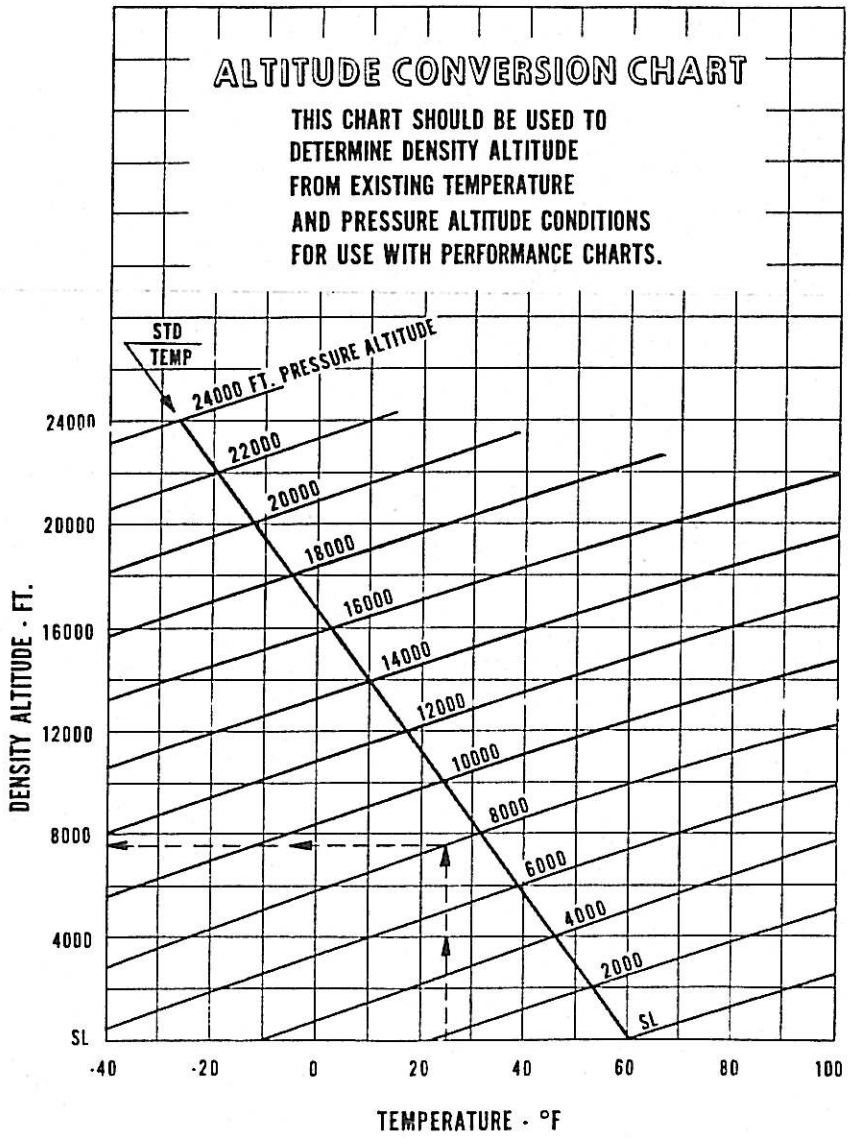
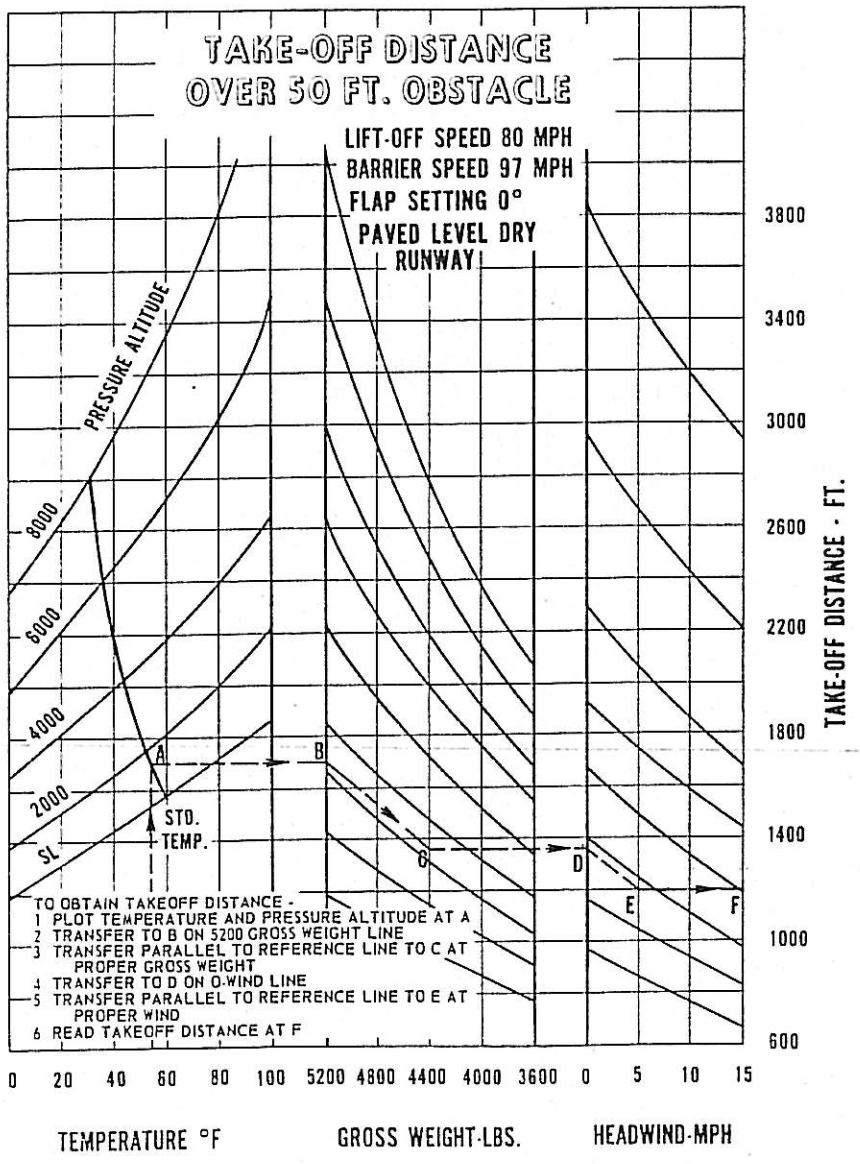
PERFORMANCE CHARTS

