

STALL SPEED VS GROSS WEIGHT

STANDARD ATMOSPHERE

POWER OFF

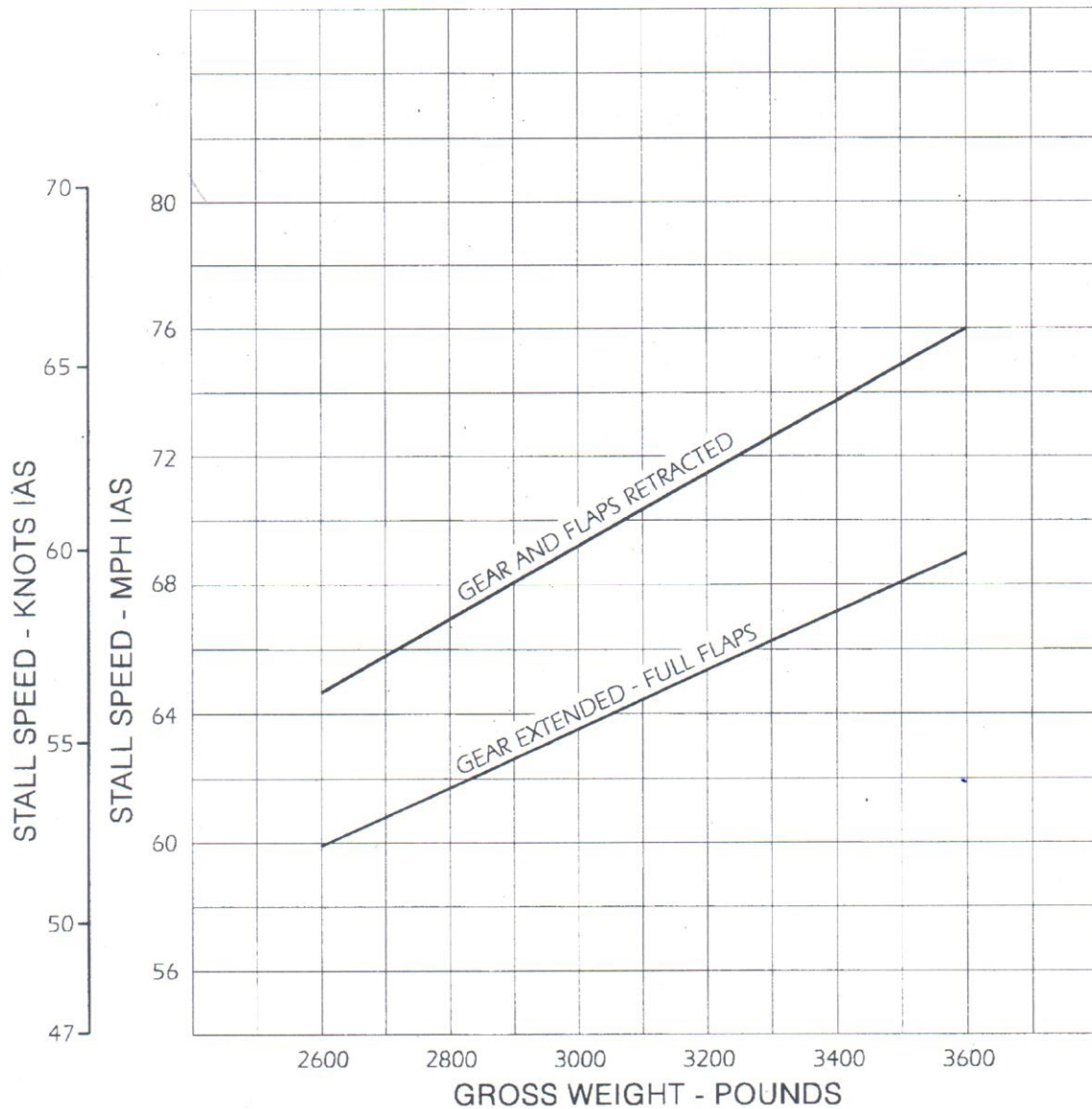


FIGURE 5-05

TAKEOFF GROUND RUN DISTANCE

WING FLAPS: 15 DEGREES
RUNWAY SURFACE: PAVED, LEVEL, DRY

FULL THROTTLE AND MAX RPM
TAKEOFF SPEED = 80 MPH IAS

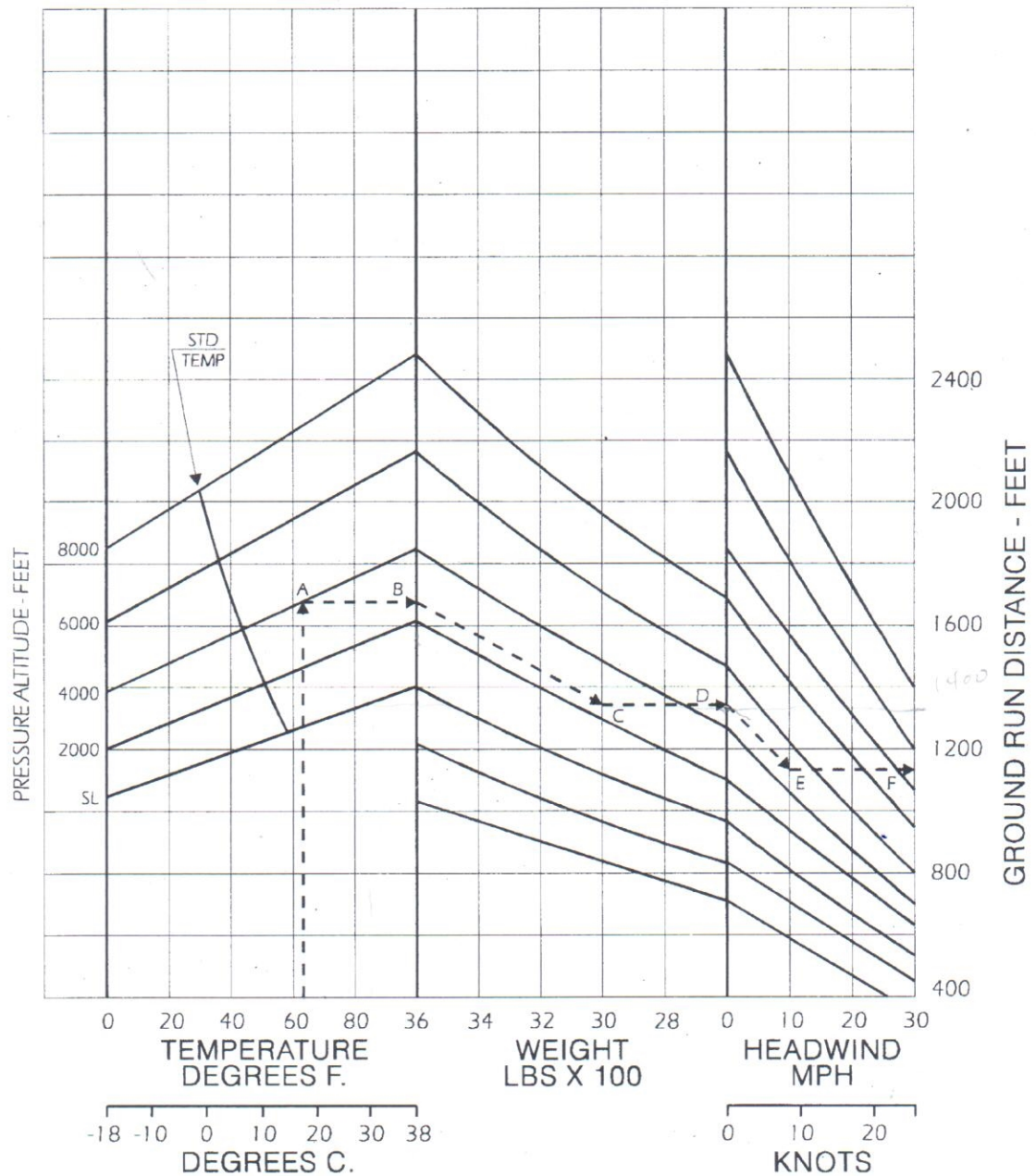


FIGURE 5-06

TAKEOFF DISTANCE OVER A 50 FT OBSTACLE

WING FLAPS: 15 DEGREES
RUNWAY SURFACE: PAVED, LEVEL, DRY

FULL THROTTLE AND MAX RPM
