

**TIME, FUEL, AND DISTANCE TO CLIMB**

**MAXIMUM RATE OF CLIMB**

**CONDITIONS:**

Flaps Up  
Full Throttle  
Standard Temperature

**NOTES:**

1. Add 0.8 of a gallon of fuel for engine start, taxi and takeoff allowance.
2. Mixture leaned above 3000 feet for maximum RPM.
3. Increase time, fuel and distance by 10% for each 10°C above standard temperature.
4. Distances shown are based on zero wind.

| WEIGHT<br>LBS | PRESSURE<br>ALTITUDE<br>FT | TEMP<br>°C | CLIMB<br>SPEED<br>KIAS | RATE OF<br>CLIMB<br>FPM | FROM SEA LEVEL |                      |                |
|---------------|----------------------------|------------|------------------------|-------------------------|----------------|----------------------|----------------|
|               |                            |            |                        |                         | TIME<br>MIN    | FUEL USED<br>GALLONS | DISTANCE<br>NM |
| 1670          | S.L.                       | 15         | 67                     | 715                     | 0              | 0                    | 0              |
|               | 1000                       | 13         | 66                     | 675                     | 1              | 0.2                  | 2              |
|               | 2000                       | 11         | 66                     | 630                     | 3              | 0.4                  | 3              |
|               | 3000                       | 9          | 65                     | 590                     | 5              | 0.7                  | 5              |
|               | 4000                       | 7          | 65                     | 550                     | 6              | 0.9                  | 7              |
|               | 5000                       | 5          | 64                     | 505                     | 8              | 1.2                  | 9              |
|               | 6000                       | 3          | 63                     | 465                     | 10             | 1.4                  | 12             |
|               | 7000                       | 1          | 63                     | 425                     | 13             | 1.7                  | 14             |
|               | 8000                       | -1         | 62                     | 380                     | 15             | 2.0                  | 17             |
|               | 9000                       | -3         | 62                     | 340                     | 18             | 2.3                  | 21             |
|               | 10,000                     | -5         | 61                     | 300                     | 21             | 2.6                  | 25             |
|               | 11,000                     | -7         | 61                     | 255                     | 25             | 3.0                  | 29             |
|               | 12,000                     | -9         | 60                     | 215                     | 29             | 3.4                  | 34             |

Figure 5-7. Time, Fuel, and Distance to Climb

## MAXIMUM RATE OF CLIMB

CONDITIONS:  
Flaps Up  
Full Throttle

NOTE:  
Mixture leaned above 3000 feet for maximum RPM.

| WEIGHT<br>LBS | PRESS<br>ALT<br>FT | CLIMB<br>SPEED<br>KIAS | RATE OF CLIMB - FPM |     |      |      |
|---------------|--------------------|------------------------|---------------------|-----|------|------|
|               |                    |                        | -20°C               | 0°C | 20°C | 40°C |
| 1670          | S.L.               | 67                     | 835                 | 765 | 700  | 630  |
|               | 2000               | 66                     | 735                 | 670 | 600  | 535  |
|               | 4000               | 65                     | 635                 | 570 | 505  | 445  |
|               | 6000               | 63                     | 535                 | 475 | 415  | 355  |
|               | 8000               | 62                     | 440                 | 380 | 320  | 265  |
|               | 10,000             | 61                     | 340                 | 285 | 230  | 175  |
|               | 12,000             | 60                     | 245                 | 190 | 135  | 85   |

Figure 5-6. Maximum Rate of Climb

THIS DATA APPLICABLE ONLY TO AIRPLANES  
WITH LYCOMING O-235-N2C ENGINE. FOR  
AIRPLANES WITH ENGINE MODIFIED TO O-235-L2C  
REFER TO DATA IN SECTION 9 SUPPLEMENT.

