

Emergency Response Guide

MILITARY AIRCRAFT INCIDENTS



First Response

Search and Rescue

Responder Safety

Reporting Instructions

Media Relations Guide

Military Response Teams



The Disaster Preparedness and Emergency Response Association
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March 1999



DERA

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15 March 1999

Dear Emergency Manager:

The attached Emergency Response Guide for Military Aircraft Accidents has been prepared using the best available unclassified information from the Department of Defense, the Federal Emergency Management Agency, the USAF Rescue Coordination Center, the National Security Emergency Preparedness Directorate, and the Defense Nuclear Agency.

We hope you will use this publication as a resource for local contingency planning. While we have attempted to ensure accuracy and reliability, we do not claim that this information will fit every circumstance, nor that it is appropriate to every event. Local response officials must draw on a variety of primary resources in developing plans. We strongly recommend that you contact the Fire Chief or Disaster Preparedness Office of a nearby military installation and review your plans and assumptions with them prior to an emergency.

In any emergency response, nothing can take the place of training, experience and judgment on the part of the Incident Commander and individual response team members. The Incident Commander should use the attached material as a guide only, making final decisions based on actual conditions, unique circumstances and on-scene observations.

We hope this guide is helpful. Please send us information about improvements you'd like to see in future editions, or suggestions about other ways we might help your community improve its disaster preparedness programs. Our thanks to the following officials who have worked with DERA for many years in keeping this guide current:

Chief Roger Edwards, USAF Fire and Rescue Service, now deceased
Mr Gary Epple, USAF Disaster Preparedness and Air Base Operability
Mrs Marlene Zellmer, Military Public Health / Bioenvironmental Engineering

If you reproduce this guide, we ask that you do so in its entirety.

This publication is respectfully dedicated to the memory of Chief Roger Edwards. He dedicated his life to service that others might live. His leadership and courage will never be forgotten by those fortunate enough to serve with him. This publication was first developed through his foresight and guidance and he established high standards of accuracy and accountability that we will continue to maintain. In his life and by the courage with which he met death, Chief Edwards taught us all the true meaning of valor, service to others and duty before self.

We would like very much to have you and your organization join with us as members of our international, nonprofit professional association. Our aim is to work together for the common good in all areas of disaster preparedness, mitigation, response, and recovery. Please let us hear from you. We need your support.

Best Wishes,

Director, DERA Project Task Force
Preparedness, Mitigation, and Training

FIRST RESPONSE

Immediately

- SURVEY the scene for obvious hazards (Munitions, Fuel, Instability, etc.)
- RESCUE survivors. If possible, enter wreckage from UPWIND SIDE
- MOVE survivors to safe place
- OBTAIN emergency medical care as needed
- SEARCH the wreckage for concealed survivors
- PROTECT the environment from further damage (fuel or foam runoff, etc)
- CONTROL additional property damage
- NOTIFY the nearest military installation Fire Chief or Command Post
- PRESERVE the site as intact as possible for investigators
- DO NOT MOVE anything not necessary for rescue or damage control

As Soon As Time Permits

- GUARD the wreckage
- SEARCH for additional victims, parts or wreckage along the flight path
- IDENTIFY witnesses for later interview
- REPORT the accident to an FAA Airport Control Tower or service center
- DIAGRAM the scene or take official departmental photographs
- REFER news media / photographers' requests to a military information officer

Rescue Safety Guide

Like any disaster, an aircraft accident may require actions that do not fall into a predictable pattern. When in doubt, take the course of action your own experience, training and judgement dictate in order to minimize the risk to victims and rescue personnel. If survivors are in the wrecked aircraft and rescue appears feasible, remember:

