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RESEARCH MEMORANDUM

EVALUATION OF GUST AND DRAFT VELOCITIES FROM FLIGHTS

OF P-61C AIRPLANES WITHIN THUNDERSTORMS

JULY 31, 1947 TO AUGUST 6, 1947

AT CLINTON COUNTY ARMY AIR FIELD, OHIO

By

Jack Funk

Langley Memorial Aeronautical Laboratory
Langley Field, Va.

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RESEARCH MEMORANDUM

EVALUATION OF GUST AND DRAFT VELOCITIES FROM FLIGHTS OF P-61C AIRPLANES WITHIN THUNDERSTORMS JULY 31, 1947 TO AUGUST 6, 1947 AT CLINTON COUNTY ARMY AIR FIELD, OHIO

By Jack Funk

SUMMARY

The results obtained from measurements of gust and draft velocities within thunderstorms at Clinton County Army Air Field, Ohio, for the period of July 31, 1947 to August 6, 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.

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Langley Field, Va.

Jack Funk

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Approved:

Richard V. Rhode

Richard V. Rhode
Chief of Aircraft Loads Division

CGB

REFERENCE

1. Tolefson, H. B.: Evaluation of Gust and Draft Velocities from Flights 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
July 31, 1947 - Flight 16								
Airplane 348 - Traverse 1 Length of traverse 1542.9 sec, 531,681 ft								
0 - 10	24,500	----	-----	----	-----	---	---	0
10 - 20		2.2	-----	----	-----	---	---	1
20 - 30		----	-----	----	-----	---	---	0
30 - 40		3.1	-----	----	-----	---	---	3
40 - 50		----	-4.7	----	-----	---	---	1
50 - 60		10.6	-11.5	----	-----	---	---	6
60 - 70		7.1	-5.9	----	-----	---	---	5
[a]70 - 80		4.7	-8.4	10.6	-----	115	---	5
80 - 90		----	-6.8	----	-----	---	---	1
90 - 100		3.7	-5.3	----	-----	---	---	3
100 - 110		12.7	-----	----	-----	---	---	3
110 - 120		4.4	-14.6	----	-----	---	---	3
120 - 200		----	-----	----	-----	---	---	0
[b]200 - 210		----	-----	----	-----	---	---	0
210 - 390		----	-----	----	-----	---	---	0
390 - 400		----	-5.3	----	-----	---	---	1
400 - 410		2.8	-----	----	-----	---	---	1
410 - 420		2.2	-6.2	----	-----	---	---	3
420 - 430		7.8	-5.6	----	-----	---	---	3
430 - 440		----	-8.1	----	-----	---	---	1
440 - 460		----	-----	----	-----	---	---	0
460 - 470		----	-5.0	----	-----	---	---	2
470 - 660		----	-----	----	-----	---	---	0
660 - 670		----	-4.7	----	-9.7	---	90	1
670 - 770		----	-----	----	-----	---	---	0
770 - 780		2.5	-----	5.6	-----	118	---	2
780 - 790		5.2	-----	10.4	-----	290	---	1
790 - 800		1.5	-7.4	----	-----	---	---	3
800 - 810		----	-9.0	----	-----	---	---	1
810 - 820		4.3	-7.4	----	-----	---	---	2
820 - 830		----	-4.6	----	-5.1	---	95	1
830 - 840		6.5	-12.7	----	-----	---	---	7
840 - 850		7.7	-----	----	-----	---	---	1
850 - 870		----	-----	----	-----	---	---	0

[a]Cloud entry.

[b]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
July 31, 1947 - Flight 16								
Airplane 348 - Traverse 1 Length of traverse 1542.9 sec, 531,681 ft								
870 - 880	24,500	----	-5.6	----	-----	---	---	1
880 - 890		----	-5.6	----	-5.2	---	88	2
890 - 900		3.1	-7.7	----	-7.7	---	54	6
900 - 910		----	-4.6	----	-----	---	---	2
910 - 930		----	-----	----	-----	---	---	0
930 - 940		4.0	-4.9	----	-----	---	---	2
940 - 950		----	-4.6	----	-----	---	---	1
950 - 960		----	-----	----	-----	---	---	0
960 - 970		4.9	-6.8	----	-----	---	---	4
970 - 980		3.7	-6.8	----	-----	---	---	7
980 - 990		5.2	-9.0	----	-----	---	---	3
990 - 1000		----	-----	----	-----	---	---	0
1000 - 1010		7.7	-5.6	----	-----	---	---	3
1010 - 1020		11.4	-11.7	----	-----	---	---	9
[a]1020 - 1030		4.6	-8.3	----	-----	---	---	5
1030 - 1090		----	-----	----	-----	---	---	0
1090 - 1100		----	-4.3	----	-5.6	---	300	1
1100 - 1110		1.5	-----	----	-----	---	---	1
1110 - 1150		----	-----	----	-----	---	---	0
[b]1150 - 1160		----	-----	----	-----	---	---	0
1160 - 1240		----	-----	----	-----	---	---	0
1240 - 1250		2.2	-----	11.2	-----	31	---	1
1250 - 1260		7.1	-8.6	----	-14.4	---	76	6
1260 - 1270		4.3	-11.1	----	-----	---	---	4
1270 - 1280		7.1	-8.3	----	-----	---	---	3
[a]1280 - 1290	24,000	12.7	-7.7	----	-----	---	---	5
1290 - 1300		16.0	-33.0	----	-----	---	---	4
1300 - 1310	24,500	14.8	-5.2	----	-----	---	---	2
1310 - 1320		3.7	-----	----	-----	---	---	1
1320 - 1330		4.0	-9.6	----	-5.9	---	80	4
1330 - 1340		4.9	-7.4	----	-15.3	---	374	4
[b]1340 - 1350	24,000	----	-----	----	-----	---	---	0
1350 - 1380		----	-----	----	-----	---	---	0
1380 - 1450	24,500	----	-----	----	-----	---	---	0
1450 - 1470	25,000	----	-----	----	-----	---	---	0
1470 - 1510	24,500	----	-----	----	-----	---	---	0
1510 - 1550	24,000	----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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
July 31, 1947 - Flight 16								
Airplane 348 - Traverse 2 Length of traverse 1282.2 sec, 444,741 ft								
0 - 110	24,500	----	-----	----	-----	---	---	0
[a]110 - 120		5.8	-7.6	----	-----	---	---	3
120 - 130		6.7	-8.5	----	-----	---	---	5
130 - 140	25,000	17.1	-14.4	----	-----	---	---	7
140 - 150		16.5	-23.5	----	-----	---	---	6
150 - 160	24,500	4.0	-15.9	----	-----	---	---	7
160 - 170		9.5	-7.0	----	-----	---	---	5
170 - 180		9.5	-9.8	----	-----	---	---	6
180 - 190		8.9	-7.3	----	-----	---	---	3
190 - 200		8.5	-----	18.1	-----	142	---	4
200 - 210	25,000	10.4	-10.1	----	-----	---	---	7
210 - 220		----	-----	----	-----	---	---	0
220 - 230		----	-4.6	----	-9.1	---	155	2
[b]230 - 240		----	-----	----	-----	---	---	0
240 - 250	24,500	4.3	-4.9	6.7	-----	170	---	2
250 - 320		----	-----	----	-----	---	---	0
320 - 330	24,000	----	-----	----	-----	---	---	0
330 - 340	24,500	----	-6.4	----	-----	---	---	1
340 - 360		----	-----	----	-----	---	---	0
[a]360 - 370		7.0	-10.4	----	-----	---	---	3
370 - 390		----	-----	----	-----	---	---	0
[b]390 - 400	25,000	----	-----	----	-----	---	---	0
400 - 410	24,500	5.2	-7.3	14.3	-----	205	---	2
[a]410 - 420		10.1	-10.4	21.9	-----	43	---	6
420 - 430		10.4	-4.9	16.0	-----	101	---	3
430 - 440		11.3	-4.6	----	-28.4	---	242	3
440 - 450		9.2	-8.5	----	-----	---	---	4
450 - 460	25,000	----	-----	----	-----	---	---	0
460 - 470		4.6	-3.1	9.9	-----	310	---	6
470 - 480		----	-6.4	----	-12.6	---	191	3
480 - 490		4.3	-11.0	----	-----	---	---	5
490 - 500		14.7	-7.9	----	-----	---	---	7
500 - 510	24,500	4.9	-5.2	----	-----	---	---	5
510 - 520		5.2	-3.1	----	-----	---	---	2
520 - 530		----	-5.5	----	-----	---	---	1
530 - 540		4.0	-4.3	----	-----	---	---	4
540 - 550		----	-8.2	----	-14.3	---	75	1

[a]Cloud entry.
[b]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
July 31, 1947 - Flight 16								
Airplane 348 - Traverse 2 Length of traverse 1282.2 sec, 444,741 ft								
550 - 560	24,500	----	-----	----	-----	---	---	0
560 - 570		15.0	-10.4	----	-----	---	---	5
570 - 580		11.9	-12.8	----	-----	---	---	9
580 - 590		----	-4.2	----	-----	---	---	1
590 - 600	25,000	----	-11.1	----	-22.0	---	236	2
600 - 610		----	-5.6	----	-----	---	---	2
610 - 620		----	-4.1	----	-3.6	---	121	1
620 - 630		3.0	-----	6.9	-----	145	---	2
630 - 640	24,500	----	-----	----	-----	---	---	0
640 - 650		----	-2.0	----	-----	---	---	1
[b]650 - 660		4.1	-----	----	-----	---	---	1
660 - 670		----	-----	----	-----	---	---	0
670 - 690	25,000	----	-----	----	-----	---	---	0
690 - 780	24,500	----	-----	----	-----	---	---	0
780 - 790		1.4	-----	3.5	-----	137	---	1
790 - 800		----	-----	----	-----	---	---	0
800 - 810		2.5	-4.8	----	-8.7	---	137	4
810 - 820		3.0	-4.0	----	-----	---	---	4
820 - 830		3.0	-----	----	-----	---	---	2
830 - 840		----	-----	----	-----	---	---	0
840 - 850	25,000	----	-4.0	----	-----	---	---	1
850 - 860		----	-2.3	----	-6.8	---	100	1
860 - 870		----	-7.9	----	-----	---	---	2
870 - 890		----	-----	----	-----	---	---	0
890 - 900		2.7	-5.9	----	-----	---	---	5
900 - 910		4.3	-7.0	----	-----	---	---	6
910 - 920		----	-9.1	----	-----	---	---	2
[a]920 - 930		14.0	-8.9	----	-----	---	---	3
930 - 940		7.9	-10.2	----	-----	---	---	8
940 - 950		7.2	-10.3	----	-----	---	---	12
950 - 960		10.0	-10.0	----	-----	---	---	8
960 - 970		5.6	-2.7	----	-----	---	---	6
970 - 980		3.9	-7.0	----	-----	---	---	5
980 - 990		9.5	-7.4	----	-----	---	---	6
990 - 1000		3.5	-----	----	-----	---	---	1

[a]Cloud entry.
[b]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
July 31, 1947 - Flight 16								
Airplane 348 - Traverse 2 Length of traverse 1282.2 sec, 444,741 ft								
1000 - 1010	25,000	4.9	-5.3	----	-----	---	---	2
[b]1010 - 1020	24,500	5.1	-10.9	----	-----	---	---	2
1020 - 1040		----	-----	----	-----	---	---	0
1040 - 1050		1.5	-----	8.2	-----	288	---	1
1050 - 1060		----	-----	----	-----	---	---	0
1060 - 1070		4.1	-5.5	----	-----	---	---	2
1070 - 1080		4.5	-----	4.0	-----	79	---	3
1080 - 1090		----	-6.2	----	-----	---	---	3
1090 - 1100		6.3	-5.2	----	-----	---	---	2
1100 - 1110		4.3	-3.8	----	-----	---	---	3
1110 - 1120		6.4	-10.0	----	-14.5	---	175	5
[a]1120 - 1130		8.0	-10.2	17.8	-----	189	---	4
1130 - 1140		3.8	-5.1	----	-----	---	---	3
1140 - 1150		3.7	-----	7.3	-----	220	---	1
1150 - 1160		----	-----	----	-----	---	---	0
1160 - 1170	25,000	3.5	-4.1	----	-----	---	---	3
1170 - 1180	24,500	2.5	-3.3	----	-----	---	---	2
[b]1180 - 1190		2.4	-2.7	4.8	-4.5	128	94	1
1190 - 1220		----	-----	----	-----	---	---	0
1220 - 1230		4.6	-----	9.6	-----	83	---	1
1230 - 1240		3.2	-4.2	----	-11.8	---	240	6
1240 - 1290	24,000	----	-----	----	-----	---	---	0
Airplane 348 - Traverse 3 Length of traverse 415.7 sec, 146,323 ft								
0 - 40	24,500	----	-----	----	-----	---	---	0
40 - 50		----	-5.6	----	-----	---	---	1
50 - 120		----	-----	----	-----	---	---	0
120 - 130		----	-5.4	----	-----	---	---	1
130 - 140		6.1	-5.9	----	-----	---	---	4
140 - 150		----	-5.0	----	-----	---	---	2
150 - 160		----	-9.6	----	-----	---	---	1
160 - 170		3.9	-----	7.7	-----	166	---	3
170 - 180		----	-----	----	-----	---	---	0
180 - 190		9.9	-8.1	----	-----	---	---	4
[a]190 - 200		6.9	-10.5	----	-----	---	---	5

[a]Cloud entry.
[b]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
July 31, 1947 - Flight 16								
Airplane 348 - Traverse 3 Length of traverse 415.7 sec, 146,323 ft								
200 - 210	24,500	12.3	-8.7	----	-----	---	---	7
210 - 220		14.4	-9.2	----	-----	---	---	5
220 - 230	25,000	9.7	-13.2	----	-----	---	---	3
230 - 240		5.0	-6.5	10.1	-----	247	---	5
240 - 250	24,500	7.6	-4.9	----	-----	---	---	6
250 - 260		7.4	-10.8	----	-----	---	---	5
260 - 270		----	-----	----	-----	---	---	0
270 - 280		----	-7.5	----	-14.8	---	193	3
280 - 290		5.6	-5.4	----	-----	---	---	6
290 - 300		6.1	-3.8	----	-----	---	---	8
300 - 310		3.8	-3.0	----	-----	---	---	4
310 - 320		----	-4.7	----	-----	---	---	2
320 - 330		6.6	-----	----	-----	---	---	1
330 - 340		4.9	-----	12.1	-----	146	---	2
340 - 350		3.0	-----	----	-----	---	---	1
350 - 360		4.0	-----	----	-----	---	---	1
[b]360 - 370		----	-----	----	-----	---	---	0
370 - 380		----	-----	10.5	-----	92	---	1
380 - 390		4.9	-7.6	----	-----	---	---	4
390 - 400		----	-----	----	-----	---	---	0
400 - 410		----	-4.0	----	-4.5	---	181	1
410 - 420		----	-----	----	-----	---	---	0
Airplane 344 - Traverse 1 Length of traverse 368.8 sec, 121,834 ft								
0 - 50	19,500	----	-----	----	-----	---	---	0
50 - 60		3.3	-----	----	-----	---	---	1
60 - 70		2.5	-2.7	----	-7.4	---	51	2
[a]70 - 80		2.5	-----	----	-----	---	---	1
80 - 90		----	-----	----	-----	---	---	0
90 - 100		3.9	-----	----	-----	---	---	1
100 - 110		----	-3.7	----	-5.3	---	216	2
110 - 120		5.5	-----	9.2	-----	78	---	2
120 - 130		5.4	-5.8	----	-----	---	---	5

