Chapter 10. Emergencies

Section 1. General

10−1−1. EMERGENCY DETERMINATIONS

a. An emergency can be either a *Distress* or an *Urgency* condition as defined in the "Pilot/Controller Glossary."

b. A pilot who encounters a *Distress* condition should declare an emergency by beginning the initial communication with the word "Mayday," preferably repeated three times. For an *Urgency* condition, the word "Pan-Pan" should be used in the same manner.

c. If the words "Mayday" or "Pan-Pan" are not used and you are in doubt that a situation constitutes an emergency or potential emergency, handle it as though it were an emergency.

d. Because of the infinite variety of possible emergency situations, specific procedures cannot be prescribed. However, when you believe an emergency exists or is imminent, select and pursue a course of action which appears to be most appropriate under the circumstances and which most nearly conforms to the instructions in this manual.

REFERENCE−
FAAO JO 7110.65, Para 9−2−7 IFR Military Training Routes.

10−1−2. OBTAINING INFORMATION

Obtain enough information to handle the emergency intelligently. Base your decision as to what type of assistance is needed on information and requests received from the pilot because he/she is authorized by 14 CFR Part 91 to determine a course of action.

10−1−3. PROVIDING ASSISTANCE

Provide maximum assistance to aircraft in distress. Enlist the services of available radar facilities and DF facilities operated by the FAA, the military services, and the Federal Communications Commission, as well as their emergency services and facilities, when the pilot requests or when you deem necessary.

REFERENCE−
FAAO JO 7110.65, Para 2−1−4 Operational Priority.

10−1−4. RESPONSIBILITY

a. If you are in communication with an aircraft in distress, handle the emergency and coordinate and direct the activities of assisting facilities. Transfer this responsibility to another facility only when you feel better handling of the emergency will result.

b. When you receive information about an aircraft in distress, forward detailed data to the center in whose area the emergency exists.

NOTE−
1. *Centers serve as the central points for collecting information, for coordinating with SAR, and for conducting a communications search by distributing any necessary ALNOTs concerning:*

a. *Overdue or missing IFR aircraft.*

b. *Aircraft in an emergency situation occurring in their respective area.*

c. *Aircraft on a combination VFR/IFR or an airfiled IFR flight plan and 30 minutes have passed since the pilot requested IFR clearance and neither communication nor radar contact can be established with it. For SAR purposes, these aircraft are treated the same as IFR aircraft.*

d. *Overdue or missing aircraft which have been authorized to operate in accordance with special VFR clearances.*

2. *Notifying the center about a VFR aircraft emergency allows provision of IFR separation if considered necessary.*

REFERENCE−
FAAO JO 7110.65, Para 10−2−5 Emergency Situations.
FAAO JO 7110.65, Para 10−3−2 Information to be Forwarded to ARTCC.
FAAO JO 7110.65, Para 10−3−3 Information to be Forwarded to RCC.

c. If the aircraft involved is operated by a foreign air carrier, notify the center serving the departure or destination point, when either point is within the U.S., for relay to the operator of the aircraft.

d. The ARTCC must be responsible for receiving and relaying all pertinent ELT signal information to the appropriate authorities.

REFERENCE−
FAAO JO 7110.65, Para 10−2−10 Emergency Locator Transmitter (ELT) Signals.

e. When consideration is given to the need to escort an aircraft in distress, evaluate the close formation required by both aircraft. Special consideration should be given if the maneuver takes the aircraft through the clouds.

f. Before a determination is made to have an aircraft in distress be escorted by another aircraft, ask the pilots if they are familiar with and capable of formation flight.

1. Do not allow aircraft to join up in formation during emergency conditions, unless:

(a) The pilots involved are familiar with and capable of formation flight.

(b) They can communicate with one another, and have visual contact with each other.

2. If there is a need for aircraft that are not designated as search and rescue aircraft to get closer to one another than radar separation standards allow, the maneuver must be accomplished, visually, by the aircraft involved.

10−1−5. COORDINATION

Coordinate efforts to the extent possible to assist any aircraft believed overdue, lost, or in emergency status.

10−1−6. AIRPORT GROUND EMERGENCY

TERMINAL

a. When an emergency occurs on the airport proper, control other air and ground traffic to avoid conflicts in the area where the emergency is being handled. This also applies when routes within the airport proper are required for movement of local emergency equipment going to or from an emergency which occurs outside the airport proper.

