N13839

1970 Piper Turbo Aztec D

Performance Data

MSN: 27-4480

Prepared by the worldwide aviation specialists at RidgeAire, Inc.

N13839 SER NO. 27-4480
OWNER'S HAND BOOK
ONBOARD COPY

PIPER

TURBO ◆ AZTEC "D"

OWNER'S HANDBOOK

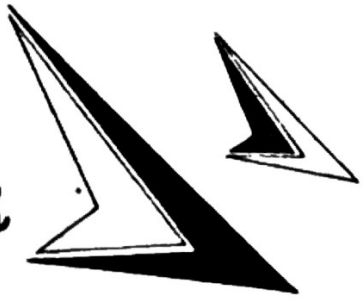
the

TURBO-AZTEC 'D'

PA-23-250 (Six Place)
LYCOMING TURBOCHARGER INSTALLATION

Owner's Handbook

PIPER



Piper Aircraft Corporation, Lock Haven, Pa.
U. S. A.

SECTION I

SPECIFICATIONS

PERFORMANCE

Performance figures are for airplanes equipped for cross-country transportation and flown at gross weight under standard conditions at sea level or stated altitude. Any changes in equipment may result in changes in performance.

Take-off Run (max effort) (ft)			820
Take-off Distance Over 50-ft Barrier (max effort) (ft)			1250
Normal Take-off Run (ft)			1100
Accelerate-Stop Distance (ft)			2220
Minimum Controllable Single Engine Speed (mph)			80
Stalling Speed (gear down, flaps down 50°) (power off) (mph)			68
Stalling Speed (gear and flaps up) (power off) (mph)			74
Best Rate of Climb (ft per min)			1530
Best Rate of Climb Speed (mph)			115
Best Angle of Climb Speed (mph)			97
Single Engine Rate of Climb (ft per min)			265
Best Single Engine Rate of Climb Speed (mph)			104
Best Single Engine Angle of Climb Speed (mph)			95
Absolute Ceiling (ft)			Over 30,000
Single Engine Absolute Ceiling (ft)			18,700
Single Engine Service Ceiling (ft)			15,300
Top Speed at 18,500 ft (mph)			253
Altitude Cruising Speeds (mph)			24,000 ft
34.0" MP	2400 RPM	22,000 FT	245
30.0" MP	2400 RPM	24,000 FT	233
26.0" MP	2400 RPM	24,000 FT	218
24.0" MP	2200 RPM	24,000 FT	196

SPECIFICATIONS (cont):

PERFORMANCE

Altitude Cruising Range (No Reserve, Economy Mixture (miles)	24,000 ft
34.0" MP 2400 RPM	1050
30.0" MP 2400 RPM	1125
26.0" MP 2400 RPM	1175
24.0" MP 2200 RPM	1310
Fuel Consumption (both engines) (gph)	
34.0" MP 2400 RPM	32.6
30.0" MP 2400 RPM	29.0
26.0" MP 2400 RPM	26.0
24.0" MP 2200 RPM	21.0
Landing Roll (flaps down) (max effort) (ft)	850
Landing Distance Over 50-ft Barrier (flaps down) (ft)	1620

WEIGHTS

Gross Take-off Weight (lbs)	5200
Maximum Landing Weight (lbs)	4940
Empty Weight (standard) (lbs)	3209
USEFUL LOAD (standard) (lbs)	1991
Zero Fuel Gross Weight (lbs)	4500

POWER PLANT

Engine	TIO-540-C1A
Rated Horsepower	250
Rated Speed (rpm)	2575
Bore (in.)	5.125

SPECIFICATIONS (cont):

POWER PLANT

Stroke (in.)	4.375
Displacement (cu in.)	541.5
Compression Ratio	7.2:1
Dry Weight (lbs)	490

FUEL AND OIL

Fuel Capacity (U.S. gal)	144*
Fuel, Aviation Grade (min octane)	100/130
Oil Capacity (qts) (each engine)	12

* 140 gallons usable

BAGGAGE

Maximum Baggage (lbs) Forward Compartment	150
Maximum Baggage (lbs) Rear Compartment	150
With oxygen installed	105
Baggage Space (cu ft) Forward Compartment	17.4
Baggage Space (cu ft) Rear Compartment	23.2
Baggage Door Size (in.) Forward Compartment	19.5 x 30.5
Baggage Door Size (in.) Rear Compartment	30 x 31

DIMENSIONS

Wing Span (ft)	37.2
Wing Area (sq ft)	207.6
Length (ft)	30.2

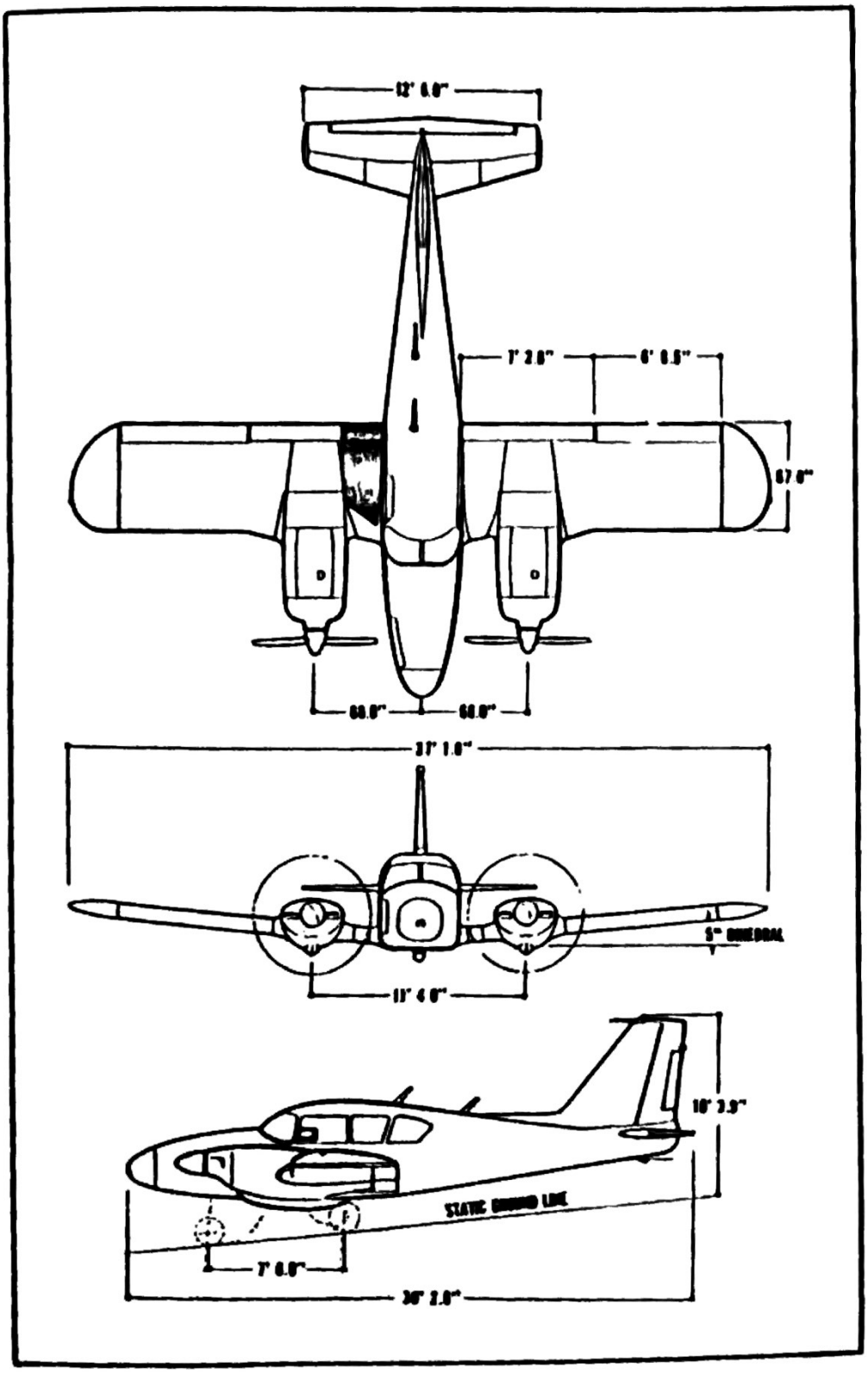
SPECIFICATIONS (cont):

