BY ORDER OF THE COMMANDER
OSAN AIR BASE

OSAN AIR BASE INSTRUCTION 21-106

5 JUNE 2025

Maintenance

CRASH DAMAGED DISABLED AIRCRAFT RECOVERY (CDDAR) PROGRAM

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This instruction implements Department of the Air Force Policy Directive (DAFPD) 21-1, *Maintenance of Military Materiel* and Department of the Air Force Instruction (DAFI) 10-2501, *Emergency Management Program.* It establishes policy and procedures to support Crash, Damaged or Disabled Aircraft Recovery (CDDAR) operations. In situations where the Crash Recovery team chief determines this instruction does not adequately cover procedures for the particular situation, authority is granted to add to or deviate from the procedures when safety of personnel or damage to equipment is involved. It applies to all personnel and units assigned, attached or tenant to the 51st Fighter Wing (51 FW) at Osan Air Base (AB), Republic of Korea. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the Department of the Air Force (DAF) Form 847, *Recommendation for Change of Publication*; route DAF Form 847 from the field through the appropriate functional chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and disposed of IAW the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This document has been revised and should be completely reviewed. Changes include procedural changes of responsibilities for the 51st Security Forces Squadron (51 SFS) to include the requirement of immediate notification to 51 SFS when a Ground Emergency/In-flight Emergency (GE/IFE) occurs, and 51 SFS will only respond when requested by the Incident Commander (IC). The revision also includes a restructure of paragraph placement for clarity within Chapter 3 to incorporate the hierarchy of Group/Squadron/Section. The change in title for Chapter 5 to "Crash Recovery Overview" is included to eliminate confusion with the work center/section responsibilities as listed in paragraph 3.10.1. Additionally, Chapter 5 has also been restructured for clarity. Lastly, the Training Requirement for Training Business Area (TBA) listed in Chapter 10.3 has been rescinded.

1. General.

1.1. In-flight or ground emergencies (IFE/GE) involving aircraft require prompt, coordinated actions from many agencies to prevent unnecessary loss of life, damage to equipment or interference with other flying operations. This instruction is not intended to replace detailed guidance given by technical orders, other instructions or regulations, but rather to serve as a coordination tool to ensure all agencies are aware of their responsibilities during aircraft emergency situations.

1.2. Only required vehicles and personnel will respond to aircraft emergencies (with Ultra High Frequency (UHF) radios, if available). Vehicles will position themselves behind responding crash vehicles and not impede movement or vision. Personnel not required to respond will clear the area so as not to interfere with emergency operations. If necessary, the Incident Commander (IC) will direct the Security Forces to clear the area of non-essential personnel.

1.3. During initial response to an aircraft emergency, the Senior Fire Officer (SFO) is the IC and will determine if the aircraft is safe prior to releasing the aircraft for maintenance or recovery. Until the aircraft has been released by the IC, no one will approach the aircraft without permission from the IC. All vehicles, except Fire & Emergency Services, will remain clear of the aircraft. This does not prohibit essential vehicles (such as tugs) from positioning themselves nearby for immediate use. The IC must release the aircraft or direct specific actions before any vehicles, other than a Fire & Emergency Services vehicles, approach the aircraft. This restriction does not prevent emergency actions prior to Fire & Emergency Services arrival.

1.4. For emergencies involving a prior-announced barrier engagement, all response vehicles (except Fire & Emergency Services and crash recovery vehicles) and non-essential vehicles will remain clear of emergency aircraft until Fire & Emergency Services and crash recovery actions are complete.

1.5. Rapid removal of aircraft on a runway or taxiway. During normal flying periods, disabled aircraft will be removed as quickly and safely as possible after touchdown. Damaged aircraft will be removed as soon as possible depending on structure condition, equipment requirements, etc. Damaged aircraft will be removed from the runway in a minimum time-period consistent with the following:

