

Pitts Special S2S

Quick Reference Checklist

For simulation use only, not for real world flight

PREFLIGHT

Ignition Switch OFF
Master Switch OFF
Control Surfaces CHECK FREEDOM

BEFORE STARTING ENGINE

Preflight Inspection COMPLETE
Canopy CLOSED and LOCKED
Brakes TEST and ON
Cowl Flaps OPEN
Circuit Breakers IN
Fuel Selector SET

STARTING ENGINE - COLD

Mixture RICH
Propeller HIGH RPM
Throttle 1/4 OPEN
Master Switch ON
Boost Pump ON 2-3 seconds
Mixture IDLE CUT-OFF
Starter Switch ON (Start)
Mixture When engine starts, move slowly to FULL RICH
Oil Pressure CHECK
Alternator Field Switch ON

STARTING ENGINE - HOT

Mixture IDLE CUT-OFF
Propeller HIGH RPM
Throttle 1/2 OPEN
Master Switch ON
Starter Switch ON (Start)
Mixture When engine starts, move slowly to FULL RICH
Throttle IDLE
Oil Pressure CHECK
Alternator Field Switch ON

BEFORE TAKEOFF

Canopy CHECK LOCKED
Brakes SET
Flight Controls FREE and CORRECT
Flight Instruments SET and CORRECT
Fuel Selector ON
Mixture RICH below 5000 feet MSL, lean as required
Elevator Trim TAKEOFF NEUTRAL
Throttle 1700 RPM
Propeller Cycle high to low RPM, return to high RPM
Throttle 2200 RPM
Magnetos . .CHECK (RPM drop should not exceed 175 RPM on either magneto or 50 RPM differential between magnetos)
Engine Instruments CHECK
Ammeter CHECK
Avionics ON and SET

TAKEOFF

Power FULL THROTTLE 2700 RPM
Elevator Control LIFT TAIL
Rotate 74 MPH
Climb Speed 100 MPH
Power AS REQUIRED

EN ROUTE CLIMB

Airspeed 120 MPH
Power AS REQUIRED
Mixture AS NEEDED FOR REQUIRED POWER
Cowl Flaps OPEN

CRUISE

Power 19-20 In. Hg, 2200-2300 RPM (No more than 75% power)
Elevator Trim ADJUST
Mixture LEAN
Cowl Flaps CLOSED or as needed for cooling

DESCENT

Power AS DESIRED
Mixture ENRICHEN AS REQUIRED
Cowl Flaps CLOSED or as required for cooling

BEFORE LANDING

Fuel Selector CHECK ON
Mixture RICH below 5000 MSL
Propeller HIGH RPM

NORMAL LANDING

Airspeed 95 MPH
Trim ADJUST
Touchdown TAIL WHEEL FIRST
Elevator Control FULL BACK
Braking MINIMUM REQUIRED

BALKED LANDING

Power FULL THROTTLE (2700 RPM)
Climb Speed 95 MPH
Cowl Flaps OPEN

AFTER LANDING

Cowl Flaps OPEN

SECURING AIRPLANE

Throttle IDLE
Avionics OFF
Mixture IDLE CUT-OFF
Ignition Switch OFF
Master Switch OFF
Alternator Field Switch OFF

Emergency Procedures Checklist

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AIRSPEDS FOR EMERGENCY OPERATION

Engine Failure After Takeoff.....	95 MPH
Maneuvering Speed.....	154 MPH
Maximum Glide Speed.....	95 MPH
Precautionary Landing With Engine Power.....	95 MPH
Landing Without Engine Power.....	95 MPH

ENGINE FAILURE DURING TAKEOFF RUN

Throttle.....	IDLE
Brakes.....	APPLY
Mixture.....	IDLE CUT-OFF
Ignition Switch.....	OFF
Master Switch.....	OFF

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

Airspeed.....	95 MPH
Mixture.....	IDLE CUT-OFF
Fuel Selector Valve.....	OFF
Ignition Switch.....	OFF
Master Switch.....	OFF

ENGINE FAILURE DURING FLIGHT

Airspeed.....	95 MPH
Fuel Selector Valve.....	ON
Fuel Boost Pump.....	ON
Mixture.....	RICH
Ignition Switch.....	BOTH (Start if propeller is stopped)

EMERGENCY LANDING WITHOUT ENGINE POWER

Airspeed.....	95 MPH
Mixture.....	IDLE CUT-OFF
Fuel Selector Valve.....	OFF
Ignition Switch.....	OFF
Canopy.....	JETTISON (at pilot's option)
Master Switch.....	OFF, when landing is assured
Touchdown.....	TAIL WHEEL FIRST
Brakes.....	AS NEEDED

PRECAUTIONARY LANDING WITH ENGINE POWER

Airspeed.....	95 MPH
Selected Field.....	FLY OVER, noting terrain and obstructions
Electrical Switches.....	OFF
Airspeed.....	95 MPH
Canopy.....	JETTISON (at pilot's option)
Master Switch.....	OFF
Touchdown.....	TAIL WHEEL FIRST
Ignition Switch.....	OFF
Brakes.....	AS NEEDED

DITCHING

Radio.....	MAYDAY on 121.5 MHz giving location and intentions
Power.....	ESTABLISH 300 FT/MIN DESCENT AT 95 MPH
Approach:	
High Winds, Heavy Seas.....	INTO THE WIND
Light Winds, Heavy Swells.....	PARALLEL TO SWELLS
Canopy.....	JETTISON (at pilot's option)
Touchdown.....	LEVEL ATTITUDE
Airplane.....	EVACUATE

FIRE DURING START ON GROUND

Cranking.....	CONTINUE (Do not use boost pump, mixture IDLE CUT-OFF, fuel selector OFF)
Mixture.....	IDLE CUT-OFF
Engine:	
Master Switch.....	OFF
Ignition Switch.....	OFF
Fuel Selector.....	OFF
Fire.....	EXTINGUISH

ENGINE FIRE IN FLIGHT

Mixture.....	IDLE CUT-OFF
Fuel Selector Valve.....	OFF
Master Switch.....	OFF
Airspeed.....	95 MPH
Forced Landing.....	EXECUTE

ELECTRICAL FIRE IN FLIGHT

Master Switch.....	OFF
All Avionics Switch.....	OFF
Vents/Cabin Air.....	CLOSED
Fire Extinguisher.....	ACTIVATE
If fire appears out and electrical power is necessary for continuance of flight:	
Master Switch.....	ON
Circuit Breakers.....	Check for faulty circuit, do not reset
Radio/Electrical Switches.....	ON one at a time with delay
Vents/Cabin Air.....	OPEN when fire is extinguished

INADVERTENT ICING ENCOUNTER

Turn back or change altitude
Increase engine speed
Watch for signs of air intake ice and apply alternate air as required
Plan a landing at the nearest airport
With ice accumulation be prepared for significantly higher stall speed
Approach at 110 to 115 MPH depending upon the amount of ice accumulation
Touchdown tail wheel first

STATIC SOURCE BLOCKAGE

Alternate Static Source Valve.....	ON
Airspeed.....	Consult placard and ADM Sect 2
Altitude.....	Consult placard and ADM Sect 2