DIMENSIONS

Height (ft)	10.3
Wing Loading (lbs per sq ft)	25.05
Power Loading (lbs per hp)	10.4
Propeller Diameter (max) (in.)	77

LANDING GEAR

Wheel Base (ft)		7.5
Wheel Tread (ft)		11.3
Tire Pressure (psi)	Nose	27
	Main	46
Tire Size	Nose (4 ply rating)	6.00 x 6
	Main (8 ply rating)	7.00 x 6



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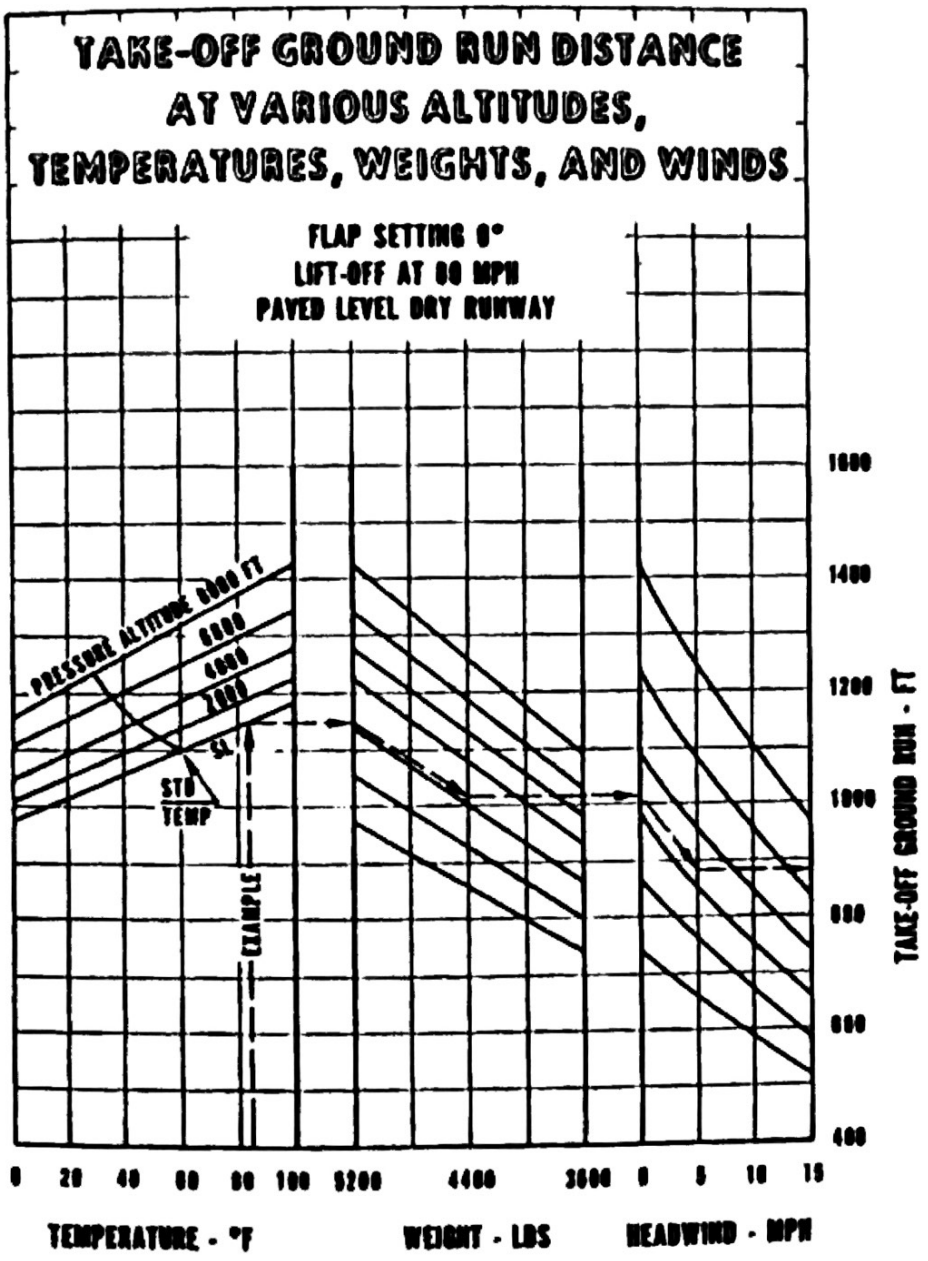

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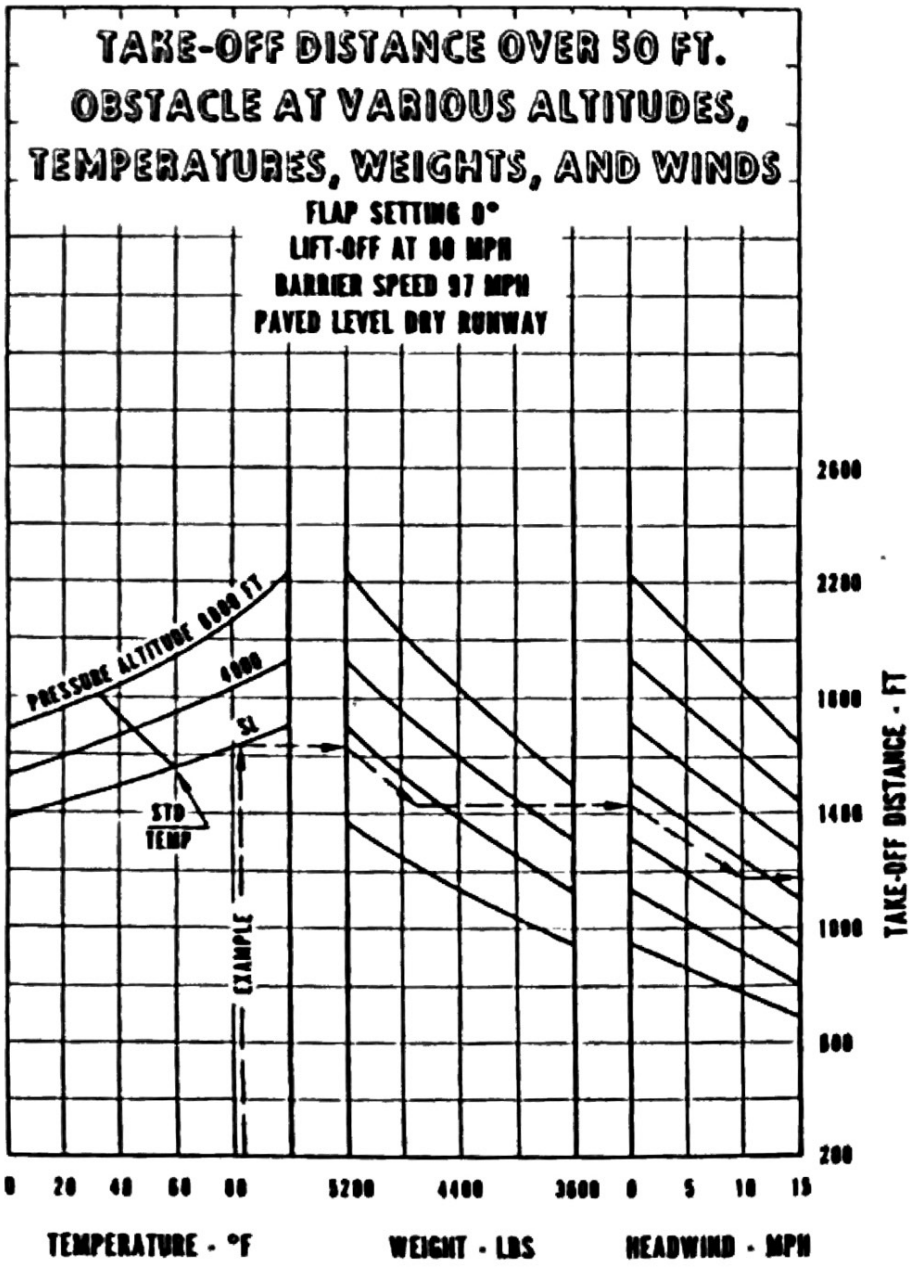

