

SECTION 4 EMERGENCY PROCEDURES

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4.1 FIRES

WARNING

THE EXTINGUISHER IN THE COCKPIT IS BCF AND GIVES OFF TOXIC FUMES IN A CONFINED SPACE. IT SHOULD BE USED WITH CARE. ENSURE ONLY SUFFICIENT EXTINGUISHANT IS USED TO PUT OUT FIRE THEN OPEN ALL FRESH AIR VENTS

4.1.1 Electrical Fire

- Master switch .....Off
- Alternator .....Off
- Circuit breakers .....Trip all

Land as soon as possible - the engine will continue to run but all electrical services have been lost.

NOTE

After all circuit breakers have been tripped the battery power may be restored to enable selective resetting of circuit breakers if necessary. Should the ammeter show an excessive discharge when a particular circuit breaker is reset then leave that circuit breaker in the tripped position. Finally restore power to the alternator.

4.1.2 Engine Fire

- Throttle ..... Closed
- Mixture ..... Cutoff
- Fuel cock ..... Off
- Magnetos ..... Off
- Electric Fuel pump ..... Off
- Cockpit hot air ..... Off
- Radio ..... Transmit emergency call
- Master switch ..... Off
- Alternator ..... Off

Carry out Forced Landing DO NOT ATTEMPT RESTART



4.1.3 Cockpit Fire

On ground

Cockpit air ventilation intakes . Open -  
 Fire Extinguisher ..... Discharge at source of fire  
 Engine ..... Shut down (para 4.1.2 Engine Fire)  
 Canopy ..... Open and Evacuate Cockpit

In flight

Cockpit Air Ventilation  
 and Heater Intakes ..... Closed  
 Fire Extinguisher ..... Discharge at source of fire  
 Canopy Direct Vision Window ..... Open halfway to clear smoke and  
 (Pilots side only) remove fire extinguishant traces  
 Fire Damage ..... Assess (If necessary carry out  
 drills 4.1.1 Electrical Fire  
 and/or 4.1.2 Engine Fire)

4.2 FORCED LANDING

Glide ..... 70 kts - gives about 1.6nm  
 per 1000 ft in still air  
 Radio ..... Emergency call  
 Harness ..... Tight and secure (inertia  
 reel types locked)  
 Throttle ..... Closed  
 Mixture ..... Cutoff  
 Fuel cock ..... Off  
 Magnetos ..... Off  
 Electric fuel pump ..... Off  
 Master switch ..... Off  
 Alternator ..... Off  
 Gliding speeds ..... Clean - 70 kts  
 Takeoff flap - 65 kts  
 Landing flap - 65 kts  
 Threshold speed ..... 60 kts

Emergency location ..... Activate switch on instrument panel transmitter (Mod 474) (if forced down in remote area) (fitted only in countries whose authorities approve of this installation)

**4.3 DITCHING**

Notes....

- (1) If above 2000 ft AMSL consider abandonment by parachute.
- (2) Ditching is best carried out whilst engine power is available to control the rate of descent.
- (3) In a strong wind, land into wind preferably on the crest of a wave. If the swell is heavy land along the swell.

With Power Available

Harness ..... Tight and secure (inertia reel types - locked) <

Canopy ..... Closed or locked open (Post Mod 283 A/C)

Flaps ..... Fully down

Speed ..... 60 kts

Rate of descent ..... 300 ft min

DO NOT ROUND OUT Continue descent into the water

Without Power Available

Forced landing checks ..... Completed except canopy

Canopy ..... Closed or locked open (Post Mod 283 A/C)

Flaps ..... Fully down

Speed ..... 60 kts

Rate of descent ..... As established

DO NOT FULLY ROUND OUT Check rate of descent but fly the aircraft into the water.

CAUTION

- (1) In both cases the aircraft may turn on its back. Release the seat harness and exit via the open canopy before inflating the LSJ.
- (2) With canopy in open position during flight suction controlled instruments will be more difficult to read due to indicator needle flutter.

P.4-2A  
CAA Approved  
June 1992 A4  
70 7070/2 174



4.4 ENGINE FAILURE - PROPELLER STOPPED

WARNINGS

EARLY PREPARATION FOR AN EMERGENCY LANDING IS PREFERABLE TO FOLLOWING DRILLS AND THEN BEING LEFT WITH TOO LITTLE HEIGHT TO CARRY OUT A SAFE LANDING.