[a]Cloud entry.
[b]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
July 31, 1947 - Flight 16								
Airplane 344 - Traverse 1 Length of traverse 368.8 sec, 121,834 ft								
130 - 140	19,500	6.8	-----	10.1	-----	51	---	3
140 - 150		----	-5.6	----	-----	---	---	2
150 - 160		6.0	-8.3	8.7	-15.7	240	95	3
160 - 170		10.6	-8.9	----	-----	---	---	5
170 - 180		5.5	-----	----	-----	---	---	1
180 - 190		4.0	-5.6	----	-----	---	---	4
190 - 200		----	-----	----	-----	---	---	0
200 - 210		4.7	-6.8	----	-----	---	---	3
210 - 220		4.6	-6.1	----	-10.2	---	158	4
220 - 230		8.2	-7.6	15.1	-----	130	---	3
230 - 240		15.8	-9.1	----	-18.5	---	306	2
240 - 250		----	-3.9	----	-----	---	---	2
250 - 260		3.2	-3.4	----	-----	---	---	2
260 - 270		3.3	-3.5	----	-7.3	---	156	2
270 - 280		2.5	-----	3.4	-----	95	---	1
280 - 290		3.3	-----	7.0	-----	208	---	1
290 - 300		----	-----	----	-----	---	---	0
300 - 310		3.3	-----	----	-----	---	---	1
310 - 320		3.9	-3.6	----	-----	---	---	4
320 - 330		6.7	-----	6.6	-----	66	---	2
330 - 340		6.6	-4.0	17.2	-----	416	---	4
340 - 360		----	-----	----	-----	---	---	0
[b]360 - 370		----	-----	----	-----	---	---	0
Airplane 344 - Traverse 2 Length of traverse 372.6 sec, 124,264 ft								
0 - 80	20,000	----	-----	----	-----	---	---	0
80 - 90		----	-2.7	----	-----	---	---	1
90 - 110		----	-----	----	-----	---	---	0
110 - 120		2.5	-----	----	-----	---	---	1
120 - 130		----	-----	----	-----	---	---	0
[a]130 - 140		3.8	-5.5	----	-----	---	---	5
140 - 150		----	-4.0	----	-5.0	---	191	1
150 - 160	19,500	5.7	-----	----	-----	---	---	4
160 - 170		5.0	-----	11.8	-----	176	---	3

[a]Cloud entry.
[b]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
July 31, 1947 - Flight 16								
Airplane 344 - Traverse 2 Length of traverse 372.6 sec, 124,264 ft								
170 - 180	20,000	----	-----	----	-----	---	---	0
180 - 190		3.9	-----	----	-----	---	---	2
190 - 200		7.6	-2.9	----	-----	---	---	5
200 - 210		10.9	-5.6	13.8	-----	184	---	4
210 - 220		6.0	-4.0	----	-----	---	---	4
220 - 230		5.5	-----	15.5	-----	222	---	1
[b]230 - 240		5.0	-----	----	-----	---	---	1
240 - 250		----	-3.7	----	-----	---	---	2
250 - 320		----	-----	----	-----	---	---	0
320 - 330		4.6	-5.0	6.2	-----	33	---	3
330 - 340		----	-5.7	----	-10.5	---	154	1
340 - 380		----	-----	----	-----	---	---	0
Airplane 344 - Traverse 3 Length of traverse 105.4 sec, 36,225 ft								
[c]0 - 10	20,000	5.4	-7.8	----	-----	---	---	8
10 - 20		5.7	-7.3	----	-14.0	---	115	4
20 - 30		16.2	-13.1	----	-----	---	---	8
30 - 40	19,500	3.5	-5.0	----	-----	---	---	3
40 - 50		4.9	-----	----	-----	---	---	2
50 - 60	20,000	----	-9.8	----	-27.2	---	250	4
60 - 70		4.4	-----	----	-----	---	---	1
70 - 80		----	-3.5	----	-----	---	---	3
[b]80 - 90		----	-----	----	-----	---	---	0
90 - 110	19,500	----	-----	----	-----	---	---	0
Airplane 344 - Traverse 4 Length of traverse 262.6 sec, 89,687 ft								
0 - 20	20,000	----	-----	----	-----	---	---	0
20 - 30	19,500	----	-----	----	-----	---	---	0
30 - 40		3.6	-----	----	-----	---	---	1
40 - 70	20,000	----	-----	----	-----	---	---	0
70 - 100	19,500	----	-----	----	-----	---	---	0
100 - 110	20,000	----	-----	----	-----	---	---	0

[b]Cloud exit.

[c]Entry light on at start of record.

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
July 31, 1947 - Flight 16								
Airplane 344 - Traverse 4 Length of traverse 262.6 sec, 89,687 ft								
[a]110 - 120	20,000	----	-----	----	-----	---	---	0
120 - 130		----	-----	----	-----	---	---	0
130 - 140		3.7	-----	7.0	-----	102	---	3
140 - 150		5.2	-----	10.4	-----	71	---	3
150 - 160		5.6	-3.5	----	-----	---	---	3
160 - 170		2.5	-----	----	-----	---	---	1
170 - 180		10.4	-9.2	----	-----	---	---	8
180 - 190		9.2	-8.3	----	-----	---	---	7
190 - 200		11.5	-14.2	5.9	-----	131	---	8
200 - 210		13.5	-9.3	----	-----	---	---	8
210 - 220		14.8	-11.0	----	-----	---	---	6
220 - 230		6.0	-9.2	----	-----	---	---	4
230 - 240		6.1	-5.1	----	-----	---	---	6
[b]240 - 250		----	-----	----	-----	---	---	0
250 - 270		----	-----	----	-----	---	---	0
Airplane 344 - Traverse 5 Length of traverse 734.6 sec, 248,661 ft								
0 - 10	20,000	3.7	-----	----	-----	---	---	2
10 - 20		3.2	-----	12.0	-----	37	---	1
[a]20 - 30	19,500	7.0	-6.6	----	-----	---	---	3
30 - 40		9.0	-12.8	----	-----	---	---	5
40 - 50		5.4	-7.6	----	-----	---	---	8
50 - 60		6.5	-7.8	----	-----	---	---	4
60 - 70	20,000	4.9	-5.4	8.0	-----	24	---	3
70 - 80		6.4	-----	----	-----	---	---	2
80 - 90		3.7	-----	----	-----	---	---	2
90 - 110		----	-----	----	-----	---	---	0
[b]110 - 120	19,500	2.4	-----	5.0	-----	56	---	2
120 - 240		----	-----	----	-----	---	---	0
240 - 320	20,000	----	-----	----	-----	---	---	0
320 - 330	19,500	----	-----	----	-----	---	---	0
330 - 340		3.7	-----	5.5	-----	37	---	1
340 - 350		3.7	-2.0	7.1	-6.3	91	133	5
350 - 360		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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
July 31, 1947 - Flight 16								
Airplane 344 - Traverse 5 Length of traverse 734.6 sec, 248,661 ft								
[a]360 - 370	19,500	9.6	-8.6	----	-13.0	---	89	7
370 - 390	20,000	----	-----	----	-----	---	---	0
390 - 400	19,500	5.2	-----	----	-----	---	---	1
400 - 410		5.5	-4.4	----	-----	---	---	3
410 - 420		6.2	-5.9	----	-----	---	---	3
420 - 430		4.6	-5.7	----	-----	---	---	3
430 - 440		3.8	-4.8	----	-----	---	---	3
440 - 450		9.3	-2.8	----	-----	---	---	6
450 - 460	20,000	4.6	-9.4	----	-----	---	---	4
460 - 470		5.7	-----	----	-----	---	---	1
470 - 480		----	-4.9	----	-9.0	---	205	2
[b]480 - 490		----	-3.6	----	-----	---	---	1
490 - 500		3.2	-----	4.6	-----	200	---	1
500 - 510	19,500	5.5	-----	8.5	-----	86	---	1
510 - 520		5.0	-----	----	-----	---	---	3
520 - 530		4.9	-3.2	----	-----	---	---	3
530 - 540	20,000	----	-----	----	-----	---	---	0
540 - 550		----	-3.5	----	-----	---	---	1
550 - 560		----	-2.7	----	-----	---	---	1
560 - 570	19,500	6.2	-3.2	----	-----	---	---	4
570 - 580		----	-1.8	----	-----	---	---	1
580 - 590		----	-----	----	-----	---	---	0
590 - 600		3.1	-----	----	-----	---	---	3
600 - 610		4.2	-1.9	----	-6.2	---	140	2
610 - 620	20,000	----	-1.9	----	-----	---	---	1
620 - 660		----	-----	----	-----	---	---	0
[a]660 - 670		8.6	-----	----	-----	---	---	1
670 - 680		----	-3.7	----	-----	---	---	3
680 - 690		9.4	-15.0	----	-31.1	---	175	4
690 - 700		14.5	-3.9	----	-----	---	---	4
[b]700 - 710	19,500	5.2	-----	----	-----	---	---	1
710 - 740		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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
July 31, 1947 - Flight 16								
Airplane 344 - Traverse 6 Length of traverse 415.8 sec, 140,532 ft								
0 - 90	19,500	----	-----	----	-----	---	---	0
90 - 100		5.4	-6.2	----	-----	---	---	4
100 - 110		----	-3.3	----	-----	---	---	1
110 - 140		----	-----	----	-----	---	---	0
140 - 150	20,000	----	-----	----	-----	---	---	0
[a]150 - 160		5.1	-6.6	----	-----	---	---	2
160 - 170		4.5	-5.4	----	-----	---	---	5
170 - 180		4.3	-5.4	----	-----	---	---	4
180 - 190		7.8	-5.3	----	-----	---	---	4
190 - 200	19,500	3.6	-3.8	----	-----	---	---	2
200 - 210		----	-3.8	----	-----	---	---	1
210 - 220		2.3	-----	----	-----	---	---	1
220 - 240	20,000	----	-----	----	-----	---	---	0
240 - 250		3.3	-----	----	-----	---	---	1
250 - 260		----	-----	----	-----	---	---	0
260 - 270		2.5	-----	----	-----	---	---	1
270 - 280		3.7	-3.5	----	-7.4	---	275	2
280 - 290	19,500	5.4	-5.6	----	-----	---	---	3
290 - 300		5.6	-3.4	----	-----	---	---	4
300 - 310		----	-3.9	----	-12.3	---	253	1
310 - 320	20,000	4.4	-3.4	----	-----	---	---	3
320 - 330		3.3	-4.7	----	-----	---	---	2
330 - 340		4.6	-3.5	6.7	-----	65	---	4
340 - 350	19,500	----	-----	----	-----	---	---	0
350 - 360		----	-2.7	----	-----	---	---	1
360 - 370		5.3	-8.4	----	-----	---	---	4
370 - 380		----	-6.7	----	-----	---	---	2
380 - 390		7.4	-5.6	----	-----	---	---	4
390 - 400	20,000	8.9	-5.6	----	-----	---	---	6
400 - 410		----	-----	----	-----	---	---	0
[b]410 - 420		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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
July 31, 1947 - Flight 16								
Airplane 353 - Traverse 1 Length of traverse 2877.0 sec, 912,294 ft								
0 - 120	14,500	----	-----	----	-----	---	---	0
120 - 130	15,000	5.1	-5.8	12.2	-----	24	---	2
130 - 140		8.2	-----	5.0	-----	25	---	2
140 - 150		----	-9.9	----	-----	---	---	1
150 - 160		----	-4.9	----	-----	---	---	1
160 - 170		2.8	-7.7	----	-----	---	---	3
170 - 180		----	-5.5	----	-11.2	---	25	1
180 - 220		----	-----	----	-----	---	---	0
220 - 230		5.6	-4.9	----	-9.6	---	134	3
230 - 260		----	-----	----	-----	---	---	0
260 - 270	14,500	----	-----	----	-----	---	---	0
270 - 280		----	-6.5	----	-8.6	---	98	1
280 - 290		4.1	-----	8.6	-----	37	---	1
290 - 310		----	-----	----	-----	---	---	0
310 - 320		2.0	-----	----	-----	---	---	1
320 - 330		5.6	-4.3	----	-14.1	---	47	3
330 - 350		----	-----	----	-----	---	---	0
350 - 360		2.7	-3.7	----	-6.4	---	232	3
360 - 370		----	-----	----	-----	---	---	0
370 - 380		----	-5.3	----	-----	---	---	1
380 - 400		----	-----	----	-----	---	---	0
400 - 410	15,000	4.4	-----	----	-----	---	---	1
410 - 420		4.3	-5.3	----	-8.1	---	58	2
420 - 440		----	-----	----	-----	---	---	0
440 - 450	14,500	----	-8.3	----	-----	---	---	1
450 - 500		----	-----	----	-----	---	---	0
500 - 510		6.5	-2.3	----	-----	---	---	3
510 - 520		2.8	-----	----	-----	---	---	1
520 - 530		----	-----	----	-----	---	---	0
530 - 540		----	-6.5	----	-5.6	---	101	3
540 - 550		2.1	-4.9	----	-7.8	---	288	2
550 - 560		----	-----	----	-----	---	---	0
560 - 570		5.6	-3.8	9.6	-----	133	---	2
570 - 580		----	-----	----	-----	---	---	0
580 - 590		2.7	-3.7	----	-----	---	---	3
590 - 600		----	-----	----	-----	---	---	0
600 - 610		----	-4.3	----	-----	---	---	1
610 - 640		----	-----	----	-----	---	---	0