CESSNA  
MODEL 152

SECTION 5  
PERFORMANCE

## CRUISE PERFORMANCE

**CONDITIONS:**

1670 Pounds

Recommended Lean Mixture (See Section 4, Cruise)

**NOTE:**

Cruise speeds are shown for an airplane equipped with speed fairings which increase the speeds by approximately two knots.

| PRESSURE<br>ALTITUDE<br>FT | RPM  | 20°C BELOW<br>STANDARD TEMP |      |     | STANDARD<br>TEMPERATURE |      |     | 20°C ABOVE<br>STANDARD TEMP |      |     |
|----------------------------|------|-----------------------------|------|-----|-------------------------|------|-----|-----------------------------|------|-----|
|                            |      | %<br>BHP                    | KTAS | GPH | %<br>BHP                | KTAS | GPH | %<br>BHP                    | KTAS | GPH |
| 2000                       | 2400 | ---                         | ---  | --- | 77                      | 102  | 6.3 | 73                          | 101  | 6.0 |
|                            | 2300 | 73                          | 97   | 6.0 | 69                      | 97   | 5.7 | 66                          | 96   | 5.4 |
|                            | 2200 | 65                          | 93   | 5.4 | 62                      | 92   | 5.1 | 58                          | 91   | 4.9 |
|                            | 2100 | 58                          | 88   | 4.9 | 55                      | 87   | 4.7 | 52                          | 85   | 4.5 |
|                            | 2000 | 51                          | 82   | 4.5 | 48                      | 81   | 4.3 | 45                          | 79   | 4.2 |
| 4000                       | 2450 | ---                         | ---  | --- | 78                      | 104  | 6.4 | 74                          | 103  | 6.0 |
|                            | 2400 | 78                          | 102  | 6.4 | 74                      | 101  | 6.0 | 70                          | 101  | 5.8 |
|                            | 2300 | 70                          | 97   | 5.8 | 66                      | 97   | 5.5 | 62                          | 96   | 5.2 |
|                            | 2200 | 62                          | 92   | 5.2 | 59                      | 91   | 4.9 | 55                          | 90   | 4.7 |
|                            | 2100 | 55                          | 87   | 4.7 | 52                      | 86   | 4.5 | 49                          | 84   | 4.4 |
| 6000                       | 2500 | ---                         | ---  | --- | 78                      | 106  | 6.4 | 74                          | 105  | 6.1 |
|                            | 2400 | 75                          | 101  | 6.1 | 70                      | 101  | 5.8 | 66                          | 100  | 5.5 |
|                            | 2300 | 67                          | 97   | 5.5 | 63                      | 96   | 5.2 | 59                          | 95   | 5.0 |
|                            | 2200 | 59                          | 91   | 5.0 | 56                      | 90   | 4.7 | 53                          | 89   | 4.6 |
|                            | 2100 | 53                          | 86   | 4.6 | 49                      | 84   | 4.4 | 47                          | 82   | 4.3 |
| 8000                       | 2550 | ---                         | ---  | --- | 78                      | 108  | 6.4 | 74                          | 107  | 6.1 |
|                            | 2500 | 79                          | 106  | 6.4 | 74                      | 105  | 6.1 | 70                          | 105  | 5.8 |
|                            | 2400 | 71                          | 101  | 5.8 | 67                      | 100  | 5.5 | 63                          | 99   | 5.2 |
|                            | 2300 | 64                          | 96   | 5.3 | 60                      | 95   | 5.0 | 56                          | 94   | 4.8 |
|                            | 2200 | 57                          | 91   | 4.8 | 53                      | 89   | 4.6 | 50                          | 87   | 4.4 |
| 10,000                     | 2500 | 75                          | 105  | 6.2 | 71                      | 105  | 5.8 | 67                          | 104  | 5.5 |
|                            | 2400 | 68                          | 101  | 5.6 | 63                      | 99   | 5.3 | 60                          | 98   | 5.0 |
|                            | 2300 | 60                          | 95   | 5.1 | 57                      | 94   | 4.8 | 54                          | 92   | 4.6 |
|                            | 2200 | 54                          | 89   | 4.6 | 51                      | 87   | 4.5 | 48                          | 84   | 4.3 |
| 12,000                     | 2450 | 68                          | 102  | 5.6 | 64                      | 101  | 5.3 | 60                          | 100  | 5.0 |
|                            | 2400 | 64                          | 100  | 5.3 | 60                      | 98   | 5.0 | 57                          | 97   | 4.8 |
|                            | 2300 | 57                          | 94   | 4.9 | 54                      | 92   | 4.6 | 51                          | 89   | 4.5 |
|                            | 2200 | 51                          | 88   | 4.5 | 48                      | 84   | 4.4 | 45                          | 79   | 4.2 |