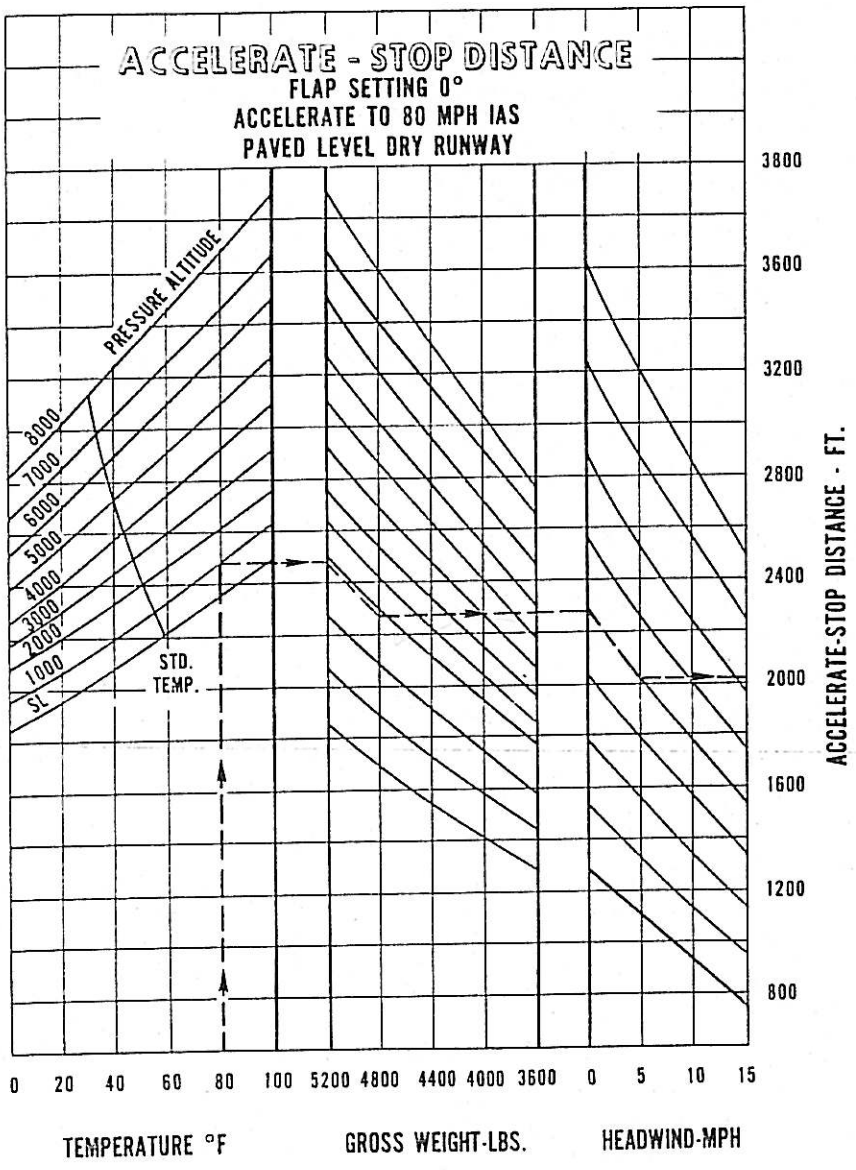
Altitude Conversion Chart 1
Takeoff Distance Over 50 Ft. Obstacle 2
~~Turbo Takeoff Distance Over 50 Ft. Obstacle . . . . . 3~~
Accelerate - Stop Distance 4
~~Turbo Accelerate - Stop Distance . . . . . 5~~
Multi-Engine Rate of Climb and Airspeed vs Density Altitude 6
~~Turbo Multi-Engine Rate of Climb and Airspeed vs Density Altitude . . . . . 7~~
Single-Engine Rate of Climb and Airspeed vs Density Altitude 8
~~Turbo Single-Engine Rate of Climb and Airspeed vs Density Altitude . . . . . 9~~
Range vs Density Altitude 10
~~Turbo Range vs Density Altitude . . . . . 11~~
True Airspeed vs Density Altitude 12
~~Turbo True Airspeed vs Density Altitude . . . . . 13~~
Stall Speed vs Weight 14
Stall Speed vs Angle of Bank 15
Landing Distance Over 50 Ft. 16
~~Maximum Manifold Pressure vs Altitude . . . . . 17~~
Part Throttle Fuel Consumption 18
~~Turbo Part Throttle Fuel Consumption . . . . . 19~~
Airspeed Calibration 20
Power Setting Table (Normal Aspirated) 21
~~Power Setting Table (Turbo Charged) . . . . . 21~~


ALTITUDE CONVERSION CHART
THIS CHART SHOULD BE USED TO
DETERMINE DENSITY ALTITUDE
FROM EXISTING TEMPERATURE
AND PRESSURE ALTITUDE CONDITIONS
FOR USE WITH PERFORMANCE CHARTS.
STD
TEMP
24000 FT. PRESSURE ALTITUDE
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
SL
DENSITY ALTITUDE - FT.
24000
20000
16000
12000
8000
4000
SL
-40
-20
0
20
40
60
80
100
TEMPERATURE - °F

