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RESEARCH MEMORANDUM

EVALUATION OF GUST AND DRAFT VELOCITIES FROM FLIGHTS OF P-61C AIRPLANES WITHIN THUNDERSTORMS AUGUST 13, 1947 TO AUGUST 15, 1947 AT CLINTON COUNTY ARMY AIR FIELD, OHIO

By

Jack Funk

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Langley Field, Va.

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RESEARCH MEMORANDUM

EVALUATION OF GUST AND DRAFT VELOCITIES FROM FLIGHTS OF P-61C AIRPLANES WITHIN THUNDERSTORMS AUGUST 13, 1947 TO AUGUST 15, 1947 AT CLINTON COUNTY ARMY AIR FIELD, OHIO

By Jack Funk

The results obtained from measurements of gust and draft velocities within thunderstorms at Clinton County Army Air Field, Ohio, for the period of August 13, 1947 to August 15, 1947 are presented herein. These data are summarized in tables I and II, respectively, and are of the type presented in reference 1 for previous flights. The length of traverses in feet was not computed for these flights in order to expedite handling of the data.

Langley Memorial Aeronautical Laboratory
National Advisory Committee for Aeronautics
Langley Field, Va.

Jack Funk

Jack Funk
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Approved: Richard V. Rhode

Richard V. Rhode
Chief of Aircraft Loads Division

CJB

REFERENCE

1. Tolefson, H. B.: Evaluation of Gust and Draft Velocities from Flight of P-61C Airplanes within Thunderstorms May 13, 1947 to May 29, 1947 at Clinton County Army Air Field, Ohio. NACA RM No. L7J29, 1947.

TABLE I.- SUMMARY OF GUST MEASUREMENTS FROM FLIGHTS

OF P-61C AIRPLANES WITHIN THUNDERSTORMS

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)	Maximum true gust velocity $U_{t_{max}}$ (fps)	Gust gradient distance (ft)	No. of gusts
August 13, 1947 - Flight 23					
Airplane 344 20,000 ft					
(a)					
Airplane 327 - Traverse 1 Length of traverse 477.2 sec					
0 - 100	15,000	----	-----	----	-----	---	---	0
100 - 110		9.5	-8.7	8.6	-----	127	---	11
[b]110 - 120		8.0	-15.1	----	-----	---	---	4
120 - 130	14,500	10.6	-6.9	----	-----	---	---	7
130 - 140		8.9	-10.9	8.9	-----	147	---	5
140 - 150		8.5	-6.1	----	-6.7	---	118	4
150 - 160		3.6	-3.5	----	-----	---	---	2
160 - 170		----	-----	----	-----	---	---	0
170 - 180		2.3	-5.1	----	-----	---	---	3
180 - 260		----	-----	----	-----	---	---	0
[c]260 - 270	15,000	----	-----	----	-----	---	---	0
270 - 300		----	-----	----	-----	---	---	0
300 - 340	14,500	----	-----	----	-----	---	---	0
340 - 350		1.4	-----	----	-----	---	---	1
350 - 360		6.1	-----	----	-----	---	---	1
360 - 370	15,000	----	-3.9	----	-----	---	---	2
370 - 380		----	-----	----	-----	---	---	0
380 - 480	14,500	----	-----	----	-----	---	---	0
Airplane 327 - Traverse 2 Length of traverse 1010.0 sec								
0 - 90	14,500	----	-----	----	-----	---	---	0
[b]90 - 100		7.0	-----	11.5	-----	68	---	1

[a]Failure in operation of accelerometer prevented computation of gust velocities.
[b]Cloud entry.
[c]Cloud exit.

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TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 13, 1947 - Flight 23								
Airplane 327 - Traverse 2 Length of traverse 1010.0 sec								
100 - 110	15,000	----	-----	----	-----	---	---	0
110 - 120		2.7	-----	----	-----	---	---	1
120 - 130		3.5	-7.0	----	-----	---	---	3
130 - 140		----	-5.1	----	-----	---	---	1
140 - 150	14,500	4.3	-7.6	7.8	-----	30	---	3
150 - 160		5.6	-2.1	5.0	-6.9	24	24	3
160 - 170		6.1	-----	3.6	-----	159	---	1
170 - 180		4.2	-----	----	-----	---	---	1
180 - 190		4.8	-----	3.6	-----	126	---	1
190 - 280		----	-----	----	-----	---	---	0
280 - 290		10.5	-12.9	----	-18.4	---	64	5
290 - 300		6.1	-6.7	----	-----	---	---	2
300 - 310		4.6	-12.3	----	-----	---	---	5
310 - 320		12.5	-15.0	26.2	-----	175	---	5
320 - 330		11.3	-6.1	----	-----	---	---	3
[c]330 - 340	15,000	5.5	-5.4	9.4	-----	159	---	4
340 - 350		2.7	-----	----	-----	---	---	1
350 - 380		----	-----	----	-----	---	---	0
380 - 390		11.4	-3.5	----	-----	---	---	4
390 - 400		11.3	-4.1	----	-----	---	---	3
400 - 410	14,500	8.1	-2.9	----	-----	---	---	5
410 - 420		----	-----	----	-----	---	---	0
420 - 450	15,000	----	-----	----	-----	---	---	0
450 - 460		3.4	-----	----	-----	---	---	1
[b]460 - 470	14,500	6.3	-8.1	----	-----	---	---	10
470 - 480		8.1	-9.5	----	-----	---	---	2
480 - 490		14.8	-6.9	----	-----	---	---	8
490 - 500		6.9	-----	----	-----	---	---	1
[c]500 - 510		----	-----	----	-----	---	---	0
510 - 670		----	-----	----	-----	---	---	0
670 - 680		----	-3.0	----	-7.4	---	84	1
[b]680 - 690		5.1	-4.9	----	-10.9	---	123	3

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 13, 1947 - Flight 23								
Airplane 327 - Traverse 2 Length of traverse 1010.0 sec								
[b]690 - 700	14,500	6.3	-5.2	12.0	-----	42	---	5
700 - 710		13.4	-13.7	35.0	-----	141	---	5
710 - 720		14.3	-4.9	27.0	-----	78	---	6
720 - 730	15,000	----	-3.6	----	-----	---	---	1
730 - 740		4.6	-3.6	4.0	-----	114	---	2
740 - 750		----	-----	----	-----	---	---	0
[c]750 - 760		----	-----	----	-----	---	---	0
760 - 770	14,500	----	-----	----	-----	---	---	0
770 - 780		----	-4.9	----	-8.4	---	125	1
780 - 790		5.7	-----	----	-----	---	---	2
790 - 800		----	-----	----	-----	---	---	0
800 - 810		4.4	-5.4	----	-----	---	---	2
810 - 820		6.3	-4.2	8.0	-----	80	---	5
820 - 830		7.1	-----	9.8	-----	193	---	1
830 - 840		8.4	-----	----	-----	---	---	1
840 - 850		----	-4.9	----	-----	---	---	1
850 - 860		5.0	-6.2	----	-9.3	---	172	2
860 - 870		----	-3.5	----	-11.3	---	145	1
870 - 890		----	-----	----	-----	---	---	0
890 - 900		5.2	-3.6	----	-----	---	---	5
900 - 910		----	-5.6	----	-----	---	---	3
910 - 920		----	-6.9	----	-----	---	---	1
920 - 930		----	-5.5	----	-9.6	---	229	2
930 - 940		3.7	-3.0	----	-----	---	---	2
940 - 960		----	-----	----	-----	---	---	0
[b]960 - 970		----	-----	----	-----	---	---	0
970 - 980		8.2	-3.4	13.2	-9.1	224	156	5
980 - 990		----	-4.0	----	-----	---	---	2
990 - 1000	15,000	2.2	-----	8.0	-----	84	---	1
[c]1000 - 1010		2.7	-----	----	-----	---	---	1

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 13, 1947 - Flight 23								
Airplane 327 - Traverse 3 Length of traverse 1999.2 sec								
0 - 30	14,500	----	-----	----	-----	---	---	0
[b]30 - 40		4.1	-----	----	-----	---	---	1
40 - 50	15,000	8.2	-8.9	----	-----	---	---	8
50 - 60		3.6	-6.7	----	-----	---	---	3
60 - 70		4.4	-3.1	----	-----	---	---	3
70 - 80		----	-----	----	-----	---	---	0
80 - 90		3.5	-4.8	----	-----	---	---	2
90 - 100		4.6	-5.6	----	-----	---	---	7
100 - 110		17.2	-----	29.5	-----	55	---	3
110 - 120		3.5	-10.5	----	-8.8	---	151	8
[c]120 - 130		13.7	-3.4	14.7	-----	36	---	5
130 - 140		2.7	-----	9.6	-----	109	---	2
140 - 190		----	-----	----	-----	---	---	0
190 - 240	14,500	----	-----	----	-----	---	---	0
240 - 250	15,000	----	-----	----	-----	---	---	0
[b]250 - 260		----	-----	----	-----	---	---	0
260 - 270		3.6	-2.2	9.5	-----	63	---	4
270 - 280		7.7	-9.4	----	-----	---	---	6
280 - 290		8.0	-6.8	11.0	-13.2	112	126	5
290 - 300		9.8	-12.9	----	-----	---	---	5
300 - 310		5.4	-5.2	9.3	-----	173	---	3
[c]310 - 320		----	-----	----	-----	---	---	0
320 - 330		----	-----	----	-----	---	---	0
330 - 340		3.7	-3.1	----	-----	---	---	2
340 - 350		7.0	-----	----	-----	---	---	1
[b]350 - 360		----	-----	----	-----	---	---	0
360 - 370		----	-3.5	----	-----	---	---	2
[c]370 - 380		----	-----	----	-----	---	---	0
380 - 400		----	-----	----	-----	---	---	0
400 - 770	14,500	----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 13, 1947 - Flight 23								
Airplane 327 - Traverse 3 Length of traverse 1999.2 sec								
[b]770 - 780	14,500	----	-----	----	-----	---	---	0
780 - 790	15,000	4.9	-4.0	----	-6.9	---	199	4
790 - 800		7.7	-5.3	----	-----	---	---	8
800 - 810		22.0	-16.2	13.7	-----	230	---	7
810 - 820		7.8	-12.5	----	-----	---	---	5
820 - 830		----	-8.5	----	-----	---	---	3
830 - 840		----	-----	----	-----	---	---	0
840 - 850		2.8	-5.8	----	-----	---	---	2
850 - 860		3.5	-----	6.7	-----	61	---	1
860 - 870	15,500	5.0	-9.3	9.8	-----	229	---	7
870 - 880		----	-8.0	----	-16.9	---	134	2
880 - 890	15,000	4.4	-2.2	----	-----	---	---	5
890 - 900		6.1	-4.8	9.0	-----	70	---	4
900 - 910		3.4	-2.1	----	-----	---	---	3
910 - 920		3.8	-2.8	----	-5.9	---	139	4
920 - 930		----	-2.8	----	-4.8	---	140	1
930 - 940		----	-----	----	-----	---	---	0
[c]940 - 950		----	-----	----	-----	---	---	0
950 - 1100		----	-----	----	-----	---	---	0
[b]1100 - 1110		----	-----	----	-----	---	---	0
1110 - 1120		2.0	-3.3	----	-----	---	---	2
1120 - 1130		2.5	-----	5.5	-----	31	---	1
1130 - 1140		----	-----	----	-----	---	---	0
1140 - 1150		2.6	-----	----	-----	---	---	1
1150 - 1160		6.2	-10.9	----	-----	---	---	7
1160 - 1170		12.1	-2.8	----	-----	---	---	6
1170 - 1180		10.2	-9.1	----	-----	---	---	10
1180 - 1190		4.4	-9.6	----	-----	---	---	6
1190 - 1200		4.9	-5.2	----	-----	---	---	5