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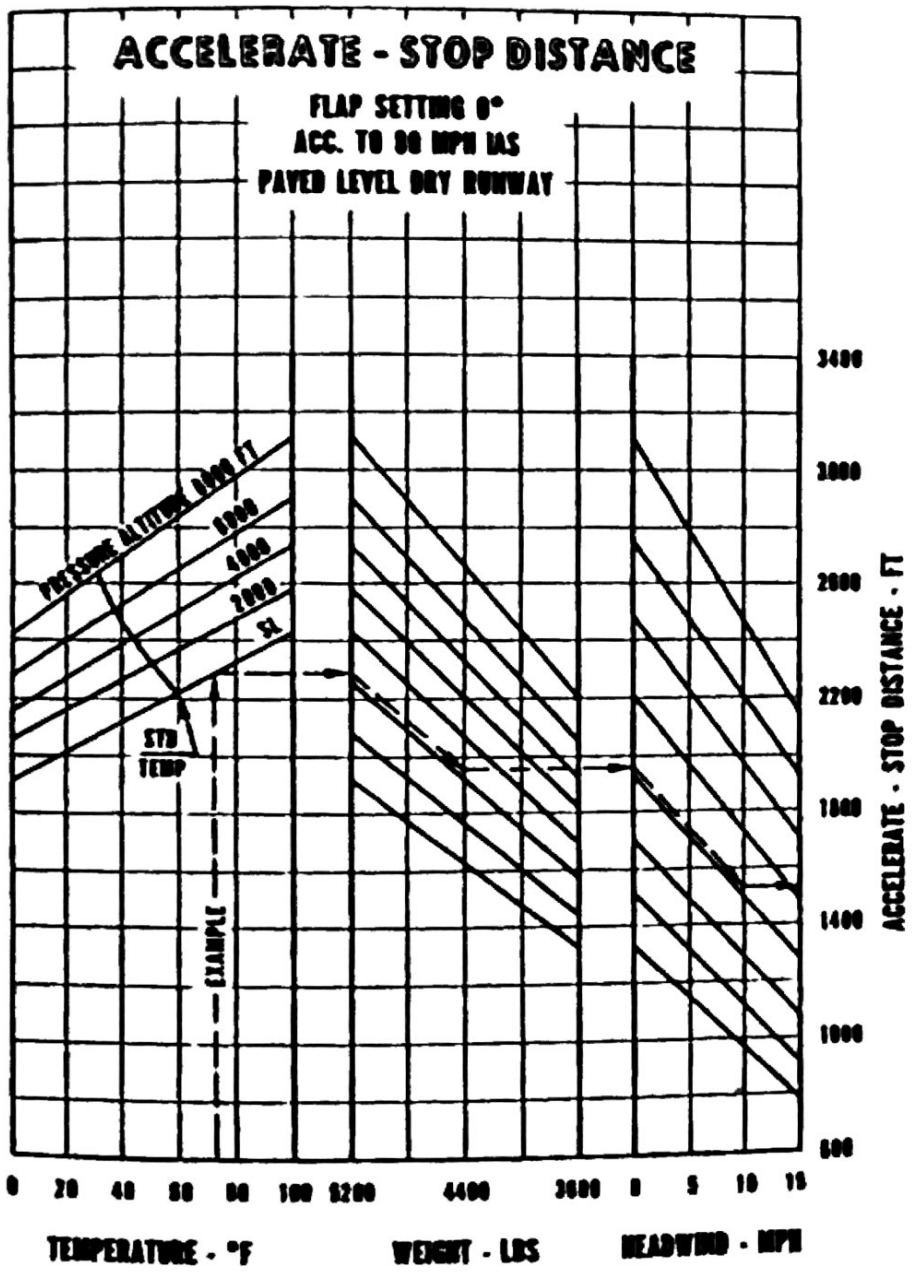

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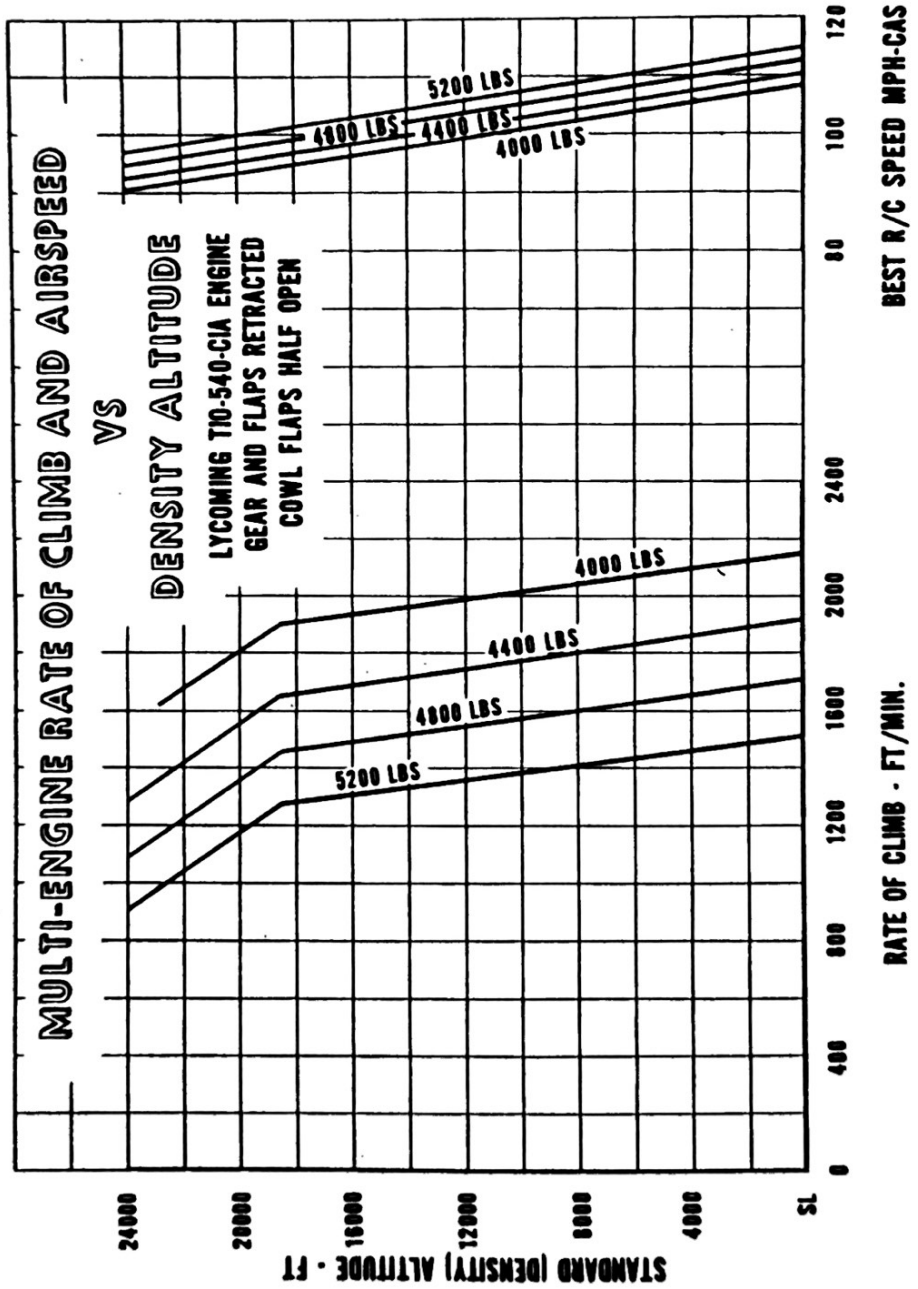

