

The National Transportation Safety Board

Office of Aviation Safety Central Region Memorandum for the Record Cessna Performance Information CEN16LA288 Baldwin, Wisconsin July 21, 2016

According to Cessna, the applicable 208B Pilot Operating Handbook (POH) tables do not provide for landing on WET grass runways. However, for landing on DRY grass runways, 40% distance is added to the normal landing roll distance chart figures. The applicable POH chart is attached to this memorandum.

On NTSB Form 6120, the pilot reported an aircraft weight 8,010 pounds at the time of the accident.

The nearest weather reporting station to the accident site was located about 16 miles to the north. METAR KRNH 211855Z AUTO 28005KT 10SM CLR 30/22 2995 RMK A02.

According to the POH chart, with an estimated airplane weight of 8,010 pounds, and temperature of 30 degrees C, the minimum landing distance would have been about 2,265 feet. The published runway length at the Baldwin Airport was 1,950 feet.

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Central Region Aviation

WITHOUT CARGO POD LANDING DISTANCE MAXIMUM WEIGHT 8500 LBS, 8000 LBS SHORT FIELD

CONDITIONS:

FLAPS 30°

POWER LEVER-IDLE AFTER CLEARING OBSTACLES, BETA RANGE (LEVER AGAINST SPRING) AFTER TOUCHDOWN.

PROPELLER CONTROL LEVER - MAX

MAXIMUM BRAKING

PAVED, LEVEL, DRY RUNAY ZERO WIND

NOTES:

1. USE SHORT FIELD TECHNIQUES AS SPECIFIED IN SECTION 4.

2. DECREASE DISTANCES 10% FOR EACH 11 KNOTS HEADWIND. FOR OPERATION WITH TAILWINDS UP TO 10 KNOTS, INCREASE DIS-

TANCES BY 10% FOR EACH 2 KNOTS.
FOR OPERATION ON A DRY, GRASS RUNWAY, INCREASE DISTANCES BY 40% OF THE "GROUND ROLL" FIGURE.

4. IF A LANDING WITH FLAPS UP IS NECESSARY, INCREASE THE APPROACH SPEED BY 15 KIAS AND ALLOW FOR 40% LONGER DISTANCES.

5.USE OF MAXIMUM REVERSE THRUST AFTER TOUCHDOWN REDUCES GROUND ROLL BY APPROXIMATELY 10%.

6. WHERE DISTANCE VALUES HAVE BEEN REPLACED BY DASHES, OPERATING TEMPERATURE LIMITS OF THE AIRPLANE WOULD BE GREATLY EXCEEDED. THOSE DISTANCES WHICH ARE INCLUDED BUT THE OPERATION SLIGHTLY EXCEEDS THE TEMPERATURELIMIT ARE PROVIDED FOR INTERPOLATION PURPOSES ONLY.

8500 Pounds:

| | PRESS ALT FT | -10°C | | 0°C | | 10°C | | 20°C | | 30°C | | 40°C | |
|-------|--------------------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| SPEED | | GRD | TOTAL | GRD | TOTAL | GRD | TOTAL | GRD | TOTAL | GRD | TOTAL | GRD | TOTAL |
| AT | | ROLL | FEET | ROLL | FEET | ROLL | FEET | ROLL | FEET | ROLL | FEET | ROLL | FEET |
| 50 FT | | FT | TO | FT | TO | FT | TO | FT | TO | FT | TO | FT | TO |
| KIAS | ļ |] | CLEAR | | CLEAR | | CLEAR | } | CLEAR | ļ | CLEAR | | CLEAR |
| | | | 50 FT | } | 50 FT | | 50 FT | | 50 FT | | 50 FT | | 50 FT |
| | | | OBS | | OBS | | OBS | Ì | OBS | | OBS | | OBS |
| 78 | SL | 870 | 1675 | 900 | 1725 | 935 | 1770 | 965 | 1820 | 1000 | 1865 | 1030 | 1910 |
| ļ | 2000 | 935 | 1770 | 975 | 1820 | 1005 | 1870 | 1040 | 1920 | 1075 | 1970 | 1110 | 2020 |
| | 4000 | 1005 | 1870 | 1040 | 1925 | 1080 | 1980 | 1120 | 2035 | 1155 | 2085 | 1195 | 2140 |
| 1 | 6000 | 1080 | 1980 | 1125 | 2040 | 1165 | 2095 | 1205 | 2150 | 1245 | 2210 | 1290 | 2265 |
| | 8000 | 1165 | 2100 | 1210 | 2160 | 1255 | 2220 | 1300 | 2280 | 1345 | 2345 | 1390 | 2405 |
| | 10000 | 1260 | 2230 | 1310 | 2295 | 1355 | 2360 | 1405 | 2425 | 1450 | 2490 | | |
| L., | 12000 | 1360 | 2365 | 1415 | 2435 | 1465 | 2505 | 1515 | 2575 | 1570 | 2645 | | |

8000 Pounds: WITHOUT CARGO POD

| | PRESS ALT FT | -10°C | | 0°C | | 10°C | | 20°C | | 30°C | | 40°C | |
|-------|--------------------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| SPEED | | GRD | TOTAL | GRD | TOTAL | GRD | TOTAL | GRD | TOTAL | GRD | TOTAL | GRD | TOTAL |
| AT | | ROLL | FEET | ROLL | FEET | ROLL | FEET | ROLL | FEET | ROLL | FEET | ROLL | FEET |
| 50 FT | | FT | TO | FT | TO | FT | TO | FT | TO | FT | TO | FT | TO |
| KIAS | | | CLEAR | | CLEAR | | CLEAR | ĺ | CLEAR | i | CLEAR | | CLEAR |
| | | | 50 FT | | 50 FT | - | 50 FT | | 50 FT | | 50 FT | | 50 FT |
| | | | OBS | | OBS | | OBS | İ | OBS | | OBS | | OBS |
| 75 | SL | 815 | 1605 | 845 | 1650 | 880 | 1695 | 910 | 1740 | 940 | 1785 | 970 | 1830 |
| | 2000 | 880 | 1695 | 910 | 1740 | 945 | 1790 | 980 | 1835 | 1010 | 1885 | 1045 | 1930 |
| | 4000 | 945 | 1790 | 980 | 1840 | 1015 | 1890 | 1050 | 1945 | 1090 | 1995 | 1125 | 2045 |
| | 6000 | 1020 | 1895 | 1055 | 1950 | 1095 | 2000 | 1135 | 2055 | 1175 | 2110 | 1210 | 2165 |
| | 8000 | 1100 | 2005 | 1140 | 2065 | 1180 | 2120 | 1225 | 2180 | 1265 | 2235 | 1305 | 2295 |
| | 10000 | 1185 | 2130 | 1230 | 2190 | 1275 | 2250 | 1320 | 2315 | 1365 | 2375 | | |
| | 12000 | 1280 | 2260 | 1330 | 2325 | 1380 | 2395 | 1430 | 2460 | 1475 | 2525 | | |

Figure 5-38. Landing Distance (Sheet 1 of 2)