62	240/10	"	None	1.55	.60	.040	.0252	NP	1.72	---	.044	.0286	NP	1.44	---	.043	.0215	P
4-13-64	6/459	1119	1.5	63	240/10	"	None	1.17	.56	.050	.0255	NR	1.94	---	.030	.0260	P	.61	---	.055	.0173	NR
4-13-64	7/460	1300	1.5	67	280/10	"	None	1.44	.69	.051	.0273	NP	2.15	---	.045	.0313	P	.52	---	.049	.0157	NR
4-13-64	8/461	1319	1.5	67	280/10	"	None	1.51	.61	.043	.0249	NP	2.48	---	.044	.0344	P	.51	---	.055	.0216	R
4-14-64	1/462	700	1.5	49	340/6	"	None	1.15	----	.046	.0260	NR	1.12	---	.042	.0261	NR	1.33	---	.040	.0201	P
4-14-64	2/463	720	1.5	51	340/6	"	None	.97	----	.041	.0231	NR	----	---	-----	------	---	2.06	---	.029	.0220	P
4-14-64	3/464	859	1.5	62	350/10	"	None	1.01	----	.050	.0219	N	1.31	---	.045	.0268	N	1.56	---	.032	.0246	P
4-14-64	4/465	919	1.5	63	350/10	"	None	.94	----	.046	.0268	NR	.90	---	.047	.0215	NR	1.49	---	.029	.0210	P
4-14-64	5/466	1100	1.5	69	340/9	"	None	1.01	----	.046	.0243	NR	1.98	---	.036	.0260	P	.61	---	.052	.0211	R
4-14-64	6/467	1120	1.5	69	340/9	"	None	1.72	----	.045	.0334	NP	.67	---	.043	.0159	R	1.26	---	.056	.0247	P
4-14-64	7/468	1300	1.5	70	310/10	"	None	1.52	----	.048	.0279	NP	.80	---	.050	.0254	---	.89	---	.047	.0191	NP
4-14-64	8/469	1319	1.5	71	310/10	"	None	1.33	----	.052	.0283	N	.88	---	.049	.0251	NR	1.33	---	.045	.0205	P
4-15-64	1/470	700	1.5	54	200/8	"	None	.83	----	.047	.0214	NR	1.32	---	.048	.0266	N	.87	---	.047	.0197	NR
4-15-64	2/471	719	1.5	56	200/8	"	None	1.03	----	.048	.0245	NR	1.39	---	.045	.0243	N	.63	---	.050	.0176	NR
4-15-64	3/472	859	1.5	68	200/15	"	None	1.26	----	.047	.0258	NR	1.09	---	.047	.0278	N	.61	---	.049	.0183	NR
4-15-64	4/473	920	1.5	70	200/15	"	None	.97	----	.050	.0240	NR	2.33	---	.031	.0227	P	----	---	-----	------	---

TABLE VII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 28,000 FEET - Continued

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
4-16-64	1/474	700	1.5	60	200/17	○	None	1.01	---	0.049	0.0220	NR	1.14	---	0.048	0.0297	R	0.87	---	0.050	0.0200	NR
4-16-64	2/475	720	1.5	62	200/17	"	None	.97	---	.048	.0277	NR	1.04	---	.043	.0234	R	.97	---	.046	.0172	NP
4-16-64	3/476	900	1.5	68	200/18	"	None	.85	---	.054	.0266	R	1.53	---	.041	.0271	N	.52	---	.052	.0213	R
4-16-64	4/477	920	1.5	69	200/18	"	None	.87	---	.057	.0245	NR	1.55	---	.047	.0307	N	1.02	---	.048	.0245	C
4-16-64	5/478	1100	1.5	75	180/17	◑	None	.83	---	.051	.0265	NR	1.04	---	.058	.0245	C	.31	---	.078	.0149	R
4-16-64	6/479	1120	1.5	76	180/17	"	None	.75	---	.049	.0250	R	1.53	---	.050	.0296	NP	.70	---	.050	.0210	R
4-16-64	7/480	1300	1.5	78	180/18	"	None	.93	---	.048	.0261	NR	1.15	---	.043	.0283	R	.40	---	.060	.0106	R
4-16-64	8/481	1320	1.5	79	180/18	"	None	1.16	---	.051	.0259	---	1.10	---	.051	.0207	NR	.51	---	.065	.0151	R
4-17-64	1/482	900	1.5	66	180/25	⊕	None	1.32	---	.042	.0255	NP	1.97	---	.043	.0266	NP	.44	---	.074	.0143	R
4-17-64	2/483	920	1.5	67	180/15	"	None	1.13	---	.045	.0218	NP	1.52	---	.044	.0301	N	.49	---	.056	.0156	R
4-17-64	3/484	1100	1.5	72	180/14	"	None	1.13	---	.044	.0211	NP	1.16	---	.041	.0236	N	1.06	---	.048	.0221	NP
4-17-64	4/485	1120	1.5	74	180/14	"	None	1.77	---	.040	.0237	P	.51	---	.059	.0127	---	.68	---	.032	.0161	NR
4-17-64	5/486	1300	1.5	79	180/13	◑	None	.92	---	.047	.0265	N	1.32	---	.051	.0233	C	1.39	---	.032	.0160	P
4-17-64	6/487	1319	1.5	79	180/13	"	None	.85	---	.055	.0225	NR	.96	---	.047	.0243	NR	.49	---	.066	.0148	---
4-18-64	1/488	700	1.5	68	170/13	"	None	.94	---	.045	.0278	NR	1.38	---	.041	.0210	NP	.69	---	-----	------	---
4-18-64	2/489	720	1.5	68	170/13	"	None	1.03	---	.052	.0236	NR	1.81	---	.041	.0286	NP	.76	---	-----	------	---
4-18-64	3/490	859	1.5	70	180/15	⊕	None	.90	---	.047	.0194	NR	1.32	---	.048	.0249	NR	1.17	---	-----	------	---
4-18-64	4/491	920	1.5	71	180/15	"	None	.56	---	.050	.0164	R	1.21	---	.046	.0235	N	.34	---	-----	------	---
4-18-64	5/492	1100	1.5	74	190/16	◑	None	.95	---	.050	.0260	R	1.40	---	.047	.0154	C	.81	---	.055	.0204	NP
4-18-64	6/493	1120	1.5	75	190/16	"	None	.66	---	.053	.0165	R	.78	---	.045	.0154	R	.96	---	.051	.0227	NP
4-18-64	7/494	1259	1.5	78	180/14	⊕	None	1.09	---	.049	.0253	NR	1.04	---	.048	.0249	C	.55	---	.059	.0172	R
4-18-64	8/495	1320	1.5	78	180/14	"	None	1.05	---	.050	.0219	NR	1.19	---	.050	.0298	R	.51	---	.064	.0190	R
4-19-64	1/496	659	1.5	69	190/20	"	None	.88	---	.049	.0187	NR	2.54	---	.044	.0342	P	.82	---	.028	.0103	NR
4-19-64	2/497	720	1.5	69	190/20	"	None	1.06	---	.048	.0248	NR	1.90	---	.027	.0207	P	.69	---	.029	.0100	NR
4-19-64	3/498	859	1.5	70	200/25	◑	None	1.00	---	.048	.0268	NR	1.01	---	.051	.0242	R	.55	---	.031	.0117	NR
4-19-64	4/499	919	1.5	70	200/25	"	None	1.48	---	.044	.0238	P	1.74	---	.033	.0206	P	.56	---	.033	.0108	---
4-19-64	5/500	1059	1.5	73	180/18	⊕	None	.96	---	.048	.0248	NR	1.12	---	.047	.0199	NP	.43	---	.048	.0078	---
4-19-64	6/501	1120	1.5	73	180/18	"	None	.98	---	.046	.0227	NR	1.27	---	.032	.0209	NR	.55	---	.044	.0085	---
4-19-64	7/502	1259	1.5	76	180/20	"	None	1.56	---	.042	.0230	P	.63	---	.046	.0130	NR	.52	---	.034	.0074	---
4-19-64	8/503	1319	1.5	76	180/20	"	None	1.04	---	.049	.0232	NR	1.72	---	.042	.0172	P	.71	---	.032	.0051	---
4-20-64	1/504	700	1.5	68	180/15	◑	None	.95	---	.048	.0286	R	1.18	---	.053	.0251	NR	-----	---	-----	------	---
4-20-64	2/505	720	1.5	68	180/15	"	None	1.23	---	.047	.0215	N	1.59	---	.046	.0229	NP	-----	---	-----	------	---
4-20-64	3/506	900	1.5	68	180/18	◑	None	.57	---	.045	.0193	R	.69	---	.059	.0172	R	-----	---	-----	------	---
4-20-64	4/507	919	1.5	68	180/18	"	None	.87	---	.050	.0245	R	.73	---	.057	.0233	R	-----	---	-----	------	---

TABLE VII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 28,000 FEET - Continued

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
4-20-64	5/508	1059	1.5	74	180/18	⊕	None	1.13	---	0.045	0.0249	NR	1.08	---	0.041	0.0193	NR	----	---	-----	------	---
4-20-64	6/509	1119	1.5	74	180/18	"	None	1.15	---	.043	.0195	C	.52	---	.067	.0209	R	----	---	-----	------	---
4-20-64	7/510	1319	1.5	75	190/18	⊕	None	1.15	---	.041	.0250	N	1.49	---	.047	.0356	NR	----	---	-----	------	---
4-21-64	1/511	859	1.5	68	290/12	⊖	None	1.33	---	.042	.0251	N	1.20	---	.043	.0282	NR	0.89	---	0.047	0.0193	NR
4-21-64	2/512	919	1.5	69	290/12	"	None	.99	---	.042	.0246	NR	1.45	---	.043	.0286	N	.72	---	.052	.0181	NR
4-21-64	3/513	1059	1.5	76	250/12	○	None	1.37	---	.043	.0281	N	1.03	---	.045	.0250	NR	1.05	---	.045	.0206	NP
4-21-64	4/514	1119	1.5	77	250/12	"	None	1.21	---	.045	.0249	N	1.18	---	.038	.0256	NR	.87	---	.050	.0221	NR
4-21-64	5/515	1259	1.5	80	270/7	"	None	1.82	---	.043	.0231	NP	.90	---	.052	.0191	R	.66	---	.054	.0194	C
4-21-64	6/516	1320	1.5	81	270/7	"	None	1.42	---	.042	.0204	NR	1.35	---	.032	.0219	N	2.15	---	.033	.0295	P
4-22-64	1/517	1059	1.5	72	140/17	⊕	None	1.25	---	.041	.0216	N	.72	---	.043	.0196	NR	.41	---	.060	.0109	R
4-22-64	2/518	1159	1.5	72	140/18	"	None	.96	---	.045	.0234	N	1.84	---	.038	.0259	P	1.81	---	.036	.0244	P
4-22-64	3/519	1259	1.5	75	160/18	⊖	None	.93	---	.042	.0236	N	.80	---	.050	.0224	NR	1.25	---	.039	.0213	NP
4-22-64	4/520	1319	1.5	76	160/18	"	None	1.44	---	.042	.0236	NP	1.34	---	.047	.0296	NR	.86	---	.051	.0243	NR
4-23-64	1/521	700	1.5	63	180/12	⊖	GF	1.02	---	.041	.0207	N	1.27	---	.048	.0232	N	1.16	---	.045	.0181	P
4-23-64	2/522	719	1.5	64	180/12	"	GF	.81	---	.043	.0192	NR	1.18	---	.045	.0235	N	1.02	---	.048	.0238	N
4-23-64	3/523	900	1.5	68	180/15	⊕	None	.98	---	.045	.0241	NR	.80	---	.052	.0199	NR	.78	---	.055	.0194	NP
4-23-64	4/524	919	1.5	69	180/15	"	None	1.13	---	.046	.0240	NR	.87	---	.044	.0206	R	.85	---	.054	.0221	NP
4-23-64	5/525	1100	1.5	76	200/13	⊖	None	.90	---	.047	.0260	NR	.67	---	.058	.0195	R	.57	---	.062	.0186	NR
4-23-64	6/526	1120	1.5	77	200/13	"	None	.73	---	.053	.0202	R	1.23	---	.045	.0196	NR	.67	---	.051	.0192	NR
4-23-64	7/527	1300	1.5	84	200/15	⊕	None	1.11	---	.046	.0215	NR	1.14	---	.033	.0181	NR	.43	---	.064	.0113	C
4-23-64	8/528	1320	1.5	85	200/15	"	None	1.42	---	.050	.0240	NP	1.05	---	.049	.0213	NR	.91	---	.047	.0198	NP
4-24-64	1/529	700	1.5	65	120/12	⊕	None	.64	---	.048	.0185	R	1.25	---	.047	.0192	NR	.48	---	.049	.0134	---
4-24-64	2/530	720	1.5	65	120/12	"	None	.80	---	.052	.0168	R	1.69	---	.044	.0327	N	.61	---	.060	.0184	R
4-24-64	3/531	900	1.5	66	120/14	"	None	.81	---	.047	.0187	NR	1.21	---	.040	.0254	N	.57	---	.044	.0149	NR
4-24-64	4/532	920	1.5	66	120/14	"	None	1.14	---	.046	.0228	NP	1.32	---	.043	.0206	NR	.63	---	.055	.0142	NR
4-24-64	5/533	1100	1.5	72	140/16	⊖	None	1.21	---	.043	.0255	N	.94	---	.045	.0251	NR	.82	---	.049	.0181	NR
4-24-64	6/534	1119	1.5	73	140/16	"	None	1.10	---	.050	.0225	N	.99	---	.050	.0210	NR	.89	---	.051	.0202	N
4-24-64	7/535	1300	1.5	80	160/17	⊖	None	1.31	---	.042	.0236	NP	1.55	---	.042	.0271	NP	.95	---	.049	.0225	NP
4-24-64	8/536	1320	1.5	80	160/17	"	None	.89	---	.050	.0234	R	.83	---	.051	.0266	R	.69	---	.045	.0122	NP
4-25-64	1/537	700	1.5	65	150/16	⊖	None	1.51	---	.042	.0254	NP	1.11	---	.043	.0264	N	1.85	---	.045	.0248	P
4-25-64	2/538	719	1.5	65	150/16	"	None	1.55	---	.043	.0264	NP	1.40	---	.040	.0293	N	1.34	---	.052	.0273	P
4-25-64	3/539	1059	1.5	79	200/24	⊖	None	1.55	---	.043	.0296	NP	1.11	---	.048	.0256	NR	.57	---	.051	.0190	---
4-25-64	4/540	1120	1.5	80	200/24	"	None	1.35	---	.052	.0245	C	.83	---	.051	.0195	NR	.78	---	.058	.0221	---
4-25-64	5/541	1300	1.5	85	200/20	"	None	.94	---	.057	.0273	N	1.20	---	.058	.0247	NP	.58	---	.070	.0184	R
4-25-64	6/542	1320	1.5	85	200/20	"	None	1.35	---	.046	.0321	NP	1.63	---	.040	.0158	P	.70	---	.056	.0207	---

TABLE VII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 28,000 FEET - Concluded

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
4-26-64	1/543	859	1.5	66	190/15	⊕	None	1.36	---	0.043	0.0300	N	1.09	---	0.044	0.0251	NR	0.54	---	0.050	0.0153	NR
4-26-64	2/544	920	1.5	67	190/15	"	None	1.20	---	.044	.0293	NR	1.25	---	.039	.0223	NP	.77	---	.056	.0213	NR
4-26-64	3/545	1059	1.5	69	230/20	"	None	.68	---	.050	.0200	R	.76	---	.058	.0199	R	.34	---	.060	.0130	---
4-26-64	4/546	1119	1.5	70	230/20	"	None	.98	---	.054	.0186	R	.91	---	.065	.0213	R	.51	---	.083	.0168	---
4-27-64	1/547	659	1.5	53	250/12	⊕	None	1.25	---	.045	.0249	N	.98	---	.048	.0222	N	1.56	---	.042	.0177	P
4-27-64	2/548	719	1.5	54	250/12	"	None	1.25	---	.049	.0215	N	1.62	---	.044	.0229	P	.77	---	.056	.0236	R
4-27-64	3/549	900	1.5	65	310/17	"	None	1.43	---	.044	.0260	NP	1.47	---	.046	.0323	NP	.79	---	.051	.0219	NR
4-27-64	4/550	919	1.5	66	310/17	"	None	.55	---	.057	.0216	R	1.29	---	.047	.0337	NR	1.44	---	.045	.0218	P
4-27-64	5/551	1059	1.5	69	310/17	○	None	1.09	---	.049	.0256	C	.64	---	.055	.0160	R	.66	---	.029	.0073	---
4-27-64	6/552	1119	1.5	70	310/17	"	None	1.80	---	.043	.0249	P	1.10	---	.052	.0181	NP	.75	---	.053	.0173	---
4-27-64	7/553	1300	1.5	74	310/21	⊕	None	1.49	---	.050	.0269	NP	1.07	---	.054	.0254	C	.53	---	.070	.0163	---
4-27-64	8/554	1320	1.5	73	310/21	"	None	.97	---	.046	.0251	NR	.72	---	.045	.0181	R	.94	---	.034	.0157	---
4-28-64	1/555	700	1.5	54	290/17	○	None	1.29	---	.048	.0295	NP	1.23	---	.051	.0358	N	1.56	---	.054	.0412	NR
4-28-64	2/556	719	1.5	55	290/17	"	None	1.35	---	.048	.0246	NP	1.61	---	.050	.0297	NP	1.67	---	.051	.0388	P
4-28-64	3/557	859	1.5	60	300/30	"	None	.75	---	.059	.0249	R	2.79	---	.048	.0362	P	1.25	---	.054	.0394	NR
4-28-64	4/558	920	1.5	60	300/30	"	None	1.81	---	.051	.0344	P	1.64	---	.052	.0366	NP	1.33	---	.059	.0384	NP
4-28-64	5/559	1101	1.5	64	310/22	"	None	.72	---	.053	.0181	R	.80	---	.055	.0196	R	1.36	---	.058	.0332	NP
4-28-64	6/560	1120	1.5	65	310/22	"	None	1.29	---	.043	.0297	NP	1.61	---	.041	.0346	NP	1.77	---	.044	.0404	P
4-28-64	7/561	1259	1.5	69	330/20	"	None	1.01	---	.047	.0214	C	2.34	---	.027	.0305	P	1.50	---	.048	.0363	NP
4-28-64	8/562	1320	1.5	70	330/20	"	None	.72	---	.078	.0177	R	2.13	---	.055	.0520	P	1.28	---	.048	.0333	NP
4-29-64	5/567	1101	1.5	64	020/4	⊕	None	2.00	---	.044	.0261	P	1.24	---	.047	.0384	C	2.03	---	.050	.0370	P
4-29-64	6/568	1120	1.5	65	020/4	"	None	1.56	---	.045	.0277	P	1.69	---	.050	.0285	NP	1.29	---	.054	.0294	P
4-30-64	1/569	659	1.5	52	150/8	⊕	None	1.04	---	.045	.0264	N	1.53	---	.040	.0261	NP	.72	---	.058	.0172	NR
4-30-64	2/570	719	1.5	54	150/8	"	None	.68	---	.045	.0153	R	1.18	---	.036	.0236	C	.68	---	.055	.0175	NR
4-30-64	3/571	859	1.5	63	170/12	"	None	.68	---	.047	.0193	R	1.30	---	.041	.0322	NR	1.57	---	.028	.0232	P
4-30-64	4/572	919	1.5	64	170/12	"	None	.83	---	.047	.0254	R	1.36	---	.045	.0314	C	.85	---	.050	.0179	P
4-30-64	5/573	1059	1.5	69	170/15	⊕	None	1.60	---	.045	.0287	P	1.36	---	.047	.0261	N	1.14	---	.050	.0242	P
4-30-64	6/574	1120	1.5	70	170/15	"	None	.71	---	.057	.0215	R	1.21	---	.046	.0261	NR	1.48	---	.054	.0247	P
4-30-64	7/575	1300	1.5	73	140/15	"	None	.80	---	.052	.0257	R	1.05	---	.052	.0255	NR	1.57	---	.056	.0331	P
4-30-64	8/576	1319	1.5	73	140/15	"	None	2.22	---	.040	.0346	P	1.07	---	.040	.0263	NR	1.43	---	.052	.0300	P
5- 1-64	4/580	919	1.5	67	140/15	⊕	None	1.00	---	.045	.0241	NR	1.57	---	.042	.0259	C	1.06	---	.056	.0258	---

TABLE VIII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE RANGE OF 26,000 TO 27,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
27,000 feet																					
3-18-64	4/284	920	1.7	60	150/12	⊕	None	1.24	0.51	0.038	0.0217	N	1.61	0.50	0.041	0.0323	N	1.18	0.32	0.044	0.0252	N
3-18-64	5/285	1100	1.5	67	170/17	"	None	1.59	.66	.050	.0318	NP	1.74	.47	.052	.0271	NP	.62	.25	.062	.0181	R
3-18-64	6/286	1120	1.5	67	170/17	"	None	1.46	.68	.039	.0255	NP	1.35	.49	.041	.0277	NR	.90	.28	.052	.0209	NR
3-18-64	7/287	1259	1.5	70	160/16	⊕	None	.98	.56	.040	.0205	R	1.80	.48	.045	.0283	NP	1.21	.30	.040	.0209	P
3-18-64	8/288	1320	1.7	69	160/16	"	None	1.10	.45	.046	.0171	P	1.28	.47	.048	.0363	NR	1.51	.36	.044	.0286	P
3-20-64	1/289	700	1.7	32	310/34	⊕	None	.88	.29	.041	.0156	R	1.18	.24	.051	.0173	---	.17	.06	.043	.0037	R
3-20-64	2/290	720	1.7	32	310/34	"	None	.96	.38	.043	.0197	R	1.51	.42	.037	.0238	NP	.93	.22	.041	.0155	NP
3-20-64	3/291	902	1.7	32	310/30	"	-S	.98	.30	.042	.0218	NR	1.37	.33	.028	.0181	NP	1.27	.26	.040	.0229	P
3-20-64	5/293	1059	1.5	31	320/26	"	-S	1.52	.40	.040	.0214	NP	1.10	.35	.042	.0237	NR	.40	.16	.064	.0185	R
3-20-64	6/294	1120	1.5	31	320/26	"	-S	.91	.40	.044	.0184	NR	1.48	.34	.039	.0271	N	.91	.20	.056	.0158	---
3-21-64	1/295	659	1.5	25	340/10	○	None	1.22	.50	.046	.0268	NR	1.17	.39	.042	.0267	NR	.70	.26	.052	.0171	NR
3-21-64	2/296	859	1.5	29	360/10	"	None	1.20	.44	.041	.0237	NR	1.23	.45	.043	.0303	N	.78	.28	.046	.0197	NR
3-21-64	4/298	1100	1.5	35	350/10	"	None	1.15	.42	.047	.0277	NR	.90	.36	.041	.0218	R	.57	.25	.057	.0185	R
5- 3-64	3/595	900	1.3	75	180/15	"	None	.93	----	.053	.0239	R	1.00	----	.036	.0187	---	.69	----	.061	.0175	R
5- 3-64	4/596	920	1.3	76	180/15	"	None	.96	----	.057	.0240	R	.69	----	.052	.0167	R	.42	----	.060	.0175	R
5- 3-64	5/597	1100	1.3	84	180/14	"	None	1.63	----	.046	.0250	NP	.48	----	.059	.0189	R	.74	----	.066	.0205	NR
5- 3-64	6/598	1120	1.3	85	180/14	"	None	1.26	----	.065	.0442	R	----	----	-----	------	---	----	----	-----	------	---
5- 3-64	7/599	1300	1.3	88	200/10	"	None	.93	----	.050	.0202	R	1.83	----	.050	.0361	NP	2.57	----	.059	.0299	P
26,000 feet																					
3-21-64	3/297	920	1.5	30	360/10	○	None	1.10	0.44	0.043	0.0233	NR	1.42	0.43	0.045	0.0239	N	0.65	0.25	0.048	0.0184	NR
3-21-64	5/299	1120	1.5	36	350/10	"	None	1.25	.44	.045	.0278	NR	.92	.35	.041	.0236	R	.43	.22	.056	.0162	R

TABLE IX.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE OF 24,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precipitation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
5- 1-64	1/577	700	1.5	57	140/13	⊕	None	1.41	---	0.046	0.0266	N	1.43	---	0.040	0.0251	NP	0.88	---	0.052	0.0203	NR
5- 1-64	2/578	719	1.5	58	140/13	"	None	.95	---	.049	.0251	R	1.06	---	.053	.0247	---	.97	---	.049	.0189	NR
5- 1-64	3/579	900	1.5	66	140/15	"	None	1.16	---	.046	.0230	N	1.22	---	.046	.0311	NR	.84	---	.050	.0231	R
5- 3-64	1/593	700	1.3	66	160/16	○	None	1.49	---	.051	.0247	N	.89	---	.055	.0203	R	.34	---	.128	.0190	---
5- 3-64	2/594	719	1.4	67	160/16	"	None	1.66	---	.047	.0253	NR	1.19	---	.045	.0213	N	1.02	---	.050	.0160	NP
5- 4-64	1/600	700	1.4	68	150/15	⊕	None	1.27	---	.048	.0277	N	.96	---	.055	.0237	R	.65	---	.059	.0195	R
5- 4-64	2/601	720	1.4	69	150/15	"	None	1.71	---	.030	.0223	NP	1.30	---	.049	.0212	NR	.49	---	.053	.0172	NR
5- 4-64	3/602	859	1.4	74	180/14	⊕	None	.97	---	.051	.0233	NR	1.03	---	.046	.0237	NR	.75	---	.060	.0222	NR
5- 4-64	4/603	920	1.5	75	180/14	"	None	1.62	---	.041	.0264	NP	1.14	---	.039	.0277	NR	1.07	---	.043	.0261	NP
5- 4-64	5/604	1100	1.4	80	190/17	"	None	1.23	---	.041	.0193	NR	1.16	---	.041	.0263	R	.39	---	.064	.0191	R
5- 4-64	6/605	1120	1.5	80	190/17	"	None	1.13	---	.050	.0264	N	1.30	---	.045	.0245	N	.78	---	.053	.0209	NR
5- 4-64	7/606	1300	1.4	84	160/22	"	None	.88	---	.055	.0240	NR	.75	---	.059	.0187	R	.80	---	.058	.0188	---
5- 4-64	8/607	1319	1.4	84	160/22	"	None	.95	---	.048	.0237	NR	1.55	---	.042	.0268	N	.72	---	.057	.0161	N
5- 5-64	1/608	700	1.4	70	160/18	⊕	None	1.94	---	.044	.0326	NP	1.01	---	.051	.0177	R	----	---	-----	------	---
5- 5-64	2/609	720	1.5	71	160/18	"	None	.65	---	.051	.0195	R	1.33	---	.042	.0258	N	1.04	---	.059	.0322	---
5- 5-64	3/610	904	1.5	73	180/18	"	None	1.30	---	.046	.0284	N	1.56	---	.028	.0250	---	.99	---	.053	.0201	NR
5- 5-64	4/611	920	1.5	73	180/18	"	None	.97	---	.057	.0286	R	.71	---	.055	.0210	R	1.12	---	.046	.0267	---
5- 5-64	5/612	1100	1.5	76	180/20	"	None	2.19	---	.049	.0282	P	1.40	---	.030	.0280	NR	.95	---	.046	.0201	---
5- 5-64	6/613	1120	1.5	76	180/20	"	None	.67	---	.051	.0253	R	.90	---	.052	.0238	R	.45	---	.063	.0155	R
5- 5-64	7/614	1258	1.5	75	160/24	"	None	1.62	---	.050	.0270	NP	.99	---	.050	.0249	R	2.08	---	.030	.0296	P