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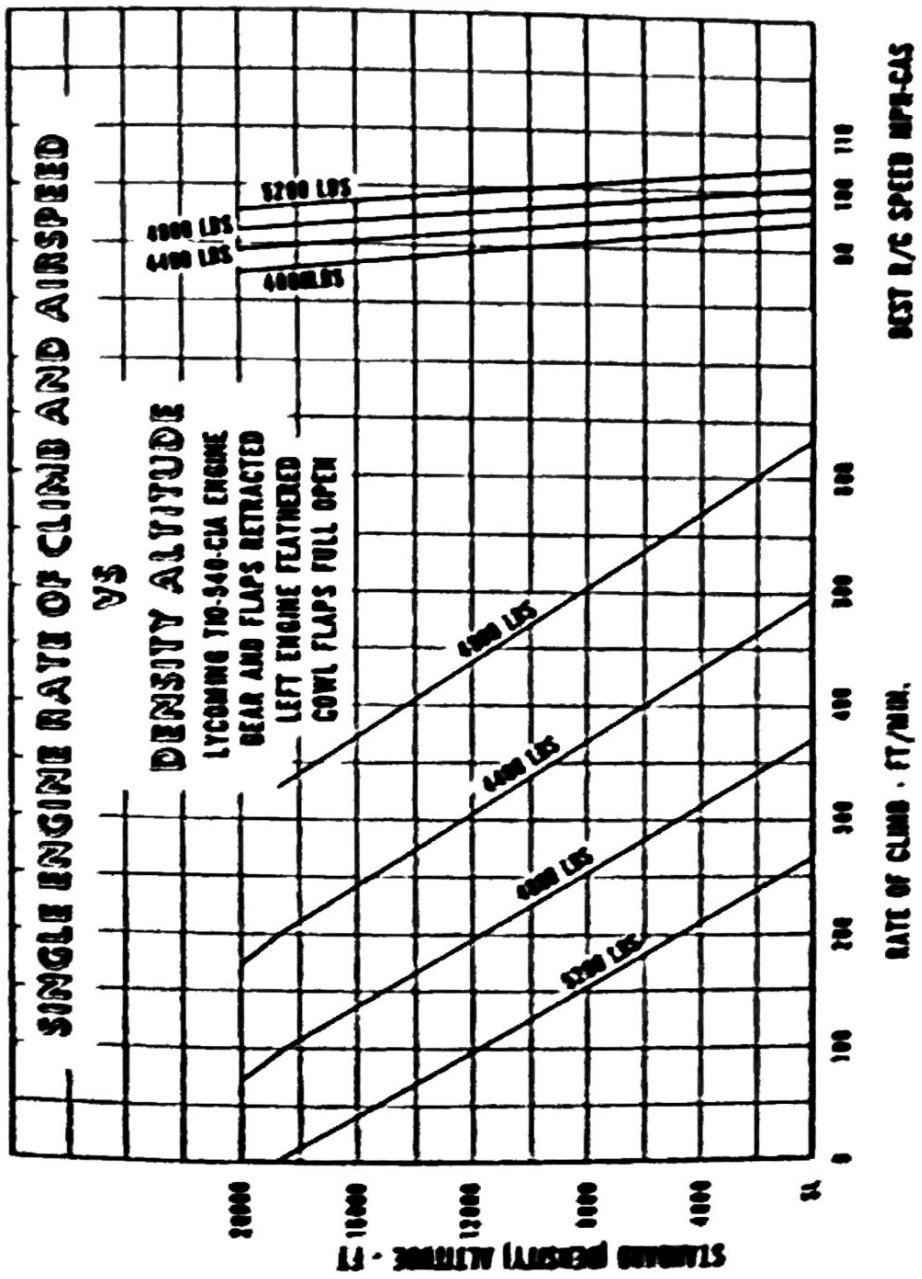

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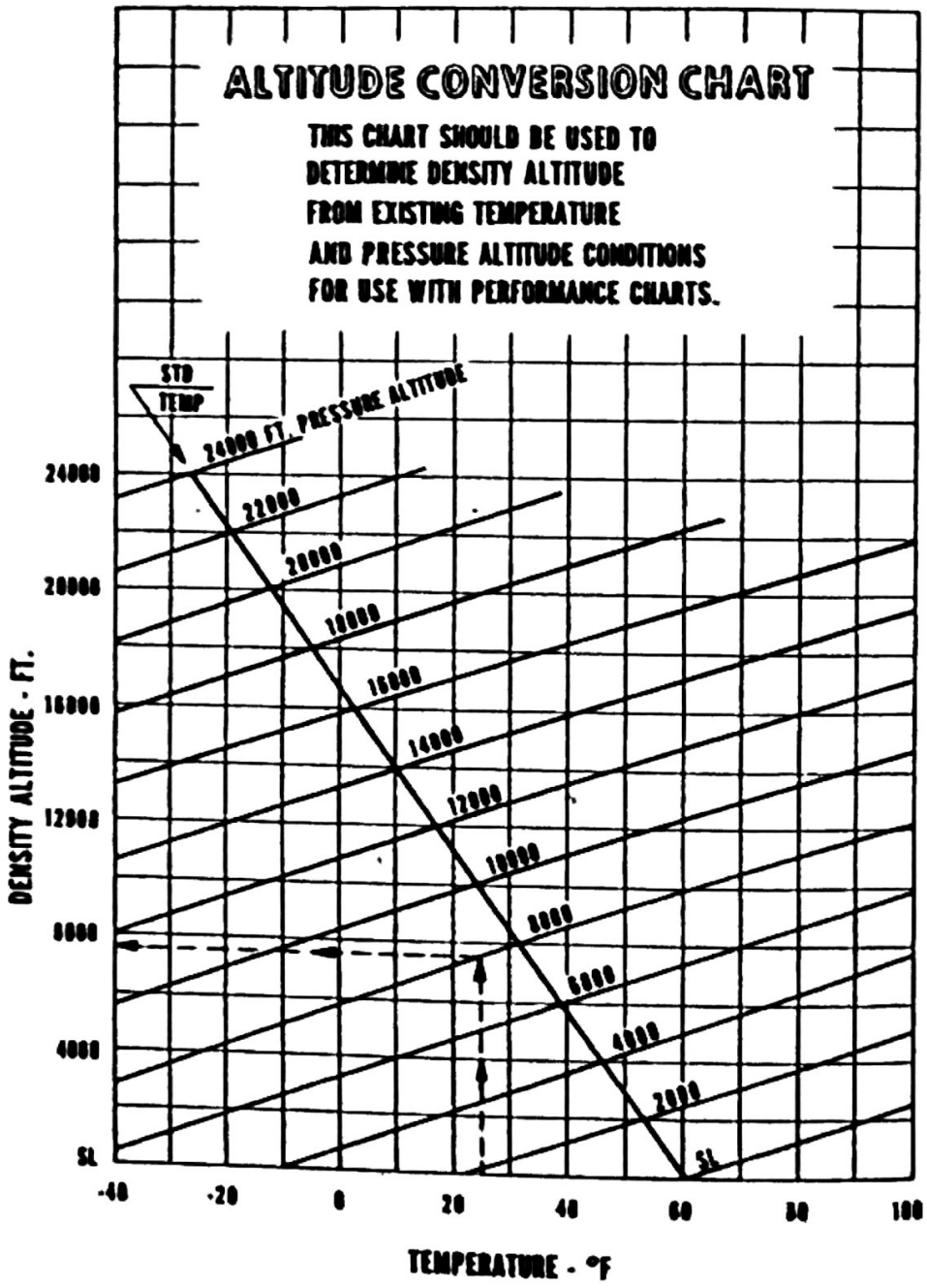