IF THE ENGINE STOPPED WITH UNUSUAL MECHANICAL NOISE, DO NOT ATTEMPT RESTART, BUT CARRY OUT FORCED LANDING.

Before attempting the re-start procedure first try alternative carburettor heat setting as follows:

    If hot ... move to cold                      If cold ... move to hot

Then operate starter - if engine will not start carry out the following actions.

Restart Procedure

Master switch .....	Check on
Throttle .....	1/4 open
Mixture .....	Fully rich
Fuel contents .....	Check (Both gauges)
Fuel cock .....	On (Left or Right Tank)
Magnetos .....	Both
Electric fuel pump .....	On
Fuel pressure .....	Check
Alternator .....	Off

EITHER operate starter OR, if starter is inoperative, dive to start propeller turning (approx 115 kts). If diving to start the engine care must be taken on the pull-out not to exceed the g limits (ref Section 2).

When engine starts,

Mixture .....	Slowly to full rich
Alternator .....	On
Throttle .....	Increase power slowly
	Allow engine to warm up

**DIVING TO RESTART THE ENGINE USES 600-800 FT**

If the propeller stopped during aerobatics, the engine may be started immediately using the starter button so long as there was no mechanical noise when the engine stopped.

4.5 ENGINE FAILURE - PROPELLER TURNING

WARNING

EARLY PREPARATION FOR AN EMERGENCY LANDING IS PREFERABLE TO FOLLOWING DRILLS AND THEN BEING LEFT WITH TOO LITTLE HEIGHT TO CARRY OUT A SAFE LANDING.

MECHANICAL If there is no oil pressure or if there is unusual mechanical noise:

Throttle..... Closed

Mixture ..... Cutoff

Fuel cock ..... Off

Magnetos ..... Off

> Electric fuel pump ..... Off <

CARRY OUT FORCED LANDING.

Restart Procedure

FUEL

Fuel contents ..... Not Zero (Both Tanks)

Fuel cock ..... On Left or Right Tank

Mixture ..... Rich

Throttle ..... 1/4 OPEN

> Electric fuel pump ..... On, check press <

MAGNETOS

Both ..... if no better

Right ..... if no better

Left ..... if no better

Both

IF NO IMPROVEMENT - CARRY OUT FORCED LANDING



4.6 FUMES IN THE COCKPIT

Cockpit hot air/demist .....Off

Fresh air vents .....Fully open

Check all engine instruments for any sign of malfunction. If smell is electrical - electrical fire drill. If the smell is petrol, do not make any electrical selection at all as a spark could lead to fire.

LAND AS SOON AS POSSIBLE

4.7 ALTERNATOR FAILURE

Alternator .....Off

Excitation c/b .....Set

Alternator c/b .....Set

Alternator .....On

If the alternator output cannot be regained, reduce electrical loads to a minimum, to conserve battery life. Descend out of cloud before services fail (radio, gauges etc).

In any event, the battery duration, with all essential services operating is in excess of 30 minutes.

4.8 COMMUNICATIONS FAILURE

Check all switches and volume controls.

Check frequency, check circuit breakers.

Change headset.

Plug in headset on other side - use other transmitter button.

Turn radios off for 5 minutes and then try again.

4.9 OIL PRESSURE FAILURE

WARNING

PROLONGED USE OF POWER AFTER ENGINE OIL PRESSURE  
FAILURE WILL LEAD TO ENGINE MECHANICAL FAILURE

Full throttle may be used in emergency but engine failure is likely to follow loss of oil pressure, particularly if much power is used.

RPM ..... control with throttle  
Throttle ..... closed - except for  
emergency

Carry out forced landing at nearest available site.

4.10 PITOT STATIC SOURCE FAILURE

In OAT below 0°C ..... switch on pitot heat  
and/or flight in  
precipitation

If block static source ..... open emergency static source  
is suspected in cockpit (Mod 485)  
(LH side instrument panel)

CAUTION

WHILST OPERATING ON EMERGENCY STATIC SOURCE  
ALLOWANCE MUST BE MADE FOR MINOR ERRORS ON  
PITOT STATIC INSTRUMENTS.

4.11 ELECTRIC ELEVATOR TRIM SYSTEM FAILURE (Mod 443)

In the event of failure or malfunction of the electric trimmer, any out-of-trim force may be held on the control stick and the electric trim can be over-ridden using the manual system.

The electric trim circuit breaker on the lower block on the right hand side of the instrument panel must be pulled to de-energise the circuit.

The flight can be continued using the manual system to make any trim adjustments.



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