

Challenge Response

AIRCRAFT ACCEPTANCE

Control Lock	REMOVE
Master Switch	ON
Flaps	DOWN
Fuel Quantity	CHECKED
Avionics Master Switch	ON
Avionics Fan	CHECK OPERATION
Annunciator Panel	TEST
Avionics Master Switch	OFF
Master Switch	OFF
Alternate Static Air	OFF
Maintenance Status / Tachometer	CHECKED
Hobbs	RECORDED
AR(R)OW	CHECKED

BEFORE STARTING ENGINE

Preflight Inspection	COMPLETE
Doors	CLOSED AND LATCHED
Passenger Briefing	COMPLETE
Seat Belts / Harnesses	ON
Circuit Breakers	CHECKED IN
Fuel Selector	BOTH
Fuel Shutoff Valve	ON (push full in)
Electrical Equipment	OFF

STARTING ENGINE

Master Switch	ON
Beacon	ON
Throttle	OPEN ¼ INCH
Fuel Pump	AS REQUIRED
Mixture	IF REQUIRED ADVANCE to ≈ 5 GPH
Mixture	IDLE CUT-OFF
Fuel Pump	OFF
Propeller Area	CLEAR
Ignition Switch	START
Mixture	ADVANCE AFTER START
Throttle	1000 RPM
Oil Pressure	CHECKED
Avionics	ON
Flaps	UP
Mixture	AS REQUIRED

TAXI

Exterior Lights	AS REQUIRED
Instruments	CHECKED
Transponder	VERIFY ALT
Brakes / Steering	CHECKED

BEFORE TAKEOFF

Parking Brake	SET
Doors & Windows	CHECKED
Flight Controls & Trim	CHECKED
Fuel Quantity	CHECKED
Mixture	RICH
Throttle	1800 RPM
Magnetos (Max. 150 RPM / 50 Difference)	CHECKED
Engine Instruments & Ammeter	CHECKED
Annunciator Panel	CHECKED CLEAR
Throttle	IDLE THEN 1000 RPM
Mixture	AS REQUIRED
Flaps	SET
Flight Instruments	SET
Departure Briefing / Avionics	COMPLETE / SET
Parking Brake	OFF

Challenge Response

LINE UP

Exterior Lights	ON
Pitot Heat	AS REQUIRED
Mixture	RICH (below 3,000' pressure altitude)

CLIMB

Flaps	UP
Mixture	AS REQUIRED
Engine Gauges	CHECKED
Airspeed	V _y (74) until 1000' then 75-85 KIAS

CRUISE

Power	SET
Mixture	AS REQUIRED
Landing Light	AS REQUIRED
Heading Indicator / Compass	CHECKED

DESCENT

Weather	CHECKED
Power	AS DESIRED
Mixture	AS REQUIRED
Altimeter	SET
Fuel Selector	BOTH
Landing Light	AS REQUIRED
Approach Briefing	COMPLETE

BEFORE LANDING

Passenger Briefing	COMPLETE
Seat Belts / Harnesses	ON
Fuel Selector	BOTH
Mixture	AS REQUIRED
Flaps	SET
Landing Light	ON
Autopilot	OFF

AFTER LANDING

Landing Light / Anti-Collision Light	OFF
Trim	RESET
Mixture	AS REQUIRED
Flaps	UP
Pitot Heat	OFF

SECURING

Brakes	HOLD
Avionics	OFF
Throttle	1000 RPM OR LESS
Magnetos	GROUND CHECK
Throttle	1500 RPM FOR 5 SECONDS
Mixture	IDLE CUT-OFF
Magnetos / Keys	OFF & OUT
Electrical Equipment	OFF
Tach Time	CHECK
Master Switch	OFF
Fuel Selector	LEFT or RIGHT
Hobbs / Tach Time	RECORD
Chocks / Control Lock / Tie Down	IN & SECURE

Challenge Response

ENGINE FAILURE DURING TAKEOFF ROLL

Throttle.....	IDLE
Brakes.....	APPLY
Wing Flaps.....	RETRACT
Mixture.....	IDLE CUT-OFF
Fuel Shutoff Valve.....	OFF (Pull full out)
Magneto Switch.....	OFF
Master Switch.....	OFF