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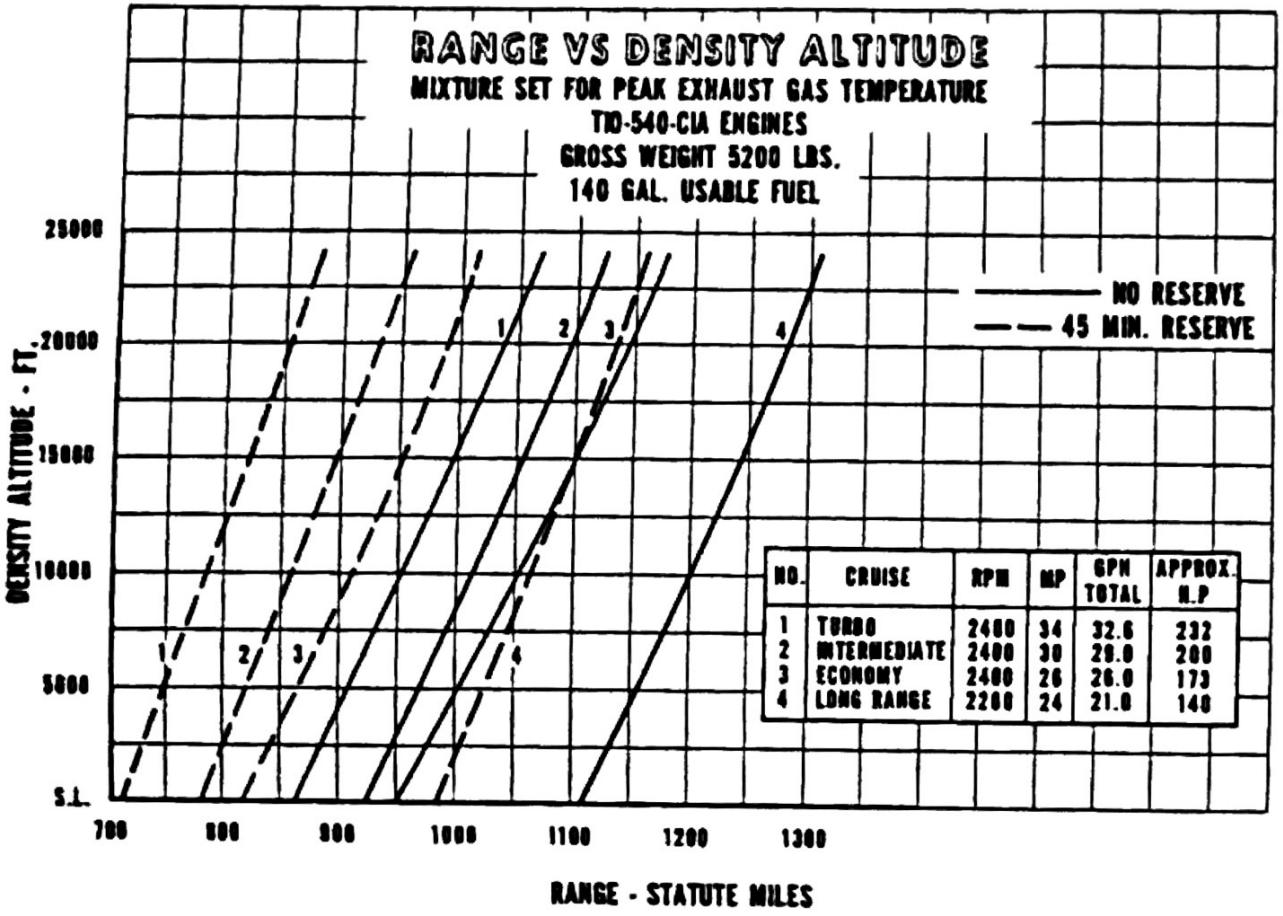

NO.	CRUISE	RPM	MP	GPH TOTAL	APPROX. H.P
1	TURBO	2400	34	32.6	232
2	INTERMEDIATE	2400	30	28.0	200
3	ECONOMY	2400	26	26.0	173
4	LONG RANGE	2200	24	21.0	140

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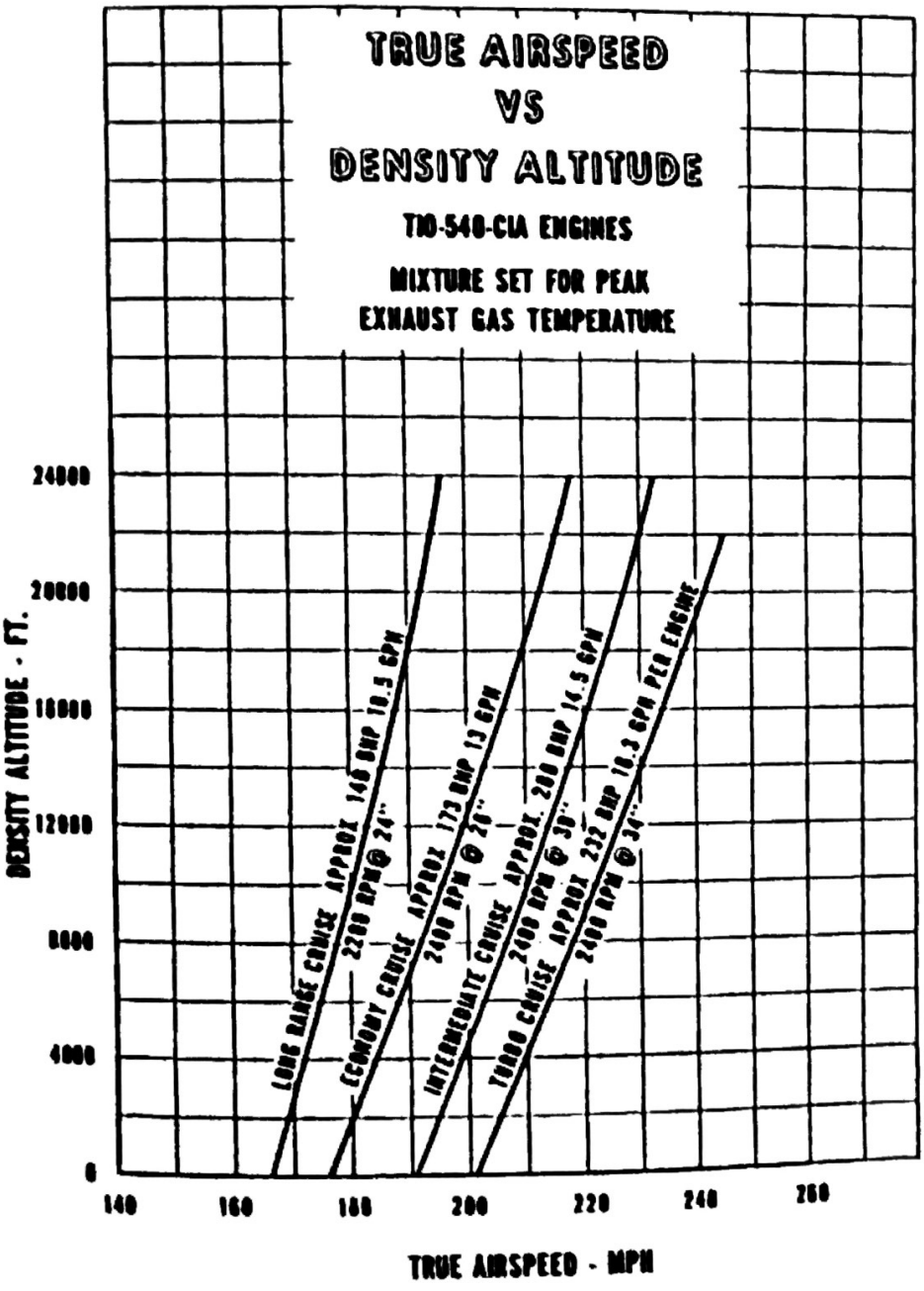