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
July 31, 1947 - Flight 16								
Airplane 353 - Traverse 1 Length of traverse 2877.0 sec, 912,294 ft								
640 - 650	14,500	----	-3.1	----	-----	---	---	1
650 - 700		----	-----	----	-----	---	---	0
700 - 710		5.4	-----	----	-----	---	---	2
710 - 730		----	-----	----	-----	---	---	0
[a]730 - 740		----	-----	----	-----	---	---	0
740 - 750		----	-----	----	-----	---	---	0
[b]750 - 760		----	-----	----	-----	---	---	0
[a]760 - 770		9.5	-4.8	----	-----	---	---	7
770 - 780	15,000	5.8	-13.2	----	-----	---	---	4
780 - 790		5.9	-8.8	----	-----	---	---	4
790 - 800	15,500	3.8	-6.0	----	-9.4	---	86	3
800 - 810		----	-7.6	----	-----	---	---	2
810 - 830		----	-----	----	-----	---	---	0
[b]830 - 840		----	-----	----	-----	---	---	0
840 - 860	15,000	----	-----	----	-----	---	---	0
860 - 1140	14,500	----	-----	----	-----	---	---	0
1140 - 1150		14.9	-4.1	25.7	-6.2	120	111	5
1150 - 1160		----	-12.7	----	-7.8	---	78	2
1160 - 1420		----	-----	----	-----	---	---	0
[a]1420 - 1430		9.0	-9.3	----	-----	---	---	5
1430 - 1440		----	-----	----	-----	---	---	0
1440 - 1450		8.5	-----	18.3	-----	109	---	1
1450 - 1460		5.7	-10.0	8.4	-----	131	---	3
1460 - 1470	15,000	----	-----	----	-----	---	---	0
1470 - 1480		4.5	-6.0	----	-----	---	---	2
1480 - 1490		3.6	-5.9	----	-----	---	---	10
1490 - 1500		7.4	-6.6	10.5	-----	84	---	5
1500 - 1510		5.1	-7.3	----	-6.0	---	55	4
1510 - 1520		5.4	-6.4	----	-----	---	---	8
1520 - 1530		3.2	-----	6.8	-----	108	---	5
1530 - 1540		6.3	-----	----	-----	---	---	1
1540 - 1550		2.7	-7.6	----	-8.5	---	86	2
1550 - 1560		4.1	-----	----	-----	---	---	1
1560 - 1570	15,500	4.2	-----	----	-----	---	---	1
[b]1570 - 1580		2.2	-4.8	11.8	-8.0	58	63	2
1580 - 1620		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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
July 31, 1947 - Flight 16								
Airplane 353 - Traverse 1 Length of traverse 2877.0 sec, 912,294 ft								
1620 - 1630	15,500	8.6	-9.8	7.2	-----	74	---	5
1630 - 1640		3.3	-11.4	----	-----	---	---	4
1640 - 1670		----	-----	----	-----	---	---	0
1670 - 1680	15,000	----	-----	----	-----	---	---	0
1680 - 1690		5.0	-----	9.2	-----	73	---	3
1690 - 1750	14,500	----	-----	----	-----	---	---	0
1750 - 1760		4.3	-3.4	13.2	-----	181	---	4
1760 - 1770		9.5	-----	18.7	-----	58	---	1
1770 - 1780		6.4	-7.9	8.3	-----	54	---	6
1780 - 1790		----	-----	----	-----	---	---	0
1790 - 1800		1.2	-----	----	-----	---	---	1
1800 - 1810		3.8	-5.2	8.0	-----	110	---	4
1810 - 1830		----	-----	----	-----	---	---	0
1830 - 1840		2.7	-2.2	7.3	-5.4	83	82	3
1840 - 1850		----	-----	----	-----	---	---	0
1850 - 1860		5.2	-----	----	-----	---	---	1
1860 - 1870		3.9	-7.9	8.8	-----	58	---	3
1870 - 1880		4.7	-5.4	----	-----	---	---	2
1880 - 1890		----	-4.7	----	-9.5	---	44	2
[a]1890 - 1900		7.7	-7.4	17.5	-----	258	---	2
1900 - 1910		6.1	-9.6	13.6	-----	89	---	5
1910 - 1920	15,000	10.4	-10.8	----	-----	---	---	4
1920 - 1930		6.3	-7.7	----	-----	---	---	2
1930 - 1940		4.7	-7.5	13.6	-----	243	---	6
1940 - 1950		7.8	-6.4	----	-----	---	---	6
1950 - 1960		5.0	-4.9	----	-----	---	---	3
1960 - 1970		----	-4.3	----	-----	---	---	1
1970 - 1980		3.4	-5.8	----	-----	---	---	3
1980 - 1990		9.7	-----	----	-----	---	---	3
1990 - 2000		11.2	-6.3	----	-----	---	---	4
2000 - 2010		7.8	-8.5	----	-----	---	---	4
2010 - 2020		----	-7.7	----	-----	---	---	1
2020 - 2030		----	-6.4	----	-----	---	---	1
2030 - 2040		----	-5.7	----	-7.6	---	95	2
2040 - 2050		6.7	-5.4	----	-----	---	---	6
2050 - 2060	15,500	7.9	-8.1	----	-----	---	---	2
2060 - 2070		----	-6.6	----	-7.9	---	92	3

[a]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
July 31, 1947 - Flight 16								
Airplane 353 - Traverse 1 Length of traverse 2877.0 sec, 912,294 ft								
2070 - 2080	15,500	----	-5.8	----	-9.1	---	294	1
2080 - 2090		----	-4.1	----	-----	---	---	1
[b]2090 - 2100		5.7	-3.1	----	-----	---	---	2
2100 - 2120		----	-----	----	-----	---	---	0
2120 - 2130		3.9	-----	7.5	-----	61	---	1
2130 - 2140		----	-----	----	-----	---	---	0
2140 - 2150		----	-4.7	----	-----	---	---	1
2150 - 2180		----	-----	----	-----	---	---	0
2180 - 2190	15,000	----	-----	----	-----	---	---	0
2190 - 2200		----	-----	----	-6.9	---	149	1
2200 - 2220		----	-----	----	-----	---	---	0
2220 - 2350	14,500	----	-----	----	-----	---	---	0
2350 - 2360		----	-4.4	----	-6.7	---	202	1
[a]2360 - 2370		4.4	-5.8	----	-----	---	---	3
2370 - 2380	14,000	----	-5.6	----	-10.1	---	82	1
2380 - 2390		3.6	-----	7.1	-----	47	---	1
2390 - 2400		----	-1.4	----	-8.0	---	84	1
2400 - 2420		----	-----	----	-----	---	---	0
2420 - 2430		7.9	-----	----	-----	---	---	2
2430 - 2440	14,500	9.7	-7.2	----	-----	---	---	4
2440 - 2450		----	-----	----	-----	---	---	0
2450 - 2460		4.1	-9.4	----	-----	---	---	8
2460 - 2470		----	-----	----	-----	---	---	0
2470 - 2480		2.8	-----	----	-----	---	---	1
2480 - 2490		4.1	-9.5	----	-----	---	---	4
2490 - 2500		4.0	-8.4	----	-----	---	---	2
2500 - 2510		4.0	-----	----	-----	---	---	1
2510 - 2520		2.8	-7.1	----	-----	---	---	3
2520 - 2530		4.0	-5.3	----	-----	---	---	2
2530 - 2540		11.5	-13.4	----	-18.0	---	229	4
2540 - 2550	15,000	4.2	-----	7.3	-----	115	---	1
2550 - 2560		----	-6.1	----	-10.8	---	255	1
2560 - 2570		----	-5.2	----	-----	---	---	1
2570 - 2600		----	-----	----	-----	---	---	0
2600 - 2610		3.5	-10.4	8.9	-----	41	---	5
2610 - 2620		4.8	-----	----	-----	---	---	2

[a]Cloud entry.
[b]Cloud exit.

NACA

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
July 31, 1947 - Flight 16								
Airplane 353 - Traverse 1 Length of traverse 2877.0 sec, 912,294 ft								
2620 - 2640	15,000	----	-----	----	-----	---	---	0
2640 - 2650		----	-3.7	----	-----	---	---	1
2650 - 2660		4.0	-6.4	----	-----	---	---	5
2660 - 2670		----	-6.1	----	-----	---	---	1
2670 - 2680		----	-4.4	----	-----	---	---	1
2680 - 2720		----	-----	----	-----	---	---	0
2720 - 2730		3.9	-4.2	----	-----	---	---	3
2730 - 2750		----	-----	----	-----	---	---	0
2750 - 2760		4.0	-----	6.9	-----	186	---	1
2760 - 2770		3.2	-8.5	----	-----	---	---	6
2770 - 2780		2.7	-6.1	23.5	-13.2	258	109	3
2780 - 2790		----	-4.6	----	-----	---	---	1
2790 - 2800		----	-----	----	-----	---	---	0
[b]2800 - 2810		----	-----	----	-----	---	---	0
2810 - 2840		----	-----	----	-----	---	---	0
2840 - 2850		----	-6.8	----	-----	---	---	2
2850 - 2860		13.1	-11.9	----	-----	---	---	6
2860 - 2870		6.4	-----	----	-----	---	---	1
2870 - 2880		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 2 Length of traverse 397.2 sec, 126,899 ft								
0 - 10	14,500	----	-7.1	----	-18.8	---	60	6
10 - 40		----	-----	----	-----	---	---	0
40 - 50	15,000	2.0	-4.8	----	-----	---	---	4
50 - 60		----	-6.7	----	-----	---	---	1
[a]60 - 70		3.0	-11.6	10.7	-----	217	---	3
70 - 80		5.0	-10.7	----	-----	---	---	2
[b]80 - 90		----	-----	----	-----	---	---	0
90 - 140	14,500	----	-----	----	-----	---	---	0
140 - 150		----	-9.6	----	-----	---	---	2
150 - 160		----	-----	----	-----	---	---	0
160 - 170		----	-5.9	----	-----	---	---	1
170 - 180		----	-6.0	----	-----	---	---	1
180 - 270		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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
July 31, 1947 - Flight 16								
Airplane 353 - Traverse 2 Length of traverse 397.2 sec, 126,899 ft								
270 - 280	14,500	6.7	-----	----	-----	---	---	1
280 - 320		----	-----	----	-----	---	---	0
320 - 330		----	-7.8	----	-10.1	---	106	2
330 - 400		----	-----	----	-----	---	---	0
August 5, 1947 - Flight 17								
Airplane 348 - Traverse 1 Length of traverse 231.8 sec, 73,513 ft								
0 - 70	24,500	----	-----	----	-----	---	---	0
70 - 80		----	-4.8	----	-6.8	---	65	3
[a]80 - 90		----	-2.9	----	-5.7	---	138	1
90 - 100		----	-5.1	----	-----	---	---	2
100 - 110	24,000	2.2	-----	----	-----	---	---	2
110 - 120		3.2	-----	----	-----	---	---	1
120 - 130	24,500	----	-2.5	----	-5.0	---	110	1
130 - 140		5.4	-2.5	----	-----	---	---	2
140 - 150		----	-2.5	----	-4.9	---	140	1
150 - 160		4.8	-3.5	----	-----	---	---	2
160 - 170		6.0	-5.7	----	-10.2	---	114	4
170 - 180		6.0	-4.8	----	-----	---	---	2
[b]180 - 190	24,000	----	-----	----	-----	---	---	0
190 - 210		----	-----	----	-----	---	---	0
210 - 220		1.6	-3.2	----	-----	---	---	2
220 - 240	24,500	----	-----	----	-----	---	---	0
Airplane 348 - Traverse 2 Length of traverse 78.5 sec, 24,941 ft								
0 - 10	24,500	2.2	-3.8	----	-----	---	---	3
10 - 20		----	-----	----	-----	---	---	0
[a]20 - 30		4.1	-4.7	----	-----	---	---	5
30 - 40		----	-3.8	----	-7.4	---	146	2
40 - 50		5.0	-4.9	12.0	-----	55	---	7
50 - 60		5.3	-6.3	----	-----	---	---	5
60 - 70		5.3	-6.3	----	-----	---	---	3
[b]70 - 80		3.8	-4.7	----	-----	---	---	4

[a]Cloud entry.
[b]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 5, 1947 - Flight 17								
Airplane 348 - Traverse 3 Length of traverse 739.8 sec, 247,202 ft								
0 - 30	24,500	----	-----	----	-----	---	---	0
30 - 40		----	-3.8	----	-----	---	---	1
40 - 50		----	-----	----	-----	---	---	0
50 - 60		5.6	-----	----	-----	---	---	1
60 - 110		----	-----	----	-----	---	---	0
110 - 120		2.8	-----	----	-----	---	---	2
120 - 180		----	-----	----	-----	---	---	0
180 - 190		4.1	-----	7.8	-----	51	---	1
190 - 200		----	-3.1	----	-----	---	---	2
[a]200 - 210		----	-8.1	----	-16.0	---	129	3
210 - 220		5.3	-6.0	----	-----	---	---	10
220 - 230		6.3	-4.4	11.6	-7.9	30	88	5
230 - 240	24,000	3.4	-3.1	----	-----	---	---	2
240 - 250		6.9	-6.6	----	-----	---	---	4
250 - 260		5.6	-7.8	----	-15.2	---	184	5
260 - 270		6.6	-3.8	8.5	-----	82	---	3
270 - 280		6.3	-8.1	----	-----	---	---	2
280 - 290	24,500	9.1	-----	----	-----	---	---	2
290 - 300		3.4	-14.7	----	-----	---	---	3
300 - 310		10.0	-7.5	----	-----	---	---	8
310 - 320		5.3	-----	----	-----	---	---	1
320 - 330		9.4	-5.4	----	-----	---	---	8
330 - 340		21.3	-20.7	----	-----	---	---	5
340 - 350		12.2	-22.9	----	-----	---	---	5
350 - 360	24,000	23.8	-5.6	----	-----	---	---	6
360 - 370	24,500	17.6	-17.2	----	-----	---	---	7
370 - 380	25,000	9.1	-9.1	----	-----	---	---	2
380 - 390	25,500	13.2	-18.2	----	-----	---	---	4
390 - 400	26,000	5.0	-10.6	----	-----	---	---	8
400 - 410		15.7	-10.7	----	-----	---	---	5
410 - 420		22.9	-25.1	----	-----	---	---	7
420 - 430	25,500	9.1	-----	----	-----	---	---	4
430 - 440	26,000	7.8	-9.1	----	-----	---	---	2
440 - 450	26,500	19.7	-9.4	----	-----	---	---	5
450 - 460	27,000	5.0	-13.2	----	-----	---	---	7
460 - 470		10.0	-18.2	----	-----	---	---	6
470 - 480		10.0	-14.4	----	-----	---	---	6

