

Warrior II
PIPER

N22473



NORTH STAR FLYERS FLYING CLUB

Anoka County/Blaine Airport (KANE)

**14708 Yancy Street NE
Ham Lake, MN 55304
(763) 458-2923**

**DO NOT REMOVE FROM
AIRCRAFT**



Piper PA28-161 Warrior II
N22473 s/n 28-7916071



EMERGENCY CONTACT NUMBERS

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AIRPLANE-SPECIFIC NOTES

Tire Pressures: Nose - 30 PSI, Main - 24 PSI

Fuel: 17 gal to tabs, 24 gallons total (each tank)

GPU receptacle on right rear fuselage.

Ensure 12V/14V when using GPU or charging battery.

Fill oil in full quart increments only.

Transponder should remain on ALT at all times. Ensure 1200 after flight to prevent problems for the next pilot.

Do not leave towbar attached to nose wheel unattended.



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AIRSPEDS FOR SAFE OPERATION (KIAS)

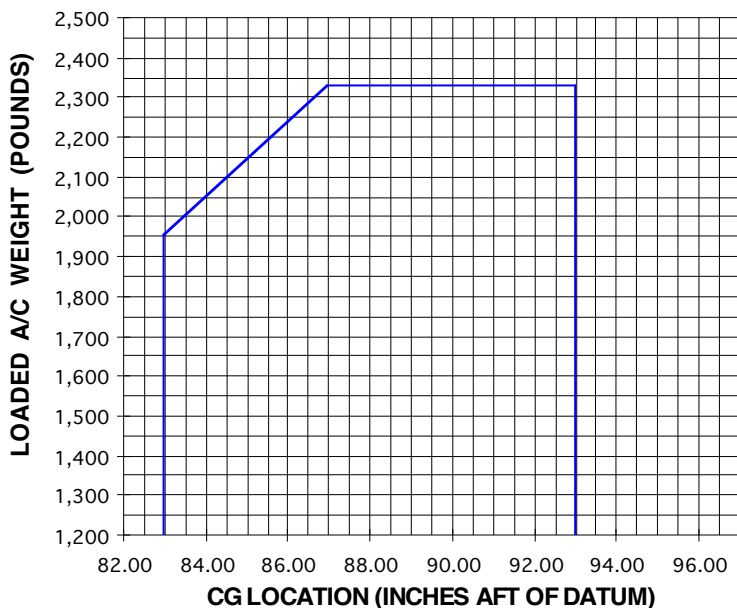
V_{SO}		44
V_{SI}		50
V_R		55
V_X		63
V_Y		79
V_F		103
V_A (MGW)		111
V_{NO}		126
V_{NE}		160
V_{ref}	(flaps up)	70
	(flaps down)	63
V_G		73
Max demonstrated crosswind		17



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LOADING CHART

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Empty Weight	1484.20	86.5	128401.6
Fuel (48 gal/238 lb max)	_____	95.0	_____
Front Seats	_____	80.5	_____
Rear Seats	_____	118.1	_____
Baggage (200 lbs max)	_____	142.8	_____
TOTAL	_____		_____



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PREFLIGHT INSPECTION

COCKPIT

Trim Tabs.....T/O RANGE
Electrical Switches OFF
Magnetos..... OFF
Carburetor Heat..... OFF
Throttle CLOSED
Mixture FULL LEAN
Circuit BreakersCHECK
Battery Switch..... ON
Fuel Gauges.....CHECK
Fuel PumpCHECK
Annunciator Panel TEST
Lights, Stall Switch.....CHECK
Battery Switch..... OFF
Flaps..... EXTEND

RIGHT WING

Flap and AileronCHECK
Wingtip and Light.....CHECK
Fuel QuantityCHECK
Fuel Vent..... CLEAR
Fuel Sump DRAIN
Wheel Strut..... 4.5”
Tire, BrakeCHECK

NOSE

Oil CHECK (5 QT MIN)
Engine Compartment ...CHECK
Cowling..... CHECK LATCHES
IntakesCHECK
Spinner and Propeller ..CHECK
Landing LightCHECK
Nose Strut..... 3.25”
Tire, Linkage.....CHECK
Fuel Sump DRAIN