TABLE X.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE A

FOR AN ALTITUDE RANGE OF 21,000 TO 23,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data														
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
23,000 feet																						
5- 1-64	5/581	1100	1.3	70	160/14	⊕	H	0.74	---	0.056	0.0165	C	0.62	---	0.042	0.0129	R	0.32	---	0.078	0.0118	---
5- 1-64	6/582	1119	1.3	71	160/14	"	H	.67	---	.054	.0180	R	.80	---	.055	.0141	---	.23	---	.062	.0086	---
5- 1-64	7/583	1259	1.3	72	140/18	"	H	1.34	---	.053	.0327	NR	1.11	---	.037	.0243	NR	.50	---	.065	.0194	R
5- 1-64	8/584	1320	1.3	73	140/18	"	H	1.39	---	.051	.0239	C	1.59	---	.033	.0301	NR	.60	---	.052	.0185	R
5- 2-64	1/585	700	1.3	54	140/9	○	None	-----	---	-----	------	---	1.22	---	.050	.0188	N	1.32	---	.040	.0208	NP
5- 2-64	2/586	720	1.4	56	140/9	"	None	-----	---	-----	------	---	1.36	---	.039	.0272	N	1.06	---	.046	.0283	NR
5- 2-64	3/587	900	1.3	65	180/12	◐	None	-----	---	-----	------	---	2.48	---	.033	.0296	NP	1.27	---	.054	.0229	P
5- 2-64	4/588	919	1.4	65	180/12	"	None	-----	---	-----	------	---	1.68	---	.043	.0274	N	1.43	---	.042	.0268	NP
5- 2-64	5/589	1100	1.3	70	190/11	◑	None	1.21	---	.056	.0302	N	1.33	---	.038	.0203	---	.88	---	.049	.0204	NR
5- 2-64	6/590	1119	1.3	71	190/11	"	None	1.07	---	.050	.0258	NR	1.66	---	.044	.0295	N	1.70	---	.037	.0253	P
5- 2-64	7/591	1259	1.4	76	160/12	○	None	1.07	---	.052	.0284	NR	1.54	---	.031	.0261	N	1.55	---	.044	.0242	P
5- 2-64	8/592	1320	1.4	77	160/12	"	None	1.07	---	.048	.0360	NR	1.75	---	.044	.0249	NP	1.10	---	.058	.0251	NP
5- 6-64	1/615	659	1.3	67	180/7	◐	None	1.33	---	.046	.0278	N	1.07	---	.034	.0208	R	.39	---	.056	.0123	R
5- 6-64	2/616	724	1.6	68	180/7	"	None	1.43	---	.044	.0301	N	1.07	---	.037	.0339	R	.70	---	.045	.0177	R
5- 6-64	3/617	900	1.3	74	210/15	◑	None	1.33	---	.045	.0284	N	1.53	---	.034	.0247	N	.41	---	.065	.0160	R
5- 6-64	4/618	919	1.3	75	210/15	"	None	1.26	---	.047	.0288	N	1.19	---	.035	.0275	NR	.83	---	.043	.0202	NR
5- 6-64	5/619	1059	1.3	78	220/10	"	None	1.67	---	.044	.0285	NP	1.71	---	.032	.0287	N	.95	---	.055	.0317	NR
5- 6-64	6/620	1119	1.5	79	220/10	"	None	1.23	---	.041	.0259	NR	1.87	---	.039	.0292	N	1.19	---	.045	.0220	N
5- 6-64	7/621	1259	1.3	83	190/14	"	None	1.04	---	.051	.0260	R	1.28	---	.046	.0236	R	1.02	---	.042	.0150	---
5- 6-64	8/622	1319	1.5	83	190/14	"	None	1.16	---	.049	.0312	R	.59	---	.052	.0177	R	1.33	---	-----	------	---
21,000 feet																						
5- 7-64	1/623	659	1.5	70	170/12	⊕	-L	1.40	---	0.044	0.0272	N	1.10	---	0.039	0.0267	R	0.71	---	0.056	0.0197	R
5- 7-64	2/624	719	1.5	70	170/12	"	-L	1.21	---	.048	.0247	NR	1.92	---	.033	.0299	NP	.92	---	.043	.0196	NR
5- 7-64	3/625	900	1.5	72	160/12	"	None	.77	---	.054	.0233	R	1.69	---	.032	.0278	NR	.39	---	.072	.0119	R
5- 7-64	4/626	1100	1.4	75	160/15	"	None	1.57	---	.046	.0333	N	1.16	---	.032	.0243	R	.25	---	.079	.0129	R
5- 7-64	5/627	1120	1.4	75	160/15	"	None	1.64	---	.052	.0273	C	3.70	---	.022	------	P	.89	---	.078	.0351	R
5- 7-64	6/628	1301	1.4	76	160/14	"	None	1.93	---	.029	.0287	NP	1.32	---	.047	.0209	N	1.56	---	.055	.0177	---

TABLE XI.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR ALTITUDES OF 45,000 AND 46,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precipitation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
46,000 feet																					
5-19-64	1/698	700	1.4	67	160/9	○	None	0.89	---	0.087	0.0449	NR	1.05	---	0.081	0.0485	NR	1.21	---	0.082	0.0475	N
5-19-64	2/699	719	1.4	68	160/9	"	None	1.10	---	.086	.0457	NR	1.10	---	.086	.0603	NR	1.61	---	.080	.0425	NP
5-19-64	3/700	900	1.4	76	180/10	◑	None	1.28	---	.083	.0550	NR	.84	---	.111	.0624	R	.72	---	.105	.0422	R
5-19-64	4/701	919	1.4	76	180/10	"	None	-----	---	-----	------	---	1.75	---	.072	.0600	NP	1.84	---	.072	.0678	NP
5-19-64	5/702	1101	1.4	80	200/12	"	None	1.00	---	.090	.0386	NP	1.52	---	.075	.0528	NP	2.38	---	.130	.1143	C
5-19-64	6/703	1121	1.4	81	200/12	"	None	.89	---	.085	.0411	NR	1.94	---	.080	.0599	C	.95	---	.104	.0456	C
5-19-64	7/704	1300	1.4	82	180/13	◐	None	1.42	---	.088	.0444	C	1.21	---	.087	.0570	C	.81	---	.090	.0473	---
5-19-64	8/705	1319	1.4	82	180/13	"	None	.94	---	.079	.0405	NR	.79	---	.088	.0430	R	1.87	---	.087	.0449	C
5-20-64	1/706	701	1.5	67	160/5	◑	None	1.09	---	.075	.0472	NR	1.11	---	.066	.0420	NR	.93	---	.079	.0463	NR
5-20-64	2/707	725	1.5	69	160/5	"	None	1.07	---	.086	.0467	N	1.04	---	.084	.0484	N	1.13	---	.077	.0389	N
5-20-64	3/708	858	1.5	78	200/10	◑	None	1.11	---	.072	.0437	NR	1.71	---	.067	.0522	NP	1.55	---	.071	.0549	N
5-20-64	4/709	922	1.5	79	200/10	"	None	1.16	---	.071	.0456	N	1.18	---	.068	.0473	N	1.23	---	.076	.0421	N
5-20-64	5/710	1059	1.5	83	200/11	"	None	1.00	---	.088	.0483	NR	1.40	---	.086	.0523	NR	1.22	---	.098	.0503	---
5-20-64	6/711	1120	1.5	83	200/11	"	None	.89	---	.090	.0382	C	1.71	---	.074	.0567	NP	1.56	---	.072	.0529	NP
5-20-64	7/712	1300	1.5	85	180/9	◑	None	.96	---	.088	.0453	NR	1.14	---	.084	.0438	NR	1.20	---	.077	.0425	NR
5-20-64	8/713	1322	1.5	85	180/9	"	None	1.22	---	.079	.0397	N	.67	---	.096	.0331	R	.77	---	.088	.0342	R
5-21-64	1/714	700	1.5	66	160/8	⊕	None	1.27	---	.083	.0525	N	1.48	---	.076	.0582	N	1.46	---	.085	.0578	NP
5-21-64	2/715	719	1.5	67	160/8	"	None	1.36	---	.079	.0581	NR	1.21	---	.070	.0457	NR	1.31	---	.073	.0419	N
5-21-64	3/716	900	1.5	76	200/9	⊕	None	1.24	---	.090	.0511	NR	1.41	---	.071	.0518	N	1.27	---	.076	.0503	N
5-21-64	4/717	921	1.5	77	200/9	"	None	1.01	-----	.078	.0485	NR	1.28	---	.073	.0451	N	1.06	---	.078	.0455	N
5-21-64	5/718	1101	1.5	81	200/15	◑	None	1.01	---	.106	.0525	NR	1.85	---	.094	.0560	NP	1.11	---	.097	.0648	R
5-21-64	6/719	1122	1.5	82	200/15	"	None	1.29	---	.081	.0527	N	1.57	---	.065	.0559	NR	.90	---	.118	.0460	---
5-21-64	7/720	1300	1.5	84	190/15	"	None	1.03	---	.092	.0584	R	.77	---	.103	.0464	---	.59	---	.096	.0253	---
5-21-64	8/721	1321	1.5	84	190/15	"	None	1.22	---	.084	.0508	N	1.37	---	.091	.0461	NP	2.23	---	.083	.0647	P
5-22-64	1/722	659	1.5	67	180/7	○	None	1.22	---	.080	.0575	N	1.24	---	.070	.0513	NR	1.49	---	.093	.0547	C
5-22-64	2/723	721	1.5	68	180/7	"	None	.98	---	.098	.0458	N	.98	---	.078	.0434	NR	.89	---	.085	.0389	N
5-23-64	7/736	1300	1.5	84	180/20	◐	None	2.41	---	.077	.0599	P	1.18	---	.086	.0493	NP	.70	---	.089	.0339	NR
5-23-64	8/737	1320	1.5	84	180/20	"	None	.93	---	.100	.0530	R	.98	---	.067	.0407	R	1.19	---	.086	.0437	NP
5-27-64	8/767	1318	1.5	82	200/27	◑	None	1.26	---	.082	.0533	NR	2.10	---	.072	.0643	C	.55	---	.100	.0350	R
45,000 feet																					
7-23-64	7/1197	1300	1.5	101	200/5	◑	None	0.48	---	0.107	0.0199	C	0.91	---	0.126	0.0507	R	----	---	-----	------	---
7-23-64	8/1198	1320	1.5	101	200/5	"	None	.96	---	.096	.0440	C	1.45	---	.070	.0491	C	1.25	---	0.111	0.0571	C
7-24-64	7/1205	1300	1.5	103	220/8	"	None	.38	---	.106	.0205	R	1.07	---	.103	.0469	R	.41	---	.233	.0514	---
7-24-64	8/1206	1319	1.5	103	220/8	"	None	1.08	---	.064	.0217	NP	3.29	---	.073	.0531	P	.78	---	.095	.0467	R
7-25-64	7/1213	1258	1.5	100	140/12	"	None	1.31	---	.108	.0614	C	.97	---	.113	.0614	R	.41	---	.132	.0284	---
7-25-64	8/1214	1321	1.5	100	140/12	"	None	.63	---	.083	.0316	R	1.82	---	.078	.0499	P	1.00	---	.088	.0390	C
7-26-64	7/1221	1300	1.5	101	140/5	"	None	.59	---	.110	.0403	R	1.28	---	.125	.0537	---	.58	---	.115	.0397	R
7-26-64	8/1222	1319	1.5	101	140/5	"	None	1.09	---	.079	.0444	R	1.36	---	.063	.0389	---	.94	---	.117	.0477	R
7-30-64	8/1253	1320	1.5	94	160/12	○	None	.98	---	.072	.0400	NR	1.23	---	.078	.0499	---	1.36	---	.085	.0431	NP

TABLE XII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE OF 44,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
5-22-64	3/724	900	1.5	75	210/16	⊕	None	1.79	---	0.084	0.0596	NP	1.11	---	0.089	0.0534	NP	0.81	---	0.101	0.0492	R
5-22-64	4/725	920	1.5	76	210/16	"	None	1.18	---	.078	.0559	NR	1.31	---	.071	.0514	NR	1.52	---	.073	.0498	NP
5-22-64	5/726	1058	1.5	82	180/14	⊕	None	1.97	---	.083	.0537	NP	2.13	---	.071	.0601	P	.59	---	.137	.0418	R
5-22-64	6/727	1118	1.5	82	180/14	"	None	1.20	---	.079	.0565	R	.98	---	.087	.0451	NR	1.79	---	.076	.0495	NP
5-22-64	7/728	1300	1.5	84	170/18	"	None	1.45	---	.080	.0561	N	1.16	---	.073	.0364	NR	.39	---	.134	.0295	R
5-22-64	8/729	1320	1.5	84	170/18	"	None	.82	---	.093	.0435	R	1.47	---	.076	.0518	NR	1.54	---	.074	.0436	NP
5-23-64	1/730	700	1.5	68	180/14	"	F	-----	---	-----	------	---	1.27	---	.072	.0432	NR	.91	---	.091	.0442	NR
5-23-64	2/731	721	1.5	69	180/14	"	F	1.09	---	.095	.0518	N	2.49	---	.067	.0519	P	.94	---	.088	.0407	NR
5-23-64	3/732	859	1.5	74	190/18	"	None	1.20	---	.082	.0635	NR	1.38	---	.074	.0426	NP	1.26	---	.080	.0491	NP
5-23-64	4/733	919	1.5	75	190/18	"	None	1.76	---	.069	.0557	NP	1.58	---	.065	.0459	NP	2.04	---	.075	.0560	P
5-23-64	5/734	1100	1.5	80	170/17	⊕	None	1.57	---	.085	.0630	N	2.76	---	.070	.0598	P	.88	---	.093	.0455	NR
5-23-64	6/735	1121	1.5	81	170/17	"	None	1.34	---	.083	.0548	NR	1.60	---	.069	.0451	NP	1.82	---	.076	.0463	P
5-24-64	1/738	659	1.5	72	200/14	"	None	1.27	---	.072	.0507	N	1.33	---	.068	.0495	NR	.54	---	.091	.0248	R
5-24-64	2/739	720	1.5	73	200/14	"	None	1.13	---	.069	.0417	N	1.33	---	.069	.0457	N	.94	---	.087	.0474	NR
5-24-64	3/740	923	1.5	79	170/13	⊕	None	1.02	---	.079	.0433	N	1.49	---	.069	.0463	NR	1.44	---	.076	.0429	NP
5-24-64	4/741	1100	1.5	82	190/10	⊕	None	1.11	---	.078	.0500	NR	.93	---	.085	.0445	R	2.15	---	.079	.0635	P
5-24-64	5/742	1300	1.5	85	160/9	⊕	None	1.63	---	.069	.0458	NP	1.29	---	.075	.0460	NR	1.26	---	.074	.0470	NR
5-24-64	6/743	1320	1.5	85	160/9	"	None	1.16	---	.079	.0414	NR	1.51	---	.069	.0499	NR	1.24	---	.078	.0423	NP
5-25-64	1/744	659	1.5	75	160/8	⊕	None	1.22	---	.084	.0544	N	1.38	---	.084	.0568	N	1.20	---	.092	.0736	NR
5-25-64	2/745	719	1.5	72	160/8	"	None	1.17	---	.080	.0397	N	1.38	---	.072	.0480	N	.99	---	.086	.0491	NR
5-25-64	3/746	859	1.5	80	190/10	"	None	1.29	---	.073	.0506	N	.96	---	.077	.0417	N	1.65	---	.075	.0604	NR
5-25-64	5/748	1059	1.5	88	200/13	⊕	None	1.14	---	.067	.0598	NR	3.42	---	.067	.0429	P	1.27	---	.078	.0390	NP
5-25-64	6/749	1119	1.5	88	200/13	"	None	1.22	---	.065	.0441	NR	1.10	---	.081	.0343	C	.91	---	.080	.0409	R
5-25-64	7/750	1300	1.5	89	200/14	⊕	None	1.02	---	.092	.0478	N	1.05	---	.092	.0584	NR	.88	---	.093	.0399	R
5-25-64	8/751	1321	1.5	90	200/14	"	None	1.36	---	.076	.0366	NP	1.16	---	.080	.0622	N	1.40	---	.079	.0431	NP
5-26-64	1/752	659	1.5	72	180/10	⊕	None	1.06	---	.078	.0401	NR	1.16	---	.076	.0470	N	1.03	---	.079	.0446	NR
5-26-64	2/753	719	1.5	73	180/10	"	None	1.13	---	.068	.0384	NR	1.05	---	.082	.0425	NR	.56	---	.087	.0349	R
5-26-64	3/754	859	1.5	82	210/18	"	None	1.03	---	.075	.0433	N	1.72	---	.070	.0608	NR	1.15	---	.082	.0493	N
5-26-64	5/756	1059	1.5	86	200/17	"	None	1.58	---	.080	.0480	NP	1.52	---	.086	.0523	NP	2.58	---	.070	.0587	P
5-26-64	6/757	1120	1.5	87	200/17	"	None	1.15	---	.074	.0474	NR	1.32	---	.080	.0476	NR	1.63	---	.072	.0630	NR
5-26-64	7/758	1258	1.5	89	200/15	"	None	2.14	---	.074	.0552	NP	1.16	---	.096	.0557	R	.82	---	.097	.0285	---
5-26-64	8/759	1319	1.5	89	200/15	"	None	1.18	---	.084	.0439	NR	1.36	---	.084	.0486	C	1.13	---	.094	.0495	NR
5-27-64	1/760	658	1.5	72	170/9	⊕	None	1.38	---	.075	.0472	N	1.06	---	.082	.0463	NR	1.33	---	.073	.0482	N
5-27-64	2/761	720	1.5	74	170/9	"	None	1.05	---	.076	.0470	NR	2.31	---	.059	.0486	P	1.15	---	.085	.0399	N
5-27-64	3/762	859	1.5	80	180/12	"	None	.75	---	.084	.0340	NR	1.21	---	.076	.0415	NP	1.12	---	.085	.0421	N
5-27-64	5/764	1059	1.5	82	180/6	"	None	1.24	---	.085	.0496	NR	1.19	---	.087	.0551	R	.97	---	.084	.0425	NR

TABLE XII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE OF 44,000 FEET - Concluded

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precipitation	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
5-27-64	6/765	1119	1.5	82	180/6	◑	None	1.17	----	0.090	0.0470	NR	1.15	---	0.073	0.0513	R	1.27	---	0.081	0.0471	N
5-27-64	7/766	1258	1.5	82	200/27	◑	None	1.14	----	.078	.0481	NR	1.23	---	.092	.0482	R	1.35	---	.100	.0583	NR
5-28-64	1/768	658	1.5	55	360/16	⊕	None	.79	----	.091	.0437	NR	1.21	---	.068	.0442	NR	.88	---	.083	.0367	NR
5-28-64	2/769	721	1.5	55	360/16	"	None	1.16	----	.081	.0527	NR	.82	---	.076	.0367	NR	.65	---	.100	.0310	---
5-28-64	3/770	859	1.5	57	360/10	"	None	1.30	----	.072	.0432	N	1.25	---	.070	.0421	N	.90	---	.074	.0390	NR
5-28-64	4/772	1059	1.5	60	010/8	"	None	.90	----	.090	.0411	NR	1.06	---	.076	.0435	NR	.79	---	.086	.0365	NR
5-28-64	5/773	1119	1.5	61	010/8	"	None	1.07	----	.072	.0262	NR	.89	---	.087	.0431	NR	1.75	---	.070	.0435	P
5-28-64	6/774	1259	1.5	66	040/8	◑	None	1.13	----	.079	.0410	NR	1.71	---	.068	.0581	NP	2.03	---	.069	.0640	P
5-29-64	1/775	700	1.5	59	080/12	⊕	T, RW, F	.72	----	.173	.0419	---	.49	---	.094	.0241	R	.26	---	.120	.0177	---
5-29-64	2/776	719	1.5	59	080/12	"	T, RW, F	.63	----	.100	.0351	C	.56	---	.166	.0321	---	.42	---	.096	.0184	---
5-29-64	3/777	900	1.5	59	090/8	"	T, RW, F	.49	----	.090	.0208	R	.49	---	.114	.0301	R	.56	---	.116	.0196	---
5-29-64	4/778	920	1.5	59	090/8	"	T, RW, F	.33	----	.098	.0199	---	.80	---	.095	.0313	R	.19	---	.158	.0115	---
5-29-64	5/779	1300	1.5	60	100/15	"	RW	1.80	----	.085	.0522	C	1.53	---	.069	.0467	NP	.66	---	.094	.0264	---
5-30-64	4/783	1300	1.5	68	050/10	◑	None	.46	----	.100	.0249	R	1.10	---	.082	.0507	NR	.66	---	.098	.0306	R
5-30-64	5/784	1320	1.5	68	050/10	"	None	1.60	----	.069	.0488	NR	1.02	---	.084	.0457	NR	.33	---	.104	.0166	R
5-31-64	1/785	700	1.5	51	020/8	⊕	-R	1.37	----	.076	.0527	NR	1.55	---	.066	.0521	N	1.14	---	.078	.0445	N
5-31-64	2/786	720	1.5	52	020/8	"	-R	1.11	----	.092	.0481	NR	1.24	---	.077	.0442	N	1.64	---	.086	.0618	NP
5-31-64	3/787	900	1.5	55	030/10	◑	None	1.44	----	.087	.0516	N	1.81	---	.073	.0486	NP	1.39	---	.079	.0556	N
5-31-64	4/788	921	1.5	56	030/10	"	None	1.09	----	.090	.0547	NR	2.29	---	.068	.0553	NP	1.16	---	.065	.0505	---
5-31-64	5/789	1059	1.5	63	020/10	"	None	1.53	----	.072	.0591	NR	1.24	---	.077	.0458	NR	2.10	---	.066	.0641	P
5-31-64	6/790	1301	1.5	67	040/15	◑	None	1.16	----	.082	.0542	NR	1.72	---	.078	.0552	NP	.61	---	.115	.0382	R
5-31-64	7/791	1321	1.5	67	040/15	"	None	1.48	----	.094	.0495	NP	1.37	---	.070	.0496	NR	.76	---	.106	.0463	R
6- 1-64	1/792	659	1.5	53	320/8	○	None	1.13	1.00	.082	.0518	NR	1.62	---	.080	.0642	N	1.69	---	------	------	---
6- 1-64	2/793	721	1.5	53	320/8	"	None	1.11	.88	.078	.0414	NR	1.56	---	.074	.0555	NR	1.30	---	------	------	---
6- 1-64	3/794	900	1.5	64	00/0	"	None	1.39	1.08	.074	.0588	NR	1.32	---	.070	.0402	NR	1.81	---	------	------	---
6- 1-64	4/795	920	1.5	64	00/0	"	None	1.20	.88	.076	.0517	NR	1.40	---	.067	.0452	NR	1.62	---	------	------	---
6- 1-64	5/796	1100	1.5	68	00/0	◑	None	1.27	1.03	.077	.0609	NR	1.16	---	.081	.0502	NR	1.31	---	------	------	---
6- 1-64	6/797	1120	1.5	68	00/0	"	None	1.81	.98	.060	.0517	N	1.58	---	.067	.0536	NR	.96	---	------	------	---
6- 1-64	7/798	1259	1.5	71	310/3	"	None	1.57	1.01	.073	.0582	NR	1.23	---	.079	.0521	R	.97	---	------	------	---
6- 1-64	8/799	1319	1.5	71	310/3	"	None	1.44	1.01	.076	.0537	NR	1.69	---	.071	.0456	C	2.45	---	------	------	---
6-2-64	1/800	658	1.5	58	030/11	⊕	R	.83	.82	.091	.0394	R	1.32	---	.068	.0443	C	.85	---	.077	.0348	NR
6-2-64	2/801	719	1.5	58	030/11	"	R	1.16	.93	.076	.0447	R	.96	---	.066	.0400	R	.69	---	.077	.0259	R
6-4-64	7/820	1259	1.5	79	190/10	"	None	.51	.50	.139	.0681	---	.91	---	.094	.0428	R	1.02	---	.103	.0457	NR
6-4-64	8/821	1319	1.5	79	190/10	"	None	1.08	.83	.076	.0443	NR	1.39	---	.064	.0331	---	.93	---	.084	.0312	---

TABLE XIII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR ALTITUDES OF 42,000 AND 43,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precipitation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
43,000 Feet																					
7-21-64	7/1181	1259	1.5	99	230/15	◐	None	1.31	----	0.105	0.0678	R	0.54	---	0.132	0.0362	---	0.46	---	0.195	0.0426	---
7-21-64	8/1182	1320	1.5	99	230/15	"	None	1.52	----	.090	.0599	C	1.15	---	.083	.0455	R	.69	---	.060	.0261	---
7-22-64	7/1189	1300	1.5	101	130/12	◐	None	1.07	----	.102	.0417	---	1.59	---	.076	.0637	R	1.99	---	.133	.0861	C
7-22-64	8/1190	1319	1.5	101	130/12	"	None	.86	----	.096	.0492	R	2.23	---	.076	.0698	C	.45	---	-----	------	---
7-23-64	3/1193	859	1.5	91	230/9	○	None	.89	----	.089	.0441	NR	1.08	---	.079	.0543	NR	1.63	---	.086	.0499	P
7-23-64	4/1194	920	1.5	91	230/9	"	None	1.05	----	.082	.0427	NR	1.02	---	.088	.0510	NR	.89	---	.100	.0535	R
7-23-64	5/1195	1100	1.5	98	220/7	"	None	1.32	----	.111	.0497	C	----	---	-----	------	---	----	---	-----	------	---
7-23-64	6/1196	1119	1.5	98	220/7	"	None	.80	----	.081	.0286	NR	1.41	---	.089	.0378	P	2.50	---	.075	.0523	P
7-24-64	3/1201	859	1.5	92	220/15	"	None	.51	----	.075	.0256	R	.64	---	.094	.0405	R	.69	---	.083	.0409	R
7-24-64	4/1202	920	1.5	92	220/15	"	None	.72	----	.062	.0254	NR	1.39	---	.069	.0485	NR	1.37	---	.078	.0438	NR
7-24-64	5/1203	1100	1.5	100	250/7	"	None	.64	----	.080	.0272	R	1.41	---	.077	.0532	NR	1.40	---	.094	.0508	C
7-24-64	6/1204	1119	1.5	100	250/7	"	None	.81	----	.063	.0275	NR	1.88	---	.086	.0448	P	1.00	---	.109	.0467	R
7-25-64	3/1209	900	1.5	86	140/14	◐	None	.95	----	.082	.0388	NR	1.34	---	.084	.0580	NR	1.02	---	.106	.0518	---
7-25-64	4/1210	920	1.5	86	140/14	"	None	.82	----	.083	.0371	NR	1.30	---	.068	.0470	NR	1.13	---	.078	.0318	NP
7-25-64	5/1211	1059	1.5	95	130/12	"	None	1.35	----	.084	.0348	NP	1.06	---	.080	.0457	NR	1.64	---	.080	.0401	P
7-25-64	6/1212	1119	1.5	95	130/12	"	None	.80	----	.084	.0304	R	.87	---	.094	.0392	R	1.09	---	.096	.0409	C
7-26-64	3/1217	900	1.5	92	140/8	○	None	.88	----	.076	.0307	NR	1.32	---	.068	.0477	NR	1.34	---	.077	.0497	NP
7-26-64	4/1218	919	1.5	92	140/8	"	None	1.01	----	.072	.0371	NR	1.45	---	.079	.0478	NR	1.38	---	.079	.0500	NP
7-30-64	6/1215	1120	1.5	90	180/7	"	None	1.62	----	.068	.0492	NP	1.47	---	.082	.0490	NR	2.21	---	.074	.0598	P
7-30-64	7/1252	1300	1.5	94	160/12	"	None	1.47	----	.070	.0530	NR	1.21	---	.079	.0513	NR	1.38	---	.087	.0509	NP
42,000 feet																					
5-18-64	5/694	1100	1.4	79	200/15	○	None	0.96	----	0.082	0.0460	NR	0.96	---	0.093	0.0488	---	0.06	---	0.068	0.0015	---
5-18-64	6/695	1117	1.4	80	200/15	"	None	.96	----	.083	.0474	NR	1.34	---	.087	.0537	NR	2.64	---	.102	.0762	C
5-18-64	7/696	1259	1.4	81	160/14	◐	None	1.39	----	.087	.0551	NP	1.23	---	.084	.0458	NP	----	---	-----	------	---
5-18-64	8/697	1319	1.4	81	160/14	"	None	1.05	----	.083	.0426	NR	.96	---	.093	.0334	NR	1.32	---	.082	.0396	NP
5-30-64	1/780	923	1.5	60	080/8	◐	F	1.16	----	.078	.0679	---	2.54	---	.070	.0524	P	1.62	---	.075	.0508	NP
5-30-64	2/781	1100	1.5	65	300/6	"	None	1.04	----	.074	.0457	NR	1.13	---	.080	.0469	N	1.51	---	.075	.0577	NP
5-30-64	3/782	1121	1.5	66	300/6	"	None	.86	----	.080	.0393	NR	1.32	---	.069	.0380	N	.47	---	.133	.0328	R
6- 2-64	3/802	859	1.5	56	070/10	◐	-RW	1.13	0.82	.073	.0418	N	1.18	---	.073	.0407	NP	1.02	---	.072	.0315	NR
6- 2-64	4/803	920	1.5	56	070/10	"	-RW	1.67	1.01	.070	.0548	NR	1.27	---	.079	.0455	NR	1.14	---	.076	.0310	NP
6- 2-64	5/804	1059	1.5	60	080/8	"	None	1.25	.95	.076	.0519	NR	1.58	---	.068	.0520	NP	.98	---	.072	.0374	NR
6- 2-64	6/805	1120	1.5	60	080/8	"	None	1.20	1.03	.076	.0548	NR	1.12	---	.067	.0446	NR	1.28	---	.070	.0377	NP
6- 3-64	1/806	659	1.5	60	140/8	◐	None	1.75	1.12	.071	.0590	NR	1.75	---	.065	.0563	N	1.72	---	.071	.0483	P
6- 3-64	2/807	720	1.5	60	140/8	"	None	1.82	1.19	.070	.0606	N	1.62	---	.060	.0546	NR	1.16	---	.076	.0362	NP
6- 3-64	3/808	859	1.5	66	130/12	"	None	1.96	.97	.069	.0620	N	1.18	---	.066	.0433	NR	.89	---	.073	.0345	NR
6- 3-64	4/809	920	1.5	66	130/12	"	None	1.40	.86	.073	.0574	NR	1.53	---	.065	.0483	NR	2.14	---	.068	.0457	P
6- 3-64	5/810	1100	1.5	73	150/12	◐	None	1.10	.99	.077	.0504	R	1.40	---	.076	.0524	NR	1.10	---	.088	.0401	NR
6- 3-64	6/811	1119	1.5	73	150/12	"	None	1.38	.96	.070	.0535	NR	1.16	---	.063	.0377	NR	.93	---	.079	.0446	NR
6- 3-64	7/812	1300	1.5	76	170/13	◑	None	1.21	.82	.080	.0509	NR	1.53	---	.064	.0485	NR	.96	---	.077	.0435	NR
6- 3-64	8/813	1320	1.5	76	170/13	"	None	1.68	.96	.071	.0494	N	1.60	---	.068	.0504	NP	1.26	---	.069	.0345	NP
6- 4-64	5/818	1059	1.5	77	180/13	◐	None	1.24	1.02	.086	.0602	NR	1.96	---	.061	.0592	NP	1.47	---	.067	.0455	C
6- 4-64	6/819	1120	1.5	77	180/13	"	None	1.52	.84	.065	.0467	NR	1.48	---	.066	.0497	NR	.75	---	.079	.0339	R