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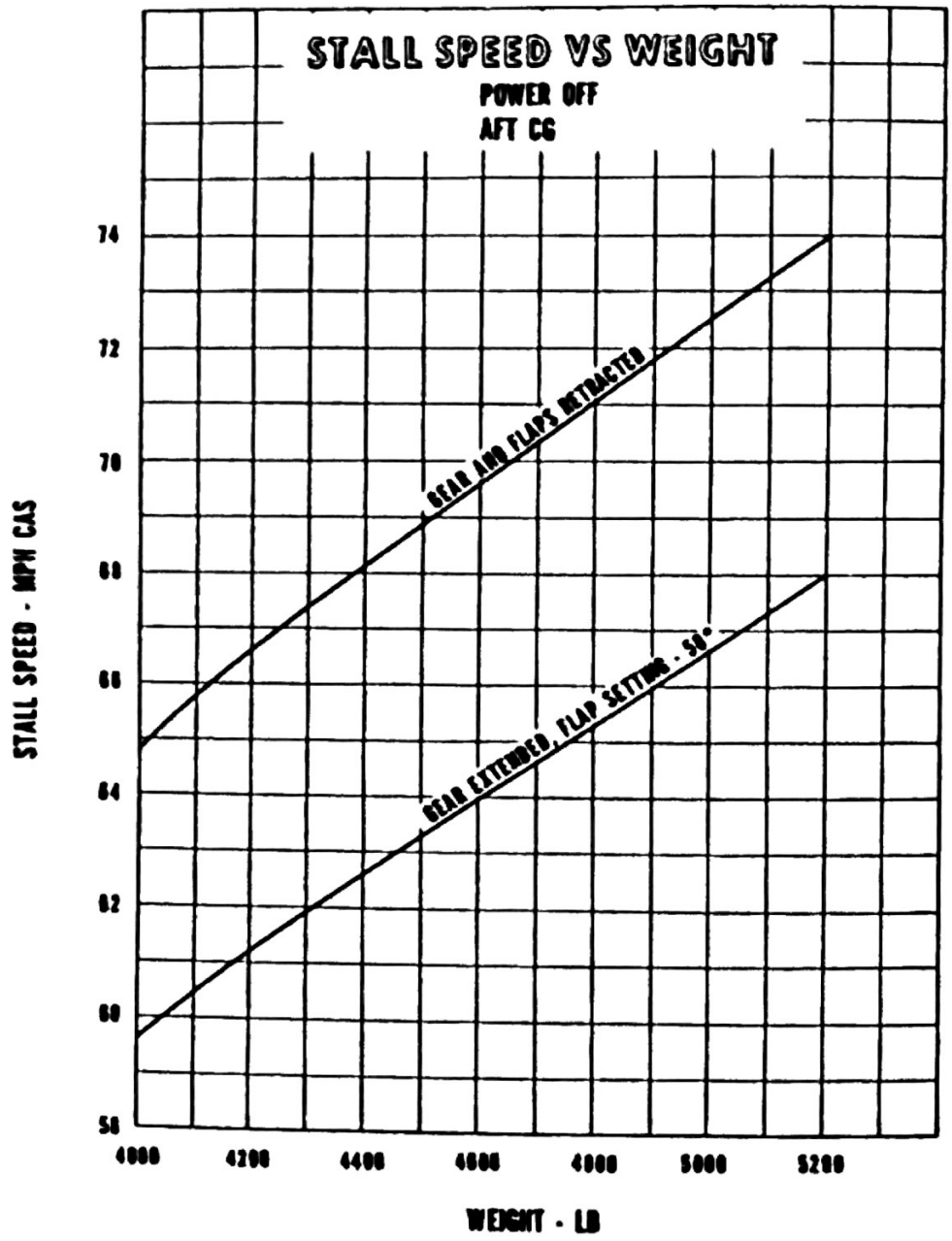

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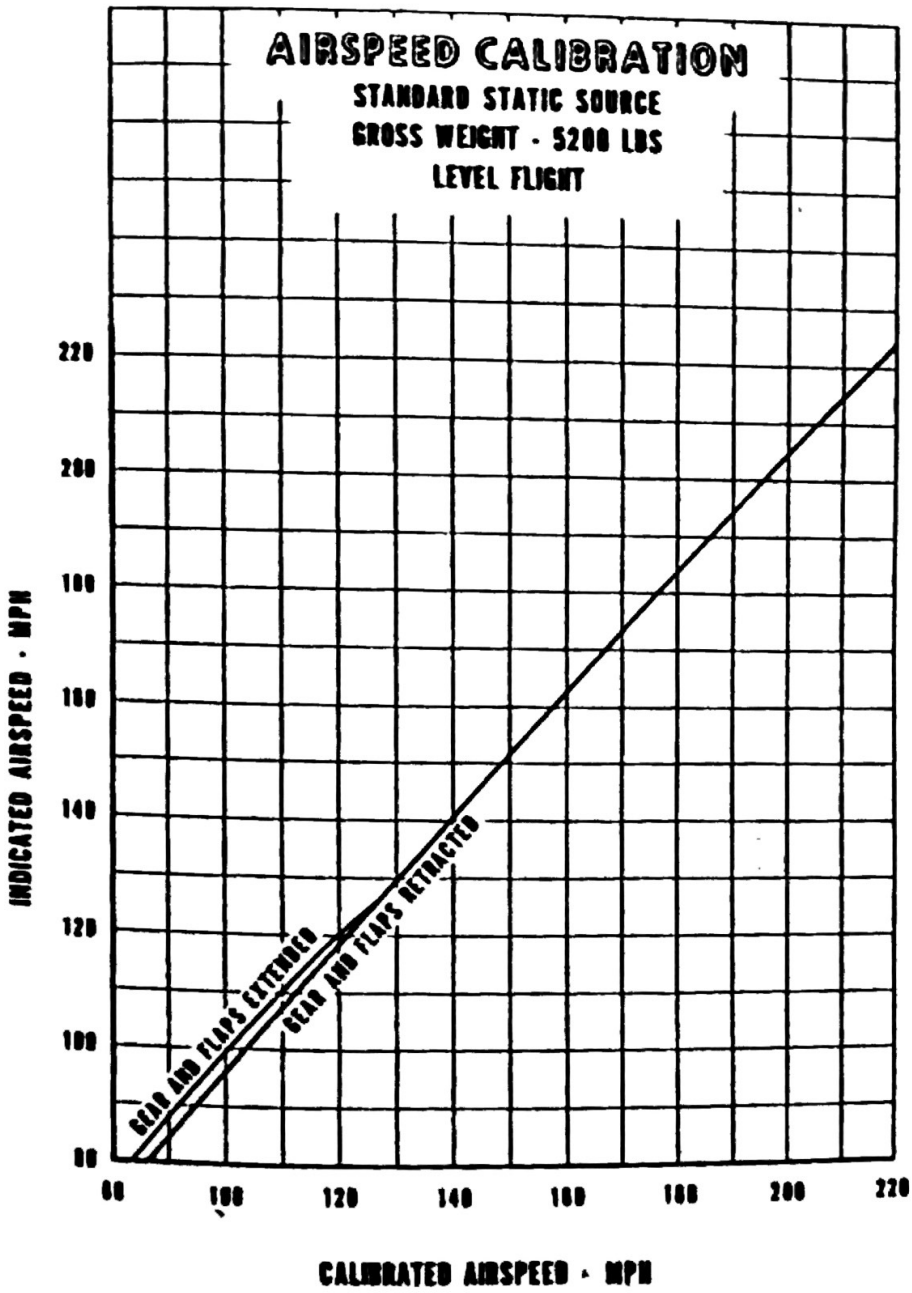