1.5.1. Requirement to open the runway for operational use.

1.5.2. Prevention of unnecessary secondary damage.

1.5.3. Prevention of destruction of evidence for accident investigation.

1.5.4. Personnel safety.

1.6. For mishaps involving Air Mobility Command (AMC) owned or controlled aircraft (includes Pacific Air Force (PACAF) assigned C-17s), 51st Maintenance Squadron (51 MXS) CDDAR Team Chief will coordinate with 731st Air Mobility Squadron (731 AMS) Director of Operations (DO), to determine the best course of action, technical advice and technical data relative to safety, operation or environmental hazards in the event that an aircraft requires removal from the active runway. 51 FW Command Post and/or 731 AMS/DO will contact 618th Air Operations Center (618 AOC) or 613th Air Operations Center (613 AOC) for further assistance if indigenous recovery capabilities are exceeded. For AMC commercial contracted aircraft, 51 FW Command Post will contact the carrier representative or carrier's Headquarters (HQ) directly or through United States Transportation Command Acquisition Branch (USTRANSCOM/TCAQ) via 618 AOC and request/obtain guidance/authority to move the disabled aircraft.

1.7. For mishaps involving 5th Reconnaissance Squadron (5 RS) (U-2) aircraft, the 51 MXS CDDAR Team Chief will coordinate with the 5 RS (U-2) to determine the best course of action.

1.8. For mishaps involving all non-U.S. Air Force aircraft, 51 FW Installation Command Post will notify the appropriate agencies of the aircraft mishap. If the IC determines recovery is beyond the scope of 51 FW's capabilities, due to lack of specific Mission Design Series (MDS) equipment or airframe expertise, he or she will notify the 51 FW Emergency Operations Center (EOC) for coordination with the appropriate unit that has specific MDS expertise. This unit must ensure adequate personnel and support equipment are made available for recovery operations.

1.9. The 51 Comptroller Squadron (51 CPTS), in conjunction with the end-user, will determine the correct funds to use, and in the case of the Government Purchase Card (GPC), will load the funding onto the card prior to use. In addition, the end-user may use their organizational GPC to purchase any stockpiled items up front as part of their planning process.

2. Declaration of Emergencies.

2.1. The aircrew is responsible for declaring Ground Emergencies (GEs) or In-flight Emergencies (IFEs). Emergencies may also be declared by Air Traffic Control (ATC) personnel or officials responsible for the operation of the aircraft, e.g. Supervisor of Flying (SOF), 51st Operations Group Commander (51 OG/CC), 731st Air Mobility Squadron Commander (731 AMS/CC), and mission director. The agencies listed above will not declare emergencies without concurrence of the aircrew, unless immediate action is required.

2.2. Individuals, other than those mentioned in **paragraph 2.1**, who become aware of aircraft emergency situations, will use any means available to relay the necessary information to any agency capable of initiating emergency procedures (Tower, SOF, Radar Approach Control, Fire & Emergency Services, Installation Command Post, Airfield Management Operations (AMOPS), Maintenance Operations Center (MOC), etc.).

2.3. Persons declaring emergencies whether GE or IFE should provide the following information:

2.3.1. Aircraft identification and type.

2.3.2. Nature of emergency.

2.3.3. Pilot's desires/intentions.

2.3.4. Aircraft altitude, position, and Estimated Time of Arrival (ETA) or location on airfield for GEs.

2.3.5. Number of people on board.

2.3.6. Fuel remaining (IFEs only).

2.3.7. Number and type of ordnance on board. **NOTE:** Pass information available, including ordnance on board. Do not delay declaring the emergency.

2.4. Emergency information will be relayed to the Control Tower to activate the Primary Crash Alarm System (PCAS). If unable to contact the Tower, notify AMOPS, who will activate the Secondary Crash Net (SCN). AMOPS will in turn notify the Tower by landline.

3. Specific Responsibilities and Procedures.

3.1. 51st Operations Group Commander (51 OG/CC).

3.1.1. Is responsible to the 51st Fighter Wing Commander (51 FW/CC) for all operational matters and decisions affecting handling of aircraft emergencies.

3.1.2. Coordinates the activation of Taxiway W Alternate Landing Surface (ALS), for aircraft emergencies when approved by the 51 FW/CC.

3.1.3. Obtains information and gives directions to the SOF.

3.2. Supervisor of Flying (SOF).

3.2.1. Obtains status of all airborne aircraft and advises them if the emergency is cause for divert or otherwise affects their flight.

3.2.2. Assists in operational decisions to engage barriers, designate landing runway for emergency aircraft, shutdown of aircraft engines, taxi aircraft clear of runway, aircraft diverts and other operational actions. Suspends runway operations after the emergency aircraft lands until a Foreign Object Damage (FOD) inspection can be conducted by AMOPS.

3.3. 51st Operations Squadron (51 OSS).