NOTE−
Aircraft operated in proximity to accident or other emergency or disaster locations may cause hindrances to airborne and surface rescue or relief operations. Congestion, distraction or other effects, such as wake turbulence from nearby airplanes and helicopters, could prevent or delay proper execution of these operations.

REFERENCE−
FAAO JO 7210.3, Chapter 19, Temporary Flight Restrictions.
14 CFR Section 91.137, Temporary Flight Restrictions.

b. Workload permitting, monitor the progress of emergency vehicles responding to a situation. If necessary, provide available information to assist responders in finding the accident/incident scene.

10−1−7. INFLIGHT EMERGENCIES INVOLVING MILITARY FIGHTER-TYPE AIRCRAFT

a. The design and complexity of military fighter-type aircraft places an extremely high workload on the pilot during an inflight emergency. The pilot's full attention is required to maintain control of the aircraft. Therefore, radio frequency and transponder code changes should be avoided and radio transmissions held to a minimum, especially when the aircraft experiencing the emergency is at low altitude.

b. Pilots of military fighter−type aircraft, normally single engine, experiencing or anticipating loss of engine power or control may execute a flameout pattern in an emergency situation. Circumstances may dictate that the pilot, depending on the position and nature of the emergency, modify the pattern based on actual emergency recovery requirements.

c. Military airfields with an assigned flying mission may conduct practice emergency approaches. Participating units maintain specific procedures for conducting these operations.

REFERENCE−
FAAO JO 7110.65, Para 3−10−13 Simulated Flameout (SFO) Approaches/Emergency Landing Pattern (ELP) Operations/Practice Precautionary Approaches.

Section 2. Emergency Assistance

10−2−1. INFORMATION REQUIREMENTS

a. Start assistance as soon as enough information has been obtained upon which to act. Information requirements will vary, depending on the existing situation. Minimum required information for inflight emergencies is:

NOTE−
In the event of an ELT signal see para 10−2−10 Emergency Locator Transmitter (ELT) Signals.

1. Aircraft identification and type.

2. Nature of the emergency.

3. Pilot's desires.

b. After initiating action, obtain the following items or any other pertinent information from the pilot or aircraft operator, as necessary:

NOTE−
Normally, do not request this information from military fighter-type aircraft that are at low altitudes (i.e., on approach, immediately after departure, on a low level route, etc.). However, request the position of an aircraft that is not visually sighted or displayed on radar if the location is not given by the pilot.

1. Aircraft altitude.

2. Fuel remaining in time.

3. Pilot reported weather.

4. Pilot capability for IFR flight.

5. Time and place of last known position.

6. Heading since last known position.

7. Airspeed.

8. Navigation equipment capability.

9. NAVAID signals received.

10. Visible landmarks.

11. Aircraft color.

12. Number of people on board.

13. Point of departure and destination.

14. Emergency equipment on board.

10−2−2. FREQUENCY CHANGES

Although 121.5 MHz and 243.0 MHz are emergency frequencies, it might be best to keep the aircraft on the initial contact frequency. Change frequencies only when there is a valid reason.

10−2−3. AIRCRAFT ORIENTATION

Orientate an aircraft by the means most appropriate to the circumstances. Recognized methods include:

a. Radar.

b. DF.

c. NAVAIDs.

d. Pilotage.

e. Sighting by other aircraft.

10−2−4. ALTITUDE CHANGE FOR IMPROVED RECEPTION

When you consider it necessary and if weather and circumstances permit, recommend that the aircraft maintain or increase altitude to improve communications, radar, or DF reception.

NOTE−
Aircraft with high-bypass turbofan engines (such as B747) encountering volcanic ash clouds have experienced total loss of power to all engines. Damage to engines due to volcanic ash ingestion increases as engine power is increased, therefore, climb while in the ash cloud is to be avoided where terrain permits.

REFERENCE−
AIM, Para 7−5−9, Flight Operations in Volcanic Ash.

