

**EMERGENCY EMERGENCY EMERGENCY**

**Rough Engine-Turn Fuel Pump On, Carb Heat On**

Land	Ahead
Air Speed	44 KTS IAS
Throttle	OFF . PULL
Fuel Pump	OFF
Alt. Gen. Batt	OFF
Fuel Valve	OFF . PULL
Ignition	OFF
Canopy	UNLOCK

**Engine Failure During Take Off**

Throttle	FULL
Cruise Climb	80 KTS IAS
Flaps	0 deg.
Fuel Pump	OFF 1000 FT. AGL
Engine Gages	MONITOR

**Carb heat may be used during all flight phases**

Throttle	4800-5200 RPM
Trim	FOR LEVEL
Engine Gages	MONITOR
Oil Heat	AS NEEDED

**Carb heat may be used during all flight phases**

Throttle Va	90KTS AS NEEDED
Trim	AS NEEDED
Carb Heat	AS NEEDED
Oil Heat	AS NEEDED

**Carb heat may be used during all flight phases**

Fuel Pump	ON
Throttle	3800
Flaps	White Arc, 15 DEG.
Trim	60 KTS IAS
Carb Heat	AS NEEDED
Oil Heat	LEVER IN OFF

**Final Approach**

Fuel Pump	ON
Carb Heat	AS NEEDED
Flaps	15-40 DEG.
Air Speed	55 KTS IAS

**Carb heat may be used during all flight phases**

Throttle	FULL
Pitch	CLIMB
Flaps	15 DEG
Carb Heat	AS NEEDED
Airspeed	53-58 KTS IAS

**Carb heat may be used during all flight phases**

Fuel Pump	OFF
Flaps	0 DEG.
Transponder	STBY

**Carb heat may be used during all flight phases**

Toggles	Shut Down
Throttle	BATT, GEN, ALT: ON
Ignition Key	ALL OTHERS: OFF
Toggles	BACK . IDLE
Parking Brake	OFF; REMOVE KEY
Fuel	BATT, GEN, ALT: OFF
	AS NEEDED
	OFF. . PULL OUT

**Carb heat may be used during all flight phases**

Brakes	CHECK OPS
Control Stick	SET FOR WIND DIR.
Turn Coordinator	CHECK OPS
Directional Gyro	CHECK OPS
Artificial Horizon	CHECK OPS

**While Taxiing**

Run Up Area	C.I.G.-A.R.R.S.
Controls (Flight)	FREE. CLEAR. CORRECT
Instruments	SET Altimeter. DG and AH
Gas	ON. In
Attitude	TRIM set for take-off
Radios	SET, Check OBS
Run Up	Oil Temp ABOVE 122 deg 4000 RPM -300 drop-150 diff. CHECK Eng Gages, Carb Heat CHECK Idle
Safety	Seat Belts ON. Canopy LOCKED

**Before Entering the Runway**

Lights	STROBE LIGHTS On POSITION LIGHTS On Night TAXI LIGHT As Needed LANDING LIGHT As Needed INSTRUMENT LIGHTS As Need GPS Display Back Light Set
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**Locks**

Canopy, Seat Belts, Windows, Baggage	
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**Transponder**

ALT. 1200	
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**Check**

Sweep the Panel Breakers, Toggles, Eng Gages, Instruments OIL HEAT LEVER IN . OFF FUEL PUMP ON FLAPS 0 - 15 deg PARKING BRAKE OFF PATTERN CHECK CLEAR	
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**Carb heat may be used during all flight phases**

Take-Off	
Vx	53 KTS IAS
Vy	58 KTS IAS
Vglide	58 KTS IAS
Va	90 KTS IAS
Max Cross - wind	11.7 KTS

**Before Starting**

Walk Around	COMPLETE per POH
Weight & Balance	CHECK
Documents	A.R.O.W
Hobbs	NOTED
Fuel	QUANTITY, SUMPED
Fluids	OIL, COOLANT, BRAKE
Chocks/Tie-down	REMOVED
Tow Bar	STOWED
Canopy	CLOSED.LOCKED
Seat Belts	ON.LOCKED
Headsets	ON.PLUGGED IN
Trim	SET FOR TAKE-OFF
Flaps	0 DEG FOR TAXI
Center Console	LEVERS ALL IN
Ignition Key	OFF
Throttle	IDLE.BACK
Toggles	OFF. ALL DOWN
Circuit Breakers	SET. ALL IN
Parking Brake	OFF. Use Toe Brakes

**Engine Start**

Battery	ON
Generator	ON
Alternator	ON
Engine Monitor	BOOTED
Fuel Pump	ON. Green Arc Then OFF
Choke	ON For cold start
Throttle	IDLE. Back to stops
Prop Area	CLEAR
Ignition Key	START
Throttle	SLIGHT FWD 1/4"
Idle	2000-2500 RPM
Oil Pressure	+ 29 PSI
Choke	OFF Idle 2000-2500 RPM
Idle	MAX 2500rpm until + 122 deg oil temp

**Carb heat may be used during all Taxi phases**

**Before Taxi**

Avionics Master	ON
Gyros	ON. Cage
Strobes for taxi	ON. Day Ops OFF Night Ops
Position Lights	ON. Night Ops
Landing Lights	AS NEEDED
Taxi Lights	AS NEEDED
Inst. Lights	AS NEEDED
Oil Heating Lever	AS NEEDED
Transponder	STAND BY
Radio	TUNE. Adj. Squelch Voi.
GPS	ENTER Flight Plan

**Engine-Turn Fuel Pump On, Carb Heat On**

Fuel Valve	OFF . PULL
Ignition	OFF
Canopy	UNLOCK

**Engine Failure During Flight**

Vglide	58 KTS IAS NO FLAPS
Heading	EMERGENCY LANDING SITE
Fuel Pump	ON
Fuel Valve	OPEN . IN
Carb Heat	ON . PULL
Throttle	BACK . IDLE
Ignition	START
Choke	As NEEDED

**Engine-Turn Fuel Pump On, Carb Heat On**

MAYDAY	121.5
Vglide	58 KTS IAS NO FLAPS
Short Final	48 KTS IAS
Flaps	40 DEG
Throttle	OFF . PULL
Fuel Pump	OFF
Alt. Gen. Batt	OFF
Fuel Valve	OFF . PULL
Ignition	OFF
Canopy	UNLOCK

**Engine-Turn Fuel Pump On, Carb Heat On**

Fuel Valve	OFF
Throttle	OPEN FULL
Ignition	OFF
Batt. Gen. Alt.	OFF
Extinguisher	USE

**Engine Fire in Flight**

Fuel Valve	OFF
Throttle	OPEN FULL
Ignition	OFF
Batt. Gen. Alt	OFF
Canopy Vents	SHUT
Blow Out Fire	DIVE OR SIDE SLIP
Emergency Power Off Landing	PERFORM

**Engine-Turn Fuel Pump On, Carb Heat On**

Batt. Gen. Alt.	OFF
Canopy Vents	OPEN
Extinguisher	USE
Land	

**Electrical Fire in Flight**

Batt. Gen. Alt.	OFF
Canopy Vents	OPEN
Extinguisher	USE
Land	