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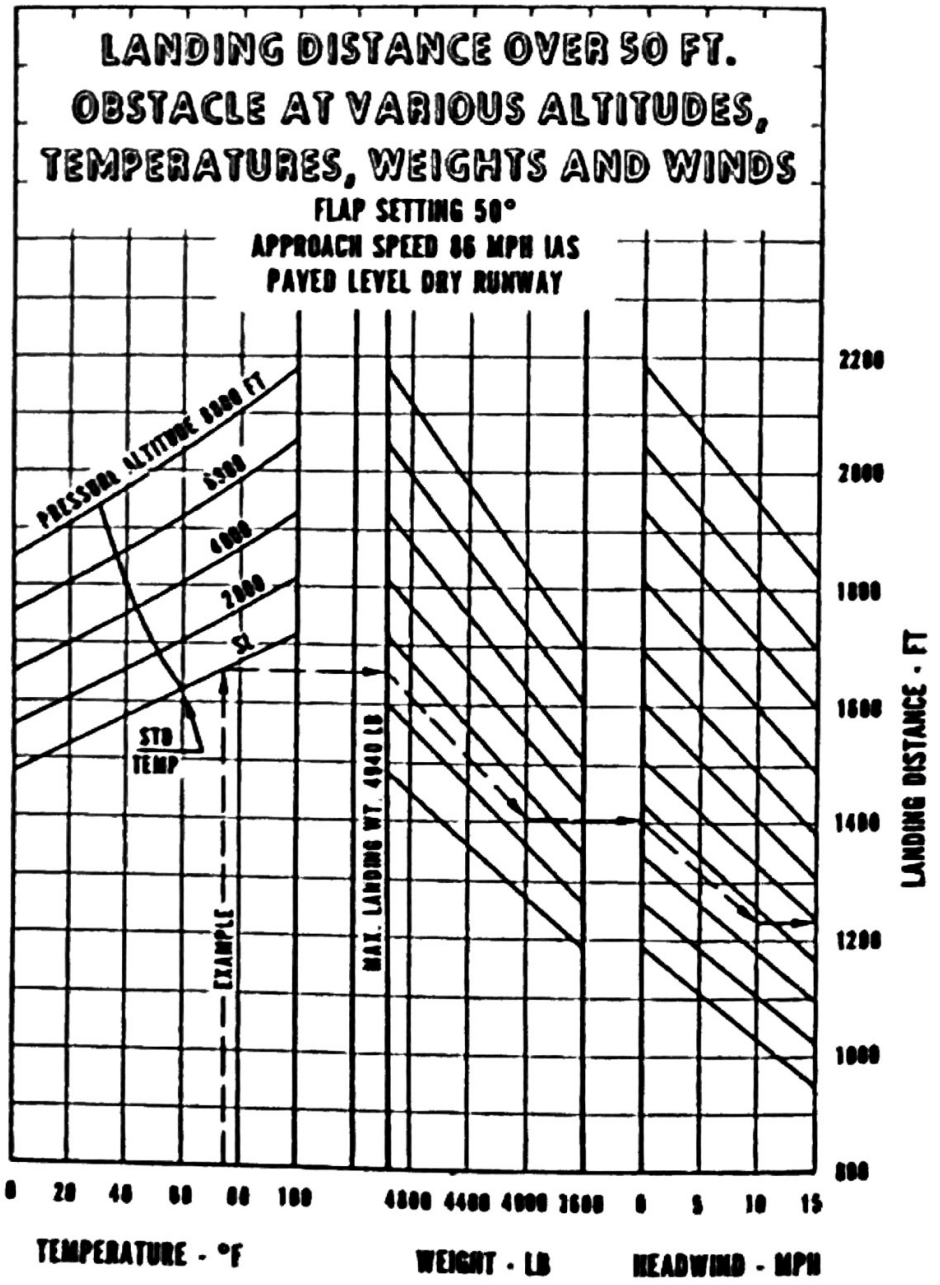

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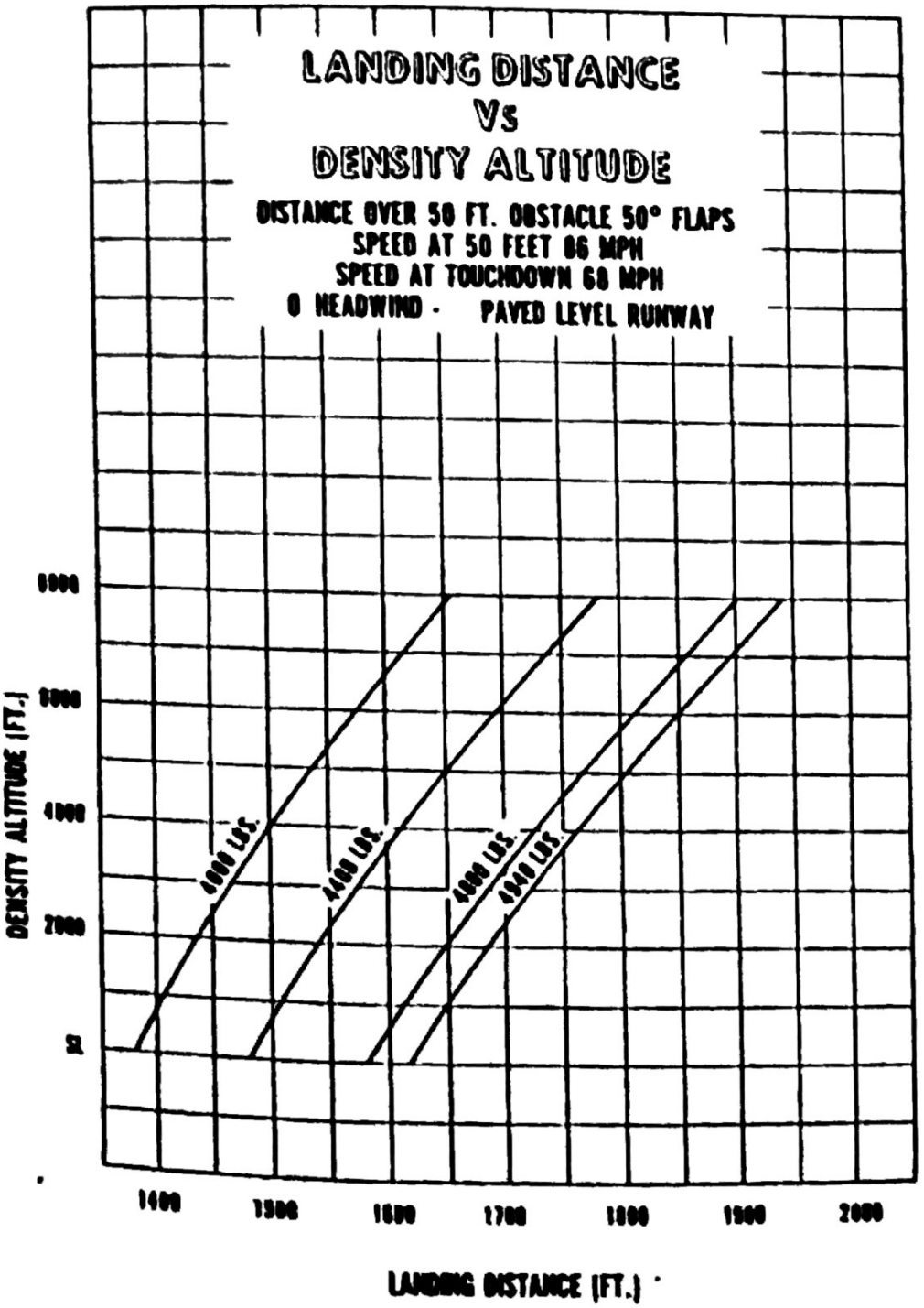

