

**BY ORDER OF THE COMMANDER
GRAND FORKS AIR FORCE BASE**

**GRAND FORKS AIR FORCE BASE
INSTRUCTION 21-105**

22 SEPTEMBER 2014



Maintenance

**CRASH DAMAGED OR DISABLED
AIRCRAFT RECOVERY (CDDAR)
PROGRAM**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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Certified by: 319 ABW/CC
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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*, Air Force Instruction (AFI) 21-101, *Aircraft and Equipment Maintenance Management*, Technical Order 00-105E-9, *Aerospace Emergency Rescue and Mishap Response Information*, and the 319th Air Base Wing (ABW) Installation Emergency Management Plan (IEMP) 10-2. This instruction establishes responsibility, procedures, and operating instructions for aircraft Crash Damaged or Disabled Aircraft Recovery (CDDAR) for both major and minor incidents in the Grand Forks AFB area of responsibility to include all host, tenant, and transient aircraft. All agencies involved with recovery operations will comply with this instruction to ensure cooperative, coordinated response to CDDAR situations. Commanders and supervisors are responsible for ensuring personnel are familiar with and comply with the provisions of this publication. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) located at <https://www.my.af.mil/gcss-af61a/afirms/afirms/>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through the appropriate functional chain of command.

1. General.

1.1. The purpose of this Operating Instruction is to define and outline specific requirements and individual responsibilities between 319 ABW Grand Forks AFB, ND and tenant units as identified by AFI 21-101 Section 3.2.6.

1.2. Since the 319 ABW has no aircraft assigned, the 69 MXS will maintain the crash recovery response trailer (equipment) and vehicle. The 319 ABW CDDAR program is a combined effort of the 319 ABW, 69 RG and the 119 Wg. The equipment and vehicle will be shared; however, each unit is responsible for providing manning to recover/reclaim their respective aircraft.

1.3. Because the U.S. Customs and Border Protection (CBP) MQ-9's are not DoD assets, they have their own recovery procedures. The 69 MXS CDDAR team will assist as needed, but CBP will be in charge of the operation.

1.4. For mishaps involving transient aircraft, 319 TA will coordinate with the IC to determine assistance requirements.

1.4.1. Due to the many unknown factors of airframe conditions immediately following a crash landing, do not attempt to use special equipment or procedures not included in the specific aircraft technical orders, or without approval of the specific airframe system manager/engineer. The owning agency of any transient aircraft will be contacted for technical advice pertaining to the specific aircraft.

1.5. Wreckage will not be disturbed IAW AFI 91-204, *Safety Investigation and Reports* with the exception of essential rescue operations or to prevent interference with vital air operations as deemed necessary by the 319 ABW/CC or the IC. Refer to 319 ABW IEMP 10-2.

1.6. Incidents involving aircraft made up of a composite structure may cause serious injury or death to those in contact with it. T.O. 00-105E-9, *Aerospace Emergency Rescue and Mishap Response Information* contains information regarding aircraft-specific composite component location, and should be consulted when responding to aircraft incidents. Transient aircraft's home base should be contacted to determine composite materials risk and requirements for PPE.

1.7. Personnel will use extreme caution in and around a disabled aircraft. CDDAR personnel will ensure that the aircraft remains stable at all times to prevent movement or shifting. It may be necessary to moor the aircraft or stabilize using airbags.

2. Specific Responsibilities.

2.1. 319 ABW/CC:

2.1.1. Will approve and direct implementation of the recovery plan, IAW GFAFB IEMP 10-2.

2.2. 319 MSG:

2.2.1. Request EOD support from the Fargo ANG through 319 ABW Command Post as required.

2.2.2. Provide tractor trailers, forklifts, and drivers as necessary to support equipment needs at the mishap site, as well as transport wreckage to the assembly point. An all-terrain forklift may also be required, depending on the mishap condition and location.

2.2.3. If additional equipment or supplies are deemed necessary by the CDDAR Team Chief, they will seek availability of base equipment and supplies first if not available, engage Contracting for rental or purchase options.

2.2.4. Provide POL support to the IC. This will include on scene de-fueling of aircraft, if possible, as well as refueling of support equipment (i.e. Aerospace Ground Equipment and heavy equipment).

2.2.5. 319 OSS:

2.2.5.1. 319 OSS/CC

2.2.5.1.1. Is responsible to the 319 ABW/CC for all operational matters and decisions affecting handling of aircraft emergencies.