[a]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 5, 1947 - Flight 17								
Airplane 348 - Traverse 3 Length of traverse 739.8 sec, 247,202 ft								
480 - 490	27,000	7.5	-10.1	11.0	-----	57	---	4
490 - 500	27,500	4.4	-7.2	----	-----	---	---	3
500 - 510	27,000	2.8	-5.0	----	-----	---	---	3
510 - 520		8.1	-6.3	----	-----	---	---	4
520 - 530		9.1	-9.1	20.3	-----	30	---	5
530 - 540		10.7	-8.8	----	-----	---	---	2
540 - 550	26,500	0.9	-----	8.9	-----	54	---	1
550 - 560		6.3	-6.9	----	-13.2	---	230	6
560 - 570		9.1	-5.6	12.1	-----	148	---	3
570 - 580		7.2	-9.7	10.5	-----	67	---	3
580 - 590		6.6	-----	----	-----	---	---	1
590 - 600		----	-----	----	-----	---	---	0
600 - 610		6.0	-5.6	13.8	-----	178	---	2
610 - 620		----	-----	----	-----	---	---	0
620 - 630		6.0	-----	----	-----	---	---	1
630 - 640	26,000	11.6	-5.6	----	-----	---	---	5
640 - 650	25,500	6.9	-8.8	----	-----	---	---	4
650 - 660		6.9	-6.9	----	-----	---	---	4
660 - 670		7.2	-----	----	-----	---	---	2
670 - 680		9.7	-7.5	----	-----	---	---	3
680 - 690		11.3	-----	----	-----	---	---	1
690 - 700	26,000	5.3	-4.7	----	-----	---	---	3
700 - 710		9.4	-----	7.3	-----	51	---	3
710 - 720		6.0	-8.1	----	-----	---	---	5
[b]720 - 730		4.4	-6.9	----	-----	---	---	2
730 - 740	25,500	----	-----	----	-----	---	---	0
Airplane 344 - Traverse 1 Length of traverse 220.8 sec, 72,045 ft								
0 - 80	19,500	----	-----	----	-----	---	---	0
[a]80 - 90		----	-5.0	----	-10.0	---	25	5
90 - 100		----	-3.9	----	-7.5	---	87	4
100 - 110		3.5	-4.1	7.9	-----	55	---	3
110 - 120		----	-----	----	-----	---	---	0
[b]120 - 130		----	-----	----	-----	---	---	0
130 - 230		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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 5, 1947 - Flight 17								
Airplane 344 - Traverse 2 Length of traverse 434.0 sec, 165,238 ft								
0 - 50	20,000	----	-----	----	-----	---	---	0
50 - 90	19,500	----	-----	----	-----	---	---	0
90 - 100		1.9	-----	----	-----	---	---	1
100 - 110		1.2	-----	4.6	-----	135	---	1
[a]110 - 120		6.9	-5.0	----	-----	---	---	2
120 - 130		----	-----	----	-----	---	---	0
130 - 140		3.4	-----	----	-----	---	---	1
140 - 150		----	-4.0	----	-9.2	---	134	1
150 - 160		----	-5.0	----	-9.1	---	158	4
160 - 170		6.8	-2.8	7.8	-----	83	---	7
170 - 180	20,000	9.0	-5.0	10.0	-----	108	---	6
180 - 190		7.2	-10.3	----	-----	---	---	3
190 - 200		10.3	-7.8	----	-19.1	---	127	4
200 - 210	20,500	4.4	-8.4	----	-----	---	---	3
210 - 220	20,000	3.7	-14.6	----	-31.4	---	186	7
220 - 230		7.8	-12.8	----	-----	---	---	3
230 - 240		8.1	-6.2	7.8	-15.5	37	199	5
240 - 250		15.3	-14.6	----	-16.2	---	72	11
250 - 260	19,500	13.1	-12.5	----	-----	---	---	7
260 - 270	20,000	22.1	-12.8	----	-----	---	---	8
270 - 280	20,500	13.1	-11.2	----	-----	---	---	4
280 - 290	20,000	----	-6.2	----	-----	---	---	1
290 - 300	19,000	28.3	-27.7	----	-----	---	---	6
[b]300 - 310	19,500	23.3	-----	----	-----	---	---	1
310 - 440		----	-----	----	-----	---	---	0
Airplane 344 - Traverse 3 Length of traverse 431.0 sec, 141,347 ft								
0 - 20	20,000	----	-----	----	-----	---	---	0
20 - 80	19,500	----	-----	----	-----	---	---	0
80 - 90		----	-3.7	----	-7.4	---	213	1
90 - 100		----	-4.3	----	-8.3	---	85	2
100 - 110		----	-----	----	-----	---	---	0
[a]110 - 120		----	-----	----	-----	---	---	0
120 - 130		----	-4.3	----	-9.2	---	106	1

[a]Cloud entry.
[b]Cloud exit.

NACA

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 5, 1947 - Flight 17								
Airplane 344 - Traverse 3 Length of traverse 431.0 sec, 141,347 ft								
130 - 150	19,500	----	-----	----	-----	---	---	0
150 - 160		----	-2.2	----	-----	---	---	1
160 - 170		2.5	-6.2	9.3	-10.8	35	158	2
170 - 180		----	-7.7	----	-6.2	---	157	2
180 - 190		1.9	-8.3	----	-13.3	---	108	4
190 - 200		----	-2.2	----	-----	---	---	1
200 - 210		4.6	-4.6	----	-----	---	---	3
210 - 220	20,000	----	-7.4	----	-----	---	---	1
220 - 230		5.6	-4.6	----	-----	---	---	2
230 - 240		14.5	-7.4	----	-14.1	---	97	4
240 - 250		5.2	-9.6	----	-----	---	---	7
250 - 260		9.9	-15.4	----	-----	---	---	6
260 - 270	20,500	8.9	-8.3	----	-----	---	---	3
270 - 280		----	-----	----	-----	---	---	0
280 - 290	20,000	----	-----	----	-----	---	---	0
290 - 300		----	-6.2	----	-----	---	---	2
300 - 310		10.5	-11.1	----	-----	---	---	4
310 - 320		4.3	-13.0	----	-----	---	---	5
320 - 330		8.9	-5.6	14.6	-----	104	---	5
330 - 340		16.3	-10.2	----	-----	---	---	6
340 - 350	20,500	7.7	-16.3	----	-----	---	---	4
350 - 360		----	-----	----	-----	---	---	0
360 - 370		4.3	-11.1	----	-----	---	---	4
370 - 380	21,000	----	-11.7	----	-----	---	---	2
380 - 390	20,500	6.5	-5.9	7.7	-----	62	---	6
390 - 400		----	-5.2	----	-----	---	---	3
400 - 410		7.1	-10.5	13.2	27.9	215	301	6
410 - 420		6.5	-----	7.1	-----	99	---	2
420 - 430	21,000	----	-5.9	----	-6.4	---	139	1
430 - 440		----	-----	----	-----	---	---	0
Airplane 354 - Traverse 1 Length of traverse 275.8 sec, 84,979 ft								
0 - 60	14,500	----	-----	----	-----	---	---	0
[a]60 - 70		----	-----	----	-----	---	---	0

[a]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 5, 1947 - Flight 17								
Airplane 354 - Traverse 1 Length of traverse 275.8 sec, 84,979 ft								
70 - 140	14,500	----	-----	----	-----	---	---	0
140 - 150		4.4	-----	8.1	-----	71	---	1
150 - 160		5.1	-5.1	11.0	-----	42	---	7
160 - 170		6.0	-----	12.1	-----	206	---	1
170 - 180		----	-----	----	-----	---	---	0
[b]180 - 190		----	-----	----	-----	---	---	0
190 - 280		----	-----	----	-----	---	---	0
Airplane 354 - Traverse 2 Length of traverse 444.6 sec, 106,615 ft								
0 - 150	14,500	----	-----	----	-----	---	---	0
150 - 160		7.6	-3.2	6.8	-----	84	---	3
[a]160 - 170		----	-3.8	----	-11.5	---	223	2
170 - 180		----	-----	----	-----	---	---	0
180 - 190		----	-5.4	----	-7.4	---	84	1
190 - 200		----	-----	----	-----	---	---	0
200 - 210		----	-3.5	----	-7.2	---	60	1
210 - 220		----	-3.8	----	-----	---	---	1
220 - 230		2.8	-4.1	5.2	-7.4	25	51	5
230 - 240		2.5	-5.4	3.9	-----	98	---	2
240 - 250		----	-7.0	----	-7.5	---	138	3
250 - 260		4.7	-5.7	----	-----	---	---	4
260 - 270		6.3	-2.8	----	-10.3	---	199	3
270 - 280		2.2	-5.4	----	-----	---	---	2
280 - 290		5.4	-6.0	----	-----	---	---	2
290 - 300		17.4	-15.2	----	-----	---	---	2
300 - 310	15,000	12.0	-11.1	----	-9.9	---	119	8
310 - 320		25.9	-6.3	45.4	-7.2	226	102	3
320 - 330		19.9	-31.6	----	-----	---	---	7
330 - 340	15,500	10.8	-23.1	----	-----	---	---	2
340 - 350	16,000	----	-----	----	-----	---	---	0
[b]350 - 360		----	-----	----	-----	---	---	0
360 - 400		----	-----	----	-----	---	---	0
400 - 440	15,500	----	-----	----	-----	---	---	0
440 - 450	15,000	----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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 5, 1947 - Flight 17								
Airplane 354 - Traverse 3 Length of traverse 484.4 sec, 148,980 ft								
0 - 250	14,500	----	-----	----	-----	---	---	0
[a]250 - 260		----	-----	----	-----	---	---	0
260 - 270		3.4	-2.8	----	-11.2	---	84	2
270 - 280		2.5	-----	4.9	-----	99	---	1
280 - 290		----	-----	----	-----	---	---	0
290 - 300		3.7	-7.8	----	-9.7	---	37	3
300 - 310		----	-----	----	-5.0	---	84	1
310 - 320		2.8	-2.8	----	-----	---	---	2
320 - 330		2.2	-----	5.7	-----	43	---	2
330 - 340		----	-3.1	----	-----	---	---	1
340 - 350		2.8	-2.8	4.9	-4.5	31	25	2
350 - 360		----	-----	----	-----	---	---	0
360 - 370		----	-4.3	----	-----	---	---	1
370 - 380		----	-3.4	----	-11.2	---	47	1
380 - 390		----	-4.6	----	-9.2	---	210	3
390 - 400		9.3	-7.1	14.5	-15.4	186	143	3
400 - 410		----	-6.5	----	-13.5	---	23	6
410 - 420		8.4	-3.7	16.0	-----	161	---	4
420 - 430		9.6	-11.8	----	-----	---	---	5
430 - 440		8.4	-10.2	----	-----	---	---	7
440 - 450		9.0	-11.5	----	-----	---	---	8
450 - 460		14.9	-9.9	----	-14.5	---	203	6
460 - 470		18.0	-16.1	----	-----	---	---	5
[b]470 - 480		----	-----	----	-----	---	---	0
480 - 490		----	-----	----	-----	---	---	0
Airplane 354 - Traverse 4 Length of traverse 398.0 sec, 124,697 ft								
0 - 40	14,500	----	-----	----	-----	---	---	0
[a]40 - 50		----	-----	----	-----	---	---	0
50 - 60		6.1	-7.3	9.9	-6.7	87	30	4
60 - 70		12.8	-7.6	----	-----	---	---	5
70 - 80	15,000	----	-4.9	----	-----	---	---	1
80 - 120		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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 5, 1947 - Flight 17								
Airplane 354 - Traverse 4 Length of traverse 398.0 sec, 124,697 ft								
120 - 130	14,500	----	-4.9	----	-----	---	---	1
130 - 140		2.4	-3.7	----	-----	---	---	2
140 - 150		2.4	-----	----	-----	---	---	1
150 - 160		----	-----	----	-----	---	---	0
160 - 170		6.4	-1.8	6.1	-13.8	83	182	3
170 - 190		----	-----	----	-----	---	---	0
190 - 200		3.7	-----	8.1	-----	100	---	2
200 - 210		3.7	-----	----	-----	---	---	1
210 - 220		6.1	-5.2	----	-7.7	---	89	5
220 - 230		----	-5.2	13.1	-----	143	---	7
230 - 240		----	-----	----	-----	---	---	0
240 - 250		3.0	-----	----	-----	---	---	1
250 - 260		----	-3.7	----	-----	---	---	1
260 - 280		----	-----	----	-----	---	---	0
280 - 290		3.0	-3.7	3.1	-----	213	---	4
290 - 300		----	-----	----	-----	---	---	0
300 - 310		----	-2.8	----	-6.4	---	155	1
[b]310 - 320		----	-3.7	----	-8.6	---	68	1
320 - 330		----	-----	----	-----	---	---	0
330 - 340		3.0	-----	4.3	-----	89	---	1
340 - 360	14,000	----	-----	----	-----	---	---	0
360 - 400	14,500	----	-----	----	-----	---	---	0
Airplane 354 - Traverse 5 Length of traverse 949.3 sec, 320,343 ft								
0 - 20	14,500	----	-----	----	-----	---	---	0
20 - 30		----	-3.6	----	-6.4	---	268	1
[a]30 - 40		----	-4.6	----	-10.4	---	141	1
40 - 50		----	-4.6	----	-----	---	---	3
50 - 60		----	-3.0	----	-----	---	---	1
60 - 70		----	-----	----	-----	---	---	0
70 - 80		----	-2.7	----	-----	---	---	1
80 - 90		----	-4.0	----	-----	---	---	1
90 - 100		3.6	-----	----	-----	---	---	2
100 - 110		3.0	-----	----	-6.9	---	129	3
110 - 120		4.6	-4.6	----	-----	---	---	4

[a]Cloud entry.
[b]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 5, 1947 - Flight 17								
Airplane 354 - Traverse 5 Length of traverse 949.3 sec, 320,343 ft								
120 - 130	14,500	2.1	-4.3	3.8	-----	81	---	2
130 - 140		4.9	-4.9	----	-----	---	---	3
140 - 150		4.0	-4.3	6.2	-7.9	134	136	5
150 - 160		7.3	-5.5	10.2	-----	50	---	6
160 - 170		----	-----	----	-----	---	---	0
170 - 180		7.6	-7.3	----	-----	---	---	3
180 - 190		----	-11.0	----	-----	---	---	1
190 - 200		7.0	-4.9	----	-----	---	---	4
200 - 210		11.0	-13.7	4.0	-----	63	---	8
210 - 220		2.1	-1.8	5.7	-----	143	---	2
220 - 230		----	-----	----	-----	---	---	0
[b]230 - 240		----	-----	----	-----	---	---	0
240 - 250		----	-----	----	-----	---	---	0
250 - 260		2.4	-----	5.5	-----	77	---	1
260 - 270		3.0	-4.3	----	-7.5	---	212	2
270 - 280		----	-----	----	-----	---	---	0
280 - 290	14,000	----	-----	----	-----	---	---	0
290 - 320	14,500	----	-----	----	-----	---	---	0
320 - 340	15,000	----	-----	----	-----	---	---	0
340 - 360	14,500	----	-----	----	-----	---	---	0
[a]360 - 370		11.9	-5.5	8.8	-----	86	---	4
370 - 380		5.2	-4.3	----	-8.9	---	79	5
380 - 390		11.0	-7.6	----	-10.6	---	76	8
390 - 400		4.3	-6.4	----	-----	---	---	3
400 - 410		----	-5.2	----	-----	---	---	3
410 - 420		----	-----	----	-----	---	---	0
420 - 430		4.6	-7.0	----	-----	---	---	5
430 - 440		----	-5.2	9.8	-----	91	---	7
440 - 450		3.6	-7.0	----	-----	---	---	6
450 - 460		4.6	-4.9	8.0	-----	127	---	4
460 - 470		5.5	-9.1	----	-----	---	---	2
470 - 480		16.1	-10.4	----	-22.0	---	62	6
480 - 490	15,000	21.5	-21.8	----	-----	---	---	11
490 - 500		9.7	-15.5	----	-----	---	---	4
500 - 510	15,500	----	-----	----	-----	---	---	0
510 - 530	15,000	----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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 5, 1947 - Flight 17								
Airplane 354 - Traverse 5 Length of traverse 949.3 sec, 320,343 ft								
530 - 540	14,500	----	-----	----	-----	---	---	0
[b]540 - 550		----	-----	----	-----	---	---	0
550 - 620		----	-----	----	-----	---	---	0
[a]620 - 630		----	-3.0	----	-----	---	---	1
630 - 650	15,000	----	-----	----	-----	---	---	0
650 - 660		13.6	-----	----	-----	---	---	1
660 - 670		35.4	-24.2	----	-----	---	---	9
670 - 680	16,000	43.0	-29.1	----	-----	---	---	8
680 - 690	16,500	18.5	-23.0	----	-----	---	---	5
690 - 700	17,500	17.6	-12.7	----	-----	---	---	7
700 - 710	18,000	7.9	-14.5	----	-----	---	---	8
710 - 720	18,500	11.5	-20.3	----	-----	---	---	10
720 - 730	19,000	33.6	-18.2	----	-----	---	---	8
730 - 740	20,000	10.9	-8.5	----	-----	---	---	3
740 - 750		7.0	-20.0	----	-----	---	---	5
750 - 760	19,500	14.8	-1.2	----	-----	---	---	3
760 - 770		8.8	-3.6	----	-----	---	---	3
770 - 780	19,000	----	-4.5	17.2	-8.0	305	40	7
780 - 790	18,500	4.2	-4.2	----	-----	---	---	6
790 - 800		7.9	-4.2	----	-----	---	---	3
800 - 810		4.2	-3.0	9.9	-6.8	39	84	5
810 - 820		2.7	-----	----	-----	---	---	1
820 - 840		----	-----	----	-----	---	---	0
840 - 870	18,000	----	-----	----	-----	---	---	0
870 - 880	17,500	----	-----	----	-----	---	---	0
880 - 890		2.1	-----	----	-----	---	---	1
[b]890 - 900	17,000	2.4	-4.5	----	-----	---	---	2
900 - 910		----	-2.1	----	-----	---	---	1
910 - 920	16,500	3.3	-3.3	6.3	-----	137	---	7
920 - 930		2.4	-2.1	6.3	-----	192	---	2
930 - 940		----	-----	----	-----	---	---	0
940 - 950		----	-2.1	----	-5.9	---	277	1