Figure 5-8. Cruise Performance

THIS DATA APPLICABLE ONLY TO AIRPLANES  
WITH LYCOMING O-235-N2C ENGINE. FOR  
AIRPLANES WITH ENGINE MODIFIED TO O-235-L2C  
REFER TO DATA IN SECTION 9 SUPPLEMENT.

SECTION 5  
PERFORMANCE

CESSNA  
MODEL 152

**RANGE PROFILE**  
**45 MINUTES RESERVE**  
**24.5 GALLONS USABLE FUEL**

CONDITIONS:

1670 Pounds  
Recommended Lean Mixture for Cruise  
Standard Temperature  
Zero Wind

NOTES:

1. This chart allows for the fuel used for engine start, taxi, takeoff and climb, and the distance during climb.
2. Performance is shown for an airplane equipped with speed fairings which increase the cruise speeds by approximately two knots.

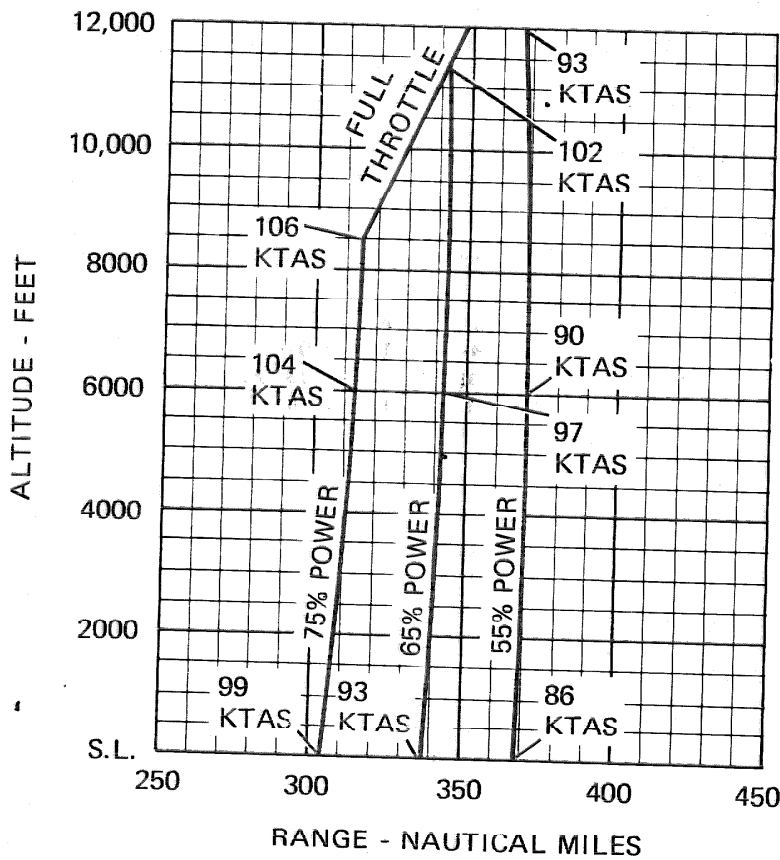


Figure 5-9. Range Profile (Sheet 1 of 2)

THIS DATA APPLICABLE ONLY TO AIRPLANES  
WITH LYCOMING O-235-N2C ENGINE. FOR  
AIRPLANES WITH ENGINE MODIFIED TO O-235-L2C  
REFER TO DATA IN SECTION 9 SUPPLEMENT.