TABLE XIV.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE OF 41,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data														
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
7-20-64	7/1173	1300	1.5	94	180/15	◑	None	1.13	----	0.088	0.0480	NR	2.00	---	0.075	0.0684	P	0.98	---	0.080	0.0415	NR
7-20-64	8/1174	1320	1.6	94	180/15	"	None	2.45	----	.069	.0516	P	1.96	---	.061	.0609	P	1.35	---	.085	.0477	NP
7-21-64	3/1177	900	1.5	88	200/15	◑	None	1.61	----	.079	.0586	NR	1.30	---	.075	.0459	NR	.77	---	.105	.0509	R
7-21-64	4/1178	920	1.5	88	200/15	"	None	1.24	----	.078	.0577	NR	1.41	---	.070	.0526	NR	1.25	---	.072	.0482	NR
7-21-64	5/1179	1059	1.5	95	230/14	○	None	1.22	----	.093	.0541	NR	.82	---	.096	.0477	R	1.13	---	.100	.0497	C
7-21-64	6/1180	1119	1.5	95	230/14	"	None	1.40	----	.082	.0574	NR	1.56	---	.086	.0593	C	1.58	---	.099	.0710	C
7-22-64	3/1185	900	1.5	90	210/11	"	None	1.45	----	.077	.0490	NR	1.87	---	.073	.0566	NP	1.83	---	.077	.0565	NP
7-22-64	4/1186	919	1.5	90	210/11	"	None	----	----	-----	------	---	1.33	---	.073	.0525	NR	1.08	---	.092	.0501	NR
7-22-64	5/1187	1100	1.5	97	210/13	"	None	1.42	----	.082	.0511	NR	1.25	---	.088	.0600	NR	1.47	---	.131	.0715	C
7-22-64	6/1188	1120	1.5	97	210/13	"	None	1.12	----	.084	.0493	NR	1.12	---	.085	.0565	R	----	---	-----	------	---
7-23-64	1/1191	659	1.5	77	180/9	"	None	1.05	----	.075	.0433	NR	1.19	---	.073	.0473	NR	1.33	---	.077	.0430	NP
7-23-64	2/1192	719	1.5	77	180/9	"	None	.80	----	.084	.0416	NR	1.04	---	.079	.0444	NR	.96	---	.082	.0433	NR
7-24-64	1/1199	700	1.5	79	180/7	"	None	.85	----	.064	.0290	NR	----	---	-----	------	---	.98	---	.087	.0477	NR
7-24-64	2/1200	719	1.5	79	180/7	"	None	.76	----	.064	.0266	R	1.45	---	.071	.0531	N	1.33	---	.073	.0481	NR
7-25-64	2/1208	720	1.5	80	160/8	"	None	1.03	----	.057	.0220	NP	1.43	---	.068	.0475	NR	1.30	---	.079	.0385	P
7-26-64	2/1216	719	1.5	81	080/6	"	None	.80	----	.082	.0407	NR	1.23	---	.073	.0427	NR	1.27	---	.079	.0502	NR
7-27-64	3/1225	859	1.5	80	100/18	◑	None	.91	----	.081	.0348	NR	1.14	---	.080	.0508	NR	.93	---	.080	.0353	R
7-27-64	4/1226	919	1.5	80	100/18	"	None	1.04	----	.065	.0338	NR	1.29	---	.070	.0435	NP	2.49	---	.067	.0491	P
7-27-64	5/1227	1059	1.5	83	140/15	⊕	None	----	----	-----	------	---	----	---	-----	------	---	----	---	-----	------	---
7-27-64	6/1228	1120	1.5	83	140/15	"	None	.64	----	.078	.0305	R	1.35	---	.068	.0493	N	1.35	---	.063	.0385	NR
7-27-64	7/1229	1259	1.5	93	140/15	◑	None	1.04	----	.077	.0383	NP	1.18	---	.071	.0503	NR	1.44	---	.078	.0521	NP
7-27-64	8/1230	1319	1.5	93	140/15	"	None	1.20	----	.066	.0394	NR	1.06	---	.074	.0432	NR	1.33	---	.068	.0344	NP
7-28-64	3/1233	900	1.5	88	160/12	◑	None	.90	----	.087	.0384	NR	1.44	---	.071	.0600	NR	1.79	---	.077	.0611	NR
7-28-64	4/1234	919	1.5	88	160/12	"	None	.86	----	.078	.0353	NR	1.66	---	.067	.0514	NP	.96	---	.081	.0468	NR
7-28-64	5/1235	1059	1.5	96	160/13	"	None	2.36	----	.065	.0370	P	1.52	---	.065	.0459	NP	1.13	---	.082	.0559	R
7-28-64	6/1236	1120	1.5	96	160/13	"	None	1.02	----	.077	.0376	NR	1.26	---	.074	.0472	NR	.98	---	.078	.0417	NR
7-28-64	7/1237	1300	1.5	101	200/14	◑	None	1.10	----	.077	.0395	NP	1.09	---	.131	.0640	---	----	---	-----	------	---
7-28-64	8/1238	1319	1.5	101	200/14	"	None	1.39	----	.077	.0442	NP	----	---	-----	------	---	1.25	---	.083	.0344	C
7-29-64	4/1242	1059	1.5	84	120/9	◑	None	1.00	1.04	.083	.0447	NR	1.38	---	.089	.0614	C	1.31	---	.069	.0474	NR
7-29-64	5/1243	1119	1.5	84	120/9	"	None	1.32	.95	.065	.0352	NP	1.34	---	.065	.0393	NR	1.57	---	.079	.0547	P
7-29-64	6/1244	1259	1.5	88	160/10	"	None	.79	1.00	.082	.0372	NR	1.17	---	.077	.0481	R	1.73	---	.067	.0479	P
7-29-64	7/1245	1319	1.5	88	160/10	"	None	1.06	1.19	.067	.0350	N	1.38	---	.083	.0528	N	1.47	---	.067	.0447	NR
7-30-64	2/1247	719	1.5	75	170/7	○	None	1.24	----	.071	.0468	NR	1.71	---	.068	.0558	NP	1.91	---	.073	.0559	NP
7-30-64	3/1248	859	1.5	82	160/8	"	None	1.44	----	.068	.0460	NR	1.43	---	.080	.0460	NR	1.40	---	.077	.0548	NR
7-30-64	4/1249	919	1.5	82	160/8	"	None	----	----	-----	------	---	1.88	---	.066	.0526	NP	1.11	---	.080	.0418	NR
7-30-64	5/1250	1059	1.5	90	180/7	"	None	1.27	----	.076	.0474	NR	1.08	---	.085	.0481	R	1.68	---	.080	.0566	P

TABLE XV.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE RANGE FROM 38,000 TO 40,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data														
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precipitation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
40,000 feet																						
5-17-64	7/689	1320	1.4	83	190/12	O	None	1.64	----	0.071	0.0547	NP	1.79	---	0.080	0.0637	NR	----	---	-----	------	---
5-18-64	3/692	901	1.4	76	180/13	"	None	1.69	----	.078	.0463	NP	1.16	---	.083	.0483	NR	2.13	---	0.076	0.0677	P
5-18-64	4/693	922	1.4	77	180/13	"	None	1.19	----	.078	.0458	NR	1.28	---	.082	.0460	C	1.93	---	.140	.0867	C
6- 4-64	1/814	659	1.5	65	180/8	⊕	None	.87	0.91	.090	.0406	R	1.61	---	.066	.0414	C	.84	---	.081	.0380	R
6- 4-64	2/815	719	1.5	65	180/8	"	None	1.61	.99	.083	.0518	NR	1.35	---	.076	.0477	NR	1.52	---	.090	.0381	C
6- 4-64	3/816	859	1.5	71	190/12	"	None	.92	.68	.108	.0350	C	2.03	---	.066	.0543	C	1.67	---	.075	.0498	NP
6- 4-64	4/817	920	1.5	71	190/12	"	None	1.36	1.13	.076	.0520	NR	1.94	---	.069	.0547	NP	.62	---	.096	.0216	C
7-22-64	1/1183	659	1.5	81	210/8	O	None	1.52	----	.077	.0640	NR	1.27	---	.087	.0519	NR	.56	---	.115	.0383	R
7-22-64	2/1184	719	1.5	81	210/8	"	None	1.12	----	.078	.0506	NR	1.50	---	.081	.0449	N	1.06	---	.083	.0477	NR
39,000 feet																						
6-22-64	5/953	1100	1.5	90	200/20	⊕	None	0.89	0.90	0.082	0.0447	R	1.19	---	0.077	0.0572	NR	1.90	---	0.079	0.0541	P
6-22-64	6/954	1120	1.5	90	200/20	"	None	1.34	.96	.076	.0436	NP	2.12	---	.064	.0607	NP	1.17	---	.076	.0520	R
6-22-64	7/955	1259	1.5	94	190/18	"	None	1.13	.93	.073	.0414	NR	1.73	---	.062	.0517	NP	1.22	---	.080	.0414	---
6-22-64	8/956	1319	1.5	94	190/18	"	None	.67	.75	.077	.0351	R	1.17	---	.080	.0503	---	1.38	---	.070	.0569	R
7-20-64	5/1171	1100	1.5	90	190/14	O	None	1.62	----	.082	.0628	NR	1.83	---	.088	.0533	P	1.17	---	.093	.0485	NR
7-20-64	6/1172	1120	1.5	90	190/14	"	None	1.69	----	.069	.0569	NR	1.68	---	.078	.0518	C	2.06	---	.075	.0585	P
7-21-64	1/1175	700	1.5	78	170/10	⊕	None	1.43	----	.073	.0541	NR	1.36	---	.067	.0494	NR	1.55	---	.078	.0518	NP
7-21-64	2/1176	720	1.5	78	170/10	"	None	1.63	----	.068	.0575	NR	2.25	---	.063	.0563	P	1.23	---	.074	.0492	NR
7-25-64	1/1207	700	1.5	80	160/8	O	None	1.10	----	.059	.0254	NR	1.28	---	.075	.0552	NR	1.02	---	.091	.0324	P
7-26-64	1/1215	659	1.5	81	080/6	"	None	.96	----	.075	.0394	NR	1.28	---	.072	.0489	NR	1.24	---	.079	.0540	NR
7-27-64	1/1223	700	1.5	79	080/12	⊕	None	.84	----	.078	.0359	NR	.88	---	.074	.0381	NR	.56	---	.113	.0308	R
7-27-64	2/1224	719	1.5	79	080/12	"	None	.98	----	.080	.0353	NR	1.16	---	.064	.0379	NR	1.14	---	.075	.0435	NR
7-28-64	1/1231	700	1.5	80	120/8	"	None	.93	----	.073	.0384	NR	1.35	---	.077	.0542	NR	1.48	---	.080	.0476	NR
7-28-64	2/1232	719	1.5	80	120/8	"	None	.82	----	.081	.0397	NR	.96	---	.083	.0402	NR	1.97	---	.067	.0438	NP
7-29-64	1/1239	700	1.5	75	130/8	"	None	----	----	-----	------	---	1.51	---	.086	.0644	C	.72	---	.129	.0496	C
7-29-64	2/1240	719	1.5	75	130/8	"	None	1.00	.64	.077	.0328	NR	1.17	---	.074	.0449	C	.92	---	.109	.0460	C
7-29-64	3/1241	919	1.5	80	060/6	⊕	None	1.06	.24	.073	.0403	NP	2.08	---	.073	.0601	P	1.70	---	.078	.0553	C
7-30-64	1/1246	700	1.5	75	170/7	O	None	1.44	----	.070	.0504	NR	1.41	---	.073	.0541	N	1.18	---	.086	.0466	NR
38,000 feet																						
5-15-64	4/674	1321	1.4	74	160/16	⊕	None	1.23	----	0.079	0.0437	NR	1.53	---	0.082	------	R	1.50	---	0.095	0.0418	NP
5-16-64	5/679	1059	1.4	79	200/15	O	None	1.24	----	.079	.0492	NR	1.39	---	.081	------	---	1.09	---	.075	.0477	NR
5-16-64	6/680	1121	1.4	79	200/15	"	None	1.01	----	.091	.0406	R	.94	---	.087	0.0461	R	1.02	---	.089	.0504	NR
5-16-64	7/681	1302	1.4	83	200/15	"	None	1.42	----	.082	.0477	NP	2.56	---	.065	.0615	P	2.00	---	.059	.0594	NP
5-16-64	8/682	1320	1.4	83	200/15	"	None	2.00	----	.082	.0622	P	2.09	---	-----	------	---	1.26	---	.083	.0447	NR
5-17-64	1/683	701	1.4	64	180/8	"	None	1.24	----	.071	.0467	NR	2.44	---	.068	.0595	NP	1.61	---	.079	.0497	NP
5-17-64	2/684	719	1.4	65	180/8	"	None	1.22	----	.067	.0459	N	1.53	---	.069	.0526	NR	2.00	---	.077	.0595	NP
5-17-64	3/685	900	1.4	78	160/10	"	None	1.22	----	.076	.0444	N	1.60	---	.083	.0527	N	.83	---	.092	.0448	NR
5-17-64	4/686	920	1.4	78	160/10	"	None	.97	----	.083	.0442	NR	2.95	---	.073	------	P	1.40	---	.084	.0581	NR
5-17-64	5/687	1100	1.4	80	180/15	"	None	.99	----	.084	.0537	R	2.50	---	.069	------	NP	2.50	---	.079	.0524	P
5-17-64	6/688	1121	1.4	81	180/15	"	None	.95	----	.083	.0458	R	1.31	---	-----	------	---	1.67	---	.074	.0568	NP
5-18-64	1/690	659	1.4	63	150/10	"	GF	1.03	----	.086	.0498	NR	1.01	---	.085	.0486	N	.19	---	.272	.0259	---
5-18-64	2/691	720	1.4	65	150/10	"	GF	1.23	----	.077	.0565	NR	1.25	---	.083	------	---	1.17	---	.082	.0524	NR

TABLE XVI.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE RANGE OF 36,000 AND 37,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precipitation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
37,000 feet																					
6-15-64	5/899	1100	1.5	83	230/12	⊕	None	1.25	1.05	0.065	0.0441	NR	1.63	---	0.067	0.0518	NR	1.44	---	0.073	0.0419	NR
6-15-64	6/900	1119	1.5	83	230/12	"	None	.95	.92	.077	.0372	R	1.98	---	.065	.0515	NR	.81	---	.082	.0360	NR
6-15-64	7/901	1259	1.5	86	170/10	"	None	.91	1.17	.077	.0442	R	1.31	---	.072	.0578	R	2.06	---	.065	.0531	P
6-15-64	8/902	1317	1.5	86	170/10	"	None	1.17	1.05	.066	.0399	NR	1.29	---	.063	.0584	R	1.92	---	.073	.0532	P
6-16-64	1/903	701	1.5	72	170/6	⊕	None	1.54	1.28	.074	.0473	NR	2.25	---	.064	.0498	NP	1.69	---	.072	.0573	NP
6-16-64	2/904	720	1.5	72	170/6	"	None	1.46	1.21	.068	.0481	NR	1.53	---	.062	.0485	NR	2.22	---	.067	.0571	P
6-19-64	2/926	720	1.5	77	180/15	○	None	1.35	1.11	.068	.0420	---	2.08	---	.057	.0519	NP	1.79	---	.065	.0485	NR
6-19-64	3/927	859	1.5	83	180/19	"	None	1.58	1.19	.068	.0465	NP	1.54	---	.066	.0434	NR	1.28	---	.090	.0585	R
6-19-64	4/928	920	1.5	83	180/19	"	None	.97	1.02	.072	.0418	NR	1.86	---	.062	.0537	NR	2.30	---	.066	.0648	NP
6-19-64	5/929	1059	1.5	86	190/17	⊕	None	1.19	1.07	.075	.0441	NR	1.60	---	.068	.0466	NP	1.91	---	.070	.0651	NR
6-19-64	6/930	1120	1.5	86	190/17	"	None	1.31	1.22	.077	.0417	NP	1.58	---	.074	.0438	NP	2.04	---	.088	.0690	P
6-19-64	7/931	1301	1.5	90	180/20	○	None	1.71	1.19	.067	.0452	NP	2.49	---	.064	.0554	P	3.15	---	.068	.0752	P
6-19-64	8/932	1320	1.5	90	180/20	"	None	1.35	1.16	.068	.0409	NR	1.64	---	.062	.0536	NR	2.25	---	.073	.0472	P
6-21-64	5/945	1100	1.5	88	200/15	⊕	None	1.42	1.22	.081	.0417	---	1.41	---	.067	.0506	NR	1.04	---	.075	.0431	NR
6-21-64	6/946	1119	1.5	88	200/15	"	None	1.34	1.08	.070	.0364	---	1.86	---	.059	.0526	NR	1.11	---	.080	.0369	NR
6-23-64	4/961	1301	1.5	80	340/10	"	None	1.53	1.17	.070	.0569	R	2.05	---	.066	.0546	NP	1.86	---	.071	.0462	NP
6-23-64	5/962	1320	1.5	80	340/10	"	None	2.06	.92	.067	.0531	NP	1.45	---	.078	.0472	NR	1.93	---	.065	.0497	NP
6-24-64	5/967	1100	1.5	85	320/3	○	None	1.63	1.09	.078	.0557	NP	1.78	---	.062	.0456	NP	1.42	---	.075	.0480	R
6-24-64	6/968	1119	1.5	85	320/3	"	None	1.35	.94	.077	.0502	NR	1.85	---	.064	.0542	NP	1.27	---	.070	.0462	N
6-24-64	7/969	1259	1.5	87	110/6	⊕	None	2.01	.94	.076	.0560	NP	1.89	---	.061	.0576	NP	1.94	---	.073	.0507	C
6-24-64	8/970	1319	1.5	87	110/6	"	None	3.15	1.18	.069	.0732	P	2.08	---	.070	.0441	P	----	---	-----	------	---
6-25-64	6/976	1300	1.5	89	050/12	○	None	2.00	1.15	.077	.0632	NP	1.29	---	.072	.0506	NR	1.09	---	.081	.0441	NR
6-25-64	7/977	1320	1.5	89	050/12	"	None	2.95	1.17	.068	.0572	P	2.36	---	.055	.0447	NP	2.08	---	.069	.0367	P
6-26-64	6/983	1259	1.5	89	080/7	⊕	None	----	----	-----	------	---	2.34	---	.060	.0577	NP	1.49	---	.092	.0694	C
6-26-64	7/984	1320	1.5	89	080/7	"	None	1.17	1.04	.074	.0553	R	2.94	---	.051	.0440	P	2.99	---	.050	.0558	P
6-27-64	7/991	1301	1.5	90	160/6	"	None	1.46	1.42	.083	.0620	NR	2.55	---	.060	.0538	P	1.62	---	.073	.0374	C
6-27-64	8/992	1320	1.5	90	160/6	"	None	1.79	1.32	.074	.0606	NR	.63	---	.086	.0308	R	1.20	---	.081	.0258	C
6-28-64	6/998	1300	1.5	92	120/10	"	None	1.22	1.34	.093	.0680	R	2.05	---	.064	.0508	NP	1.16	---	.087	.0487	R
6-28-64	7/999	1320	1.5	92	120/10	"	None	1.71	1.17	.074	.0537	NR	1.08	---	.081	.0314	C	.97	---	.086	.0400	R

TABLE XVI.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE RANGE OF 36,000 AND 37,000 FEET - Continued

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precipitation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
37,000 feet																					
6-30-64	7/1013	1300	1.5	94	200/12	Φ	None	1.98	---	0.071	0.0624	NP	1.66	---	0.062	0.0537	NR	1.21	---	0.072	0.0495	NR
6-30-64	8/1014	1320	1.5	94	200/12	"	None	1.29	---	.075	.0507	NR	1.24	---	.080	.0617	R	1.22	---	.087	.0400	NP
7- 1-64	7/1021	1300	1.5	75	140/15	Φ	None	.61	---	.186	.0422	---	.56	---	.108	.0351	---	.27	---	.043	.0518	---
7- 1-64	8/1022	1319	1.5	75	140/15	"	None	.45	---	.123	.0216	---	.21	---	.115	.0150	---	.15	---	.107	.0086	---
7- 2-64	6/1028	1120	1.5	87	150/5	O	None	1.66	---	.067	.0500	NR	1.42	---	.072	.0494	NR	2.43	---	.064	.0750	P
7- 2-64	7/1029	1300	1.5	93	130/6	Φ	None	1.21	---	.089	.0500	NR	2.04	---	.078	.0601	C	1.11	---	.091	.0415	C
7- 2-64	8/1030	1319	1.5	93	130/6	"	None	1.66	---	.083	.0478	NP	1.03	---	.065	.0454	R	.60	---	.113	.0397	R
7- 3-64	5/1035	1100	1.5	90	160/10	Φ	None	1.27	---	.087	.0610	NR	1.35	---	.084	.0595	NR	2.16	---	.080	.0513	P
7- 3-64	6/1036	1119	1.5	90	160/10	"	None	1.27	---	.080	.0649	NR	2.49	---	.069	.0580	P	1.19	---	.078	.0477	NR
7- 3-64	7/1037	1300	1.5	94	200/8	O	None	1.34	---	.080	.0571	NR	1.87	---	.082	.0505	---	1.77	---	.076	.0546	NP
7- 3-64	8/1038	1319	1.5	94	200/8	"	None	1.07	---	.086	.0515	NR	1.63	---	.080	.0511	C	1.50	---	.086	.0489	C
7- 4-64	5/1043	1100	1.5	94	190/12	"	None	----	---	-----	------	---	1.35	---	.070	.0515	NR	1.99	---	.079	.0604	NP
7- 4-64	6/1044	1119	1.5	94	190/12	"	None	1.73	---	.083	.0588	NP	2.09	---	.075	.0537	NP	1.47	---	.079	.0575	NR
7- 4-64	7/1045	1300	1.5	96	160/10	"	None	1.33	---	.079	.0691	R	1.41	---	.071	.0535	R	.49	---	.126	.0353	---
7- 4-64	8/1046	1319	1.5	96	160/10	"	None	1.76	---	.080	.0438	C	1.77	---	.078	.0533	C	.84	---	.083	.0372	R
7- 5-64	5/1051	1059	1.5	95	210/20	Φ	None	.96	---	.088	.0535	R	.99	---	.090	.0480	R	1.16	---	.083	.0462	R
7- 5-64	6/1052	1119	1.5	95	210/20	"	None	2.10	---	.070	.0500	NP	1.36	---	.070	.0474	NR	1.96	---	.078	.0698	C
7- 5-64	7/1053	1259	1.5	97	200/20	O	None	1.42	---	.081	.0584	NR	2.01	---	.067	.0626	NP	1.58	---	.085	.0606	C
7- 5-64	8/1054	1319	1.5	97	200/20	"	None	1.32	---	.086	.0474	C	1.60	---	.074	.0550	NP	1.18	---	.109	.0401	C
7- 6-64	7/1061	1300	1.5	98	200/16	"	None	1.16	---	.106	.0609	R	2.46	---	.072	.0713	P	.95	---	.084	.0478	R
7- 6-64	8/1062	1319	1.5	98	200/16	"	None	1.62	---	.085	.0558	C	1.98	---	.073	.0552	P	1.49	---	.093	.0567	NR
7- 7-64	5/1067	1059	1.5	97	230/15	"	None	1.73	---	.084	.0655	---	1.33	---	.078	.0502	NR	1.30	---	.087	.0427	NP
7- 7-64	7/1069	1302	1.5	101	230/15	"	None	1.15	---	.091	.0535	R	1.33	---	.082	.0568	NR	1.30	---	.103	.0545	C
7- 7-64	8/1070	1320	1.5	101	230/15	"	None	1.13	---	.083	.0565	R	1.46	---	.083	.0539	NR	1.38	---	.084	.0458	C
7- 8-64	7/1077	1300	1.5	101	270/11	Φ	None	1.98	---	.070	.0755	NR	1.35	---	.078	.0518	NR	1.60	---	.080	.0483	C
7- 8-64	8/1078	1320	1.5	101	270/11	"	None	1.48	---	.081	.0552	NR	.90	---	.090	.0427	R	2.18	---	.055	.0622	NP
7- 9-64	7/1085	1300	1.5	105	240/18	Φ	None	.97	---	.093	.0574	R	1.12	---	.080	.0476	R	.85	---	.110	.0508	R
7- 9-64	8/1086	1320	1.5	105	240/18	"	None	.90	---	.086	.0393	R	2.66	---	.077	.0548	P	2.75	---	.069	.0638	P
7-10-64	7/1093	1300	1.5	97	220/16	Φ	None	1.43	---	.078	.0478	N	1.46	---	.075	.0453	NR	.89	---	.084	.0401	NR
7-10-64	8/1094	1319	1.5	97	220/16	"	None	1.29	---	.080	.0572	NR	1.03	---	.080	.0523	NR	.92	---	.094	.0459	R

TABLE XVI.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE RANGE OF 36,000 AND 37,000 FEET - Concluded

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
37,000 feet																					
7-11-64	7/1101	1300	1.5	93	320/18	Φ	None	1.81	----	0.084	0.0536	NP	2.03	---	0.062	0.0557	NP	1.65	---	0.094	0.0487	C
7-11-64	8/1102	1319	1.5	93	320/18	"	None	1.41	----	.076	.0548	NR	1.98	---	.058	.0585	NP	1.10	---	.089	.0467	R
7-12-64	3/1105	859	1.5	77	350/13	"	None	1.34	----	.081	.0580	NR	1.37	---	.069	.0528	NR	1.19	---	.084	.0345	NP
7-12-64	4/1106	919	1.5	77	350/13	"	None	1.60	----	.078	.0557	NP	1.55	---	.067	.0395	NP	.93	---	.078	.0477	NR
7-12-64	5/1107	1059	1.5	80	020/10	"	None	1.64	----	.076	.0573	NR	1.00	---	.082	.0438	R	.84	---	.077	.0262	NR
7-12-64	6/1108	1119	1.5	80	020/10	"	None	1.06	----	.090	.0458	C	.74	---	.078	.0389	C	.91	---	.086	.0199	C
7-12-64	7/1109	1259	1.5	76	020/15	"	None	1.27	----	.075	.0551	NR	.87	---	.076	.0336	NR	.86	---	.092	.0372	C
7-12-64	8/1110	1319	1.5	76	020/15	"	None	1.15	----	.081	.0539	R	----	---	-----	------	---	1.03	---	.077	.0401	N
7-14-64	7/1125	1300	1.5	95	200/12	O	None	1.19	----	.088	.0459	NR	1.32	---	.076	.0592	R	1.14	---	.086	.0594	---
7-14-64	8/1126	1320	1.5	95	200/12	"	None	2.38	----	.071	.0629	P	1.56	---	.068	.0502	NR	.84	---	.090	.0338	R
7-15-64	7/1133	1300	1.5	97	180/18	Φ	None	3.34	----	.076	.0733	P	2.10	---	.061	.0517	C	2.19	---	.073	.0683	P
7-15-64	8/1134	1319	1.5	97	180/18	"	None	1.57	----	.072	.0547	NR	1.23	---	.073	.0599	R	1.16	---	.076	.0436	NR
7-16-64	7/1141	1300	1.5	94	200/12	Φ	None	2.01	----	.080	.0770	R	2.12	---	.084	.0569	P	1.56	---	.079	.0584	---
7-16-64	8/1142	1320	1.5	94	200/12	"	None	1.75	----	.075	.0526	---	2.92	---	.061	.0588	P	1.43	---	.076	.0539	---
7-17-64	7/1149	1259	1.5	92	170/12	"	None	1.85	----	.083	.0712	NP	2.15	---	.066	.0698	---	1.25	---	.088	.0431	R
7-17-64	8/1150	1319	1.5	92	170/12	"	None	1.03	----	.083	.0510	R	1.55	---	.072	.0535	NR	1.09	---	.088	.0517	R
7-18-64	7/1157	1259	1.5	91	180/10	"	None	1.40	----	.083	.0636	NR	1.56	---	.062	.0537	NR	1.59	---	.075	.0628	C
7-19-64	7/1165	1300	1.5	95	150/15	"	None	2.18	----	.086	.0674	P	1.54	---	.093	.0496	P	1.06	---	.125	.0354	C
7-19-64	8/1166	1319	1.5	95	150/15	"	None	1.10	----	.081	.0476	R	1.28	---	.088	.0469	C	1.61	---	.083	.0518	C
36,000 feet																					
6- 5-64	1/822	700	1.5	65	330/8	Φ	None	2.21	1.05	0.082	0.0768	NP	1.68	---	0.068	0.0632	NR	1.43	---	0.072	0.0606	NR
6- 5-64	2/823	720	1.5	65	330/8	"	None	1.66	1.05	.078	.0696	NR	1.29	---	.072	.0480	N	1.16	---	.078	.0456	NR
6- 7-64	5/840	1100	1.5	86	190/19	O	None	1.56	.61	.078	.0588	---	3.22	---	.080	.0494	P	2.49	---	.062	.0690	P
6- 7-64	6/841	1119	1.5	86	190/19	"	None	1.38	.67	.077	.0637	R	2.20	---	.058	.0462	NP	.73	---	.082	.0352	C
6- 7-64	7/842	1259	1.5	89	190/23	"	None	1.38	1.06	.084	.0608	NR	1.70	---	.078	.0557	NR	.87	---	.112	.0382	C
6- 7-64	8/843	1319	1.5	89	190/23	"	None	1.15	.99	.086	.0553	R	2.03	---	.064	.0606	NP	1.00	---	.080	.0481	---
6- 8-64	7/850	1258	1.5	88	160/20	"	None	.94	1.05	.078	.0415	R	1.67	---	.068	.0551	NP	2.42	---	.070	.0567	P
6- 8-64	8/851	1319	1.5	88	160/20	"	None	----	----	-----	------	---	1.47	---	.070	.0505	NR	1.37	---	.081	.0566	NR