2.2.5.1.2. Works with the 69 RG/CC, the 119 Wg/CC, Supervisor of Flying or ATC to obtain information or give directions.

2.2.5.2. 319 Command Post, for transient aircraft, will:

2.2.5.2.1. Maintain and initiate accident/incident checklists for aircraft mishap and notify all supporting agencies.

2.2.5.2.2. Ensure radio traffic is held to essential transmissions during emergencies and enforce radio discipline during the recovery process.

2.2.5.2.3. Coordinate with support organizations such as Transient Alert, 319 LRS and the 319 CES for resources/actions required for CDDAR operations.

2.2.5.2.4. Assist as necessary obtaining clearance from the control tower for maintenance vehicles to cross the active runway to reach the recovery site.

2.2.5.2.5. Work closely with 69 RG MOC during any aircraft recovery.

2.2.5.3. Transient Alert:

2.2.5.3.1. Will assist with the removal of disabled transient aircraft from active runway.

2.2.5.4. 319 AGE

2.2.5.4.1. For transient aircraft, 319 AGE will provide AGE equipment to support and sustain the recovery effort as requested by IC and/or CDDAR Team Chief.

2.3. 319 MDG:

2.3.1. The 319 Bioenvironmental Flight, when called upon by the SFO, will assist with advanced composite response procedures. Only qualified personnel with adequate PPE will be allowed to enter hazardous areas.

2.3.2. The on-scene Bioenvironmental Engineering representative, with the CDDAR Team Chief and IC, will determine the PPE that will be utilized. Any additional PPE concerns and/or training will be addressed and accomplished prior to beginning the

recovery operation as determined by potential health risk of radiation, composite material, blood-borne pathogens, and toxic chemical hazards that may be associated with the accident.

2.4. 69 RG:

2.4.1. 69 RG/CC:

2.4.1.1. Is responsible for the execution of the RQ-4 CDDAR program.

2.4.1.2. Will appoint, in writing, the CDDAR team chief.

2.4.2. 69 RG MOC, for RQ-4/MQ-1 operations, will:

2.4.2.1. Maintain and initiate accident/incident checklists for aircraft mishap and notify all supporting agencies.

2.4.2.2. Ensure radio traffic is held to essential transmissions during emergencies and enforce radio discipline during the recovery process.

2.4.2.3. Coordinate with support organizations such as the 319 LRS and the 319 CES for resources/actions required for CDDAR operations.

2.4.2.4. Assist as necessary obtaining clearance from the control tower for maintenance vehicles to cross the active runway to reach the recovery site.

2.4.2.5. Maintain a copy of the CDDAR emergency recall roster. The CDDAR Team Chief will ensure it is updated in a timely manner if any personnel changes are made.

2.5. 69 MXS:

2.5.1. Is primarily responsible for RQ-4 recovery, but will assist the 319 ABW, the 119 WG and the U.S Customs and Border Protection as needed.

2.5.2. Will maintain and store CDDAR equipment for the 319 ABW and its tenants. Required inspections will be tracked and documented on the item applicable AF Form 1800, AFTO Form 244, or AFTO Form 95 (as required). The equipment should include, but not limited to:

2.5.2.1. Composite Equipment Trailer

2.5.2.2. Aircraft Lifting Sling

2.5.2.3. Aircraft Airbags

2.5.2.4. Belly Bands, Shackles and/or Spreader Bar

2.5.2.5. Aircraft Towing Cables

2.5.3. The CDDAR Team Chief, in addition to the requirements in AFI 21-101, will:

2.5.3.1. Be the single on-scene focal point for CDDAR operations and reports directly to the IC. All CDDAR aircraft operations will be coordinated through this individual. CDDAR Team Chief will be designated upon notification of a recovery operation. If the operation will be ongoing two CDDAR Team Chiefs will be designated for 24-hour coverage. These individuals will be readily identifiable by a WHITE hard hat.

2.5.3.2. Assign qualified personnel to positions prior to recovery operations (e.g. special vehicle operator, console operator, safety observer, etc.).

2.5.3.3. Provide qualified personnel for containment, clean-up, and disposal of advanced aerospace material/composite. IAW T.O. 00-105E-9 and AFMAN 32-4004.

2.5.3.3.1. These members will wear proper PPE. The minimum PPE for burned composites will include hooded Tyvek suits, leather gloves, nitrile rubber gloves, steel toe boots and a HEPA full face respirator. (Members must be respirator qualified for the recovery, if there is a threat of contacting composite materials.)