ATTAIN 91 MPH AT 50 FT AGL

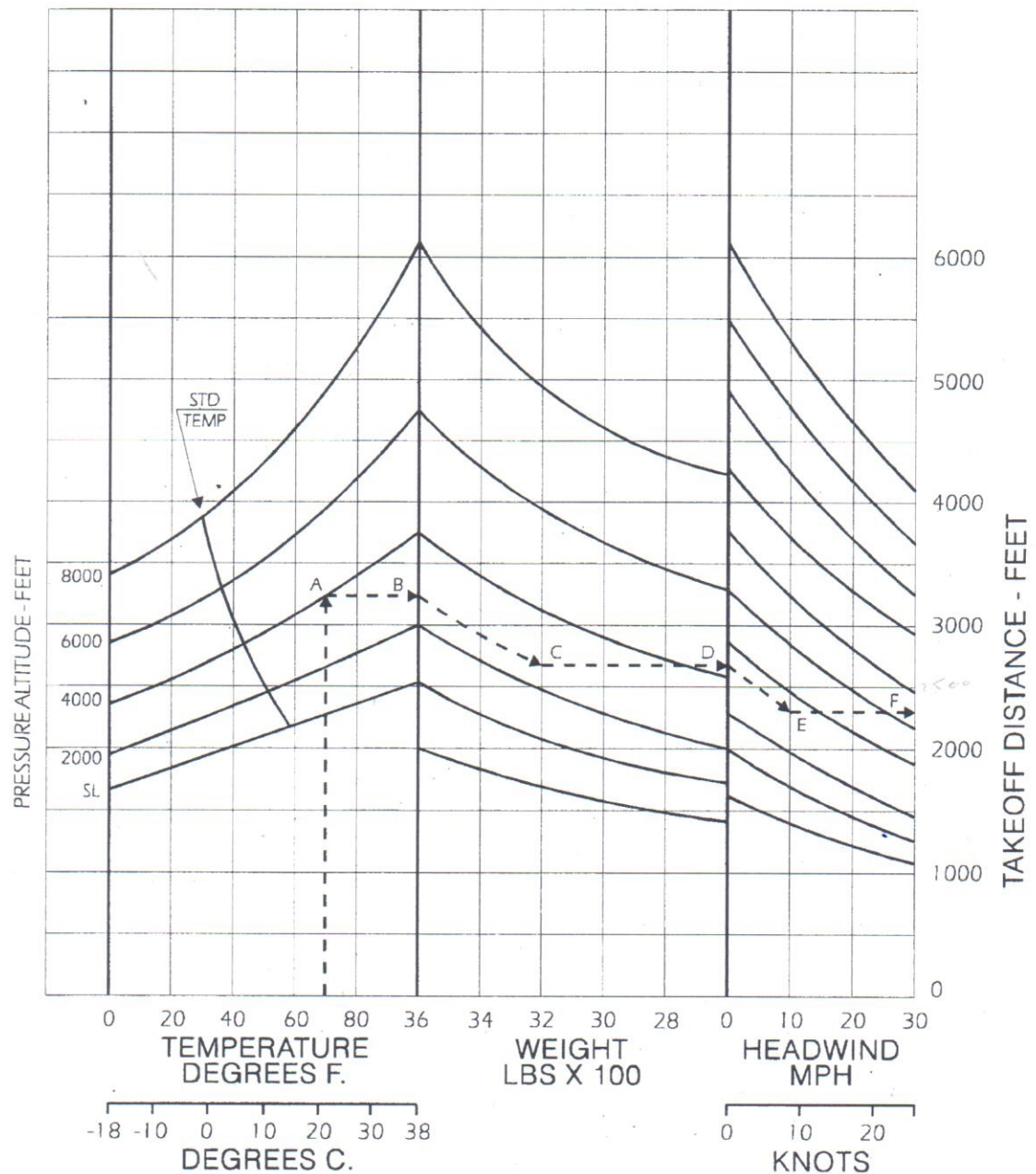


FIGURE 5-07

ACCELERATE - STOP DISTANCE

WING FLAPS RETRACTED
FULL THROTTLE AND MAX RPM
BOTH THROTTLES CLOSED AT DECISION SPEED

RUNWAY SURFACE: PAVED, LEVEL, DRY
ACCELERATE TO 90 MPH IAS
MAXIMUM BRAKING EFFORT

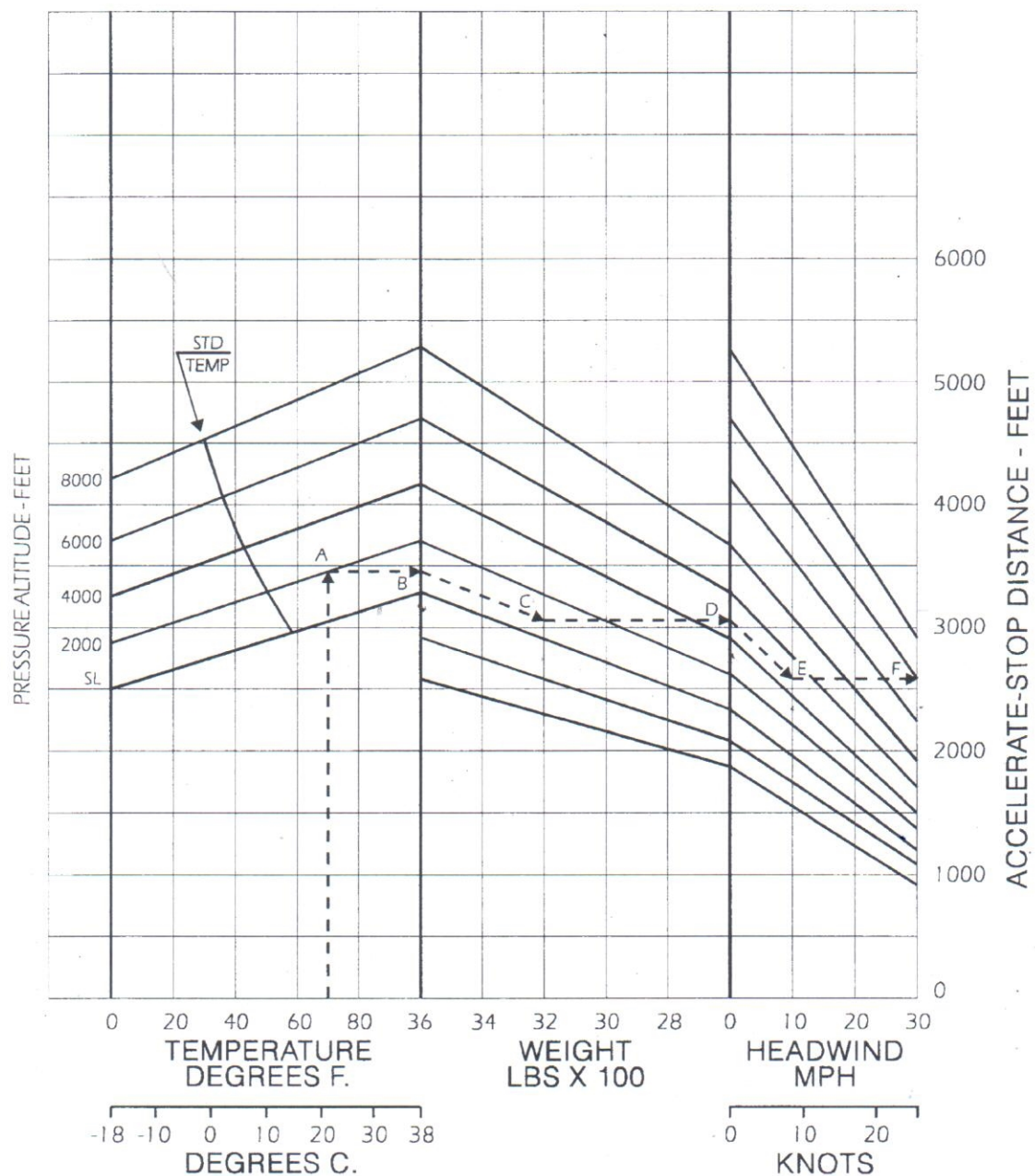


FIGURE 5-08

MULTI-ENGINE RATE OF CLIMB VS DENSITY ALTITUDE AND WEIGHT

COWL FLAPS OPEN
FULL THROTTLE AND MAX RPM
