

INTRODUCTION

Section 3 provides checklist and amplified procedures for coping with emergencies that may occur. Emergencies caused by airplane or engine malfunctions are extremely rare if proper preflight inspections and maintenance are practiced. Enroute weather emergencies can be minimized or eliminated by careful flight planning and good judgment when unexpected weather is encountered. However, should an emergency arise, the basic guidelines described in this section should be considered and applied as necessary to correct the problem. Emergency procedures associated with ELT, standard avionics and any other optional systems can be found in the Supplements, Section 9.

AIRSPEEDS FOR EMERGENCY OPERATION

Engine Failure After Takeoff:	85 KIAS
Wing Flaps Up	75 KIAS
Wing Flaps Down	
Maneuvering Speed:	125 KIAS
3600 Lbs	120 KIAS
2950 Lbs	106 KIAS
2300 Lbs	
Maximum Glide:	80 KIAS
3600 Lbs	75 KIAS
3200 Lbs	70 KIAS
2800 Lbs	75 KIAS
Precautionary Landing With Engine Power	
Landing Without Engine Power:	85 KIAS
Wing Flaps Up	75 KIAS
Wing Flaps Down	
Emergency Descent:	182 KIAS
Smooth Air	
Rough Air:	125 KIAS
3600 Lbs:	120 KIAS
2950 Lbs:	106 KIAS
2300 Lbs:	

EMERGENCY PROCEDURES CHECKLIST

Procedures in the Emergency Procedures Checklist portion of this section shown in **bold faced** type are immediate action items which should be committed to memory.

ENGINE FAILURES

ENGINE FAILURE DURING TAKEOFF ROLL

1. **Throttle -- IDLE.**
2. **Brakes -- APPLY.**
3. Wing Flaps -- RETRACT.
4. Mixture -- IDLE CUT OFF.
5. Ignition Switch -- OFF.
6. Master Switch -- OFF.

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

1. **Airspeed -- 85 KIAS (flaps UP).**
75 KIAS (flaps DOWN).
2. Mixture -- IDLE CUT OFF.
3. Fuel Selector Valve -- PUSH DOWN and ROTATE to OFF.
4. Ignition Switch -- OFF.
5. Wing Flaps -- AS REQUIRED (40° recommended).
6. Master Switch -- OFF.
7. Cabin Door -- UNLATCH.
8. Land -- STRAIGHT AHEAD.

ENGINE FAILURE DURING FLIGHT (Restart Procedures)

1. **Airspeed -- 80 KIAS.**
2. **Fuel Selector Valve -- BOTH.**
3. **Auxiliary Fuel Pump Switch -- ON.**
4. Engine Power -- RESTORED.
5. Mixture -- RICH (if restart does not occur).

6. Ignition Switch -- CHECK BOTH (or START if propeller is stopped).

NOTE

If propeller is windmilling, engine will restart automatically within a few seconds. If propeller has stopped (possible at low speeds), turn ignition switch to START, advance throttle slowly from idle, and lean the mixture from full rich as required to obtain smooth operation.

7. Auxiliary Fuel Pump Switch -- OFF.

NOTE

If the fuel flow indication immediately drops to zero, signifying an engine-driven fuel pump failure, return the auxiliary fuel pump switch to ON.

FORCED LANDINGS

EMERGENCY LANDING WITHOUT ENGINE POWER

1. Passenger Seats -- AS FAR FORWARD AS PRACTICAL.
2. Passenger Seat Backs -- MOST UPRIGHT POSITION.
3. Seats and Seat Belts -- SECURE.
4. Airspeed -- 85 KIAS (flaps UP).
75 KIAS (flaps DOWN).
5. Mixture -- IDLE CUT OFF.
6. Fuel Selector Valve -- PUSH DOWN and ROTATE to OFF.
7. Ignition Switch -- OFF.
8. Wing Flaps -- AS REQUIRED (40° recommended).
9. Master Switch -- OFF when landing is assured.
10. Doors -- UNLATCH PRIOR TO TOUCHDOWN.
11. Touchdown -- SLIGHTLY TAIL LOW.
12. Brakes -- APPLY HEAVILY.

PRECAUTIONARY LANDING WITH ENGINE POWER

1. Passenger Seats -- AS FAR FORWARD AS PRACTICAL.
2. Passenger Seat Backs -- MOST UPRIGHT POSITION.

3. Seats and Seat Belts -- SECURE.
4. Airspeed -- 85 KIAS.
5. Wing Flaps -- 20°.
6. Selected Field -- FLY OVER, noting terrain and obstructions, then retract flaps upon reaching a safe altitude and airspeed.
7. Avionics Master Switch and Electrical Switches -- OFF.
8. Wing Flaps -- 40° (on final approach).
9. Airspeed -- 75 KIAS.
10. Master Switch -- OFF.
11. Doors -- UNLATCH PRIOR TO TOUCHDOWN.
12. Touchdown -- SLIGHTLY TAIL LOW.
13. Ignition Switch -- OFF.
14. Mixture -- IDLE CUT OFF.
15. Brakes -- APPLY HEAVILY.

DITCHING

1. Radio -- TRANSMIT MAYDAY on 121.5 MHz, giving location and intentions and SQUAWK 7700.
2. Heavy Objects (in baggage area) -- SECURE OR JETTISON (if possible).
3. Passenger Seats -- AS FAR FORWARD AS PRACTICAL.
4. Passenger Seat Backs -- MOST UPRIGHT POSITION.
5. Seats and Seat Belts -- SECURE.
6. Wing Flaps -- 40°.
7. Power -- ESTABLISH 300 FT/MIN DESCENT AT 70 KIAS.

NOTE

If no power is available, approach at 85 KIAS with flaps up or at 80 KIAS with 10° flaps.

8. Approach -- High Winds, Heavy Seas -- INTO THE WIND.
Light Winds, Heavy Swells -- PARALLEL TO SWELLS.