10−2−5. EMERGENCY SITUATIONS

Consider that an aircraft emergency exists and inform the RCC or ARTCC and alert the appropriate DF facility when:

NOTE−
1. *USAF facilities are only required to notify the ARTCC.*

2. *The requirement to alert DF facilities may be deleted if radar contact will be maintained throughout the duration of the emergency.*

a. An emergency is declared by either:

1. The pilot.

2. Facility personnel.

3. Officials responsible for the operation of the aircraft.

b. There is unexpected loss of radar contact and radio communications with any IFR or VFR aircraft.

c. Reports indicate it has made a forced landing, is about to do so, or its operating efficiency is so impaired that a forced landing will be necessary.

d. Reports indicate the crew has abandoned the aircraft or is about to do so.

e. An emergency radar beacon response is received.

NOTE−
EN ROUTE. During Stage A operation, ***Code 7700*** *causes EMRG to blink in field E of the data block.*

f. Intercept or escort aircraft services are required.

g. The need for ground rescue appears likely.

h. An Emergency Locator Transmitter (ELT) signal is heard or reported.

REFERENCE−
FAAO JO 7110.65, Para 10−1−3, Providing Assistance.
FAAO JO 7110.65, Para 10−2−10, Emergency Locator Transmitter (ELT) Signals.

10−2−6. HIJACKED AIRCRAFT

Hijack attempts or actual events are a matter of national security and require special handling. Policy and procedures for hijack situations are detailed in FAAO JO 7610.4, Special Operations. FAAO JO 7610.4 describes reporting requirements, air crew procedures, air traffic procedures and escort or interceptor procedures for hijack situations.

REFERENCE−
FAAO JO 7610.4, Chapter 7, Hijacked/Suspicious Aircraft Reporting and Procedures.
FAAO JO 7110.65, Para 5−2−13, Code Monitor.

10−2−7. VFR AIRCRAFT IN WEATHER DIFFICULTY

a. If VFR aircraft requests assistance when it encounters or is about to encounter IFR weather conditions, determine the facility best able to provide service. If a frequency change is necessary, advise the pilot of the reason for the change, and request the aircraft contact the appropriate control facility. Inform that facility of the situation. If the aircraft is unable to communicate with the control facility, relay information and clearances.

b. The following must be accomplished on a Mode C equipped VFR aircraft which is in emergency but no longer requires the assignment of **Code 7700**:

1. *TERMINAL.* Assign a beacon code that will permit terminal minimum safe altitude warning (MSAW) alarm processing.

2. *EN ROUTE.* An appropriate keyboard entry must be made to ensure en route MSAW (EMSAW) alarm processing.

10−2−8. RADAR ASSISTANCE TO VFR AIRCRAFT IN WEATHER DIFFICULTY

a. If a VFR aircraft requests radar assistance when it encounters or is about to encounter IFR weather conditions, ask the pilot if he/she is qualified for and capable of conducting IFR flight.

b. If the pilot states he/she is qualified for and capable of IFR flight, request him/her to file an IFR flight plan and then issue clearance to destination airport, as appropriate.

c. If the pilot states he/she is not qualified for or not capable of conducting IFR flight, or if he/she refuses to file an IFR flight plan, take whichever of the following actions is appropriate:

1. Inform the pilot of airports where VFR conditions are reported, provide other available pertinent weather information, and ask if he/she will elect to conduct VFR flight to such an airport.

2. If the action in subpara 1 above is not feasible or the pilot declines to conduct VFR flight to another airport, provide radar assistance if the pilot:

(a) Declares an emergency.

(b) Refuses to declare an emergency and you have determined the exact nature of the radar services the pilot desires.

3. If the aircraft has already encountered IFR conditions, inform the pilot of the appropriate terrain/obstacle clearance minimum altitude. If the aircraft is below appropriate terrain/obstacle clearance minimum altitude and sufficiently accurate position information has been received or radar identification is established, furnish a heading or radial on which to climb to reach appropriate terrain/obstacle clearance minimum altitude.

d. The following must be accomplished on a Mode C equipped VFR aircraft which is in emergency but no longer requires the assignment of **Code 7700**:

1. *TERMINAL.* Assign a beacon code that will permit terminal minimum safe altitude warning (MSAW) alarm processing.

2. *EN ROUTE.* An appropriate keyboard entry must be made to ensure en route MSAW (EMSAW) alarm processing.