LEFT WING

Wheel Strut 4.5”
Tire, Brake..... CHECK
Fuel Vent CHECK
Fuel Sump.....DRAIN
Pitot/Static Mast CHECK
Fuel Quantity..... CHECK
Wingtip and Light..... CHECK
Aileron and Flap..... CHECK

EMPENNAGE

Stabilator, Trim Tab.... CHECK
Rudder..... CHECK
Lights..... CHECK

FUSELAGE

Antennas CHECK
Baggage Door..... SECURED



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PREFLIGHT PROCEDURES

BEFORE STARTING ENGINE

Towbar, Chocks..... STOWED
 Seats, Belts..... ADJUST
 Brakes TEST AND SET
 Flaps..... UP
 Fuel Selector.. FULLEST TANK
 Primer IN AND LOCKED
 Carburetor Heat..... OFF
 Throttle CLOSED
 Mixture RICH
 Propeller Area CLEAR
 Battery Switch..... ON
 Beacon..... ON

ENGINE START (COLD)

Throttle CLOSED
 Prime..... 3-4 STROKES
 Electric Fuel Pump ON
 Starter..... ENGAGE
 Throttle ... ADVANCE 1/4 INCH

ENGINE START (HOT)

Electric Fuel Pump OFF
 Throttle IDLE
 Starter..... ENGAGE

ENGINE START (FLOODED)

Throttle FULL OPEN
 Mixture IDLE CUT-OFF
 Electric Fuel Pump OFF
 Starter..... ENGAGE
 Mixture ADVANCE AS
 ENGINE FIRES
 Throttle IDLE

BEFORE TAXI

Oil Pressure.....CHECK
 Alternator Switch..... ON
 Electric Fuel Pump OFF
 Radio Master Switch ON
 Lights AS REQUIRED
 Mixture LEAN FOR TAXI
 Directional Gyro SET
 Brakes TEST

ENGINE RUN-UP

Flight Controls CORRECT
 Instruments CHECK, SET
 Mixture RICH
 Throttle 2000 RPM
 Magnetos..... CHECK (175/50)
 Mixture LEAN CHECK
 Carburetor Heat.....CHECK
 Engine Instruments.....CHECK
 AmmeterCHECK
 Suction CHECK (4.8-5.2")
 Throttle 1000 RPM

BEFORE TAKEOFF

Door and Window..... CLOSED
 Seats, Belts..... SECURE
 Fuel Selector.. FULLEST TANK
 Trim..... TAKEOFF RANGE
 Flaps..... AS REQUIRED
 Carburetor Heat..... OFF
 Mixture RICH
 Lights AS REQUIRED
 Electric Fuel Pump ON
 Radios, Transponder SET
 Annunciator PanelCHECK
 Brakes RELEASE



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FLIGHT PROCEDURES

NORMAL TAKEOFF

Flaps..... UP
Throttle..... FULL OPEN
Engine Instruments..... CHECK
Rotation Speed..... 55 KIAS
Climb 63 KIAS (V_x)
79 KIAS (V_y)

SHORT FIELD TAKEOFF

Flaps..... 25 DEGREES
Brakes HOLD
Throttle..... FULL OPEN
Brakes RELEASE
Rotation Speed..... 52 KIAS
Climb 63 KIAS (V_x)
Obstacles Clear .. 79 KIAS (V_y)
Flaps..... UP

SOFT FIELD TAKEOFF

Flaps..... 25 DEGREES
Throttle..... FULL OPEN
Elevator..... UP
After Liftoff..... 63 KIAS (V_x)
79 KIAS (V_y)
Flaps..... UP

CLIMB (1000 FT CHECKS)

Airspeed..... 80-90 KIAS
Flaps..... UP
Electric Fuel Pump OFF
Lights AS REQUIRED

CRUISE

Power AS REQUIRED
Mixture LEAN (100° ROP)
Lights AS REQUIRED

**Note: 75% maximum
continuous cruise power**

DESCENT

Altimeter..... SET
Carburetor Heat..... AS REQ'D
Power AS REQUIRED
Mixture ENRICH AS REQ'D

BEFORE LANDING

Fuel Selector.. FULLEST TANK
Electric Fuel Pump ON
Lights AS REQUIRED
Mixture RICH
Carburetor Heat..... AS REQ'D
Seats, Belts..... SECURED
Brakes..... RELEASED