3.3.1. Control Tower (51 OSS/OSAT).

3.3.1.1. Monitors designated frequencies for aircraft emergency information whenever aircraft are operating.

3.3.1.2. Declares emergency for aircraft, when situation warrants.

3.3.1.3. Activates the PCAS whenever they receive information that would indicate an emergency is developing or in progress.

3.3.1.4. Activates the PCAS when notified by SOF or 51 OG/CC that the ALS has been approved to be activated. Provides priority handling for emergency aircraft as outlined in ATC directives and uses emergency recovery frequency 245.7 (Channel 11).

3.3.1.5. Provides approval for emergency responders to enter the Controlled Movement Area (CMA)/runway as required to follow/respond to the emergency aircraft.

3.3.1.6. Relays termination information to all concerned personnel and agencies when an emergency is terminated. Relays emergency termination for aircraft on the ground when the IC declares termination, and if the aircrew indicates no further assistance is required. Relays requests for further assistance to the IC.

3.3.1.7. Notifies AMOPS when the emergency is terminated.

3.3.2. Airfield Management Operations (AMOPS) (51 OSS/OSAA).

3.3.2.1. Relays information received from PCAS via the SCN.

3.3.2.2. Responds to IFEs/GEs that impact airfield operations.

3.3.2.3. Determines and informs Tower of airfield conditions and takes action to close or suspend runway or affected taxiway operations, as deemed necessary, and submits applicable Notices to Airmen (NOTAMs) when required.

3.3.2.4. Performs a visual inspection of the runway and affected taxiways for airfield damage or FOD, and requests airfield sweeper as necessary.

3.3.2.5. Ensures runway is clear of all vehicles, equipment, and personnel. Advises the Tower and IC when runway operations can be resumed.

3.3.2.6. Secures activation/deactivation of ALS when required.

3.4. 51st Mission Support Group Commander (51 MSG/CC).

3.4.1. Will provide an EOC Director, who will be the liaison between the IC and the Installation Command Post. The EOC Director provides oversight for the Installation Commander to support and control emergency response to incidents.

3.4.2. Coordinates and controls all support activities based upon the operational situation and /or decisions by IC or 51 FW/CC.

3.5. 51st Security Forces Squadron (51 SFS).

3.5.1. Will be notified immediately upon declaration of GE or IFE.

3.5.2. Will only respond when requested by the IC. If a response to an emergency is requested, Security Forces will provide sufficient personnel and vehicles for initial security and cordon establishment.

3.5.2.1. Responds to IFEs at appropriate taxiway intersections. Vehicles will remain short of the Foxtrot Taxiway as directed by the IC. If Security Forces are needed in another location, the Base Defense Operation Center (BDOC) will coordinate with the IC.

3.5.2.2. Establish Entry Control Point (ECP) procedures, develop an Entry Authorization List (EAL) controlling access to the accident site or disaster scene in coordination with the IC.

3.5.3. Follow directions given by IC to limit access, secure aircraft, or crash site.

3.6. 51st Civil Engineering Squadron (51 CES).

3.6.1. Fire Department (51 CES/CEF).

3.6.1.1. The SFO will establish the Incident Command System and act as the IC until the emergency is terminated and transitions to the recovery phase.

3.6.1.2. Positions Fire & Emergency Services vehicles according to nature of emergency.

3.6.1.3. Provides fire protection or standby vehicle coverage until IC determines aircraft is safe.

3.6.1.4. In cases where the aircraft is stopped but engines are running, coordinates emergency activities with the aircrew until the aircraft is turned over to maintenance. **NOTE:** Use UHF Communications only with prior coordination from ATC and when critical.

3.6.1.5. Advises Tower when the emergency is terminated, and when Fire Emergency Services actions are complete.

3.6.1.6. Assumes responsibility for barrier maintenance functions when barrier maintenance crews are not on duty (Exception: only barrier maintenance crews are authorized to declare/certify barrier systems in service).

3.6.1.7. For emergencies involving barrier engagements, the IC will ensure personnel follow the Power Production Standard Operating Procedures (SOPs) for Aircraft Arresting Systems support.

3.6.1.8. Ensures hydrazine response.

3.6.2. Barrier Maintenance (51 CES/CEOFP).

3.6.2.1. For emergencies involving barrier engagements or possible barrier damage, responds to the affected barrier and is prepared to rewind or inspect for damage.

