

Cross Country Survival Equipment

Aircrew Survivability
for Pilots, Observers, Scanners, Ground Team

Ed Angelovich

4 Dec 07

Why do I need a Survival Kit

- **Why do you need a First Aid Kit?**
 - Because its good planning and you NEVER know.....
- **Did you know?**
 - **1,500 GA accidents every year**
 - **50% chance of surviving 72 hours** by crews who arent injured
 - AF Rescue Coordination Center Study
 - **It takes 62.57 hours (ave)** before someone is found
 - when an airplane is reported missing to the time it is found if it is not on a flight plan.
- **Like a First Aid Kit, Survival gear dramatically increases your chances of surviving**
 - With better survival equipment you will be rescued much quicker and your chances of surviving go up dramatically.

It wont happen to me

- Most of us who fly **don't like to consider the possibility** that we might be involved in a crash.
- Accidents happen to **the other guy**.
- **85% of all crashes happen on or near an airport**, relatively close to civilization. If we survive the crash, help is probably going to be there soon.
 - But can take up to ~30 hours to rescue you
- **15% of accidents that happen someplace else**.
 - What can we do to stay alive until we get found?
 - What can we do to make sure we DO get found?

Immediate Personal Actions

- The **personal decision** to survive is paramount in the survivability of any aircraft accident
- **STOP** and Keep **Calm**
 - Secure loose stuff before your head stops it
 - Know the egress procedures for the airplane
 - **STOP**, which means stop, think, organize, and proceed, to keep the order straight.
- Survival is a **learned skill**
 - Be aware of the climate, terrain, and lifeforms in the area where you intend to fly.
 - Survival gear should include adequate protection for each.

Wear the right stuff

- Don't wear synthetics
- Nomex is used by most folks for flight clothing
- Wear the flight suit correctly - Don't let flame get through - Sleeves down, Collars UP, Zippers closed
- Nomex gloves
- Boots - No synthetics, High tops
- Minimize exposed skin
 - Wearing a flightsuit over regular clothes is a **fire path!!!**
- Keep it clean - Oil, Grease, Fuel on Nomex isn't good

Personal Survival Kit

- Carry items **on your person** in addition to stowed gear
 - If you're wearing it, you always have it with you
 - Make sure you're not so bulky that you can't exit or fly the aircraft
 - Flight suit pockets
 - Dedicated vests (SRU 21/P, CMU/33), etc
- **6 basic requirements** for Survival Kits
 - SIGNALING & LIGHT
 - WATER & FOOD (sustenance)
 - FIRE STARTERS
 - SHELTER & WEATHER PROTECTION
 - TOOLS
 - FIRST AID KIT

1. Signaling & Lights

- Signaling

- Emergency signaling mirror
- Whistle
- Orange signal cloth
- Handheld radio; EPIRB (Emergency Position Indicating Radio Beacon); PLB (Personal Locator Beacon)
- Signal pistol
- Colored smoke bombs
- Road Flares



- Lights

- Flashlight and spare batteries
- Strobe rescue light



2. Water & Food

- Water

- Packets of survival water (or 1 liter bottle of water)
- Water purification tablets
- Water filter system
- Plastic water bag



- Food

- Dry soups
- Granola bars
- Chocolate bars
- Dried fruit packs
- Dried meals
- Hard candy



3. Fire Starters

- Matches or cigarette lighter
- Lifeboat matches
- Magnesium firestarter
(Army issue)
- Strike force spark igniter
(Air Force issue)



Shelter & Weather Protection

- Appropriate clothing for terrain flow
- Metal coated survival blanket (space blanket)
- Thermal underwear
- Plastic cover
- Tube tent
- Can use Aircraft parts
- Sunscreen
-
- Blanket (wool)
- Sleeping bag



Tools

- Survival knife, hatchet, machete or similar
- Multipurpose combination tool
- Compass
- Parachute Cord
-
- Sling shot
- Blade sharpener
- Six fishhooks & 50' of fishing line
- Light wire for snares
- Cable or wire saw



First Aid Kit



- Handbook
- Bandages and dressing
- Antiseptic ointment
- Tape
- Wire Splints
- Pain relievers
- Ammonia inhalers
- Insect repellent

- **Stop bleeding**
- **Splint bone breaks**
- **Cover and protect burns**
- **Treat for shock**
- **Protection from environment**

Low Priority Items

- Lots of food
- Map and Compass of the area
 - You're not going anywhere
- Fishing or Snare materials
- Firearms

Post Crash

- Wait for everything to stop moving
 - You can survive longer sliding in the cabin than on your own
- Exit rapidly
- Move cross-slope or uphill if possible
 - You don't want to be under the aircraft if it starts to move again

After the Crash

- Administer emergency first aid
- Wait for things to cool down
- Salvage
 - ELT
 - Aircraft Survival Equipment
 - Other useful equipment

Signal for Help

- Relocate ELT and activate, if possible
- Call on other radios
 - Cellphones
 - Hand-Held Radios
- Ready pyrotechnics
 - Smoke Flares
 - Pen Flares
- Practice with your mirror

Time to Spare?

- Ground - Air Signals for Survivors
- Shelter
 - Check a good survival book, like the Air Force or Army versions
- Food
 - Don't bother
- **DON'T LEAVE THE AIRCRAFT**