NORMAL LANDING

Flaps. DOWN (103 KIAS MAX)
Airspeed..... 70 KIAS CLEAN
63 KIAS DIRTY

SHORT FIELD LANDING

Flaps. DOWN (103 KIAS MAX)
Airspeed..... 63 KIAS
Flaps..... RETRACT ON RWY



FLIGHT PROCEDURES

BALKED LANDING

Carburetor Heat..... OFF
Power FULL THROTTLE
Flaps..... 25 DEGREES
Airspeed..... 79 KIAS (Vy)
Flaps..... RETRACT

AFTER LANDING

Flaps..... UP
Carburetor Heat..... OFF
Transponder 1200
Electric Fuel Pump OFF
Lights AS REQUIRED
Mixture LEAN FOR TAXI

SECURING AIRCRAFT

Radio Master Switch OFF
Electrical Switches OFF
Lights ... OFF EXCEPT BEACON
Magnetos..... GROUND CHECK
Mixture IDLE CUT-OFF
Magnetos..... OFF
Master Switch..... OFF
Control Lock..... AS REQUIRED
Oil Heater AS REQUIRED

**Note aircraft tach and Hobbs
times and any squawks in
aircraft book and on
electronic chit form**



EMERGENCY PROCEDURES

**ENGINE FIRE
DURING START**

Engine .CONTINUE CRANKING

If Engine Starts:

Power 1000 RPM (1-2 MIN)
Engine .. NORMAL SHUTDOWN

If Engine Fails to Start:

Throttle FULL OPEN
Mixture IDLE CUT-OFF
Master Switch..... OFF
Magneto Switch..... OFF
Fuel Selector OFF
Aircraft ABANDON
FireEXTINGUISH

ENGINE FIRE IN FLIGHT

Fuel Selector OFF
Throttle CLOSE
Mixture IDLE CUT-OFF
Electric Fuel Pump OFF
Master Switch..... OFF
Magneto Switch..... OFF
Cabin Air and Heat OFF
Vents OPEN

Do not attempt engine restart

**ELECTRICAL FIRE
(SMOKE IN CABIN)**

Master Switch..... OFF
Electrical Switches OFF
Vents CLOSED
Cabin Heat..... OFF
FireEXTINGUISH

**ELECTRICAL FIRE
(CONTINUED)**

If fire is extinguished:

Circuit BreakersCHECK
Master Switch..... ON
Electrical Switches ON
Vents OPEN

WING FIRE

Navigation Lights OFF
Landing/Taxi Lights OFF
Pitot Heat OFF

**Sideslip to keep flames away
from fuel tank and cabin
Land as soon as possible**

ENGINE FAILURE - TAKEOFF

Throttle CLOSED
Brakes APPLY

ENGINE FAILURE - FLIGHT

If sufficient altitude:

Airspeed..... 73 KIAS
Carburetor Heat..... ON
Mixture ADJUST
Electric Fuel Pump ON
Fuel Selector .CHANGE TANKS
Magnetos.....CHECK
PrimerLOCKED



EMERGENCY PROCEDURES

POWER OFF LANDING

Airspeed..... 73 KIAS
Throttle CLOSED
Fuel Selector OFF
Magneto Switch OFF
Mixture IDLE CUT-OFF
Master Switch..... OFF
Seat Belts SECURE
Door..... UNLATCH
Flaps..... AS REQUIRED

Glide Range: 1.7 nm/ 1000 ft

ROUGH ENGINE

Carburetor Heat..... ON

No change for 1 minute:

Carburetor Heat..... OFF
Mixture ADJUST
Electric Fuel Pump ON
Fuel Selector .CHANGE TANKS
Magnetos..... L-R-BOTH

ALTERNATOR FAILURE

Circuit Breakers CHECK
Master Switch..... CYCLE

If condition persists/recurs:

Master Switch..... OFF
Nonessential Electrics..... OFF

EMERGENCY DESCENT

Throttle IDLE
Airspeed..... 126 KIAS

SPIN RECOVERY

Throttle IDLE
Ailerons..... NEUTRAL
Rudder FULL OPPOSITE

When Rotation Stops:

