

ENGINE FAILURE ON TAKEOFF

- Airspeed – 60 KIAS (55 KIAS minimum)
- Forced Landing Site – CHOOSE

WARNING

During airborne engine failure, the control stick must be moved forward IMMEDIATELY to prevent loss of airspeed. Maintain flying speed at all times. Do not attempt to turn back to the runway without sufficient altitude.

Sufficient runway remains for landing:

- Throttle – CLOSED
- Land using maximum braking after touchdown
- If airborne & insufficient runway remains for landing, attempt an engine restart if altitude permits: (See ENGINE AIR RESTART)
- If no restart possible:
 - Select most favorable landing area ahead
 - Flaps – FULL DOWN
 - Fuel Shut-Off Valve – PULL UP – OFF
 - Lane A & B – BOTH OFF
 - Fuel Pump Switches – BOTH OFF
 - Master Switch – OFF
 - EMS Backup Battery Switch – OFF (if previously turned ON)
 - 30A "Gen Main Bus" Fuse – PULL – REMOVE
 - Touchdown with minimum airspeed
 - ELT – Consider ACTIVATING (off airport)

ENGINE FAILURE IN FLIGHT**ENGINE AIR RESTART**

- Maintain Airspeed – 60 KIAS minimum
- Forced Landing Site – CHOOSE
- Lane A & B Switches – BOTH ON
- EMS Backup Battery Switch – ON
- Fuel Pump Switches – BOTH ON
- Fuel Shut-Off Valve – CHECK ON – DOWN
- Throttle – SET TO 55% - 65% OPEN
- Spar Pin Override Switch – HOLD DOWN
- Ignition Key – ENGAGE
- If engine does not start, change throttle settings in attempt to restart
- Follow Forced Landing Procedure if unable to restart

NOTE

The engine starter must be engaged in flight should the propeller stop windmilling. Propeller will not windmill below 80 KIAS.

FORCED LANDING (Complete Power Failure)

- Airspeed – 63 KIAS (max gliding distance)
- 59 KIAS (min rate of descent)
- Fuel Shut-Off Valve – PULL UP – OFF
- Fuel Pump Switches – BOTH OFF
- Flaps – UP (maximizes glide range)
- Transponder – 7700
- ELT – ACTIVATE (off airport)
- Radio – "MAYDAY" 121.5 MHz
- Attempt to position the aircraft approximately 1,000' AGL when on downwind and abeam the intended point of landing.
- Lane A & B Switches – BOTH OFF
- (On Final Approach) Airspeed – 55-60 KIAS
- Flaps – DOWN when intended point of landing assured (requires battery power)
- Master Switch – OFF
- 30A "Gen Main Bus" Fuse – PULL – REMOVE
- Touchdown with minimum airspeed

ENGINE FIRE IN FLIGHT

- Fuel Shut-Off Valve – PULL UP – OFF
- Fuel Pump Switches – BOTH OFF
- Lane A & B Switches – BOTH OFF
- Air Vents and Cabin Heat – BOTH CLOSED
- Airspeed – INCREASE to find incombustible mixture without exceeding Vne / Vno as appropriate
- Consider sideslip to divert smoke from pilot side
- Follow Forced Landing Procedure

WARNING

Do not attempt to restart engine.

ELECTRICAL FIRE

An electrical fire is usually indicated by an odor of hot or burning insulation.

- Lane A & B Switches – REMAIN ON
- All Other Electrical Switches – OFF
- 30A "Gen Main Bus" Fuse – PULL – REMOVE
- Air Vent – OPEN (if necessary for smoke removal and ventilation)
- Land immediately (or as soon as practical if location for safe landing is not available)

ENGINE FIRE DURING START

- If fire is believed to be confined to the intake or exhaust system (result of flooded engine):
 - Starter – CONTINUE CRANKING ENGINE
 - Throttle – FULL OPEN
 - Fuel Shut-Off Valve – PULL UP – OFF
 - Fuel Pump Switches – BOTH OFF
 - Inspect aircraft for damage/cause prior to restart
- If fire persists or outside intake/exhaust system:
 - Electrical Switches – ALL OFF
 - Lane A & B Switches – BOTH OFF
 - Aircraft – EVACUATE IMMEDIATELY
 - Direct fire extinguisher through the air outlet tunnel at the bottom of the cowl

GENERATOR A & B FAILURE**WARNING**

Failure of both generators will result in engine stoppage! Electrical fuel pump, flaps and stabilator trim depend upon sufficient battery power.

- Non-essential electrical equipment – OFF
- EMS Backup Battery Switch – ON
- Follow ENGINE FAILURE IN FLIGHT procedures
- Land as soon as possible

SPINS

If a spin is inadvertently entered, immediate recovery should be initiated:

- Throttle – CLOSED
- Rudder – FULL OPPOSITE direction of rotation
- Aileron – NEUTRAL POSITION
- Stabilator – SLIGHTLY FORWARD OF NEUTRAL
- Flaps – UP

When rotation stops (1/2 – 1 turn after recovery initiated):

- Rudder – NEUTRALIZE
- Nose Attitude – RAISE NOSE SMOOTHLY to level flight attitude
- Throttle – Add power as required

WARNING

During the spin recovery, the airspeed will build very rapidly with a nose low attitude. Do not use full or abrupt stabilator control movements.