Chapter 9
Emergency Procedures

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Introduction

This chapter outlines basic responses in emergency situations. The following procedures are intended as guidelines to be adapted as a situation develops. No procedure can be expected to address all possible situations.

In any emergency situation, personnel should:

- Remain calm.
- Think first and work through the problem.
- Act deliberately. Avoid impulsivity.
- Seek assistance from all available sources.
- Keep other crewmembers and personnel as informed as possible.

**WARNING**

In any emergency situation, the FIRST AND ONLY PRIORITY IS THE SAFETY OF AFFECTED PERSONNEL.

In-Flight Emergency or Urgency

An in-flight emergency is defined as any situation that requires immediate action to maintain the safety of flight (e.g., in-flight flight control malfunction, imminent collision, etc.). Special procedures are executed to address such situations. An urgency condition is one where the need for resolution is pressing, but not yet immediate.

Medical Emergencies

If there is any doubt, the pilot(s) should treat an in-flight medical situation as an emergency. If necessary, deviate from applicable FARs to meet the needs of the situation. Correct response to an urgent medical condition (e.g.: heart attack) would be:

- Immediately inform ATC or Dispatch of the situation.
- Request medical assistance to be available on landing.
- Land at the nearest suitable airport.

Immediate Actions

An immediate action is an action that must be accomplished so expeditiously that time is not available for a pilot to refer to a procedural manual or checklist.

Immediate action items are only those actions required to stabilize the situation.

Mandatory Confirmation Items

Certain actions, except immediate action (“Memory”) items, should be confirmed by the pilot before the steps are taken. The types of procedural actions and necessary guidance that require these confirmations are outlined in the appropriate Flight Standards Manual.

First Aid Kits and Fire Extinguishers

BSU aircraft are equipped with a First Aid kit and fire extinguisher. Pilots shall ensure that both are aboard and ready for use. Notify Dispatch if a replacement is required.
Overdue Aircraft
Any time an aircraft has not amended its ETA and is more than 30 minutes overdue at its destination, personnel shall address the situation as an emergency. Refer to the BSU Dispatch manual for specific handling procedures for these situations.

Pilot Duties and Responsibilities
Duty Assignments/Emergencies
All pilots shall remain knowledgeable and proficient in the use of emergency equipment and procedures: as per FARs, AIM.

Pilot-In-Command
* The PIC’s primary responsibility is to manage the overall conduct and safety of the flight. The PIC may direct another pilot or passenger(s) to assist, as required.
* The PIC shall notify all occupants regarding the emergency and any special instructions (bracing, evacuation plan after touchdown, etc.).

Students and Passengers
In an emergency situation, students and passengers shall assist as directed by the PIC.

Emergency Authority
Pilot-In-Command
Per 14 CFR Part 91.3, the PIC shall take any action that he/she deems necessary to meet the conditions of an emergency and ensure the safety of flight. He/she may deviate from published operational procedures and policies and from appropriate FARs as necessary.

Dispatcher of Other Management Personnel
The Dispatcher or other BSU Aviation personnel may, in an emergency situation, take any action deemed necessary to ensure the safety of the operation.
Reporting
For any situation where emergency authority is exercised, by the PIC, Dispatcher, or appropriate management personnel, the individual declaring the emergency shall, upon request:

- Submit a written report to the Chief Instructor within 24 hours following the event.
- Review the report with the Chief Instructor to ensure accuracy and completeness.
- Verify the Chief Instructor submitted the final report to the FAA within 10 days following the event.

Communications and Crew Coordination

Pilots
The PIC shall, to the degree possible, ensure that ATC and BSU Dispatch are kept informed of the emergency situation. The PIC shall contact Dispatch and the Chief Instructor as soon as practicable after landing.

Lost Communication
If a pilot loses voice communication with ATC, attempt alternative methods of re-establishing communication with ATC, including FSS, use of VOR frequency to receive instructions, or any other method deemed appropriate for the situation. Adhere to the provisions of 14 CFR 91.185:

- **VFR** – Land as soon as practicable at a suitable airport. Utilize light gun signals per 14 CFR 91.125 if applicable.
- **IFR** – Adhere to route, altitude, and clearance limit provisions of 14 CFR 91.185 and the Aeronautical Information Manual.

Emergency Landing or Ditching

Crew Duties and Coordination
In the event of an emergency landing or planned ditching maneuver, BSU pilots shall adhere to the procedures provided in the appropriate Flight Standards Manual for the aircraft being flown. The PIC shall be responsible for coordinating preparations and establishing aircraft evacuation procedures.

Survival
Any time an aircraft is overdue, missing or sends a radio distress call, the National Search and Rescue Plan is activated. The U.S. Coast Guard is responsible for all maritime rescues and the U.S. Air Force is responsible for inland rescues.