- STAY CLEAR FROM FRONT AND REAR OF EXTERNALLY CARRIED TANKS OR PODS.** These may contain missiles or rockets whose explosive wake is hazardous. Never disturb bullets, bombs or other armament thrown clear from the aircraft as they may explode. Heat, fire or shock may make munitions very unstable. If possible, put warning marker flags at munitions items when they are located.
- SAFEST APPROACH TO THE CRASH IS GENERALLY FROM UPWIND, TO THE SIDE OF THE AIRCRAFT FUSELAGE.** Munitions or fuel may be scattered along the crash path. Weapons may fire forward, or create a blast to the back. Concealed survivors may be tangled in debris behind the main wreckage.
- ACCESS HATCHES, RESCUE POINTS, AIRCRAFT EXITS.** Location of escape hatches, doors, and exits from all U.S. and most NATO military aircraft are indicated by **Orange-Yellow markings** on the outside of the aircraft. On jet aircraft a **Red Rescue Arrow** will indicate the rescue points. Instructions are stenciled at this arrow for the jettisoning of canopies or hatches.
- USE CARE IN JETTISONING CANOPIES OR HATCHES.** They are often blown away from the aircraft by explosive devices. When operating the jettison controls, always position yourself well to the side and clear of the canopy/hatch. A **Red Rescue Arrow** points to the canopy/hatch jettison controls. Follow all stenciled instructions at the arrow and in the **Warning Triangle** near it. If unreadable, the following steps generally apply. Near the warning triangle, you will find a small door with controls inside.
 - Push a release button to open the small door
 - Inside is a "T" Handle, connected to a 10-foot cable. **Stand clear of hatch or canopy.**
 - Pull the "T" Handle out all the way. Canopy or hatch will be blown off with explosive force.
- EJECTION SEAT WARNING.** LOOK FOR WARNING MARKINGS ON THE AIRCRAFT, AND BEWARE HAZARDS OF EJECTION SEATS. Aircraft with ejection seats have **Warning Triangles** painted near crew rescue points. Use extreme care not to actuate the seat, before, during or after rescue.
 - Do not raise, move, or tamper with the armrests of crew seats, or any controls painted YELLOW and BLACK.** These controls fire the ejection seats.
 - Do not move any controls, handles or levers in the cockpit unless you are thoroughly familiar with that particular aircraft. Ejection systems vary among models and types.
 - Before removing survivors, always unfasten seatbelt, shoulder and/or parachute harness and oxygen mask as well as radio cords and oxygen tubes. Cut any wire, tube or harness if needed. Cutting will not actuate an ejection. Time permitting, "knot" the Oxygen line to reduce fire hazard.
- DO NOT MOVE VICTIMS EXCEPT AS NEEDED TO PROTECT THEM FROM FIRE OR OTHER INJURY UNTIL EMERGENCY MEDICAL PERSONNEL ARRIVE.** If there is no military medical assistance nearby, request a civilian doctor and Emergency Medical Technicians/Paramedics be summoned to the scene. Have EMTs or other trained personnel prepare injured personnel for transport to a trauma center or nearest hospital. Notify the hospital of the number of inbound patients and apparent nature of injuries.
- AVOID DISTURBING THE WRECKAGE.** Except as necessary for rescue, do not disturb the wreckage. An intact site is necessary for the crash investigation team.
- KEEP BYSTANDERS AND UNAUTHORIZED PERSONNEL AWAY. NO SMOKING.**

Fire Fighting Guide

Fire and explosion are always possible at a crash scene.

Fuel sources include residual aircraft fuel, cargo, structural materials and munitions, as well as materials on the ground. **Ignition sources** include hot metal, electrical systems, weapon fuses, flares and other pyrotechnic devices. **Oxygen sources** include high pressure cylinders, liquid oxygen tanks and ambient air.

Other potential hazards include exploding oxygen bottles, nitrogen or CO₂ tanks, liquid oxygen containers, exotic fuels, ejection seats, canopy and hatch jettison systems, high pressure tires and struts, magnesium components, munitions, and hazardous cargo.

- PROHIBIT SMOKING.** Volatile materials may have been scattered over a very wide area.
- EVACUATION.** The crash may also be a HAZMAT incident. Evacuate not only for fire protection, but also for HAZMAT protection if indicated. As always, keep the public calm: Panic can be much more hazardous than any object carried aboard a military aircraft.
- FIRE ATTACK.** Use foam, high-pressure water fog, carbon dioxide, or dry chemical powder to attack aviation gasoline and jet fuel fires. Halon agents, although being withdrawn from service, are most effective in these situations.
- BOMBS, MISSILES OR ROCKETS.** If such a weapon is found in the wreckage, cool its entire surface with available fire extinguishing agents or water spray. **Do not handle or move.**
- AMMUNITION.** Do not handle or move. Mark location for military disposal experts. If ammunition is scattered, cordon the entire area and keep spectators and souvenir seekers away.
- NUCLEAR WEAPONS.** It is very unlikely that any nuclear device will be in the wreckage. By quickly reporting the crash to the nearest military base or the Air Force Rescue Coordination Center, you will get military assistance and procedural information about any weapons on board. **If Nuclear Weapons are present**, they present the same immediate hazard as any other high explosive. Fire will not cause a nuclear detonation. Some hazardous materials, including radioactive substances, may leak from the weapons if they are broken open, or be carried off as particles in smoke if the weapons burn, rupture, or explode. If nuclear weapons are burned, expect a high explosive, conventional explosion that may scatter radioactive debris. A nuclear reaction will not occur. Firefighter precautions are:
 - ↳ Wear full protective gear, masks and SCBA for fire attack. Remain upwind.**
 - ↳ Declare HAZMAT Level “B” incident unless otherwise indicated**
 - ↳ Avoid all physical contact with debris and immediately evacuate the plume area**
 - ↳ Withdraw and take cover if weapons are engulfed in sustained fire**
 - ↳ Instruct Emergency Management/Civil Defense to initiate radiological monitoring**
 - ↳ Establish decon protocols for firefighters, survivors and other personnel in the area**

