

Challenge Response

AIRCRAFT ACCEPTANCE

Pitot Tube Cover.....	REMOVE
Magnetos.....	CHECK OFF
Control Lock.....	REMOVE
Maintenance Status / Tachometer.....	CHECKED
Avionics Switch (Bus 1 & Bus 2).....	OFF
Master Switch.....	ON
Primary Flight Display.....	VERIFY ON
Fuel Quantity.....	CHECKED (RESET USED)
Low Fuel Annunciator.....	VERIFY OFF
Oil Pressure Annunciator.....	VERIFY ON
Low Volts Annunciator.....	VERIFY ON
Low Vacuum Annunciator.....	VERIFY ON
Avionics Switch (Bus 1).....	ON
Forward Avionics Fan.....	CHECK OPERATION
Avionics Switch (Bus 1).....	OFF
Avionics Switch (Bus 2).....	ON
Aft. Avionics Fan.....	CHECK OPERATION
Avionics Switch (Bus 2).....	OFF
Pilot Heat.....	CHECKED
Master Switch.....	OFF
Alternate Static Air.....	OFF
Trim Controls.....	TAKEOFF POSITION
Fuel Selector Valve.....	BOTH
Fire Extinguisher.....	CHECKED
Hobbs.....	RECORDED
AR(R)OW.....	CHECKED
G1000 Reference Guide.....	ACCESSIBLE

BEFORE STARTING ENGINE

Preflight Inspection.....	COMPLETE
Seat Belts / Harnesses.....	ON
Doors.....	CLOSED AND LATCHED
Passenger Briefing.....	COMPLETE
Circuit Breakers.....	CHECK IN
Electrical Equipment.....	OFF
Avionics Switch.....	OFF
Cowl Flaps.....	OPEN
Fuel Selector.....	BOTH
Brakes.....	SET

STARTING ENGINE

Throttle.....	OPEN ¼ INCH
Propeller Control.....	HIGH RPM
Mixture Control.....	IDLE CUT-OFF
Standby Battery Switch.....	TEST then ARM
Engine Indicating System.....	CHECKED
Bus E Volts.....	VERIFY 24 VOLTS MIN.
M Bus Volts.....	VERIFY ≤ 1.5 VOLTS
Battery S Amps.....	VERIFY DISCHARGE
Standby Battery Annunciator.....	VERIFY ON
Propeller Area.....	CLEAR
Master Switch.....	ON
Stby Alt Master Switch.....	ON

Challenge Response

STARTING ENGINE (continued)

Beacon.....	ON
Fuel Pump.....	AS REQUIRED
Mixture Control....	IF REQUIRED ADVANCE TO FULL RICH / PRIME
Mixture Control.....	IDLE CUT-OFF
Fuel Pump.....	OFF
Magneto Switch.....	START
Mixture Control.....	ADVANCE AFTER START
Throttle.....	1000 RPM
Oil Pressure.....	CHECKED
M Batt S.....	CHECK POSITIVE CHARGE
Low Volts Annunciator.....	VERIFY OFF
Avionics Switch (Bus 1 & Bus 2).....	ON
Lights.....	AS REQUIRED
Mixture.....	AS REQUIRED

TAXI

Seat / Seat Belts.....	SECURE
Brakes / Steering.....	CHECKED
Instruments.....	CHECKED

BEFORE TAKEOFF

Parking Brake.....	SET
Flight Controls & Trim.....	CHECKED
Electric Trim & Autopilot.....	CHECKED
Fuel Quantity.....	CHECKED
Flight Instruments (PFD).....	CHECKED
Standby Flight Instruments.....	CHECKED
PFD / Altimeters / Autopilot.....	SET
Radios & FMS.....	SET
CDI Soft Key.....	SET
Transponder.....	CODE SET
Mixture.....	RICH
Throttle.....	1800 RPM
Magnetos (Max. 175 rpm / 50 diff.).....	CHECKED
Propeller.....	CYCLED
Vacuum Indicator.....	CHECKED
Engine Instruments & Ammeter.....	CHECKED
Annunciators.....	CHECKED
Primary Alternator.....	OFF (Battery remains ON)
Stby Alt.....	Verify ON
Throttle.....	2300 RPM
Increase Electrical Load.....	Check Stby Alt ON
.....	annunciator FLASHING
Decrease Electrical Load.....	Check Stby Alt ON
.....	annunciator ON (not flashing)
Throttle.....	CHECK IDLE
Throttle.....	1000 RPM
Primary Alternator Master Switch.....	ON
Stby Alt ON Annunciator.....	CHECK OFF
Departure Briefing.....	COMPLETE
Doors & Windows.....	CLOSED

LINE UP

Flaps and Trim.....	SET
Exterior Lights.....	ON
Pitot Heat.....	AS REQUIRED

Challenge	Response
CLIMB	
Flaps	UP
Power.....	SET
Engine Gauges	CHECKED
Airspeed.....	V _Y until 1000' then 85-95 KIAS
Trim.....	SET
CRUISE	
Power.....	SET (80% MAX)
Trim.....	SET
Mixture.....	AS REQUIRED
Cowl Flaps.....	AS REQUIRED
Landing Light.....	OFF
Flight Instruments.....	CHECKED
DESCENT	
Weather	CHECKED
Power.....	AS REQUIRED
Mixture.....	AS REQUIRED
Cowl Flaps.....	AS REQUIRED
Trim.....	SET
Altimeters.....	SET
Exterior Lights.....	AS REQUIRED
Approach Briefing.....	COMPLETE
BEFORE LANDING	
Passenger Briefing.....	COMPLETE
Seat Belts / Harnesses	ON
Fuel Selector.....	BOTH
Mixture.....	AS REQUIRED
Propeller.....	HIGH RPM
Flaps	AIRSPED 70-80 UP / 60-70 DOWN
Landing Light.....	ON
Autopilot	OFF
AFTER LANDING	
Landing Light / Strobes	OFF
Trim.....	RESET
Mixture.....	AS REQUIRED
Flaps	UP
Cowl Flaps.....	OPEN
Pitot Heat.....	OFF
SECURING	
Brakes.....	SET
Throttle.....	IDLE
Avionics Switch (Bus 1 & Bus 2).....	OFF
Magnetos.....	GROUND CHECK
Mixture.....	IDLE CUT-OFF
Magnetos / Keys.....	OFF & OUT
Electrical Equipment.....	OFF
Master Switch.....	OFF
Standby Battery Switch.....	OFF
Fuel Selector.....	LEFT or RIGHT
Hobbs	RECORD
Chocks / Control Lock & Tie Down	IN & SECURE