3.6.2.2. For IFE involving an anticipated barrier engagement, respond to and prepare, if necessary, the barrier most likely to be engaged (if known) or to a location on the airfield where immediate response can be made to any involved barrier.

3.6.2.3. Advises ATC of changes to barrier status.

3.6.3. Explosive Ordnance Disposal (EOD) (51 CES/CED).

3.6.3.1. Responds when requested by IC via the Installation Command Post and will be advised of incident location upon arrival to the ECP. **NOTE:** OSANABI 21-112, *End of Runway (EOR)/ Explosives Loaded Aircraft, Hung Ordnance/Gun System Malfunction Procedures, and Hung Ordnance/Gun System Malfunction Impoundment*, when an incident involves hung/unsafe ordnance, EOD personnel do not respond to an incident until requested to do so by the IC.

3.6.4. Heavy Equipment (51 CES/CEOHP).

3.6.4.1. Responds with heavy lifting equipment required to tow or push a crashed aircraft from the runway. Equipment is only required when directed by the Installation Commander to clear the runway by any means necessary.

3.6.4.2. Coordinate pavements inspection with EOC to determine condition of pavement around crash site once the aircraft is removed. Coordinate repair actions as needed.

3.7. 51st Logistics Readiness Squadron (51 LRS).

3.7.1. Vehicle Management (51 LRS/LGRVM).

3.7.1.1. Will ensure Crash Recovery/Transient Alert (TA) has a minimum of 2 diesel 6-pax 4x4 trucks, 2 aircraft tow vehicles (MB-4 & UKE-30), and 2 follow-me vehicles to respond to all home station and transient aircraft emergencies. These vehicles will have the same maintenance priority of any other emergency response vehicle.

3.7.2. Ground Transportation (51 LRS/LGRDDO).

3.7.2.1. Provide Crash Recovery/TA with a semi-tractor capable of towing the crash trailer, a 10K forklift, a stake-bed truck, and a semi-tractor and flat-bed trailer in the event of an aircraft crash.

3.8. 51st Medical Group (51 MDG).

3.8.1. 51 MDG responds to a position (normally near Base Ops) as directed by the IC with an ambulance and personnel necessary to provide emergency medical care (hereafter designated 51 MDG response personnel).

3.8.2. In the event of a crash/mishap, 51 MDG response personnel will enter the scene following clearance by the IC. They will then assist in triage and care of survivors to include administering treatment, supervision of movement and assist the IC in coordinating patient movement efforts.

3.8.2.1. 51 MDG response personnel should accompany injured personnel to nearest medical treatment facility (MTF) where they will coordinate specimen (lab) collection and other ancillary tests to include radiography as well as complete physical exams. The FS is also responsible for preservation of perishable data relevant to the pending investigation (biological samples, histories, etc.). 72-hour and 7-day histories will be distributed and taken.

3.8.2.1.1. 51 MDG response personnel may advise the IC/Recovery Operations Chief (ROC) on blood-borne pathogen protection for emergency responders as needed.

3.8.2.2. 51 MDG response personnel are responsible for factors impacting the health (both physical and psychological) of rescuers, investigators as well as members of the flying unit.

3.8.2.3. An aeromedical provider will normally be a member of the Interim Safety Board until such time as the appointed Safety Investigation Board arrives and assumes responsibility.

3.8.3. In situations involving aircrew/passenger physiological problems, 51 MDG response personnel will meet the aircraft and ensure the affected personnel are examined once cleared by the IC.

3.8.3.1. If a physiological problem is confirmed or suspected, notify owning organizational MOC or 51st Maintenance Group Quality Assurance (QA) or other designated Point of Contact (POC).

3.8.4. 51 MDG response personnel will remain at the scene until the patients are ready to be escorted to the nearest MTF for follow-up exams and cleared by the IC.

3.8.5. Base Bioenvironmental Engineering (BE) office will respond to the scene and perform health risk assessments, monitoring (if necessary for hydrazine, composites, etc.) and advise the IC on exposure control issues.

3.8.5.1. Monitor personnel in the area to ensure they do not enter the contaminated site.

3.8.5.2. Evaluate occupational, radiological, and environmental health hazards at or near the accident or disaster site, including presence of advanced aerospace materials, specifically composites.