10−2−9. RADAR ASSISTANCE TECHNIQUES

Use the following techniques to the extent possible when you provide radar assistance to a pilot not qualified to operate in IFR conditions:

a. Avoid radio frequency changes except when necessary to provide a clear communications channel.

b. Make turns while the aircraft is in VFR conditions so it will be in a position to fly a straight course while in IFR conditions.

c. Have pilot lower gear and slow aircraft to approach speed while in VFR conditions.

d. Avoid requiring a climb or descent while in a turn if in IFR conditions.

e. Avoid abrupt maneuvers.

f. Vector aircraft to VFR conditions.

g. The following must be accomplished on a Mode C equipped VFR aircraft which is in emergency but no longer requires the assignment of **Code 7700**:

1. *TERMINAL.* Assign a beacon code that will permit terminal minimum safe altitude warning (MSAW) alarm processing.

2. *EN ROUTE.* An appropriate keyboard entry must be made to ensure en route MSAW (EMSAW) alarm processing.

10−2−10. EMERGENCY LOCATOR TRANSMITTER (ELT) SIGNALS

When an ELT signal is heard or reported:

a. *EN ROUTE.* Notify the Rescue Coordination Center (RCC).

NOTE−
FAA Form 7210−8, ELT INCIDENT, contains standardized format for coordination with the RCC.

REFERENCE−
FAAO JO 7210.3, Para 9−3−1, FAA Form 7210−8, ELT Incident.

b. *TERMINAL.* Notify the ARTCC which will coordinate with the RCC.

NOTE−
1. *Operational ground testing of emergency locator transmitters (ELTs) has been authorized during the first 5 minutes of each hour. To avoid confusing the tests with an actual alarm, the testing is restricted to no more than three audio sweeps.*

2. *Controllers can expect pilots to report aircraft position and time the signal was first heard, aircraft position and time the signal was last heard, aircraft position at maximum signal strength, flight altitude, and frequency of the emergency signal (121.5/243.0). (See AIM, Para 6−2−5,Emergency Locator Transmitter (ELT).)*

c. *EN ROUTE.* Request DF facilities obtain fixes or bearings on signal. Forward bearings or fixes obtained plus any other pertinent information to the RCC.

d. *TERMINAL.* Attempt to obtain fixes or bearings on the signal.

e. Solicit the assistance of other aircraft known to be operating in the signal area.

f. *TERMINAL.* Forward fixes or bearings and any other pertinent information to the ARTCC.

NOTE−
Fix information in relation to a VOR or VORTAC (radial-distance) facilitates accurate ELT plotting by RCC and should be provided when possible.

g. *EN ROUTE.* When the ELT signal strength indicates the signal may be emanating from somewhere on an airport or vicinity thereof, notify the on-site technical operations personnel and the Regional Operations Center (ROC) for their actions. This action is in addition to the above.

h. *TERMINAL.* When the ELT signal strength indicates the signal may be emanating from somewhere on the airport or vicinity thereof, notify the on-site technical operations personnel and the ARTCC for their action. This action is in addition to the above.

i. Air traffic personnel must not leave their required duty stations to locate an ELT signal source.

NOTE−
Portable handcarried receivers assigned to air traffic facilities (where no technical operations personnel are available) may be loaned to responsible airport personnel or local authorities to assist in locating the ELT signal source.

j. *EN ROUTE.* Notify the RCC, the ROC, and alerted DF facilities if signal source is located/terminated.

k. *TERMINAL.* Notify the ARTCC if signal source is located/terminated.

REFERENCE−
FAAO JO 7110.65, Para 10−1−4 Responsibility.
FAAO JO 7110.65, Para 10−2−1 Information Requirements.

10−2−11. AIRCRAFT BOMB THREATS

a. When information is received from any source that a bomb has been placed on, in, or near an aircraft for the purpose of damaging or destroying such aircraft, notify your supervisor or the facility air traffic manager. If the threat is general in nature, handle it as a "Suspicious Activity." When the threat is targeted against a specific aircraft and you are in contact with the suspect aircraft, take the following actions as appropriate:

REFERENCE−
FAAO JO 7610.4, Chapter 7, Hijacked/Suspicious Aircraft Reporting and Procedures.

1. Advise the pilot of the threat.

2. Inform the pilot that technical assistance can be obtained from an FAA aviation explosives expert.

NOTE−
An FAA aviation explosive expert is on call at all times and may be contacted by calling the FAA Operations Center, Washington, DC, Area Code 202−267−3333, ETN 521−0111, or DSN 851−3750. Technical advice can be relayed to assist civil or military air crews in their search for a bomb and in determining what precautionary action to take if one is found.

