

SECTION 3

EMERGENCY PROCEDURES

GROUND ENGINE FIRE

See “DRY MOTORING RUN” under Ground Operation, Section 2.

IN-FLIGHT ENGINE FIRE

In case of an in-flight fire, the following procedures should be used:

1. Emergency Cut-Off Lever – CUT OFF
2. Engine Fuel Switch – OFF
3. Fuel Auxiliary Pump Switch – OFF
4. Fuel Valve – OFF

IN-FLIGHT ENGINE SHUT DOWN

The following procedure should be used to shut down the engine in flight:

NOTE

In the unlikely event of a shutdown in flight due to fuel starvation or an engine problem, the negative torque sensing system will increase propeller blade angle toward feather at the optimum rate to reduce drag. This decreases the urgency of feathering the engine and allows the pilot to concentrate on control of the aircraft.

1. Emergency Cut Off Lever – CUT OFF
2. Power Lever – FULL FORWARD

NOTE

Moving the power lever fully forward drives the propeller blade to the lowest angle of attack in the event the feather valve or NTS system has not functioned properly.

3. Fuel Aux. Pump Switch – OFF
4. Engine Fuel Switch – OFF
5. Fuel Valve – OFF

ENGINE FLAME-OUT

The symptoms of an engine flame-out will be a drop in the exhaust gas temperature, torque meter pressure and RPM. The flame-out may result from the engine running out of fuel, or possibly may be caused by unstable engine operation. Once the fuel supply has been restored to the engine or the cause of the unstable operation eliminated, the engine may be restarted in the manner described under Air Starts, following.

Model S2R-G10 AIRPLANE FLIGHT MANUAL

NORMAL AIR STARTS

NOTE

Air start envelope: Normal air starts from sea level to 12,000 feet altitude and from 100 MPH to 159 MPH indicated airspeed have been approved.

The recommended pre-air start check procedure is:

1. Power Lever – Approximately one inch forward of FLIGHT IDLE.
2. Speed Lever – Approximately one inch aft of "HI" RPM position
(96% position)
3. Engine Fuel Switch – OFF, then center position.
4. Fuel Valve – ON
5. Fuel Aux Pump – ON
6. Emergency Cut Off Lever - NORMAL
7. EGT – Below 200 Degrees C.
8. Starter Switch – Air Position
9. Ignition Switch – ON at ten percent minimum
10. Engine Fuel Switch – ON
11. Manual Fuel Enrichment – As required.

NOTE

If the exhaust gas temperature rise is not observed by the time engine reaches 20 percent RPM, immediately discontinue the start with the emergency shut off and feather lever. Residual rotation is desirable to purge any fuel from the engine.

12. EGT – Monitor start limit (770 degrees C.)
13. Oil Pressure – Check normal

CAUTION

ABORT START IF OIL PRESSURE IS NOT RISING PRIOR TO STABILIZED RPM. MONITOR SMOOTH AND CONSTANT RPM RATE OF RISE. IF RPM STAGNATION OCCURS, IMMEDIATELY FEATHER THE ENGINE.

ELECTRICAL FIRE IN FLIGHT

1. Battery and Generator Switch – OFF
2. All other Electrical Switches – OFF.
3. Circuit Breakers – CHECK, to identify faulty circuit if possible.