Searching the Wreckage

If you are the first to arrive at a wreckage scene, you may find no one there. Several possibilities exist: Occupants may have parachuted, may have been thrown clear, or may have survived and gone off in search of help. You should:

- Sound the alarm for backup help. Do not enter the wreckage alone. You may become injured or trapped, engulfed in flames or caught in an explosion.**

- Look around the crash path. Call out for survivors. They may not see you.**

- Listen carefully for signs of life: Faint cries, groans, tapping or scratching.**

- Survivors may be scattered over a very wide area, particularly if it was a large aircraft or a high altitude ejection was performed. If there is sign of inflight disintegration, you will need help in conducting a wide-area search.**

- Survivors may be concealed in the wreckage itself, or scattered along many miles of the final flight path. Check voids in the wreckage, in ravines, in trees and in ponds or lakes along the final flight path and all around the wreckage.**

- DO NOT TOUCH any bullet, missile, bomb or other munition. Fire, heat or shock may have made the munition unstable.**

- TAKE COVER if bombs, rockets, or other munitions are engulfed in flames.**

- BE CAREFUL of sharp, jagged metal, compressed gas cylinders, fuel or other liquids.**

Reporting the Accident

(Do Not Delay Reporting Because Some Information is Unknown)

Call the nearest military installation: _____ Phone: _____

If you do not know how to contact that military installation, call either:

1-800-851-3051 or (757) 764-8122

USAF Rescue Coordination Center, Langley AFB, Virginia

(404) 464-5222

US Forces Command Watch Officer, Fort McPherson, Georgia

Give your name, phone number, official position and location.

Report that a military aircraft has crashed.

Give as accurate a geographical location as you can, and tell how to reach the crash site. If coordinates are not known, describe in terms of landmarks, distances from towns, or road features: _____

Identify the aircraft if possible:

Any numbers or letters painted on the tail: _____

Any other numbers from the nose: _____

Type of aircraft (Fighter, cargo, bomber, helicopter) or model if known:

(Continued)

Additional Information to Report to the Military

- What happened? _____
- Number of people who parachuted from the aircraft: _____
- Number of victims at crash site: _____
- Any injuries of people on the ground? _____
- Medical help needed from the military? _____
- Fire Fighting or Rescue help needed from the military? _____
- Fatalities or Injuries (Confirmed or Unconfirmed): _____
- To what hospital have injured been taken? _____
- Who is the Incident Commander, and from what jurisdiction? _____

- Summary of damage to private property or civilian injuries: _____
- Where can the military response team meet the local Incident Commander and where is the local on-scene command post? _____

- Nearest suitable helicopter landing area: A flat open field, clear of poles, wires and trees: _____
- Any other information you think is of immediate value: _____

- Do not hang up until you are sure the information is understood, and you have answered any questions from the other end.
- Advise local officials to inform the State Office of Emergency Management. National Guard Command Center, and/or the Governor's Office.

Medical Care for Survivors

- Render first aid and provide all needed emergency medical care for survivors, with or without directions from the military. As needed, transport victims to hospitals/trauma centers. Use “Life Flight” if needed. If anyone is concerned about payment for services, advise them that the nearest U.S. military installation will provide them with full and cooperative assistance in billing procedures, payment and claims processing.**

- Notify the nearest military facility of the location of all survivors, their names and conditions if known.**

- If fatalities have occurred, a military medical examiner will work closely with the local coroner or medical examiner. Do not remove remains from the wreckage unless absolutely essential prior to arrival of the military medical examiner.**

Stress Management for Responders

The continued health and well being of a community's response force is absolutely vital.

It may take months or years before the impact of a major disaster shows its full impact on a public service department.