3. Ask the pilot if he/she desires to climb or descend to an altitude that would equalize or reduce the outside air pressure/existing cabin air pressure differential. Issue or relay an appropriate clearance considering MEA, MOCA, MRA, and weather.

NOTE−
Equalizing existing cabin air pressure with outside air pressure is a key step which the pilot may wish to take to minimize the damage potential of a bomb.

4. Handle the aircraft as an emergency and/or provide the most expeditious handling possible with respect to the safety of other aircraft, ground facilities, and personnel.

NOTE−
Emergency handling is discretionary and should be based on the situation. With certain types of threats, plans may call for a low-key action or response.

5. Issue or relay clearances to a new destination if requested.

6. When a pilot requests technical assistance or if it is apparent that a pilot may need such assistance, do NOT suggest what actions the pilot should take concerning a bomb, but obtain the following information and notify your supervisor who will contact the FAA aviation explosives expert:

NOTE−
This information is needed by the FAA aviation explosives expert so that he/she can assess the situation and make immediate recommendations to the pilot. The aviation explosives expert may not be familiar with all military aircraft configurations but he/she can offer technical assistance which would be beneficial to the pilot.

(a) Type, series, and model of the aircraft.

(b) Precise location/description of the bomb device if known.

(c) Other details which may be pertinent.

NOTE−
The following details may be of significance if known, but it is not intended that the pilot should disturb a suspected bomb/bomb container to ascertain the information: The altitude or time set for the bomb to explode, type of detonating action (barometric, time, anti-handling, remote radio transmitter), power source (battery, electrical, mechanical), type of initiator (blasting cap, flash bulb, chemical), and the type of explosive/incendiary charge (dynamite, black powder, chemical).

b. When a bomb threat involves an aircraft on the ground and you are in contact with the suspect aircraft, take the following actions in addition to those discussed in the preceding paragraphs which may be appropriate:

1. If the aircraft is at an airport where tower control or FSS advisory service is not available, or if the pilot ignores the threat at any airport, recommend that takeoff be delayed until the pilot or aircraft operator establishes that a bomb is not aboard in accordance with 14 CFR Part 121. If the pilot insists on taking off and in your opinion the operation will

not adversely affect other traffic, issue or relay an ATC clearance.

REFERENCE−
14 CFR Section 121.538, Airplane Security.

2. Advise the aircraft to remain as far away from other aircraft and facilities as possible, to clear the runway, if appropriate, and to taxi to an isolated or designated search area. When it is impractical or if the pilot takes an alternative action; e.g., parking and off-loading immediately, advise other aircraft to remain clear of the suspect aircraft by at least 100 yards if able.

NOTE−
Passenger deplaning may be of paramount importance and must be considered before the aircraft is parked or moved away from service areas. The decision to use ramp facilities rests with the pilot, aircraft operator/airport manager.

c. If you are unable to inform the suspect aircraft of a bomb threat or if you lose contact with the aircraft, advise your supervisor and relay pertinent details to other sectors or facilities as deemed necessary.

d. When a pilot reports the discovery of a bomb or suspected bomb on an aircraft which is airborne or on the ground, determine the pilot's intentions and comply with his/her requests in so far as possible. Take all of the actions discussed in the preceding paragraphs which may be appropriate under the existing circumstances.

e. The handling of aircraft when a hijacker has or is suspected of having a bomb requires special considerations. Be responsive to the pilot's requests and notify supervisory personnel. Apply hijacking procedures and offer assistance to the pilot according to the preceding paragraphs, if needed.

10−2−12. EXPLOSIVE DETECTION K−9 TEAMS

Take the following actions should you receive an aircraft request for the location of the nearest explosive detection K−9 team.

REFERENCE−
FAAO JO 7210.3, Para 2−1−11, Explosives Detection K−9 Teams.

a. Obtain the aircraft identification and position and advise your supervisor of the pilot request.

b. When you receive the nearest location of the explosive detection K−9 team, relay the information to the pilot.

c. If the aircraft wishes to divert to the airport location provided, obtain an estimated arrival time from the pilot and advise your supervisor.