2.5.3.3.2. CDDAR team members may be exposed to fibers and inhalable dusts as aircraft parts are moved, modified by cutting, breaking, twisting or hammering. Therefore the CDDAR Team Chief will ensure team members are briefed on all possible health issues involved.

2.5.3.3.3. Work with Bioenvironmental and reference the proper technical orders to ensure PPE is available and used by each CDDAR team member.

2.5.3.3.4. Members will be identified as Team Chief or Team Member on the crash recovery recall roster.

2.5.3.4. Evaluate the situation and coordinate with IC to formulate a recovery plan. Ensure the IC has released the aircraft before recovery actions begin.

2.5.3.5. Plan for minimal secondary damage to aircraft during recovery operations.

2.5.3.6. Maintain the CDDAR continuity book containing: current recall roster, training plan with qualification dates for all members, host/tenant support agreement, detailed equipment list, checklist and any waivers.

2.5.3.7. In the event of a major mishap, additional members may be augmented to assist in CDDAR operations under the direct supervision of the CDDAR Team Chief and team members.

2.5.3.8. Upon notification of an accident, the CDDAR Team Chief will begin the recall process to assemble the CDDAR Team. During normal duty hours, team members will respond immediately to Bldg. 609, 69 MXS Wheel & Tire Shop. During non-duty hours, CDDAR team members will report to Bldg. 609 within one-hour of notification.

2.5.4. 69 MXS Age:

2.5.4.1. For RQ-4/MQ-1 aircraft, 69 MXS AGE will provide AGE equipment to support and sustain the recovery effort as requested by IC and/or CDDAR Team Chief.

3. CDDAR Equipment Requirements

3.1. Primary response vehicle will be a 6-passenger, 1-ton, 4-wheel drive pickup with pintle hook and trailer (utility body). Vehicle will be equipped with necessary emergency lights and a radio capable of monitoring all maintenance nets, to include the MOC and fire dispatch net independently with the capabilities to switch to ATC nets. The trailer will contain the

necessary TO's, tools, spare wheels/tires, axle jacks and safety equipment to perform immediate response operation.

3.2. Vehicles will be available on a 24-hour basis. If the base does not own or have immediate access to any of these vehicles, the Base Contracting Office must have a contingency plan in place to rent or lease these vehicles from a local supplier. Vehicles that may be required to support a CDDAR effort are listed in Figure 1.

3.3. The CDDAR Team Chief will ensure the CDDAR assets are inspected for serviceability before and after each exercise or real-world use. Periodic inspections must be accomplished and documented in accordance with applicable Technical Orders. Perform operational checks according to applicable directives during exercises and/or inventory reviews.

Figure 1. Vehicle Requirements

Vehicle Nomenclature	Owning Organization
Aircraft Tow Vehicle	Transient Alert/Owning unit
Crane	Contract
All Terrain Forklift	319 LRS
Radio Equipped Truck	Transient Alert
Suitable Trailer and tow vehicle	319 LRS/ 69 th MXS
Bulldozer	319 LRS/Contracting
40 ft. flatbed semi-tractor & trailer	319 LRS

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Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFPD 21-1, *Air and Space Maintenance*, 25 February 2003

AFI 21-101, *Aircraft and Equipment Maintenance Management*, 26 July 2010

AFI 91-204, *Safety Investigation and Reports*, 24 Sep 2008

GFafb IEMP 10-2 *Installation Emergency Management Plan*, 2013

AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, 15 June 2012

T.O. 00-105E-9, *Emergency Rescue and Mishap Response Information*, 31 Mar 2011, Rev 15

Prescribed and Adopted Forms

Prescribed Forms: There are no forms prescribed by this publication.

Adopted Forms: AF Form 847, *Recommendation for Change of Publication*.

Abbreviations and Acronyms

ATC—Air Traffic Control

BEE—Bioenvironmental Flight

CDDAR—Crash Damaged or Disabled Aircraft Recovery

EOD—Explosive Ordnance Disposal

IC—Incident Commander

MDG—Medical Group

MDS—Mission Design Series

MOC—Maintenance Operations Center

MSG—Mission Support Group

POL—Petroleum Oil and Lubricants

PPE—Personal Protective Equipment

RG—Reconnaissance Group

TA—Transient Alert

Terms

Accountable Forms—Forms that the Air Force stringently controls and which cannot be released to unauthorized personnel, since their misuse could jeopardize DOD security or result in fraudulent financial gain or claims against the government.

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