Experience has shown that everyone involved in the response effort should participate in critical incident stress debriefing. This includes police, fire, rescue, incident command, volunteer support teams, chaplains, public service crews, managers and dispatch center personnel. If in doubt, include.

Senior members of each department must personally set the tone for their agency and lead by example by attending debriefing themselves and firmly insisting that their subordinates do likewise. This is often a true test of leadership. A reliable rule of thumb is that anyone who resists the debriefing process is in serious need of it.

Preventive mental health outreach should also be provided to citizens—particularly children--in the community who may have been traumatized by the aircraft crash.

Some sources of help in setting up the programs:

The American Red Cross. Contact your local chapter.
Your State's Critical Incident Stress Debriefing Association or Foundation
Critical Incident Stress Debriefers of Florida at (407) 273-4812

If you are unable to find local help, please contact DERA at (970) 532-3362.

Guarding the Wreckage

Evidence at the crash site must be preserved, consistent with the need to save lives, rescue survivors and control property or environmental damage. The entire wreckage area may represent an accident site, a crime scene, or both.

Protecting the wreckage and any debris trail along the flight path is always essential.

If military personnel are not immediately available to establish a cordon and provide site security--or if the number of spectators presents a problem--local law enforcement officials should deploy enough officers, deputies, police reserves, sheriff's posse, or civilian contract guards to provide adequate protection. If necessary, request National Guard assistance through State channels. The nearest military installation will work with community officials to reimburse costs.

Local law enforcement should stay on the scene until military security police arrive, and should attempt to isolate an area within a radius of 2,000 feet from the main wreckage or debris trail, in order to avoid bystanders being exposed to injury from fire, explosion, or contact with hazardous materials. Also, this secure cordon will prevent trampling important features, inadvertent contamination of the scene, or theft of evidence.

Local law enforcement officials should rely on their own resources, the state patrol, contract security services, and National Guard troops for site security until other arrangements are made with the military. If nuclear devices or classified materials are involved, the military commander may declare a "National Defense Area" at the wreckage site, allowing the site to be temporarily protected as though it were a military reservation.

Duties of the guard force are:

- Protect all civilian and military property
- Prohibit removal of deceased persons until properly identified by military authorities.
Note: Laws of some jurisdictions may require that remains be taken into custody by local coroners. Comply with local law, but request that the coroner await the arrival of military medical examiners before removal of remains.
- Keep all spectators at a reasonable distance
- Admit only authorized personnel to the scene
- Prevent handling or disturbance of the wreckage, theft of any parts, or compromising other evidence such as gauges or marks on the ground left by the crashed aircraft

Preserving the Accident Site

WHO IS ADMITTED TO THE SCENE

Crash, fire, rescue, military teams, medical examiners, local health, environmental or safety officials and accredited news personnel.

The on-scene incident commander (normally a local Fire Chief or Sheriff) makes the decision until the arrival of a military incident command team.

Each and every piece of the aircraft, its location, and its exact position is important to investigators in determining the sequence of events, causes of the accident, and injuries involved.

The lives and safety of people on future flights and on the ground depend on a rapid and accurate determination of the accident cause. Lessons learned from each accident are used to prevent future aircraft accidents, and to improve aircraft and equipment design, and training of aircrews.

Nothing should be disturbed, other than that necessary to rescue survivors.

If there are fatalities, the bodies should not be disturbed or moved until the military medical examiner makes a positive identification, since the location of bodies may help determine significant facts about the accident.

No aircraft part--not even a small fragment--should be moved or disturbed at all. The team of accident investigators needs to see everything just as it came to rest. The condition of light bulb filaments, watch dials, pointers on gauges, positions of switches and levers, condition of fluids, and scrapes and scratches can hold the clue to accidents. These clues are easy to destroy even by well-meaning responders. Touch or move nothing unless it is necessary to rescue a survivor.

Even marks on the ground are important clues. As such, the movement of people and equipment at the scene must be kept to the minimum needed to rescue survivors and control the spread of fire, environmental impact, or other property damage. Basic rule: Once the last survivor has been removed, withdraw all personnel to the security cordon and await the arrival of the military response team.

Souvenir hunters are often a serious problem. Unauthorized removal of crash debris is a violation of numerous federal and state laws. Crash debris from a military aircraft is still federal government property.

In addition, military aircraft are often equipped with ballistic cartridges, munitions, and other dangerous items. Only trained experts should approach or handle these items.