TABLE XVII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE OF 35,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
6- 9-64	6/857	1119	1.5	87	200/22	○	None	1.18	0.99	0.063	0.0400	NR	1.20	---	0.076	0.0485	R	0.64	---	0.092	0.0389	R
6- 9-64	7/858	1259	1.5	91	200/17	"	None	.99	1.18	.071	.0509	R	2.32	---	.064	.0598	NP	1.07	---	.082	.0380	NR
6- 9-64	8/859	1319	1.5	91	200/17	"	None	1.27	1.06	.073	.0394	NR	1.50	---	.070	.0494	NP	1.45	---	.078	.0538	NR
6-10-64	8/867	1319	1.5	88	150/16	◑	None	1.26	.98	.072	.0405	NR	1.93	---	.077	.0478	NP	.93	---	.086	.0494	R
6-17-64	7/915	1300	1.5	88	200/15	"	None	1.81	1.12	.069	.0502	NP	2.79	---	.070	.0519	NP	1.26	---	.089	.0478	NR
6-17-64	8/916	1319	1.5	88	200/15	"	None	1.09	1.16	.074	.0487	R	1.81	---	.068	.0501	NR	.86	---	.078	.0351	R
6-18-64	5/921	1100	1.5	85	190/22	◑	None	1.01	.86	.076	.0401	R	1.64	---	.060	.0566	R	.60	---	.081	.0356	R
6-18-64	6/922	1119	1.5	85	190/22	"	None	1.17	.93	.070	.0419	NR	3.42	---	.050	.0469	P	1.01	---	.085	.0432	NR
6-18-64	7/923	1300	1.5	90	190/20	"	None	1.64	1.10	.072	.0522	NP	1.86	---	.070	.0521	NP	1.14	---	.078	.0396	---
6-18-64	8/924	1319	1.5	90	190/20	"	None	1.17	.86	.073	.0439	NR	.93	---	.084	.0402	R	.78	---	.090	.0351	NR
6-19-64	1/925	700	1.5	77	180/15	○	None	1.28	1.05	.072	.0407	NR	1.25	---	.074	.0530	NR	1.19	---	.080	.0498	R
6-20-64	3/935	859	1.5	82	190/20	◑	None	1.56	1.08	.077	.0444	NP	1.93	---	.063	.0529	NP	.74	---	.099	.0379	R
6-20-64	4/936	919	1.5	82	190/20	"	None	1.73	1.13	.060	.0394	NP	1.25	---	.070	.0400	NR	1.86	---	.061	.0502	NP
6-20-64	5/937	1100	1.5	88	190/22	"	None	2.07	1.62	.066	.0548	NP	2.27	---	.061	.0642	NP	.60	---	.088	.0244	R
6-20-64	6/938	1120	1.5	88	190/22	"	None	1.51	1.32	.075	.0439	NP	2.01	---	.051	.0557	---	.49	---	.093	.0271	R
6-20-64	7/939	1300	1.5	92	210/16	"	None	2.19	1.59	.062	.0538	NP	1.49	---	.066	.0503	NR	1.68	---	.072	.0557	C
6-20-64	8/940	1320	1.5	92	210/16	"	None	1.22	1.35	.076	.0500	NR	1.64	---	.072	.0517	NP	2.95	---	.069	.0570	P
6-21-64	3/943	900	1.5	83	190/14	◑	None	1.92	1.28	.063	.0514	NP	1.95	---	.080	.0471	NP	.63	---	.090	.0301	R
6-21-64	4/944	919	1.5	83	190/14	"	None	1.71	1.16	.064	.0448	NR	1.15	---	.076	.0437	R	.85	---	.080	.0375	R
6-21-64	7/947	1300	1.5	93	200/14	◑	None	1.34	1.31	.072	.0538	R	3.05	---	.064	.0625	P	1.47	---	.078	.0556	---
6-21-64	8/948	1319	1.5	93	200/14	"	None	1.47	1.37	.079	.0545	NR	3.40	---	.066	.0652	P	.95	---	.093	.0481	R
6-22-64	3/951	900	1.5	84	190/16	"	None	1.63	.96	.067	.0450	NR	2.27	---	.062	.0566	NP	1.02	---	.081	.0344	NP
6-23-64	2/959	1100	1.5	71	340/8	⊕	None	1.26	1.05	.072	.0573	R	1.41	---	.070	.0558	C	1.59	---	.069	.0407	NP
6-23-64	3/960	1119	1.5	71	340/8	"	None	2.11	1.01	.070	.0575	NR	2.16	---	.055	.0512	NP	.92	---	.082	.0451	R
6-24-64	3/965	900	1.5	81	320/8	○	None	1.59	1.02	.080	.0620	NR	1.89	---	.070	.0535	NP	2.87	---	.074	.0578	P
6-24-64	4/966	920	1.5	81	320/8	"	None	1.70	1.01	.075	.0598	NR	1.33	---	.068	.0493	NR	2.37	---	.067	.0549	P
6-25-64	3/973	900	1.5	82	310/5	"	None	1.53	1.23	.072	.0652	NR	1.23	---	.075	.0501	R	2.68	---	.074	.0536	P
6-25-64	4/974	920	1.5	82	310/5	"	None	1.79	1.17	.069	.0616	NR	1.61	---	.063	.0521	NR	1.49	---	.077	.0613	NR
6-25-64	5/975	1100	1.5	86	360/6	◑	None	1.43	.97	.080	.0533	NR	1.44	---	.074	.0544	R	1.38	---	.071	.0512	R
6-26-64	3/980	919	1.5	81	200/5	○	None	1.69	1.13	.069	.0626	NR	1.91	---	.062	.0603	N	1.59	---	.073	.0580	NR
6-26-64	4/981	1100	1.5	87	180/4	◑	None	1.93	1.41	.076	.0645	NR	2.13	---	.071	.0521	NP	1.29	---	.082	.0511	R
6-26-64	5/982	1118	1.5	87	180/4	"	None	2.04	1.38	.069	.0674	NP	1.46	---	.074	.0544	NR	3.00	---	.068	.0698	P

TABLE XVII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE OF 35,000 FEET - Continued

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
6-27-64	3/987	900	1.5	83	200/8	O	None	1.93	1.18	0.070	0.0666	NR	1.41	---	0.070	0.0460	NR	1.30	---	0.074	0.0576	R
6-27-64	4/988	919	1.5	83	200/8	"	None	1.60	1.21	.069	.0586	NR	1.77	---	.066	.0508	N	1.44	---	.080	.0545	N
6-27-64	5/989	1101	1.5	88	310/5	"	None	1.27	1.07	.087	.0567	R	2.23	---	.070	.0636	NP	1.69	---	.090	.0575	NP
6-27-64	6/990	1121	1.5	88	310/5	"	None	1.76	1.30	.075	.0668	C	1.80	---	.068	.0529	---	1.35	---	.099	.0477	C
6-28-64	3/995	859	1.5	81	160/6	"	None	1.69	1.23	.070	.0588	NR	1.51	---	.066	.0445	NR	1.85	---	.071	.0506	NP
6-28-64	4/996	920	1.5	81	160/6	"	None	1.50	1.18	.075	.0630	NR	1.90	---	.062	.0550	N	1.32	---	.077	.0333	NR
6-28-64	5/997	1122	1.5	88	170/11	"	None	1.48	1.14	.086	.0588	NR	1.71	---	.063	.0499	NR	1.18	---	.100	.0419	C
6-29-64	7/1006	1259	1.5	91	160/8	◐	None	1.69	----	.079	.0607	C	1.05	---	.090	.0425	NR	1.10	---	.096	.0525	R
6-30-64	3/1009	900	1.5	82	210/10	O	None	2.14	----	.068	.0632	NP	1.68	---	.077	.0535	N	1.33	---	.075	.0427	NR
6-30-64	4/1010	921	1.5	82	210/10	"	None	1.63	----	.076	.0613	NR	2.20	---	.070	.0641	NP	1.31	---	.074	.0455	NP
6-30-64	5/1011	1100	1.5	88	220/10	◐	None	1.89	----	.077	.0639	NP	1.22	---	.076	.0497	R	2.18	---	.069	.0557	NP
6-30-64	6/1012	1119	1.5	88	220/10	"	None	1.91	----	.070	.0560	NP	1.33	---	.075	.0456	NR	1.76	---	.077	.0459	NP
7- 1-64	3/1017	900	1.5	78	200/10	"	None	1.22	----	.082	.0542	R	2.13	---	.069	.0559	NP	.81	---	.077	.0305	NR
7- 1-64	5/1019	1100	1.5	81	180/10	◐	None	2.16	----	.066	.0594	NP	1.18	---	.088	.0417	NR	1.48	---	-----	------	C
7- 1-64	6/1020	1119	1.5	81	180/10	"	None	.88	----	.089	.0470	---	.69	---	.097	.0385	R	.55	---	.091	.0286	---
7- 2-64	3/1025	900	1.5	82	140/5	◐	None	1.44	----	.073	.0543	NR	2.00	---	.062	.0560	NP	1.68	---	.085	.0571	NP
7- 2-64	4/1026	920	1.5	82	140/5	"	None	1.66	----	.072	.0531	NR	3.03	---	.074	.0541	P	2.45	---	.077	.0655	P
7- 2-64	5/1027	1100	1.5	87	150/5	O	None	2.50	----	.074	.0661	NP	1.70	---	.072	.0540	NR	1.95	---	.070	.0523	P
7- 3-64	3/1033	900	1.5	83	190/5	◐	None	1.45	----	.076	.0714	N	1.78	---	.070	.0651	NR	.94	---	.088	.0443	R
7- 3-64	4/1034	919	1.5	83	190/5	"	None	1.23	----	.078	.0529	N	1.42	---	.078	.0443	NR	1.35	---	.074	.0482	NR
7- 4-64	3/1041	900	1.5	88	190/12	O	None	1.35	----	.081	.0594	NR	1.54	---	.079	.0605	NR	1.65	---	.077	.0566	NP
7- 4-64	4/1042	920	1.5	88	190/12	"	None	1.17	----	.082	.0623	NR	1.43	---	.066	.0481	NR	1.96	---	.072	.0529	NP
7- 5-64	3/1049	900	1.5	89	220/20	◐	None	1.46	----	.087	.0581	NR	1.73	---	.068	.0540	NP	1.60	---	.079	.0588	NP
7- 5-64	4/1050	920	1.5	89	220/20	"	None	1.37	----	.082	.0565	NR	1.36	---	.070	.0541	NR	1.57	---	.070	.0438	NP
7- 6-64	3/1057	903	1.5	88	220/20	O	None	1.07	----	.082	.0541	R	1.09	---	.078	.0511	R	2.00	---	.077	.0635	P
7- 6-64	5/1059	1100	1.5	95	240/18	"	None	1.39	----	.078	.0578	NR	1.22	---	.082	.0478	R	1.54	---	.080	.0580	NP
7- 6-64	6/1060	1119	1.5	95	240/18	"	None	.95	----	.089	.0502	R	.94	---	.076	.0428	R	.95	---	.095	.0427	C
7- 7-64	4/1066	919	1.5	91	230/17	"	None	2.04	----	.070	.0659	N	1.09	---	.085	.0585	R	.91	---	.094	.0481	R
7- 7-64	6/1068	1120	1.5	97	230/15	"	None	2.19	----	.070	.0599	P	1.87	---	.061	.0621	NR	1.68	---	.071	.0553	N
7- 8-64	5/1075	1100	1.5	95	240/16	◐	None	1.83	----	.065	.0634	NR	2.52	---	.062	.0506	NP	1.02	---	.085	.0393	R
7- 8-64	6/1076	1120	1.5	95	240/16	"	None	1.60	----	.074	.0610	NR	2.07	---	.068	.0484	NP	1.04	---	.088	.0339	C
7- 9-64	3/1081	900	1.5	91	230/20	◐	None	1.42	----	.067	.0538	NR	2.23	---	.078	.0558	NP	.76	---	.097	.0450	NR
7- 9-64	4/1082	919	1.5	91	230/20	"	None	1.54	----	.078	.0601	NR	1.68	---	.062	.0554	N	3.00	---	.071	.0651	P
7- 9-64	5/1083	1059	1.5	100	240/18	◐	None	1.89	----	.079	.0631	NP	1.14	---	.085	.0533	R	1.05	---	.096	.0437	C
7- 9-64	6/1084	1119	1.5	100	240/18	"	None	1.70	----	.076	.0534	NP	1.89	---	.073	.0587	NP	1.36	---	.090	.0532	---

TABLE XVII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE OF 35,000 FEET - Concluded

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
7-10-64	3/1089	859	1.5	88	190/10	⊕	None	2.24	---	0.070	0.0615	P	1.48	---	0.071	0.0476	NR	0.85	---	0.094	0.0432	NR
7-10-64	5/1091	1100	1.5	92	220/16	"	None	1.67	---	------	------	---	1.50	---	.068	.0543	NR	1.98	---	.075	.0574	P
7-10-64	6/1092	1120	1.5	92	220/16	"	None	1.33	---	.077	.0478	N	1.05	---	.076	.0466	R	3.01	---	.064	.0582	P
7-11-64	3/1097	900	1.5	87	250/13	"	None	1.86	---	.080	.0713	NP	.85	---	.086	.0345	C	.61	---	.086	.0184	C
7-11-64	4/1098	919	1.5	87	250/13	"	None	.93	---	.086	.0345	R	.81	---	.076	.0285	C	.17	---	.120	.0124	---
7-11-64	5/1099	1059	1.5	91	310/20	"	None	1.41	---	.074	.0571	NR	1.68	---	.069	.0551	N	1.71	---	.069	.0529	NR
7-11-64	6/1100	1119	1.5	91	310/20	"	None	1.36	---	.078	.0478	N	1.31	---	.068	.0501	NR	1.17	---	.081	.0451	NR
7-13-64	3/1113	900	1.5	73	310/6	○	None	1.75	---	.079	.0606	NR	1.52	---	.080	.0509	NR	.87	---	.096	.0449	R
7-13-64	4/1114	920	1.5	73	310/6	"	None	2.02	---	.069	.0595	NP	1.87	---	.065	.0601	NR	1.87	---	.067	.0585	NP
7-13-64	5/1115	1100	1.5	79	020/8	"	None	1.52	---	.075	.0635	NR	1.96	---	.065	.0586	---	1.00	---	.088	.0532	R
7-13-64	6/1116	1119	1.5	79	020/8	"	None	1.10	---	.083	.0478	R	2.09	---	.068	.0516	P	1.67	---	.068	.0618	C
7-13-64	7/1117	1300	1.5	83	020/7	◑	None	2.48	---	.066	.0632	P	1.63	---	.071	.0481	---	1.58	---	.077	.0590	C
7-13-64	8/1118	1319	1.5	83	020/7	"	None	2.07	---	.075	.0676	NR	.89	---	.087	.0427	R	1.40	---	.070	.0540	C
7-14-64	3/1121	900	1.5	79	180/12	⊕	None	1.60	---	.077	.0587	N	1.77	---	.068	.0585	NP	1.13	---	.083	.0550	R
7-14-64	4/1122	919	1.5	79	180/12	"	None	1.51	---	.074	.0608	NR	1.36	---	.073	.0577	NR	1.65	---	.075	.0493	NP
7-14-64	5/1123	1100	1.5	88	190/15	"	None	1.32	---	------	------	---	1.80	---	.065	.0577	NR	3.25	---	.076	.0631	P
7-14-64	6/1124	1119	1.5	88	190/15	"	None	2.79	---	.066	.0556	P	1.47	---	.081	.0591	R	1.97	---	.074	.0661	NR
7-15-64	3/1129	900	1.5	86	200/18	◑	None	2.10	---	.072	.0667	NP	1.88	---	.074	.0660	NR	3.31	---	.075	.0675	P
7-15-64	4/1130	919	1.5	86	200/18	"	None	1.14	---	.092	.0593	R	1.77	---	.076	.0547	NP	1.39	---	.076	.0556	NR
7-15-64	5/1131	1059	1.5	92	200/18	○	None	2.72	---	.070	.0611	P	1.93	---	.067	.0660	R	1.65	---	.084	.0584	C
7-15-64	6/1132	1119	1.5	92	200/18	"	None	2.62	---	.075	.0727	P	2.23	---	.059	.0515	P	1.08	---	.104	.0589	R
7-16-64	3/1137	900	1.5	81	180/10	◑	None	1.75	---	.074	.0604	NR	1.02	---	.086	.0589	NR	1.22	---	.088	.0496	NR
7-16-64	4/1138	919	1.5	81	180/10	"	None	1.91	---	.082	.0706	NR	2.05	---	.062	.0520	NP	.99	---	.088	.0491	R
7-16-64	5/1139	1100	1.5	93	210/18	"	None	1.59	---	.075	.0665	NR	2.18	---	.070	.0478	P	.80	---	.092	.0418	R
7-16-64	6/1140	1119	1.5	93	210/18	"	None	2.43	---	.080	.0655	P	1.43	---	.087	.0491	P	.81	---	.104	.0371	NR
7-17-64	3/1145	859	1.5	85	210/12	⊕	None	1.32	---	.079	.0556	NR	1.48	---	.083	.0531	NR	2.02	---	.082	.0589	P
7-17-64	4/1146	919	1.5	85	210/12	"	None	1.78	---	.084	.0524	N	1.53	---	.084	.0508	NP	1.02	---	.100	.0464	R
7-17-64	5/1147	1100	1.5	91	180/8	◑	None	1.28	---	.081	.0629	NR	1.57	---	.067	.0543	NR	1.75	---	.074	.0447	NP
7-17-64	6/1148	1119	1.5	91	180/8	"	None	2.42	---	.073	.0743	P	.95	---	.094	.0446	R	2.04	---	.075	.0548	C
7-18-64	3/1153	900	1.5	84	190/10	"	None	1.38	---	.081	.0561	NR	2.90	---	.064	.0570	P	1.56	---	.080	.0679	NR
7-18-64	5/1155	1059	1.5	90	180/10	"	None	2.46	---	.070	.0688	NP	1.60	---	.076	.0718	C	1.10	---	.104	.0563	R
7-19-64	3/1161	900	1.5	88	230/15	○	None	2.07	---	.068	.0616	NP	1.84	---	.081	.0477	P	1.47	---	.087	.0599	NR
7-19-64	5/1163	1059	1.5	93	170/12	◑	None	3.15	---	.072	.0709	P	1.28	---	.090	.0379	NP	.87	---	.093	.0405	---
7-19-64	6/1164	1119	1.5	93	170/12	"	None	.58	---	.109	.0363	R	.63	---	.124	.0393	R	.69	---	.111	.0387	R
7-20-64	3/1169	859	1.5	84	200/15	○	None	1.67	---	.075	.0631	NR	1.74	---	.082	.0626	NP	2.70	---	.078	.0604	P
7-20-64	4/1170	919	1.5	84	200/15	"	None	1.16	---	.091	.0552	NR	1.59	---	.081	.0578	NR	.69	---	.109	.0468	R
7-26-64	5/1219	1059	1.5	97	110/7	"	None	1.09	---	.080	.0337	NR	1.08	---	.088	.0308	R	.95	---	.091	.0486	R
7-26-64	6/1220	1119	1.5	97	110/7	"	None	1.40	---	.064	.0343	NP	2.86	---	.073	.0630	P	1.26	---	.082	.0530	NR

TABLE XVIII.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE OF 34,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
4-11-64	1/439	700	1.4	54	160/20	⊘	None	1.84	1.43	0.064	0.0522	NR	1.21	---	0.077	0.0410	NR	1.01	---	0.081	0.0459	R
4-11-64	2/440	721	1.4	54	160/20	"	None	2.26	1.38	.069	.0511	NP	1.21	---	.076	.0548	R	1.01	---	.079	.0416	R
4-11-64	3/441	920	1.4	58	180/18	⊘	None	1.51	.86	.077	.0349	C	.93	---	.082	.0467	R	1.19	---	.065	.0397	---
6- 5-64	3/824	859	1.6	64	330/12	⊕	None	1.24	.83	.076	.0491	NR	1.61	---	.062	.0491	N	1.25	---	.072	.0387	NR
6- 5-64	4/825	920	1.6	64	330/12	"	None	----	----	-----	------	---	1.20	---	.069	.0490	NR	.77	---	.089	.0365	R
6- 5-64	5/826	1059	1.5	65	330/12	"	None	1.79	1.10	.081	.0755	NR	1.61	---	.065	.0548	NR	1.38	---	.067	.0459	NR
6- 5-64	6/827	1259	1.5	70	320/10	"	None	1.75	1.02	.087	.0682	NP	1.83	---	.067	.0608	NR	1.99	---	.073	.0494	P
6- 6-64	5/832	1059	1.5	75	140/7	⊘	None	1.96	1.39	.077	.0659	NP	2.19	---	.062	.0628	N	1.55	---	.070	.0529	P
6- 6-64	6/833	1120	1.5	75	140/7	"	None	1.42	1.31	.076	.0596	R	2.30	---	.069	.0627	NP	2.14	---	.072	.0592	P
6- 7-64	1/836	700	1.5	72	160/17	⊘	None	1.86	1.18	.078	.0605	---	1.22	---	.071	.0453	NR	1.36	---	.078	.0481	NR
6- 7-64	2/837	720	1.5	72	160/17	"	None	1.43	1.24	.080	.0528	---	1.48	---	.068	.0580	NR	1.45	---	.076	.0439	NP
6- 7-64	3/838	858	1.5	81	180/17	○	None	1.45	1.12	.083	.0587	NR	1.87	---	.063	.0551	NP	----	---	-----	------	---
6- 7-64	4/839	919	1.5	81	180/17	"	None	2.67	.85	.076	.0608	P	2.53	---	.066	.0647	P	2.49	---	.064	.0400	P
6- 8-64	1/844	659	1.5	73	180/18	○	None	1.62	----	.080	.0613	---	.83	---	.092	.0419	R	----	---	-----	------	---
6- 8-64	2/845	720	1.5	73	180/18	"	None	1.60	----	.066	.0454	NR	1.28	---	.076	.0535	NR	1.25	---	.078	.0406	NR
6- 8-64	3/846	859	1.5	78	180/18	"	None	2.74	1.20	.073	.0610	P	2.20	---	.064	.0568	P	1.20	---	.086	.0419	NR
6- 8-64	4/847	917	1.5	78	180/18	"	None	1.46	1.01	.076	.0489	NR	1.99	---	.066	.0618	NP	2.59	---	-----	------	P
6- 8-64	5/848	1101	1.5	84	160/20	"	None	1.21	1.15	.085	.0586	R	2.84	---	.062	.0633	P	1.02	---	.126	.0465	C
6- 8-64	6/849	1119	1.5	84	160/20	"	None	1.00	.95	.073	.0477	R	1.54	---	.066	.0523	NR	1.69	---	.077	.0471	C

TABLE XIX.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE RANGE FROM 28,000 TO 33,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
33,000 feet																					
4-10-64	7/437	1259	1.4	73	180/16	○	None	1.47	1.05	0.078	0.0591	R	2.19	---	0.070	0.0627	N	2.61	---	0.052	0.0600	P
4-10-64	8/438	1320	1.4	73	180/16	"	None	1.63	1.04	.060	.0533	R	2.00	---	.067	.0646	NP	.73	---	.092	.0403	R
6- 9-64	1/852	700	1.5	77	190/20	◑	None	1.27	.95	.072	.0488	R	1.45	---	.066	.0482	NR	.90	---	.087	.0482	R
6- 9-64	2/853	718	1.5	77	190/20	"	None	1.45	.83	.069	.0446	R	1.62	---	.066	.0547	C	.74	---	.081	.0362	R
6- 9-64	3/854	901	1.5	82	200/25	"	None	1.10	.91	.077	.0387	R	.95	---	.078	.0395	R	1.16	---	.064	.0369	R
6- 9-64	4/855	920	1.5	82	200/25	"	None	.83	.84	.083	.0391	R	1.96	---	.070	.0583	NR	1.71	---	.077	.0334	P
6- 9-64	5/856	1059	1.5	87	200/22	○	None	1.82	1.24	.064	.0608	NP	2.78	---	.054	.0551	P	1.12	---	.090	.0404	---
6-10-64	1/860	659	1.5	76	170/11	◑	None	1.82	1.27	.070	.0526	NP	1.72	---	.080	.0538	NR	1.06	---	.078	.0384	N
6-10-64	3/862	859	1.5	82	160/15	◍	None	1.71	1.13	.062	.0453	NP	1.74	---	.080	.0525	NP	1.99	---	.073	.0396	P
6-10-64	4/863	919	1.5	82	160/15	"	None	1.76	1.16	.066	.0536	NP	1.33	---	.075	.0559	NR	.94	---	.093	.0560	R
6-10-64	5/864	1100	1.5	87	160/12	"	None	1.19	.98	.072	.0457	NR	2.36	---	.060	.0570	NP	2.02	---	.072	.0476	P
6-10-64	6/865	1119	1.5	87	160/12	"	None	.99	.90	.081	.0464	NR	1.40	---	.075	.0501	NR	3.14	---	.066	.0633	P
6-10-64	7/866	1300	1.5	88	150/16	"	None	1.35	1.19	.073	.0507	NR	2.30	---	.071	.0554	P	1.10	---	.094	.0553	NR
6-11-64	1/868	859	1.5	73	130/13	⊕	None	2.21	1.37	.064	.0545	P	3.18	---	.060	.0700	P	1.45	---	.076	.0505	C
6-11-64	2/869	919	1.5	73	130/13	"	None	1.37	----	.055	.0330	NR	2.03	---	.064	.0520	NP	1.35	---	.085	.0455	---
6-11-64	3/870	1059	1.5	83	160/15	"	None	-----	-----	-----	------	---	1.38	---	.083	.0539	R	.62	---	.109	.0490	R
6-11-64	4/871	1120	1.5	83	160/15	"	None	1.04	.95	.074	.0373	R	1.38	---	.066	.0364	R	1.16	---	.089	.0376	C
6-11-64	5/872	1300	1.5	82	180/12	"	None	1.04	1.07	.077	.0449	NR	1.38	---	.080	.0429	NR	.66	---	.099	.0348	R
6-11-64	6/873	1319	1.5	82	180/12	"	None	1.35	.73	.072	.0204	NP	1.93	---	.066	.0587	NP	1.90	---	.072	.0593	P
6-12-64	3/876	859	1.5	78	200/15	"	None	1.51	1.12	.069	.0421	NR	2.10	---	.058	.0520	NP	1.16	---	.084	.0532	---
6-12-64	4/877	919	1.5	78	200/15	"	None	1.56	1.08	.066	.0460	NP	1.58	---	.071	.0561	NR	2.33	---	.085	.0467	P
6-12-64	6/879	1301	1.5	80	220/13	"	None	1.11	1.08	.065	.0481	---	1.38	---	.070	.0569	R	1.04	---	.088	.0562	R
6-12-64	7/880	1320	1.5	80	220/13	"	None	2.18	1.28	.067	.0576	NP	1.49	---	.069	.0567	---	2.50	---	.078	.0622	P
6-13-64	1/881	658	1.5	77	180/11	"	None	1.42	1.08	.071	.0475	NR	1.38	---	.064	.0556	NR	1.10	---	.076	.0484	NR
6-13-64	3/883	859	1.5	79	200/17	"	None	1.69	1.70	.064	.0567	NR	1.23	---	.070	.0515	NR	1.19	---	.071	.0499	R
6-13-64	4/884	919	1.5	79	200/17	"	None	1.67	1.19	.067	.0468	NR	1.69	---	.068	.0647	NR	1.52	---	.071	.0526	NR
6-13-64	5/885	1259	1.5	74	130/8	"	None	1.31	1.02	.075	.0440	NR	1.69	---	.068	.0575	NR	1.15	---	.086	.0443	NR
6-14-64	1/887	701	1.5	73	110/9	◑	None	1.24	1.08	.067	.0422	NR	1.81	---	.063	.0485	NP	1.14	---	.075	.0447	NR
6-14-64	2/888	719	1.5	73	110/9	"	None	1.31	1.09	.069	.0468	NR	1.55	---	.069	.0510	NR	.90	---	.077	.0411	NR
6-14-64	3/889	859	1.5	81	190/15	◑	None	1.22	.95	.070	.0504	NR	1.63	---	.073	.0578	NR	2.67	---	.079	.0420	P
6-14-64	4/890	919	1.5	81	190/15	"	None	1.50	1.09	.062	.0483	NR	2.16	---	.063	.0516	NP	2.02	---	.073	.0496	P
6-14-64	5/891	1100	1.5	84	230/17	◍	None	1.15	1.14	.066	.0473	NR	1.76	---	.064	.0650	NR	1.14	---	.092	.0502	NP
6-14-64	6/892	1118	1.5	84	230/17	"	None	1.92	1.09	.058	.0444	NP	1.18	---	.072	.0526	R	3.05	---	.064	.0639	P
6-14-64	7/893	1300	1.5	86	190/15	"	None	.92	-----	-----	-------	---	2.16	---	.073	.0715	P	1.60	---	.075	.0450	C
6-14-64	8/894	1319	1.5	86	190/15	"	None	1.22	----	-----	-------	---	2.29	---	.062	.0597	P	2.15	---	.072	.0592	NP