LANDING GEAR AS NOTED

MIXTURE: ADJUST FOR SMOOTH OPERATION
OPTIMUM AIRSPEED
WING FLAPS AS NOTED

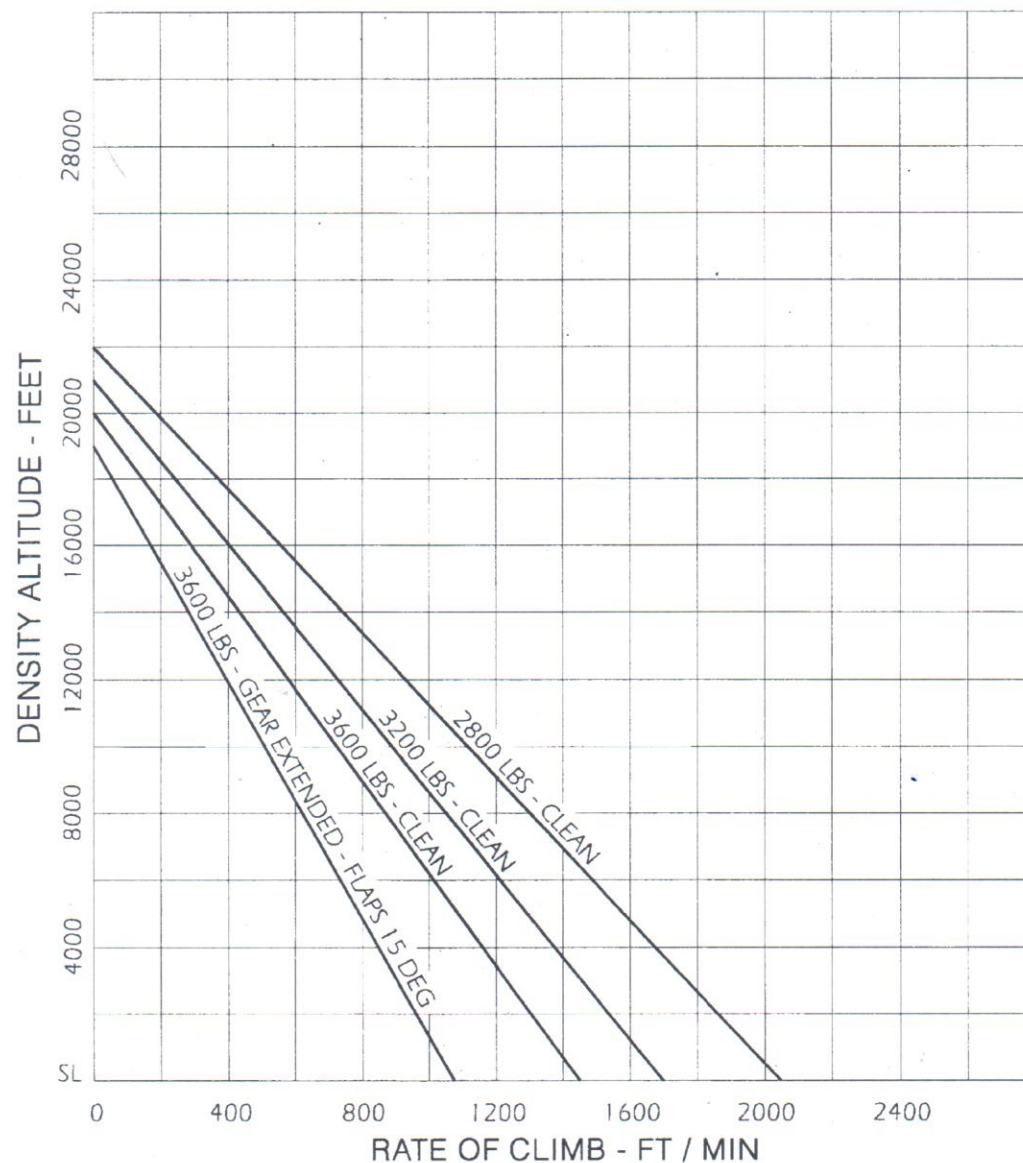


FIGURE 5-09

SINGLE-ENGINE RATE OF CLIMB VS DENSITY ALTITUDE AND WEIGHT

LEFT ENGINE: INOPERATIVE
LEFT PROPELLER: FEATHERED
RIGHT ENGINE: FULL THROTTLE
RIGHT PROPELLER: MAX RPM

MIXTURE: ADJUST FOR SMOOTH OPERATION
GEAR AND WING FLAPS RETRACTED
OPTIMUM AIRSPEED
COWL FLAPS OPEN