CESSNA  
MODEL 152

SECTION 5  
PERFORMANCE

## RANGE PROFILE 45 MINUTES RESERVE 37.5 GALLONS USABLE FUEL

### CONDITIONS:

1670 Pounds  
Recommended Lean Mixture for Cruise  
Standard Temperature  
Zero Wind

### NOTES:

1. This chart allows for the fuel used for engine start, taxi, takeoff and climb, and the distance during climb.
2. Performance is shown for an airplane equipped with speed fairings which increase the cruise speeds by approximately two knots.

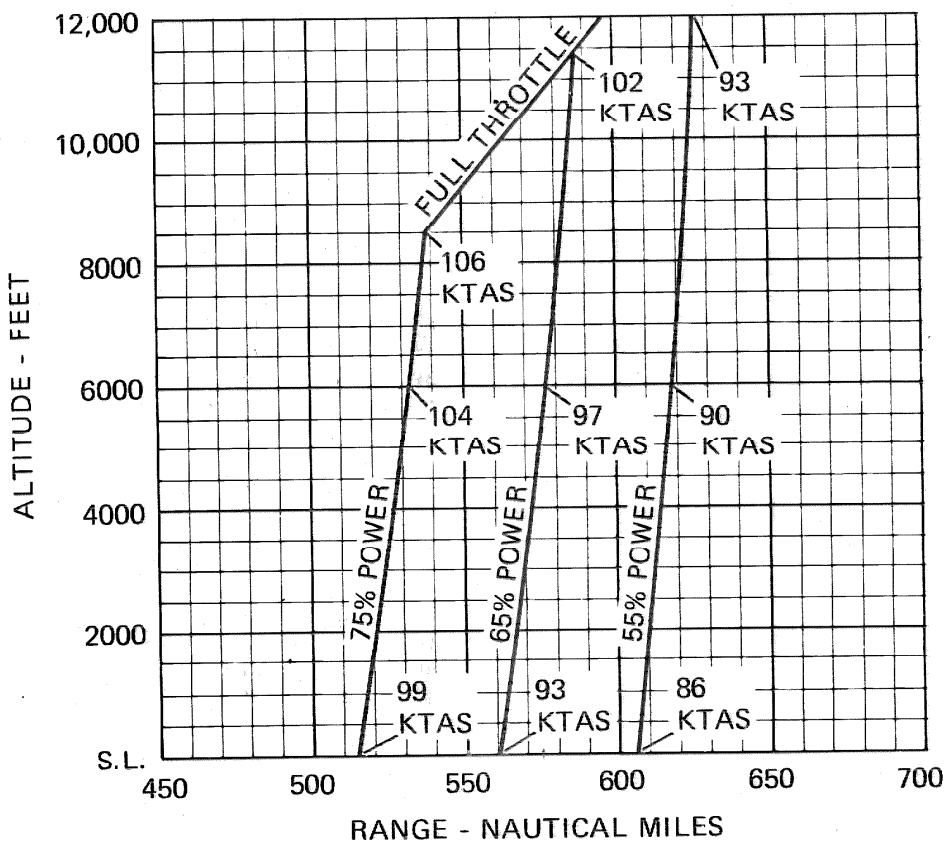


Figure 5-9. Range Profile (Sheet 2 of 2)

THIS DATA APPLICABLE ONLY TO AIRPLANES  
WITH LYCOMING O-235-N2C ENGINE. FOR  
AIRPLANES WITH ENGINE MODIFIED TO O-235-L2C  
REFER TO DATA IN SECTION 9 SUPPLEMENT.

SECTION 5  
PERFORMANCE

CESSNA  
MODEL 152

**ENDURANCE PROFILE**  
45 MINUTES RESERVE  
24.5 GALLONS USABLE FUEL

CONDITIONS:  
1670 Pounds  
Recommended Lean Mixture for Cruise  
Standard Temperature

NOTE:  
This chart allows for the fuel used for engine start, taxi, takeoff and climb, and the time during climb.