Challenge Response

ENGINE FIRE DURING START UP

Cranking	CONTINUE
IF ENGINE STARTS:	
Throttle.....	1700 RPM
Engine.....	SHUTDOWN
Engine.....	INSPECT
IF ENGINE FAILS TO START:	
Throttle.....	FULL OPEN
Mixture	IDLE CUT-OFF
Cranking	CONTINUE
Fuel Selector.....	OFF
Fuel Pump.....	OFF
Magnetos.....	OFF
Standby Battery Switch.....	OFF
Master Switch and Stby Alt.....	OFF
Engine.....	SECURE
Fire Extinguisher	OBTAIN / ARM
Airplane.....	EVACUATE
Engine.....	INSPECT

ENGINE FIRE IN FLIGHT

Mixture	IDLE CUT-OFF
Fuel Selector.....	OFF
Fuel Pump.....	OFF
Standby Battery Switch.....	OFF
Master Switch and Stby Alt.....	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	

ENGINE FAILURE DURING TAKEOFF ROLL

Throttle.....	IDLE
Brakes.....	APPLY
Wing Flaps.....	Retract
Mixture	OFF
Magneto Switch.....	OFF
Standby Battery Switch.....	OFF
Master Switch and Stby Alt.....	OFF

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

Airspeed.....	(flaps up) 75 KIAS
Mixture	IDLE CUT-OFF
Fuel Selector.....	OFF
Magnetos.....	OFF
Wing Flaps.....	AS REQUIRED
Standby Battery Switch.....	OFF
Master Switch and Stby Alt.....	OFF
Door.....	UNLATCH

Highlighted Items Should be Committed to Memory

Challenge Response

ENGINE FAILURE IN FLIGHT

Trim for Best Glide	75 KIAS
Pick Suitable Landing Site	
Fly Toward Landing Site	
Fuel Selector.....	BOTH
Fuel Pump.....	ON
Mixture.....	RICH
Magnetos.....	ON / BOTH
IF NO RESTART OR AN OFF AIRPORT LANDING IS NECESSARY:	
Squawk Code: 7700 (121.5)	
Passenger Briefing.....	COMPLETE
Mix, Mags, Fuel Selector, Fuel Pump.....	OFF
Flaps	AS REQUIRED
Standby Battery Switch.....	OFF
Master Switch and Stby Alt.....	OFF
Seats / Seat Belts.....	SECURE
Loose Objects.....	STOW
Doors	AJAR

ELECTRICAL FIRE IN FLIGHT

Standby Battery Switch.....	OFF
Master Switch and Stby Alt.....	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

Circuit Breakers	check for faulty circuit, do not reset
Master Switch.....	ON
Avionics Switch (Bus 1)	ON
Avionics Switch (Bus 2)	ON

AMMETER SHOWS EXCESSIVE RATE OF CHARGE

Primary Alternator.....	OFF
Stby Alt ON Annunciator.....	Check ON or Flashing
Non-Essential Electrical Equipment	OFF
Stby Alt ON Annunciator.....	Check ON or Flashing
Ammeter	Check For Normal Indications
Flight.....	LAND AS SOON AS PRACTICAL

LOW VOLTAGE LIGHT ILLUMINATES IN FLIGHT

Avionics Switch (Bus 1 & 2).....	OFF
Alternator Circuit Breakers	CHECK IN
Master Switch and Stby Alt.....	OFF
Master Switch and Stby Alt.....	ON
Low Voltage Light.....	CHECK OFF
Avionics Switch (Bus 1 & 2).....	ON
IF LOW VOLTAGE LIGHT ILLUMINATES AGAIN	
Primary Alternator.....	OFF
Non-Essential Radio / Electrical Equipment.....	OFF
Flight.....	LAND AS SOON AS POSSIBLE

Highlighted Items Should be Committed to Memory

Challenge	Response
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AIR DATA SYSTEM FAILURE

RED X-PFD AIRSPEED INDICATOR

ADC/AHRS Circuit Breakers..... **CHECK IN**

If open, reset circuit breaker. If circuit breaker opens again, do not reset.

Standby Airspeed Indicator **USE**

RED X-PFD ALTITUDE INDICATOR

ADC/AHRS Circuit Breakers..... **CHECK IN**

If open, reset circuit breaker. if circuit breaker opens again, do not reset.

Standby Altimeter **USE**

AHRS FAILURE

RED X-PFD ATTITUDE INDICATOR

ADC/AHRS Circuit Breakers..... **CHECK IN**

If open, reset circuit breaker. If circuit breaker opens again, do not reset.

Standby Attitude Indicator **USE**

RED X-PFD HORIZONTAL SITUATION INDICATOR

ADC/AHRS Circuit Breakers..... **CHECK IN**

If open, reset circuit breaker. If circuit breaker opens again, do not reset.

Magnetic Compass..... **USE**