

## **EMERGENCY ACTION PLAN**

The purpose of an emergency action plan is to develop a basic course of action that can be implemented during an emergency. It should be carefully thought out ahead of time so that when an emergency occurs, you can implement your plan and adapt it to the situation instead of trying to develop a plan under extremely stressful conditions. This is especially important given the extreme weather and terrain conditions we could face on any flight in Alaska. Often times, the difference between living and dying depends on how fast you protect yourself from the elements and how clear you keep your mind. All of your pilot training, survival training and survival gear will do you very little good if you panic during an in-flight emergency or the subsequent survival situation encountered after a forced landing. The following information is presented to serve as a starting point for each pilot to develop his/her personal emergency action plan.

### **MISSION BRIEFING (*Prior to getting in the aircraft*):**

#### **1. Crew Duties**

##### **A. PIC**

- Fly's the aircraft and handles the emergency
- Assigns duties to other crew members (co-pilot, observer, passengers)
  - Backup the PIC on checklist items and radio calls
  - How to help look for an emergency landing site
    - Note location of possible shelter (cabins, forest, hills, etc)
    - Identify obstacles during descent (trees/pwr lines/towers/ditches)
- Who is responsible for what equipment to exit aircraft with
- When and how to egress aircraft
- Who is in charge if PIC is incapacitated
- Where to meet after egress (rendezvous point)

- Explain how you will handle different emergencies and where they are located in the checklist
  - engine out
  - Fire (engine/cabin)
  - Icing
  - Electrical
  - Oil (pressure/temperature)
- Discuss radio transmissions and the importance of making a MAYDAY call before the emergency landing
  - Gives your approximate position, a/c type/color, and souls on board
  - Alerts someone to your situation
  - Shortens response time by a minimum of 3 hours

## 2. Co-Pilot, Passengers

- Backup PIC with checklist procedures and radio calls
- Help look for emergency landing area
- Help clear selected landing area for obstacles and potential shelter sites
- Help prepare aircraft for forced landing
  - secure all loose items
  - Turn off non-essential equipment
  - Open doors

## **AFTER FORCED LANDING**

### I. Assess aircraft damage and personal injuries

- If there is minimal damage or little chance of fire, consider removing all on-board emergency/survival equipment during initial egress
- If there are only minor injuries, consider delaying first aid until after removing equipment from aircraft

- If the aircraft has major damage, is on fire, or the strong possibility of fire exists, egress the aircraft ASAP with as much equipment as possible
- Proceed to pre-briefed rendezvous point and determine whether removal of further equipment is possible
- If personal injuries have occurred, direct injured crewmember to egress and proceed to rendezvous point
- If injured crewmember is unable to move, assist as appropriate
- Once personnel and equipment are clear of aircraft and injuries are treated, determine the best course of action and assign duties for implementation

## 2. Find Shelter

- Determine if natural shelter is available
- If natural shelter is not available, determine the best way to build a shelter

## 3. Inventory survival equipment

- Check food supply and determine a ration schedule
- Check clothing and determine a rotation schedule to stay as dry as possible
- Determine fire starting /sustaining capabilities
  - Natural combustibles (trees, bushes, grass, etc)
  - Commercial combustibles: (oil, AVGAS, aircraft interior, etc)
- Develop a schedule to keep fire sustained
  - Rotate "fire watch" in shifts
  - Assign duties for gathering/cutting wood, etc
- Assign foraging duties to supplement food

## 4. Communications

- Locate ELT (directly under the antenna on aircraft) and activate if it did not activate on impact (note the time of activation)

- Remove ELT from aircraft if possibility of fire exists (don't forget to remove the antenna also)
- Leave ELT activated for a minimum of 4 hours to allow satellites time to get a fix on your position
- If you attempt a MAYDAY call on 121.5 and you get the ELT signal, you have an old style ELT and not the newer 406 ELT. Deactivate the ELT if you want to make a MAYDAY call and then reactivate after the MAYDAY call
- Develop a schedule to attempt communications with other aircraft or agencies. ATC tests their 121.5 ELT equipment every hour, on the hour for 5 minutes. To avoid conflict with this testing schedule, do the following:
  - Attempt for 5 minutes on the 1/4 hour and the 3/4 hour for the first 6 hours
    - Transmit MAYDAY call, then monitor for 1 minute
    - Transmit MAYDAY call, then monitor for 4 minutes
  - MAYDAY call should include callsign, type and color of aircraft, approximate position, persons on-board, survival status (immediate assistance due to injuries, need food, need shelter, need warm cloths, etc)
  - After 6 hours, transmit/monitor for 5 minutes on the 1/4 hour
- Use aircraft radios first (if available) until battery is dead
  - Fully charged battery may last up to 8 hours
  - Consider removing battery from aircraft to keep it warm
  - Ensure that all other electrical equipment is turned off
- Use best frequency for your area (Guard, FSS, Approach, Center, Inter-mountain)
  - Remember to turn off ELT if you are using Guard (121.5) and have an older model ELT

## 5. Visual Signals

- Develop a signaling plan
  - Inventory signaling devices (mirror, flares, panels, whistles, etc)
  - Read instructions and practice using the devices (especially the mirror)
  - Set up the colored signal panels if they are available

- If no commercial signaling devices are available, prepare improvised signals
  - Gather green branches or wet grass to put on your campfire
  - Cut up an aircraft tire and soak the pieces in oil
  - Remove an aircraft wing panel and use the backside (shiny aluminum) like a mirror
- Determine when to use visual signals
  - When you hear an aircraft (for radios)
  - When you see an aircraft (for radios and mirrors)
  - When your position is ahead of the "3-9 line" of an aircraft (for smoke or flares)

## **DEVELOP A LONG RANGE PLAN**

### **1. Intensify food foraging attempts**

- Expand area for hunting
  - check for animal tracks and trails
  - set snares
- Attempt fishing
- Expand search for edible plants

### **2. Improve your shelter**

- Expand the shelter to make it more comfortable and livable
- Increase the insulating material to make it warmer
- Increase the water repellency materials to make it dryer

3. Improve your fireplace

- Gather rocks for better containment and to provide more radiated heat
- Cut a sufficient supply of larger logs
- Gather small pieces of wood for cooking

4. Clean up your campsite and develop a personal hygiene regiment

- Establish a garbage dump away from your campsite to keep large animals away
- Wash your feet at least once a day
- Dry out spare cloths and start a rotation cycle (especially for socks)

**KEEP BUSY, STAY MENTALLY ALERT - SURVIVE**

**STAY SEDENTARY, BECOME IRRATIONAL - DIE**