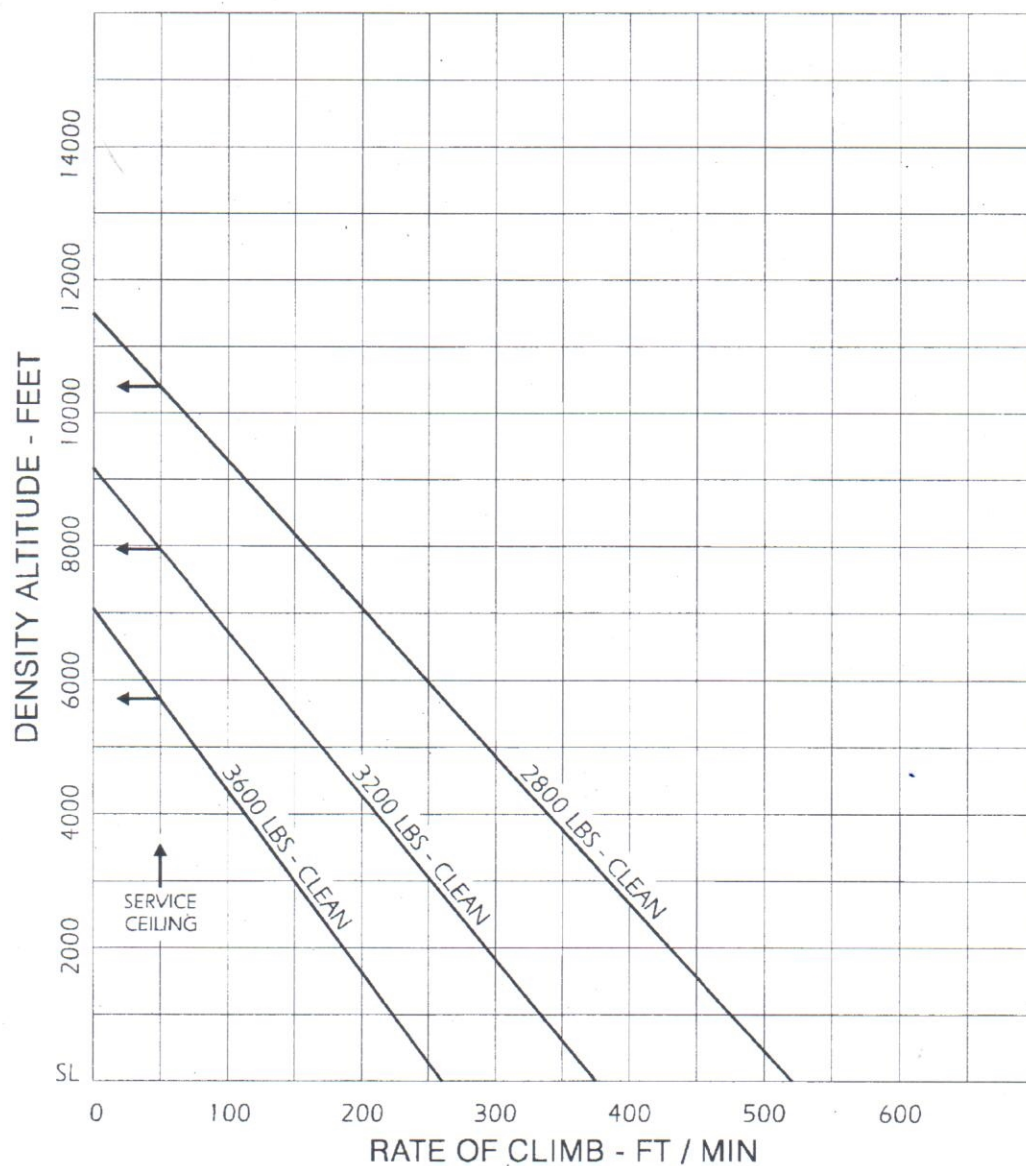


FIGURE 5-10

V_X AND V_Y VS DENSITY ALTITUDE

LANDING GEAR RETRACTED
FULL THROTTLE AND MAX RPM
WING FLAPS RETRACTED

MIXTURE: ADJUST FOR SMOOTH OPERATION
GROSS WEIGHT: 3600 POUNDS
COWL FLAPS OPEN

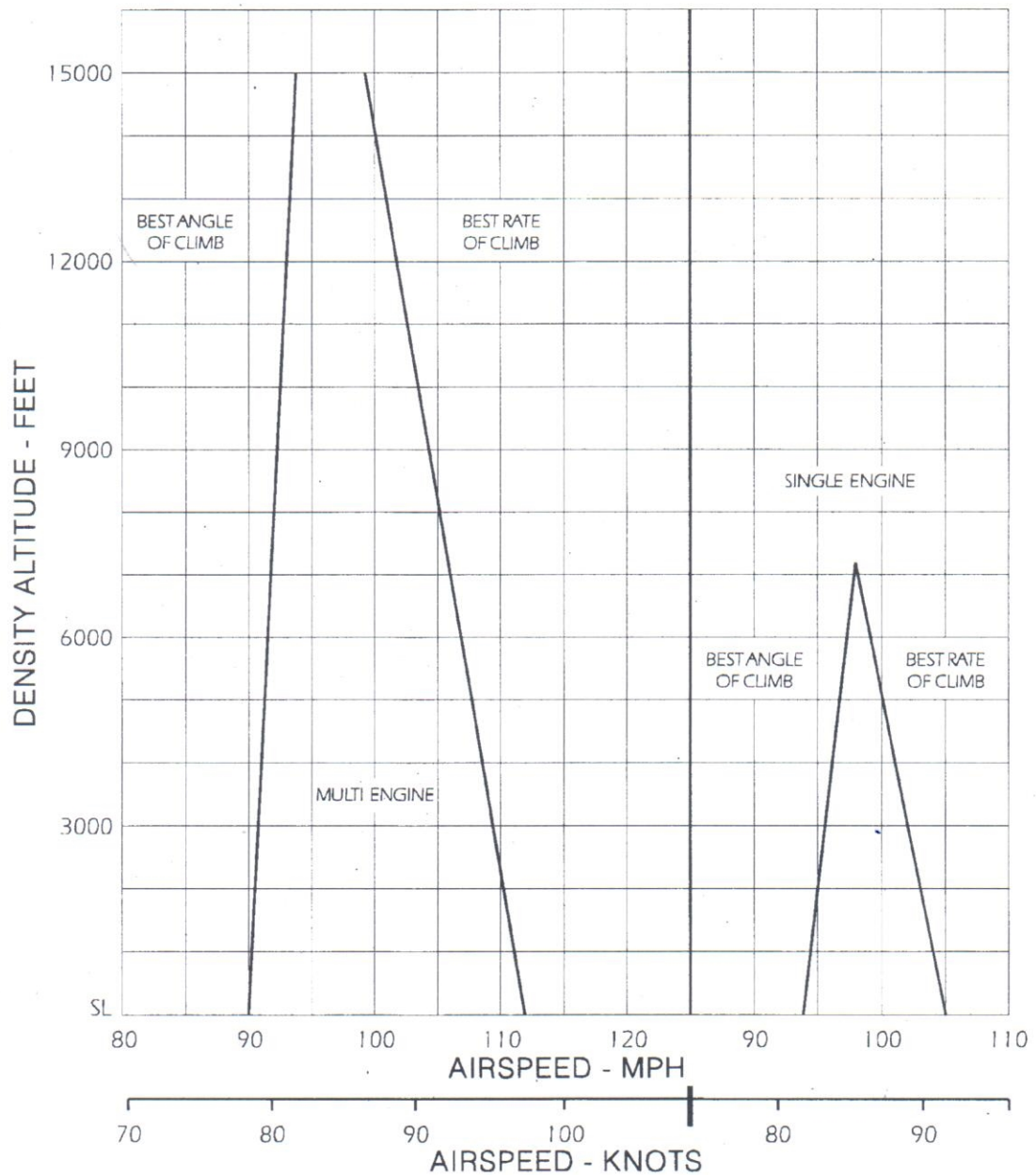


FIGURE 5-11

TRUE AIRSPEED VS DENSITY ALTITUDE

GROSS WEIGHT: 3600 POUNDS
GEAR AND WING FLAPS RETRACTED

MIXTURE: BEST POWER CRUISE
COWL FLAPS CLOSED