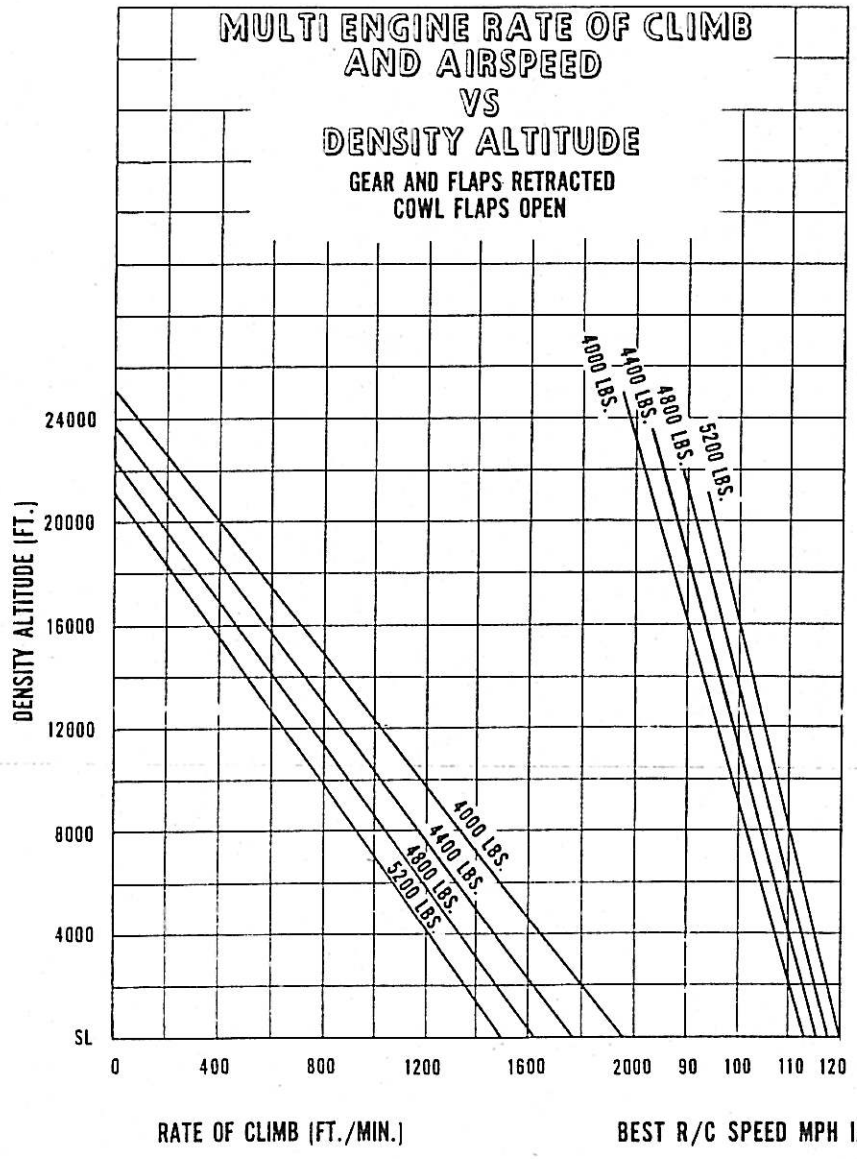
AZTEC E


TAKE-OFF DISTANCE
OVER 50 FT. OBSTACLE
LIFT-OFF SPEED 80 MPH
BARRIER SPEED 97 MPH
FLAP SETTING 0°
PAVED LEVEL DRY
RUNWAY
PRESSURE ALTITUDE
8000
6000
4000
2000
SL
STD.
TEMP.
A
B
C
D
E
F
TO OBTAIN TAKEOFF DISTANCE -
1 PLOT TEMPERATURE AND PRESSURE ALTITUDE AT A
2 TRANSFER TO B ON 5200 GROSS WEIGHT LINE
3 TRANSFER PARALLEL TO REFERENCE LINE TO C AT PROPER GROSS WEIGHT
4 TRANSFER TO D ON 0-WIND LINE
5 TRANSFER PARALLEL TO REFERENCE LINE TO E AT PROPER WIND
6 READ TAKEOFF DISTANCE AT F
3800
3400
3000
2600
2200
1800
1400
1000
600
TAKE-OFF DISTANCE - FT.
0 20 40 60 80 100
5200 4800 4400 4000 3600
0 5 10 15
TEMPERATURE °F
GROSS WEIGHT-LBS.
HEADWIND-MPH