TABLE XIX.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE RANGE FROM 28,000 TO 33,000 FEET - Continued

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precipitation	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_1, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
33,000 feet																					
6-15-64	1/895	700	1.5	76	210/11	⊕	None	1.43	1.08	0.068	0.0447	NP	4.42	---	-----	------	P	2.04	---	0.066	0.0507	P
6-15-64	2/896	719	1.5	76	210/11	"	None	1.34	1.00	.067	.0404	NP	1.52	---	0.069	0.0601	NR	1.51	---	.068	.0531	N
6-15-64	3/897	900	1.5	81	260/8	"	None	1.32	1.15	.068	.0506	NR	1.85	---	.074	.0456	NP	1.35	---	.077	.0590	NR
6-15-64	4/898	919	1.5	81	260/8	"	None	1.32	1.07	.067	.0414	NR	2.42	---	.060	.0574	NP	1.20	---	.079	.0559	R
6-16-64	3/905	901	1.5	74	140/9	⊕	-L	1.73	1.18	.068	.0479	NP	1.53	---	.073	.0476	NR	1.41	---	.063	.0418	NP
6-16-64	4/906	919	1.5	74	140/9	"	-L	1.30	1.05	.071	.0434	NR	1.17	---	.076	.0505	R	1.21	---	.072	.0477	NR
6-16-64	5/907	1100	1.5	74	150/10	"	None	1.46	1.15	.069	.0518	NR	1.57	---	.070	.0446	NR	2.59	---	.064	.0705	P
6-16-64	6/908	1300	1.5	79	140/13	"	None	1.42	1.05	.074	.0482	NR	1.55	---	.064	.0571	NR	1.62	---	.072	.0566	C
6-17-64	1/909	700	1.5	73	200/10	"	-L	1.18	1.09	.070	.0497	NR	2.08	---	.071	.0470	P	1.13	---	.081	.0475	R
6-17-64	2/910	719	1.5	73	200/10	"	-L	1.69	1.01	.069	.0493	NP	1.20	---	.085	.0477	NR	.94	---	.083	.0327	NR
6-17-64	3/911	859	1.5	75	200/15	"	None	1.07	1.04	.071	.0458	R	1.72	---	.065	.0498	NP	1.40	---	.077	.0451	---
6-17-64	4/912	919	1.5	75	200/15	"	None	1.27	1.04	.074	.0430	NR	1.44	---	.069	.0508	N	.69	---	.070	.0293	R
6-17-64	5/913	1100	1.5	84	200/15	"	None	1.30	1.09	.075	.0486	NR	2.66	---	.052	.0480	P	.89	---	.077	.0393	NR
6-17-64	6/914	1120	1.5	84	200/15	"	None	.93	1.04	.078	.0351	R	.92	---	.086	.0473	R	1.45	---	.079	.0542	NP
6-18-64	1/917	700	1.5	77	180/20	◐	None	1.20	.89	-----	------	---	1.12	---	.076	.0526	R	2.56	---	.077	.0538	P
6-18-64	2/918	720	1.5	77	180/20	"	None	1.39	1.08	-----	------	---	1.21	---	.072	.0475	R	1.28	---	.069	.0442	NR
6-18-64	3/919	900	1.5	81	190/23	"	None	1.24	1.03	-----	------	NR	1.15	---	.070	.0458	NR	1.04	---	.081	.0404	C
6-18-64	4/920	919	1.5	81	190/23	"	None	1.15	.99	-----	------	NR	1.69	---	.066	.0558	R	2.68	---	.069	.0480	P
6-20-64	1/933	700	1.5	79	200/20	"	None	1.46	1.17	.079	.0514	NP	1.67	---	.068	.0636	NR	2.00	---	.072	.0397	P
6-20-64	2/934	720	1.5	79	200/20	"	None	1.27	1.20	.076	.0490	NR	1.95	---	.063	.0541	NP	.81	---	.077	.0378	NR
6-21-64	1/941	700	1.5	79	200/15	⊕	None	1.82	1.28	.065	.0543	NP	1.25	---	.082	.0502	NR	.77	---	.080	.0351	NR
6-21-64	2/942	719	1.5	79	200/15	"	None	2.25	1.36	.074	.0586	NP	1.51	---	.066	.0526	NR	1.04	---	.079	.0458	---
6-22-64	1/949	659	1.5	80	180/15	◐	None	1.63	1.11	.069	.0518	NR	1.56	---	.065	.0494	NR	1.04	---	.072	.0496	R
6-22-64	2/950	719	1.5	80	180/15	"	None	1.39	.95	.068	.0485	NR	1.32	---	.078	.0475	NR	.81	---	.087	.0427	R
6-23-64	1/958	721	1.5	67	360/6	⊕	None	1.94	1.09	.079	.0581	C	1.08	---	.084	.0371	C	1.41	---	.073	.0480	NR
6-24-64	1/963	659	1.5	68	360/6	○	None	1.70	1.23	.075	.0646	NR	1.59	---	.069	.0553	NR	1.87	---	.076	.0500	NP
6-24-64	2/964	719	1.5	68	360/6	"	None	1.52	1.04	.074	.0581	NR	1.65	---	.070	.0578	NR	1.39	---	.073	.0537	NR
6-25-64	1/971	659	1.5	74	010/5	"	None	1.88	1.17	.077	.0684	NR	1.53	---	.065	.0544	NR	1.46	---	.072	.0547	NR
6-25-64	2/972	720	1.5	74	010/5	"	None	2.03	1.10	.068	.0645	NR	1.76	---	.062	.0567	N	1.59	---	.068	.0519	N
6-26-64	1/978	700	1.5	72	120/4	"	None	1.88	1.35	.072	.0665	NR	1.65	---	.066	.0547	NR	1.54	---	.072	.0494	N
6-26-64	2/979	720	1.5	72	120/4	"	None	2.07	1.40	.068	.0659	NR	1.74	---	.064	.0537	NR	1.54	---	.072	.0476	NR

TABLE XIX.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE RANGE FROM 28,000 TO 33,000 FEET - Continued

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
33,000 feet																					
6-27-64	1/985	700	1.5	73	210/7	O	None	1.95	1.58	0.072	0.0706	NR	1.82	---	0.067	0.0549	NP	1.00	---	0.079	0.0434	R
6-27-64	2/986	720	1.5	73	210/7	"	None	1.64	1.28	.073	.0650	NR	1.51	---	.080	.0494	N	.98	---	.082	.0475	R
6-28-64	1/993	700	1.5	74	120/6	"	None	1.86	1.32	.080	.0624	NR	1.30	---	.069	.0467	NR	1.00	---	.084	.0369	NR
6-28-64	2/994	720	1.5	74	120/6	"	None	1.79	1.20	.077	.0605	NR	1.67	---	.071	.0559	N	1.65	---	.069	.0590	N
6-29-64	1/1000	700	1.5	72	160/7	"	None	1.39	1.22	.077	.0571	NR	1.40	---	.074	.0609	NR	1.59	---	.080	.0534	N
6-29-64	2/1001	720	1.5	72	160/7	"	None	1.53	1.28	.079	.0598	NR	1.85	---	.067	.0576	NR	2.60	---	.078	.0672	P
6-29-64	3/1002	859	1.5	83	200/3	◑	None	1.67	----	.075	.0682	NR	1.44	---	.070	.0498	NR	1.64	---	.077	.0631	N
6-29-64	4/1003	919	1.5	83	200/3	"	None	1.69	----	.079	.0704	NR	1.85	---	.066	.0528	NR	2.07	---	.071	.0661	P
6-29-64	5/1004	1100	1.5	90	200/9	◑	None	1.67	----	.079	.0574	NR	.86	---	.108	.0394	R	.95	---	.096	.0413	C
6-29-64	6/1005	1120	1.5	90	200/9	"	None	2.20	----	.067	.0755	C	1.81	---	.078	.0596	NP	1.60	---	.072	.0626	C
6-30-64	1/1007	659	1.5	74	160/8	"	None	1.91	----	.076	.0643	N	2.22	---	.067	.0580	NP	1.90	---	.070	.0530	N
6-30-64	2/1008	720	1.5	74	160/8	"	None	1.59	----	.069	.0634	NR	1.94	---	.063	.0572	NP	----	---	-----	------	---
7- 1-64	1/1015	700	1.5	76	200/8	◑	None	1.04	----	.092	.0488	---	1.83	---	.060	.0516	NR	1.86	---	.080	.0564	C
7- 1-64	2/1016	720	1.5	76	200/8	"	None	1.62	----	.077	.0694	---	1.76	---	.078	.0582	NR	1.71	---	.079	.0436	P
7- 2-64	1/1023	700	1.5	76	140/5	O	None	1.40	----	.078	.0539	NR	1.83	---	.065	.0578	NR	1.80	---	.072	.0570	N
7- 2-64	2/1024	719	1.5	76	140/5	"	None	1.15	----	.078	.0451	NR	1.46	---	.072	.0438	NR	1.66	---	.069	.0566	N
7- 3-64	1/1031	700	1.5	73	170/6	◑	None	1.45	----	.082	.0606	NR	2.21	---	.074	.0648	NP	1.04	---	.092	.0414	NP
7- 3-64	2/1032	719	1.5	73	170/6	"	None	1.25	----	.083	.0544	NR	2.08	---	.067	.0610	NP	1.16	---	.080	.0467	NR
7- 4-64	1/1039	700	1.5	75	200/7	O	None	1.73	----	.078	.0465	NR	----	---	------	------	---	1.40	---	.078	.0551	NR
7- 4-64	2/1040	720	1.5	75	200/7	"	None	1.58	----	.079	.0659	NR	1.35	---	.072	.0510	NR	1.08	---	.076	.0471	N
7- 5-64	1/1047	659	1.5	81	220/15	◑	None	1.85	----	.081	.0517	NP	1.99	---	.076	.0542	NP	.35	---	.052	.0085	---
7- 5-64	2/1048	719	1.5	81	220/15	"	None	1.83	----	.078	.0618	NP	1.81	---	.073	.0482	NP	----	---	-----	------	---
7- 6-64	1/1055	700	1.5	80	170/8	O	None	1.64	----	.078	.0629	NR	1.50	---	.072	.0518	N	.54	---	.090	.0292	NR
7- 6-64	2/1056	719	1.5	80	170/8	"	None	1.85	----	.077	.0663	N	1.44	---	.069	.0463	R	.31	---	.096	.0162	---
7- 7-64	1/1063	659	1.5	82	210/13	"	None	1.67	----	.078	.0615	NP	1.35	---	.062	.0486	NR	1.03	---	.078	.0462	NR
7- 7-64	2/1064	720	1.5	82	210/13	"	None	1.71	----	.075	.0577	NR	2.46	---	.067	.0546	P	.95	---	.081	.0363	C
7- 7-64	3/1065	859	1.5	91	230/17	"	None	1.67	----	.079	.0690	N	1.09	---	.086	.0569	R	1.01	---	.089	.0458	R

TABLE XIX.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE B

FOR AN ALTITUDE RANGE FROM 28,000 TO 33,000 FEET - Concluded

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precipitation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
33,000 feet																					
7- 8-64	1/1071	700	1.5	83	320/11	◐	None	2.62	---	0.074	0.0680	P	1.11	---	0.097	0.0446	C	0.99	---	0.076	0.0281	C
7- 8-64	2/1072	720	1.5	83	320/11	"	None	-----	---	-----	------	---	----	---	-----	------	---	----	---	-----	------	---
7- 8-64	3/1073	900	1.5	88	300/12	⊕	None	1.43	---	.072	.0620	NR	1.41	---	.069	.0531	NR	1.09	---	.085	.0476	NR
7- 8-64	4/1074	920	1.5	88	300/12	"	None	1.55	---	.080	.0589	NR	2.16	---	.065	.0550	NP	2.16	---	.082	.0679	P
7- 9-64	1/1079	659	1.5	79	180/7	◐	None	1.56	---	.077	.0632	NR	1.76	---	.068	.0626	N	1.37	---	.077	.0404	N
7- 9-64	2/1080	719	1.5	79	180/7	"	None	1.75	---	.074	.0586	NR	2.00	---	.065	.0556	NP	1.41	---	.076	.0464	N
7-10-64	1/1087	700	1.5	78	150/11	"	None	1.91	---	.075	.0666	NR	2.06	---	.070	.0594	NP	1.22	---	.078	.0417	N
7-10-64	2/1088	720	1.5	78	150/11	"	None	2.00	---	.067	.0621	N	1.68	---	.071	.0546	N	.47	---	.092	.0182	R
7-11-64	1/1095	659	1.5	83	170/13	◐	None	1.57	---	.070	.0531	NR	.70	---	.074	.0304	C	.49	---	.100	.0226	R
7-11-64	2/1096	719	1.5	83	170/13	"	None	2.03	---	.063	.0595	P	1.85	---	.062	.0517	NR	1.43	---	.073	.0351	NP
7-12-64	1/1103	659	1.5	74	360/12	◐	None	1.81	---	.068	.0665	NR	1.70	---	.062	.0504	N	2.17	---	.072	.0506	P
7-12-64	2/1104	720	1.5	74	360/12	"	None	1.55	---	-----	------	---	1.68	---	.056	.0504	NR	1.79	---	.067	.0518	NP
7-13-64	1/1111	700	1.5	63	330/6	○	None	1.70	---	.071	.0655	NR	1.68	---	.063	.0554	NR	1.92	---	.070	.0631	NP
7-13-64	2/1112	719	1.5	63	330/6	"	None	1.91	---	.068	.0645	NR	1.87	---	.062	.0605	NR	1.69	---	.069	.0574	NP
7-14-64	1/1119	659	1.5	68	160/12	◐	None	1.53	---	.078	.0667	NR	1.73	---	.071	.0594	NP	1.50	---	.075	.0527	N
7-14-64	2/1120	717	1.5	68	160/12	"	None	2.06	---	.076	.0660	NR	1.73	---	.070	.0570	NP	1.11	---	.076	.0490	NR
7-15-64	1/1127	700	1.5	77	170/15	◐	None	1.81	---	.081	.0659	NP	1.34	---	.073	.0548	NR	1.48	---	.077	.0501	N
7-15-64	2/1128	720	1.5	77	170/15	"	None	1.67	---	.080	.0545	NR	1.47	---	.068	.0501	NR	1.69	---	.083	.0605	NP
7-16-64	1/1135	700	1.5	77	150/14	◐	None	1.63	---	.081	.0641	NR	2.08	---	.069	.0573	NP	1.01	---	.089	.0481	---
7-16-64	2/1136	719	1.5	77	150/14	"	None	1.77	---	.079	.0613	NR	2.08	---	.061	.0549	NP	1.80	---	.067	.0504	NP
7-17-64	1/1143	700	1.5	78	150/14	⊕	None	1.46	---	.078	.0667	NR	1.87	---	.071	.0584	N	2.14	---	.071	.0628	P
7-17-64	2/1144	720	1.5	78	150/14	"	None	1.90	---	.074	.0620	NR	2.11	---	.062	.0606	NR	2.36	---	.072	.0687	P
7-18-64	1/1151	700	1.5	77	150/12	◐	None	1.60	---	.071	.0606	NR	1.90	---	.074	.0532	NP	1.17	---	.088	.0456	C
7-19-64	1/1159	700	1.5	76	150/11	◐	None	1.89	---	.068	.0636	NR	1.25	---	.079	.0520	NR	1.13	---	.077	.0408	NR
7-20-64	1/1167	659	1.5	75	180/6	○	None	1.64	---	.079	.0677	NR	1.18	---	.081	.0478	NR	.66	---	.092	.0331	NR
7-20-64	2/1168	719	1.5	75	180/6	"	None	2.25	---	.066	.0705	NP	1.53	---	.080	.0538	N	1.12	---	.079	.0502	NR
32,000 feet																					
6-10-64	2/861	718	1.5	76	170/11	◐	None	1.33	1.11	0.069	0.0485	NR	1.31	---	0.068	0.0509	NR	1.01	---	0.082	0.0394	NR
30,000 feet																					
6- 6-64	1/828	659	1.2	60	050/5	◐	None	0.98	1.20	0.088	0.0519	R	1.56	---	0.071	0.0483	N	1.27	---	0.087	0.0590	---
6- 6-64	2/829	720	1.2	60	050/5	"	None	1.10	1.08	.086	.0529	NR	1.93	---	.074	.0636	N	.65	---	.094	.0344	R
6- 6-64	7/834	1259	1.3	81	170/8	◐	None	1.46	1.49	.079	.0661	R	1.93	---	.073	.0576	NR	1.24	---	.089	.0504	C
6- 6-64	8/835	1320	1.3	81	170/8	"	None	1.74	1.41	.086	.0662	NP	2.46	---	.066	.0767	NP	2.14	---	.072	.0477	P
28,000 feet																					
6- 6-64	3/830	859	1.5	69	160/5	○	None	1.69	1.74	0.076	0.0678	NR	3.16	---	0.063	0.0595	P	1.44	---	0.082	0.0522	NP
6- 6-64	4/831	920	1.5	69	160/5	"	None	2.15	1.57	.074	.0633	NP	1.62	---	.067	.0522	NR	1.94	---	.069	.0583	P

TABLE XX.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE C

FOR AN ALTITUDE RANGE FROM 29,000 TO 37,000 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3				Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	$\bar{I}_o$, pos., lb-sec/sq ft	Wave shape
37,000 feet																					
6-12-64	1/874	705	2.0	75	180/14	◐	None	0.98	0.75	0.058	0.0274	R	0.89	---	0.068	0.0321	R	0.89	---	0.060	0.0331	C
34,000 feet																					
6-12-64	2/875	723	1.8	75	180/14	◐	None	1.07	0.70	0.055	0.0304	R	1.23	---	0.050	0.0395	NR	0.86	---	0.069	0.0331	R
33,000 feet																					
6-13-64	6/886	1319	1.5	74	130/8	⊕	-RW	1.64	1.21	0.064	0.0507	NR	1.34	---	0.072	0.0534	NR	1.17	---	0.080	0.0432	C
7-18-64	4/1154	918	2.0	84	190/10	◐	None	1.51	----	.062	.0464	NR	1.23	---	.057	.0399	NR	.90	---	.068	.0324	NR
31,000 feet																					
6-12-64	5/878	1124	1.8	77	200/13	⊕	None	1.09	0.92	0.062	0.0323	R	1.17	---	0.062	0.0300	R	0.45	---	0.077	0.0171	R
7-18-64	2/1152	721	2.0	77	150/12	◐	None	1.53	----	.057	.0423	NR	1.08	---	.059	.0327	NR	1.11	---	.065	.0338	NR
30,000 feet																					
6-13-64	2/882	722	1.7	77	180/11	⊕	None	----	----	-----	------	---	1.75	---	0.055	0.0372	NP	2.36	---	0.053	0.0374	P
29,000 feet																					
7-18-64	6/1156	1118	2.0	90	180/10	◐	None	1.56	----	0.060	0.0489	NR	2.05	---	0.054	0.0445	P	1.24	---	0.077	0.0338	C
7-18-64	8/1158	1319	2.0	91	180/10	"	None	1.67	----	.063	.0496	R	1.25	---	.070	.0420	---	.99	---	.073	.0343	R
7-19-64	2/1160	720	1.7	76	150/11	"	None	1.31	----	.061	.0495	NR	1.02	---	.060	.0382	NR	.81	---	.067	.0331	NR
7-19-64	4/1162	919	1.7	88	230/15	○	None	1.38	----	.063	.0522	NR	.84	---	.065	.0322	NR	.83	---	.080	.0355	R

TABLE XXI.- SUMMARY OF SONIC-BOOM DATA FOR VARIOUS FLIGHTS OF AIRPLANE D

FOR AN ALTITUDE OF 43,000 AND 49,900 FEET

Operating conditions				Weather				Sonic-boom pressure signature data													
								Station 1					Station 3					Station 4				
Date	Flight	Time	Mach	Surface temp., °F	Surface winds, knots	Cloud cover	Precip-itation	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape	Δp_o, lb/sq ft	Δp_i, lb/sq ft	Δt_o, pos., sec	I_o, pos., lb-sec/sq ft	Wave shape
49,900 feet																					
3-23-64	4/313	920	2.0	58	180/15	⊕	None	1.69	1.12	------	------	---	2.32	0.90	0.084	0.1010	NR	1.70	0.66	0.082	0.0701	NR
3-25-64	1/326	920	2.0	27	360/15	⊕	-S, F	1.34	1.10	------	------	NR	1.03	----	.105	.0593	R	1.03	----	.090	.0471	NR
3-26-64	4/334	916	2.0	26	Calm	○	None	2.39	----	------	------	NP	1.69	----	.088	.0788	NR	1.35	----	.078	.0512	N
3-27-64	4/342	920	2.0	46	170/7	⊕	None	1.46	----	------	------	NR	1.74	----	.083	.0873	NR	1.47	----	.080	.0632	NP
5-25-64	10/747	921	2.0	81	190/10	⊕	None	1.24	----	0.1057	0.0769	NR	1.67	----	.096	.0802	N	1.55	----	.086	.0800	N
5-26-64	10/755	919	2.0	83	210/18	⊕	None	1.44	----	.093	.0738	N	1.77	----	.095	.0683	N	1.13	----	.104	.0617	NR
5-27-64	10/763	920	2.0	80	180/12	⊕	None	1.26	----	.110	.0705	N	1.49	----	.100	.0812	NR	1.71	----	.088	.0599	NP
5-28-64	10/771	925	2.0	58	360/10	⊕	None	1.51	----	.100	.0753	N	1.62	----	.083	.0689	N	.99	----	.098	.0517	NR
7- 1-64	4/1018	920	2.0	78	200/10	⊕	None	1.87	----	.094	.1120	NR	2.26	----	.088	.0688	NP	.82	----	.109	.0579	R
7- 6-64	4/1058	920	2.0	88	220/20	○	None	1.92	----	.099	.0884	N	1.57	----	.100	.0735	NR	1.29	----	.105	.0730	NR
7-10-64	10/1090	920	2.0	88	190/10	⊕	None	1.95	----	.102	.0877	NR	1.27	----	.108	.0830	R	1.29	----	.096	.0697	NR
43,000 feet																					
6-22-64	10/952	919	1.85	84	190/16	⊕	None	1.68	1.41	0.090	0.0712	NR	3.83	----	0.084	0.0860	P	2.25	----	0.086	0.0579	P

TABLE XXII.- SUMMARY OF DATA POINTS AND NOMINALS AT EACH MEASURING STATION FOR VARIOUS FLIGHT CONDITIONS

Table	Airplane	Altitude above ground level, ft	Mach	Station 1			Station 3			Station 4		
				Number of data points	$\Delta p_{o,calc}$	$I_{o,calc}$	Number of data points	$\Delta p_{o,calc}$	$I_{o,calc}$	Number of data points	$\Delta p_{o,calc}$	$I_{o,calc}$
I	A	41,000	2.0	3	0.90	0.0235	3	0.81	0.0221	3	0.64	0.0188
I	A	38,000	1.5	8	.93	.0247	9	.81	.0227	8	.63	.0192
I	A	37,000	1.5	1	.96	.0255	1	.84	.0235	1	.65	.0197
I	A	36,000	1.5	1	1.00	.0263	1	.88	.0243	---	.67	.0203
II	A	35,000	2.0	1	1.17	.0292	1	1.02	.0269	1	.77	.0223
II	A	35,000	1.7	1	1.09	.0277	1	.96	.0256	1	.73	.0213
II	A	35,000	1.5	26	1.05	.0273	26	.91	.0251	25	.69	.0209
II	A	34,000	1.8	1	1.17	.0290	1	1.02	.0268	1	.77	.0222
II	A	33,000	1.7	1	1.19	.0293	1	1.03	.0271	1	.77	.0224
II	A	33,000	1.5	2	1.13	.0289	2	.98	.0265	2	.73	.0219
III	A	32,000	1.8	3	1.27	.0307	3	1.09	.0283	3	.81	.0232
III	A	32,000	1.5	103	1.18	.0297	101	1.02	.0273	106	.76	.0224
IV	A	31,000	1.5	17	1.23	.0306	17	1.06	.0281	17	.78	.0209
V	A	30,000	1.8	2	1.38	.0326	2	1.18	.0300	1	.86	.0243
V	A	30,000	1.7	76	1.35	.0320	78	1.16	.0295	74	.84	.0239
V	A	30,000	1.5	68	1.28	.0315	70	1.10	.0289	69	.80	.0234
VI	A	29,000	1.8	1	1.44	.0336	1	1.22	.0308	---	.89	.0249
VI	A	29,000	1.7	27	1.41	.0331	26	1.20	.0304	25	.87	.0245
VI	A	29,000	1.55	1	1.36	.0326	1	1.15	.0298	1	.84	.0241
VI	A	29,000	1.5	29	1.34	.0324	29	1.14	.0297	26	.83	.0240
VII	A	28,000	1.7	34	1.47	.0341	33	1.24	.0312	34	.89	.0251
VII	A	28,000	1.5	168	1.40	.0335	169	1.18	.0305	155	.85	.0245
VIII	A	27,000	1.7	5	1.54	.0352	5	1.29	.0321	5	.92	.0256
VIII	A	27,000	1.5	8	1.47	.0346	8	1.22	.0314	8	.87	.0251
VIII	A	27,000	1.3	5	1.36	.0347	4	1.14	.0316	4	.81	.0252
VIII	A	26,000	1.5	2	1.54	.0357	2	1.27	.0323	2	.90	.0256
IX	A	24,000	1.5	11	1.69	.0382	11	1.37	.0341	11	.95	.0267
IX	A	24,000	1.4	8	1.62	.0377	8	1.32	.0340	7	.92	.0266
IX	A	24,000	1.3	1	1.56	.0383	1	1.27	.0343	1	.88	.0269
X	A	23,000	1.6	1	1.81	.0396	1	1.46	.0353	1	1.00	.0275
X	A	23,000	1.5	2	1.77	.0394	2	1.42	.0350	1	.97	.0273
X	A	23,000	1.4	2	1.70	.0391	4	1.37	.0349	4	.94	.0272
X	A	23,000	1.3	11	1.64	.0396	13	1.31	.0352	13	.90	.0274
X	A	21,000	1.5	3	1.97	.0425	3	1.52	.0369	3	1.03	.0285
X	A	21,000	1.4	3	1.89	.0420	3	1.47	.0368	3	.99	.0284
XI	B	46,000	1.5	21	1.12	.0398	21	.97	.0356	21	.75	.0296
XI	B	46,000	1.4	7	1.08	.0394	8	.94	.0355	8	.73	.0295
XI	B	45,000	1.5	9	1.16	.0409	9	1.00	.0365	8	.77	.0302
XII	B	44,000	1.5	69	1.20	.0420	70	1.02	.0373	70	.79	.0309
XIII	B	43,000	1.5	20	1.23	.0430	19	1.05	.0382	19	.81	.0315
XIII	B	42,000	1.5	17	1.28	.0443	17	1.08	.0391	17	.83	.0322
XIII	B	42,000	1.4	4	1.22	.0437	4	1.05	.0390	3	.80	.0321
XIV	B	41,000	1.6	1	1.37	.0463	1	1.14	.0403	1	.87	.0331
XIV	B	41,000	1.5	32	1.32	.0454	32	1.11	.0401	32	.85	.0329
XV	B	40,000	1.5	6	1.36	.0467	6	1.15	.0411	6	.87	.0336
XV	B	40,000	1.4	3	1.31	.0462	3	1.11	.0410	2	.84	.0335
XV	B	39,000	1.5	17	1.42	.0483	18	1.18	.0421	18	.89	.0344
XV	B	38,000	1.4	13	1.41	.0491	13	1.18	.0431	13	.88	.0351
XVI	B	37,000	1.5	76	1.53	.0513	77	1.26	.0444	77	.93	.0360
XVI	B	36,000	1.5	7	1.59	.0530	8	1.29	.0456	8	.96	.0368
XVII	B	35,000	1.5	105	1.65	.0546	105	1.34	.0468	105	.98	.0377
XVIII	B	34,000	1.6	1	1.77	.0570	2	1.42	.0482	2	1.03	.0387
XVIII	B	34,000	1.5	14	1.72	.0562	14	1.38	.0479	12	1.01	.0384
XVIII	B	34,000	1.4	3	1.65	.0558	3	1.34	.0478	3	.97	.0383
XIX	B	33,000	1.5	115	1.78	.0577	115	1.42	.0489	114	1.03	.0391
XIX	B	33,000	1.4	2	1.72	.0573	2	1.38	.0488	2	1.00	.0390
XIX	B	32,000	1.5	1	1.85	.0592	1	1.47	.0501	1	1.06	.0398
XIX	B	30,000	1.3	2	1.84	.0620	2	1.45	.0527	2	1.03	.0416
XIX	B	30,000	1.2	2	1.75	.0645	2	1.37	.0542	2	.97	.0428
XIX	B	28,000	1.5	2	2.17	.0658	2	1.67	.0549	2	1.17	.0429
XX	C	37,000 to 29,000	2.0 to 1.5	10			11			11		
XXI	D	49,900 to 43,000	2.0 to 1.85	12			12			12		