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 13, 1947 - Flight 23								
Airplane 327 - Traverse 3 Length of traverse 1999.2 sec								
1200 - 1210	15,000	----	-4.9	----	-12.1	---	256	1
1210 - 1220		15.3	-13.0	18.5	-----	147	---	8
1220 - 1230	15,500	----	-9.8	----	-----	---	---	1
1230 - 1240		3.5	-----	9.1	-----	85	---	1
1240 - 1250		2.3	-----	10.4	-----	107	---	1
[c]1250 - 1260	15,000	----	-----	----	-----	---	---	0
1260 - 1320		----	-----	----	-----	---	---	0
1320 - 1580	14,500	----	-----	----	-----	---	---	0
1580 - 1590		3.3	-3.3	----	-----	---	---	2
1590 - 1600		3.3	-2.0	3.5	-----	125	---	2
1600 - 1610		----	-----	----	-----	---	---	0
[b]1610 - 1620		----	-----	----	-----	---	---	0
1620 - 1630		----	-----	----	-----	---	---	0
1630 - 1640		9.5	-6.2	----	-----	---	---	8
1640 - 1650		10.1	-21.8	----	-----	---	---	7
1650 - 1660	15,000	----	-6.1	----	-----	---	---	1
1660 - 1670		4.9	-2.9	8.2	-6.2	26	106	4
1670 - 1680		3.4	-6.1	----	-----	---	---	7
1680 - 1690		3.3	-----	----	-----	---	---	2
1690 - 1700	14,500	----	-2.7	----	-8.6	---	155	1
1700 - 1710		----	-3.8	----	-----	---	---	1
[c]1710 - 1720		----	-----	----	-----	---	---	0
1720 - 1870		----	-----	----	-----	---	---	0
1870 - 1880		----	-2.9	----	-5.9	---	42	3
1880 - 1900		----	-----	----	-----	---	---	0
1900 - 1940	15,000	----	-----	----	-----	---	---	0
1940 - 1950	14,500	3.5	-3.0	----	-----	---	---	2
1950 - 1960		4.0	-2.1	----	-5.2	---	110	5
1960 - 1970		----	-2.0	----	-4.1	---	43	1
1970 - 1990		----	-----	----	-----	---	---	0
1990 - 2000		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

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TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 13, 1947 - Flight 23								
Airplane 327 - Traverse 4 Length of traverse 237.3 sec								
0 - 30	14,500	----	-----	----	-----	---	---	0
[b]30 - 40		12.0	-17.5	----	-6.8	---	90	4
40 - 50		8.9	-7.2	----	-----	---	---	9
50 - 60	15,000	10.4	-6.2	16.1	-----	107	---	6
60 - 70		----	-8.5	----	-----	---	---	1
70 - 80		4.6	-6.5	----	-----	---	---	3
80 - 90		----	-----	----	-----	---	---	0
90 - 100	14,500	4.5	-----	8.4	-----	68	---	1
100 - 110		4.6	-5.1	----	-----	---	---	3
110 - 120		6.7	-4.5	11.7	-----	113	---	4
120 - 130		4.7	-2.8	----	-----	---	---	2
130 - 140		8.9	-5.1	10.2	-6.5	138	62	7
140 - 150		----	-4.8	----	-----	---	---	2
150 - 160		2.6	-3.4	----	-----	---	---	3
160 - 170		4.6	-2.8	----	-----	---	---	5
170 - 180		2.1	-----	8.4	-----	88	---	1
180 - 190		----	-----	----	-----	---	---	0
190 - 200		15.7	-----	22.8	-----	133	---	1
200 - 210		5.5	-6.5	----	-19.8	---	193	8
210 - 220		----	-----	----	-----	---	---	0
220 - 230	15,000	1.4	-----	----	-----	---	---	1
[c]230 - 240		----	-----	----	-----	---	---	0
Airplane 333 - Traverse 1 Length of traverse 179.5 sec								
0 - 20	10,000	(a)						
20 - 80	9,500							
80 - 100	10,000							
100 - 180	9,500							

[a]Failure in operation of accelerometer prevented computation of gust velocities.
[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 13, 1947 - Flight 23								
Airplane 333 - Traverse 2 Length of traverse 160.8 sec								
0 - 20	10,000							
20 - 90	9,500	(d)						
90 - 110		----	-----	----	-----	---	---	0
[c]110 - 120		----	-----	----	-----	---	---	0
120 - 170	10,000	----	-----	----	-----	---	---	0
Airplane 333 - Traverse 3 Length of traverse 339.8 sec								
0 - 10	10,000	(e)						
10 - 50		----	-----	----	-----	---	---	0
[b]50 - 60		12.7	-3.6	----	-6.0	---	89	3
60 - 70		11.4	-7.0	----	-----	---	---	8
70 - 80		4.7	-11.0	----	-8.2	---	80	4
[c]80 - 90		2.7	-10.0	----	-----	---	---	5
90 - 120		----	-----	----	-----	---	---	0
120 - 210	9,500	----	-----	----	-----	---	---	0
[b]210 - 220		----	-----	----	-----	---	---	0
220 - 230		5.4	-14.7	10.1	-5.8	232	90	5
230 - 240		13.5	-10.2	7.6	-----	154	---	7
240 - 250		8.5	-5.2	10.8	-----	86	---	6
250 - 260		7.4	-----	9.7	-----	141	---	3
[c]260 - 270		----	-----	----	-----	---	---	0
270 - 340		----	-----	----	-----	---	---	0
Airplane 333 - Traverse 4 Length of traverse 258.0 sec								
0 - 20	9,500	(f)						
20 - 50		----	-----	----	-----	---	---	0
50 - 90	10,000	----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.
[d]Accelerometer inoperative for first 93 sec of traverse.
[e]Accelerometer inoperative for first 17 sec of traverse.
[f]Accelerometer inoperative for first 25 sec of traverse.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No of gusts
August 13, 1947 - Flight 23								
Airplane 333 - Traverse 4 Length of traverse 258.0 sec								
90 - 140	9,500	----	-----	----	-----	---	---	0
[b]140 - 150		3.6	-7.2	4.1	-11.6	124	148	3
150 - 160		4.2	-7.2	----	-----	---	---	11
160 - 170		6.5	-5.8	----	-6.2	---	70	2
170 - 180		7.7	-4.4	----	-----	---	---	5
180 - 190		----	-5.1	----	-----	---	---	1
[c]190 - 200		----	-----	----	-----	---	---	0
200 - 260		----	-----	----	-----	---	---	0
Airplane 333 - Traverse 5 Length of traverse 157.4 sec								
0 - 60	9,500	(g)						
60 - 100	10,000							
100 - 110	9,500	3.4	-4.4	----	-----	---	---	5
110 - 120		4.9	-3.7	----	-----	---	---	4
120 - 130		----	-5.3	----	-----	---	---	1
130 - 140		8.5	-----	19.5	-----	75	---	2
140 - 150		----	-----	----	-----	---	---	0
[c]150 - 160		----	-----	----	-----	---	---	0
Airplane 333 - Traverse 6 Length of traverse 489.6 sec								
0 - 50	9,500	(h)						
50 - 160	10,000							
160 - 170		----	-8.6	----	-----	---	---	1
170 - 180		6.0	-5.8	----	-5.1	---	99	5
[c]180 - 190		5.1	-3.0	----	-6.6	---	70	3
190 - 200		----	-3.8	----	-----	---	---	1
200 - 230		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.
[g]Accelerometer inoperative for first 101 sec of traverse.
[h]Accelerometer inoperative for first 166 sec of traverse.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 13, 1947 - Flight 23								
Airplane 333 - Traverse 6 Length of traverse 489.6 sec								
230 - 240	10,000	----	-4.6	----	-----	---	---	1
240 - 250		----	-----	----	-----	---	---	0
250 - 270	9,500	----	-----	----	-----	---	---	0
270 - 290	10,000	----	-----	----	-----	---	---	0
290 - 300		----	-3.8	----	-6.6	---	67	2
300 - 310		8.8	-1.7	18.5	-3.0	29	65	3
[b]310 - 320		9.0	-6.9	----	-----	---	---	5
320 - 330		2.9	-7.6	----	-----	---	---	5
330 - 340		8.8	-8.3	----	-13.6	---	201	5
340 - 350		7.4	-7.7	----	-12.5	---	86	6
350 - 360	9,500	9.7	-10.2	----	-----	---	---	4
360 - 370		18.2	-14.7	----	-----	---	---	6
370 - 380	10,000	8.8	-12.6	----	-----	---	---	4
380 - 390		12.5	-18.1	13.0	-8.4	96	200	7
390 - 400		13.2	-6.9	----	-----	---	---	9
400 - 410		4.0	-3.4	8.8	-----	156	---	2
410 - 420		5.4	-4.9	12.6	-----	87	---	7
420 - 430		9.2	-7.7	6.5	-----	136	---	14
430 - 440		2.8	-4.5	----	-8.9	---	35	2
440 - 450		7.8	-8.3	----	-----	---	---	6
[c]450 - 460		6.9	-4.2	----	-----	---	---	4
460 - 490	9,500	----	-----	----	-----	---	---	0
Airplane 333 - Traverse 7 Length of traverse 642.6 sec								
0 - 100	9,500	(i)						
100 - 110		----	-8.8	----	-----	---	---	1
110 - 120		19.4	-5.7	----	-----	---	---	5
120 - 130		5.6	-7.2	----	-----	---	---	5
130 - 140		3.4	-2.1	----	-----	---	---	2

[b]Cloud entry.
[c]Cloud exit.
[i]Accelerometer inoperative for first 107 sec of traverse.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 13, 1947 - Flight 23								
Airplane 333 - Traverse 7 Length of traverse 642.6 sec								
140 - 150	9,500	4.7	-----	----	-----	---	---	1
150 - 160		----	-----	----	-----	---	---	0
160 - 170		----	-2.8	----	-----	---	---	1
170 - 180		5.3	-3.5	----	-5.6	---	154	2
180 - 190		----	-----	----	-----	---	---	0
190 - 200		11.1	-11.4	8.4	-----	87	---	7
200 - 210		14.3	-9.5	----	-16.0	---	270	3
210 - 220	10,000	15.2	-10.3	----	-----	---	---	6
220 - 230		10.8	-16.1	----	-----	---	---	3
230 - 240		8.3	-11.3	----	-----	---	---	4
240 - 250		2.8	-12.1	19.9	-22.5	223	317	3
[c]250 - 260	9,500	----	-----	----	-----	---	---	0
260 - 270		5.1	-11.0	----	-----	---	---	3
270 - 280		7.4	-3.3	17.2	-9.7	102	226	4
280 - 290		8.7	-3.8	----	-----	---	---	3
290 - 300		3.2	-3.9	3.4	-6.3	44	134	2
300 - 310		----	-2.1	----	-3.1	---	78	1
310 - 320	10,000	----	-2.1	----	-----	---	---	1
320 - 330		----	-----	----	-----	---	---	0
330 - 410	9,500	----	-----	----	-----	---	---	0
410 - 420		3.0	-----	5.0	-----	238	---	1
420 - 430		----	-----	----	-----	---	---	0
430 - 440		----	-6.0	----	-10.8	---	55	1
440 - 460		----	-----	----	-----	---	---	0
460 - 470		----	-2.8	----	-----	---	---	1
470 - 480		3.3	-----	5.3	-----	131	---	1
[b]480 - 490		----	-2.8	----	-----	---	---	3
490 - 500		8.6	-4.3	3.1	-----	144	---	3
500 - 510		3.4	-4.4	5.7	-10.1	88	68	4
510 - 520		7.6	-5.7	----	-4.5	---	149	8
520 - 530		7.6	-17.5	----	-----	---	---	6