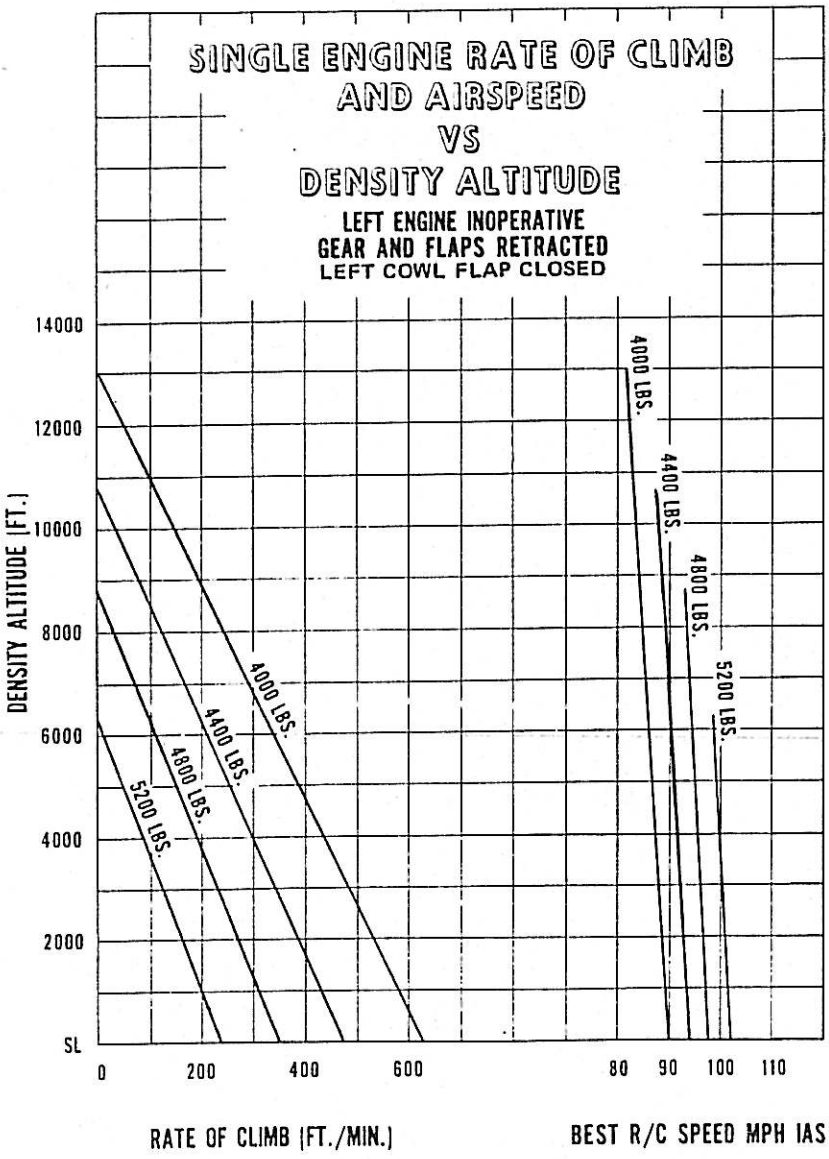
AZTEC E


ACCELERATE - STOP DISTANCE
FLAP SETTING 0°
ACCELERATE TO 80 MPH IAS
PAVED LEVEL DRY RUNWAY
PRESSURE ALTITUDE
8000
7000
6000
5000
4000
3000
2000
1000
SL
STD. TEMP.
3800
3600
3200
2800
2400
2000
1600
1200
800
ACCELERATE-STOP DISTANCE - FT.
0 20 40 60 80 100
5200 4800 4400 4000 3600
0 5 10 15
TEMPERATURE °F
GROSS WEIGHT-LBS.
HEADWIND-MPH

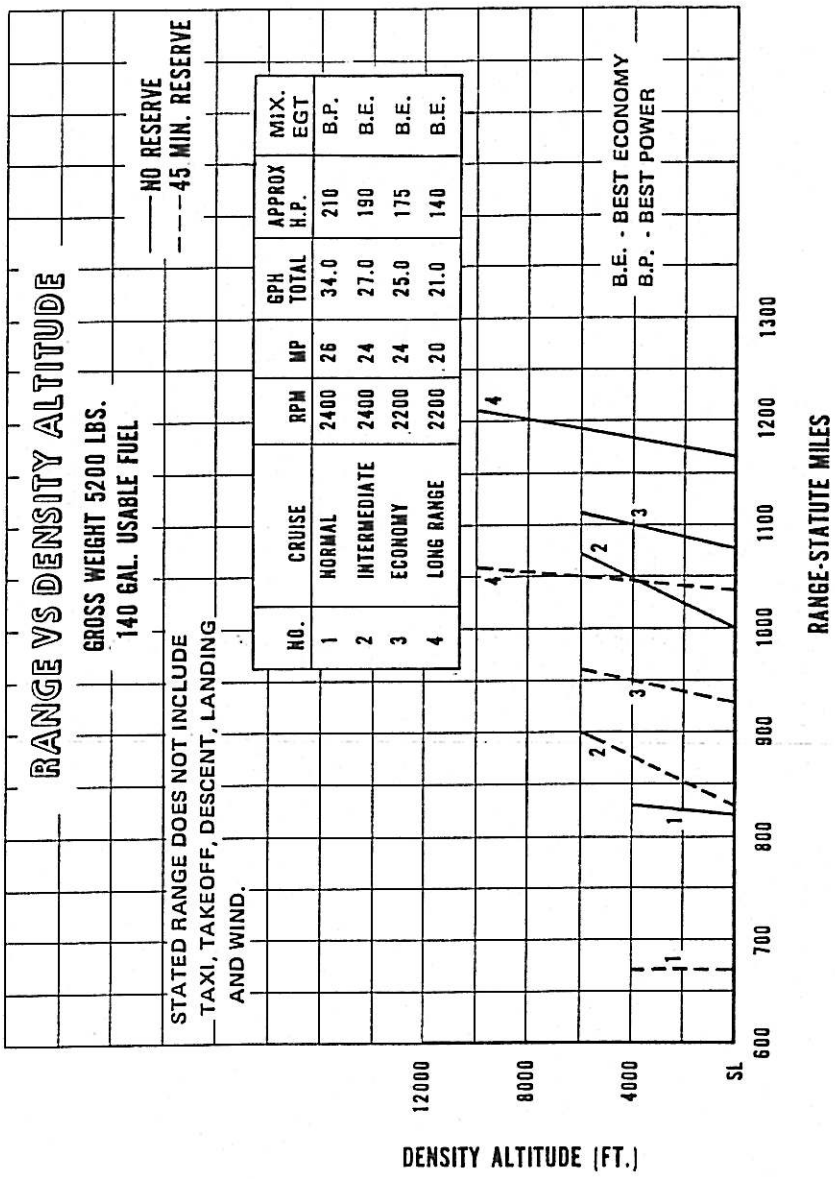
AZTEC E


MULTI ENGINE RATE OF CLIMB AND AIRSPEED VS DENSITY ALTITUDE
GEAR AND FLAPS RETRACTED
COWL FLAPS OPEN
DENSITY ALTITUDE (FT.)
24000
20000
16000
12000
8000
4000
SL
4000 LBS.
4400 LBS.
4800 LBS.
5200 LBS.
4000 LBS.
4400 LBS.
4800 LBS.
5200 LBS.
0
400
800
1200
1600
2000
90
100
110
120
RATE OF CLIMB (FT./MIN.)
BEST R/C SPEED MPH IAS

