PREPARATION	
Airplane Status	Airworthy
Airplane Dispatched	Squawks, Tach & Hobbs Times Noted
Airplane Flight plan	Filed
FSS Standard Briefing	Accomplished
Weight and CG	Within Limits
Navigation	Planned
Current Charts	On Board
Performance / Range	Computed and Safe
Human Factors	IMSAFE
PREFLIGHT COCKPIT	
Hobbs & Tach Times	Check
Control Lock	RELEASE
AROW	PRESENT
Avionics, Masters, Magnetos	OFF
Mixture	CUT OFF
Master	ON
Fuel Quantity	CHECK
Pitot Heat, Lights, Stall Horn	CHECK
Annunciator Panel	TEST
Master	OFF
Flaps	DOWN
Trim	NEUTRAL
Pitot and Static	DRAIN
Fire Extinguisher	CHECK

Right Wing	
Flap & Aileron	Check
Leading Edge	Check
Wing Tie Down	Remove
Right Wing Fuel Vent	Check
Right Wing Fuel Drain	Check Sample
Right Wing Fuel Quantity	Visually Check
Strut, Tire & Brakes	Check
Bird Block	Remove
PREFLIGHT -- NOSE SECTION	
Cowling	Check Fasteners
Oil	Check Qty >7 <9 Qts
Dipstick	Properly Seated
Nose Gear Strut	Check
Nose Wheel Tire	Check
Prop and Spinner	Check for Damage (nicks, cracks, etc)
Air Inlets	Clear
Alternator Belt	Check Tension
Landing Light	Check Secure
Fuel Strainer	Drain, Check
Windshield	Check

Wheel Chock	Remove
Left Wing	
Leading Edge	Check
Strut, Tire & Brakes	Check
Wing Tie Down	Remove
Left Wing Fuel Vent	Check
Left Wing Fuel Drain	Check Sample
Left Wing Fuel Quantity	Check
Pitot Mast	Check
Flap & Aileron	Check
Bird Block	Remove
PREFLIGHT CHECK -- FUSELAGE	
Antennas	Check
Left Static Port	Check
Empennage	Check
Stabilator and Trim Tab	Check
Tie Down	Remove
Right Static Port	Check
Baggage Door	Check
Tail Cover	Remove
LAST CHECK	

Walk around aircraft giving it a last visual check; for general appearance, tie downs, chocks removed, oil or fuel leaks/spills, cowl plugs removed, icing, etc

BEFORE STARTING ENGINE	
Flaps	Retracted
Passengers	Boarded and Briefed
Cabin Door	Closed and Latched
Overhead Latch	Secured
Seat Belts and Harnesses	Secure
Inertial Reel	Check
Seats	Adjusted and Secured
Circuit Breakers	Check
Parking Brake	Set ON
Carburetor Heat	OFF
Fuel Selector	Fullest Tank, note
Avionics & Electrical Switches	Off
Propeller	Full RPM
CO Detector	On
Alt Static Source	Check
STARTING ENGINE	
Throttle	Open (¼" cold, ½" hot)
Mixture	Full Rich
Master & Alternator Switches	ON
Fuel Pump	ON
Prime Manually	9 to 12 Strokes
Beacon Light (Nav Lights if Night)	ON
Prop Area	CLEAR

Ignition	START
Throttle	1000 RPM
Oil Pressure	Check
Mixture	Lean for Ground Operation
Electric Fuel Pump	OFF
PRE-TAXI	
Radios	Set & Check
ATIS/AWOS/ASOS	Obtain/Copy
Transponder	Set & On ALT
Altimeter	Set
Alternate Static Source	Check, then OFF
Elevator Trim	Set to Neutral
Engine Instruments	Check
Garmin 430	Current, Correct
Garmin 430 Fields	WPT, BRG TRK, DIST
TAXI	
Brakes	Release & Test
Magnetic Compass	Correct
Heading Indicator	Check and Set
Attitude Indicator	Check and Set
Oil Pressure & Suction	Check

ENGINE RUNUP	
Brakes	Set
Seats & Belts	Check
Doors	Closed & Latched
Flight Instruments	Check
Attitude Indicator	Set
Altimeter	Set, Compare Indicated Alt to Field Elev
VSI	Check
Heading	Set
Flight Controls	Free & Correct
Mixture	Full Rich
Throttle	2000 RPM
Magnetos	< 175 RPM Drop, <50 RPM Difference
Suction Gauge	4.9” – 5.1”
Carb Heat	ON/OFF w/RPM Drop
Ammeter	Check w/Load
Propeller	Exercise
Throttle	Idle
Carb Heat	OFF
Throttle	1000 RPM
Emergency Procedures	Reviewed
Departure Plans	Reviewed

TAKEOFF (BEFORE TAKEOFF)	
Anti-Collision Lights	ON
Landing Light (HID)	ON as Required
Transponder	Set to “ALT”
Fuel Pump	ON
Time	Note
TAKEOFF (NORMAL)	
Flaps	Up
Mixture	Full Rich
Carb Heat	OFF
Throttle	Full Open
Engine Instruments	Check
Airspeeds	
Rotate	**60 – 65 KIAS**
Vx	**73 KIAS**
Vy	**85 KIAS**
TAKEOFF (SHORT FIELD, OBSTACLE CLEARANCE)	
Flaps	25 Degrees
Mixture	Full Rich
Carb Heat	OFF
Brakes	HOLD for Full Power
Throttle	Full Open
Engine Instruments	Check
Rotate	**50 – 60 KIAS**
Vx (before Obstacle)	**73 KIAS**
Vy (after Obstacle)	**85 KIAS**
Flaps	Slowly Retract

ENROUTE CLIMB	
Airspeed	100 KIAS
Throttle	< 25” MP
Propeller	< 2400 RPM
Fuel Pump	OFF above 1000 ft AGL
Landing Light	OFF above 3000 ft AGL
Mixture	LEAN above 5000 ft AGL or Cruise
CRUISE	
Power	75% or Less
Trim	Adjust
Propeller	Adjust
Mixture	LEAN as Necessary

PRE-LANDING (~12 nm)	
ATIS & Altimeter Setting	Obtain
Landing Light / Recognition Lights	ON
Seat Belts & Seats	Verify Fastened & Secure
Fuel Selector	On Fullest Tank
Approach Procedures	Review & Brief
LANDING	
Fuel Pump	ON
Mixture	Rich
Propeller	Full RPM
PATTERN:	
Downwind	90 KIAS (Flaps 10)
Base	85 KIAS (Flaps 25)
Final	80 KIAS (Flaps 40)
Over Landing Threshold	72 KIAS (Flaps 40)
SHORT FIELD (AFTER TOUCHDOWN):	
Brakes	Max as Needed
Flaps	Retract
Control Yoke	Full Aft

AFTER LANDING	
Carb Heat	OFF
Flaps	RETRACT
Fuel Pump	OFF
Landing Light / Recognition Lights	OFF
Transponder	STDBY
Elevator Trim	Set to Neutral
Mixture	Lean for Ground Operation

SHUTDOWN	
Brakes	Set
Magneto dead cut check	Check
Throttle	Idle
Avionics Master/ Electrical Switches	OFF
Mixture	Idle Cutoff
Beacon	OFF
Ignition Switch	OFF
Master & Alternator Switches	OFF
Flight Plan	Close