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 13, 1947 - Flight 23								
Airplane 333 - Traverse 7 Length of traverse 642.6 sec								
530 - 540	10,000	7.7	-6.0	9.0	-----	186	---	6
540 - 550		3.3	-12.0	----	-----	---	---	4
550 - 560		2.7	-2.9	6.6	-----	39	---	2
[c]560 - 570		----	-----	----	-----	---	---	0
570 - 580	9,500	----	-3.3	----	-5.7	---	298	1
580 - 590		10.1	-1.5	----	-7.3	---	191	3
590 - 600		----	-----	----	-----	---	---	0
600 - 610		9.2	-14.2	----	-----	---	---	2
610 - 650		----	-----	----	-----	---	---	0
Airplane 333 - Traverse 8 Length of traverse 200.6 sec								
0 - 80	9,500	(j)						
80 - 100		----	-----	----	-----	---	---	0
100 - 110		5.3	-3.4	----	-6.9	---	260	2
[b]110 - 120		6.5	-12.2	10.6	-----	110	---	2
120 - 130		5.9	-6.8	----	-----	---	---	6
130 - 140	10,000	3.9	-----	7.1	-----	50	---	1
140 - 150		----	-3.3	----	-----	---	---	1
150 - 160		----	-2.7	----	-----	---	---	1
160 - 170		----	-3.9	----	-4.3	---	206	2
170 - 180	9,500	----	-----	----	-----	---	---	0
180 - 190		6.5	-----	5.1	-----	105	---	1
190 - 200		----	-----	----	-----	---	---	0
[c]200 - 210		----	-----	----	-----	---	---	0
Airplane 333 - Traverse 9 Length of traverse 726.9 sec								
0 - 120	10,000	(k)						
120 - 190	9,500							

[b]Cloud entry.
[c]Cloud exit.
[j]Accelerometer inoperative for first 79 sec of traverse.
[k]Accelerometer inoperative for first 193 sec of traverse.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 13, 1947 - Flight 23								
Airplane 333 - Traverse 9 Length of traverse 726.9 sec								
190 - 510	9,500	----	-----	----	-----	---	---	0
[b]510 - 520		----	-2.1	----	-7.2	---	87	2
520 - 530		5.2	-4.1	----	-----	---	---	6
530 - 540		----	-4.2	----	-----	---	---	3
540 - 550		4.7	-10.4	----	-15.6	---	179	3
550 - 560		6.7	-5.9	----	-----	---	---	4
560 - 590		----	-----	----	-----	---	---	0
590 - 600		3.9	-9.6	----	-----	---	---	2
600 - 610	10,000	4.0	-4.8	----	-----	---	---	2
610 - 620		4.2	-----	9.3	-----	124	---	2
620 - 630		----	-----	----	-----	---	---	0
630 - 640		----	-1.7	----	-----	---	---	2
640 - 650		----	-3.7	----	-8.4	---	100	2
650 - 660		5.0	-3.7	----	-----	---	---	2
660 - 670		----	-5.3	----	-----	---	---	3
670 - 680		6.3	-7.5	----	-----	---	---	6
680 - 690		10.5	-8.4	----	-----	---	---	8
690 - 700		6.9	-4.9	----	-----	---	---	3
700 - 710		8.1	-6.2	----	-----	---	---	4
710 - 720		----	-----	----	-----	---	---	0
[c]720 - 730		----	-----	----	-----	---	---	0
August 14, 1947 - Flight 24								
Airplane 344 - Traverse 1 Length of traverse 364.2 sec								
0 - 10	19,500	4.9	-5.6	----	-----	---	---	2
10 - 20		----	-3.3	----	-4.0	---	50	1
20 - 30	20,000	----	-----	----	-----	---	---	0
30 - 40		5.4	-5.6	----	-7.8	---	102	2
40 - 50		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{s_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 344 - Traverse 1 Length of traverse 364.2 sec								
50 - 60	20,000	3.3	-----	8.5	-----	153	---	1
60 - 70		----	-4.8	----	-6.9	---	77	2
70 - 80		2.6	-5.6	----	-----	---	---	4
80 - 90		----	-4.7	----	-----	---	---	1
90 - 110	19,500	----	-----	----	-----	---	---	0
110 - 120		----	-3.9	----	-6.4	---	275	1
120 - 130		----	-4.5	----	-----	---	---	1
130 - 140		2.4	-----	7.8	-----	49	---	1
140 - 150		----	-----	11.9	-----	37	---	1
150 - 230		----	-----	----	-----	---	---	0
[b]230 - 240		5.2	-----	----	-----	---	---	1
240 - 250		5.6	-4.7	7.7	-----	28	---	4
250 - 260		3.7	-----	----	-----	---	---	1
260 - 270		12.4	-7.1	----	-----	---	---	4
270 - 280	20,000	5.7	-11.2	----	-----	---	---	6
280 - 290		8.3	-10.9	----	-----	---	---	6
290 - 300		14.7	-19.4	----	-----	---	---	6
300 - 330	20,500	----	-----	----	-----	---	---	0
330 - 340	20,000	----	-----	----	-----	---	---	0
[c]340 - 350		----	-----	----	-----	---	---	0
350 - 370		----	-----	----	-----	---	---	0
Airplane 344 - Traverse 2 Length of traverse 158.0 sec								
0 - 10	20,000	1.9	-5.8	----	-----	---	---	2
[b]10 - 20		10.6	-5.4	9.8	-----	80	---	5
[c]20 - 30		6.5	-11.6	----	----	---	---	6
30 - 40	19,500	----	-----	----	-----	---	---	0
[b]40 - 50	20,000	15.4	-6.7	----	-----	---	---	2
50 - 60		22.5	-23.3	17.4	-----	33	---	6

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 344 - Traverse 2 Length of traverse 158.0 sec								
60 - 70	20,000	13.2	-18.1	----	-----	---	---	8
70 - 80		5.9	-8.6	----	-----	---	---	6
80 - 90		12.4	-5.5	----	-----	---	---	3
90 - 100		7.9	-----	----	-----	---	---	2
100 - 110		13.0	-7.7	----	-----	---	---	11
110 - 120		10.1	-11.4	----	-----	---	---	2
120 - 130		----	-----	----	-----	---	---	0
[c]130 - 140		----	-----	----	-----	---	---	0
140 - 160		----	-----	----	-----	---	---	0
Airplane 344 - Traverse 3 Length of traverse 204.2 sec								
0 - 20	20,500	----	-----	----	-----	---	---	0
20 - 30		----	-6.7	----	-11.0	---	61	1
[b]30 - 40	20,000	16.3	-----	----	-----	---	---	2
40 - 50		11.5	-6.5	----	-----	---	---	5
50 - 60		11.3	-10.8	----	-----	---	---	5
60 - 70	20,500	11.4	-9.5	----	-----	---	---	5
70 - 80	21,000	6.8	-7.9	----	-----	---	---	4
80 - 90		15.4	-12.9	43.6	-----	379	---	3
90 - 100		11.7	-10.4	----	-----	---	---	9
100 - 110		----	-----	----	-----	---	---	0
110 - 120		1.7	-4.6	----	-----	---	---	2
120 - 130	21,500	----	-5.6	----	-----	---	---	1
130 - 140		5.4	-----	----	-----	---	---	1
140 - 150		----	-7.6	----	-----	---	---	1
150 - 160	21,000	6.2	-4.5	----	-----	---	---	5
160 - 170		10.3	-5.3	----	-----	---	---	2
170 - 180		3.5	-4.4	----	-7.7	---	72	4
[c]180 - 190		----	-----	----	-----	---	---	0
190 - 210		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 344 - Traverse 4 Length of traverse 435.3 sec								
0 - 220	19,000	----	-----	----	-----	---	---	0
[b]220 - 230		1.6	-5.0	----	-----	---	---	2
230 - 240		3.1	-4.5	----	-----	---	---	3
240 - 250		----	-6.3	----	-8.2	---	162	3
250 - 260		13.7	-3.9	----	-----	---	---	5
260 - 270		8.2	-10.5	----	-----	---	---	5
270 - 280		15.6	-15.3	----	-----	---	---	9
280 - 290	20,000	18.8	-14.0	----	-----	---	---	7
290 - 300	20,500	25.4	-18.7	----	-----	---	---	9
300 - 310	21,000	16.4	-10.6	----	-----	---	---	8
310 - 320		11.3	-12.6	----	-----	---	---	8
320 - 330		2.4	-13.9	----	-----	---	---	5
330 - 340		8.3	-12.3	----	-----	---	---	4
340 - 360		----	-----	----	-----	---	---	0
360 - 370		1.6	-7.2	----	-----	---	---	3
370 - 380	20,500	4.7	-----	----	-----	---	---	2
380 - 390		2.3	-4.3	4.5	-----	92	---	2
390 - 400		5.1	-4.2	----	-----	---	---	3
400 - 410		----	-----	----	-----	---	---	0
[c]410 - 420		----	-----	----	-----	---	---	0
420 - 440		----	-----	----	-----	---	---	0
Airplane 344 - Traverse 5 Length of traverse 309.5 sec								
0 - 30	19,500	----	-----	----	-----	---	---	0
[b]30 - 40		5.0	-----	5.7	-----	147	---	3
40 - 80		----	-----	----	-----	---	---	0
80 - 90		4.4	-----	----	-----	---	---	2
90 - 100		2.3	-----	----	-----	---	---	1
100 - 110		----	-5.1	----	-8.1	---	139	1

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 344 - Traverse 5 Length of traverse 309.5 sec								
110 - 120	19,500	4.9	-----	----	-----	---	---	1
120 - 130		7.4	-14.9	----	-----	---	---	3
130 - 140		7.3	-7.6	----	-----	---	---	6
140 - 150	20,000	----	-9.9	----	-----	---	---	1
150 - 160		4.7	-----	----	-----	---	---	2
160 - 170		----	-----	----	-----	---	---	0
170 - 180		4.6	-----	----	-----	---	---	3
180 - 190		----	-5.2	----	-----	---	---	1
190 - 200		4.8	-----	----	-----	---	---	2
200 - 210		2.9	-----	7.9	-----	368	---	1
210 - 240		----	-----	----	-----	---	---	0
240 - 250	19,500	----	-----	----	-----	---	---	0
250 - 260		10.2	-10.7	23.9	-----	55	---	5
260 - 270		13.9	-12.9	----	-----	---	---	9
270 - 280	20,000	5.8	-6.5	----	-----	---	---	4
[c]280 - 290		----	-----	----	-----	---	---	0
290 - 300		7.7	-5.1	----	-----	---	---	2
300 - 310		----	-----	----	-----	---	---	0
Airplane 327 - Traverse 1 Length of traverse 465.6 sec								
0 - 60	14,500	----	-----	----	-----	---	---	0
60 - 70		7.9	-4.5	16.7	-----	258	---	2
70 - 80		----	-3.2	----	-4.3	---	167	2
80 - 90	15,000	----	-3.5	----	-----	---	---	1
90 - 100		----	-----	----	-----	---	---	0
100 - 110		4.1	-3.8	7.5	-----	77	---	2
110 - 120		7.0	-7.3	9.4	-----	117	---	5
120 - 130		7.0	-4.8	----	-----	---	---	3
130 - 140		----	-----	----	-----	---	---	0
140 - 150		----	-3.5	----	-----	---	---	1
150 - 160		3.5	-2.9	----	-----	---	---	2
[b]160 - 170		3.5	-----	----	-----	---	---	1