Survival often depends on the ability to overcome stress, provide effective leadership, and function effectively as individuals and as a team. A key factor in survival is the individual will to live – this has often been the deciding element in reported successful survival incidents. Rescue procedures can take anywhere from hours to days. Aircraft occupants may be required to survive in the elements with minimal resources. Whenever away from the aircraft, follow these survival guidelines:
General Survival Guidelines

☑ Stay near the aircraft and organize the group. Account for all personnel.
☑ Assess and address physical injuries in order of severity.
☑ Delegate and assign specific duties such as collecting food, gathering firewood, looking for a water supply, looking for shelter, and designating a sanitation area. Use aircraft resources for shelter, if possible.
☑ Inventory all usable emergency equipment.
☑ Organize signaling devices. Include ELT or fires.
☑ Locating or creating a viable water source is a high priority. The human body can only function at limited capacity without it, and will succumb to dehydration within 2 – 3 days (though the person will likely be unable to function for a portion of that time as the body becomes more dehydrated).
☑ Establish procedures to ration food and water.
  - Do not drink water from a fire extinguisher (it contains antifreeze).
  - When searching for water, consider collecting dew off the aircraft or local plant life. Also keep in mind that animal trails may lead to water.
  - Purify water before consumption by boiling (5 minutes, minimum) or by other methods, if available.
  - If possible, consume water about the same temperature as your body.
  - Do NOT eat snow, as it lowers the body’s core temperature.
  - Drink plenty of fluids, even if you don’t feel thirsty. Thirst is the body’s physical alert that fluid is necessary and that it should be getting them sooner.
☑ Build a fire:
  - Fire provides light, warmth, protection from wildlife, and a signal to overflying search and rescue aircraft.
  - Position materials to be burned so that plenty of oxygen can feed the fire. For warming purposes, several small fires are more effective than one large fire.
  - Use to boil water for purification

In cold weather conditions:

☑ Keep the head and extremities covered, if possible.
☑ Huddle together for warmth.
☑ Be alert for hypothermia.
☑ Avoid overexertion. Perspiration inside the clothing lowers effective insulation and core body temperature. Loosen tight clothing to maintain good circulation and breathability.

In hot weather conditions:

☑ Remain in shade. Stay under shelter during the day. In a sandy environment, scrape away at least 6 in. of sand to take advantage of cooler ground temperatures.
☑ Limit physical activity to the degree possible, and work at night, if possible.
☑ Wear clothing to retain sweat. Keep head, body and back of neck covered.
☑ Be alert for heat-related illnesses, including mental effects that impact judgment and can lead to poor decision making, which can decrease the likelihood of survival.
Interception Procedures

General
Refer to FAR/AIM, Chapter 5, Section 6.

**CAUTION**
BSU pilots shall be familiar with FAA-published Interception Signals available in AIM 5 – 6 - 4.

Post Incident/Accident Procedures
The following can be used as a procedural guide for BSU pilots and personnel are dealing with an incident/accident.

The Pilot-in-Command shall:

- Notify Dispatch as soon as practical.
- Remove the aircraft’s can, flight plan, weather information, flight release, and any other relevant information or equipment (e.g. first-aid kit).

Before Leaving the Scene
The Pilot-In-Command shall:

- Ensure the welfare of BSU personnel.
- Congregate a safe distance away from the aircraft.
- Determine each occupant’s physical condition and seek medical attention, if required.
- Safeguard the aircraft and its contents, if able, to include:
  - Protecting the area from trespassing and pilfering.
  - Ensuring no smoking in the area.
  - Obtaining assistance from airport and law enforcement officials to ensure evidence is not lost due to unnecessary interference with the wreckage.
- Per NTSB 830 requirements, do not disturb or move the aircraft or wreckage. Do not remove from the scene any records involved in or pertaining to an incident or accident, unless granted permission by an authorized representative of the NTSB. Exceptions may be made to protect the aircraft or wreckage from further damage, or protect the public from injury.
- Collect all possible data and information as soon as possible after the accident or incident, emphasizing conditions that might be subject to change or be destroyed in the course of the recovery effort.
- Coordinate the departure from the scene with BSU management.
- BSU Aviation management personnel will coordinate all contact with regulatory authorities after the pilot(s) has departed the scene of the accident.
CAUTION

Pilots involved in an accident or incident have just endured a significant psychological trauma, and are to avoid providing interviews or answering questions from the media.

CAUTION

Any BSU pilot involved in an aircraft incident or accident is grounded. Flight status reinstatement must be approved by the Chief Instructor or his/her designee.

Interviews / Statements
News Media
Do not make any statements to either the public or press in relation to the incident/accident. Refer all questions to:

BSU Inc.
131 Summer Street
Bridgewater, MA 02325
(508) 531-1000

CAUTION

The following reporting procedure is to be strictly followed. This will ensure that all involved parties (FAA, NTSB, Law Enforcement, etc.) receive only a single complete, factually accurate, and properly articulated initial report of the incident/accident.

U.S. Government Authorities
✦ BSU pilots are entitled to appropriate representation during any post-incident/accident interview with either the NTSB or the FAA.

✦ NO BSU pilot should make any verbal statements or permit themselves to be interviewed until representation is available from Aviation Operations management.

✦ All pilot statements must be submitted to the Chief Instructor, who will in turn supply copies to the FAA.

✦ BSU pilots shall comply with reasonable requests from regulatory authorities, law enforcement officials, or NTSB investigators. Present the following for inspection, but do not relinquish:

  o Pilot Certificate
  o Medical Certificate
  o Flight documents
  o Aircraft documents (e.g.: log book, airworthiness certificate)

✦ BSU Aviation management will coordinate the delivery of all pertinent documents to the regulatory authorities, law enforcement officials, or NTSB investigators.