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

Airspeed.....	(flaps up) 70 KIAS
Mixture.....	IDLE CUT-OFF
Fuel Shutoff Valve.....	OFF (Pull full out)
Magnetos.....	OFF
Wing Flaps.....	AS REQUIRED
Master Switch.....	OFF

ENGINE FAILURE IN FLIGHT

Trim for Best Glide.....	68 KIAS
Pick Suitable Landing Site	
Fly Toward Landing Site	
Fuel Selector.....	BOTH
Fuel Shutoff Valve.....	ON (Push full in)
Mixture.....	AS REQUIRED
Fuel Pump.....	ON
Magnetos.....	ON / BOTH

IF NO RESTART OR AN OFF AIRPORT LANDING IS NECESSARY:

Squawk Code: 7700 (121.5)	
Passenger Briefing.....	COMPLETE
Mix, Mags, Fuel Shutoff Valve.....	OFF
Flaps.....	AS REQUIRED
Master Switch.....	OFF
Seats / Seat Belts.....	SECURE
Sharp Objects.....	STOW
Doors.....	AJAR

ENGINE FIRE DURING START UP

Cranking.....	CONTINUE
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IF ENGINE STARTS:

Throttle.....	1800 RPM
Engine.....	SHUTDOWN
Engine.....	INSPECT

IF ENGINE FAILS TO START:

Throttle.....	FULL OPEN
Mixture.....	IDLE CUT-OFF
Cranking.....	CONTINUE
Fuel Shutoff Valve.....	OFF (Pull full out)
Fuel Pump.....	OFF
Fire Extinguisher.....	OBTAIN / ARM
Engine.....	SECURE
Magnetos.....	OFF
Master Switch.....	OFF
Engine.....	INSPECT

Highlighted Items Should be Committed to Memory

Challenge Response

ENGINE FIRE IN FLIGHT

Mixture.....	IDLE CUT-OFF
Fuel Shutoff Valve.....	OFF (Pull full out)
Fuel Pump.....	OFF
Vents Heat / Air.....	CLOSED
(except wing root vents)	
Airspeed.....	100 KIAS
(If fire is not extinguished, increase glide speed to find an airspeed which will provide an incombustible mixture.)	
Forced Landing.....	EXECUTE
SEE ENGINE FAILURE IN FLIGHT: NO RESTART CHECKLIST	

ELECTRICAL FIRE IN FLIGHT

Master Switch.....	OFF
All Other Switches Except Ignition.....	OFF
Vents Heat / Air.....	CLOSED
Fire Extinguisher.....	ACTIVATE

WARNING: AFTER DISCHARGING FIRE EXTINGUISHER WITHIN CLOSED CABIN, VENTILATE CABIN

IF FIRE APPEARS OUT AND ELECTRICAL POWER IS NECESSARY FOR CONTINUANCE OF FLIGHT TO NEAREST SUITABLE AIRPORT

Master Switch.....	ON
Circuit Breakers.....	check for faulty circuit, do not reset
Radio / Electrical Switches.....	ON
(One at a time, with delay after each until short circuit is localized.)	
Vents Heat / Air.....	OPEN
(When it is ascertained that fire is completely extinguished.)	

LANDING WITH A FLAT MAIN TIRE

Wing Flaps.....	AS DESIRED
Approach.....	NORMAL
Touchdown.....	GOOD TIRE FIRST
(Hold airplane off flat tire as long as possible with aileron control.)	

AMMETER SHOWS EXCESSIVE RATE OF CHARGE

Alternator Side of Master.....	OFF
Alternator Circuit Breaker.....	PULL
Non-Essential Electrical Equip.....	OFF
Flight.....	LAND AS SOON AS PRACTICAL

LOW VOLTAGE LIGHT ILLUMINATES IN FLIGHT

Radios.....	OFF
Alternator Circuit Breaker.....	CHECK IN
Master Switch.....	OFF (both sides)
Master Switch.....	ON
Low Voltage Light.....	CHECK OFF
Radios.....	ON

IF LOW VOLTAGE LIGHT ILLUMINATES AGAIN

Alternator.....	OFF
Non-Essential Radio / Electrical Equip.....	OFF
Flight.....	LAND AS SOON AS PRACTICAL

Highlighted Items Should be Committed to Memory