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 327 - Traverse 1 Length of traverse 465.6 sec								
170 - 180	15,000	9.5	-5.1	----	-----	---	---	7
180 - 190		----	-5.1	----	-----	---	---	2
190 - 200		16.5	-6.0	----	-----	---	---	6
200 - 210	15,500	7.3	-20.0	----	-----	---	---	4
210 - 220	16,000	12.1	-6.0	----	-10.5	---	114	4
220 - 230	15,500	11.4	-14.9	----	-----	---	---	5
230 - 240		17.8	-18.8	----	-----	---	---	4
240 - 250		8.9	-8.3	----	-----	---	---	2
250 - 280	16,000	----	-----	----	-----	---	---	0
[c]280 - 290		----	-----	----	-----	---	---	0
290 - 300		3.5	-----	----	-----	---	---	1
300 - 310		----	-6.7	----	-----	---	---	2
310 - 320		10.5	-13.7	----	-----	---	---	8
[b]320 - 330		16.5	-9.5	17.2	-23.1	159	91	3
330 - 340		20.0	-10.5	----	-----	---	---	7
340 - 350	16,500	26.1	-12.7	----	-----	---	---	7
350 - 360	17,000	5.1	-19.4	----	-----	---	---	6
360 - 370		----	-----	----	-----	---	---	0
[c]370 - 380		----	-----	----	-----	---	---	0
380 - 390		----	-----	----	-----	---	---	0
390 - 420	16,500	----	-----	----	-----	---	---	0
420 - 440	16,000	----	-----	----	-----	---	---	0
440 - 470	15,500	----	-----	----	-----	---	---	0
Airplane 327 - Traverse 2 Length of traverse 551.0 sec								
0 - 120	14,500	----	-----	----	-----	---	---	0
120 - 130		6.6	-----	----	-----	---	---	1
130 - 140		----	-----	----	-----	---	---	0
140 - 150		----	-2.2	----	-2.3	---	103	1

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 327 - Traverse 2 Length of traverse 551.0 sec								
150 - 160	14,500	2.8	-----	----	-----	---	---	1
160 - 170		----	-3.5	----	-----	---	---	1
[b]170 - 180		----	-5.1	----	-----	---	---	1
180 - 190	15,000	----	-----	----	-----	---	---	0
190 - 200		----	-3.5	----	-6.7	---	61	1
200 - 210		15.5	-11.1	24.0	-----	86	---	9
210 - 220		3.5	-10.1	----	-16.4	---	153	5
220 - 230		10.8	-1.9	----	-----	---	---	4
230 - 240		6.3	-7.6	----	-----	---	---	3
240 - 250	14,500	----	-----	----	-----	---	---	0
[c]250 - 260		----	-3.8	----	-----	---	---	1
260 - 290		----	-----	----	-----	---	---	0
290 - 340	15,000	----	-----	----	-----	---	---	0
340 - 350		2.2	-2.2	4.8	-4.1	62	68	2
350 - 360		----	-----	----	-----	---	---	0
[b]360 - 370		3.5	-4.7	----	-----	---	---	3
370 - 380		4.7	-2.2	----	-----	---	---	3
380 - 390	14,100	7.3	-3.5	----	-----	---	---	4
390 - 400		----	-4.1	----	-----	---	---	1
400 - 410		12.0	-9.2	----	-23.8	---	238	5
410 - 420	15,000	7.6	-10.1	----	-4.9	---	110	7
420 - 430		7.3	-7.0	----	-----	---	---	4
430 - 440		7.9	-5.4	----	-----	---	---	3
440 - 450	14,500	4.7	-7.9	----	-----	---	---	7
450 - 460		4.7	-5.1	7.6	-----	131	---	4
460 - 470		4.7	-8.2	----	-----	---	---	4
470 - 480		9.8	-10.1	20.3	-----	65	---	2
480 - 490		4.1	-4.7	----	-----	---	---	2
490 - 500		----	-----	----	-----	---	---	0
[c]500 - 510		----	-----	----	-----	---	---	0
510 - 560		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 327 - Traverse 3 Length of traverse 387.9 sec								
0 - 90	14,500	----	-----	----	-----	---	---	0
90 - 100		----	-3.8	----	-6.0	---	100	2
100 - 120	15,000	----	-----	----	-----	---	---	0
[b]120 - 130		----	-----	----	-----	---	---	0
130 - 140		26.6	-18.5	----	-----	---	---	4
140 - 150		14.1	-8.4	----	-----	---	---	9
150 - 160		19.1	-16.9	----	-----	---	---	8
160 - 170	15,500	8.8	-10.3	----	-----	---	---	8
170 - 180	16,000	----	-10.6	----	-----	---	---	2
180 - 190		----	-5.0	----	-10.0	---	100	1
190 - 200		----	-----	----	-----	---	---	0
200 - 230	15,500	----	-----	----	-----	---	---	0
230 - 240		4.1	-----	----	-----	---	---	1
[c]240 - 250		----	-----	----	-----	---	---	0
250 - 390	15,000	----	-----	----	-----	---	---	0
Airplane 327 - Traverse 4 Length of traverse 333.1 sec								
0 - 20	15,000	----	-----	----	-----	---	---	0
[b]20 - 30	14,500	----	-----	----	-----	---	---	0
30 - 100		----	-----	----	-----	---	---	0
100 - 110		2.5	-----	4.4	-----	101	---	1
110 - 120		----	-4.3	----	-7.4	---	127	2
120 - 130		3.1	-----	----	-----	---	---	1
130 - 140		----	-3.7	----	-----	---	---	1
140 - 150		11.5	-7.1	----	-----	---	---	4
150 - 160		3.4	-14.6	----	-----	---	---	6
160 - 170		5.6	-7.5	----	-----	---	---	8
170 - 180		2.5	-----	----	-----	---	---	1
180 - 190		7.5	-6.8	----	-----	---	---	6

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 327 - Traverse 4 Length of traverse 333.1 sec								
190 - 210	14,500	----	-----	----	-----	---	---	0
210 - 220		3.1	-3.7	5.9	-----	216	---	4
220 - 230	15,000	----	-----	----	-----	---	---	0
230 - 240		12.1	-16.5	----	-----	---	---	8
240 - 250		10.6	-21.4	----	-----	---	---	8
250 - 260		7.8	-----	----	-----	---	---	1
260 - 270		----	-----	----	-----	---	---	0
[c]270 - 280		----	-----	----	-----	---	---	0
280 - 320		----	-----	----	-----	---	---	0
320 - 340	14,500	----	-----	----	-----	---	---	0
Airplane 327 - Traverse 5 Length of traverse 561.4 sec								
0 - 260	14,500	----	-----	----	-----	---	---	0
260 - 270		2.5	-4.3	----	-----	---	---	2
[b]270 - 280		----	-----	----	-----	---	---	0
280 - 290		7.8	-5.6	----	-----	---	---	5
290 - 300		12.7	-5.0	----	-----	---	---	4
300 - 310		----	-----	----	-----	---	---	0
310 - 320		----	-5.0	----	-----	---	---	1
320 - 330		4.3	-4.7	----	-----	---	---	4
330 - 340		----	-4.0	----	-----	---	---	2
340 - 350		----	-3.1	----	-----	---	---	1
350 - 370		----	-----	----	-----	---	---	0
370 - 380		4.3	-6.2	----	-----	---	---	2
380 - 390		3.4	-3.7	----	-----	---	---	4
390 - 400		4.3	-7.8	----	-----	---	---	4
400 - 410		4.3	-4.3	----	-----	---	---	6
410 - 420		3.7	-----	----	-----	---	---	1
420 - 430		----	-----	----	-----	---	---	0
430 - 440		5.6	-3.1	----	-----	---	---	2
440 - 450		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 327 - Traverse 5 Length of traverse 561.4 sec								
450 - 460	15,000	----	-----	----	-----	---	---	0
460 - 470		----	-6.2	----	-----	---	---	1
470 - 480	14,500	5.9	-----	----	-----	---	---	2
480 - 490		6.5	-----	----	-----	---	---	3
[c]490 - 500		----	-----	----	-----	---	---	0
500 - 510		----	-----	----	-----	---	---	0
510 - 520		4.7	-----	7.4	-----	135	---	2
520 - 530		----	-3.4	----	-----	---	---	1
530 - 540		5.3	-6.5	----	-----	---	---	4
540 - 550	15,000	----	-2.8	----	-----	---	---	2
550 - 560		----	-4.0	----	-----	---	---	2
560 - 570		----	-----	----	-----	---	---	0
Airplane 327 - Traverse 6 Length of traverse 241.9 sec								
0 - 10	14,500	----	-----	----	-----	---	---	0
10 - 20		----	-3.1	----	-----	---	---	1
20 - 30		----	-3.1	----	-----	---	---	1
30 - 70		----	-----	----	-----	---	---	0
[b]70 - 80		----	-----	----	-----	---	---	0
80 - 90		4.6	-----	----	-----	---	---	2
90 - 100		5.5	-3.1	8.4	-----	141	---	2
100 - 110		10.7	-4.3	----	-----	---	---	7
110 - 120	15,000	5.5	-7.1	----	-----	---	---	6
120 - 130		11.0	-10.4	----	-----	---	---	11
130 - 140	15,500	16.2	-10.7	----	-----	---	---	9
140 - 150	16,000	9.5	-15.6	----	-----	---	---	5
150 - 160		23.3	-12.3	----	-----	---	---	10
160 - 170	16,500	12.0	-15.9	----	-----	---	---	7
170 - 180		11.3	-13.2	----	-----	---	---	4
180 - 190		4.6	-9.8	----	-----	---	---	2

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 327 - Traverse 6 Length of traverse 241.9 sec								
190 - 200	16,500	----	-----	----	-----	---	---	0
[c]200 - 210		----	-----	----	-----	---	---	0
210 - 250		----	-----	----	-----	---	---	0
Airplane 351 - Traverse 1 Length of traverse 824.4 sec								
0 - 10	10,000	----	-----	----	-----	---	---	0
10 - 20		----	-8.5	----	-5.7	---	114	2
20 - 30		----	-3.3	----	-----	---	---	1
30 - 40	9,500	3.8	-5.5	8.2	-7.9	249	141	2
40 - 50		6.3	-----	10.9	-----	306	---	3
[b]50 - 60		6.5	-7.8	----	-5.2	---	58	3
60 - 70		7.7	-15.9	----	-----	---	---	9
70 - 80		4.7	-6.6	----	-----	---	---	9
[c]80 - 90		----	-----	----	-----	---	---	0
90 - 100		6.4	-7.9	10.4	-----	191	---	2
100 - 110	10,000	----	-----	----	-----	---	---	0
110 - 120		14.2	-10.7	----	-----	---	---	5
120 - 130		15.2	-10.8	----	-----	---	---	7
130 - 140		5.1	-4.7	4.1	-----	80	---	2
140 - 530		----	-----	----	-----	---	---	0
[b]530 - 540	9,500	----	-----	----	-----	---	---	0
540 - 550	9,000	9.3	-5.3	12.3	-----	245	---	5
550 - 560		6.9	-----	----	-----	---	---	6
560 - 570	9,500	4.1	-5.2	----	-----	---	---	3
570 - 580		7.9	-3.2	----	-20.[illegible]	---	69	7
580 - 590		21.1	-16.4	----	-----	---	---	6
590 - 600		11.7	-8.9	----	-----	---	---	8
600 - 610	9,000	9.5	-4.5	----	-----	---	---	2
610 - 620	9,500	5.6	-10.8	----	-19.3	---	243	7
620 - 630		18.7	-11.0	----	-----	---	---	7

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 351 - Traverse 1 Length of traverse 824.4 sec								
630 - 640	9,500	15.2	-11.0	----	-----	---	---	12
[c]640 - 650	10,000	5.0	-7.1	----	-----	---	---	2
650 - 760		----	-----	----	-----	---	---	0
760 - 770	9,500	3.0	-----	6.4	-----	27	---	2
770 - 780		2.5	-6.7	4.3	-----	68	---	5
780 - 790		5.0	-----	----	-----	---	---	1
790 - 800		----	-4.9	----	-----	---	---	3
800 - 810		6.7	-5.6	12.2	-----	36	---	3
810 - 820	10,000	----	-5.0	----	-----	---	---	1
820 - 830		----	-----	----	-----	---	---	0
Airplane 351 - Traverse 2 Length of traverse 31.6 sec								
0 - 10	9,500	20.2	-19.7	----	-----	---	---	5
10 - 20		18.5	-18.6	----	-----	---	---	3
20 - 40		----	-----	----	-----	---	---	0
Airplane 351 - Traverse 3 Length of traverse 2303.4 sec								
0 - 10	10,000	----	-----	----	-----	---	---	0
[b]10 - 20		15.9	-----	----	-----	---	---	5
20 - 30		8.7	-12.9	----	-----	---	---	6
30 - 40		9.2	-12.6	----	-----	---	---	4
40 - 50		12.7	-----	----	-----	---	---	4
50 - 60	9,500	12.2	-6.8	----	-----	---	---	5
[c]60 - 70		5.3	-8.0	8.3	-----	297	---	7
70 - 80		----	-----	----	-----	---	---	0
80 - 90		----	-3.7	----	-----	---	---	1
90 - 100		3.8	-5.3	----	-----	---	---	3

