

EMERGENCY PROCEDURES

Table of Contents

T-41

NON CRITICAL ACTION PROCEDURES	E-2
GROUND OPERATION EMERGENCIES	E-2
Emergency Engine Shutdown on the Ground	E-2
Engine Fire During Start	E-2
TAKEOFF EMERGENCIES	E-2
Abort	E-2
IN-FLIGHT EMERGENCIES	E-3
Engine Failure Immediately After T/O	E-3
Engine Failure In Flt - Forced Landing	E-3
Engine Fire During Flight	E-4
Emergency Descent	E-4
Propeller Failure	E-4
Electrical Fire / High Ammeter	E-5
Negative Ammeter Reading	E-5
Smoke and Fume Elimination	E-5
Oil System Malfunction	E-5
Structural Damage or Controllability Check	E-5
Recall	E-6
Lost Procedures	E-6
Radio Failure	E-7
Diversions	E-8
LANDING EMERGENCIES	E-9
Landing with flat tire	E-9
LIGHT SIGNALS	E-9

E-1

NON-CRITICAL ACTION

1. Maintain aircraft control.
2. Analyze the situation and take proper action.
3. Land as soon as conditions permit

GROUND OPERATION EMERGENCIES

Emergency Engine Shutdown on the Ground

1. MIXTURE ----- IDLE CUTOFF
2. IGNITION ----- OFF
3. MASTER SWITCH ----- OFF
4. FUEL SHUTOFF VALVE ----- PULL OUT

Engine Fire during Start

1. AUXILIARY FUEL PUMP ----- OFF
2. THROTTLE ----- OPEN
3. IGNITION SWITCH ----- START
 - A. Continue cranking the engine to draw fire into the engine.
4. MIXTURE ----- IDLE CUT-OFF
5. IGNITION ----- OFF
6. MASTER SWITCH ----- OFF
7. FUEL SHUTOFF VALVE ----- PULL OUT
8. EXIT THE AIRCRAFT

TAKEOFF EMERGENCIES

ABORT

1. THROTTLE ----- IDLE
2. BRAKES ----- AS REQUIRE

E-2

IN-FLIGHT EMERGENCIES

Engine Failure Immediately After Takeoff

1. LAND STRAIGHT AHEAD
2. THROTTLE ----- CLOSED
3. AIRSPEED ----- BEST GLIDE
4. FUEL SELECTOR ----- BOTH
5. MIXTURE ----- RICH
6. PROPELLER ----- FULL FORWARD HIGH RPM
7. FUEL PRESSURE ----- CHECK
 - A. If insufficient fuel pressure, turn on the auxiliary fuel pump switch to HI.

ENGINE FAILURE IN FLIGHT - Forced Landing

1. A/S TRIM FOR BEST GLIDE
2. SELECT FORCED LANDING AREA
3. **ENGINE RESTART PROCEDURE (BIG L)**
 - FUEL SELECTOR - BOTH
 - MIXTURE - RICH
 - PROPELLER ----- FULL FORWARD HIGH RPM
 - THROTTLE - CLOSED
 - AUXILIARY FUEL PUMP - HI
 - THROTTLE - OPEN (OBTAIN 8-10 GPH)
THEN REDUCE TO 1" OPEN
 - AUXILIARY FUEL PUMP - OFF
 - IGNITION - START **IF PROP IS STOPPED**
- **IF ENGINE FAILS TO START** -----
 - MAYDAY CALL
 - CURRENT FREQ OR 121.5, TRANSPONDER 7700
 - SELECT TOUCH DOWN POINT
 - FLAPS AS REQUIRED (FULL DOWN)
4. **IF RESTART FAILS - SECURE ENGINE (BIG L)**

- Clear engine every 30 seconds
- 500 feet AGL minimum
- Execute the "GO-AROUND PROCEDURE"

Engine Fire During Flight

1. MIXTURE ----- IDLE CUTOFF
2. FUEL SHUTOFF VALVE ----- PULL OUT
3. IGNITION SWITCH ----- OFF
4. MAY DAY CALL -----121.5 / TRANSPONDER 7700
5. AIRSPEED ----- 120
6. CABIN HEAT AND AIR KNOBS ----- IN
7. MASTER SWITCH ----- OFF

EMERGENCY DESCENT

1. DECLARE AN EMERGENCY -----121.5 / XPDR 7700
2. MIXTURE ----- RICH
3. PROPELLER----- FULL FORWARD HIGH RPM
4. THROTTLE ----- CLOSED
5. FLAPS - UP
6. SPEED - 182 Vne (for training 100MPH)
7. FLAPS AS REQUIRED FOR TOUCH DOWN
8. TOUCH DOWN WITH MINIMUM SPEED

PROPELLER FAILURE

1. THROTTLE ----- REDUCE POWER
Maintain RPM below 2800RPM
2. AIRSPEED ----- REDUCE
Pull aircraft into climb to reduce A/S and load prop
3. PROPELLER ----- FULL AFT LOW RPM
4. LAND AS SOON AS PRACTICAL

Electrical Fire / High Ammeter

1. MASTER SWITCH ----- OFF

Negative Ammeter Reading

1. ELECTRICAL LOAD ----- REDUCE
 - Radios & Lights -- Off
 - Alternator reset -- Alternator switch Off then On
 - If negative amps continue -- Alternator -- Off

Smoke and Fume Elimination

1. CABIN HEAT / AIR KNOBS ----- IN
2. UPPER AIR VENTS ----- OPEN
3. PILOTS WINDOW -- (BELOW 100MPH) -- OPEN

Oil System Malfunction

1. THROTTLE ----- AS REQUIRED
2. MIXTURE ----- RICH

Structural Damage or Controllability Check

****CAUTION****

Do not reset flaps if significant structural damage is located in the wings.

