

SURVIVAL FOR AVIATORS IN REMOTE AREAS

The conditions in remote areas of Scotland are some of the most treacherous and harsh anywhere in the **world** in winter and summer. This is due to unpredictable changes in the weather and damp windy conditions that vary around the freezing level causing hypothermia.

PREPARATION

Clothing: Wear multiple layers of clothing and do not rely on the a/c heater system. Consider wearing long johns under trousers or flying suits. Take a fleece and waterproof jacket. Wear ankle high boots and wool socks. Avoid trainers and jeans. Ensure your PAX are similarly dressed and briefed on survival equipment carried.

Planning: Avoid over-flying remote areas and going out to sea. Water temp is 6 - 16 degC. You will probably not survive longer than 15 min in winter and 45 min in summer without an immersion suit and three layers of clothing underneath!

Be prepared - Think about what you would do if you had to make an emergency landing. Plan to use an ATC service and make any mayday calls early before signal is lost.

EQUIPMENT SUGESTED (keep it compact in a waterproof bag)

1. Mobile phone and torch.
2. Hand held VHF radio / GPS / smart phone / tablet and personal EPIRB / PLB / Spot
3. Spare batteries for all the above.
4. Waterproof jacket and over-trousers.
5. Hat, gloves and spare socks.
6. Food and drink – Mars bars and a pint of water/juice (flask of hot drink?).
7. Other signalling devices (whistle, mirror, rescue kite, strobe, flares) and compass.
8. Multi-tool and waterproof matches (try not to set light to the a/c or fuel).
9. Lifejackets, immersion suits & dingy if over water beyond gliding range to land.
10. Survival bag and First Aid Kit normally stowed in aircraft.

IMMEDIATE ACTION

Carry out immediate first aid, don extra clothing and take shelter.

Activate ELT fitted to a/c and personal EPIRB / PLB / SPOT.

Follow up on your mayday call and switch on mobile phone even if no signal present.

Improve shelter and visibility of crash site if necessary.

Get into Survival Bag/Dingy.

Conserve energy and stay dry as much as possible.

INTERNATIONAL DISTRESS SIGNALS

Emergency VHF freq – 121.500 MHz – no longer monitored by SAR SAT but used locally by rescue aircraft, helicopters and boats.

SPOT emergency beacon – use Comm sats, almost world wide – tracking and email also.

ELT / PLB / EPIRB 406 MHz – Monitored by SAR SAT worldwide – GPS reduces delay.

Transponder emergency code – 7700 – set well before ditching/forced landing.

Fly anything in the form of a kite or flag, preferably ball shaped and reflective if possible.

Ground / Air signals, V = require assistance, X = require medical assistance.

Launch flares (if available), flash lights or mirrors and blow whistle at potential rescuers.

International Mountain Rescue signal – Flash light/whistle 6 times – reply is 3 times.

Mobile phone screen, camera flash and torch lights can be seen using NVGs for miles.

Morse code – SOS (dot dot dot dash dash dash dot dot dot).

Telephone 999 or 112 (112 is universal international number).

1st LOOK AFTER NUMBER ONE !!!

If you can look after yourself somebody else does not have to do it for you.

2nd LOOK AFTER OTHERS

Other people's problems will very soon become your problems as well.

3rd REPAIR TO BE RESCUED

You are most likely to be rescued by a helicopter fairly soon. It will probably arrive unannounced - so be ready to be rescued at any time. Gather personal possessions and secure loose articles; attract attention and indicate local wind direction if possible.

STAY PUT and SIT IT OUT – WHY?

1. Because that is where the rescue services expect to find you.
2. The remains of the a/c are usually very visible and can be used for shelter.
3. If the ground is hilly and snow covered there is a risk of walking into an avalanche area or cornice collapse.
4. The survivors should stay together!! (Most mountain area fatalities follow separation from the group).
5. You are unlikely to be equipped for mountain travel or navigation.
6. As a last resort it may be necessary find your own way to help (do not take this decision lightly).

THE KILLERS?

1. Frostbite - Worth avoiding but rarely fatal.
2. Starvation - Unpleasant yes – but it takes at least 14 days or more to kill you.
3. Dehydration - Very debilitating but takes several days to kill you.
4. Boredom - You are only killing time.
- 5. HYPOTHERMIA - The No 1 killer - Can kill you within several hours!**

Symptoms of hypothermia (exposure):

Increasingly difficult to self diagnose; rapid deterioration follows if not treated early.

Early:

Feeling cold, damp and tired.

Occasional shivering and some numbness of extremities.

Erratic behaviour and persistent whingeing.

Lethargy, slurred speech and blurred/abnormal vision.

Lack of coordination and tripping.

Violent outburst of action or speech and failure to accept that there is a problem.

Advanced:

If the above symptoms are not treated:

Shivering stops and eventually unconsciousness follows.

Pulse and respiration become feeble and difficult to detect.

Cooling of the body core usually leads to death, which can be in as little as 2 hrs on land and only 20 min in water.

Treatment:

Provide rest, warmth and shelter.

Remove/replace damp/wet clothing if possible.

Provide a warm drink if possible.

PREVENTION IS BETTER THAN CURE.

Prepared by Paul Horth for 'Sky Watch CAP training day' 30 Jan 2010.