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 351 - Traverse 3 Length of traverse 2303.4 sec								
100 - 110	9,500	2.4	-----	3.9	-----	103	---	1
110 - 120	10,000	2.5	-2.9	----	-4.8	---	210	2
120 - 130		----	-----	----	-----	---	---	0
130 - 140		5.0	-----	----	-----	---	---	2
140 - 150		----	-----	----	-----	---	---	0
150 - 160	9,500	1.9	-4.1	----	-----	---	---	2
160 - 170		2.9	-----	----	-----	---	---	1
170 - 190		----	-----	----	-----	---	---	0
190 - 200		2.9	-2.9	3.1	-----	71	---	3
200 - 210		2.3	-2.9	----	-----	---	---	2
210 - 230		----	-----	----	-----	---	---	0
230 - 250	10,000	----	-----	----	-----	---	---	0
250 - 260		2.5	-----	5.0	-----	157	---	1
260 - 380		----	-----	----	-----	---	---	0
380 - 390		----	-4.1	----	-----	---	---	1
390 - 400		----	-2.6	----	-----	---	---	2
400 - 680		----	-----	----	-----	---	---	0
680 - 690	9,500	----	-----	----	-----	---	---	0
[b]690 - 700		9.5	-15.8	26.8	-----	110	---	6
700 - 710		2.9	-4.4	----	-----	---	---	3
710 - 720		5.2	-4.2	----	-----	---	---	7
720 - 730		----	-----	----	-----	---	---	0
730 - 740		4.0	-9.4	5.7	-----	136	---	7
740 - 750	9,000	11.2	-14.9	10.7	-----	30	---	7
750 - 760		19.8	-8.6	----	-----	---	---	9
760 - 770		12.7	-11.9	----	-----	---	---	9
770 - 780		5.7	-11.9	12.3	-----	292	---	4
780 - 790		2.2	-----	----	-----	---	---	2
790 - 800		4.8	-5.2	----	-----	---	---	5
800 - 810		----	-8.1	----	-----	---	---	2
810 - 820		5.5	-9.4	----	-----	---	---	5
820 - 830		5.8	-13.8	----	-----	---	---	4

[b]Cloud entry.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 351 - Traverse 3 Length of traverse 2303.4 sec								
830 - 840	9,000	10.3	-10.2	----	-----	---	---	5
840 - 850	8,500	8.7	-11.6	7.6	-----	32	---	8
850 - 860		19.2	-11.2	----	-----	---	---	7
860 - 870		12.9	-16.1	----	-----	---	---	7
870 - 880		12.9	-18.2	----	-----	---	---	7
880 - 890		14.7	-10.0	----	-----	---	---	9
890 - 900	9,000	12.0	-6.7	----	-----	---	---	7
900 - 910		----	-14.8	----	-----	---	---	2
910 - 920		29.2	-24.2	----	-----	---	---	4
920 - 930		15.7	-16.1	----	-----	---	---	6
930 - 940		10.6	-12.2	----	-----	---	---	5
[c]940 - 950	9,500	----	-----	----	-----	---	---	0
950 - 1030		----	-----	----	-----	---	---	0
1030 - 1420	10,000	----	-----	----	-----	---	---	0
1420 - 1430		----	-4.3	----	-----	---	---	1
[b]1430 - 1440	9,500	----	-7.2	----	-----	---	---	3
1440 - 1450		7.9	-1.2	----	-----	---	---	8
1450 - 1460		13.3	-9.1	----	-----	---	---	6
1460 - 1470		10.2	-----	20.0	-----	237	---	3
1470 - 1480		5.4	-7.1	----	-----	---	---	5
1480 - 1490	10,000	5.0	-----	----	-----	---	---	1
1490 - 1500		2.5	-----	----	-----	---	---	1
1500 - 1520		----	-----	----	-----	---	---	0
1520 - 1540	9,500	----	-----	----	-----	---	---	0
1540 - 1550		12.4	-9.5	----	-----	---	---	5
1550 - 1560		3.8	-22.7	----	-----	---	---	5
1560 - 1570		16.6	-----	7.0	-----	145	---	4
1570 - 1580		7.5	-18.4	----	-----	---	---	12
1580 - 1590		4.7	-----	9.1	-----	112	---	1
[c]1590 - 1600		----	-----	----	-----	---	---	0
1600 - 1640		----	-----	----	-----	---	---	0
1640 - 1660	9,000	----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

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TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 351 - Traverse 3 Length of traverse 2303.4 sec								
1660 - 1670	8,500	----	-----	----	-----	---	---	0
1670 - 1680	8,000	3.7	-3.6	9.4	-----	237	---	3
1680 - 1690	7,500	7.9	-5.0	----	-----	---	---	4
1690 - 1700		7.5	-----	13.4	-----	377	---	1
1700 - 1710	7,000	----	-----	----	-----	---	---	0
1710 - 1720	7,500	----	-----	----	-----	---	---	0
1720 - 1790	8,500	----	-----	----	-----	---	---	0
1790 - 1800	9,000	2.0	-3.4	5.0	-5.5	117	147	3
1800 - 2120		----	-----	----	-----	---	---	0
[b]2120 - 2130		----	-----	----	-----	---	---	0
2130 - 2140		4.0	-5.0	----	-----	---	---	2
2140 - 2150		3.8	-4.8	3.9	-11.2	136	144	6
2150 - 2160		5.7	-4.8	6.7	-----	89	---	5
2160 - 2170		10.4	-5.7	----	-12.4	---	271	5
2170 - 2180		11.8	-17.3	----	-----	---	---	11
2180 - 2190	9,500	10.3	-7.0	----	-----	---	---	6
2190 - 2200		6.8	-14.0	----	-----	---	---	4
2200 - 2210		5.1	-7.4	----	-----	---	---	4
2210 - 2220	10,000	13.6	-13.7	----	-----	---	---	4
2220 - 2230	10,500	2.7	-7.7	----	-----	---	---	2
2230 - 2240		13.6	-6.4	----	-----	---	---	8
2240 - 2250		----	-11.6	----	-----	---	---	2
2250 - 2260		----	-----	----	-----	---	---	0
2260 - 2290	10,000	----	-----	----	-----	---	---	0
[c]2290 - 2300		----	-----	----	-----	---	---	0
2300 - 2310		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 353 - Traverse 1 Length of traverse 234.9 sec								
0 - 20	6,000	----	-----	----	-----	---	---	0
20 - 30		6.5	-----	----	-----	---	---	1
30 - 40		3.2	-5.2	----	-----	---	---	2
40 - 50		2.9	-4.8	----	-7.6	---	89	3
50 - 60	5,500	3.2	-5.8	----	-----	---	---	2
60 - 80		----	-----	----	-----	---	---	0
80 - 90		3.2	-2.9	----	-4.4	---	145	2
[b]90 - 100		17.1	-4.5	26.8	-6.5	205	175	3
100 - 110		----	-8.4	----	-----	---	---	4
110 - 120		11.0	-8.4	14.9	-----	139	---	9
120 - 130		----	-8.7	----	-----	---	---	3
130 - 140	6,000	8.4	-9.7	----	-----	---	---	5
140 - 150		4.2	-5.2	----	-----	---	---	5
150 - 160		6.8	-9.4	----	-----	---	---	3
160 - 170		9.4	-11.3	----	-----	---	---	5
170 - 180		----	-4.8	----	-6.5	---	120	4
180 - 190	5,500	8.1	-----	14.5	-----	138	---	1
190 - 200		3.6	-----	----	-----	---	---	1
[c]200 - 210		----	-----	----	-----	---	---	0
210 - 240		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 2 Length of traverse 196.1 sec								
0 - 10	5,500	2.9	-4.5	----	-7.4	---	69	2
[b]10 - 20		4.5	-----	6.5	-----	36	---	2
20 - 30		7.4	-5.8	----	-9.4	---	139	7
30 - 40		----	-9.6	----	-----	---	---	1
40 - 50		----	-----	----	-----	---	---	0
50 - 60		10.0	-12.2	----	-----	---	---	3
60 - 70		----	-6.7	----	-7.9	---	139	3