Rudder NEUTRAL
Elevator..... FORWARD

Recover from dive

NOTE: Intentional spins are prohibited

LANDING WITH FLAT TIRE

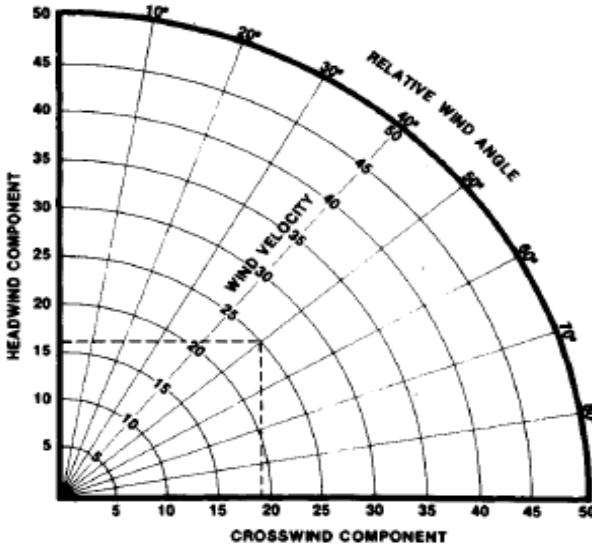
Approach NORMAL
Land GOOD TIRE FIRST



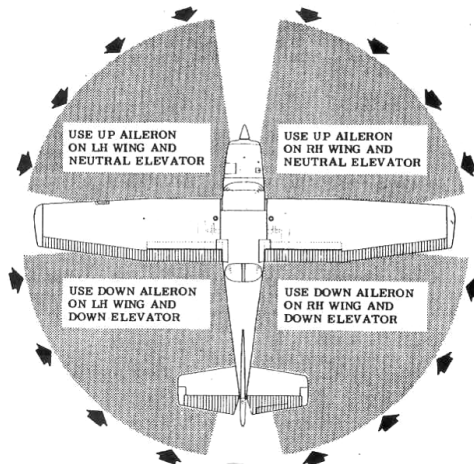
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Crosswind Component Chart