3.8.5.3. Determine protective measures and equipment for personnel entering the accident or disaster site.

3.8.5.4. Along with the 51 CES Readiness and Emergency Management Flight, determine the need for personnel monitoring, procedures and contamination control requirements. In coordination with the IC/ROC, the BE representative will support and provide advice on processing personnel out of the incident site via a Contamination Control Station until it has been determined there is no threat of contamination.

3.8.5.5. After aircraft mishap, once scene is deemed fire safe, initial site survey will be conducted by BE and Crash Recovery's aircraft subject matter expert to properly identify hazardous items and Communications Security (COMSEC) equipment. If hazards are unknown, all personnel on team will wear full Personal Protective Equipment (PPE) (PPE requirements vary depending on aircraft type and hazardous material present).

3.9. 51st Maintenance Group (51 MXG).

3.9.1. Maintenance Operations Center (MOC) (51 MXG/MXOC).

3.9.1.1. Assist with coordination of operations, guidance, and inter-agency assistance and communication for affected aircraft.

3.9.1.2. Implement emergency checklists as required.

3.9.1.3. Notifies all ground maintenance personnel of the emergency. Notifies appropriate unit's production superintendent to provide de-arm and tow crews.

3.10. 51st Maintenance Squadron (51 MXS).

3.10.1. Crash Recovery (51 MXS/MXMTT).

3.10.1.1. The section supervisor will initiate a section recall determined by the type and scale of the emergency.

3.10.1.2. Dispatches CDDAR team to all aircraft related emergencies to remove aircraft from the active runway, taxiways, and aircraft shelters. Once aircraft is deemed fire safe, CDDAR team will be cleared by IC to approach aircraft and evaluate if aircraft

is safe to taxi, or if aircraft must be shut down for maintenance prior to clearing emergency.

3.10.1.3. Instructs responding personnel to follow instructions of the IC until the aircraft is deemed fire safe and the Crash Recovery team is approved to approach aircraft by IC.

3.10.1.4. Prepares personnel from the CDDAR team to marshal, chock, pin, and prepare the aircraft for towing when an aircraft must be shut down on the runway or taxiway. **NOTE:** Aircraft must be safed by unit's de-arm crew prior to towing unless emergency circumstances dictate otherwise.

3.10.1.5. Coordinates with MOC for the owning organization to provide a de-arm crew for all munitions on the aircraft.

3.10.1.6. Coordinate with Wing Plans and Readiness office to perform crash recovery exercises as required for currency/proficiency purposes.

3.10.1.7. Assist in the recovery of all Temporary Duty (TDY) and transient disabled aircraft.

3.10.1.8. Maintain crash recovery equipment in a serviceable condition, ready for immediate use.

3.10.1.9. Upon notification of an on/off-base accident, prepare and stage equipment and await dispatch instruction from the IC.

3.10.1.10. For CDDAR support after normal duty hours. If after normal duty hours, initiate recall of the standby CDDAR Team. Command Post and the 51 MXS Production Superintendent maintain weekend duty and standby rosters. Response time will be as soon as possible, not to exceed 1 hour.

3.10.1.11. Maintain a minimum of 2 Team Chiefs and 4 MDS SMEs per airframe. Every effort should be made to keep qualifications at or above 2. If 51 MXS falls beneath this minimum, it would be the MXS/CC or delegated authority's responsibility to expedite training as necessary.

3.10.2. Fuel Shop (51 MXS/MXMTF).

3.10.2.1. Maintain a suitable hydrazine response cleanup crew and trailer capable of clean-up and responding to any hydrazine emergency.

3.11. 51 FW Safety Office (51 FW/SE).

3.11.1. Monitor, assess, and advise on response to aircraft emergencies.

3.12. Temporary Duty (TDY) Units to include Army Tenant Units.

3.12.1. All In-flight and ground emergencies are transmitted through the Fire/Crash net by the Fire Department. Will respond to appropriate end of runway and safe aircraft when directed by Fire Chief.

3.12.2. Unit personnel responding to the emergency will switch to ramp net (if available) and prepare to assist the crash crew as required. If personnel do not have ramp net, they will standby until escorted to the scene by Crash Recovery/TA personnel. **NOTE:** It is

each TDY Unit's responsibility to contact AMOPS immediately upon arrival at Osan AB to obtain required flight line driver's licenses and 51st Communications Squadron (51 CS) to have their radios programmed for ramp net capability.

