

Preflight Inspection Cockpit

Airplane Documents	On Board
Ignition Key	pulled out
Electrical Equipment	Off
Magnetos	Off
Alternator Switches	Off
Mixture and Throttle	Idle Cutoff
Propeller	Full FWD
Gear Selector	Down
Circuit Breakers	Check
Battery Switch Key	On
Annunciator Panel Lights	Check
Fuel Quantity	Check
Flaps	Extend to Ldg
Lights, Pitot heat, stall vane	Check
Lights, Pitot heat	Off
Battery Switch Key	Off

Exterior Check

Surfaces & Controls	Inspect
Fuel Quantity and Quality	check
Caps, Drains, Vents	Inspect
Engines, Oil, Belts	Inspect
Propellers	Inspect
Air Intakes	Inspect
Exhaust System	Inspect
Cowl Flaps	Check open
Gear, Tires, Brakes	Inspect
Antennas	Check Security
Baggage Door	Inspect
Fianl Walk Around	Visual check

Interior Check

Passenger Brief	Inspect
Hobbs	record on hobbs sheet
Fuel Selector	Test all positions
Fuel	Mains
Alternate Static	Off
Flap	Inspect
Emergency Gear Crank	Free
Pitot-Static Probe	Inspect
Stall warning	Check Unblocked
Landing/Taxi Light(s)	Inspect

KSPG Frequencies:
ASOS 118.87
Ground 121.80

Tower 127.40
Departure/ Approach 119.65

KSPG Runways:
7 RNAV
25 VISUAL only (no T/Gs)
18 VOR/RNAV
36 RNAV

Starting Engine

Seats	Locked
Circuit Breakers	In
Rudder Pedals	Set
Avionics	Off
Autopilot	Off
Cowl Flaps	Open
Beacon	On
Brakes	Set

1st Engine start (left)

Mixture	Rich
Prop	full fwd
Left Throttle	1/4" (if hot -full)
Prop	Clear
Battery Key	On
Left Fuel Pump	Hi for 4 / Off
Left (top) Magneto	Start
Throttle	set 1000rpm
Oil Pressure	Check
Left Alternator	On

2nd Engine Start

Mixture	Rich
Prop	full fwd
Right Throttle	1/4" (if hot -full)
Prop	Clear
Right Fuel Pump	Hi for 4 / Off
Right (bottom) Magneto	Start
Right Throttle	set 1000rpm
Oil Pressure	Check
Right Alternator	On

Pre taxi / Taxi

Seat Belts	On
Flaps	Up
Avionics	On
ATIS/AWOS	Obtain
Altimeter	Set
Taxi lights	as req
Brakes	release / test
Xfeed	test both main and aux
AI	Check
HSI / Compass	Check
Turn Coordinator	Check
Flight Controls	Free and Correct
Fuel Selector Valves	Main

Run Up

Brakes	Set
Elevator Trim	Set for TAKEOFF

Flight Controls	Free and Correct
Fuel Selector Valves	Main Tanks
Mixture	Rich
Propeller	Full FWD
Throttle 2200RPM	cycle Props
Throttle 1700 RPM	check magnetos
Engine Gauges	Check (Green)
Throttle 1500 RPM	Feather test
Gyro Pressure	Check (Green)
Amps / Volts/ Alternators	Check
Throttle	Idle, then 1000rpm
Circuit Breakers	In
Auto Pilot	Test and Off
Friction Lock	Adjust

Normal Takeoff

Departure Brief	Briefed
Flaps	Up
Cowl Flaps	Open
Props	full fwd
Mixture	Best power
Fuel Pumps	Off
<small>If 90 degrees OAT Fuel pups low</small>	
Doors/Windows	Closed
Lights	As required
Throttle	2000 rpm - check all green
Throttle	Full
Rotate	84kts

Climb

Gear	tab brakes, then Up
Oil Temp and Pressure	Green
Fuel Pump	as req
Throttle	25 MP
Props	2500 RPM
Lights	As required