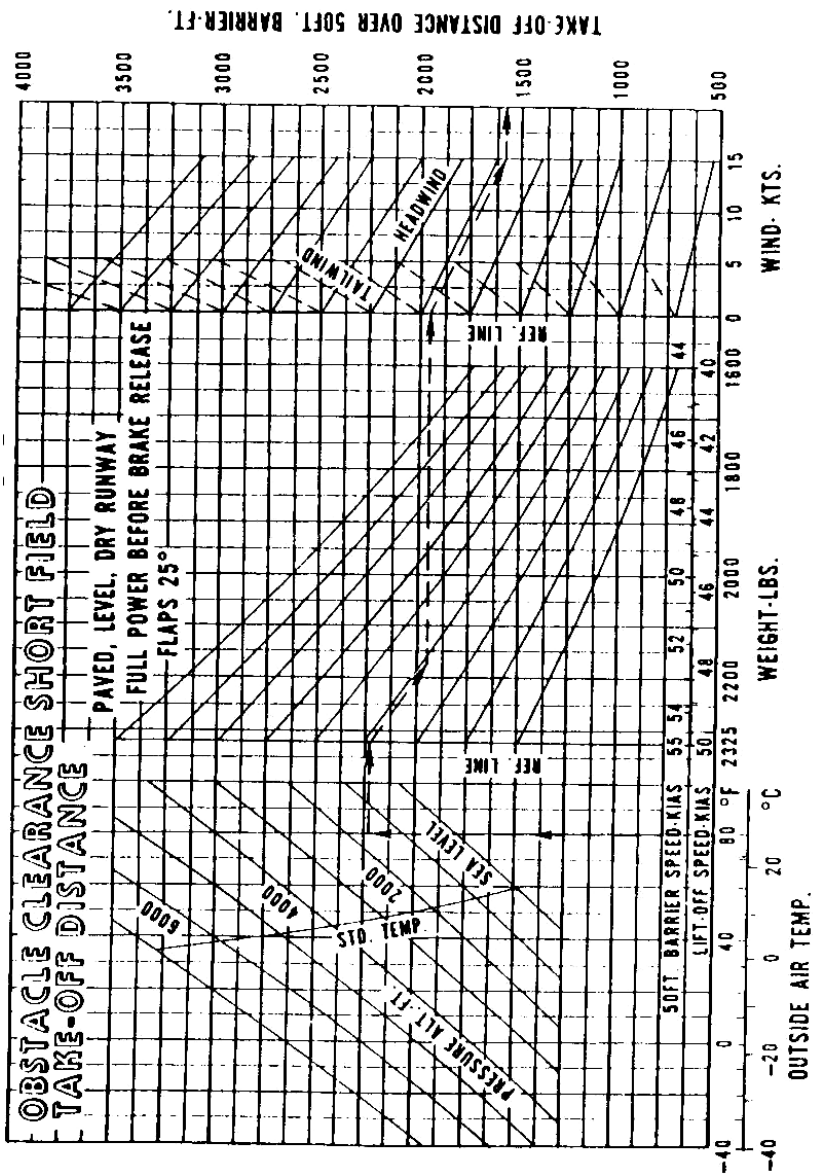
TAXIING DIAGRAM



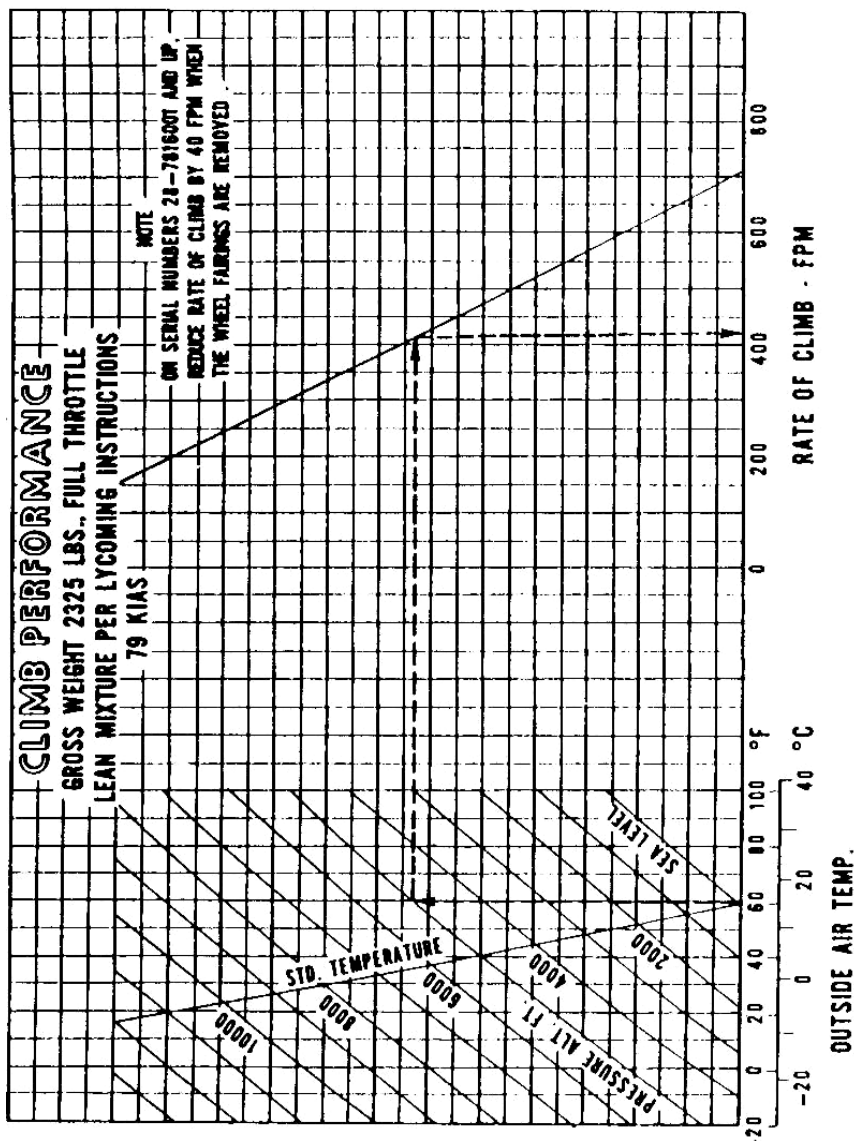