10−2−13. MANPADS ALERT

When a threat or attack from Man−Portable Air Defense Systems (MANPADS) is determined to be real, notify and advise aircraft as follows:

a. Do not withhold landing clearance. To the extent possible, issue information on MANPADS threats, confirmed attacks, or post−event activities in time for it to be useful to the pilot. The pilot or parent company will determine the pilot's actions.

b. MANPADS information will be disseminated via the ATIS and/or controller−to−pilot transmissions.

c. Disseminate via controller−to−pilot transmission until the appropriate MANPADS information is broadcast via the ATIS and pilots indicate they have received the appropriate ATIS code. MANPADS information will include nature and location of threat or incident, whether reported or observed and by whom, time (if known), and when transmitting to an individual aircraft, a request for pilot's intentions.

PHRASEOLOGY−
ATTENTION (aircraft identification), MANPADS ALERT. EXERCISE EXTREME CAUTION. MANPADS THREAT/ATTACK/POST−EVENT ACTIVITY OBSERVED/REPORTED BY (reporting agency) (location) AT (time, if known). (When transmitting to an individual aircraft) SAY INTENTIONS.

EXAMPLE−
"Attention Eastern Four Seventeen, MANPADS alert. Exercise extreme caution. MANPADS threat reported by TSA, LaGuardia vicinity. Say intentions."

"Attention all aircraft, MANPADS alert. Exercise extreme caution. MANPADS post−event activity observed by tower south of airport at two−one−zero−zero Zulu."

d. Report MANPADS threat/attack/post−event activity until notified otherwise by FAA national headquarters.

REFERENCE−
FAAO JO 7110.65, Para 2−9−3 Content.
FAAO JO 7210.3, Para 2−1−9, Handling MANPADS Incidents.

10−2−14. UNAUTHORIZED LASER ILLUMINATION OF AIRCRAFT

a. When a laser event is reported to an air traffic facility, broadcast on all appropriate frequencies a general caution warning every five minutes for 20 minutes following the last report.

PHRASEOLOGY−
UNAUTHORIZED LASER ILLUMINATION EVENT, (location), (altitude).

b. Terminal facilities must include reported unauthorized laser illumination events on the ATIS broadcast for one hour following the last report. Include the time, location, altitude, color, and direction of the laser as reported by the pilot.

NOTE−
All personnel can expect aircrews to regard lasers as an inflight emergency and may take evasive action to avoid laser illumination. Additionally, other aircraft may request clearance to avoid the area.

REFERENCE−
FAAO JO 7110.65, Para 2−9−3 Content.
FAAO JO 7210.3, Para 2−1−27, Reporting Unauthorized Laser Illumination of Aircraft.

10−2−15. EMERGENCY AIRPORT RECOMMENDATION

a. Consider the following factors when recommending an emergency airport:

1. Remaining fuel in relation to airport distances.

2. Weather conditions.

NOTE−
Depending on the nature of the emergency, certain weather phenomena may deserve weighted consideration when recommending an airport; e.g., a pilot may elect to fly farther to land at an airport with VFR instead of IFR conditions.

3. Airport conditions.

4. NAVAID status.

5. Aircraft type.

6. Pilot's qualifications.

7. Vectoring or homing capability to the emergency airport.

b. Consideration to the provisions of subpara a and para 10−2−16, Guidance to Emergency Airport, must be used in conjunction with the information derived from any automated emergency airport information source.

10−2−16. GUIDANCE TO EMERGENCY AIRPORT

a. When necessary, use any of the following for guidance to the airport:

1. Radar.

2. DF.

3. Following another aircraft.

4. NAVAIDs.

5. Pilotage by landmarks.

6. Compass headings.

b. Consideration to the provisions of para 10−2−15, Emergency Airport Recommendation, must be used in conjunction with the information derived from any automated emergency airport information source.

10−2−17. EMERGENCY OBSTRUCTION VIDEO MAP (EOVM)

a. The EOVM is intended to facilitate advisory service to an aircraft in an emergency situation wherein an appropriate terrain/obstacle clearance minimum altitude cannot be maintained. It must only be used and the service provided under the following conditions:

1. The pilot has declared an emergency, or

2. The controller has determined that an emergency condition exists or is imminent because of the pilot's inability to maintain an appropriate terrain/obstacle clearance minimum altitude.