1. Climb to at least 1500' AGL if practical, at a controllable airspeed
2. Simulate a landing approach and determine the airspeed at which the aircraft becomes difficult to control. This is the minimum controllable airspeed
3. Plan to fly a straight-in approach. Fly the normal approach airspeed for your flap setting, or 10kts above the minimum controllable airspeed, whichever is higher. For asymmetrical flaps, use your minimum flap setting for approach airspeed. Plan to touch down at no less than the minimum controllable airspeed. Do not begin to reduce to final approach airspeed until the aircraft is very close to the runway.

Recall

1. Eagle initiates a recall with a blanket radio call that is not acknowledged.
2. Individual aircraft are then contacted separately to minimize confusion and radio congestion
3. Do not leave the area until instructed by Eagle.
4. Do not call Eagle for recovery. Eagle will sequence aircraft recoveries.
5. PREPARE FOR POSSIBLE DIVERSION
SEE PAGE E-8

Lost Procedures; Climb, Communicate, Confess & Comply (The 4 C's)

1. Attempt to climb to an altitude that provides the best visibility.
2. Choose a power setting that will give you an economical fuel burn and lean for endurance. The bottom of the green arc (RPM) works well. Verify fuel remaining.
3. Look for prominent landmarks. Airports are often located along major roads.
4. Tune in a local VOR. Navigational aids can be found on the sectional chart.
5. Attempt to contract air traffic control (Center, FSS, or Flight Watch). Center frequencies can be found in the FAA Airport Facilities Directory (AFD). Flight Service Station (FSS) frequencies 121.5, 122.2, 123.6, Flight Watch 122.0
6. If unable to contract a station set transponder to 7700 and call MAYDAY 3 times on "Guard Frequency" 121.5, giving your call sign and state that you are lost.
7. If unable to get reoriented, land before you run out of fuel. Select a good field and fly a low approach over it to determine whether it is suitable for landing. If suitable, determine the wind direction and land.
8. Notify the aero club (cell phone) by calling collect if necessary. If there are no dwellings within sight, stay with the aircraft.
9. Use the aircraft survival kit as necessary.

RADIO FAILURE

1. Determine if an actual radio failure exists.
 - a. Make sure the auto selector on the audio control panel is in the PHONE position. The transmitter selector is on the correct radio and on the correct frequency.
 - b. If communication is not established go to the intercom fail safe mode. Turn the intercom volume control knob full CCW to click into fail-safe mode.
 - * The fail-safe mode will only work in the left seat.

CONTROLLED AIRFIELDS

1. If unable to determine the landing runway prior to enter in the airport traffic area, fly at least 2000' above the depicted airport elevation and observe wind indicators or other aircraft. Once the landing runway been determined enter the pattern.
 - a. Acknowledge tower light signals by rocking your wings.
 - b. If no light signal is received and no traffic conflicts exist, land. Refer to standard light signals chart for definition of light signals.

2. ACADEMY AIRFIELD

- a. Enter the pattern for the eastern runway displaying your landing light.
- b. Observe tower for a steady green light on base and final. If no light is observed and no visible conflict exists with other traffic or runway restriction, land.

3. UNCONTROLLED AIRFIELDS

- a. Remain 500' above the published pattern altitude while attempting to determine the landing runway.
- b. If unable to use traffic to determine the landing runway, use wind indicators.
- c. Once the landing runway has been determined, join the traffic pattern and land.

4. WHILE HOLDING NUMBER ONE OR TAXIING

- a. Turn the aircraft towards the tower and flash the landing light and watch for a light signal.

Diversions from BLACK FOREST VOR, (BRK)

1. Determine fuel remaining.
2. Select an alternate field.
3. Turn to approximate heading.
4. Change altitude if necessary.
5. Notify ATC of your intentions.

Centennial
322° / 22 min
fuel 3.0



Limon
054° / 27 min
fuel 3.6



Black Forest VOR
BRK 112.5

Meadow lake
077° / 2 min
fuel .3



Butts
190° / 9 min
fuel 1.2



Colorado Springs
185° / 8 min
fuel 1.1



Bullseye
115° / 10 min
fuel 1.3



calculations based on:

Power 2500 RPM

TAS 110 KIAS

Fuel burn 8.0

Altitude 8000'-10,000' MSL

Pueblo

158° / 22 min
fuel 3.0



LANDING EMERGENCIES

Landing with a Flat Tire

1. Main Gear: Land on the side of the runway corresponding to the good tire.
2. Nose Gear: Land in the center of the runway, hold nose wheel off the ground as long as possible.
3. Stop the aircraft on the runway. Shut down the aircraft and call maintenance.

LIGHT SIGNALS

COLOR & TYPE OF SIGNAL	ON THE GROUND	IN FLIGHT
Steady Green	Cleared for takeoff	Cleared to land
Flashing Green	Cleared to taxi	Return for landing (to be followed by a steady green)
Steady Red	Stop	Give way to other aircraft and continue circling
Flashing Red	Taxi clear of runway in use	Airport unsafe – Do not land
Flashing White	Return to starting point on airport	-----
Alternating Red & Green	Warning – Exercise extreme caution!	Warning – Exercise extreme caution!

To acknowledge tower signals: Day: Rock wings
Night: Blink Landing Lights