[a]Cloud entry.
[b]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 5, 1947 - Flight 17								
Airplane 356 - Traverse 1 Length of traverse 1970.4 sec, 566,439 ft								
0 - 50	10,000	----	-----	----	-----	---	---	0
50 - 170	9,500	----	-----	----	-----	---	---	0
170 - 210	10,000	----	-----	----	-----	---	---	0
210 - 220		3.5	-2.2	----	-4.7	---	127	4
[a]220 - 230		----	-3.5	----	-7.0	---	80	1
230 - 240		----	-----	----	-----	---	---	0
240 - 250		2.2	-5.7	----	-----	---	---	2
250 - 260		2.9	-2.2	----	-----	---	---	2
260 - 270		6.4	-6.4	----	-----	---	---	3
270 - 280		5.7	-----	9.4	-----	106	---	1
280 - 290		----	-5.7	----	-9.3	---	128	1
290 - 300		----	-2.2	----	-----	---	---	1
300 - 310		----	-----	----	-----	---	---	0
310 - 320		5.7	-5.4	----	-----	---	---	5
320 - 330		5.1	-5.7	----	-----	---	---	7
330 - 340		12.4	-8.9	9.5	-----	19	---	7
340 - 350		16.2	-9.5	----	-13.7	---	101	11
350 - 360	10,500	15.9	-6.0	----	-----	---	---	7
360 - 370		14.3	-21.6	----	-----	---	---	10
370 - 380	11,000	13.4	-14.0	----	-17.0	---	76	7
380 - 390		12.1	-5.7	----	-----	---	---	4
390 - 400		21.9	-13.0	----	-----	---	---	6
400 - 410	11,500	10.8	-3.8	----	-10.6	---	117	2
410 - 420	12,000	----	-----	----	-----	---	---	0
420 - 430	12,500	----	-----	----	-----	---	---	0
430 - 440	12,000	----	-----	----	-----	---	---	0
440 - 450	11,500	----	-----	----	-----	---	---	0
450 - 460		12.1	-8.6	----	-----	---	---	3
460 - 520	11,000	----	-----	----	-----	---	---	0
[b]520 - 530		----	-----	----	-----	---	---	0
530 - 540		----	-----	----	-----	---	---	0
540 - 550		9.2	-3.2	15.7	-3.6	202	48	5
550 - 560		1.9	-3.2	----	-----	---	---	2
560 - 620		----	-----	----	-----	---	---	0
620 - 630		4.8	-4.8	16.8	-----	29	---	4

[a]Cloud entry.
[b]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 5, 1947 - Flight 17								
Airplane 356 - Traverse 1 Length of traverse 1970.4 sec, 566,439 ft								
630 - 640	11,000	10.5	-3.5	9.8	-----	83	---	6
640 - 650		4.8	-4.8	8.0	-5.8	114	120	2
650 - 700		----	-----	----	-----	---	---	0
700 - 710		14.9	-12.0	----	-----	---	---	4
710 - 720		20.2	-14.9	----	-----	---	---	8
720 - 730	11,500	7.6	-16.4	----	-----	---	---	5
730 - 750		----	-----	----	-----	---	---	0
750 - 760	11,000	5.1	-----	9.1	-----	68	---	1
760 - 790		----	-----	----	-----	---	---	0
790 - 800		5.1	-----	----	-----	---	---	1
800 - 810		4.1	-2.8	----	-----	---	---	6
810 - 820		7.9	-4.7	----	-----	---	---	13
820 - 830		8.2	-6.0	8.2	-16.1	77	310	7
830 - 840		4.4	-6.0	----	-----	---	---	3
840 - 850		----	-2.5	----	-7.9	---	224	2
850 - 860	10,500	----	-----	8.9	-----	192	---	1
860 - 870	10,000	7.3	-3.8	----	-----	---	---	8
870 - 880		6.6	-4.7	----	-----	---	---	4
880 - 890		5.1	-----	8.3	-----	135	---	2
890 - 900		6.3	-9.8	----	-----	---	---	8
900 - 910		13.0	-2.8	----	-----	---	---	4
910 - 920		2.2	-1.9	----	-----	---	---	4
920 - 930		4.1	-1.9	----	-----	---	---	2
930 - 940		2.2	-1.9	----	-----	---	---	3
940 - 950		1.9	-4.4	----	-----	---	---	7
950 - 960		5.7	-4.7	12.8	-7.7	241	123	9
960 - 970		4.4	-3.5	----	-----	---	---	3
970 - 1010		----	-----	----	-----	---	---	0
1010 - 1020		----	-3.5	----	-----	---	---	1
1020 - 1080		----	-----	----	-----	---	---	0
1080 - 1090		----	-3.2	----	-----	---	---	1
1090 - 1100		6.6	-6.0	----	-6.2	---	180	8
1100 - 1110		4.1	-4.4	6.7	-----	147	---	2
1110 - 1120		1.9	-3.2	----	-----	---	---	2
1120 - 1160		----	-----	----	-----	---	---	0
1160 - 1170		3.5	-----	----	-----	---	---	1
1170 - 1180		----	-3.5	----	-----	---	---	1
1180 - 1290	9,500	----	-----	----	-----	---	---	0
1290 - 1410	10,000	----	-----	----	-----	---	---	0

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 5, 1947 - Flight 17								
Airplane 356 - Traverse 1 Length of traverse 1970.4 sec, 566,439 ft								
1410 - 1510	9,500	----	-----	----	-----	---	---	0
1510 - 1680	10,000	----	-----	----	-----	---	---	0
1680 - 1690	9,500	----	-----	----	-5.2	---	93	1
1690 - 1700		9.1	-3.1	15.8	-----	116	---	4
1700 - 1710		8.2	-5.6	----	-----	---	---	4
1710 - 1720		3.1	-4.7	12.6	-----	85	---	4
1720 - 1730		5.6	-2.8	7.2	-----	193	---	4
1730 - 1740		4.7	-4.1	----	-----	---	---	3
1740 - 1750		5.0	-3.8	----	-----	---	---	4
1750 - 1760		4.7	-5.0	8.6	-----	50	---	8
1760 - 1770		6.6	-5.6	----	-----	---	---	6
1770 - 1780		4.1	-2.8	8.9	-----	260	---	4
1780 - 1790		5.6	-5.0	----	-8.3	---	43	5
1790 - 1800		4.7	-3.8	----	-----	---	---	7
1800 - 1810	10,000	4.7	-2.8	----	-----	---	---	3
1810 - 1820		----	-2.8	----	-----	---	---	1
1820 - 1830		4.4	-10.0	----	-22.3	---	257	6
1830 - 1840		5.3	-3.8	----	-----	---	---	3
1840 - 1850		2.8	-3.1	----	-----	---	---	3
1850 - 1860		8.5	-6.9	13.8	-11.1	132	65	4
1860 - 1870		5.0	-3.4	----	-----	---	---	6
1870 - 1880		3.8	-3.1	----	-----	---	---	2
1880 - 1890		3.4	-3.1	----	-----	---	---	2
1890 - 1900		----	-5.3	----	-----	---	---	1
1900 - 1910		----	-2.2	----	-----	---	---	1
1910 - 1920		----	-----	----	-----	---	---	0
1920 - 1930		----	-6.3	----	-----	---	---	2
1930 - 1940		2.8	-2.2	----	-4.8	---	26	2
1940 - 1950		4.4	-----	8.5	-----	82	---	1
1950 - 1960		2.8	-6.9	11.9	-----	102	---	5
1960 - 1970		6.3	-5.3	----	-----	---	---	6
1970 - 1980		----	-6.6	----	-----	---	---	1
Airplane 356 - Traverse 2 Length of traverse 358.8 sec, 101,711 ft								
0 - 10	10,000	----	-8.9	----	-----	---	---	1
10 - 20		5.5	-3.4	----	-4.6	---	129	5

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 5, 1947 - Flight 17								
Airplane 356 - Traverse 2 Length of traverse 358.8 sec, 101,711 ft								
20 - 30	10,000	4.6	-5.2	----	-----	---	---	2
[a]30 - 40		8.0	-5.2	----	-11.4	---	76	6
40 - 50		8.6	-7.4	21.1	-----	174	---	6
50 - 60	10,500	4.6	-----	----	-----	---	---	1
60 - 70		20.0	-10.5	----	-----	---	---	8
70 - 80		12.0	-14.2	----	-----	---	---	2
80 - 90	11,000	5.5	-12.0	----	-----	---	---	4
90 - 100		12.0	-6.8	27.0	-----	265	---	4
100 - 150		----	-----	----	-----	---	---	0
150 - 160		12.9	-14.8	29.6	-----	39	---	7
160 - 170		12.0	-3.7	----	-----	---	---	4
170 - 180		5.5	-11.4	----	-----	---	---	5
180 - 190		4.6	-----	----	-----	---	---	1
190 - 200		----	-----	----	-----	---	---	0
200 - 210	10,500	5.8	-4.9	----	-6.1	---	107	5
210 - 220		5.8	-9.6	15.2	-----	328	---	6
220 - 230		10.5	-13.6	9.6	-16.5	120	212	9
230 - 240	11,000	11.1	-6.8	----	-----	---	---	4
240 - 250		9.9	-8.9	----	-----	---	---	6
250 - 260		17.3	-14.2	37.3	-----	348	---	8
260 - 270		11.7	-13.2	----	-----	---	---	7
270 - 280		4.9	-5.2	----	-14.8	---	188	6
280 - 290		2.8	-5.5	----	-----	---	---	3
290 - 300		4.3	-2.2	----	-----	---	---	3
300 - 310	10,500	2.2	-2.8	----	-----	---	---	2
310 - 320		----	-4.6	----	-----	---	---	1
320 - 330		----	-3.4	----	-----	---	---	1
330 - 340	10,000	4.0	-----	----	-----	---	---	2
340 - 350		----	-----	----	-----	---	---	0
[b]350 - 360		----	-----	----	-----	---	---	0
Airplane 356 - Traverse 3 Length of traverse 727.4 sec, 203,425 ft								
0 - 90	10,000	----	-----	----	-----	---	---	0
90 - 190	9,500	----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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 5, 1947 - Flight 17								
Airplane 356 - Traverse 3 Length of traverse 727.4 sec, 203,425 ft								
190 - 200	9,500	----	-4.9	----	-----	---	---	1
200 - 210		----	-5.8	----	-7.9	---	136	2
210 - 220		5.2	-3.7	----	-----	---	---	3
220 - 230		----	-----	----	-----	---	---	0
230 - 260	10,000	----	-----	----	-----	---	---	0
260 - 270		4.6	-2.8	5.6	-----	54	---	3
270 - 280		4.3	-11.7	----	-----	---	---	8
280 - 290		4.3	-----	----	-----	---	---	1
290 - 300		5.2	-----	13.1	-6.2	182	226	2
300 - 310		3.4	-6.2	----	-----	---	---	5
310 - 320		----	-5.8	----	-----	---	---	2
320 - 330		3.4	-5.2	----	-----	---	---	4
330 - 340		4.6	-2.8	----	-9.5	---	120	4
340 - 380		----	-----	----	-----	---	---	0
380 - 420	9,500	----	-----	----	-----	---	---	0
420 - 430		7.7	-2.5	----	-----	---	---	3
430 - 440	10,000	----	-2.2	----	-----	---	---	1
440 - 450		----	-----	----	-----	---	---	0
450 - 460		4.9	-2.2	----	-----	---	---	2
460 - 470		2.8	-5.8	----	-----	---	---	2
470 - 480		5.5	-----	----	-----	---	---	2
480 - 490		8.6	-4.0	13.6	-----	114	---	5
490 - 500		7.4	-7.1	14.9	-----	289	---	6
[a]500 - 510		9.8	-5.8	18.4	-----	212	---	5
510 - 520		7.7	-6.5	----	-----	---	---	7
520 - 530		8.0	-8.6	----	-----	---	---	9
530 - 540		3.1	-----	----	-----	---	---	1
540 - 550	9,500	5.8	-3.1	----	-----	---	---	6
550 - 560		4.3	-2.8	----	-----	---	---	2
560 - 570	10,000	5.2	-6.4	----	-----	---	---	3
570 - 580		5.5	-4.0	10.2	-----	121	---	5
580 - 590		3.4	-----	7.0	-----	127	---	2
590 - 610		----	-----	----	-----	---	---	0
610 - 620		5.5	-2.2	----	-----	---	---	3
620 - 640		----	-----	----	-----	---	---	0