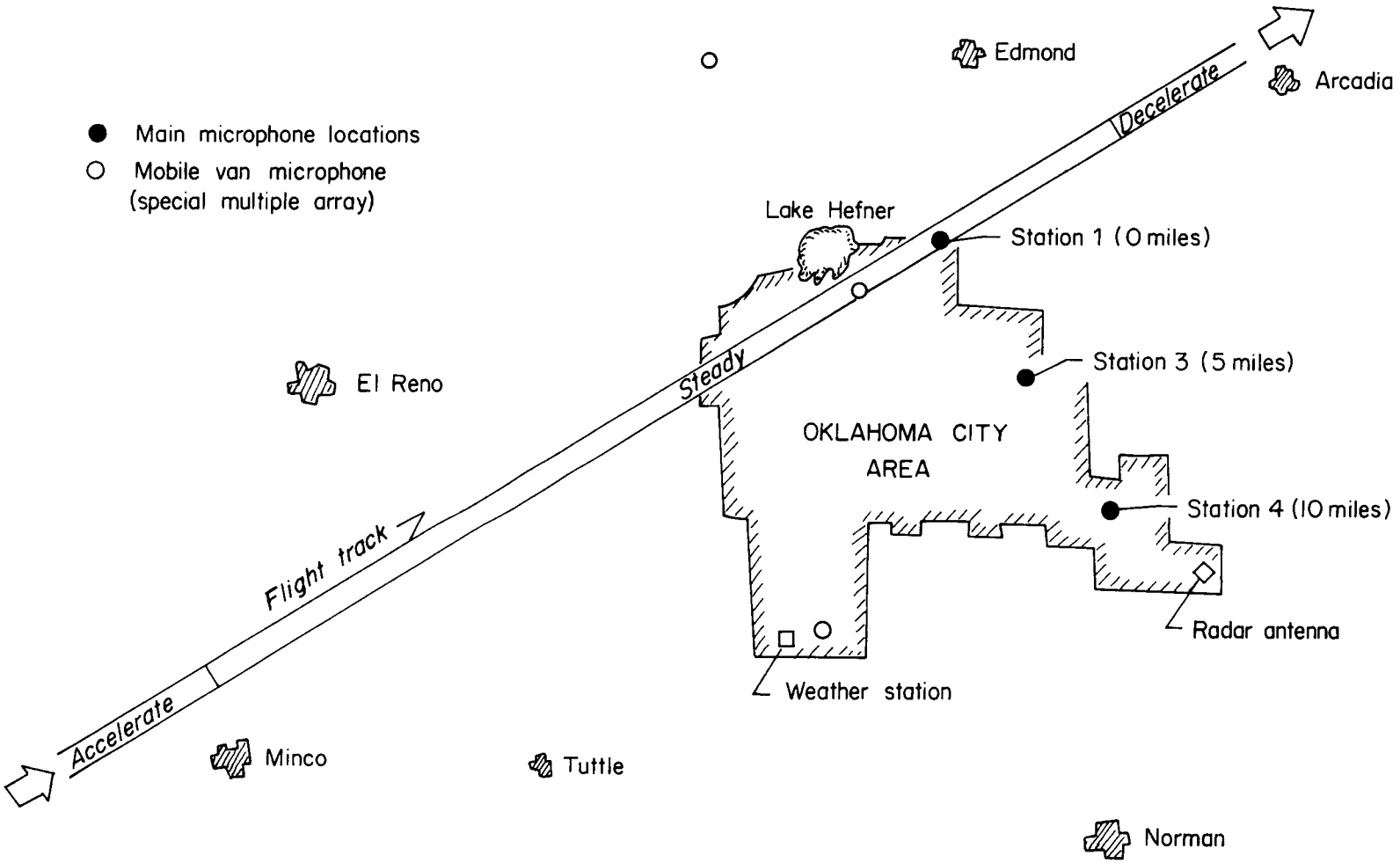
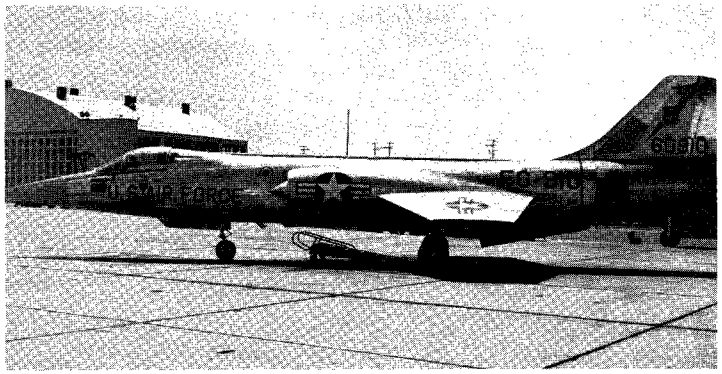
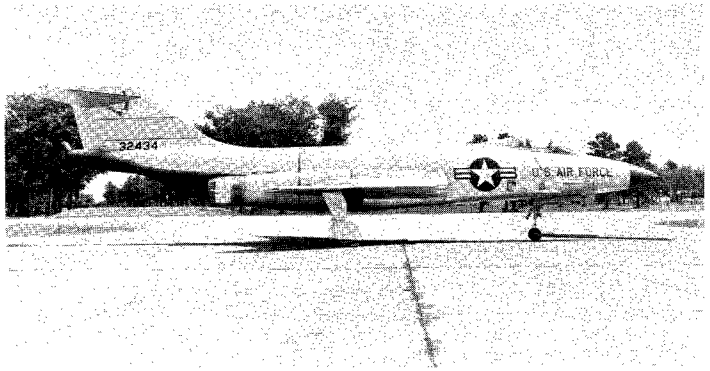


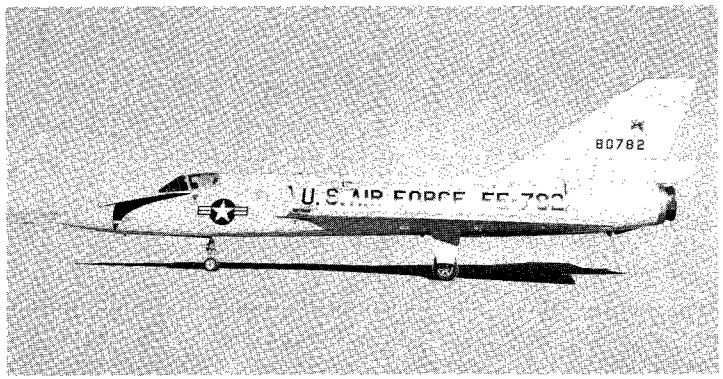
Figure 1.- Planview sketch of test area showing flight track, measuring stations, and facilities.



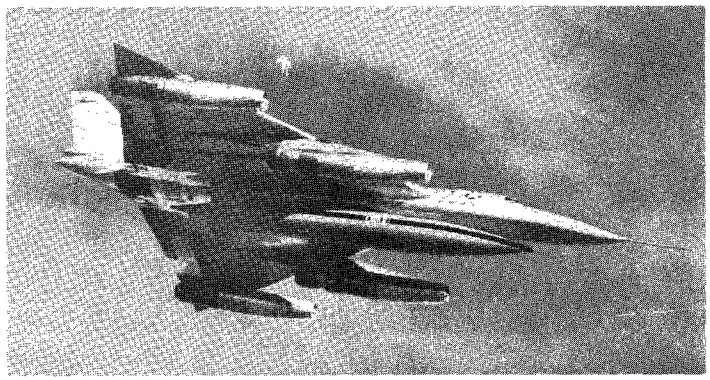
(a) Airplane A.



(b) Airplane B.

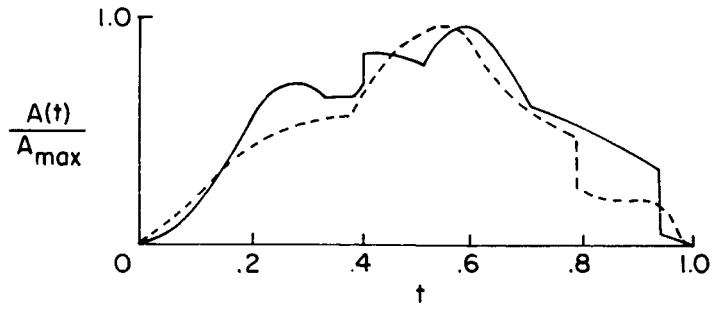


(c) Airplane C.

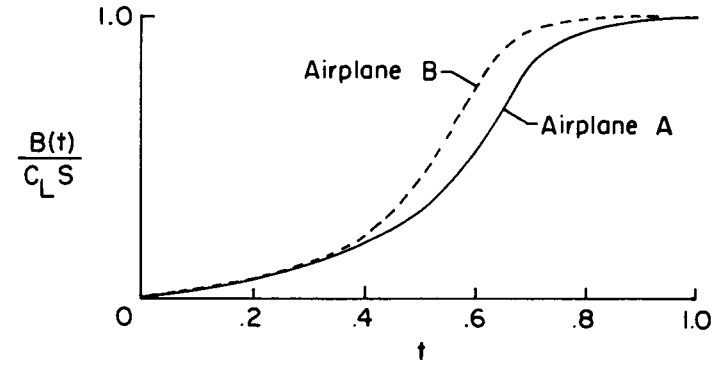


(d) Airplane D.

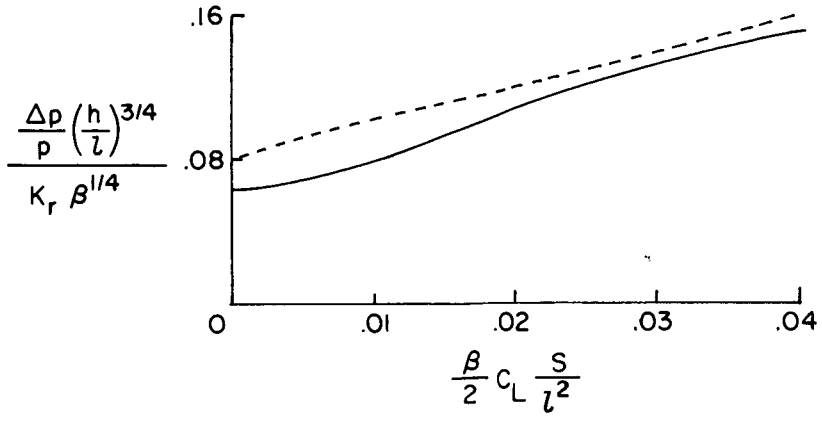
Figure 2.- Airplanes used in test program. L-64-8368



(a) Volume distribution.

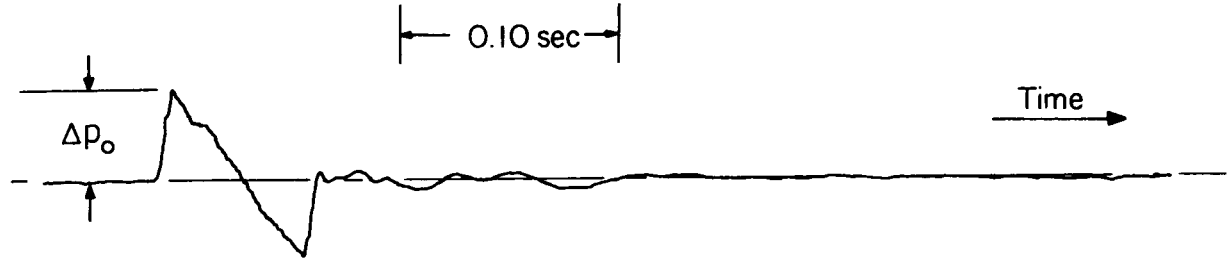


(b) Lift distribution.



(c) Sonic-boom characteristics in parametric form.

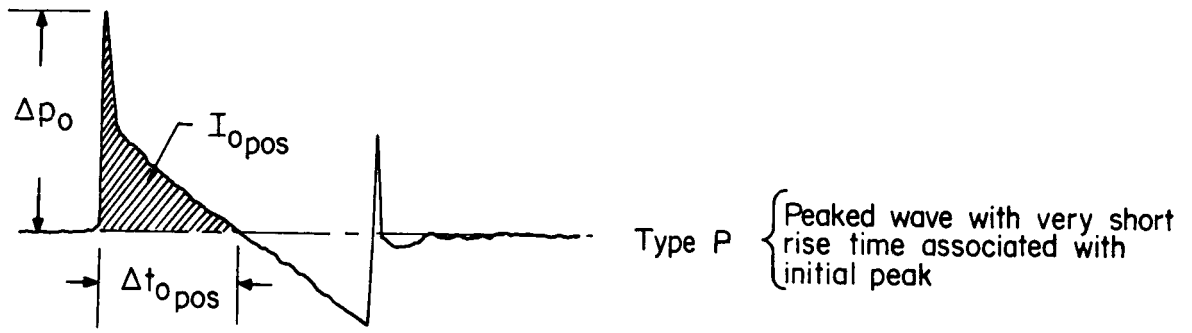
Figure 3.- Definition of inputs to sonic-boom overpressure calculations by the machine computer procedures described in appendix of reference 1.



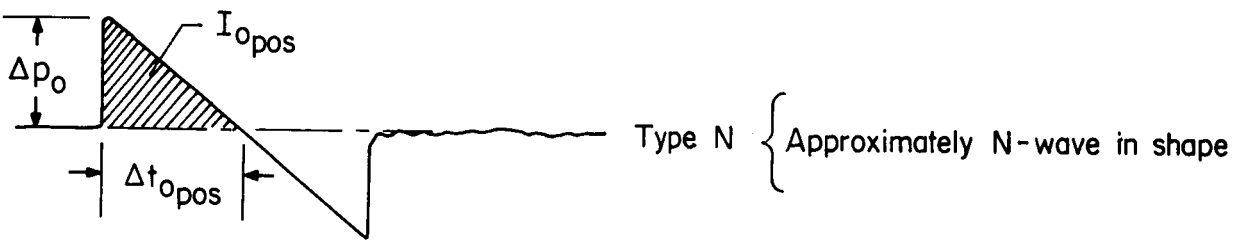
(a) Outside microphone.

(b) Inside microphone.

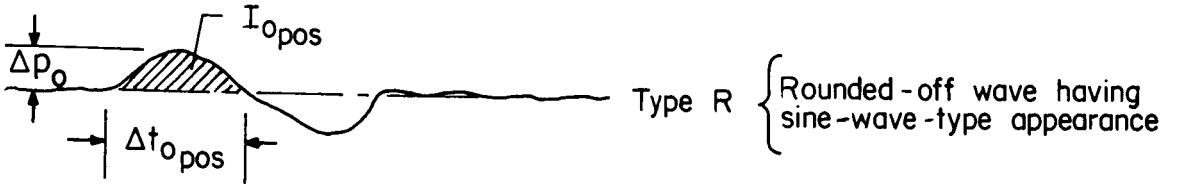
Figure 4.- Sample sonic-boom pressure time histories for both inside and outside microphone locations. (Data are for airplane A at station 1.)



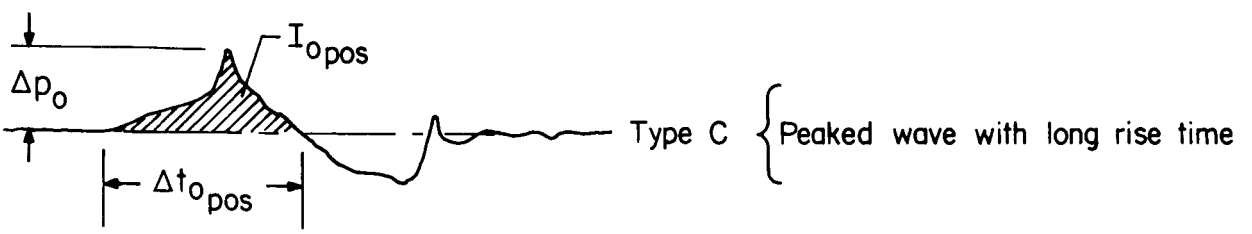
(a) Type P.



(b) Type N.



(c) Type R.



(d) Type C.

Figure 5.- Schematic diagrams showing some categories of waveforms measured at ground level during the tests.

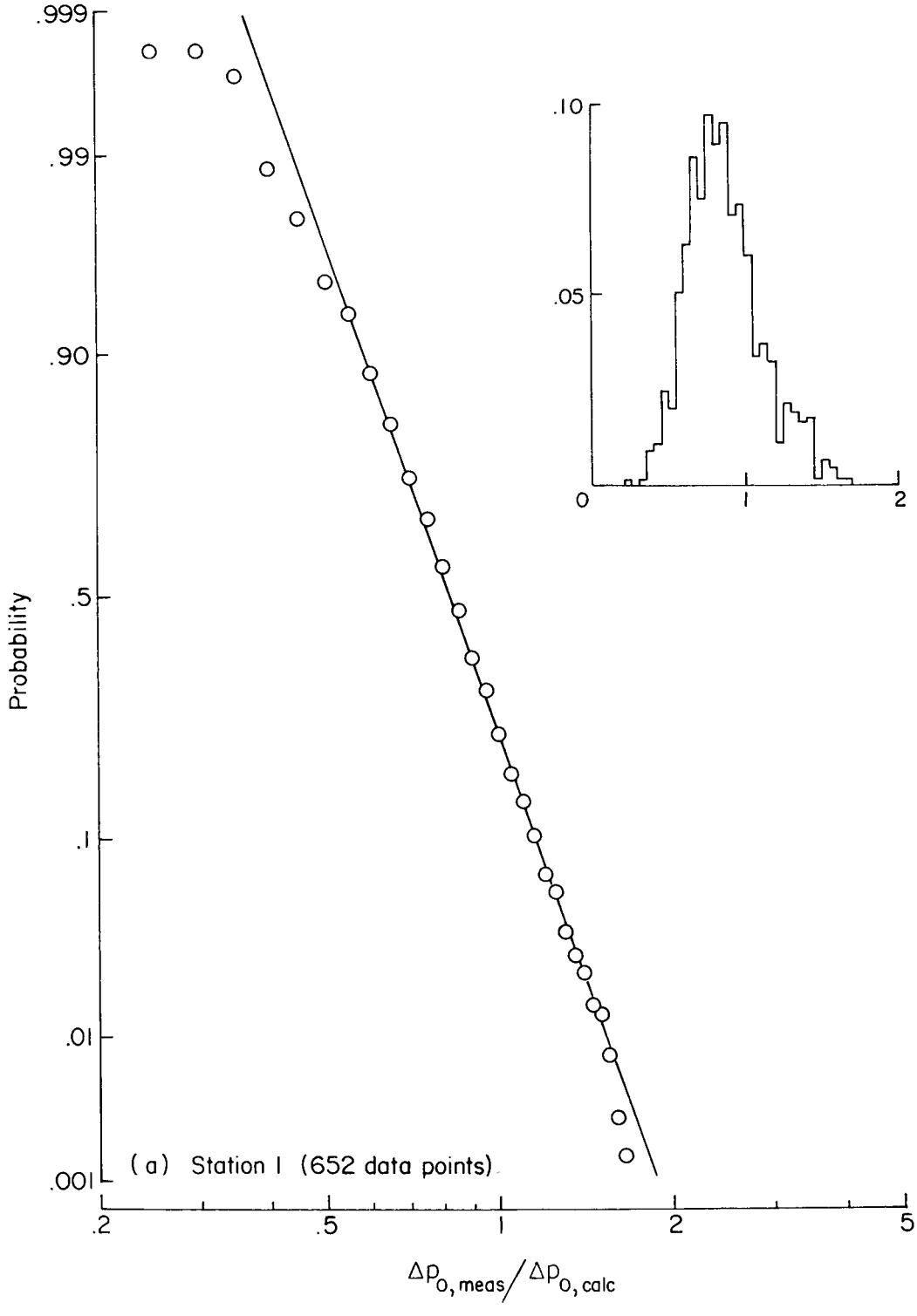


Figure 6.- Probability of equaling or exceeding a given value of the ratio of measured to calculated overpressures for airplane A.

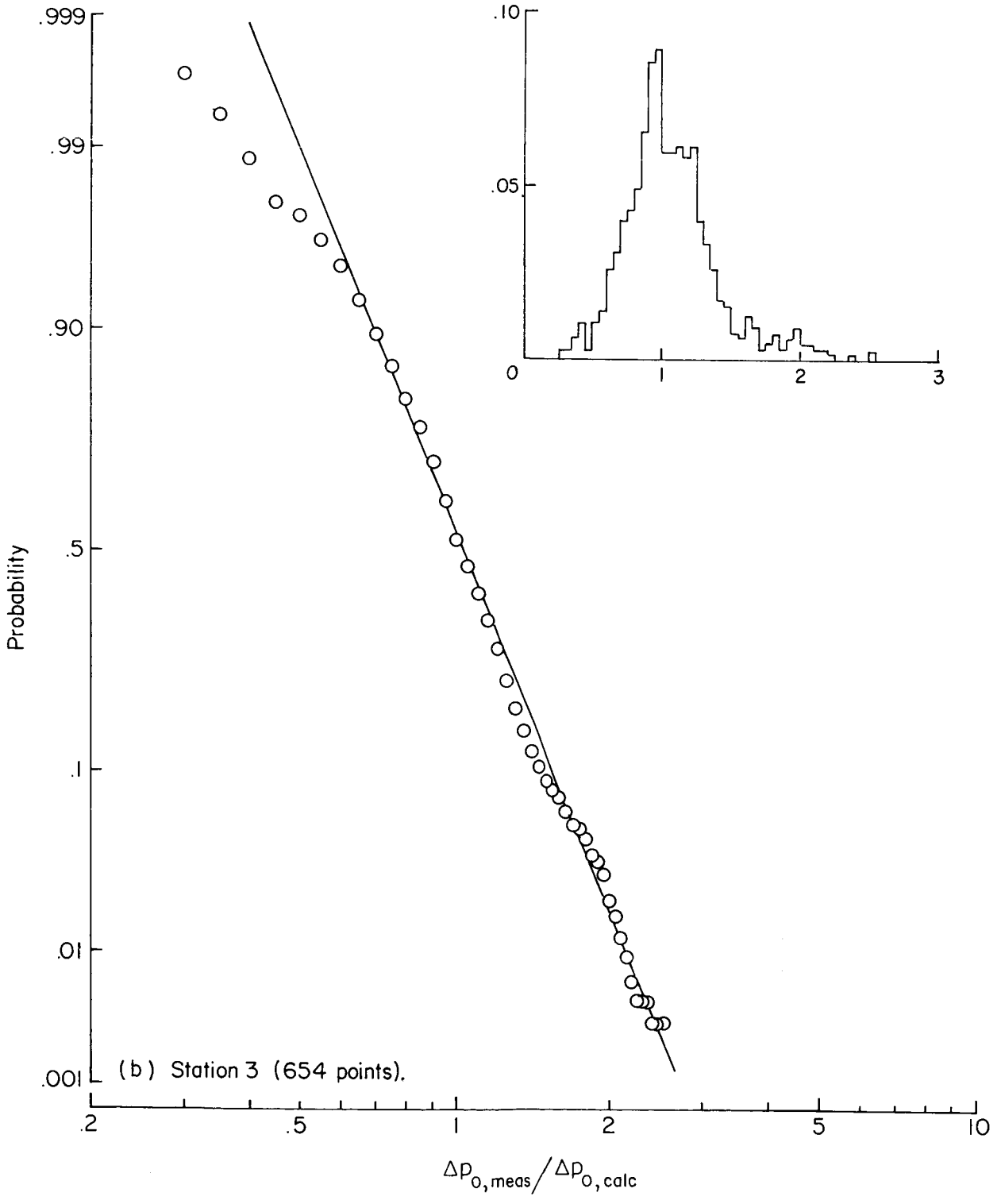


Figure 6.- Continued.

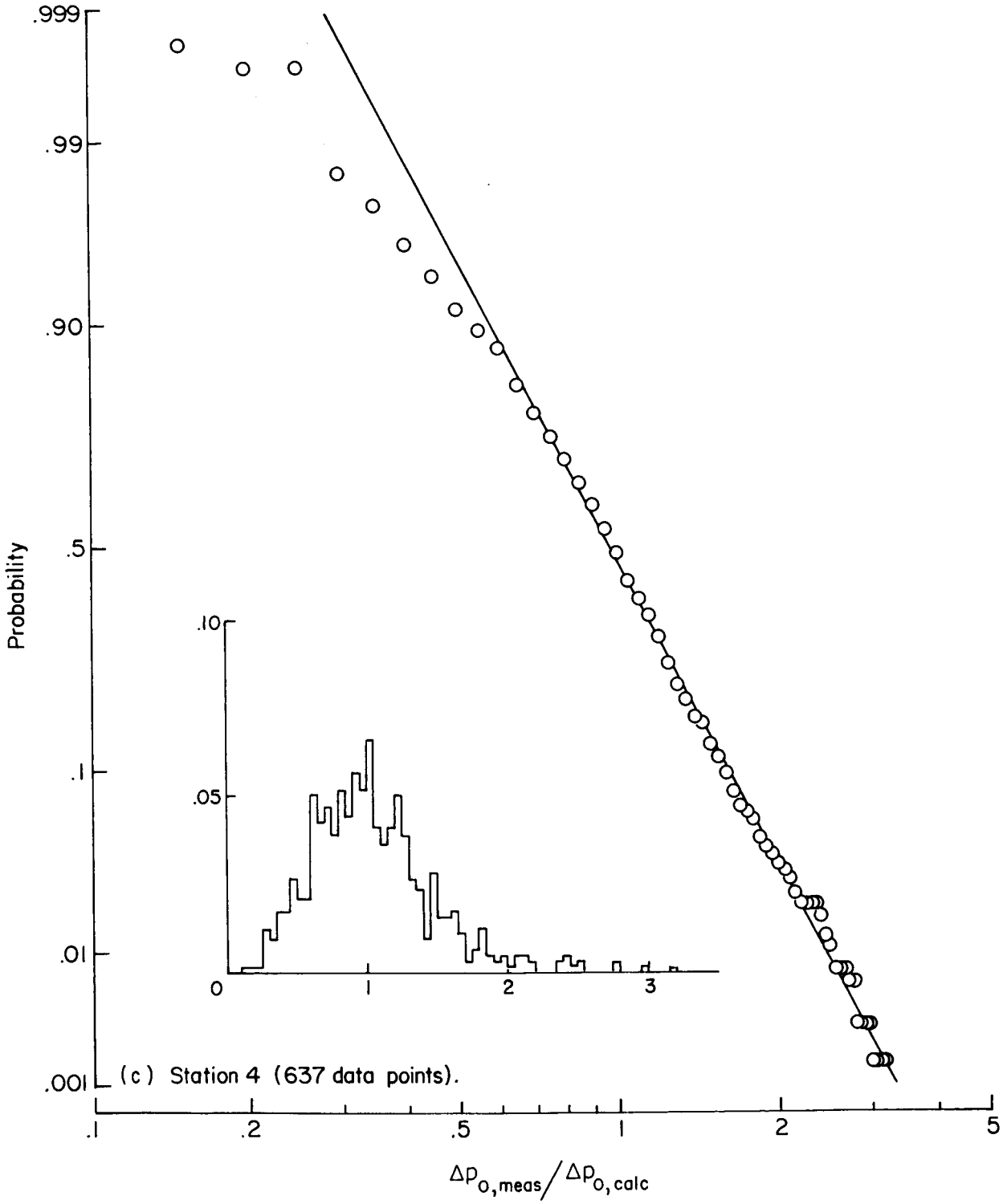


Figure 6.- Concluded.

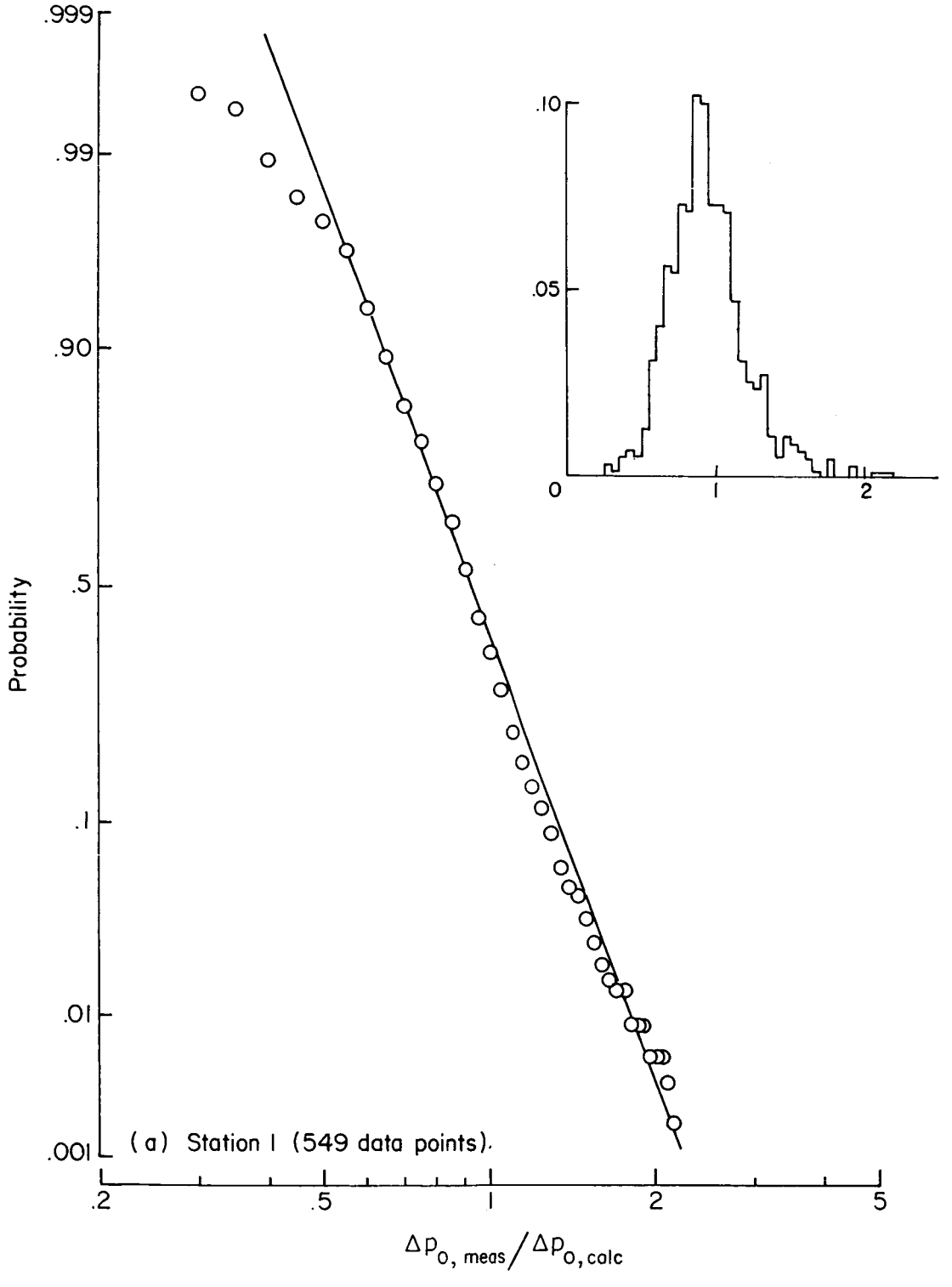


Figure 7.- Probability of equaling or exceeding a given value of the ratio of measured to calculated overpressures for airplane B.