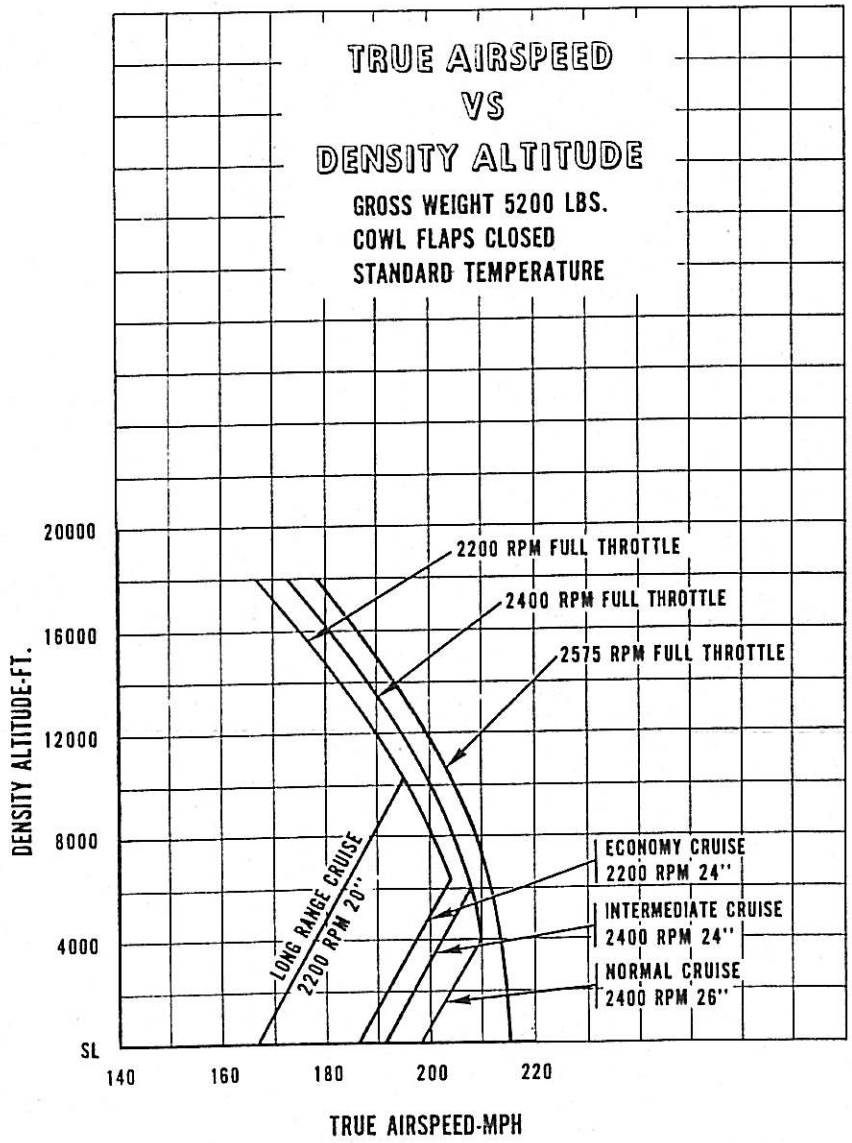
AZTEC E


SINGLE ENGINE RATE OF CLIMB
AND AIRSPEED
VS
DENSITY ALTITUDE
LEFT ENGINE INOPERATIVE
GEAR AND FLAPS RETRACTED
LEFT COWL FLAP CLOSED
DENSITY ALTITUDE (FT.)
14000
12000
10000
8000
6000
4000
2000
SL
0
200
400
600
80
90
100
110
4000 LBS.
4400 LBS.
4800 LBS.
5200 LBS.
4000 LBS.
4400 LBS.
4800 LBS.
5200 LBS.
RATE OF CLIMB (FT./MIN.)
BEST R/C SPEED MPH IAS