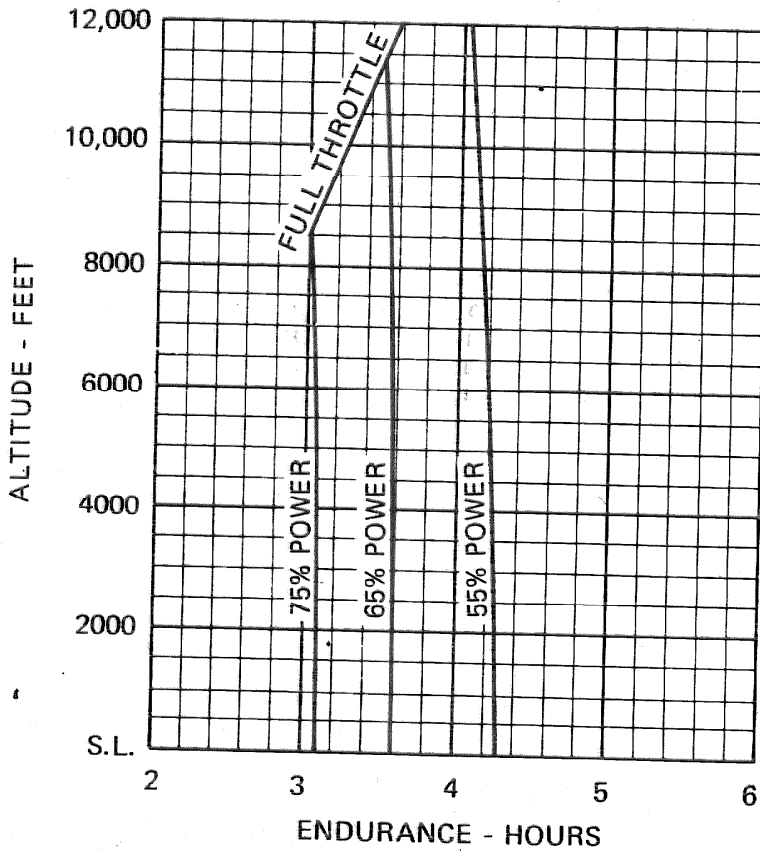


Figure 5-10. Endurance Profile (Sheet 1 of 2)

THIS DATA APPLICABLE ONLY TO AIRPLANES  
WITH LYCOMING O-235-N2C ENGINE. FOR  
AIRPLANES WITH ENGINE MODIFIED TO O-235-L2C  
REFER TO DATA IN SECTION 9 SUPPLEMENT.

CESSNA  
MODEL 152

SECTION 5  
PERFORMANCE

## ENDURANCE PROFILE

45 MINUTES RESERVE  
37.5 GALLONS USABLE FUEL

CONDITIONS:  
1670 Pounds  
Recommended Lean Mixture for Cruise  
Standard Temperature

NOTE:  
This chart allows for the fuel used for engine start, taxi, takeoff and climb, and the time during climb.