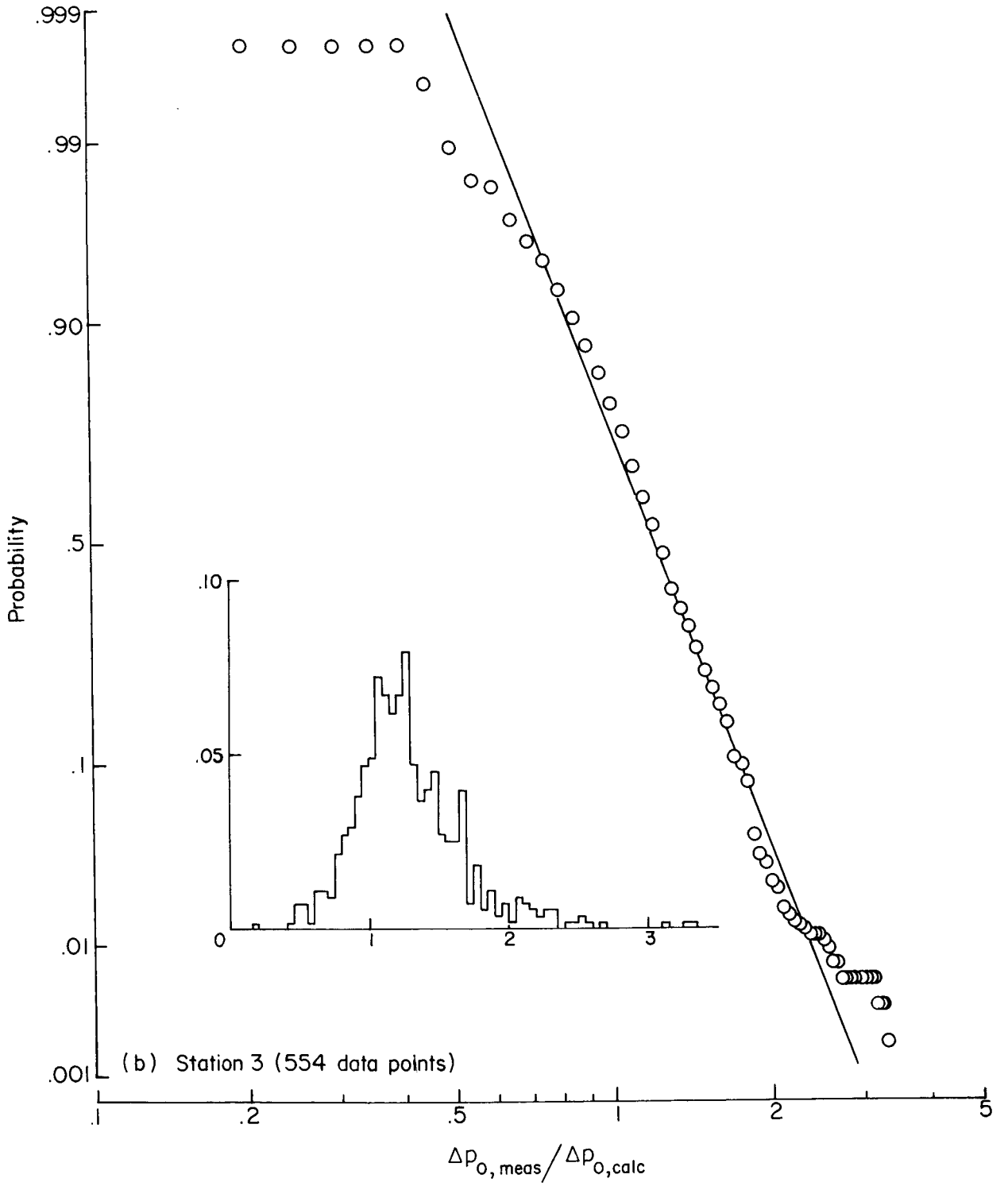


Figure 7.- Continued.

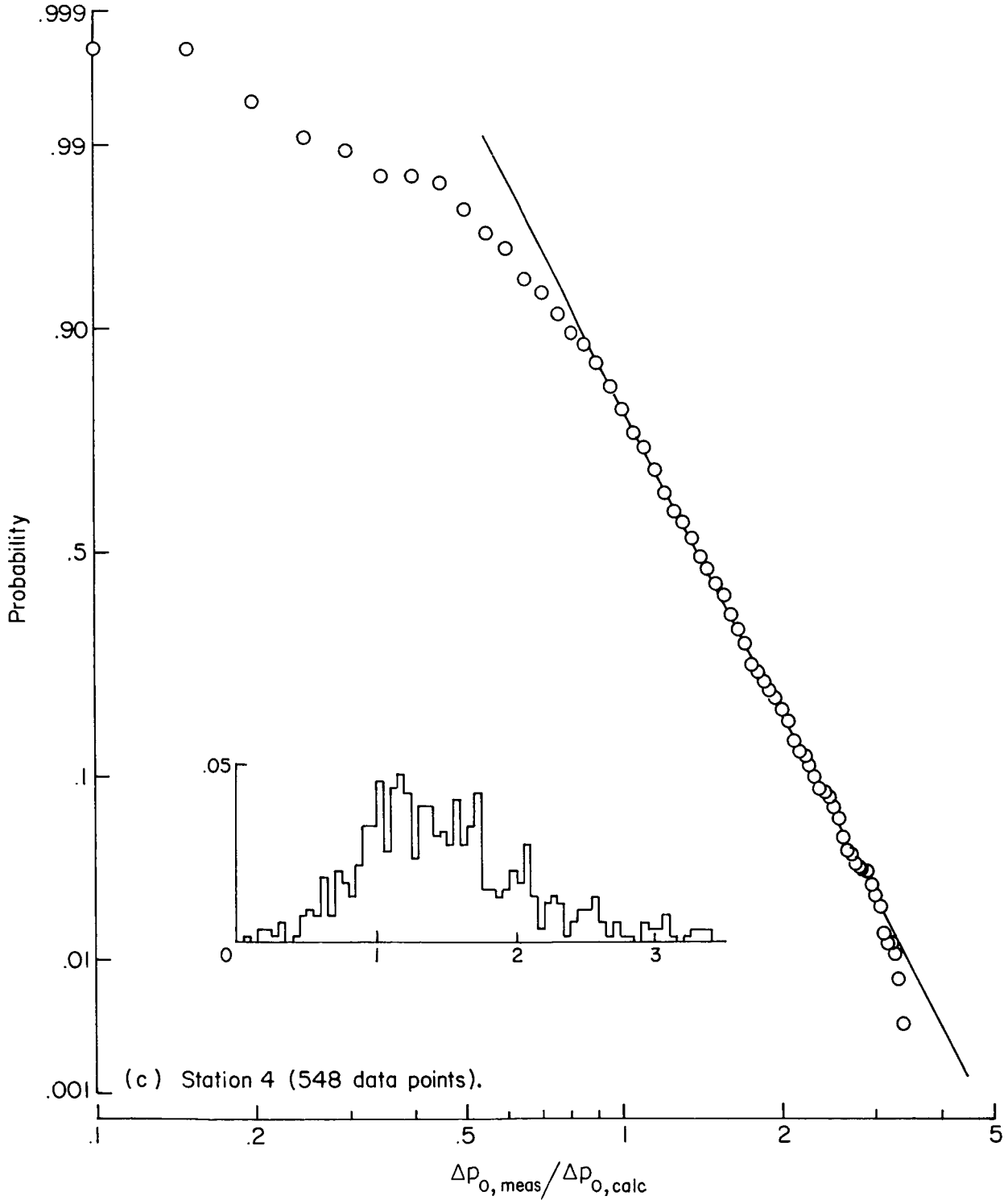


Figure 7.- Concluded.

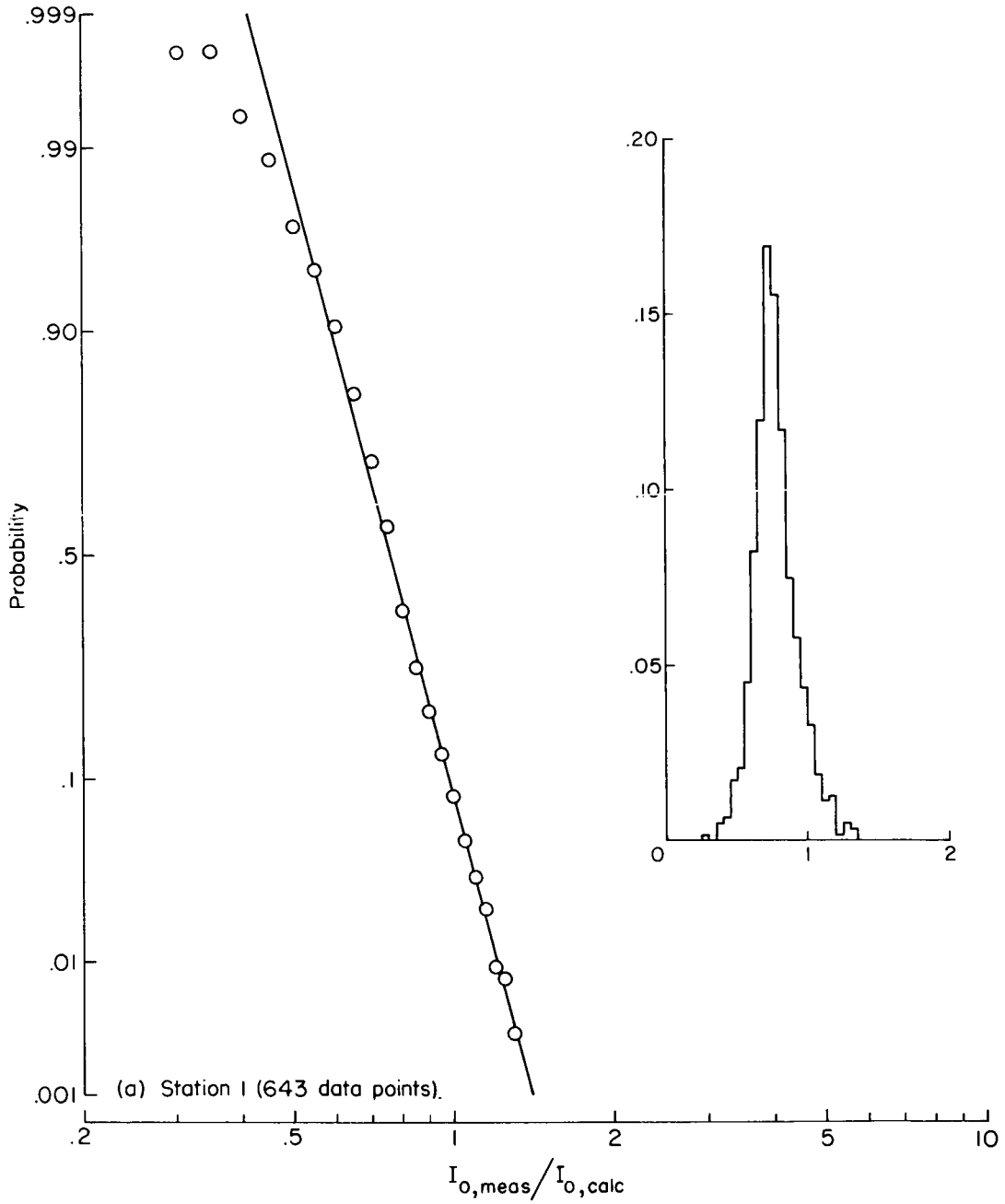


Figure 8.- Probability of equaling or exceeding a given value of the ratio of measured to calculated positive impulse for airplane A.

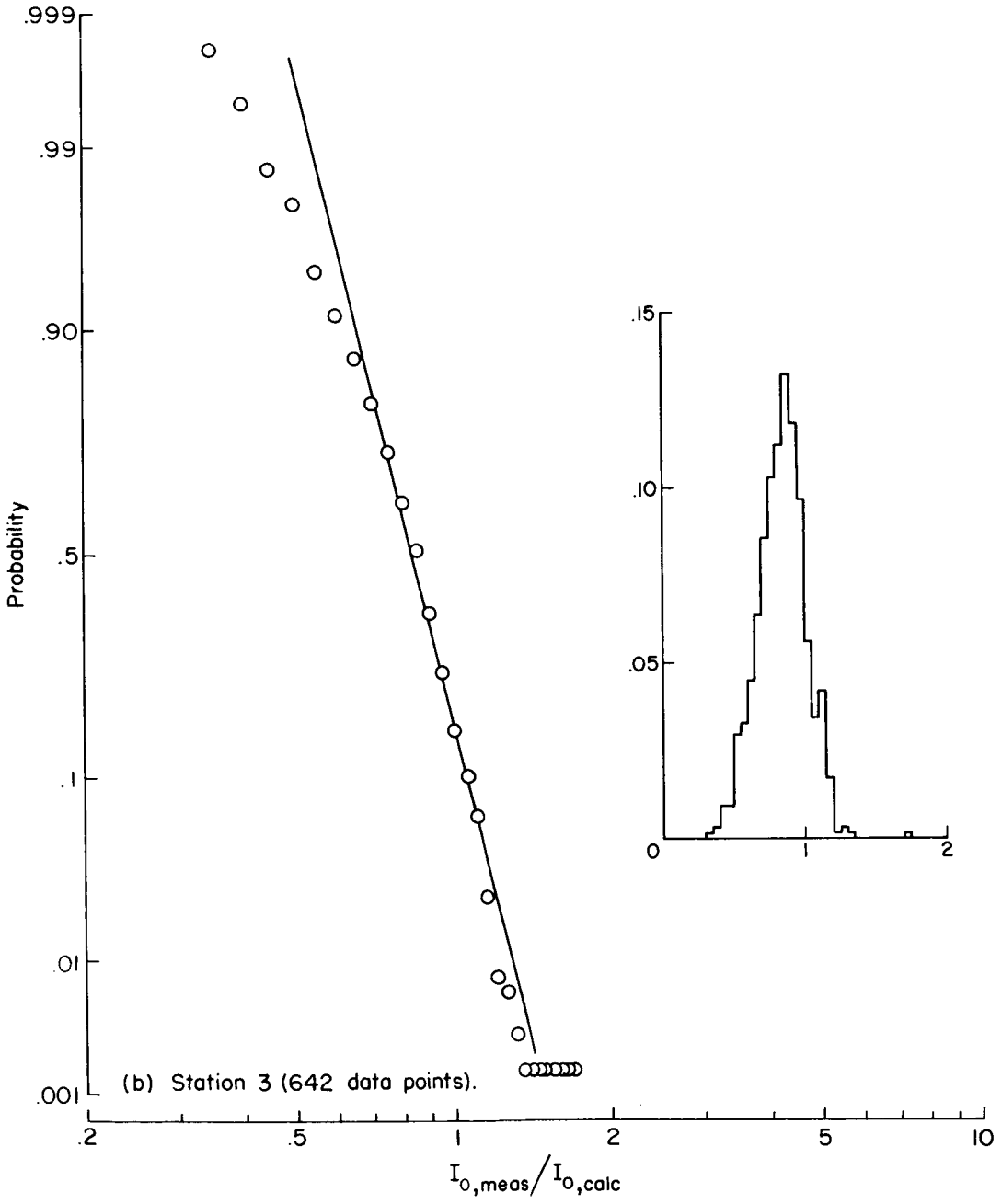


Figure 8.- Continued.

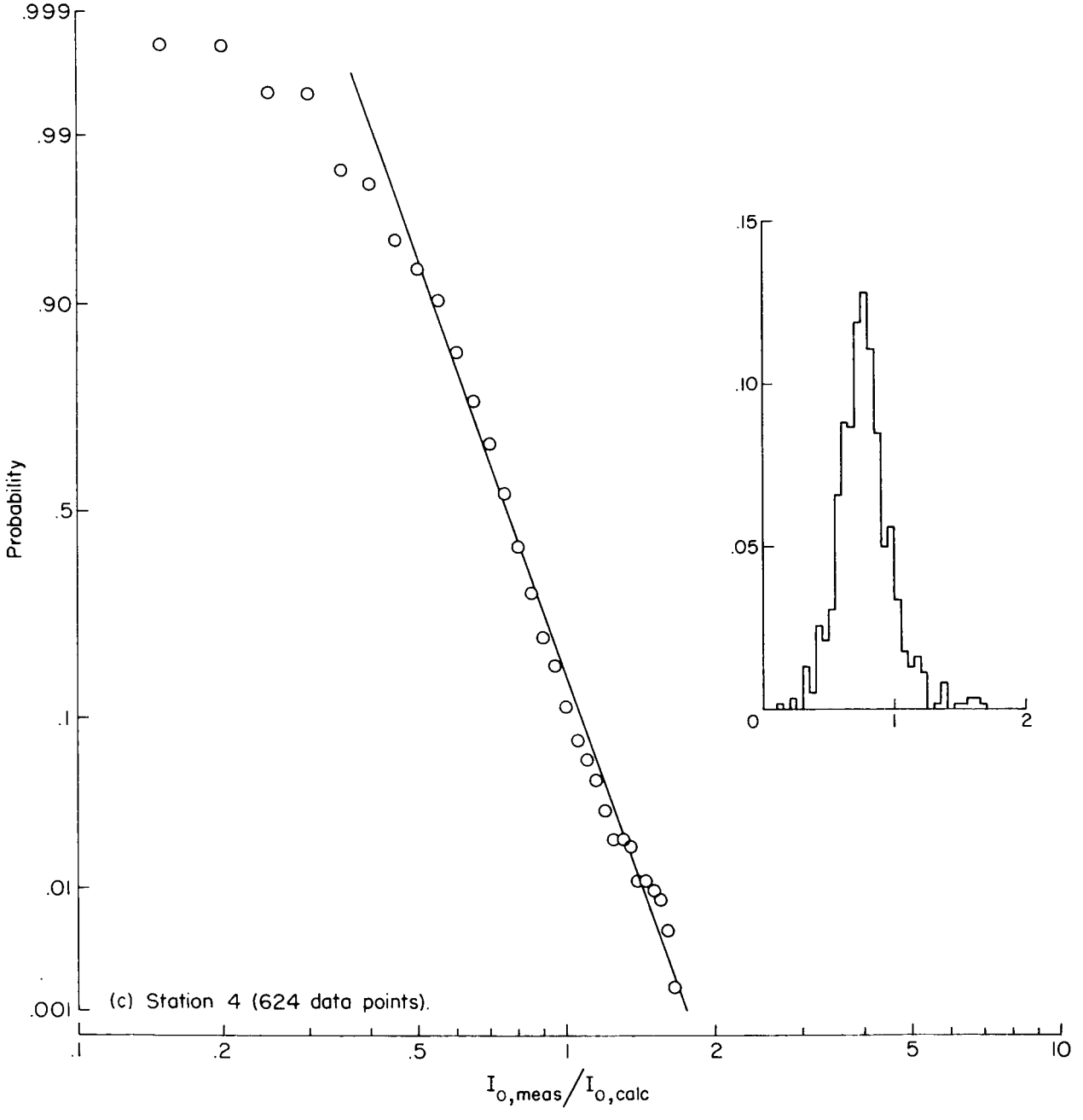


Figure 8.- Concluded.

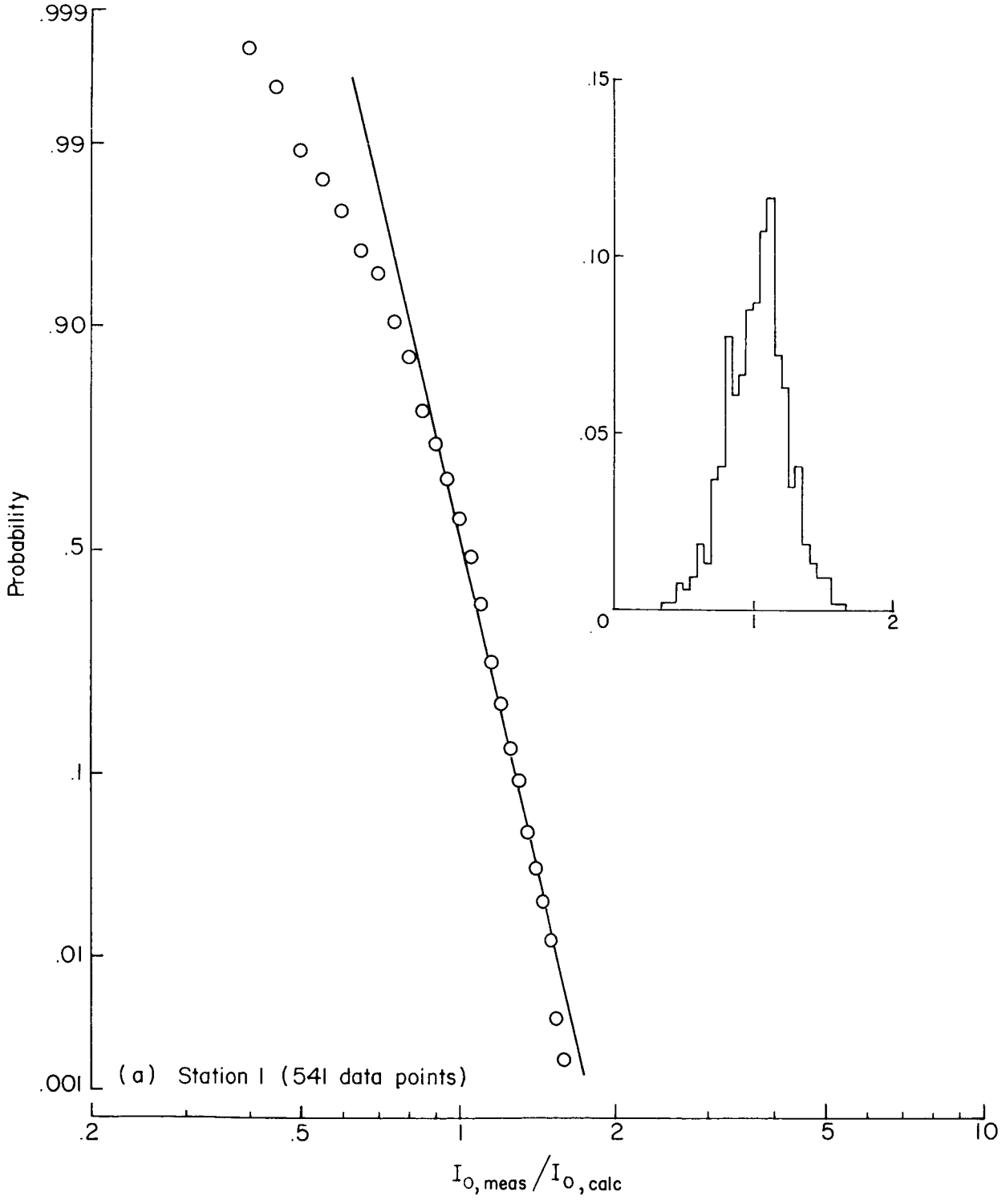


Figure 9.- Probability of equaling or exceeding a given value of the ratio of measured to calculated positive impulse for airplane B.

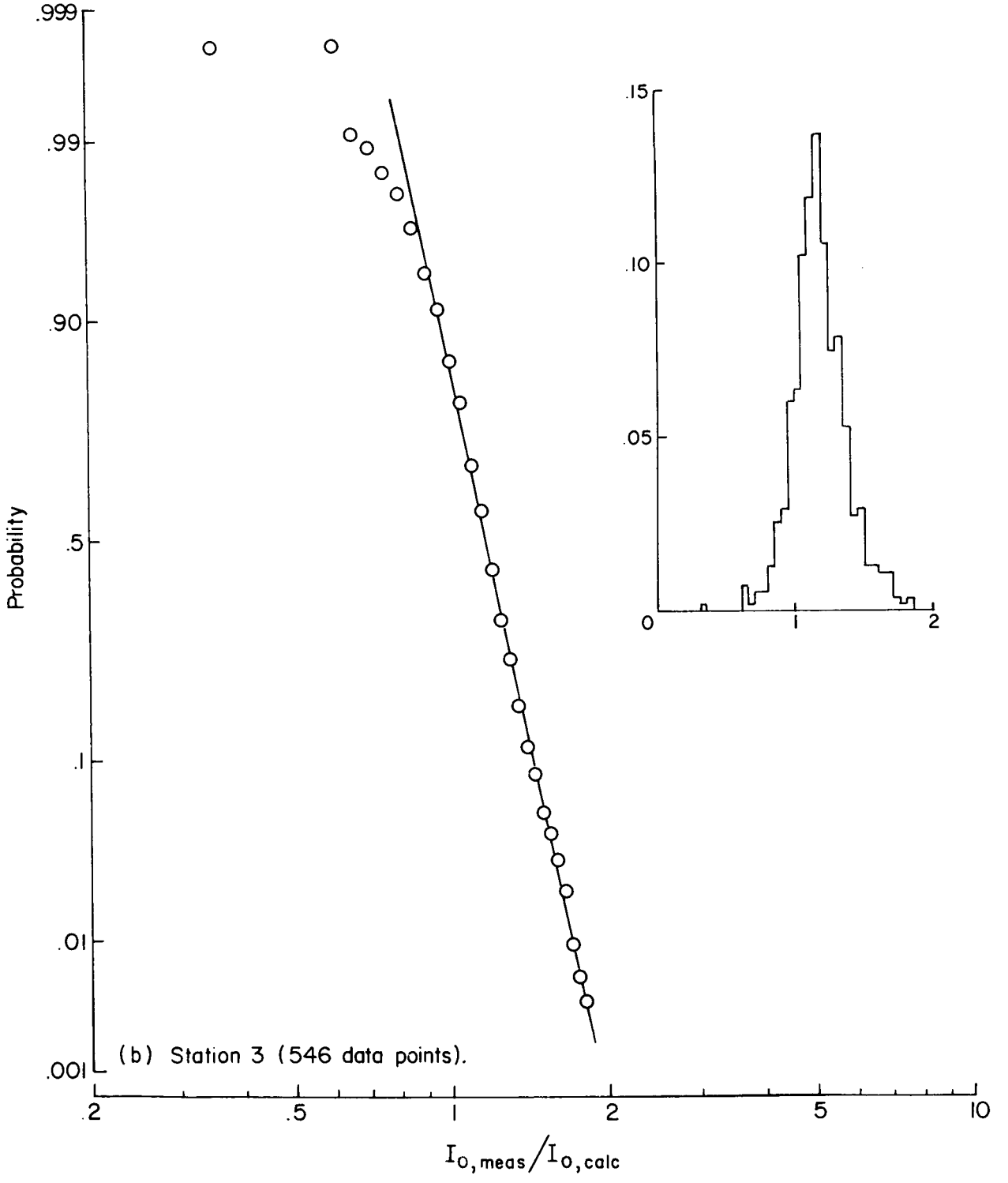


Figure 9.- Continued.