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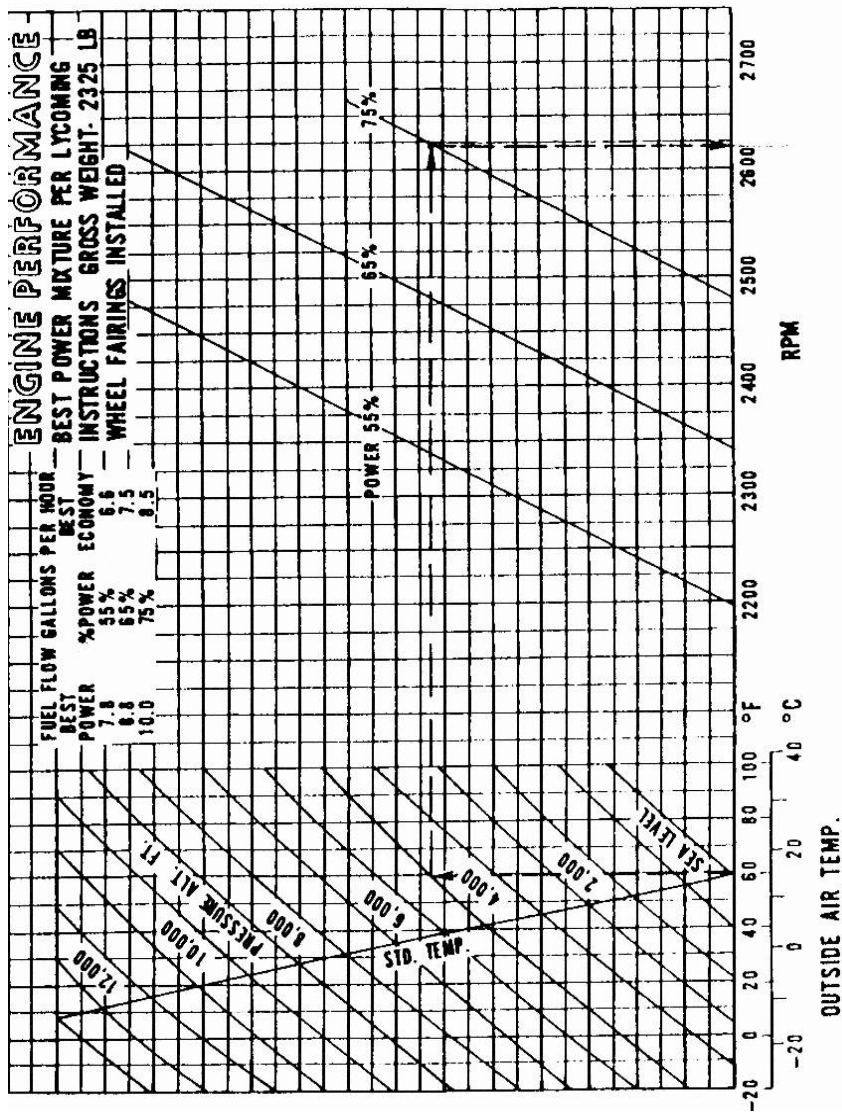