3.12.3. Crash Recovery's responsibility is to remove all disabled aircraft from the runway. Once removed from the runway, the owning unit takes over, but with the help of a Tow Super or Qualified Aircrew from the owning unit. If there are no other emergencies, Crash Recovery may assist in towing the aircraft to its required parking location.

3.13. 5th Reconnaissance Squadron (5 RS).

3.13.1. Will provide subject matter experts, technical data, and airframe specific recovery equipment, as required in the base support agreement. They will also provide quarterly aircraft familiarization and crash recovery training sessions with Crash Recovery/TA.

4. Termination of Emergencies.

4.1. Aircrews may terminate emergencies of airborne aircraft.

4.2. When aircraft are on the ground, the emergency may only be terminated by the IC with concurrence of the aircraft commander.

4.3. CDDAR Team will establish communications with the SFO (call sign "Command"), on the Osan Fire/Crash net.

4.4. Once aircraft is declared fire safe by IC, CDDAR Team will approach aircraft and determine if aircraft is safe to taxi or must shut down for maintenance at location prior to termination of the emergency.

4.5. Fire & Emergency Services will notify the tower, who will in turn contact AMOPS to terminate the emergency over the SCN.

5. Crash Recovery Overview.

5.1. Crash recovery efforts are directed at returning the airfield to operational status after an aircraft mishap on, or in close proximity to, the runway.

5.2. The IC will:

5.2.1. Maintain on-scene tactical control of all assets at the accident site.

5.2.2. Coordinate with 51 FW/SE before moving any damaged aircraft (time permitting).

5.2.3. Release wreckage to the Interim Safety Board President when initial crash recovery efforts are complete.

5.3. The 51 MXS Crash Recovery Supervisor will:

5.3.1. In coordination with the IC, take appropriate action to clear the runway. The IC will determine the degree of urgency.

5.3.2. Be the ranking qualified TA person responding to the incident.

5.3.3. Ensure crash recovery vehicles are manned. Proceed in a radio-equipped vehicle to the emergency staging area (Doorstop Ramp).

6. Aircraft Removal.

6.1. The following general procedures will apply for aircraft removal from the runway. In the event of a crash on the airfield, no part of the aircraft will be moved without concurrence of the Interim Safety Board President. Only the minimum essential personnel required will respond to an aircraft incident. Observers who are not required during the command/removal operations are not permitted.

6.2. Prior to starting removal operations on any aircraft:

6.2.1. The IC will release aircraft to appropriate Crash Recovery supervisor.

6.2.2. EOD personnel will render safe hung/damaged ordnance. EOD will stage outside the immediate recovery area and perform safing/downloading procedures when directed by the IC.

6.2.2.1. Under normal operating procedures, the Crash Recovery supervisor will coordinate with owning unit weapons crew to safe the aircraft prior to performing aircraft towing operations.

6.2.2.2. Crash Recovery technicians will disengage the aircraft from the barrier.

6.2.2.3. On an aircraft declaring hot brakes, Crash Recovery team will confirm the hot brake condition. If a hot brake condition exists, follow hot brake procedures. If no hot brake condition exists, the aircraft will be released by the IC to taxi to the designated parking location.

6.2.2.3.1. If A-10 Ground crew deems aircraft hot brake condition exist (based on user's experience). Aircraft hot brake condition will be declared, and all personnel will follow hot brake procedures. Reference: 1A-10C-6WC-1, Card 2-003.

6.2.2.3.2. F-16 Hot brake determinations do not require temperature check and should be as follows: if smoke, fire, glowing disk, or deflation of tire is present, clear area and follow hot brake procedures. Reference: 22CFR 125.4 (b)(2), (5), (9).

6.2.2.4. Under emergency circumstances (must clear off active runway immediately) the Crash Recovery supervisor may tow the aircraft to the nearest taxiway prior to having the unit safe the aircraft. Consider safing ordnance, gun and other explosive hazards prior to all initial movement from crash position to prevent initiation of explosive devices and forward firing munitions. If any aircraft must be moved from the active runway prior to safing, the ordnance will be safed by EOD or the unit weapons crew after the emergency movement but is dependent on condition of the ordnance.

6.2.2.5. Crash Recovery will tow aircraft off the runway and park at the nearest location, meaning Doorstop, EOR, or Base Operations Ramp. Crash Recovery will not tow aircraft back to original parking spot unless the IFE aircraft is the last aircraft down for local flying.