Cruise

Fuel	Proper tanks
Throttle	Set for cruise

Propeller	2200rpm - 2400rpm
Mixture	Lean for best power
Fuel Pump	off
Trim	Set

Pre-landing checklist

Fuel selector	Fulllest tank
Mixture	Full Rich below 5000'
Fuel Pump	Off
<small>If 90 degrees OAT fuel pump low</small>	
Engine Instruments	Green
ATIS/AWOS/ASOS	Checked
Altimeter	Set

Final Approach

Flight instruments	Checked & Set
Radios	Set
Autopilot	Off
GUMPS	Check
Landing light	On (IFR or Night)
Flaps	as required
Airspeed	90-95 kts
Gear	Double check

After landing

Flaps	Up
Cowl Flaps	Open
Fuel Pump	as required
Cowl Flaps	Open
Strobe light	Off
Mixture	Lean for taxi

Shut Down

Avionics	Off
Lights	Off
Fuel Pumps	Off
Throttle	1000 RPM
Mixture	Cut-off
Mags	Off
Alternators and Battery	Off
Key	Remove

V-Speeds

Rotate	V _r	59
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Normal Climb Out	V	107-122
Best angle (Sea Level)	V _x	84
Best rate (Sea Level)	V _y	107
Maneuver	V _a	157
Norm. oper. range		52-129
Flaps	V _{fe}	113
Maneuver max	V _{no}	181
Never exceed	V _{ne}	224
Stall (clean)	V _s	78
Stall (landing configuration)	V _{so}	68
Final Approach	Flaps	90
	No flaps	97
Min Control Speed	V _{MCA}	78
One engine inop speed	V _{SSE}	84

Steep Turns	20" MP	
Emergency Decent	Idle power, gear down	Pitch for 140 kts, 30°- 40° degrees bank

Signal	On Ground	In Flight
Steady Green	Takeoff	Land
Flashing Green	Taxi	Return to land
Steady Red	Stop	Give way
Flashing Red	Clear runway	Do not land
Flashing white	Return to ramp	--
Red/Green alternating	WARNING – USE CAUTION	

landing without feathering... if you can not maintain blue line:

Identify Dead foot, dead engine
 Verify Close proper throttle
 Prop Feather
 5 degree bank into good engine, ½ ball towards good engine

One Engine DURING FLIGHT

Airspeed min 100 KIAS (blue line)
 Power up / Clean Up
 Throttle as needed
 Flaps / Gear Up
 Identify dead foot, dead engine
 Verify Close proper throttle
 Propeller Feather
 Mixture cut-off
 Cowl Flaps close on dead engine
 Alternator Off on dead engine
 Magnetos Off on dead engine
 Fuel Selector Off on dead engine

Emergency Decent

Throttle IDLE
 Gear Down
 Bank max 30° - 40°
 Speed pitch for 140

Engine Failure

ON TAKEOFF

Power IDLE
 Brakes APPLY
 Centerline MAINTAIN
 Mixture CUT OFF if necessary
 Mags OFF
 Ignition OFF

One Engine AFTER TAKEOFF

Yoke push forward
 Power up / Clean Up
 Airspeed 100kts (blue line)
 Directional Control Maintain with rudder (step on the ball)
 Flaps Up
 Gear Up
 Landing Straight ahead if possible

If you can maintain positive control of the airplane, stay in the pattern and do a normal

High Manifold

Throttle reduce
 Mixture Adjust

Engine Roughness

Magnetos Check
 Mixture Rich
 Throttle Full
 Fuel Pump On

Engine Fire on ground

Mixture Idle Cutoff
 Continue cranking affected engine
 Fuel Selector Off
 Battery / Alternator Off
 Other Engine Shut Down
 Airplane Evacuate

Engine Fire during flight

Fuel selector **Off to affected engine**
Mixture **Idle Cutoff**
Prop **Feather**
Aux Fuel Pump **Off**
Alternator, Magneto **Off**
Airspeed **Pitch to 153 to**
 extinguish fire and land asap

Manual Gear Extension

Airspeed **Reduce (100-120kts)**
Pull Landing gear circuit breaker
Lower landing gear lever
Hand crank approx. 50 times CCW
If electrical system ok, verify gear lights and horn

Electrical fire

All electrical devices **Off**
If fire is out **Batt / Alt on if critical**
turn on appliances one at a time
Storm Window **Open if necessary**