NOTE−
Appropriate terrain/obstacle clearance minimum altitudes may be defined as Minimum IFR Altitude (MIA), Minimum En Route Altitude (MEA), Minimum Obstruction Clearance Altitude (MOCA), or Minimum Vectoring Altitude (MVA).

b. When providing emergency vectoring service, the controller must advise the pilot that any headings issued are emergency advisories intended only to direct the aircraft toward and over an area of lower terrain/obstacle elevation.

NOTE−
Altitudes and obstructions depicted on the EOVM are the actual altitudes and locations of the obstacle/terrain and contain no lateral or vertical buffers for obstruction clearance.

REFERENCE−
FAAO JO 7210.3, Para 3−9−4, Emergency Obstruction Video Map (EOVM).

10−2−18. VOLCANIC ASH

a. If a volcanic ash cloud is known or forecast to be present:

1. Relay all information available to pilots to ensure that they are aware of the ash cloud's position and altitude(s).

2. Suggest appropriate reroutes to avoid the area of known or forecast ash clouds.

NOTE−
Volcanic ash clouds are not normally detected by airborne or air traffic radar systems.

b. If advised by an aircraft that it has entered a volcanic ash cloud and indicates that a distress situation exists:

1. Consider the aircraft to be in an emergency situation.

2. Do not initiate any climb clearances to turbine−powered aircraft until the aircraft has exited the ash cloud.

3. Do not attempt to provide escape vectors without pilot concurrence.

NOTE−
1. *The recommended escape maneuver is to reverse course and begin a descent (if terrain permits). However, it is the pilot's responsibility to determine the safest escape route from the ash cloud.*

2. *Controllers should be aware of the possibility of complete loss of power to any turbine−powered aircraft that encounters an ash cloud.*

REFERENCE−
FAAO JO 7110.65, Para 10−2−4 Altitude Change for Improved Reception.
AIM, Para 7−5−9, Flight Operations in Volcanic Ash.

10−2−19. REPORTING DEATH, ILLNESS, OR OTHER PUBLIC HEALTH RISK ON BOARD AIRCRAFT

a. If an air traffic controller receives a report of the death of person, an illness, and/or other public health risk obtain the following information and notify the operations manager in charge (OMIC)/front line manager (FLM)/controller-in-charge (CIC) as soon as possible.

1. Call sign.

2. Number of suspected cases of illness on board.

3. Nature of the illnesses or other public health risk, if known.

4. Number of persons on board.

5. Number of deaths, if applicable.

6. Pilot's intent (for example, continue to destination or divert).

7. Any request for assistance (for example, needing emergency medical services to meet the aircraft at arrival).

b. The OMIC/FLM/CIC must relay the information to the DEN as soon as possible.

NOTE−
1. *If the ATC facility is not actively monitoring the DEN or does not have a dedicated line to the DEN, they must call into the DEN directly via (202) 493-4170.*

2. *Except in extraordinary circumstances, such as a situation requiring ATC intervention, follow-on coordination regarding the incident will not involve ATC frequencies.*

3. *The initial report to a U.S. ATC facility may be passed from a prior ATC facility along the route of flight.*

REFERENCE−
FAAO JO 7210.3, Para 2-1-29, REPORTING DEATH, ILLNESS, OR OTHER PUBLIC HEALTH RISK ON BOARD AIRCRAFT

Section 3. Overdue Aircraft

10−3−1. OVERDUE AIRCRAFT

a. Consider an aircraft to be overdue, initiate the procedures stated in this section and issue an ALNOT when neither communications nor radar contact can be established and 30 minutes have passed since:

NOTE−
The procedures in this section also apply to an aircraft referred to as "missing" or "unreported."

1. Its ETA over a specified or compulsory reporting point or at a clearance limit in your area.

2. Its clearance void time.

b. If you have reason to believe that an aircraft is overdue prior to 30 minutes, take the appropriate action immediately.

c. The center in whose area the aircraft is first unreported or overdue will make these determinations and takes any subsequent action required.

REFERENCE−
FAAO JO 7110.65, Para 4−3−4 Departure Restrictions, Clearance Void Times, Hold for Release, and Release Times.