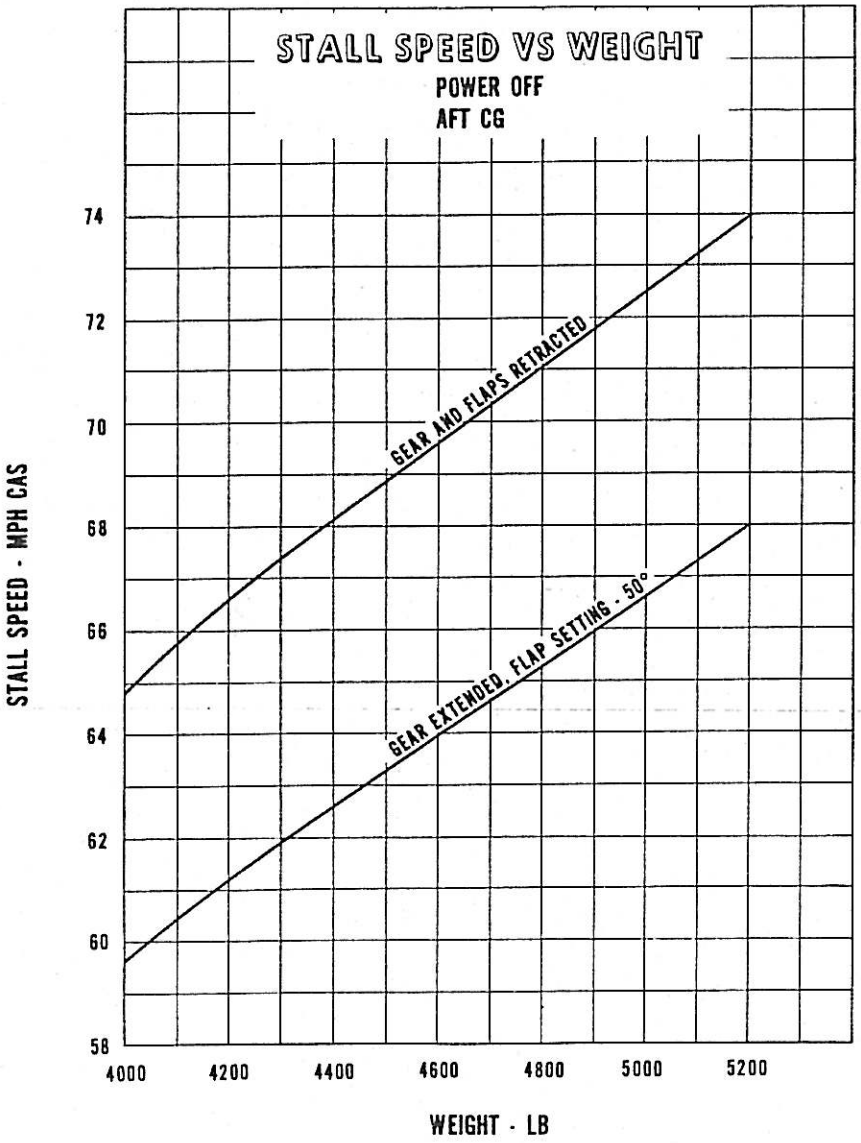
AZTEC E


RANGE VS DENSITY ALTITUDE
GROSS WEIGHT 5200 LBS.
140 GAL. USABLE FUEL
STATED RANGE DOES NOT INCLUDE TAXI, TAKEOFF, DESCENT, LANDING AND WIND.
NO RESERVE
45 MIN. RESERVE
NO. | CRUISE | RPM | MP | GPH TOTAL | APPROX H.P. | MIX. EGT
1 | NORMAL | 2400 | 26 | 34.0 | 210 | B.P.
2 | INTERMEDIATE | 2400 | 24 | 27.0 | 190 | B.E.
3 | ECONOMY | 2200 | 24 | 25.0 | 175 | B.E.
4 | LONG RANGE | 2200 | 20 | 21.0 | 140 | B.E.
B.E. - BEST ECONOMY
B.P. - BEST POWER
600
700
800
900
1000
1100
1200
1300
RANGE-STATUTE MILES
SL
4000
8000
12000
DENSITY ALTITUDE (FT.)

AZTEC E

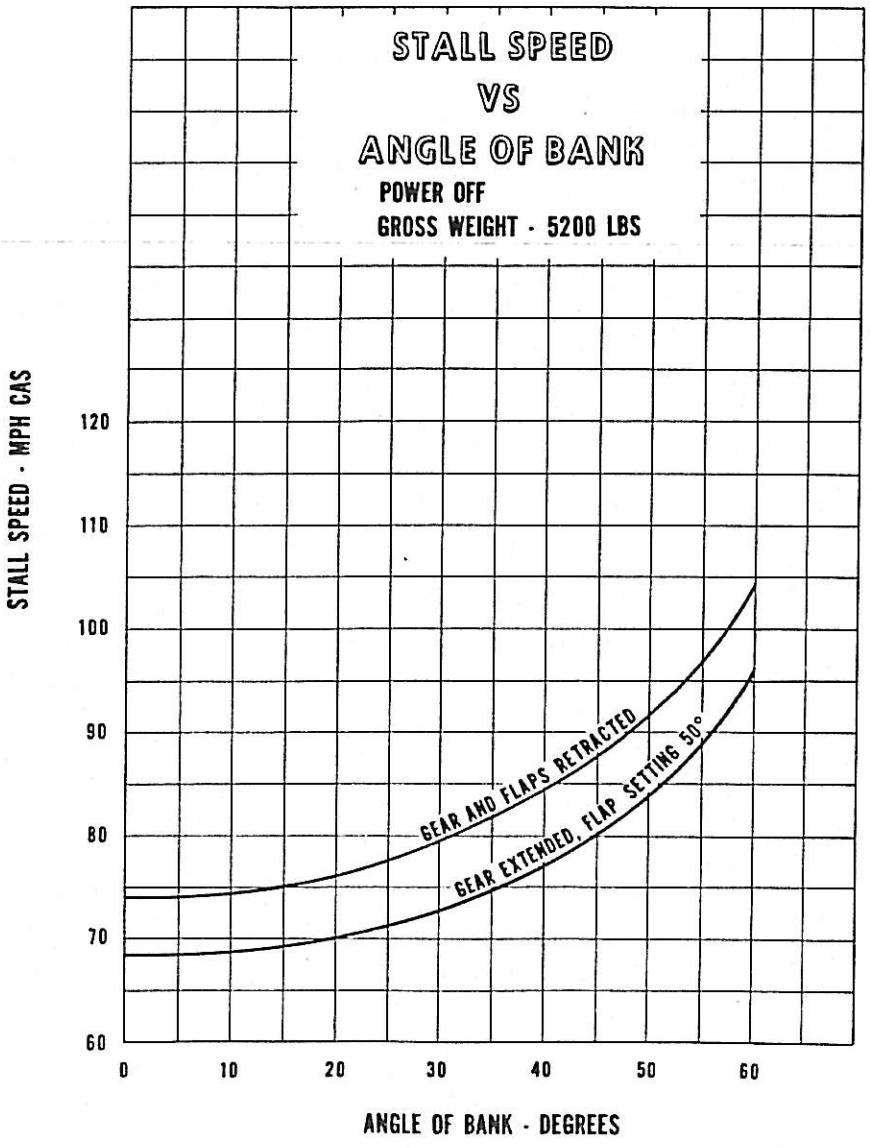

TRUE AIRSPEED
VS
DENSITY ALTITUDE
GROSS WEIGHT 5200 LBS.
COWL FLAPS CLOSED
STANDARD TEMPERATURE
2200 RPM FULL THROTTLE
2400 RPM FULL THROTTLE
2575 RPM FULL THROTTLE
LONG RANGE CRUISE
2200 RPM 20"
ECONOMY CRUISE
2200 RPM 24"
INTERMEDIATE CRUISE
2400 RPM 24"
NORMAL CRUISE
2400 RPM 26"
DENSITY ALTITUDE-FT.
20000
16000
12000
8000
4000
SL
140
160
180
200
220
TRUE AIRSPEED-MPH