The military crash response team which comes to the scene will include specialists able to deal with every aspect of the crash: Identification and removal of human remains, safe collection and disposal of explosives and other hazardous materials, site security, and accident investigation. They will cooperate fully with local officials, and will make every effort to rapidly mitigate the hardship on the local community. The military team will probably request continued assistance with site security, fire protection, medical treatment and other support within the ability of the community.

Witnesses

Witnesses are extremely important in helping solve the cause of the accident. Names and addresses of all witnesses should be taken for subsequent interview by accident investigators. Likewise, anyone with film or video tape of the accident should be requested to furnish it to the accident investigation team. If possible, local law enforcement officials should take voluntary custody of this evidence as soon as they learn of its existence.

News Media

It is the policy of the Department of Defense to cooperate with legitimate news-gathering efforts at the scene of an accident, and to impose only those minimum restrictions on the news media that are necessary for safety, preservation of evidence, respect for victims and their families, and national security.

The press has a job to do and is entitled to factual information about the event, and to photograph or televise the response efforts.

For their own safety, the press should be advised to stay away from danger areas, and should be instructed not to interfere with rescue efforts or to disturb the scene in any way.

Out of compassion for victim's families, the press should be requested not to photograph human remains, nor to release the names or any information about victims until their families have been properly notified. The military will furnish the press with complete information as soon as it is appropriate for publication.

Do not use force to prevent media from taking photographs or televising the scene even if they are ignoring the above safety and decency guidelines, unless local laws are being violated.

However, photographing classified equipment is a federal criminal offense as well as being detrimental to national security. Reasonable law enforcement actions may be taken should violations occur.

Advise media representatives that a Military Public Information Officer will arrive with the service crash response team. The military PIO will assist all media reporters to establish facts and to interview service officials as needed.

Finance and Reimbursement

It is the policy of the U.S. government to promptly and fairly settle all claims for damages arising from a military aircraft crash.

Private property damaged in the crash should be inventoried as soon as practical, and the owners should fully document the extent of their loss, working through their private insurance carrier and local officials as appropriate. The military response team will include a claims representative who will assist those who have experienced loss.

Likewise, local government officials should document all expenses related to their response: Overtime for police and fire, damage to public property, emergency contract costs, and an inventory of materials expended, such as fire fighting foam. The military claims representative will work closely with finance officials from local government.

False or excessive claims are federal criminal offenses. While the U.S. government will pay all fair and reasonable claims, care will be taken to assure good stewardship of federal funds.

Accident Facts and Witnesses

As soon as possible, record the following:

1. Time of the accident: _____
2. Witnesses' names, addresses and phone numbers: _____

3. Weather conditions at time of accident: _____

4. Direction aircraft was headed, and what did it appear to be doing: _____

5. What drew your attention to the aircraft? _____
6. Was the aircraft on fire in flight? _____
If so, what was the color and direction of the flames? _____
7. Was there an explosion in the air prior to the crash? _____
8. What sounds did you hear before and after the crash (Engine sound, bangs or pops, etc.)? _____

9. Did you see any parachutes, people or other objects fall from the aircraft? _____

10. Who was first person to arrive at the wreckage? _____
11. Do you know if anyone removed anything from the wreckage scene? If so, who did it and what did they take? _____
12. Impact angle of the aircraft and position of bodies and survivors in the wreckage: _____

Membership Invitation



Established in 1962

MISSION

Preparedness - Response - Education

DERA is a Nonprofit Disaster Service and Professional Organization.

Our members work together as a world-wide professional network of disaster researchers, response and recovery specialists, trainers, consultants, technical experts, and project managers.

We help disaster victims by improving communications and logistics, reducing risks and mitigating hazards, conducting community preparedness workshops, and by sponsoring preparedness and response projects.

We sponsor a school awards program that encourages students to study the effects of disasters and conduct projects to reduce hazards and improve community preparedness.

As a prominent international professional association, our membership is composed of key leaders in the field of emergency management from around the world, including government officials, volunteers, consultants, business managers, researchers, educators, students and charitable groups.

Our quarterly newsletter, DisasterCom, brings current information about developments in emergency management and reports on the activities of our global membership.

We sponsor research projects and the publication of emergency management guides, case studies, technical assessments, and preparedness materials.

If you share our vision of commitment and service, we would welcome you as a member.

Please complete the following application or contact us for further information.

**DERA
P.O. Box 280795
Denver, CO 80228**

Also, visit our World Wide Web Site at <http://www.disasters.org>