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 353 - Traverse 2 Length of traverse 196.1 sec								
70 - 80	5,500	11.6	-5.5	----	-7.4	---	131	5
80 - 90		14.5	-10.6	----	-----	---	---	3
90 - 100		5.1	-5.1	----	-----	---	---	6
100 - 110		6.7	-5.8	----	-----	---	---	7
110 - 120		7.4	-10.9	9.9	-----	152	---	2
120 - 130		5.8	-----	6.9	-----	68	---	1
130 - 140		3.5	-----	5.7	-----	76	---	1
140 - 150		----	-----	----	-----	---	---	0
150 - 160		4.5	-----	5.5	-----	108	---	2
160 - 170		6.1	-10.0	4.5	-19.0	172	108	4
[c]170 - 180		----	-----	----	-----	---	---	0
180 - 190		7.4	-----	----	-----	---	---	1
190 - 200		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 3 Length of traverse 111.8 sec								
0 - 10	5,500	----	-----	----	-----	---	---	0
10 - 20		4.2	-----	4.5	-----	113	---	1
[b]20 - 30		----	-----	----	-----	---	---	0
30 - 40		2.9	-----	----	-----	---	---	1
40 - 50		3.5	-----	4.7	-----	72	---	1
50 - 60		12.2	-9.6	24.2	-----	139	---	6
60 - 70		7.7	-10.6	----	-----	---	---	5
70 - 80		8.7	-6.7	----	-----	---	---	7
80 - 90	6,000	5.1	-10.6	----	-----	---	---	5
[c]90 - 100		----	-----	----	-----	---	---	0
100 - 120	5,500	----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 353 - Traverse 4 Length of traverse 250.2 sec								
0 - 30	5,500	----	-----	----	-----	---	---	0
30 - 80	6,000	----	-----	----	-----	---	---	0
80 - 90		3.5	-3.2	6.6	-7.5	106	185	3
90 - 100		----	-3.2	----	-6.5	---	138	1
100 - 110		3.5	-----	----	-----	---	---	1
[b]110 - 120		5.8	-3.2	9.4	-----	81	---	2
120 - 130		4.5	-7.7	----	-5.0	---	108	4
130 - 140		4.2	-4.2	----	-----	---	---	3
140 - 150	5,500	8.0	-15.0	----	-----	---	---	6
150 - 160		15.3	-4.5	----	-----	---	---	9
160 - 170		----	-12.8	----	-----	---	---	1
170 - 230		----	-----	----	-----	---	---	0
[c]230 - 240		----	-----	----	-----	---	---	0
240 - 250		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 5 Length of traverse 271.1 sec								
0 - 120	5,500	----	-----	----	-----	---	---	0
[b]120 - 130		----	-----	----	-----	---	---	0
130 - 140		----	-----	----	-----	---	---	0
140 - 150		4.8	-2.2	----	-----	---	---	3
150 - 160		6.7	-5.7	----	-----	---	---	6
160 - 170		3.5	-8.6	----	-----	---	---	3
170 - 180		6.7	-4.8	10.5	-----	182	---	3
180 - 190		6.0	-10.8	----	-8.5	---	101	5
190 - 200	5,000	5.1	-8.6	----	-7.6	---	91	5
200 - 210		5.7	-4.5	----	-----	---	---	5
210 - 220		9.9	-8.9	9.4	-----	92	---	5
220 - 230		7.0	-9.5	----	-16.1	---	55	7
230 - 240		7.6	-4.8	----	-----	---	---	4
240 - 250		5.4	-----	----	-----	---	---	1
[c]250 - 260		----	-----	----	-----	---	---	0
260 - 280		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 353 - Traverse 6 Length of traverse 380.9 sec								
0 - 10	6,000	6.0	-5.0	----	-----	---	---	2
[b]10 - 20		3.2	-----	----	-----	---	---	2
20 - 50		----	-----	----	-----	---	---	0
50 - 60		----	-4.4	----	-6.8	---	120	2
60 - 70		----	-5.0	----	-7.9	---	102	2
70 - 80		6.6	-5.0	----	-----	---	---	2
80 - 90		----	-----	----	-----	---	---	0
90 - 100		5.0	-5.0	----	-----	---	---	2
100 - 110		7.2	-5.4	11.2	-----	145	---	6
110 - 120	5,500	8.5	-6.6	----	-----	---	---	9
120 - 130		6.9	-6.3	----	-----	---	---	3
130 - 140		5.4	-6.9	----	-----	---	---	3
140 - 150		6.9	-----	12.2	-----	125	---	4
150 - 160		2.8	-7.9	----	-----	---	---	5
160 - 170		3.8	-----	----	-----	---	---	2
170 - 180		----	-4.8	----	-----	---	---	1
180 - 220		----	-----	----	-----	---	---	0
220 - 230		5.0	-4.1	----	-----	---	---	3
230 - 240		4.4	-----	----	-----	---	---	2
240 - 250		4.4	-6.0	----	-9.3	---	178	2
250 - 260		----	-4.7	----	-----	---	---	2
260 - 280		----	-----	----	-----	---	---	0
280 - 290		----	-6.9	----	-12.2	---	44	1
290 - 300		6.6	-4.4	----	-----	---	---	6
300 - 310		3.2	-----	----	-----	---	---	4
310 - 320		2.5	-6.0	----	-----	---	---	5
320 - 330	5,000	14.2	-5.4	----	-----	---	---	7
330 - 340	5,500	2.8	-4.4	----	-----	---	---	2
340 - 350		5.4	-----	----	-----	---	---	1
350 - 360		----	-----	----	-----	---	---	0
[c]360 - 370		2.2	-----	----	-----	---	---	1
370 - 380		----	-5.4	----	-----	---	---	1
380 - 390		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 14, 1947 - Flight 24								
Airplane 353 - Traverse 7 Length of traverse 312.1 sec								
0 - 150	5,500	----	-----	----	-----	---	---	0
[b]150 - 160		----	-----	----	-----	---	---	0
160 - 170		----	-6.3	----	-----	---	---	2
170 - 180		2.2	-4.7	----	-----	---	---	3
180 - 190	5,000	2.8	-----	----	-----	---	---	1
190 - 200	4,500	----	-----	----	-----	---	---	0
200 - 210		17.5	-9.1	----	-----	---	---	9
210 - 220	4,000	12.8	-4.7	----	-----	---	---	2
220 - 230		12.5	-21.0	----	-----	---	---	6
230 - 240		4.1	-1.9	7.1	-5.9	37	92	2
240 - 250		6.9	-3.1	6.8	-----	99	---	7
250 - 260	3,500	2.8	-5.3	----	-----	---	---	6
260 - 270		5.3	-4.7	----	-----	---	---	7
270 - 280		----	-5.0	----	-----	---	---	1
[c]280 - 290	3,000	2.5	-----	5.1	-----	121	---	1
290 - 320		----	-----	----	-----	---	---	0
August 15, 1947 - Flight 25								
Airplane 353 - Traverse 1 Length of traverse 72.7 sec								
0 - 30	24,000	----	-----	----	-----	---	---	0
[b]30 - 40		----	-5.6	----	-----	---	---	2
40 - 50		9.3	-12.5	----	-20.9	---	75	6
[c]50 - 60		----	-10.6	----	-----	---	---	1
60 - 80		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 353 - Traverse 2 Length of traverse 97.8 sec								
0 - 40	24,000	----	-----	----	-----	---	---	0
[b]40 - 50		12.0	-6.8	----	-----	---	---	3
50 - 60		16.9	-13.6	----	-----	---	---	7
[c]60 - 70		----	-----	----	-----	---	---	0
70 - 100		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 3 Length of traverse 115.0 sec								
0 - 70	24,000	----	-----	----	-----	---	---	0
[b]70 - 80		7.5	-7.4	18.3	-14.6	124	120	5
80 - 90		9.1	-9.1	----	-----	---	---	6
[c]90 - 100		----	-10.9	----	-----	---	---	1
100 - 120		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 4 Length of traverse 99.0 sec								
0 - 50	24,000	----	-----	----	-----	---	---	0
[b]50 - 60		11.3	-----	----	-----	---	---	1
60 - 70		10.4	-20.5	26.8	-----	68	---	8
[c]70 - 80		----	-----	----	-----	---	---	0
80 - 100		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 5 Length of traverse 120.9 sec								
0 - 130	23,500	----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 353 - Traverse 6 Length of traverse 95.2 sec								
0 - 40	24,000	----	-----	----	-----	---	---	0
[b]40 - 50		12.7	-----	----	-----	---	---	1
50 - 60	24,500	17.5	-26.2	----	-----	---	---	8
[c]60 - 70	24,000	----	-----	----	-----	---	---	0
70 - 100		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 7 Length of traverse 160.0 sec								
0 - 90	24,000	----	-----	----	-----	---	---	0
[b]90 - 100		9.4	-6.5	----	-----	---	---	4
100 - 110	24,500	5.4	-7.0	12.0	-----	28	---	4
[c]110 - 120		4.7	-14.8	----	-----	---	---	3
120 - 160		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 8 Length of traverse 65.0 sec								
0 - 10	24,000	----	-----	----	-----	---	---	0
[b]10 - 20		----	-4.6	----	-----	---	---	1
20 - 30		4.3	-5.0	----	-----	---	---	4
30 - 40		7.7	-6.6	----	-----	---	---	5
[c]40 - 50		----	-----	----	-----	---	---	0
50 - 70		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 9 Length of traverse 207.0 sec								
0 - 60	24,000	----	-----	----	-----	---	---	0
[b]60 - 70		8.6	-7.0	----	-15.5	---	119	3
70 - 80		5.3	-10.9	----	-19.6	---	125	5
[c]80 - 90		4.5	-7.0	----	-----	---	---	2
90 - 100		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 353 - Traverse 9 Length of traverse 207.0 sec								
100 - 110	24,500	----	-----	----	-----	---	---	0
110 - 150	24,000	----	-----	----	-----	---	---	0
[b]150 - 160		----	-----	----	-----	---	---	0
160 - 170	24,500	10.3	-6.2	----	-----	---	---	2
170 - 180		8.0	-13.7	----	-----	---	---	4
[c]180 - 190		10.0	-9.1	----	-----	---	---	4
190 - 210	24,000	----	-----	----	-----	---	---	0
Airplane 353 - Traverse 10 Length of traverse 227.0 sec								
0 - 70	24,000	----	-----	----	-----	---	---	0
[b]70 - 80		8.5	-6.7	19.0	-----	55	---	5
80 - 90		8.4	-10.8	----	-----	---	---	5
90 - 100		4.4	-6.9	----	-----	---	---	7
100 - 110		4.4	-8.3	----	-----	---	---	3
110 - 120		----	-----	----	-----	---	---	0
[c-b]120 - 130	24,500	----	-----	----	-----	---	---	0
[c]130 - 140		----	-----	----	-----	---	---	0
[b]140 - 150		4.2	-----	----	-----	---	---	1
[c]150 - 160		----	-8.2	----	-----	---	---	1
160 - 170	24,000	----	-----	----	-----	---	---	0
[b]170 - 180		6.5	-6.4	----	-----	---	---	2
180 - 190		8.3	-10.9	18.0	-----	267	---	5
190 - 200		4.3	-----	----	-----	---	---	5
[c]200 - 210		7.4	-----	13.3	-----	314	---	1
210 - 230		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 11 Length of traverse 165.2 sec								
0 - 100	24,000	----	-----	----	-----	---	---	0
[b]100 - 110		4.3	-4.0	----	-----	---	---	2

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 353 - Traverse 11 Length of traverse 165.2 sec								
110 - 120	24,000	8.9	-12.9	----	-----	---	---	7
120 - 130		9.7	-10.6	26.1	-----	87	---	8
130 - 140		----	-7.6	----	-----	---	---	2
[c]140 - 150		4.0	-6.3	----	-----	---	---	2
150 - 170		----	-----	----	-----	---	---	0
Airplane 344 - Traverse 1 Length of traverse 3488.4 sec								
0 - 150	19,500	----	-----	----	-----	---	---	0
[b]150 - 160		----	-8.3	----	-----	---	---	1
160 - 170		7.1	-9.3	----	-19.1	---	325	9
170 - 180		3.8	-4.8	11.1	-----	87	---	8
180 - 190		5.3	-5.9	----	-----	---	---	5
190 - 200		3.1	-3.3	----	-----	---	---	2
[c]200 - 210		3.2	-----	6.7	-----	52	---	1
210 - 360		----	-----	----	-----	---	---	0
360 - 370		3.1	-----	9.1	-----	163	---	1
[b]370 - 380		----	-6.9	----	-----	---	---	2
380 - 390	20,000	8.1	-5.7	6.0	-----	200	---	6
390 - 400		2.7	-----	----	-----	---	---	1
400 - 410		7.5	-19.0	----	-----	---	---	7
410 - 470		----	-----	----	-----	---	---	0
470 - 690	19,500	----	-----	----	-----	---	---	0
[c]690 - 700		----	-----	----	-----	---	---	0
700 - 770		----	-----	----	-----	---	---	0
770 - 800	20,000	----	-----	----	-----	---	---	0
[b]800 - 810		20.6	-13.7	----	-----	---	---	4
810 - 820		10.1	-12.3	----	-----	---	---	4
820 - 830	19,500	9.4	-10.3	----	-----	---	---	9
830 - 840		11.6	-11.8	----	-----	---	---	8
[c]840 - 850		----	-7.7	----	-----	---	---	1