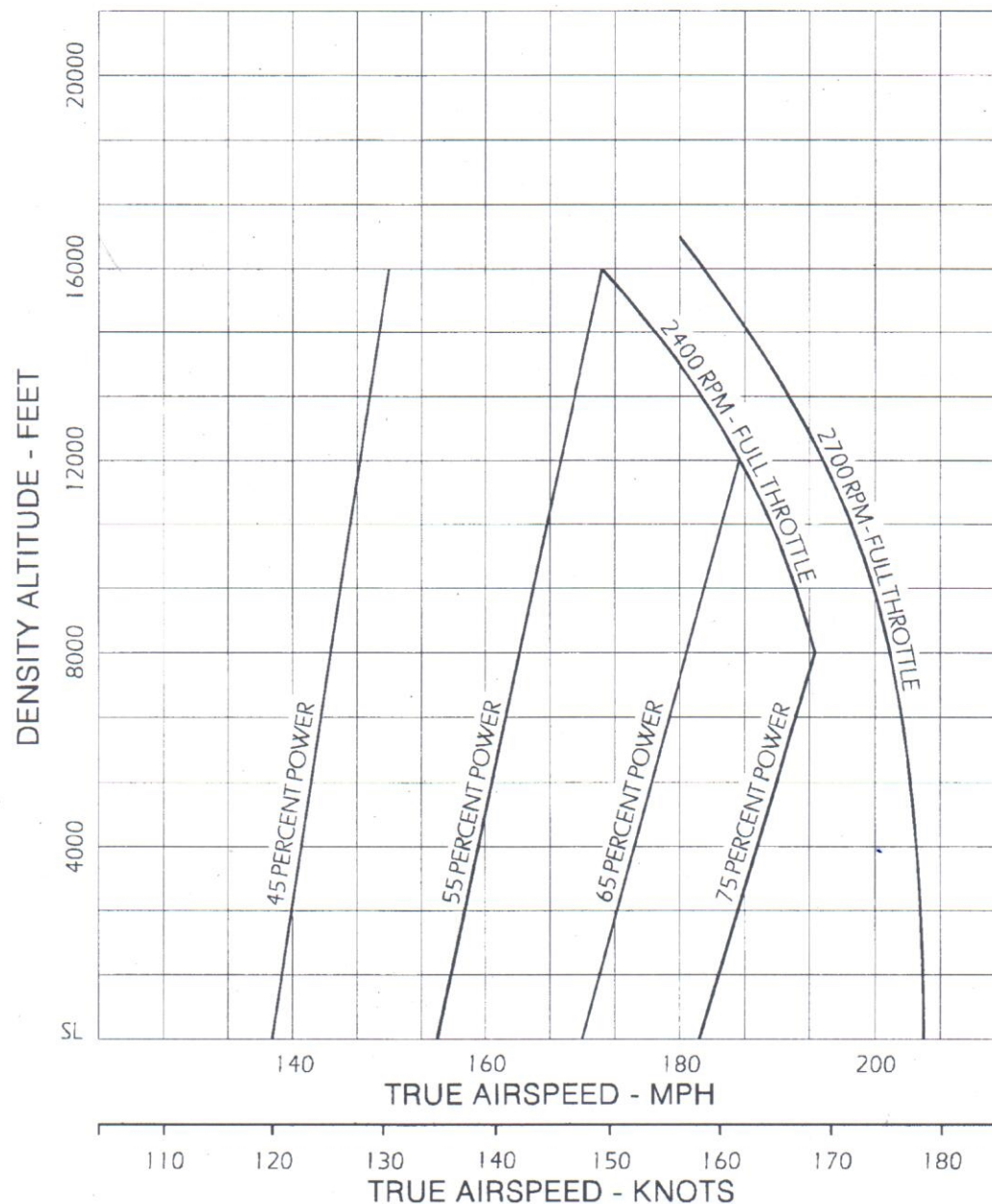


FIGURE 5-12

RANGE PROFILE

INITIAL FUEL LOAD: AS SHOWN
WEIGHT: 3600 POUNDS AT START

GEAR AND FLAPS RETRACTED
MIXTURE: BEST ECONOMY CRUISE

**** WARNING ****

FIGURES SHOWN IN THIS CHART GIVE NO CONSIDERATION TO WIND OR NAVIGATIONAL ERRORS.
RANGE INCLUDES AN ALLOWANCE FOR FUEL USED IN START, TAXI, TAKEOFF, CLIMB AND
DESCENT PLUS 45 MINUTES RESERVE FUEL AT MAXIMUM RANGE POWER (V_{IMR}).

