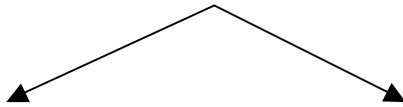


# FORCED LANDINGS

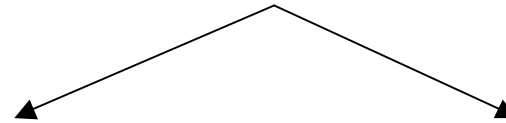
FIXED WING



WITHOUT  
POWER

WITH  
POWER

HELICOPTER



WITHOUT  
POWER

WITH  
POWER

Lets look at some countryside...

# FIXED WING FORCED LANDING WITHOUT POWER

Causes of engine failure...

FUEL - lack of, mis-management, mixture, contamination, fuel grade, primer

FUEL PUMP - mechanical, electric, low wing versus high wing

THROTTLE SETTING - Passenger or accidentally moved

ENGINE FIRE DRILL - Will lead to an engine shutdown

MAGNETOS - Try L & R position. May be the key switch

CARB ICING - Possible up to +27 degrees in high humidity

MECHANICAL FAILURE - Monitor the oil T & P for early indications

**Be prepared...**

**PRE-FLIGHT - W/V (HKO website), brief pax, fuel & oil, first flight?**

**TAKE OFF - Last chance to stay on the ground! Full power check.**

**DURING FLIGHT - Height, landing sites, W/V, monitor engine, fuel, pax.**

**REGULAR PRACTISE - Fly together but don't forget Airmanship & the Law.**

**PRECISION LANDING - Consistently accurate landings from glide approach.**

**DITCHING - Know the procedure.**

**INCIDENT REPORTS - Read them. Learn from other peoples experiences.**

## **Selection of landing site...**

**LAND or SEA - There is about a 50% chance of a ditching.**

**LAND - Size, Shape, Slope Surface, Surround.**

**SEA - Into wind, shallow water, calm water, close to beach.**

**Forced landing procedure...**

**FLY THE AIRCRAFT - Best glide + 5kts.**

**SELECT LANDING SITE - If nothing available, turn downwind.**

**W/V - Landing into a wind of 15kts means 20kts touchdown speed (C.152).**

**PLAN DESCENT - Beginning of base leg at 1000ft AGL.**

**TROUBLESHOOT - Know the flow pattern. Do twice if time permits.**

**FLY THE AIRCRAFT - At all times. Check speed, height, position.**

**MAYDAY - On current freq or 121.5, squawk 7700, activate the ELT.**

**SECURE ENGINE - Fuel off, Mags off.**

**PRE-LAND CHECKS - Brief pax, secure door open, harness very tight.**

**BASE LEG - Final adjustment to pattern.**

**FINALS - Flaps as required. Master off. Remember the wind gradient effect.**

## Ditching procedure...

**SAME AS FORCED LANDING ON LAND, EXCEPT...**

**LANDING SITE - Into wind, shallow water, calm water, close to beach.**

**LIFEJACKET - Don but do not inflate until outside aircraft.**

**TOUCHDOWN - Just above the stall with full flap, tail first.**

**A/C UPRIGHT - Cockpit under water, flaps in the way.**

**A/C INVERTED - Cockpit on the surface.**

**EVACUATION - Rear seat pax first, then slide seat back.**

**Factors affecting the glide performance...**

**WIND** - Tailwind increases range. Turning downwind increases field selection.

**AIRSPEED** - Best glide speed gives best range in nil wind.

**FLAPS** - Steepen glide angle & reduce range. Use to control glide-path on finals.

**WEIGHT** - Affects glide speed but not range.

**FIXED PITCH PROP** - Stationary prop glides further.

**VARIABLE PITCH PROP** - Coarse pitch glides further.

# FIXED WING FORCED LANDING WITH POWER

Reasons to carry out this procedure...

BAD WEATHER - Fly SLOW SAFE CRUISE.

LOW FUEL STATE

GETTING DARK

GETTING SICK

A/C SERVICEABILITY SUSPECT

Possible landing sites... **DECLARING A MAYDAY WILL JUSTIFY USE OF THE SITE**