AZTEC E
~~TURBO AZTEC E~~

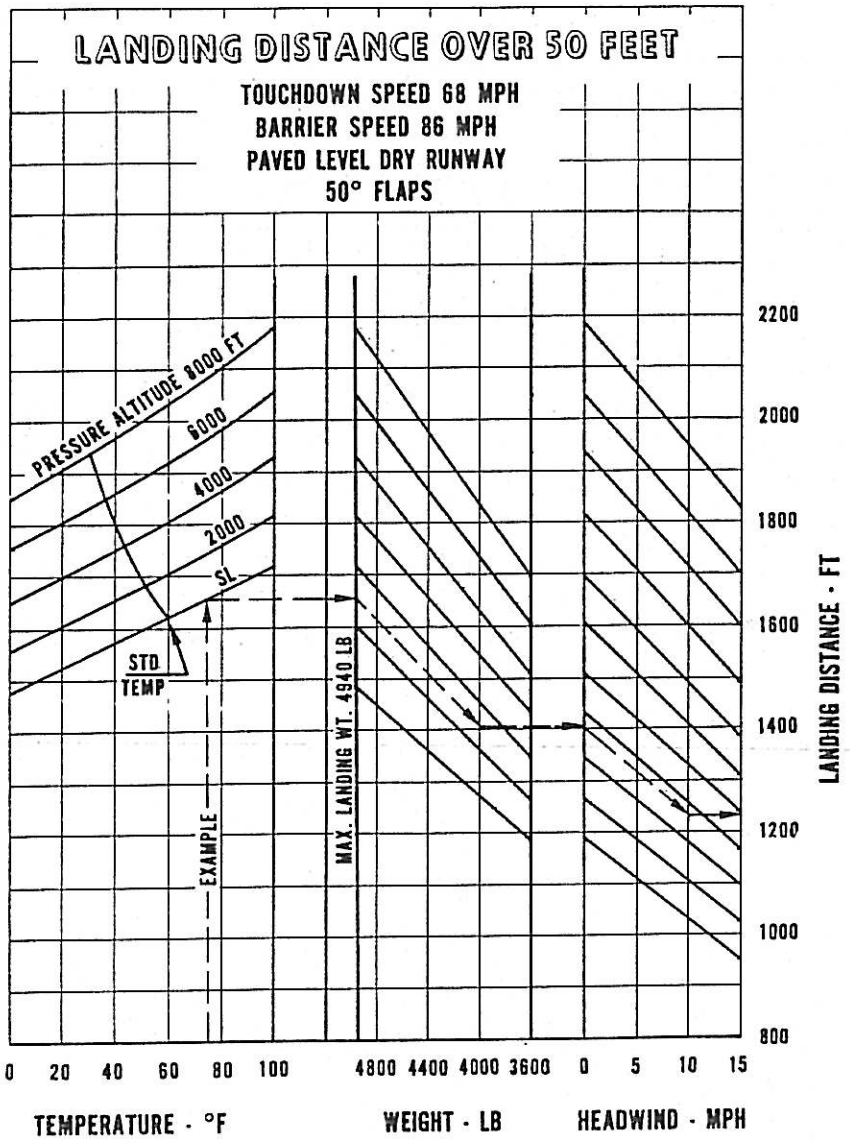


AZTEC E

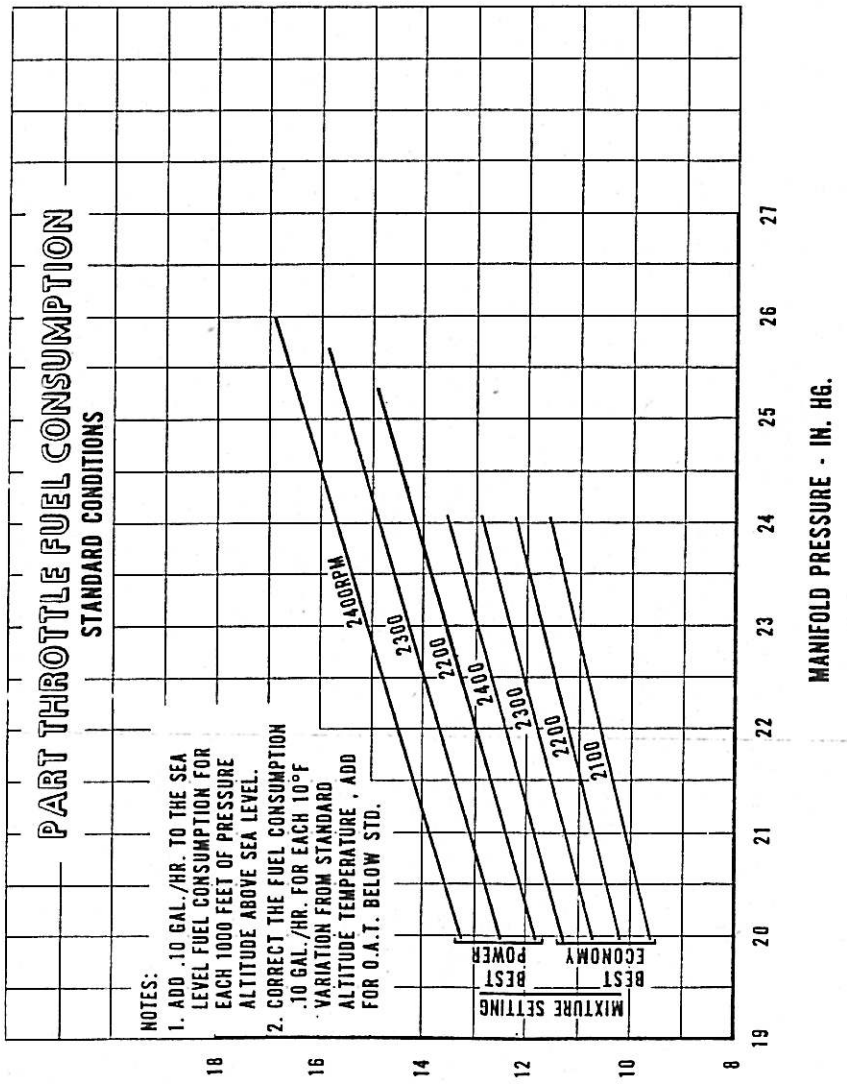
~~TURBO AZTEC E~~



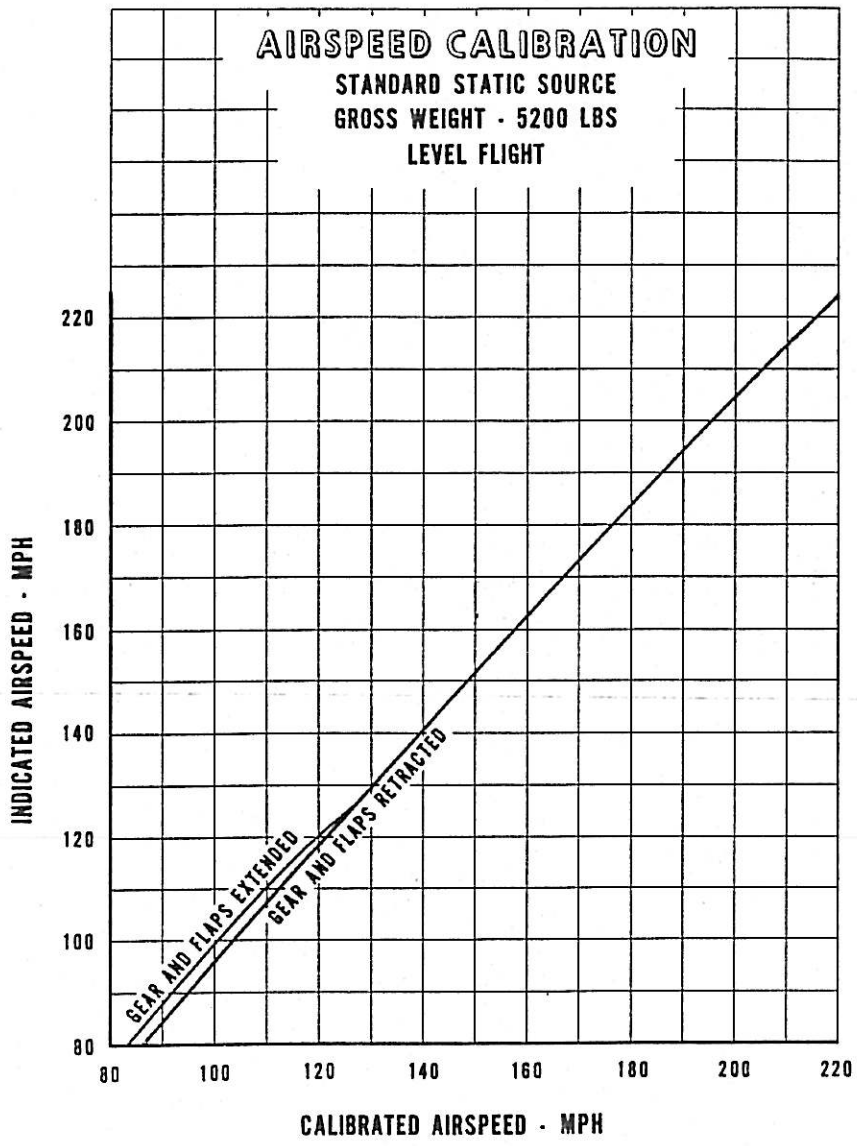
AZTEC E
~~TURBO AZTEC E~~



AZTEC E


PART THROTTLE FUEL CONSUMPTION
STANDARD CONDITIONS
NOTES:
1. ADD .10 GAL./HR. TO THE SEA LEVEL FUEL CONSUMPTION FOR EACH 1000 FEET OF PRESSURE ALTITUDE ABOVE SEA LEVEL.
2. CORRECT THE FUEL CONSUMPTION .10 GAL./HR. FOR EACH 10°F VARIATION FROM STANDARD ALTITUDE TEMPERATURE, ADD FOR O.A.T. BELOW STD.
2400RPM
2300
2200
2400
2300
2200
2100
MIXTURE SETTING
BEST POWER
BEST ECONOMY
MANIFOLD PRESSURE - IN. HG.
FUEL CONSUMPTION - GAL/HR. EACH ENGINE

AZTEC E
~~TURBO AZTEC E~~



Power Setting Table (Cruise) - Lycoming Model IO-540-C4B5, 250 HP Engine

Normal Cruise Approx 210 HP		Intermediate Cruise Approx 190 HP		Economy Cruise Approx 175 HP		Long Range Cruise Approx 140 HP	
RPM	MP	RPM	MP	RPM	MP	RPM	MP
2400	26.0	2200	26.0	2200	24.0	2100	21.0
		2300	25.0	2300	23.2	2200	20.0
		2400	24.0	2400	22.4	2300	19.3

1. To maintain constant Power, correct manifold pressure approximately 0.17" Hg. for each 10° F variation in induction air temperature from standard altitude temperature. Add manifold pressure for air temperatures above standard; subtract for temperatures below standard.