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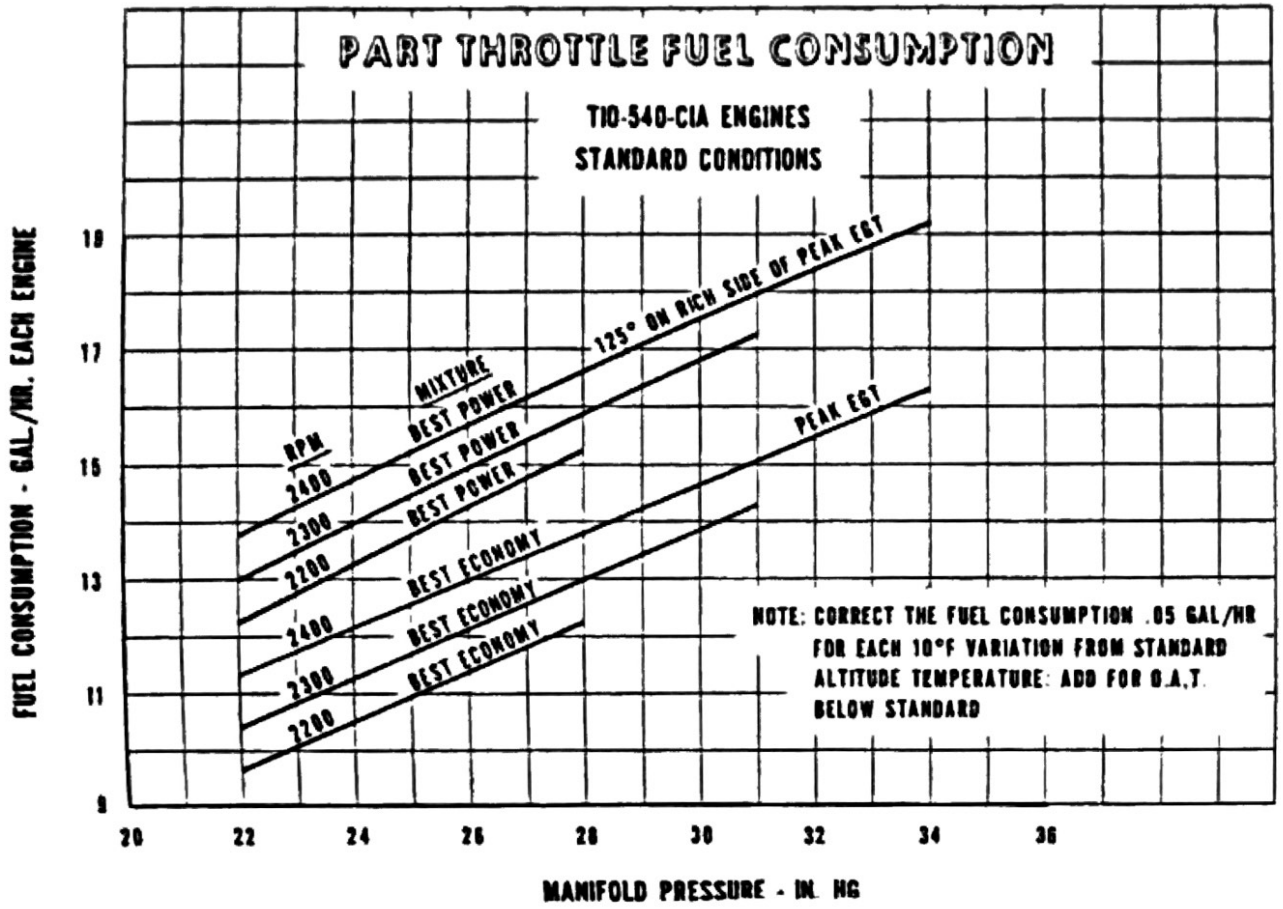

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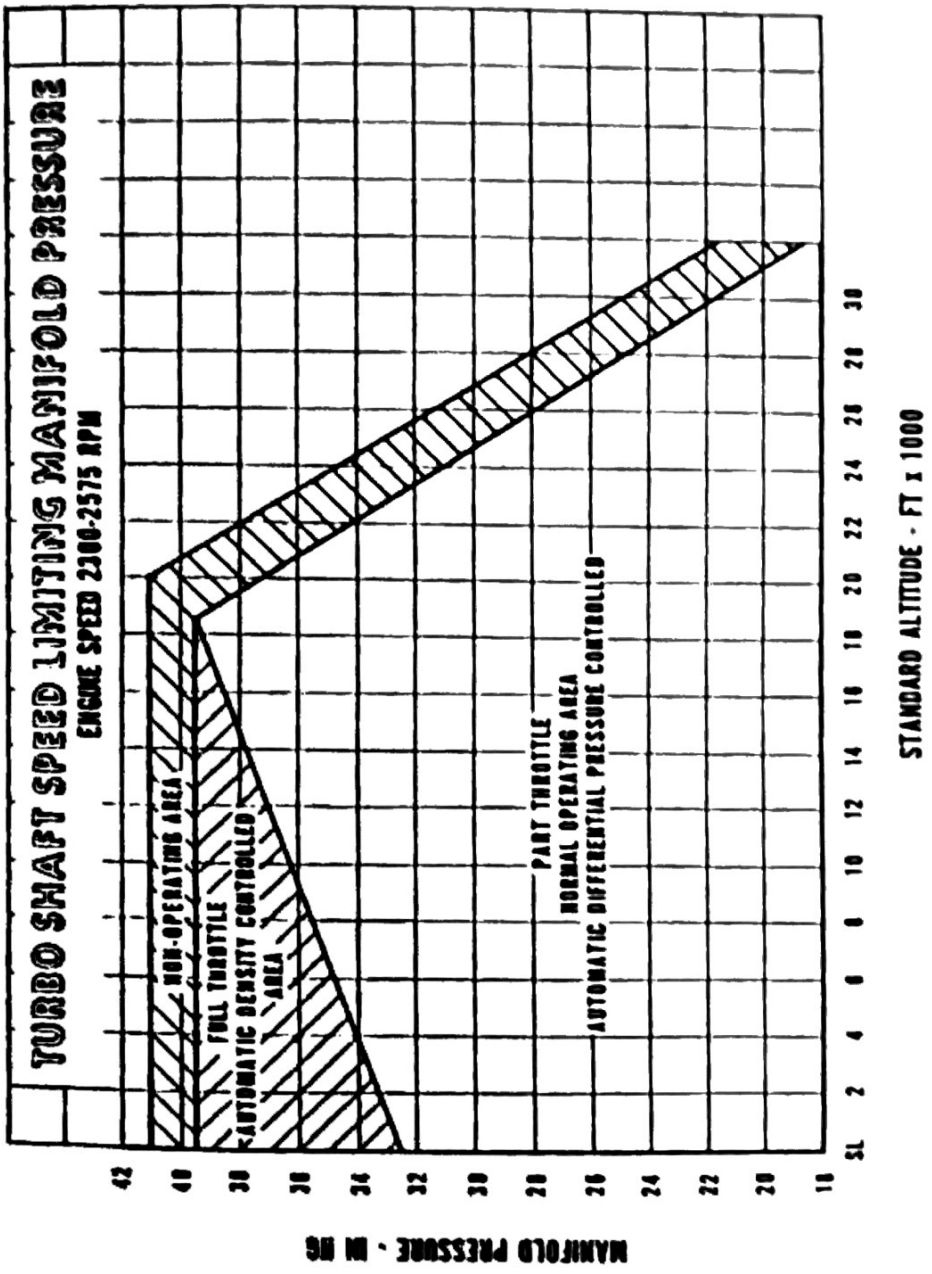

Power Setting Table (Cruise) - Lycoming Model TIO-540-C1A, 250 HP Engine

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"		