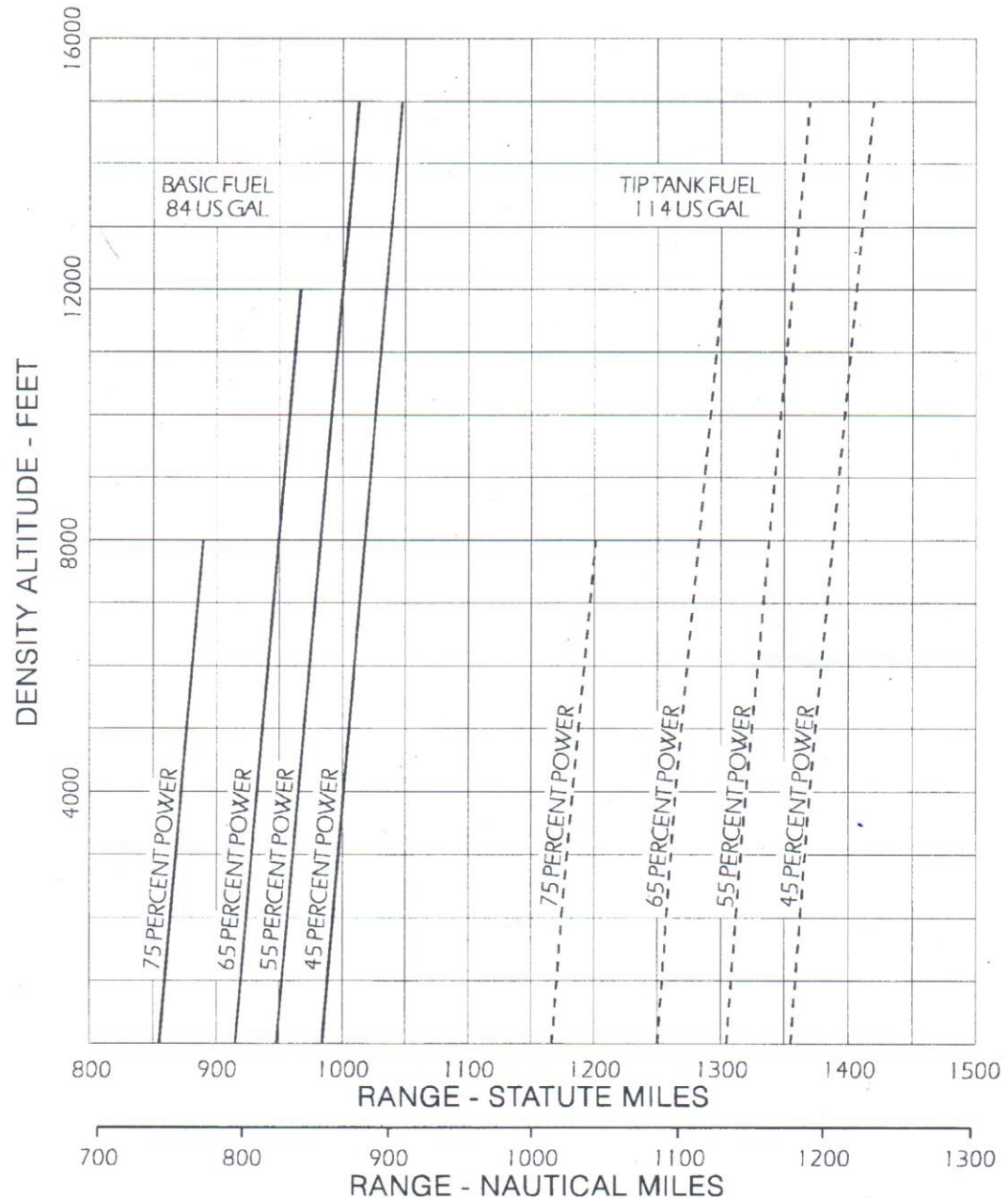


FIGURE 5-13

ENDURANCE PROFILE

INITIAL FUEL LOAD: AS SHOWN
WEIGHT: 3600 POUNDS AT START

GEAR AND FLAPS RETRACTED
MIXTURE: BEST ECONOMY CRUISE

**** WARNING ****

FIGURES SHOWN IN THIS CHART GIVE NO CONSIDERATION TO WIND OR NAVIGATIONAL ERRORS.
ENDURANCE INCLUDES AN ALLOWANCE FOR FUEL USED IN START, TAXI, TAKEOFF, CLIMB, AND
DESCENT PLUS 45 MINUTES RESERVE FUEL AT MAXIMUM ENDURANCE POWER (V_{IMD}).