[a]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 5, 1947 - Flight 17								
Airplane 356 - Traverse 3 Length of traverse 727.4 sec, 203,425 ft								
640 - 650	10,000	7.7	-5.2	----	-----	---	---	4
650 - 660		5.5	-----	10.5	-----	27	---	2
660 - 670		----	-----	----	-----	---	---	0
[b]670 - 680		----	-----	----	-----	---	---	0
680 - 690		----	-----	----	-----	---	---	0
690 - 730	9,500	----	-----	----	-----	---	---	0
Airplane 353 - Traverse 1 Length of traverse 445.8 sec, 120,113 ft								
0 - 90	5,500	----	-----	----	-----	---	---	0
[a]90 - 100		----	-----	----	-----	---	---	0
100 - 220		----	-----	----	-----	---	---	0
220 - 230		9.6	-2.2	----	-----	---	---	2
230 - 240		3.5	-2.2	8.0	-----	96	---	3
240 - 250		4.1	-----	----	-----	---	---	1
250 - 260		5.1	-8.3	----	-----	---	---	2
260 - 270		----	-----	----	-----	---	---	0
270 - 280	6,000	6.1	-2.5	----	-----	---	---	2
280 - 290	5,500	----	-----	----	-----	---	---	0
290 - 300		6.7	-----	----	-----	---	---	1
300 - 330		----	-----	----	-----	---	---	0
330 - 340		11.5	-4.8	17.2	-12.4	224	72	4
340 - 350	6,000	2.9	-4.8	----	-8.1	---	60	4
350 - 360		2.9	-6.1	8.2	-----	28	---	2
360 - 370		11.2	-16.9	----	-----	---	---	5
370 - 380		3.8	-8.3	----	-16.5	---	98	5
380 - 390		21.7	-15.0	----	-----	---	---	5
390 - 400		15.9	-7.3	----	-----	---	---	8
400 - 410		8.0	-8.9	----	-----	---	---	9
410 - 420		5.4	-15.3	----	-----	---	---	10
420 - 430		9.6	-11.5	----	-----	---	---	7
430 - 440		----	-5.1	----	-7.2	---	89	1
440 - 450		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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 5, 1947 - Flight 17								
Airplane 353 - Traverse 2 Length of traverse 469.4 sec, 124,184 ft								
0 - 310	5,500	----	-----	----	-----	---	---	0
310 - 320		----	-1.6	----	-4.5	---	42	1
320 - 330		2.2	-1.9	----	-----	---	---	6
330 - 340		3.8	-1.0	----	-----	---	---	2
340 - 350		7.0	-7.9	----	-----	---	---	4
350 - 380		----	-----	----	-----	---	---	0
380 - 390		7.3	-----	----	-----	---	---	1
390 - 400		----	-7.0	----	-----	---	---	1
[a]400 - 410		5.7	-4.8	----	-----	---	---	4
410 - 420		11.4	-8.6	----	-----	---	---	9
420 - 430		11.1	-7.3	----	-13.4	---	114	7
430 - 440		7.0	-6.3	----	-----	---	---	7
[b]440 - 450		6.3	-12.0	----	-----	---	---	4
450 - 460		4.6	-4.4	----	-----	---	---	8
460 - 470		----	-4.8	----	-10.6	---	35	1
Airplane 353 - Traverse 3 Length of traverse 196.4 sec, 58,189 ft								
0 - 10	5,500	5.9	-4.6	----	-----	---	---	4
10 - 20		5.6	-3.4	10.2	-----	70	---	4
[a]20 - 30		----	-4.0	----	-----	---	---	1
30 - 40		6.5	-4.0	----	-----	---	---	3
40 - 50		2.8	-3.1	----	-----	---	---	3
50 - 60		----	-4.6	----	-----	---	---	1
60 - 70		----	-----	----	-----	---	---	0
70 - 80		7.7	-----	----	-----	---	---	3
80 - 90		5.3	-----	8.5	-----	228	---	1
90 - 100		3.7	-3.4	6.6	-----	43	---	7
100 - 110		3.1	-----	----	-----	---	---	1
110 - 120		3.7	-3.7	----	-6.2	---	128	4
120 - 130		2.8	-2.8	----	-----	---	---	2
130 - 140		4.3	-6.8	----	-15.4	---	216	2
140 - 150		7.4	-4.9	----	-7.4	---	37	4
150 - 160		11.1	-4.0	----	-----	---	---	6
160 - 170		----	-3.7	----	-----	---	---	4

[a]Cloud entry.
[b]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 5, 1947 - Flight 17								
Airplane 353 - Traverse 3 Length of traverse 196.4 sec, 58,189 ft								
170 - 180	5,500	3.1	-3.7	----	-----	---	---	3
180 - 190		----	-----	----	-----	---	---	0
[b]190 - 200		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 4 Length of traverse 454.8 sec, 120,706 ft								
0 - 150	5,500	----	-----	----	-----	---	---	0
[a]150 - 160		----	-----	----	-----	---	---	0
160 - 190		----	-----	----	-----	---	---	0
190 - 200		2.8	-----	----	-----	---	---	1
200 - 210		----	-3.7	----	-5.9	---	89	2
210 - 220		----	-----	----	-----	---	---	0
220 - 230		----	-1.5	----	-----	---	---	1
230 - 240		5.9	-8.0	----	-18.7	---	84	5
240 - 250		9.2	-10.5	----	-11.4	---	61	4
250 - 260	5,000	8.3	-3.4	----	-----	---	---	7
260 - 270		9.2	-8.9	----	-16.3	---	141	7
270 - 280		----	-7.1	----	-----	---	---	1
280 - 290		4.9	-6.5	----	-----	---	---	6
290 - 300		6.8	-2.2	----	-----	---	---	4
[b]300 - 310	5,500	----	-----	----	-----	---	---	0
310 - 320	6,000	----	-2.5	----	-----	---	---	1
320 - 370	5,500	----	-----	----	-----	---	---	0
370 - 380		6.2	-4.3	----	-----	---	---	5
380 - 390		----	-----	----	-----	---	---	0
390 - 400		5.2	-3.4	----	-----	---	---	2
400 - 410		8.9	-8.3	----	-----	---	---	8
410 - 420		9.2	-8.3	----	-----	---	---	8
[a]420 - 430		20.3	-24.0	----	-----	---	---	3
[b]430 - 440		----	-----	----	-----	---	---	0
440 - 460		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 5 Length of traverse 374.0 sec, 105,414 ft								
[a]0 - 10	5,500	7.1	-1.5	----	-----	---	---	4
10 - 20		----	-----	----	-----	---	---	0

[a] Cloud entry.
[b] 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 5, 1947 - Flight 17								
Airplane 353 - Traverse 5 Length of traverse 374.0 sec, 105,414 ft								
20 - 30	5,500	4.6	-----	----	-----	---	---	1
[b]30 - 40		11.0	-10.4	----	-----	---	---	5
40 - 50		7.4	-13.5	----	-----	---	---	8
[a]50 - 60		7.4	-13.2	----	-----	---	---	11
60 - 70		10.7	-6.7	----	-6.9	---	26	5
70 - 80	5,000	6.7	-----	13.3	-----	157	---	4
80 - 90		3.4	-7.4	----	-8.6	---	94	3
90 - 100	5,500	20.2	-12.0	----	-----	---	---	3
100 - 110		11.4	-18.7	10.4	-----	153	---	9
110 - 120	6,000	13.2	-8.0	19.6	-----	75	---	9
120 - 130	6,500	4.6	-4.6	----	-----	---	---	3
130 - 140		----	-6.7	----	-10.5	---	164	2
140 - 150		----	-----	----	-----	---	---	0
150 - 160	7,000	6.4	-5.5	12.9	-----	89	---	4
160 - 170	6,500	4.9	-11.7	----	-----	---	---	2
170 - 180		6.1	-4.6	----	-----	---	---	3
180 - 190	7,000	6.1	-4.9	----	-13.1	---	111	5
190 - 200		11.0	-10.1	----	-11.3	---	108	7
200 - 210		7.1	-7.1	----	-5.1	---	42	7
210 - 220		7.7	-7.7	----	-----	---	---	3
220 - 230	7,500	16.0	-13.2	----	-11.7	---	129	9
230 - 240		13.8	-12.9	8.6	-----	83	---	9
240 - 250	8,000	10.1	-9.5	11.3	-----	18	---	5
250 - 260		5.8	-8.0	----	-----	---	---	5
260 - 270		10.7	-----	----	-----	---	---	1
270 - 320		----	-----	----	-----	---	---	0
320 - 330	7,500	12.6	-----	15.6	-----	170	---	1
330 - 340		6.4	-4.9	12.7	-----	30	---	5
340 - 350		7.1	-11.0	----	-18.8	---	102	3
350 - 360		7.7	-----	----	-----	---	---	3
[b]360 - 370		----	-----	----	-----	---	---	0
370 - 380		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 348 - Traverse 1 Length of traverse 518.0 sec, 179,443 ft								
0 - 160	24,500	----	-----	----	-----	---	---	0
[a]160 - 170		22.4	-26.1	32.0	-----	132	---	11
170 - 180		24.6	-13.1	----	-----	---	---	11
180 - 190		10.1	-11.1	----	-----	---	---	5
190 - 200	25,000	14.7	-14.7	----	-----	---	---	7
200 - 210	25,500	3.1	-6.3	----	-----	---	---	7
210 - 220		2.7	-17.1	----	-----	---	---	6
220 - 230		----	-----	----	-----	---	---	0
230 - 240		10.2	-----	----	-----	---	---	2
240 - 250		5.0	-6.4	----	-10.7	---	155	3
250 - 260		----	-3.5	----	-----	---	---	2
260 - 270		1.6	-4.9	----	-7.0	---	228	2
270 - 280		----	-----	----	-----	---	---	0
280 - 290		8.1	-5.7	----	-----	---	---	4
290 - 300		12.7	-11.5	----	-----	---	---	8
300 - 310	26,000	4.4	-10.8	----	-----	---	---	8
310 - 320	26,500	11.1	-19.0	----	-----	---	---	5
320 - 330	26,000	13.3	-19.0	----	-----	---	---	9
330 - 340		----	-----	----	-----	---	---	0
340 - 350		----	-2.9	----	-----	---	---	2
350 - 380		----	-----	----	-----	---	---	0
380 - 390		----	-4.2	----	-----	---	---	1
390 - 400		4.4	-----	----	-----	---	---	1
400 - 410		3.3	-----	10.0	-----	302	---	1
410 - 440		----	-----	----	-----	---	---	0
440 - 460	26,500	----	-----	----	-----	---	---	0
460 - 470	26,000	----	-----	----	-----	---	---	0
[b]470 - 480		----	-----	----	-----	---	---	0
480 - 520	25,500	----	-----	----	-----	---	---	0
Airplane 348 - Traverse 2 Length of traverse 619.1 sec, 216,643 ft								
0 - 10	25,500	6.3	-----	----	-----	---	---	1
[a]10 - 20		5.5	-----	----	-----	---	---	1
20 - 40		----	-----	----	-----	---	---	0
40 - 50		----	-3.6	----	-----	---	---	2

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 348 - Traverse 2 Length of traverse 619.1 sec, 216,643 ft								
50 - 60	25,500	----	-----	----	-----	---	---	0
60 - 70		4.8	-5.9	----	-----	---	---	3
70 - 140		----	-----	----	-----	---	---	0
140 - 150		----	-2.9	----	-----	---	---	1
150 - 160		2.7	-4.3	----	-----	---	---	2
160 - 170		----	-3.6	----	-----	---	---	1
170 - 180		7.4	-----	9.1	-----	310	---	4
180 - 190		5.5	-----	----	-----	---	---	1
190 - 200		----	-4.4	----	-----	---	---	1
200 - 210		----	-5.0	----	-----	---	---	2
210 - 220		----	-----	----	-----	---	---	0
220 - 230		4.0	-5.0	----	-----	---	---	3
230 - 240		4.5	-6.9	----	-----	---	---	4
240 - 250	25,000	3.9	-----	----	-----	---	---	2
250 - 260		3.3	-----	----	-----	---	---	1
260 - 270		6.3	-----	----	-----	---	---	1
270 - 280		----	-----	----	-----	---	---	0
[b]280 - 290		----	-----	----	-----	---	---	0
290 - 320		----	-----	----	-----	---	---	0
[a]320 - 330		----	-----	----	-----	---	---	0
330 - 340		----	-----	----	-----	---	---	0
[b]340 - 350	24,500	----	-----	----	-----	---	---	0
350 - 370		----	-----	----	-----	---	---	0
370 - 380	24,000	----	-----	----	-----	---	---	0
380 - 620	23,500	----	-----	----	-----	---	---	0
Airplane 348 - Traverse 3 Length of traverse 61.0 sec, 20,974 ft								
[a]0 - 10	24,000	----	-----	----	-----	---	---	0
10 - 60	24,500	----	-----	----	-----	---	---	0
[b]60 - 70		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 348 - Traverse 4 Length of traverse 130.9 sec, 44,994 ft								
0 - 50	24,000	----	-----	----	-----	---	---	0
[a]50 - 60		----	-----	----	-----	---	---	0
60 - 80		----	-----	----	-----	---	---	0
[b]80 - 90		10.6	-5.3	21.1	-----	113	---	2
90 - 140	23,500	----	-----	----	-----	---	---	0
Airplane 348 - Traverse 5 Length of traverse 25.5 sec, 8,561 ft								
0 - 30	25,000	----	-----	----	-----	---	---	0
Airplane 348 - Traverse 6 Length of traverse 265.7 sec, 88,325 ft								
0 - 90	24,500	----	-----	----	-----	---	---	0
[a]90 - 100		----	-----	----	-----	---	---	0
100 - 110		11.4	-16.9	----	-10.5	---	273	9
110 - 120		7.9	-12.0	----	-----	---	---	7
120 - 130		10.2	-16.9	----	-----	---	---	9
[b]130 - 140		8.4	-9.7	----	-----	---	---	2
140 - 270		----	-----	----	-----	---	---	0
Airplane 348 - Traverse 7 Length of traverse 115.6 sec, 38,761 ft								
0 - 60	24,500	----	-----	----	-----	---	---	0
[a]60 - 70		----	-----	----	-----	---	---	0
70 - 80		20.6	-9.4	----	-----	---	---	8
80 - 90	25,000	10.9	-14.1	----	-----	---	---	10
90 - 100		3.3	-8.1	----	-----	---	---	4
100 - 110	25,500	----	-18.3	----	-----	---	---	3
[b]110 - 120	25,000	----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 353 - Traverse 1 Length of traverse 385.2 sec, 129,579 ft								
0 - 60	19,500	----	-----	----	-----	---	---	0
[a]60 - 70		----	-6.0	----	-----	---	---	1
70 - 80		10.9	-15.1	----	-28.4	---	295	4
80 - 90	19,000	13.5	-7.8	----	-----	---	---	2
90 - 100		6.5	-9.2	10.5	-----	60	---	3
100 - 110		5.7	-7.6	----	-----	---	---	3
110 - 120		----	-----	----	-----	---	---	0
120 - 130		4.3	-4.3	6.0	-----	55	---	2
130 - 140		----	-----	----	-----	---	---	0
140 - 150		----	-3.9	----	-----	---	---	1
150 - 190		----	-----	----	-----	---	---	0
190 - 200	19,500	9.3	-12.9	----	-----	---	---	3
200 - 210	19,000	20.9	-14.3	----	-----	---	---	7
210 - 220		8.8	-11.2	----	-----	---	---	12
220 - 230		----	-12.7	----	-----	---	---	2
230 - 240		----	-5.9	----	-13.3	---	137	2
240 - 300	19,500	----	-----	----	-----	---	---	0
300 - 310		----	-4.7	----	-----	---	---	1
310 - 320		----	-4.8	----	-----	---	---	2
320 - 340		----	-----	----	-----	---	---	0
340 - 350	19,000	----	-----	----	-----	---	---	0
350 - 360		5.0	-----	11.7	-----	106	---	1
360 - 380		----	-----	----	-----	---	---	0
[b]380 - 390		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 2 Length of traverse 280.8 sec, 95,909 ft								
0 - 10	19,500	----	-----	----	-----	---	---	0
10 - 20		----	-6.2	----	-10.1	---	163	1
20 - 80		----	-----	----	-----	---	---	0
80 - 120	19,000	----	-----	----	-----	---	---	0
[a]120 - 130		----	-2.7	----	-7.0	---	119	1
130 - 140		3.6	-12.1	----	-----	---	---	8