10−3−2. INFORMATION TO BE FORWARDED TO ARTCC

TERMINAL

When an aircraft is considered to be in emergency status that may require SAR procedures, or an IFR aircraft is overdue, the terminal facility must alert the ARTCC and forward the following information, as available:

a. Flight plan, including color of aircraft, if known.

b. Time of last transmission received, by whom, and frequency used.

c. Last position report and how determined.

d. Action taken by reporting facility and proposed action.

e. Number of persons on board.

f. Fuel status.

g. Facility working aircraft and frequency.

h. Last known position, estimated present position, and maximum range of flight of the aircraft based on remaining fuel and airspeed.

i. Position of other aircraft near aircraft's route of flight, when requested.

j. Whether or not an ELT signal has been heard or reported in the vicinity of the last known position.

k. Other pertinent information.

REFERENCE−
FAAO JO 7110.65, Para 10−1−4 Responsibility.
FAAO JO 7110.65, Para 10−2−5 Emergency Situations.

NOTE−
FSSs serve as the central points for collecting and disseminating information on an overdue or missing aircraft which is not on an IFR flight plan. Non−FSS ATC facilities that receive telephone calls or other inquiries regarding these flights must refer these calls and inquiries to the appropriate AFSS/FSS.

10−3−3. INFORMATION TO BE FORWARDED TO RCC

EN ROUTE

When an aircraft is considered to be in emergency status or an IFR aircraft is overdue, the ARTCC must alert the RCC and forward the following information, as available:

a. Facility and person calling.

b. Flight plan, including color of aircraft, if known.

c. Time of last transmission received, by whom, and frequency used.

d. Last position report and how determined.

e. Action taken by reporting facility and proposed action.

f. Number of persons on board.

g. Fuel status.

h. Facility working aircraft and frequency.

i. Last known position, estimated present position, and maximum range of flight of the aircraft based on remaining fuel and airspeed.

j. Position of other aircraft near aircraft's route of flight, when requested.

k. Whether or not an ELT signal has been heard or reported in the vicinity of the last known position.

l. Other pertinent information.

REFERENCE−
FAAO JO 7110.65, Para 10−1−4 Responsibility.
FAAO JO 7110.65, Para 10−2−5 Emergency Situations.

NOTE−
FSSs serve as the central points for collecting and disseminating information on an overdue or missing aircraft which is not on an IFR flight plan. Non−FSS ATC facilities that receive telephone calls or other inquiries regarding these flights must refer these calls and inquiries to the appropriate FSS.

10−3−4. ALNOT

EN ROUTE

a. In addition to routing to the regional office operations center for the area in which the facility is located, issue an ALNOT to all centers and Area B circuits, generally 50 miles on either side of the route of flight from the last reported position to destination. Include the original or amended flight plan, as appropriate, and the last known position of the aircraft. At the recommendation of the RCC or at your discretion, the ALNOT may be issued to cover the maximum range of the aircraft.

NOTE−
1. *An ALNOT must be issued before the RCC can begin search and rescue procedures.*

2. *Flight plan information on military aircraft is available at the FSS serving as a tie-in station for the departure or destination airport. FAA tie-in stations for airports in the continental U.S. are listed in FAAO JO 7350.8, Location Identifiers. In the West Flight Services Area Office, tie−in stations are listed in service area publications entitled, "Flight Plan Routing and Airport Search Directory." For flights with overseas departure points, the information is available through the destination FSS or the appropriate IFSS.*

b. Upon receipt of an INREQ or ALNOT, check the position records to determine whether the aircraft has contacted your facility. Notify the originator of the results or status of this check within one hour of the time the alert was received. Retain the alert in an active status, and immediately notify the originator of subsequent contact, until cancellation is received.

10−3−5. RESPONSIBILITY TRANSFER TO RCC

EN ROUTE

Transfer responsibility for further search to the RCC when one of the following occurs:

a. Thirty minutes have elapsed after the estimated aircraft fuel exhaustion time.

b. The aircraft has not been located within one hour after ALNOT issuance.

c. The ALNOT search has been completed with negative results.

10−3−6. AIRCRAFT POSITION PLOTS

Plot the flight path of the aircraft on a chart, including position reports, predicted positions, possible range of flight, and any other pertinent information. Solicit the assistance of other aircraft known to be operating near the aircraft in distress. Forward this information to the RCC or the ARTCC as appropriate.

10−3−7. ALNOT CANCELLATION

EN ROUTE

Cancel the ALNOT when the aircraft is located or the search is abandoned.