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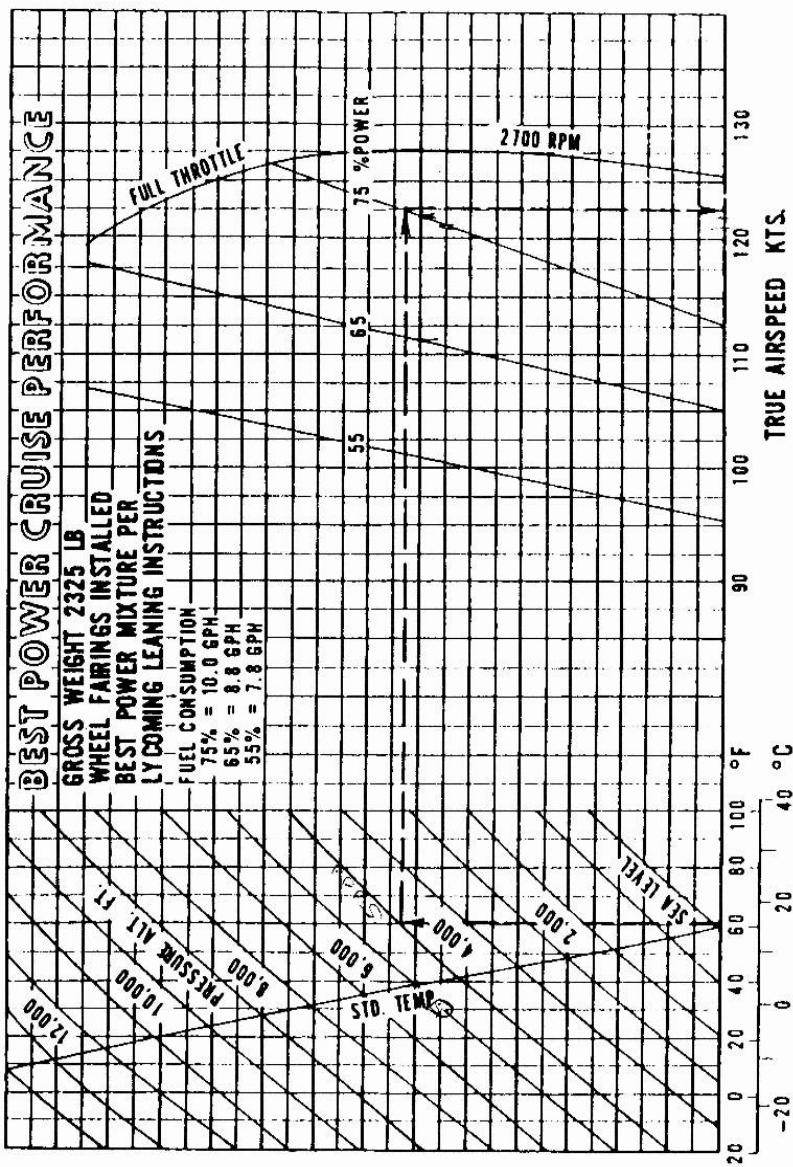