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 353 - Traverse 2 Length of traverse 280.8 sec, 95,909 ft								
140 - 150	19,000	6.1	-12.9	----	-----	---	---	5
150 - 170		----	-----	----	-----	---	---	0
170 - 180		2.8	-----	----	-----	---	---	1
180 - 190		----	-----	----	-----	---	---	0
190 - 200		4.4	-5.0	9.3	-7.1	158	158	2
200 - 220	18,500	----	-----	----	-----	---	---	0
220 - 230		8.3	-----	14.0	-----	235	---	2
230 - 240		3.6	-5.2	----	-----	---	---	3
240 - 250		----	-----	----	-----	---	---	0
250 - 260		3.0	-----	6.7	-----	140	---	1
260 - 280		----	-----	----	-----	---	---	0
[b]280 - 290		----	-----	----	-----	---	---	0
Airplane 353 - Traverse 3 Length of traverse 1126.5 sec, 368,133 ft								
0 - 60	19,000	----	-----	----	-----	---	---	0
[a]60 - 70		12.7	-8.0	----	-----	---	---	2
70 - 80	19,500	13.1	-15.7	----	-----	---	---	8
80 - 90	19,000	16.1	-15.5	----	-----	---	---	3
90 - 110	18,500	----	-----	----	-----	---	---	0
110 - 130	19,000	----	-----	----	-----	---	---	0
[b]130 - 140		----	-----	----	-----	---	---	0
140 - 250		----	-----	----	-----	---	---	0
[a]250 - 260		2.6	-11.9	----	-9.5	---	102	3
260 - 270		14.1	-13.8	----	-----	---	---	5
[b]270 - 280	18,500	8.3	-15.3	----	-----	---	---	7
280 - 290		----	-----	----	-----	---	---	0
290 - 570	19,000	----	-----	----	-----	---	---	0
[a]570 - 580		----	-4.3	----	-5.3	---	149	3
580 - 590		5.7	-8.8	----	-6.4	---	35	6
[b]590 - 600		2.7	-12.9	----	-----	---	---	4
600 - 610		6.2	-6.6	----	-8.0	---	110	4
610 - 620		6.1	-25.3	----	-----	---	---	7
620 - 820		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 353 - Traverse 3 Length of traverse 1126.5 sec, 368,133 ft								
820 - 840	19,500	----	-----	----	-----	---	---	0
[a]840 - 850		25.1	-20.4	----	-17.3	---	82	3
850 - 860	19,000	14.6	-7.0	----	-----	---	---	4
860 - 870		12.7	-13.8	----	-----	---	---	5
[b]870 - 880	19,500	----	-----	----	-----	---	---	0
880 - 950		----	-----	----	-----	---	---	0
950 - 990	19,000	----	-----	----	-----	---	---	0
990 - 1000		20.3	-----	----	-----	---	---	1
[a]1000 - 1010		10.2	-8.8	18.8	-----	114	---	3
1010 - 1020	19,500	14.3	-7.9	----	-----	---	---	6
1020 - 1030	20,000	4.5	-6.2	----	-----	---	---	3
1030 - 1040		8.0	-11.4	----	-----	---	---	3
[b]1040 - 1050		3.2	-----	----	-----	---	---	1
1050 - 1060		----	-----	----	-----	---	---	0
1060 - 1090	19,500	----	-----	----	-----	---	---	0
1090 - 1130	19,000	----	-----	----	-----	---	---	0
Airplane 353 - Traverse 4 Length of traverse 456.6 sec, 155,717 ft								
0 - 50	19,000	----	-----	----	-----	---	---	0
50 - 60		----	-7.9	----	-----	---	---	3
60 - 70		7.4	-4.8	----	-----	---	---	5
[a]70 - 80		----	-6.8	----	-----	---	---	3
80 - 90		6.6	-7.8	----	-----	---	---	5
90 - 100		16.7	-11.9	----	-----	---	---	5
100 - 110	18,500	13.5	-13.2	----	-----	---	---	7
110 - 120		14.2	-13.8	----	-----	---	---	11
120 - 130		5.3	-6.6	8.5	-----	163	---	6
[b]130 - 140		8.5	-11.2	----	-----	---	---	3
140 - 200		----	-----	----	-----	---	---	0
200 - 350	19,000	----	-----	----	-----	---	---	0
[a]350 - 360		10.8	-6.1	----	-----	---	---	5
360 - 370	18,500	9.1	-13.6	----	-----	---	---	7
370 - 380		12.0	-16.3	----	-----	---	---	8

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 353 - Traverse 4 Length of traverse 456.6 sec, 155,717 ft								
380 - 390	18,500	5.7	-9.2	----	-23.5	---	378	3
390 - 400		8.7	-19.9	----	-----	---	---	4
400 - 450		----	-----	----	-----	---	---	0
[b]450 - 460		----	-----	----	-----	---	---	0
Airplane 354 - Traverse 1 Length of traverse 69.0 sec, 19,694 ft								
0 - 10	10,000	3.3	-4.3	----	-----	---	---	2
10 - 20		2.3	-5.3	----	-----	---	---	2
20 - 40		----	-----	----	-----	---	---	0
40 - 50		4.8	-6.7	----	-7.2	---	91	6
50 - 60		5.3	-5.3	----	-----	---	---	5
60 - 70		3.9	-----	----	-----	---	---	2
Airplane 354 - Traverse 2 Length of traverse 311.4 sec, 81,665 ft								
0 - 10	10,000	4.7	-6.9	----	-----	---	---	5
10 - 20		7.8	-----	----	-----	---	---	4
20 - 30		2.6	-21.9	----	-----	---	---	5
30 - 40		5.2	-----	5.1	-----	79	---	1
40 - 110		----	-----	----	-----	---	---	0
110 - 120		2.3	-4.4	----	-----	---	---	5
120 - 130		5.0	-----	12.6	-----	96	---	1
130 - 160		----	-----	----	-----	---	---	0
[a]160 - 170	9,500	9.5	-8.5	----	-----	---	---	5
170 - 180		14.2	-18.1	----	-----	---	---	5
180 - 190		8.1	-----	----	-----	---	---	3
190 - 200		4.2	-4.7	5.4	-----	54	---	4
200 - 210	10,000	6.8	-4.3	----	-----	---	---	4
210 - 220		----	-----	----	-----	---	---	0
220 - 230		5.7	-13.4	11.6	-----	28	---	4
230 - 240		8.3	-----	----	-----	---	---	1
[b]240 - 250		----	-----	----	-----	---	---	0
250 - 320		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 354 - Traverse 3 Length of traverse 336.2 sec, 97,044 ft								
0 - 10	10,000	----	-----	----	-----	---	---	0
[a]10 - 20		14.3	-5.9	----	-----	---	---	2
20 - 30		11.1	-17.9	----	-----	---	---	9
30 - 40		19.5	-23.2	----	-----	---	---	7
40 - 50		9.8	-14.0	----	-----	---	---	5
[b]50 - 60		----	-----	----	-----	---	---	0
60 - 70		----	-----	----	-----	---	---	0
70 - 80		3.2	-4.7	----	-----	---	---	2
80 - 90		9.4	-----	7.8	-----	169	---	2
90 - 100		----	-----	----	-----	---	---	0
100 - 120	10,500	----	-----	----	-----	---	---	0
120 - 170	10,000	----	-----	----	-----	---	---	0
170 - 180		14.3	-5.7	----	-5.7	---	155	5
180 - 190	9,500	14.5	-11.2	----	-----	---	---	7
[a]190 - 200		7.7	-15.3	----	-----	---	---	5
200 - 210		11.7	-10.5	----	-----	---	---	8
210 - 220		7.6	-13.1	----	-----	---	---	5
220 - 230		14.7	-6.1	----	-----	---	---	6
[b]230 - 240		19.1	-15.8	----	-----	---	---	5
240 - 340	10,000	----	-----	----	-----	---	---	0
Airplane 354 - Traverse 4 Length of traverse 1405.0 sec, 445,570 ft								
0 - 60	10,000	----	-----	----	-----	---	---	0
[a]60 - 70		10.9	-22.2	----	-----	---	---	3
70 - 80	9,500	15.8	-9.2	----	-----	---	---	7
80 - 90	10,000	14.2	-8.2	----	-----	---	---	6
90 - 100	10,500	9.1	-----	----	-----	---	---	3
100 - 110		10.5	-----	----	-----	---	---	4
110 - 120		----	-9.8	----	-----	---	---	2
[b]120 - 130	10,000	5.9	-5.7	9.4	-----	142	---	5
130 - 140		4.1	-3.6	4.6	-----	51	---	5
140 - 150		4.1	-5.7	----	-----	---	---	4
150 - 160		----	-----	----	-----	---	---	0
160 - 170		2.4	-2.9	----	-----	---	---	2
170 - 270		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]Cloud exit.

NACA

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 6, 1947 - Flight 18								
Airplane 354 - Traverse 4 Length of traverse 1405.0 sec, 445,570 ft								
270 - 280	10,000	3.9	-8.0	----	-----	---	---	5
[a]280 - 290		10.6	-9.7	----	-----	---	---	4
290 - 300		12.7	-11.8	----	-----	---	---	6
300 - 310	10,500	----	-11.4	----	-----	---	---	2
310 - 320		16.5	-35.2	----	-----	---	---	6
320 - 330		18.4	-14.3	----	-----	---	---	4
[b]330 - 340		----	-20.0	----	-15.4	---	96	2
340 - 370		----	-----	----	-----	---	---	0
370 - 550	10,000	----	-----	----	-----	---	---	0
[a]550 - 560		5.7	-----	8.4	-----	155	---	1
560 - 570		11.0	-12.7	----	-----	---	---	5
570 - 580		----	-21.5	----	-----	---	---	1
580 - 590	10,500	14.6	-17.6	----	-----	---	---	4
590 - 600	10,000	13.8	-12.9	----	-----	---	---	7
[b]600 - 610		4.7	-3.7	----	-----	---	---	2
610 - 660		----	-----	----	-----	---	---	0
660 - 670		1.8	-----	3.1	-----	69	---	1
670 - 750		----	-----	----	-----	---	---	0
750 - 830	9,500	----	-----	----	-----	---	---	0
830 - 840		6.8	-4.5	----	-----	---	---	3
840 - 850		5.7	-7.1	----	-----	---	---	6
850 - 860		5.1	-4.0	----	-----	---	---	2
[a]860 - 870		4.9	-4.5	----	-10.9	---	122	3
870 - 880		6.5	-----	----	-----	---	---	1
880 - 890		----	-5.2	----	-----	---	---	1
890 - 900		12.8	-15.0	----	-----	---	---	4
[b]900 - 910	10,000	26.1	-12.7	----	-14.8	---	148	4
910 - 960	10,500	----	-----	----	-----	---	---	0
960 - 970	10,000	----	-----	----	-----	---	---	0
970 - 980		14.7	-13.1	----	-5.4	---	85	6
980 - 990		15.4	-----	----	-----	---	---	1
990 - 1040		----	-----	----	-----	---	---	0
1040 - 1070	10,500	----	-----	----	-----	---	---	0
1070 - 1100	10,000	----	-----	----	-----	---	---	0
1100 - 1110		13.1	-----	23.4	-----	115	---	1
1110 - 1120		----	-15.2	----	-----	---	---	1
1120 - 1180		----	-----	----	-----	---	---	0

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 354 - Traverse 4 Length of traverse 1405.0 sec, 445,570 ft								
1180 - 1190	10,000	9.5	-7.3	----	-----	---	---	3
[a]1190 - 1200		6.7	-11.9	----	-----	---	---	6
1200 - 1210		15.4	-11.4	----	-----	---	---	5
1210 - 1220		18.9	-31.0	----	-----	---	---	6
1220 - 1230	10,500	15.4	-8.5	----	-12.0	---	73	5
1230 - 1240		6.2	-13.0	----	-----	---	---	6
1240 - 1250	11,000	7.9	-18.1	----	-----	---	---	6
1250 - 1260		----	-6.1	7.6	-----	30	---	3
1260 - 1270		12.2	-----	----	-----	---	---	1
[b]1270 - 1280		10.5	-10.1	----	-----	---	---	3
1280 - 1290		----	-4.3	----	-----	---	---	1
1290 - 1300		3.8	-----	----	-----	---	---	2
1300 - 1310		9.6	-11.7	----	-----	---	---	4
1310 - 1320		5.1	-9.9	----	-----	---	---	3
1320 - 1330		4.9	-7.1	----	-----	---	---	2
1330 - 1350	10,500	----	-----	----	-----	---	---	0
1350 - 1360	10,000	3.2	-----	----	-----	---	---	1
1360 - 1380	9,500	----	-----	----	-----	---	---	0
1380 - 1390	9,000	----	-1.7	----	-5.8	---	331	1
1390 - 1400		----	-----	----	-----	---	---	0
1400 - 1410	8,500	----	-----	----	-----	---	---	0
Airplane 356 - Traverse 1 Length of traverse 760.2 sec, 208,650 ft								
0 - 40	5,500	----	-----	----	-----	---	---	0
40 - 150	6,000	----	-----	----	-----	---	---	0
150 - 160		----	-5.2	----	-9.5	---	212	1
160 - 170		4.6	-5.8	----	-----	---	---	3
[a]170 - 180		12.3	-12.1	16.8	-5.1	122	70	8
180 - 190		4.2	-3.5	----	-----	---	---	3
190 - 200		----	-----	----	-----	---	---	0
200 - 210		4.3	-6.6	7.8	-----	174	---	4
210 - 220		6.8	-4.7	----	-----	---	---	3
220 - 230		2.5	-4.4	----	-----	---	---	2
230 - 240		2.6	-5.1	----	-4.5	---	130	4

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 356 - Traverse 1 Length of traverse 760.2 sec, 208,650 ft								
240 - 250	6,000	----	-2.9	----	-----	---	---	1
250 - 260		----	-4.6	----	-----	---	---	1
260 - 270		5.4	-6.3	----	-----	---	---	4
270 - 290		----	-----	----	-----	---	---	0
290 - 300		5.1	-5.2	12.7	-----	72	---	4
300 - 310		----	-----	----	-----	---	---	0
310 - 320		3.4	-5.1	----	-----	---	---	4
320 - 330		6.5	-----	----	-----	---	---	3
330 - 340		5.8	-7.0	----	-----	---	---	5
340 - 350		7.7	-5.8	6.4	-----	106	---	3
350 - 360		9.8	-9.1	----	-----	---	---	7
360 - 370		11.7	-15.2	----	-----	---	---	5
370 - 380		13.1	-12.1	----	-9.8	---	207	8
380 - 390		16.9	-20.0	----	-----	---	---	6
390 - 400		12.7	-12.1	14.6	-19.2	121	92	5
400 - 410		----	-5.5	----	-----	---	---	2
410 - 450		----	-----	----	-----	---	---	0
450 - 460		6.2	-----	----	-----	---	---	2
460 - 480	5,500	----	-----	----	-----	---	---	0
480 - 490		5.7	-----	----	-----	---	---	1
490 - 520		----	-----	----	-----	---	---	0
520 - 530		5.6	-----	----	-----	---	---	1
530 - 540		----	-----	----	-----	---	---	0
540 - 550	6,000	----	-----	----	-----	---	---	0
[b]550 - 560		----	-----	----	-----	---	---	0
560 - 580		----	-----	----	-----	---	---	0
580 - 590		----	-2.9	----	-----	---	---	2
590 - 620		----	-----	----	-----	---	---	0
620 - 630		4.6	-6.5	----	-9.3	---	129	3
630 - 640		----	-----	----	-----	---	---	0
640 - 660	6,500	----	-----	----	-----	---	---	0
660 - 670		----	-----	----	-1.3	---	72	1
670 - 710		----	-----	----	-----	---	---	0
710 - 730	6,000	----	-----	----	-----	---	---	0
730 - 750	5,500	----	-----	----	-----	---	---	0
750 - 760		----	-----	4.6	-----	70	---	1
760 - 770		----	-----	----	-----	---	---	0