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 344 - Traverse 1 Length of traverse 3488.4 sec								
850 - 950	19,500	----	-----	----	-----	---	---	0
[b]950 - 960		----	-5.5	----	-14.4	---	175	2
960 - 970		4.5	-9.2	----	-----	---	---	4
970 - 980		8.3	-6.3	----	-11.1	---	124	5
980 - 990		----	-6.9	----	-----	---	---	4
990 - 1000		9.9	-8.9	9.2	-----	57	---	8
[c]1000 - 1010		----	-----	----	-----	---	---	0
1010 - 1130		----	-----	----	-----	---	---	0
[b]1130 - 1140		11.2	-9.5	----	-----	---	---	2
1140 - 1150		5.3	-8.5	----	-----	---	---	5
[c]1150 - 1160		----	-6.2	----	-----	---	---	1
1160 - 1170		----	-----	----	-----	---	---	0
1170 - 1180		3.7	-4.7	----	-----	---	---	3
1180 - 1210		----	-----	----	-----	---	---	0
1210 - 1300	20,000	----	-----	----	-----	---	---	0
[b]1300 - 1310		----	-6.3	----	-----	---	---	2
1310 - 1320		11.1	-8.1	----	-----	---	---	4
1320 - 1330	19,500	7.0	-10.0	----	-----	---	---	5
1330 - 1340		6.1	-----	----	-----	---	---	4
[c]1340 - 1350		----	-----	----	-----	---	---	0
1350 - 1450		----	-----	----	-----	---	---	0
[b]1450 - 1460		----	-----	----	-----	---	---	0
1460 - 1470		----	-4.2	----	-9.0	---	140	1
1470 - 1480		----	-5.4	----	-----	---	---	3
1480 - 1490		9.5	-9.6	----	-----	---	---	6
[c]1490 - 1500		3.6	-9.2	----	-----	---	---	2
1500 - 1650		----	-----	----	-----	---	---	0
[b]1650 - 1660		3.1	-9.6	----	-----	---	---	2
1660 - 1670		4.6	-5.0	6.4	-----	162	---	9
[c]1670 - 1680		5.7	-----	----	-----	---	---	1
1680 - 1690		----	-----	----	-----	---	---	0
1690 - 1700		1.6	-----	----	-----	---	---	1
1700 - 1740		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 344 - Traverse 1 Length of traverse 3488.4 sec								
1740 - 1800	20,000	----	-----	----	-----	---	---	0
[b]1800 - 1810		6.7	-10.3	----	-----	---	---	8
1810 - 1820		8.8	-7.3	----	-----	---	---	11
[c]1820 - 1830		----	-9.2	----	-----	---	---	2
1830 - 1940		----	-----	----	-----	---	---	0
[b]1940 - 1950		7.4	-9.4	----	-----	---	---	2
1950 - 1960		10.1	-10.2	15.4	-----	99	---	6
1960 - 1970	19,500	8.6	-18.3	----	-----	---	---	6
[c]1970 - 1980		10.9	-7.4	----	-----	---	---	2
1980 - 2000		----	-----	----	-----	---	---	0
2000 - 2010	20,000	----	-----	----	-----	---	---	0
[b]2010 - 2020		11.0	-14.7	----	-----	---	---	2
2020 - 2030	19,500	7.7	-7.9	16.4	-----	89	---	5
2030 - 2040		14.6	-7.4	----	-----	---	---	4
[c]2040 - 2050		----	-----	----	-----	---	---	0
2050 - 2180		----	-----	----	-----	---	---	0
[b]2180 - 2190		15.5	-12.1	----	-----	---	---	4
2190 - 2200	20,000	9.5	-10.1	----	-----	---	---	4
[c]2200 - 2210		----	-5.5	----	-----	---	---	1
2210 - 2290		----	-----	----	-----	---	---	0
2290 - 2300		4.7	-4.1	7.2	-----	164	---	2
[b]2300 - 2310	19,500	3.3	-5.6	----	-----	---	---	5
2310 - 2320		8.1	-6.4	----	-----	---	---	4
2320 - 2330		7.2	-3.5	----	-----	---	---	3
2330 - 2340		4.9	-3.1	----	-----	---	---	5
2340 - 2350		3.0	-3.2	----	-----	---	---	5
[c]2350 - 2360	20,000	----	-----	----	-----	---	---	0
2360 - 2380		----	-----	----	-----	---	---	0
[b]2380 - 2390		8.4	-8.1	----	-----	---	---	3
2390 - 2400		3.7	-10.6	----	-----	---	---	6
2400 - 2410		12.6	-13.1	----	-----	---	---	4
[c]2410 - 2420		5.4	-11.5	----	-----	---	---	2
2420 - 2650		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 344 - Traverse 1 Length of traverse 3488.4 sec								
[b]2650 - 2660	20,000	----	-----	----	-----	---	---	0
2660 - 2670	19,500	15.4	-10.1	----	-----	---	---	10
2670 - 2680		6.5	-8.3	----	-----	---	---	7
2680 - 2690		7.6	-2.4	----	-----	---	---	5
[c]2690 - 2700		3.3	-----	6.1	-----	52	---	2
2700 - 2740		----	-----	----	-----	---	---	0
2740 - 2750		6.8	-2.7	----	-----	---	---	3
[b]2750 - 2760		3.4	-6.7	7.1	-----	54	---	5
[c]2760 - 2770		----	-----	----	-----	---	---	0
2770 - 2950		----	-----	----	-----	---	---	0
2950 - 2960		7.9	-7.4	----	-----	---	---	2
2960 - 3010		----	-----	----	-----	---	---	0
[b]3010 - 3020		14.4	-10.4	12.8	-----	178	---	8
3020 - 3030		12.2	-13.3	----	-----	---	---	11
3030 - 3040		14.3	-9.8	----	-----	---	---	10
3040 - 3050		9.2	-7.0	----	-6.8	---	127	5
[c]3050 - 3060		----	-----	----	-----	---	---	0
3060 - 3100		----	-----	----	-----	---	---	0
[b]3100 - 3110		1.7	-8.1	----	-----	---	---	3
3110 - 3120		5.3	-6.0	----	-----	---	---	5
3120 - 3130		10.8	-7.3	7.9	-----	141	---	6
3130 - 3140		9.5	-11.0	----	-----	---	---	8
[c]3140 - 3150		----	-7.3	----	-----	---	---	1
3150 - 3350		----	-----	----	-----	---	---	0
[b]3350 - 3360		3.3	-----	----	-----	---	---	1
3360 - 3370		8.6	-4.0	11.2	-10.3	116	129	8
3370 - 3380		5.8	-----	----	-----	---	---	5
3380 - 3390		6.1	-7.7	----	-----	---	---	6
3390 - 3400	20,000	12.2	-10.7	23.7	-6.1	84	145	3
3400 - 3410		9.4	-10.7	----	-----	---	---	7
3410 - 3420	19,500	7.5	-8.2	----	-----	---	---	4

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 344 - Traverse 1 Length of traverse 3488.4 sec								
[c]3420 - 3430	19,500	----	-8.2	----	-----	---	---	1
[b]3430 - 3440		9.2	-5.9	----	-6.6	---	266	4
3440 - 3450	20,000	17.4	-12.0	----	-----	---	---	11
3450 - 3460		8.7	-6.2	----	-----	---	---	4
3460 - 3470		----	-7.2	----	-----	---	---	1
[c]3470 - 3480		----	-----	----	-----	---	---	0
3480 - 3490		----	-----	----	-----	---	---	0
Airplane 351 - Traverse 1 Length of traverse 93.8 sec								
0 - 10	13,500	5.1	-8.4	----	-8.7	---	117	4
10 - 20	14,000	2.3	-6.8	----	-----	---	---	5
20 - 30		8.0	-6.4	----	-----	---	---	5
30 - 40		4.5	-11.9	----	-----	---	---	11
40 - 50		5.8	-5.1	----	-----	---	---	5
50 - 60	14,500	----	-----	----	-----	---	---	0
60 - 70		2.9	-----	----	-----	---	---	1
70 - 80		----	-2.6	----	-4.4	---	151	1
80 - 100		----	-----	----	-----	---	---	0
Airplane 351 - Traverse 2 Length of traverse 159.3 sec								
[b]0 - 10	15,000	4.2	-6.4	----	-----	---	---	3
10 - 20		9.3	-11.2	----	-----	---	---	8
20 - 30		4.8	-9.0	----	-----	---	---	6
30 - 40		5.4	-11.8	----	-----	---	---	6
40 - 50		3.2	-6.7	----	-----	---	---	3
50 - 60		----	-8.3	----	-18.8	---	371	1
60 - 70		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 351 - Traverse 2 Length of traverse 159.3 sec								
[c]70 - 80	15,000	4.2	-10.0	----	-----	---	---	2
80 - 100		----	-----	----	-----	---	---	0
[b]100 - 110		3.2	-4.5	----	-----	---	---	3
110 - 120		10.5	-8.3	----	-----	---	---	10
120 - 130		4.2	-7.7	----	-----	---	---	7
130 - 140		3.5	-4.8	6.8	-----	95	---	6
[c]140 - 150		----	-5.8	----	-5.1	---	119	1
150 - 160		----	-4.5	----	-----	---	---	2
Airplane 351 - Traverse 3 Length of traverse 195.0 sec								
0 - 50	15,500	----	-----	----	-----	---	---	0
[b]50 - 60		4.1	-7.0	----	-16.9	---	260	3
60 - 70		2.2	-7.6	----	-----	---	---	10
70 - 80		7.3	-5.7	----	-----	---	---	6
80 - 90		11.1	-6.4	----	-11.1	---	176	7
90 - 100	15,000	9.9	-7.6	----	-----	---	---	8
100 - 110		13.7	-17.2	----	-----	---	---	7
110 - 120		----	-5.7	----	-----	---	---	1
[c]120 - 130		----	-----	----	-----	---	---	0
130 - 200	15,500	----	-----	----	-----	---	---	0
Airplane 351 - Traverse 4 Length of traverse 150.6 sec								
0 - 30	15,500	----	-----	----	-----	---	---	0
[b]30 - 40		4.4	-4.4	4.1	-----	79	---	6
40 - 50		5.1	-8.9	----	-----	---	---	7
50 - 60		3.8	-----	----	-----	---	---	2
60 - 70		4.1	-7.3	----	-----	---	---	8

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 351 - Traverse 4 Length of traverse 150.6 sec								
70 - 80	15,500	4.1	-6.0	----	-----	---	---	3
80 - 90		3.2	-6.0	----	-----	---	---	6
90 - 100		4.1	-----	----	-----	---	---	3
100 - 110		----	-4.4	----	-8.1	---	335	1
[c]110 - 120		----	-----	----	-----	---	---	0
120 - 160		----	-----	----	-----	---	---	0
Airplane 351 - Traverse 5 Length of traverse 127.5 sec								
0 - 10	15,500	----	-----	----	-----	---	---	0
10 - 20		----	-2.8	----	-5.5	---	151	2
20 - 30		----	-----	----	-17.5	---	164	1
[b]30 - 40		2.2	-4.7	----	-----	---	---	5
40 - 50		4.1	-----	----	-----	---	---	2
50 - 60		4.4	-9.8	----	-----	---	---	4
60 - 70		14.2	-----	7.2	-----	213	---	3
70 - 80		7.3	-4.4	----	-----	---	---	2
80 - 90		3.8	-7.3	----	-----	---	---	3
90 - 100		3.5	-3.8	----	-----	---	---	4
100 - 110	15,000	----	-5.7	----	-----	---	---	1
110 - 120	15,500	6.0	-2.5	----	-----	---	---	4
[c]120 - 130		----	-----	----	-----	---	---	0
Airplane 351 - Traverse 6 Length of traverse 762.8 sec								
0 - 110	15,500	----	-----	----	-----	---	---	0
110 - 120		----	-2.8	----	-----	---	---	1
120 - 130		1.9	-----	----	-----	---	---	3
130 - 140		----	-----	----	-----	---	---	0
[b]140 - 150		----	-5.4	----	-15.5	---	46	1
150 - 160		15.5	-10.7	----	-----	---	---	4
160 - 170		8.8	-11.4	----	-----	---	---	6
170 - 180		3.5	-3.5	9.0	-----	92	---	4

[b]Cloud entry.
[c]Cloud exit.