2. To determine fuel consumption for these power settings refer to the Fuel Consumption Chart.
3. DO NOT EXCEED 27" MANIFOLD PRESSURE BELOW 2300 RPM or 25" BELOW 2000 RPM.

Power Setting Table (Cruise) - Lycoming Model TIO-540-C1A, 250 HP Engine

Turbo Cruise Approx 232 HP		Intermediate Cruise Approx 200 HP		Economy Cruise Approx 173 HP		Long Range Cruise Approx 140 HP	
RPM	MP	RPM	MP	RPM	MP	RPM	MP
2400	34.0	2300	31.0	2200	28.0	2100	25.0
		2400	30.0	2300	27.0	2200	24.0
		2500	29.0	2400	26.0	2300	23.0

1. To maintain constant power, correct manifold pressure approximately 0.17" Hg. for each 10° F variation in induction air temperature from standard altitude temperature. Add manifold pressure for air temperatures above standard; subtract for temperatures below standard. Do not exceed 34.0 MP at 2400 RPM with mixture strengths less than full rich.
2. To determine fuel consumption for these power settings refer to the Fuel Consumption Chart.
3. Do not exceed 39.5" Hg. up to 18,500 feet. Above 18,500 feet the following manifold limits must be observed:

Altitude	M. P.	Altitude	M. P.
20,000 Ft	37.0"	26,000 Ft	28.0"
22,000 Ft	34.0"	28,000 Ft	24.8"
24,000 Ft	31.0"		