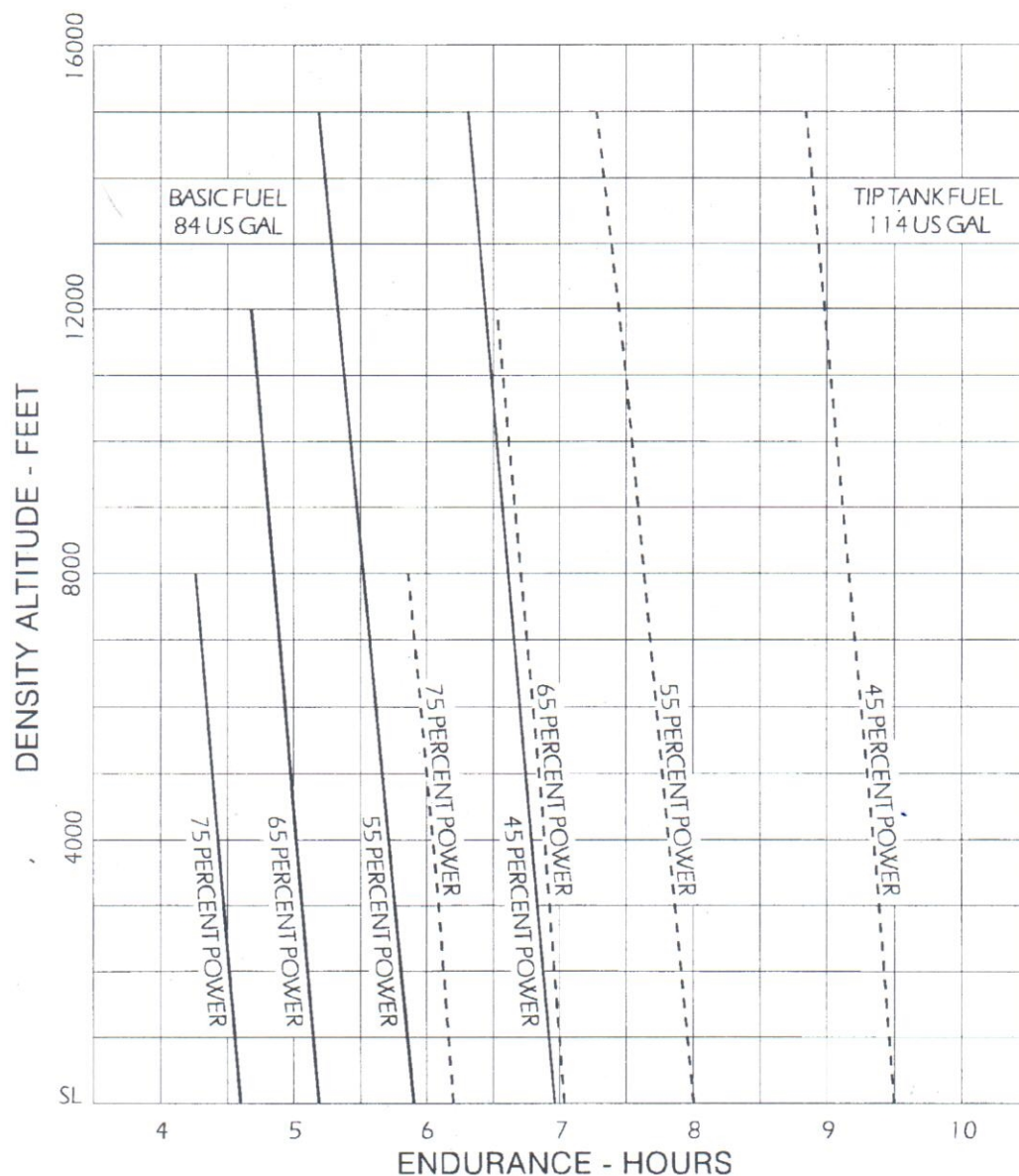


FIGURE 5-14

LANDING GROUND ROLL DISTANCE

WING FLAPS: 27 DEGREES
RUNWAY SURFACE: PAVED, LEVEL, DRY
THROTTLES CLOSED

MAXIMUM BRAKING EFFORT
APPROACH SPEED = 90 MPH IAS
TOUCHDOWN SPEED = 70 MPH IAS

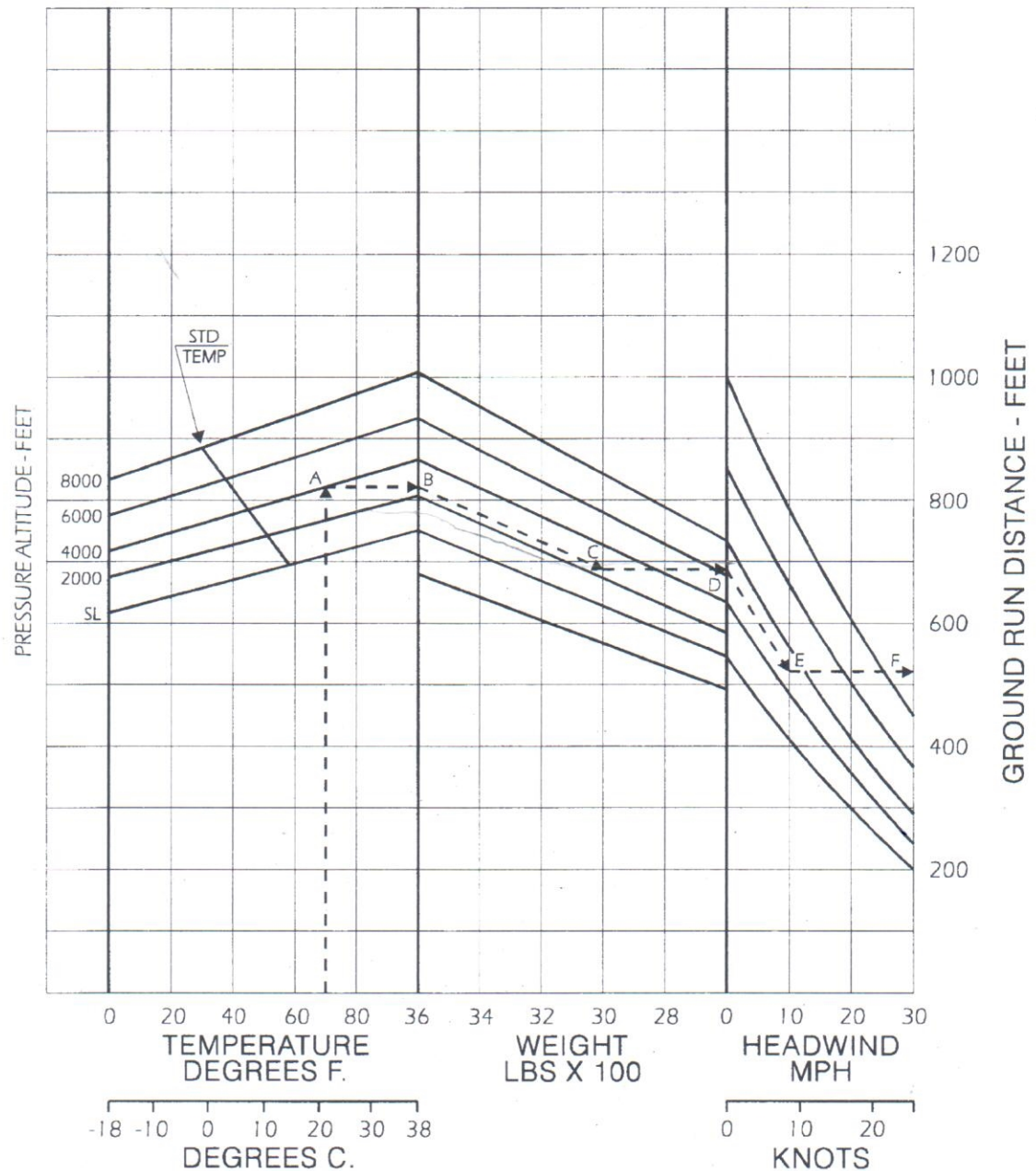


FIGURE 5-15

LANDING DISTANCE OVER A 50 FT OBSTACLE

WING FLAPS: 27 DEGREES
RUNWAY SURFACE: PAVED, LEVEL, DRY

MAXIMUM BRAKING EFFORT
APPROACH SPEED = 90 MPH IAS

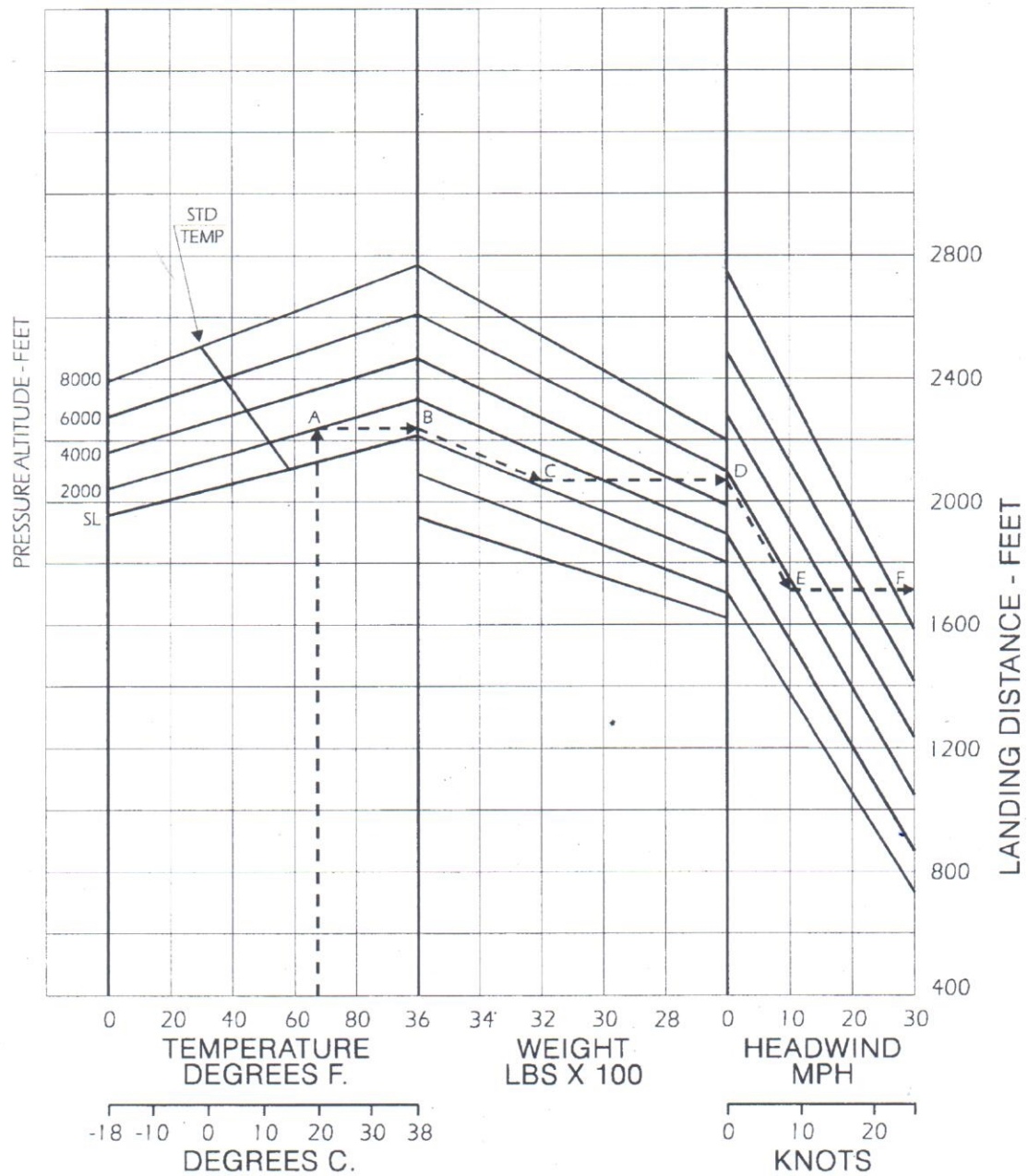


FIGURE 5-16

POWER SETTING TABLE

LYCOMING MODEL IO-320-B, 160 HP NORMALLY ASPIRATED ENGINE

PRESSURE ALTITUDE	STD AIR TEMP F. C.	88 HP - 55% RATED				104 HP - 65% RATED				120 HP - 75% RATED			
		1. APPROX 13.4 GPH				APPROX 15.2 GPH				APPROX 17.2 GPH			
		2. APPROX 16.0 GPH				APPROX 17.7 GPH				APPROX 20.0 GPH			
		RPM AND MAN PRESS				RPM AND MAN PRESS				RPM AND MAN PRESS			
		2100	2200	2300	2400	2100	2200	2300	2400	2100	2200	2300	2400
SEA LEV	59 15	22.4	21.7	21.0	20.4	25.0	24.2	23.3	22.7	26.5	25.6	24.9	
1,000	55 13	22.1	21.5	20.7	20.2	24.7	23.9	23.0	22.4	26.2	25.3	24.6	