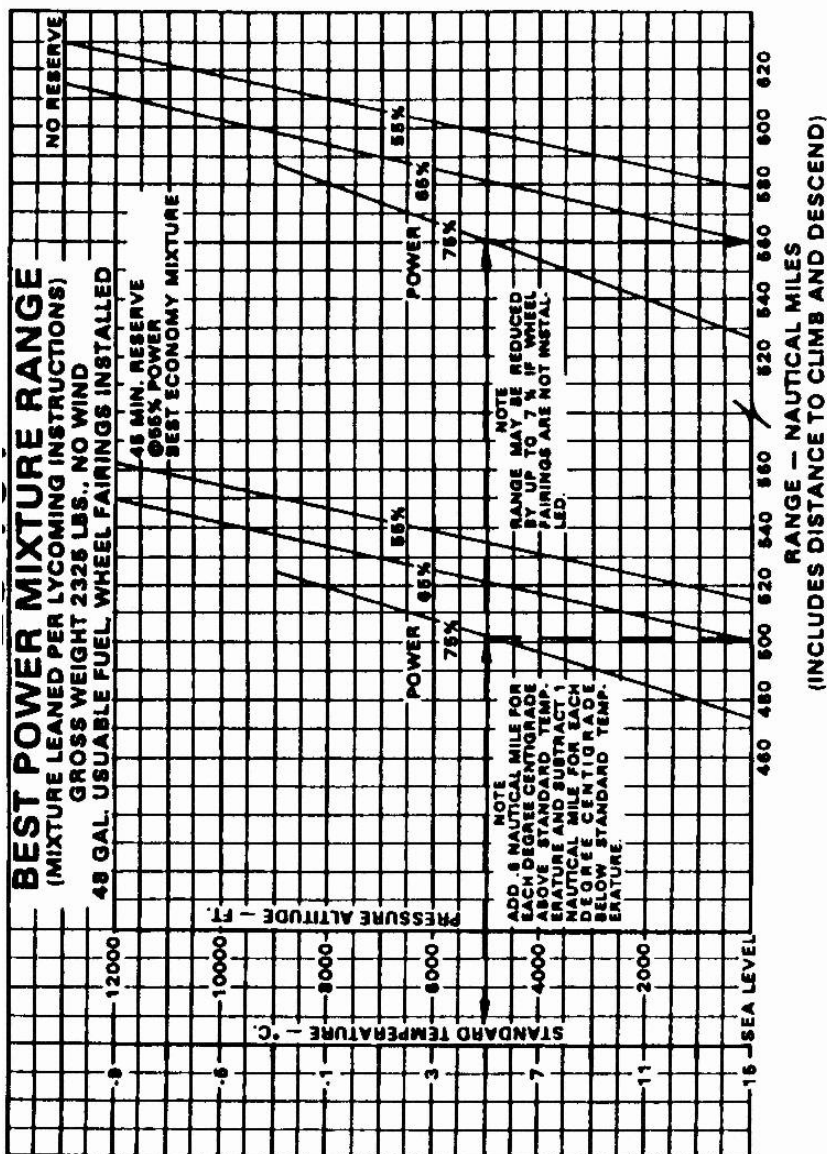
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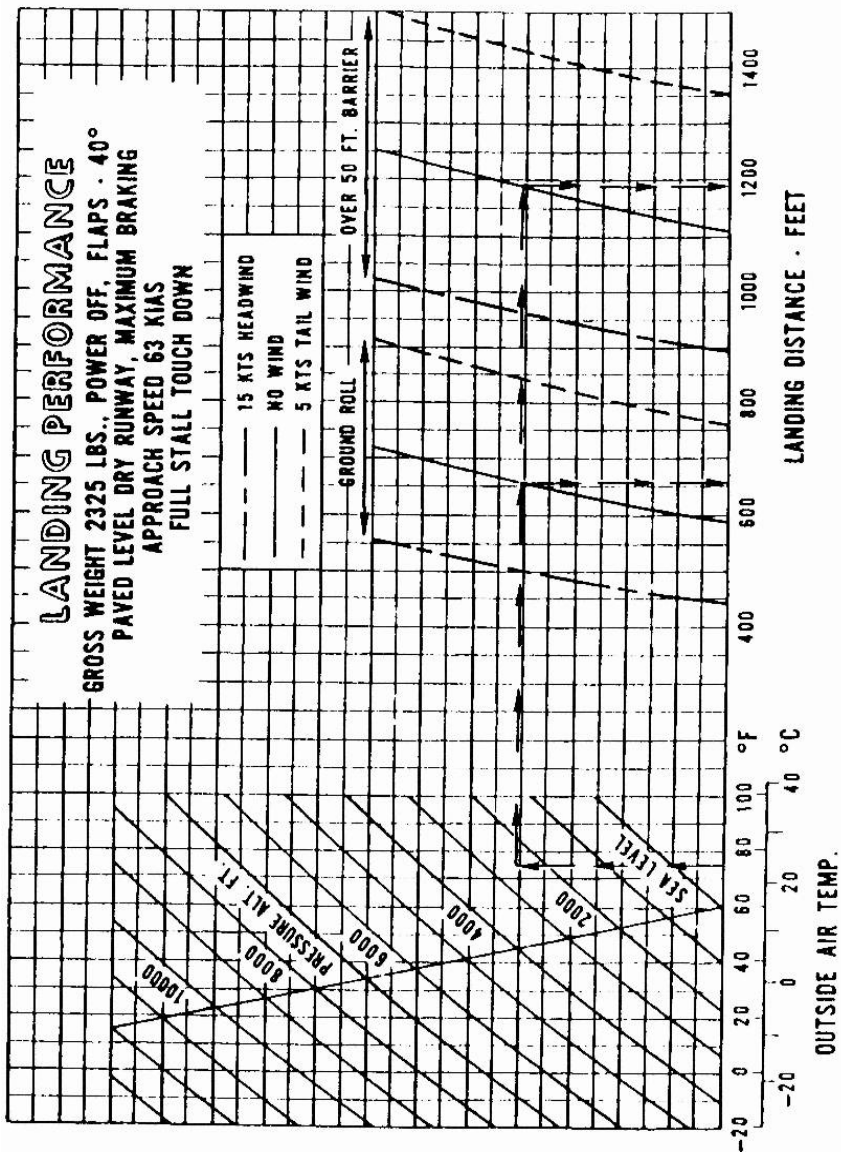
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