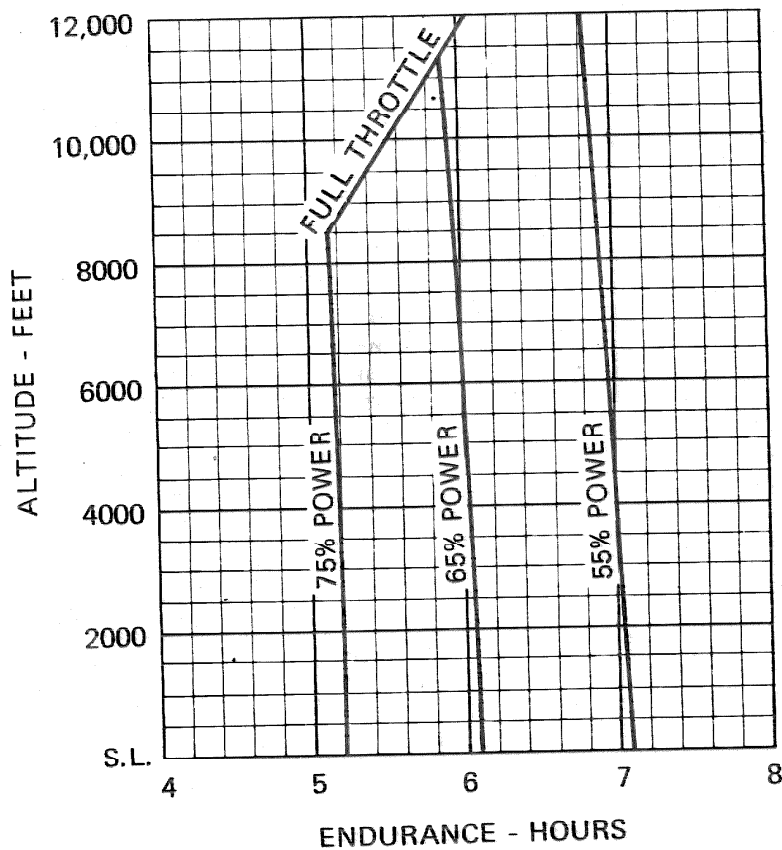


Figure 5-10. Endurance Profile (Sheet 2 of 2)

SECTION 5  
PERFORMANCE

CESSNA  
MODEL 152

LANDING DISTANCE

SHORT FIELD

CONDITIONS:

- Flaps 30°
- Power Off
- Maximum Braking
- Paved, Level, Dry Runway
- Zero Wind

NOTES:

1. Short field technique as specified in Section 4.
2. Decrease distances 10% for each 9 knots headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2 knots.
3. For operation on a dry, grass runway, increase distances by 45% of the "ground roll" figure.
4. If a landing with flaps up is necessary, increase the approach speed by 7 KIAS and allow for 35% longer distances.

| WEIGHT<br>LBS | SPEED<br>AT<br>50 FT<br>KIAS | PRESS<br>ALT<br>FT | 0°C                |                                   | 10°C               |                                   | 20°C               |                                   | 30°C               |                                   | 40°C               |                                   |
|---------------|------------------------------|--------------------|--------------------|-----------------------------------|--------------------|-----------------------------------|--------------------|-----------------------------------|--------------------|-----------------------------------|--------------------|-----------------------------------|
|               |                              |                    | GRND<br>ROLL<br>FT | TOTAL FT<br>TO CLEAR<br>50 FT OBS | GRND<br>ROLL<br>FT | TOTAL FT<br>TO CLEAR<br>50 FT OBS | GRND<br>ROLL<br>FT | TOTAL FT<br>TO CLEAR<br>50 FT OBS | GRND<br>ROLL<br>FT | TOTAL FT<br>TO CLEAR<br>50 FT OBS | GRND<br>ROLL<br>FT | TOTAL FT<br>TO CLEAR<br>50 FT OBS |
| 1670          | 54                           | S.L.               | 450                | 1160                              | 465                | 1185                              | 485                | 1215                              | 500                | 1240                              | 515                | 1265                              |
|               |                              | 1000               | 465                | 1185                              | 485                | 1215                              | 500                | 1240                              | 520                | 1270                              | 535                | 1295                              |
|               |                              | 2000               | 485                | 1215                              | 500                | 1240                              | 520                | 1270                              | 535                | 1300                              | 555                | 1330                              |
|               |                              | 3000               | 500                | 1240                              | 520                | 1275                              | 540                | 1305                              | 560                | 1335                              | 575                | 1360                              |
|               |                              | 4000               | 520                | 1275                              | 540                | 1305                              | 560                | 1335                              | 580                | 1370                              | 600                | 1400                              |
|               |                              | 5000               | 540                | 1305                              | 560                | 1335                              | 580                | 1370                              | 600                | 1400                              | 620                | 1435                              |
|               |                              | 6000               | 560                | 1340                              | 580                | 1370                              | 605                | 1410                              | 625                | 1440                              | 645                | 1475                              |
|               |                              | 7000               | 585                | 1375                              | 605                | 1410                              | 625                | 1440                              | 650                | 1480                              | 670                | 1515                              |
| 8000          | 605                          | 1410               | 630                | 1450                              | 650                | 1480                              | 675                | 1520                              | 695                | 1555                              |                    |                                   |

Figure 5-11. Landing Distance