2,000	52 11	21.8	21.2	20.5	19.9	24.4	23.6	22.8	22.2	25.9	25.0	24.3	
3,000	48 09	21.6	20.9	20.2	19.7	24.1	23.3	22.5	21.9	25.6	24.7	24.0	
4,000	45 07	21.3	20.6	19.9	19.4	23.8	23.0	22.2	21.6	25.3	24.3	23.7	
5,000	41 05	21.0	20.4	19.7	19.2	23.5	22.7	21.9	21.3	25.0	24.0	23.4	
6,000	38 03	20.8	20.1	19.4	18.9	23.2	22.4	21.6	21.1				23.1
7,000	34 01	20.5	19.8	19.1	18.7		22.1	21.3	20.8				
8,000	31 -01	20.2	19.5	18.9	18.4		21.8	21.0	20.5				
9,000	27 -03	19.9	19.2	18.6	18.2			20.7	20.3				
10,000	23 -05	19.7	19.0	18.3	17.9				20.0				
11,000	19 -07	19.4	18.7	18.1	17.7								
12,000	16 -09		18.4	17.8	17.4								
13,000	12 -11			17.5	17.2								
14,000	09 -13				16.9								
15,000	05 -15												

- 1.) BEST ECONOMY CRUISE - PEAK EGT
- 2.) BEST POWER CRUISE ; 100 DEGREES FAHRENHEIT RICH OF PEAK EGT

** NOTE **

TO MAINTAIN CONSTANT POWER, CORRECT MANIFOLD PRESSURE APPROXIMATELY 0.17 INCH Hg. FOR EACH 10 DEGREE FAHRENHEIT VARIATION IN INDUCTION AIR TEMPERATURE FROM STANDARD ALTITUDE TEMPERATURE. ADD MANIFOLD PRESSURE FOR TEMPERATURES ABOVE STANDARD; SUBTRACT FOR TEMPERATURES BELOW STANDARD.

FIGURE 5-17