6.2.2.6. The Installation Commander will authorize emergency removal operations.

6.3. Applicable -2 and -3 maintenance manuals will be used for specific crash recovery procedures. If specific MDS maintenance manuals are not available locally, owning organizations will provide them, time permitting.

6.3.1. Recovery personnel will never approach burning/smoldering aircraft until completely extinguished and cleared to by the IC.

6.3.2. For aircraft containing composite materials, where there is the possibility of airborne particles, Crash Recovery members will wear full PPE T.O. 00-105E-9, *Aerospace Emergency Rescue and Mishap Response Information (Emergency Services).*

6.4. If the crashed aircraft cannot be removed using a crane or lifting bags, and conditions warrant immediate runway clearance, the IC will direct all available equipment to be used to move the aircraft off the runway by any means possible. **NOTE:** Removal of Republic of Korea or other non-U.S. Air Force aircraft, when further damage is probable, will be coordinated with the proper agency, time and circumstances permitting.

6.5. Composite Material Procedures. If aircraft composite materials are damaged during a mishap, Crash Recovery personnel will ensure containment of composite particles through approved methods found in TO 00-105E-9 and applicable MDS specific Tos.

6.5.1. CDDAR Team members involved in cleanup of composite materials or suspected composite materials will consult BE to conduct survey of mishap scene. All team members will wear necessary recommended PPE.

7. CDDAR Personnel and Equipment Requirements.

7.1. Minimum personnel required for specified CDDAR operations are outlined in TO 00-80C-1, *Crashed, Damaged, Disabled Aircraft Recovery Manual*, TO 1A-10C-2 series, *Maintenance Manual A-10C Aircraft*, TO 1A-10C-3, *Structural Repair A-10C Aircraft*, TO 1F-16CG-2 series, *Maintenance Manual F-16 Aircraft*, and TO 1F-16CG-3 series, *Structural Repair F-16 Aircraft.*

7.2. TA maintains general purpose crash recovery equipment, i.e., lifting bags, matting, landscaping equipment, crash trailer, response vehicles, etc. TA section maintains a detailed list of available CDDAR equipment, tools, vehicles and other supplies and consumables.

7.3. CDDAR equipment used infrequently and stored in crash trailers will be assigned as a CTK with inventory and have a monthly inventory and inspection when not used. When used, the trailer will be signed out in Total Control Management for Assets (TCMax) and a complete inspection and inventory of all assets will be conducted at the beginning and end of the crash recovery operation.

8. First Responders will:

8.1. Immediately deploy to the disaster scene and provide initial Command and Control (C2) to prevent loss of life, preserve valuable resources, protect the environment, and continue the mission. The basic CDDAR team (Crash Recovery Team (CRT)) is considered part of the First Responders for all aircraft related incidents and will follow the direction of the IC.

8.2. All First Responders shall complete the Air Force Emergency Response Operations and Emergency Responders Course, IAW DAFI 10-2501, paragraph A5.2.5.

9. Emergency Responders will:

9.1. Deploy after the First Responders to expand the C2 and provide additional support. The follow-on CDDAR team is considered part of the Emergency Responders and will follow the direction of the Fire Department. The CDDAR team will later become integral to the mishap aircraft removal.

9.2. All Emergency Responders shall complete the Air Force Emergency Response Operations and Emergency Responders Course, IAW DAFI 10-2501, Table 5.1.

10. CDDAR Training Requirements:

10.1. All CDDAR Team members must be trained in handling composite fibers. Procedures can be found in specific MDS TOs, 00-80C-1 and TO 00-105E-9. Training is provided by the CDDAR POC.

10.2. All CDDAR Team members must be trained in proper PPE wear. This includes, but is not limited to, full face respirator, Tyvek® suit, rubber boots, and leather gloves over nitrile gloves. Initial and annual respirator training is provided by BE IAW AFI 48-137, *Respiratory Protection Program.*

10.3. The CDDAR/Team Chief will coordinate, through the 51st Maintenance Squadron Commander (51 MXS/CC), an annually scheduled CDDAR exercise. All training will be documented in Integrated Maintenance Data System (IMDS). Actual emergencies that satisfy training requirements may be substituted with MXS/CC approval. Any aircraft exercise input, e.g., a Major Accident Response Exercise (MARE), may satisfy this requirement if a CDDAR Team was involved in any way.