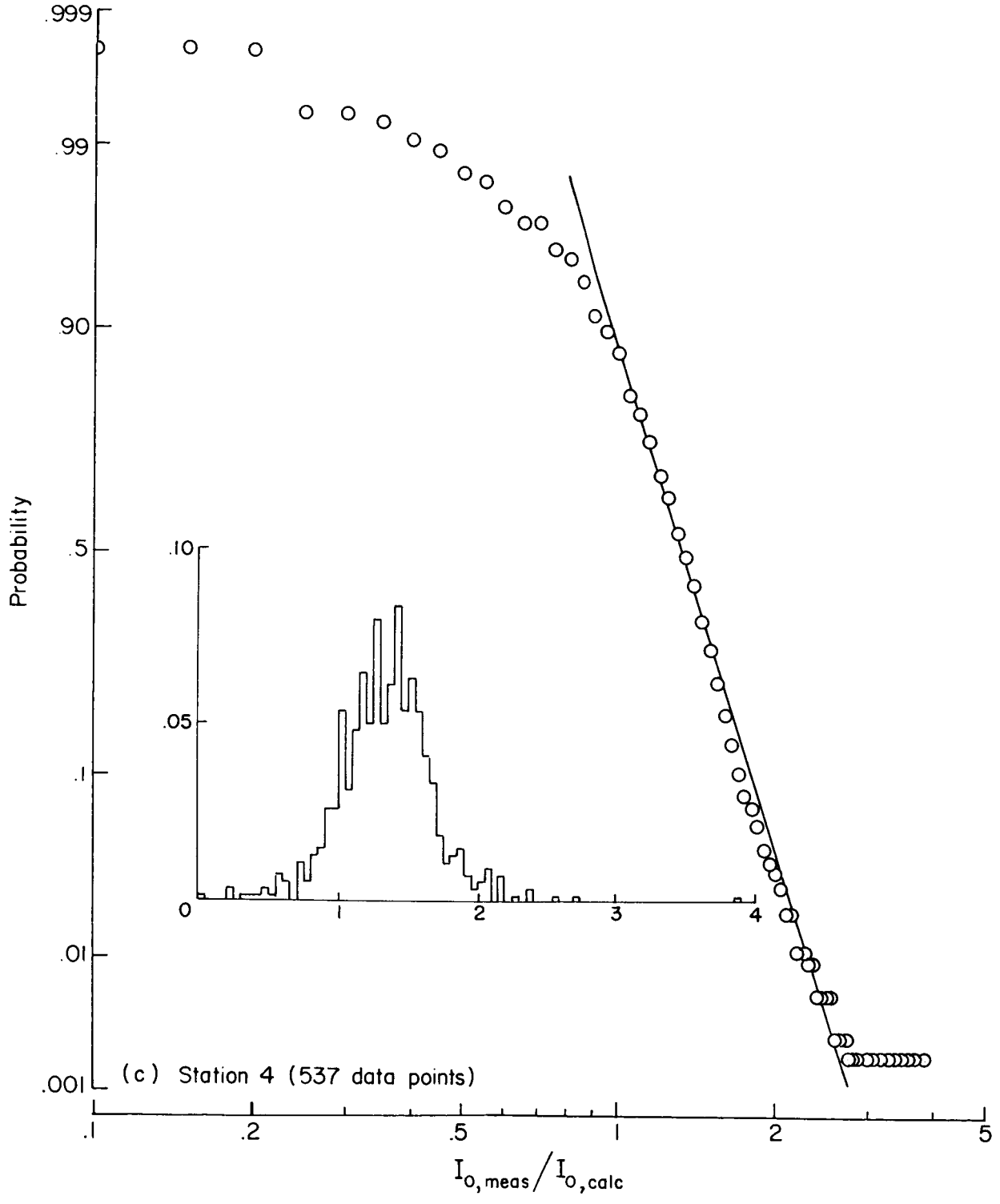


Figure 9.- Concluded.

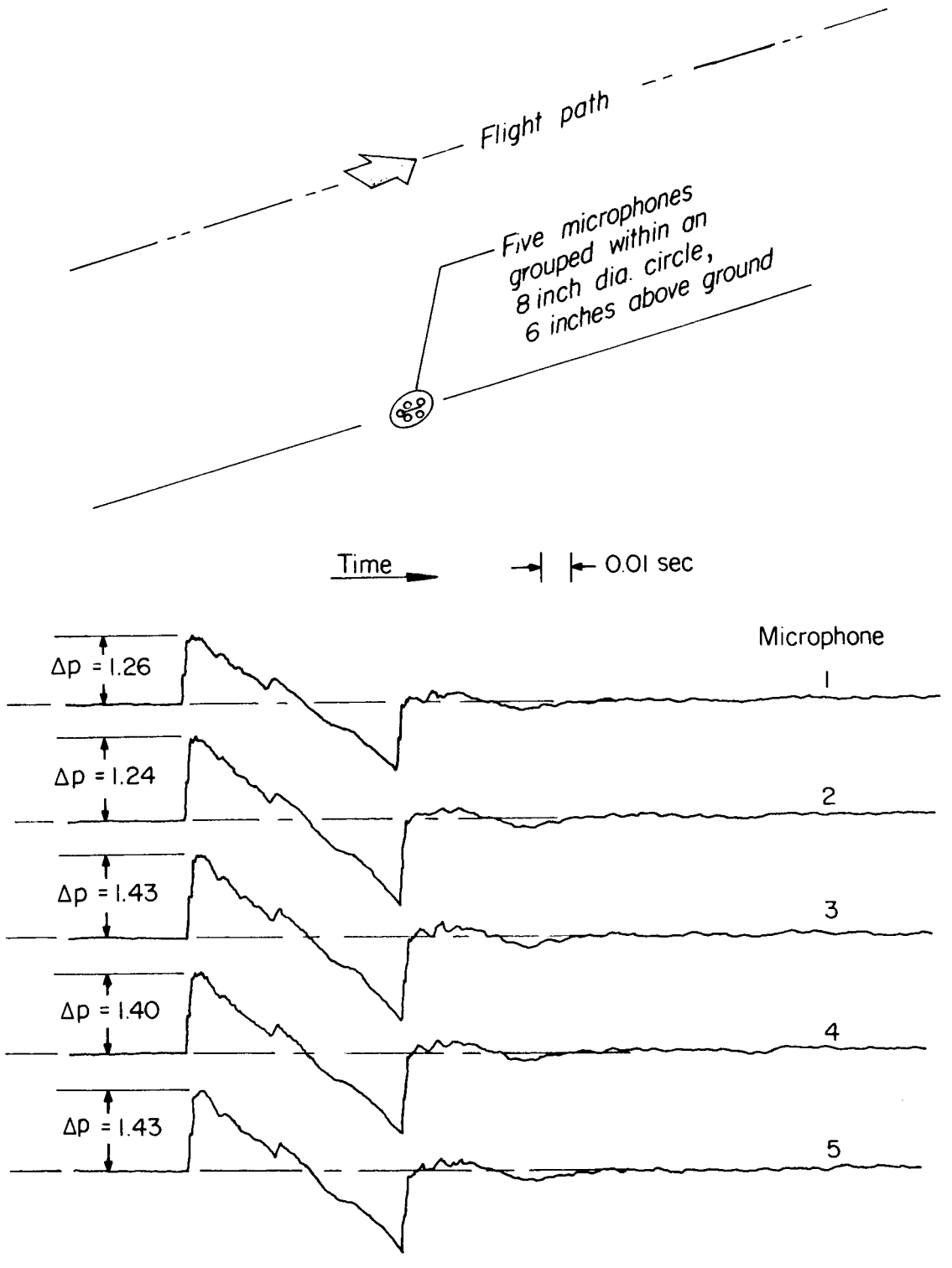
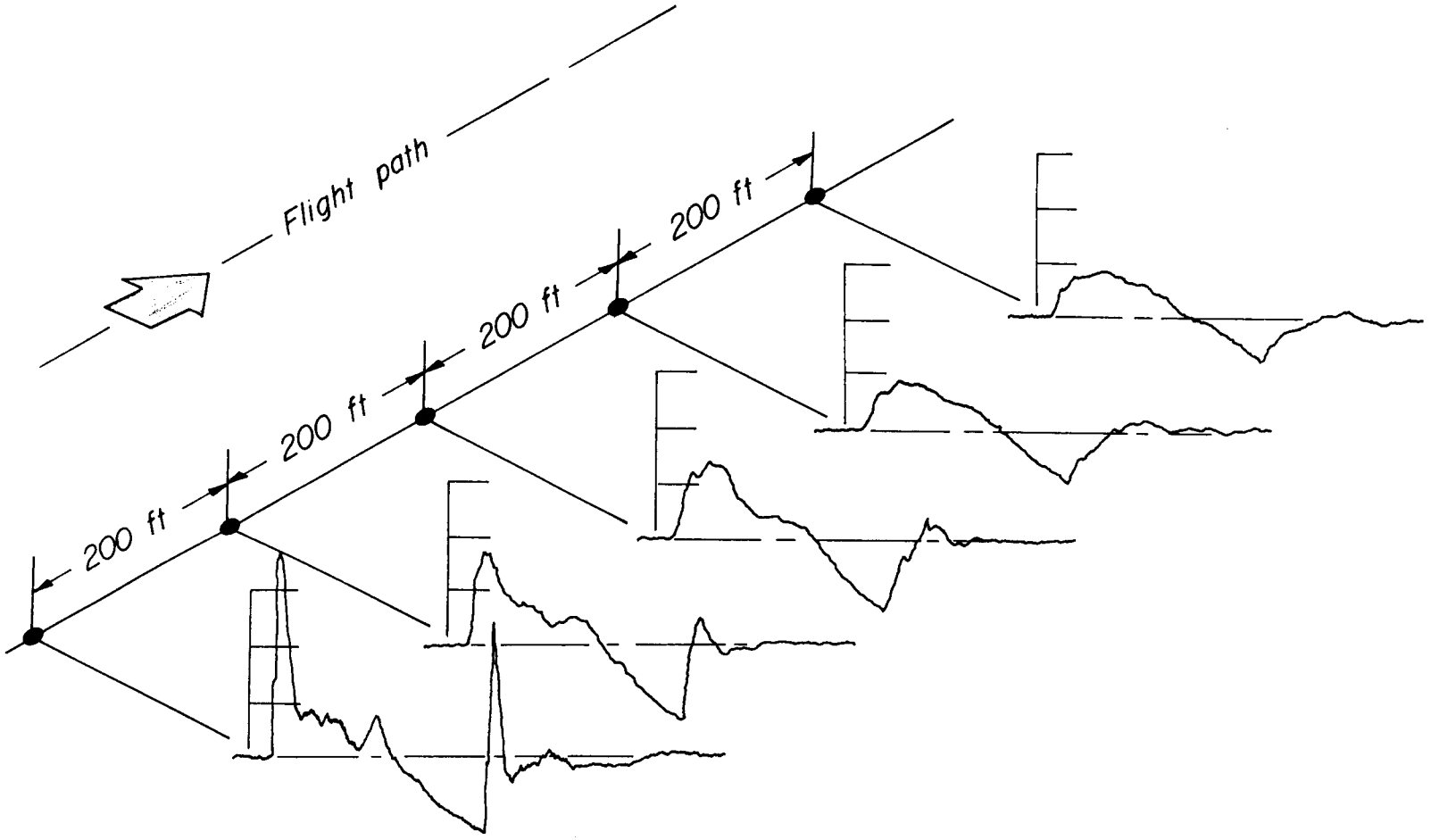
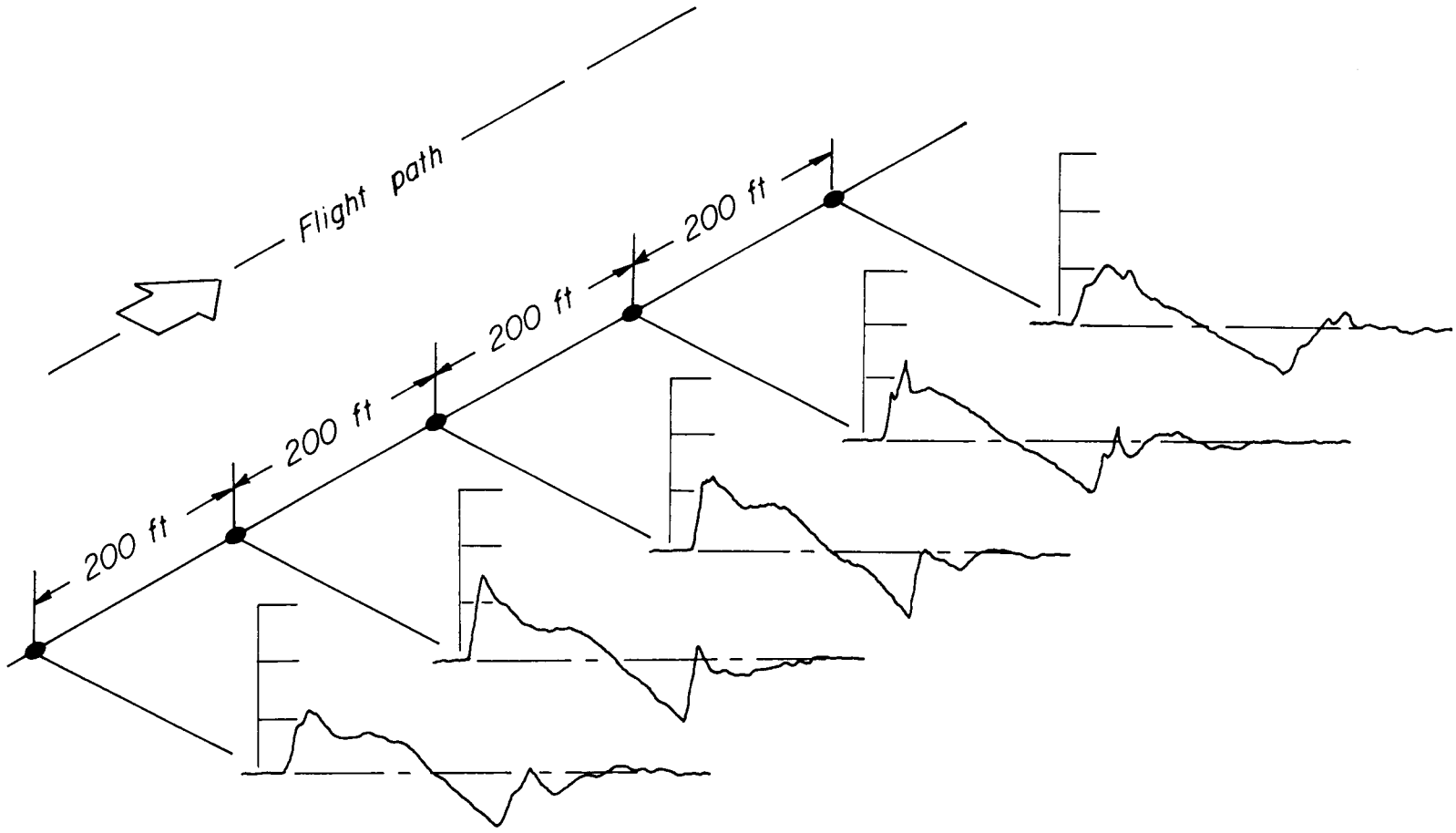


Figure 10.- Sonic-boom pressure signatures for airplane A at an altitude of 28,000 feet and a Mach number of 1.5 from five microphones grouped within 8 inches of ground.



(a) Time of flight, 0730 hours.

Figure 11.- Measured sonic-boom pressure signatures at several points along the ground track of airplane A in steady-level flight at Mach number 1.7 and an altitude of 28,000 feet at different times of day.



(b) Time of flight, 0930 hours.

Figure 11.- Concluded.

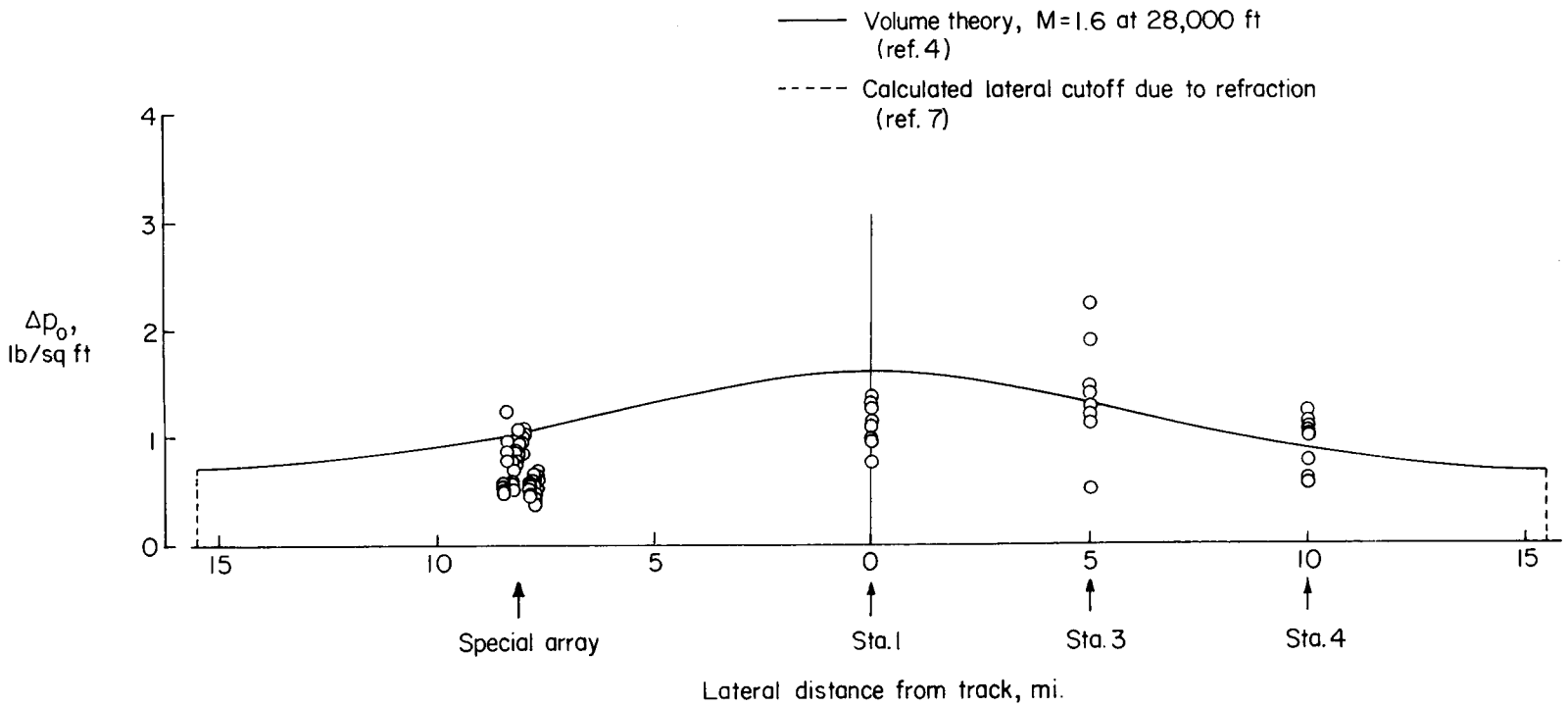
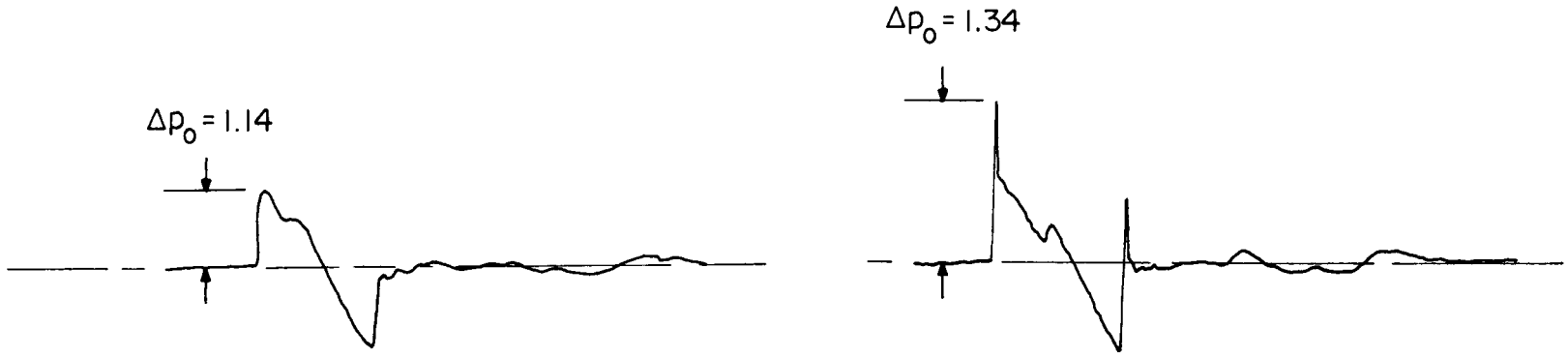
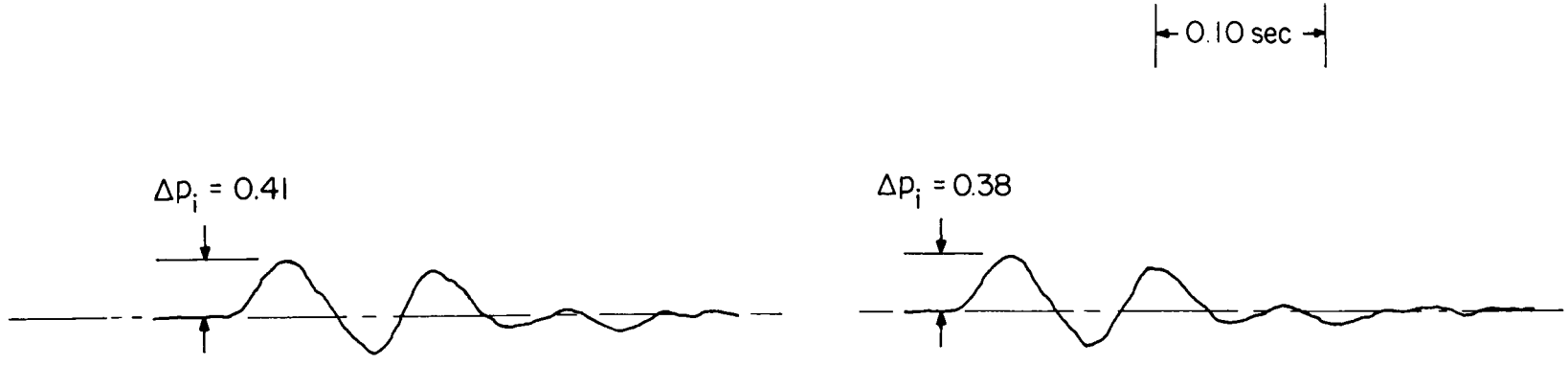


Figure 12.- Measured ground overpressures at several measuring stations at different distances from the ground track. Data are for eight flights of airplane A on April 6, 1964 for an altitude of 28,000 feet at Mach numbers of 1.5 and 1.7.

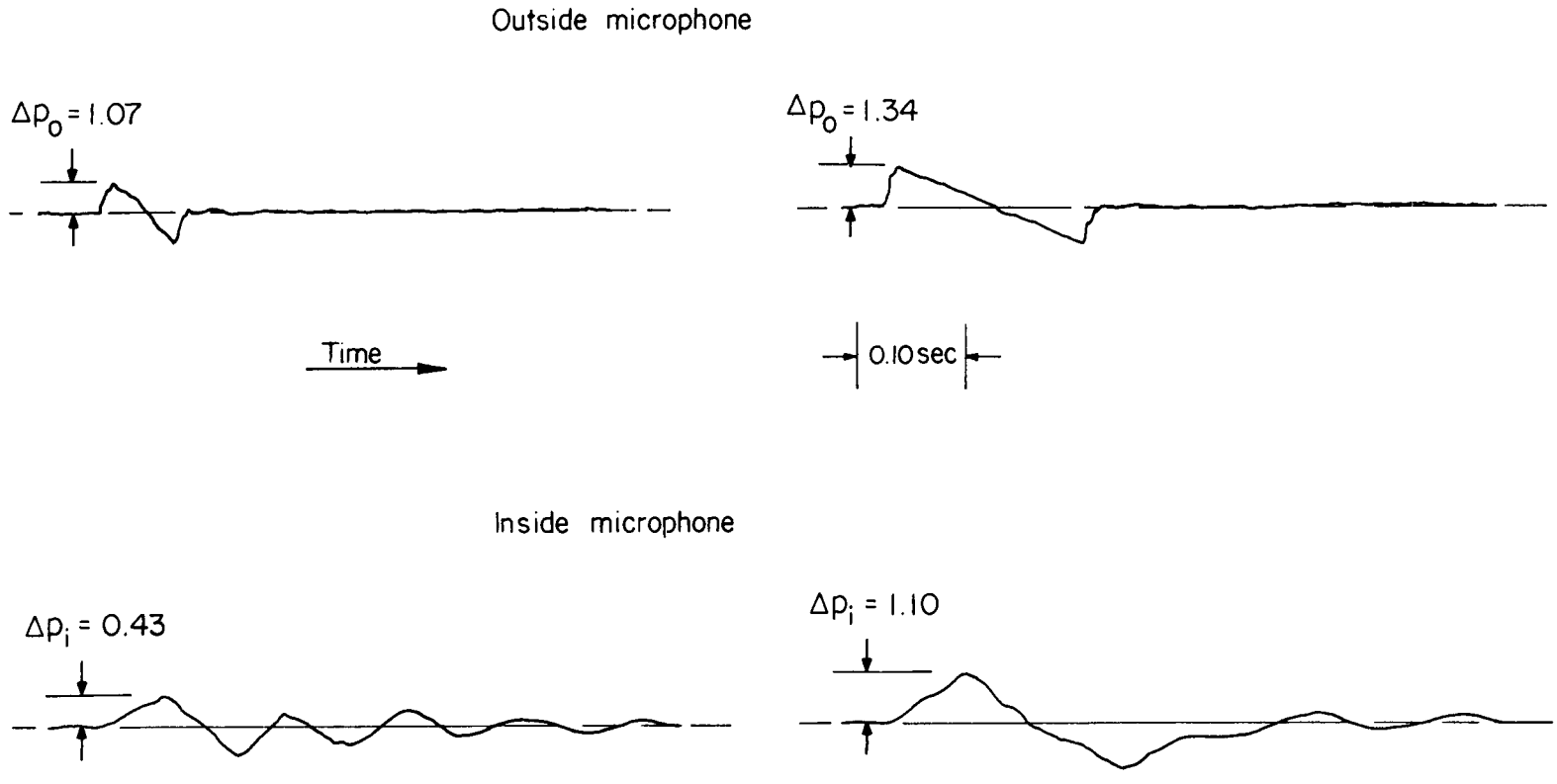


(a) Outside microphone.



(b) Inside microphone.

Figure 13.- Measured outside and inside pressure traces at station 1 for two different flights of airplane A.



(a) Airplane A.

(b) Airplane D.

Figure 14.- Measured outside and inside pressure traces at station 1 for airplanes A and D.

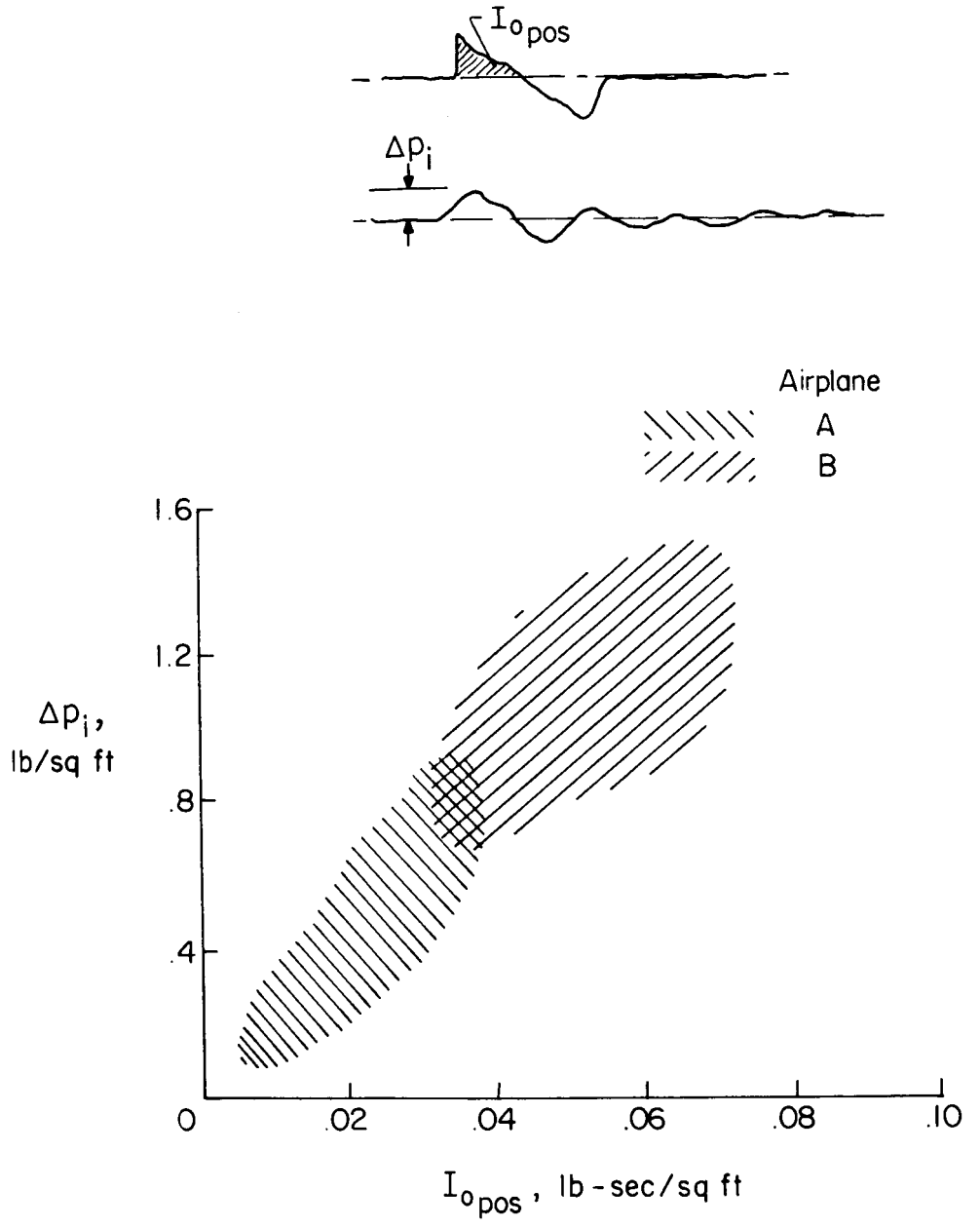


Figure 15.- Measured inside peak overpressure as a function of outside positive impulse as measured at station 1 for airplanes A and B.

NASA-Langley, 1964 L-4330

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—NATIONAL AERONAUTICS AND SPACE ACT OF 1958

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