[b]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 6, 1947 - Flight 18								
Airplane 356 - Traverse 2 Length of traverse 1186.0 sec, 332,722 ft								
0 - 50	5,500	----	-----	----	-----	---	---	0
50 - 60	6,000	----	-----	----	-----	---	---	0
60 - 70		2.5	-----	7.2	-----	237	---	1
70 - 90		----	-----	----	-----	---	---	0
90 - 100		----	-4.0	----	-----	---	---	1
100 - 110		----	-3.4	----	-----	---	---	2
110 - 120		4.7	-----	----	-----	---	---	4
120 - 130		4.5	-9.9	----	-----	---	---	4
130 - 140		9.5	-1.8	10.6	-----	117	---	3
140 - 150		3.8	-6.5	----	-3.1	---	107	6
150 - 160		5.8	-4.3	----	-----	---	---	3
160 - 170		6.3	-3.2	6.3	-----	77	---	2
170 - 180		8.0	-----	5.3	-----	58	---	1
180 - 190		10.4	-----	----	-----	---	---	1
190 - 230		----	-----	----	-----	---	---	0
230 - 240		2.5	-3.4	----	-----	---	---	2
240 - 250		----	-----	----	-----	---	---	0
250 - 260		6.5	-5.1	13.1	-7.2	63	103	3
260 - 270		6.0	-10.7	----	-----	---	---	8
270 - 280		10.6	-4.5	----	-7.0	---	181	3
[a]280 - 290		----	-----	----	-----	---	---	0
[b]290 - 300		7.7	-10.8	----	-----	---	---	6
300 - 310		12.8	-----	----	-----	---	---	1
310 - 320	6,500	7.9	-7.3	4.6	-----	57	---	6
320 - 330		----	-6.8	----	-----	---	---	1
330 - 340		8.5	-----	----	-----	---	---	3
340 - 350		5.6	-3.4	----	-----	---	---	3
350 - 360	6,000	10.5	-5.0	----	-----	---	---	6
360 - 370		17.5	-----	----	-----	---	---	1
370 - 380		12.4	-5.4	----	-----	---	---	2
380 - 390		----	-----	----	-----	---	---	0
390 - 400		3.9	-3.6	----	-6.9	---	190	2
400 - 410		4.5	-----	7.0	-----	128	---	1
410 - 420		----	-14.9	----	-----	---	---	1
420 - 430		----	-5.0	----	-----	---	---	1
430 - 440		18.1	-6.9	----	-----	---	---	4

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 356 - Traverse 2 Length of traverse 1186.0 sec, 332,722 ft								
440 - 450	6,000	----	-----	----	-----	---	---	0
450 - 460		7.0	-7.2	----	-----	---	---	7
460 - 470	6,500	9.4	-13.0	----	-----	---	---	7
470 - 480		----	-----	----	-----	---	---	0
480 - 490		7.9	-8.8	----	-----	---	---	2
490 - 500		----	-----	----	-----	---	---	0
500 - 510		7.3	-5.8	----	-----	---	---	3
510 - 520		4.4	-10.7	----	-----	---	---	5
520 - 530	6,000	3.9	-5.6	----	-10.7	---	106	3
530 - 540		----	-----	----	-----	---	---	0
540 - 580	6,500	----	-----	----	-----	---	---	0
580 - 630	6,000	----	-----	----	-----	---	---	0
630 - 640		----	-9.6	----	-15.1	---	186	1
640 - 650		10.9	-6.9	11.7	-----	119	---	7
650 - 660		7.9	-8.9	----	-----	---	---	6
660 - 670		7.3	-5.3	7.4	-----	47	---	4
670 - 680		3.2	-6.0	----	-7.1	---	82	4
680 - 690		----	-----	----	-----	---	---	0
690 - 700		4.0	-5.6	----	-7.3	---	26	4
[a]700 - 710		10.0	-11.3	----	-16.6	---	213	7
[b]710 - 720		10.0	-----	----	-----	---	---	2
720 - 730		5.5	-7.3	5.1	-----	60	---	7
730 - 750	6,500	----	-----	----	-----	---	---	0
750 - 800	6,000	----	-----	----	-----	---	---	0
800 - 810	5,500	----	-----	----	-----	---	---	0
810 - 820		3.4	-----	----	-----	---	---	1
820 - 850	6,000	----	-----	----	-----	---	---	0
850 - 860		4.6	-10.1	----	-----	---	---	2
860 - 870		5.4	-----	----	-----	---	---	1
870 - 880		7.3	-4.8	----	-----	---	---	3
880 - 890		9.3	-6.6	----	-----	---	---	7
890 - 900		3.7	-----	6.8	-----	242	---	1
900 - 910	6,500	----	-6.5	----	-----	---	---	1
910 - 920		7.1	-8.8	----	-10.4	---	97	4
920 - 930		----	-8.9	----	-----	---	---	3
930 - 940	6,000	11.5	-15.0	----	-----	---	---	6

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 356 - Traverse 2 Length of traverse 1186.0 sec, 332,722 ft								
940 - 950	6,000	9.3	-9.2	----	-20.0	---	115	2
950 - 960		6.6	-5.6	----	-----	---	---	4
960 - 970		5.3	-----	5.7	-----	33	---	1
970 - 980		----	-3.1	----	-5.7	---	186	1
980 - 990		----	-3.7	----	-7.6	---	138	1
990 - 1000		----	-----	----	-----	---	---	0
1000 - 1010		3.3	-----	7.7	-----	65	---	1
1010 - 1020		----	-----	----	-----	---	---	0
1020 - 1030		4.6	-2.0	8.2	-----	136	---	2
1030 - 1070		----	-----	----	-----	---	---	0
1070 - 1080	6,500	3.3	-4.1	----	-----	---	---	2
1080 - 1090		----	-4.2	----	-----	---	---	1
1090 - 1110		----	-----	----	-----	---	---	0
1110 - 1120		4.1	-----	5.3	-----	90	---	1
1120 - 1130		----	-----	----	-----	---	---	0
1130 - 1140		12.8	-3.9	17.2	-----	110	---	6
1140 - 1150		4.1	-7.6	----	-----	---	---	6
1150 - 1160		6.8	-6.6	----	-----	---	---	10
1160 - 1170		4.5	-6.8	9.2	-9.6	83	116	3
1170 - 1180		----	-7.6	----	-----	---	---	1
1180 - 1190		----	-----	----	-----	---	---	0
Airplane 356 - Traverse 3 Length of traverse 419.8 sec, 120,232 ft								
0 - 60	6,000	----	-----	----	-----	---	---	0
60 - 70		3.5	-8.6	4.2	-----	112	---	4
70 - 80		9.8	-7.2	----	-12.4	---	35	6
80 - 90		6.0	-6.3	----	-----	---	---	7
90 - 100		10.8	-12.4	----	-----	---	---	5
100 - 110		3.3	-----	----	-----	---	---	1
110 - 150	6,500	----	-----	----	-----	---	---	0
150 - 160		----	-3.1	----	-----	---	---	1
160 - 190		----	-----	----	-----	---	---	0
190 - 200		7.9	-----	----	-----	---	---	2
200 - 210		2.2	-----	11.3	-----	125	---	1
210 - 220		----	-----	----	-----	---	---	0
220 - 230		14.9	-----	----	-----	---	---	1

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 6, 1947 - Flight 18								
Airplane 356 - Traverse 3 Length of traverse 419.8 sec, 120,232 ft								
230 - 240	6,500	17.2	-6.5	----	-----	---	---	2
240 - 250	6,000	20.3	-----	----	-----	---	---	3
250 - 260		5.2	-6.3	----	-----	---	---	2
260 - 270	6,500	5.8	-5.2	----	-----	---	---	2
270 - 280		4.0	-6.3	----	-----	---	---	5
280 - 290	7,000	3.4	-6.6	----	-----	---	---	5
290 - 300		----	-6.5	----	-----	---	---	1
300 - 310	7,500	----	-----	----	-----	---	---	0
310 - 320		22.7	-15.0	36.7	-----	211	---	3
320 - 330	7,000	12.9	-8.5	----	-----	---	---	8
330 - 340		5.3	-8.7	----	-----	---	---	7
340 - 350		10.8	-6.9	14.7	-----	82	---	6
350 - 360		8.3	-9.8	----	-----	---	---	7
360 - 370		14.4	-10.3	26.5	-----	245	---	6
370 - 380		11.9	-15.1	----	-----	---	---	6
380 - 390	7,500	3.9	-11.1	----	-----	---	---	4
390 - 400		4.6	-13.5	----	-----	---	---	3
400 - 410		8.2	-8.2	----	-----	---	---	4
410 - 420		4.2	-7.5	----	-----	---	---	2
Airplane 356 - Traverse 4 Length of traverse 86.8 sec, 28,796 ft								
0 - 10	7,000	----	-3.0	----	-----	---	---	1
10 - 20	6,500	----	-----	----	-----	---	---	0
20 - 50	6,000	----	-----	----	-----	---	---	0
50 - 90	5,500	----	-----	----	-----	---	---	0
Airplane 356 - Traverse 5 Length of traverse 225.6 sec, 60,932 ft								
0 - 10	5,500	----	-----	----	-----	---	---	0
10 - 20		3.3	-6.0	7.5	-----	75	---	3
20 - 40		----	-----	----	-----	---	---	0
[a]40 - 50		----	-----	----	-----	---	---	0
[b]50 - 60		----	-5.1	----	-----	---	---	1

[a]Cloud entry.
[b]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 6, 1947 - Flight 18								
Airplane 356 - Traverse 5 Length of traverse 225.6 sec, 60,932 ft								
60 - 70	5,500	----	-4.7	----	-----	---	---	2
70 - 80		----	-6.6	----	-8.2	---	116	1
80 - 90		7.8	-4.9	----	-----	---	---	2
90 - 100		5.1	-3.0	11.1	-----	28	---	2
100 - 130		----	-----	----	-----	---	---	0
130 - 140		----	-3.7	----	-7.0	---	158	1
140 - 150		3.8	-3.6	6.9	-----	82	---	2
150 - 160		----	-3.4	----	-----	---	---	2
160 - 170	6,000	----	-----	----	-----	---	---	0
170 - 180		8.0	-3.7	14.1	-----	87	---	2
180 - 190		5.0	-10.5	----	-----	---	---	3
190 - 200		5.5	-8.6	9.2	-14.4	29	65	2
200 - 210	5,500	7.8	-7.0	6.9	-----	100	---	7
210 - 220		8.4	-11.4	----	-----	---	---	3
220 - 230		----	-----	----	-----	---	---	0

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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)		Extent of draft (ft)	Average draft velocity (fps)
					Start	End		
7-31-47	16	348	25,000	1	410.5	429.5	6,524	-10.5
					966.0	982.0	5,591	18.8
					1244.5	1291.0	16,095	-11.2
				2	111.0	139.0	9,775	14.3
					192.2	208.8	6,171	37.3
					427.5	446.2	6,767	39.6
				3	134.5	150.8	5,765	22.1
		344	20,000	[a]1				
				2	138.4	156.8	6,190	-8.2
					196.6	214.3	5,826	-11.3
				[a]3				
				4	164.0	219.3	18,962	7.4
				5	7.4	26.5	6,416	-15.7
					30.1	34.3	1,393	43.6
					63.7	85.5	7,560	13.6
					445.4	472.7	8,077	19.6
				6	297.4	325.6	9,451	9.4
		353	15,000	1	117.0	142.0	7,765	10.9
					319.0	329.0	5,925	-8.7
					1436.5	1452.0	4,830	15.3
					1626.4	1635.0	2,647	10.0
					1889.5	1954.6	17,320	13.6
					2358.6	2382.6	8,024	-9.6
					2430.6	2455.8	7,822	18.2
					2757.6	2774.6	5,415	10.9
				[a]2				

[a]No draft velocities indicated by records.

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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)		Extent of draft (ft)	Average draft velocity (fps)
					Start	End		
8-5-47	17	348	25,000	[a]1				
				[a]2				
				3	341.6	351.0	3,258	-78.7
					255.0	311.2	18,058	8.1
					356.5	387.5	10,666	52.9
					427.1	463.9	12,390	38.7
		344	20,000	[a]1				
				2	171.2	210.2	12,326	17.9
				3	154.0	180.5	8,420	8.2
					230.4	241.8	3,771	33.9
					259.4	271.1	3,927	32.5
					324.0	376.3	18,313	14.6
		354	15,000	[a]1				
				2	318.2	343.6	8,705	39.4
				[a]3				
				[a]4				
				5	477.6	500.7	8,110	34.0
					659.4	740.0	28,908	56.4
		356	10,000	1	357.8	400.6	12,370	30.6
					1774.4	1808.2	9,688	10.4
				2	23.0	85.0	17,080	17.3
					211.6	224.0	3,532	-12.3
		353	6,000	[b]1				
				[b]2				
				[b]3				
				[b]4				
				[b]5				

[a]No draft velocities indicated by records.
[b]No drafts due to malfunction of altimeter.

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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)		Extent of draft (ft)	Average draft velocity (fps)
					Start	End		
8-6-47	18	348	25,000	1	179.0	215.0	12,835	28.9
					290.8	313.0	8,190	32.4
					324.0	330.0	2,084	-45.8
				[a]2				
				[a]3				
				[a]4				
				[a]5				
				[a]6				
				7	78.2	103.2	9,132	32.8
		353	20,000	1	78.2	122.1	14,773	-11.7
				[a]2				
				3	57.0	76.5	6,603	21.7
					556.8	590.8	11,052	5.9
					594.0	602.0	2,601	-29.1
					603.5	615.4	3,806	19.7
					980.0	1039.5	18,693	23.4
				[a]4				
		354	10,000	[a]1				
				2	166.5	182.0	4,155	-22.6
					188.2	212.6	6,361	16.9
				3	25.8	50.4	6,952	17.3
					179.6	225.8	13,239	-11.1
					226.5	239.6	3,710	36.3
				4	292.0	311.0	5,256	30.9
					874.6	912.6	11,050	23.7
					1224.6	1250.0	7,040	32.0

[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)		Extent of draft (ft)	Average draft velocity (fps)
					Start	End		
8-6-47	18	356	6,000	1	256.5	395.4	10,815	-9.4
				2	432.0	492.5	16,748	13.4
					1136.0	1171.5	10,258	10.0
				3	245.5	288.0	13,081	16.2
				[a]4				
				[a]5				

[a]No draft velocities indicated by records.