WILLIAM H. McKIBBAN, Colonel, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

DAFPD 21-1, *Maintenance of Military Materiel,* 21 February 2024

AFI 48-137, *Respiratory Protection Program,* 12 September 2018

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Adopted Forms

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Abbreviations and Acronyms

AB—Air Base

AFI—Air Force Instruction

AFRIMS—Air Force Records Information Management System

ALS—Alternate Landing Surface

AMC—Air Mobility Command

AMOPS—Airfield Management Operations

AOC—Air Operations Center

ATC—Air Traffic Control

BE—Bioenvironmental Engineering

BDOC—Base Defense Operations Center

C2—Command and Control

CDDAR—Crash Damaged or Disabled Aircraft Recovery

CMA—Controlled Movement Area

COMSEC—Communications Security

CRT—Crash Recovery Team

DAF—Department of the Air Force

DAFPD— Department of the Air Force Policy Directive

DO—Director of Operations

EAL—Entry Authorization List

ECP—Entry Control Point

EOC—Emergency Operations Center

EOD—Explosive Ordnance Disposal

EOR—End of Runway

ETA—Estimated Time of Arrival

FOD—Foreign Object Damage

GE—Ground Emergency

GPC—Government Purchase Card

HQ—Headquarters

IAW—In Accordance With

IC—Incident Commander

IFE—In-flight emergencies

IMDS—Integrated Maintenance Data System

MARE—Major Accident Response Exercise

MDS—Mission Design Series

MOC—Maintenance Operation Control

MTF—medical treatment facility

NOTAM—Notice to Airmen

OPR—Office of Primary Responsibility

PACAF—Pacific Air Force

PCAS—Primary Crash Alarm System

PPE—Personal Protective Equipment

POC—Point of Contact

QA—Quality Assurance

RDS—Records Disposition Schedule

ROC—Recovery Operations Chief

SCN—Secondary Crash Net

SFO—Senior Fire Officer

SOF—Supervisor of Flying

SOP—Standard Operating Procedure

TA—Transient Alert

TBA—Training Business Area

TCMAX— Total Control Management for Assets

TDY—Temporary Duty

UHF—Ultra High Frequency

Office Symbols

5 RS—5th Reconnaissance Squadron

51CS—51st Communications Squadron

51 CES/CEF—51st Civil Engineering Squadron Fire Department

51 CES/CEOFP—51st Civil Engineering Squadron Barrier Maintenance

51 CES/CEOHP—51st Civil Engineering Squadron Heavy Equipment

51 CES/CED—51st Civil Engineering Squadron Explosive Ordnance Disposal

51 CPTS—51st Comptroller Squadron

51FW—51st Fighter Wing

51 FW/CC—51st Fighter Wing Commander

51 FW/SE—51st Fighter Wing Safety Office

51 LRS—51st Logistics Readiness Squadron

51 LRS/LGRVM—51st Logistics Readiness Squadron Vehicle Management

51 LRS/LGRDDO—51st Logistics Readiness Squadron Ground Transportation

51 MDG—51st Medical Group

51 MSG/CC—51st Mission Support Group Commander

51 MXG—51st Maintenance Group

51 MXG/MXOC—51st Maintenance Group Maintenance Operations Center

51 MXS/CC—51st Maintenance Squadron Commander

51 MXS—51st Maintenance Squadron

51 MXS/CDDAR—51st Maintenance Squadron Crash, Damaged or Disabled Aircraft Recovery

51 MXS/MXMTF—51st Maintenance Squadron Fuel Shop

51 MXS/MXMTT—51st Maintenance Squadron Crash Recovery

51 OG/CC—51st Operations Group Commander

51 OSS—51st Operations Squadron

51 OSS/OSAT—51st Operations Squadron Control Tower

51 OSS/OSAA—51st Operations Squadron Airfield Management Operations

51 SFS—51st Security Forces Squadron

613 AOC—613th Air Operations Center

618 AOC—618th Air Operations Center

731 AMS—731st Air Mobility Squadron

731 AMS/CC—731st Air Mobility Squadron Commander

731 AMS/DO—731st Air Mobility Squadron Director of Operations

USTRANSCOM/TCAQ—United States Transportation Command Acquisition Branch