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TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 351 - Traverse 6 Length of traverse 762.8 sec								
180 - 190	15,500	4.4	-4.4	----	-----	---	---	6
190 - 200		3.5	-5.4	----	-----	---	---	3
200 - 210		8.2	-4.1	----	-----	---	---	4
210 - 220		4.4	-4.4	----	-----	---	---	5
220 - 230		2.2	-9.8	----	-----	---	---	3
230 - 240		----	-2.2	----	-----	---	---	2
240 - 250		3.5	-2.5	----	-----	---	---	2
250 - 260		----	-2.5	----	-----	---	---	1
[c]260 - 270		3.2	-4.7	----	-6.6	---	164	4
270 - 280		5.7	-7.9	----	-----	---	---	3
280 - 290		----	-----	----	-----	---	---	0
290 - 300		5.0	-6.9	----	-----	---	---	4
300 - 310		2.2	-----	----	-----	---	---	1
310 - 480		----	-----	----	-----	---	---	0
480 - 490		2.2	-3.8	----	-6.8	---	283	2
490 - 500		----	-----	----	-----	---	---	0
[b]500 - 510		3.2	-----	6.6	-----	128	---	2
510 - 520		3.8	-5.7	----	-----	---	---	6
520 - 530		3.2	-----	5.8	-----	85	---	1
530 - 540		----	-----	----	-----	---	---	0
540 - 550		----	-4.4	----	-----	---	---	2
550 - 560		----	-4.4	----	-----	---	---	1
560 - 570		----	-----	----	-----	---	---	0
570 - 580		----	-4.4	----	-----	---	---	1
580 - 590		4.4	-5.0	----	-----	---	---	3
590 - 600		3.8	-3.8	----	-----	---	---	6
600 - 610	16,000	4.7	-5.3	----	-----	---	---	4
610 - 620		4.1	-----	----	-----	---	---	4
620 - 630		4.7	-5.4	----	-----	---	---	8
630 - 640		6.6	-6.6	----	-----	---	---	6
640 - 650		4.1	-7.6	----	-----	---	---	5
650 - 660		2.2	-5.4	----	-----	---	---	6

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 351 - Traverse 6 Length of traverse 762.8 sec								
660 - 670	16,000	3.8	-4.7	----	-----	---	---	6
670 - 680		2.8	-----	4.9	-----	157	---	2
680 - 690		----	-3.8	----	-----	---	---	2
690 - 700		----	-----	----	-----	---	---	0
[c]700 - 710		4.7	-4.7	----	-----	---	---	3
710 - 720		----	-3.8	----	-----	---	---	1
720 - 740		----	-----	----	-----	---	---	0
740 - 770	15,500	----	-----	----	-----	---	---	0
Airplane 351 - Traverse 7 Length of traverse 237.0 sec								
0 - 150	15,000	----	-----	----	-----	---	---	0
[b]150 - 160		5.9	-2.5	----	-----	---	---	3
160 - 170		9.3	-10.3	----	-----	---	---	10
170 - 180		9.0	-9.7	----	-----	---	---	10
180 - 190		11.5	-9.3	----	-----	---	---	7
[c]190 - 200		2.2	-6.2	----	-6.7	---	25	2
200 - 210		3.7	-4.7	----	-----	---	---	2
210 - 240		----	-----	----	-----	---	---	0
Airplane 327 - Traverse 1 Length of traverse 375.4 sec								
0 - 50	10,000	----	-----	----	-----	---	---	0
50 - 180	9,500	----	-----	----	-----	---	---	0
180 - 190		3.6	-3.1	5.4	-----	37	---	4
190 - 200	10,000	11.1	-----	11.6	-----	49	---	4
[b]200 - 210		8.7	-11.4	----	-----	---	---	6
210 - 220		8.9	-7.1	8.8	-----	96	---	5
220 - 230		3.0	-11.7	----	-----	---	---	6
230 - 240		3.9	-----	6.6	-----	81	---	1

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 327 - Traverse 1 Length of traverse 375.4 sec								
240 - 250	10,000	3.0	-4.6	----	-----	---	---	3
250 - 260		6.1	-----	8.0	-----	78	---	2
260 - 270		----	-----	----	-----	---	---	0
270 - 280		----	-3.7	----	-----	---	---	1
280 - 290		----	-----	----	-----	---	---	0
290 - 300		----	-3.1	----	-----	---	---	2
300 - 310		5.1	-----	8.2	-----	148	---	1
310 - 320		----	-----	----	-----	---	---	0
[c]320 - 330		----	-3.2	----	-----	---	---	1
330 - 340		4.7	-----	7.8	-----	241	---	1
340 - 350		----	-----	----	-----	---	---	0
350 - 360		----	-3.3	----	-----	---	---	1
360 - 380		----	-----	----	-----	---	---	0
Airplane 327 - Traverse 2 Length of traverse 235.6 sec								
0 - 30	10,500	----	-----	----	-----	---	---	0
30 - 40		----	-2.4	----	-----	---	---	1
40 - 60		----	-----	----	-----	---	---	0
[b]60 - 70		----	-3.0	----	-----	---	---	1
70 - 80		----	-3.1	----	-----	---	---	1
80 - 90		----	-----	----	-----	---	---	0
90 - 100		3.5	-----	----	-----	---	---	2
100 - 120		----	-----	----	-----	---	---	0
120 - 130		2.7	-----	4.4	-----	126	---	1
130 - 140		3.5	-----	----	-----	---	---	1
140 - 150		4.8	-9.0	8.3	-----	76	---	5
150 - 160		2.8	-3.6	----	-----	---	---	3
160 - 170		4.8	-3.0	----	-5.8	---	97	4
170 - 180		5.0	-----	----	-----	---	---	2
180 - 190		6.2	-2.2	7.9	-----	123	---	5
190 - 200		6.9	-----	11.5	-----	146	---	4
200 - 210		6.3	-9.2	----	-----	---	---	7

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Continued

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 327 - Traverse 2 Length of traverse 235.6 sec								
210 - 220	10,500	4.8	-3.5	----	-----	---	---	4
[c]220 - 230		2.2	-5.4	----	-----	---	---	2
230 - 240		----	-----	----	-----	---	---	0
Airplane 327 - Traverse 3 Length of traverse 355.8 sec								
0 - 60	10,000	----	-----	----	-----	---	---	0
[b]60 - 70		----	-6.9	----	-----	---	---	2
70 - 80		8.4	-6.8	9.9	-----	33	---	7
80 - 90		12.7	-6.3	----	-----	---	---	4
90 - 100		2.6	-6.3	4.3	-----	95	---	5
100 - 110		4.8	-6.3	----	-----	---	---	8
110 - 120		3.4	-----	----	-----	---	---	2
120 - 130		----	-----	----	-----	---	---	0
130 - 140		10.4	-----	----	-----	---	---	1
140 - 150		10.8	-11.0	----	-----	---	---	7
150 - 160		8.7	-7.0	----	-----	---	---	3
160 - 170		4.7	-9.7	----	-----	---	---	4
170 - 180	10,500	6.1	-6.7	----	-----	---	---	4
180 - 190		5.1	-7.1	----	-----	---	---	4
190 - 210		----	-----	----	-----	---	---	0
210 - 220		4.9	-----	----	-----	---	---	1
220 - 230		5.7	-6.2	----	-----	---	---	2
230 - 240		----	-5.7	----	-----	---	---	3
240 - 250		5.0	-----	8.5	-----	84	---	2
250 - 260		5.2	-----	----	-----	---	---	1
260 - 270		3.5	-6.7	----	-----	---	---	4
270 - 280		7.7	-2.8	----	-----	---	---	5
280 - 290		7.1	-8.2	----	-----	---	---	8
290 - 300		5.5	-----	----	-----	---	---	1
300 - 330		----	-----	----	-----	---	---	0
[c]330 - 340		----	-----	----	-----	---	---	0
340 - 360		----	-----	----	-----	---	---	0

[b]Cloud entry.
[c]Cloud exit.

TABLE I.- SUMMARY OF GUST MEASUREMENTS - Concluded

Time interval (sec)	Pressure altitude (ft)	Maximum effective gust velocity $U_{e_{max}}$ (fps)		Maximum true gust velocity $U_{t_{max}}$ (fps)		Gust gradient distance (ft)		No. of gusts
August 15, 1947 - Flight 25								
Airplane 327 - Traverse 4 Length of traverse 48.4 sec								
0 - 50	10,000	----	-----	----	-----	---	---	0

TABLE II.- SUMMARY OF DRAFT-VELOCITY MEASUREMENTS FROM FLIGHTS OF P-61C AIRPLANES WITHIN THUNDERSTORMS

Date	Flight no.	Airplane no.	Assigned altitude (ft)	Traverse no.	Draft location from start of traverse (sec)		Draft extent (ft)	Average draft velocity (fps)
					Start	End		
8-13-47	23	344	20,000	[a]1				
				[a]2				
				[a]3				
				[a]4				
				5	386.0	432.0	14,489	5.1
					1148.4	1184.6	11,918	13.8
					2245.6	2258.0	3,860	40.3
		327	15,000	[a]1				
				2	100.6	127.7	6,291	8.0
					322.3	349.8	6,436	10.9
					461.5	475.0	3,356	-17.0
					705.7	731.7	5,855	6.9
					973.7	993.3	4,592	13.0
				3	37.5	73.0	8,351	7.4
					769.6	828.5	13,911	7.6
					1212.3	1235.4	5,217	17.3
					1638.2	1659.4	5,191	18.9
				[a]4				
		333	10,000	[a]1				
				[a]2				
				3	57.5	89.5	9,906	37.5
				[a]4				
				[a]5				

[a]No draft velocities indicated by records.

TABLE II.- SUMMARY OF DRAFT-VELOCITY MEASUREMENTS - Continued

Date	Flight no.	Airplane no.	Assigned altitude (ft)	Traverse no.	Draft location from start of traverse (sec)		Draft extent (ft)	Average draft velocity (fps)
					Start	End		
8-13-47	23	333	10,000	6	115.0	141.8	8,120	19.6
				7	208.0	235.5	7,940	27.3
				8	107.0	146.0	11,009	9.3
				[a]9				
8-14-47	24	344	20,000	1	251.0	298.4	16,527	14.0
				2	46.0	67.0	6,272	23.8
				[a]3				
				4	281.0	323.0	12,068	37.7
				5	128.0	153.0	7,614	8.6
		327	15,000	1	314.0	354.0	12,316	23.9
				[a]2				
				3	134.8	178.0	13,328	23.1
				[a]4				
				[a]5				
				6	118.0	183.0	20,320	30.1
		351	10,000	1	604.3	649.0	12,799	14.8
				[a]2				
				3	1419.0 1567.4	1468.4 1581.0	14,684 3,851	-7.1 15.6

[a]No draft velocities indicated by records.

TABLE II.- SUMMARY OF DRAFT-VELOCITY MEASUREMENTS - Continued

Date	Flight no.	Air-plane no.	Assigned altitude (ft)	Trav-erse no.	Draft location from start of traverse (sec)		Draft extent (ft)	Average draft velocity (fps)
					Start	End		
8-14-47	24	353	6,000	[a]1				
				[a]2				
				[a]3				
				[a]4				
				5	163.0	219.0	13,360	-11.7
				[a]6				
				[a]7				
8-15-47	25	353	25,000	[a]1				
				[a]2				
				[a]3				
				4	58.4	69.0	3,470	24.5
				[a]5				
				[a]6				
				7	98.0	110.0	2,775	26.7
				[a]8				
				9	160.4	176.0	5,042	21.8
				10	81.0	100.6	6,069	23.5
				11	126.0	149.0	7,961	16.5

[a]No draft velocities indicated by records.

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TABLE II.- SUMMARY OF DRAFT-VELOCITY MEASUREMENTS - Concluded

Date	Flight no.	Airplane no.	Assigned altitude (ft)	Traverse no.	Draft location from start of traverse (sec)		Draft extent (ft)	Average draft velocity (fps)
					Start	End		
8-15-47	25	344	20,000	1	355.0	401.0	15,404	10.5
					807.0	839.2	10,987	-13.3
					2184.0	2199.0	4,992	25.6
		351	15,000	[a]1				
				[a]2				
				[a]3				
				4	68.5	97.0	9,092	-6.0
				[a]5				
				6	595.0	680.0	26,276	6.8
				7	157.5	174.5	5,374	10.1
		327	10,000	[a]1				
				[a]2				
				3	140.0	183.0	11,778	9.9

[a]No draft velocities indicated by records.

INDEX

Subject	Number
Gusts - Structure	6.1.2.1
Gusts - Frequency	6.1.2.2
Gusts - Turbulence	6.1.2.3

ABSTRACT

The gust and draft velocities from records of NACA instruments installed in P-61C airplanes participating in thunderstorm flights at Clinton County Army Air Field, Ohio, from August 13, 1947 to August 15, 1947 are presented.