BY ORDER OF THE COMMANDER
CANNON AIR FORCE BASE (AFSOC)

CANNON AIR FORCE BASE
INSTRUCTION 21-101

4 JANUARY 2017

Maintenance

CRASHED, DAMAGED, OR DISABLED AIRCRAFT RECOVERY (CDDAR) PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available for downloading or ordering on the e-Publishing website at **www.e-Publishing.af.mil**.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: 27 SOMXS/MXMMA

Certified by: 27 SOMXS/CC
(Maj Ronald, A. Marquez)

Supersedes: CANNONAFBI21-101, 21 November 2011

Pages: 10

This instruction establishes procedures for the recovery of aircraft involved in a ground or air incident/accident on or off base and ensures adequate coverage 24 hours a day, 7 days a week. It will be utilized in conjunction with other agency policies and all applicable Technical Orders (T.O.s) pertaining to the disabled aircraft. It applies to all 27th Special Operations Wing (SOW) organizations and personnel that maintain aircraft, aircraft systems, equipment, support equipment, and components regardless of AFSC. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at **https://www.my.af.mil/afrims/afrims/afrims/rims.cfm**. 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 through functional chain of command.

SUMMARY OF CHANGES

This document has been revised and must be reviewed in its entirety. Major changes include removing inapplicable Cannon Air Force Base instructions pertaining to incorrect paragraphs and pages from publications within. This revision clarifies policy, regulation changes and correct errors within the Nov 2011 edition. It has been revised in an effort to be more directive

in nature, providing the user a clear picture of responsibilities. All personnel should review this entire product for pertinent changes.

1. Responsibilities.

1.1. Cannon Air Force Base will return to operational status as soon as practical after a mishap. The 27 SOW/CC or designated representative will determine the degree of emergency and make the immediate decision regarding the speed with which the runway is cleared. This decision is dictated by evaluation of alert status, number of returning aircraft, available weather alternates, and other operational criteria.

1.1.1. Upon declaration of a potential or actual major aircraft accident on the runway or in close proximity, the following events will occur:

1.1.2. All accident response agencies will be notified according to CAFB IEMP 10-2, *Cannon Air Force Base Installation Emergency Management Plan*.

1.1.3. 27 Special Operations Maintenance Group (SOMXG) Quality Assurance (QA) will implement impoundment procedures for the affected aircraft using developed procedures in the Maintenance Operations Center (MOC) checklist on all Aerospace Ground Equipment (AGE) that may have played a role in the mishap IAW 27 SOMXG MOC local check sheet. 27 SOMXG QA Weight and Balance Program manager will be the focal point for any and all weight and balance issues during aircraft recovery operations.

1.1.4. The MOC Senior Controller will notify the Special Operations Maintenance Squadron (SOMXS) Production Superintendent (Phantom Super) of the mishap, and provide type of aircraft, location, amount of fuel on board, explosives on board, and known extent of aircraft damage. The Senior Controller will designate one aircraft maintenance radio net as the primary maintenance recovery operation net and direct all personnel not directly involved in the recovery operation to switch to an alternate net. The MOC will also notify all 27 SOMXG squadrons' supervision that a crash recovery is in progress and to stand by to respond with additional personnel and equipment as directed by the on incident commander (IC).

1.1.5. Once alerted of a recovery operation, 27 SOMXS Crash Recovery (MXMMA) Shop's Shift Supervisor will recall/assemble a recovery team and designate a Crash Recovery Team Chief with coordination of Flight Supervision and Squadron Maintenance Operations. A second team will be identified to sustain 24-hr operations, if necessary.

1.1.6. As required by the IC an Emergency Support Function (ESF) representative located in the Emergency Operations Center (EOC) will provide manpower to assist in aircraft recovery procedures.

1.1.7. The IC will request guidance from the 27 SOW/CC or 27 Special Operations Group (SOG) Commander to determine risk and acceptable damage to aircraft if clearing of runway must be accomplished under emergency conditions. The IC will determine which of the following conditions exists:

1.1.7.1. Emergency. This condition requires immediate runway clearance at the risk of losing personnel and equipment. Although rescue may be attempted, the runway will be cleared in 30 minutes or less.

1.1.7.2. Urgent. This condition requires runway clearance as soon as possible after completion of rescue, firefighting, and explosive ordinance disposal (EOD) operations. The runway will be cleared in less than 1 hour and 30 minutes, unless EOD consideration dictates otherwise, using techniques identified in applicable technical publications.

1.1.7.3. Routine. This condition allows sufficient time to use recovery techniques to minimize further damage to aircraft and precludes exposing personnel or equipment to danger.

1.1.8. The IC will use all assets available to ensure aircraft removal activities are conducted in a manner which ensures the conditions of removal are met. Normally, this will be accomplished by the Crash, Damaged, or Disabled Aircraft Recovery (CDDAR) representatives assigned to the 27 SOMXS/MXMMA section. After initial evaluation, the Crash Recovery Team Chief will coordinate with IC for any required assistance. Under certain conditions, such as "emergency" or "urgent," time may not permit the use of normal procedures. In this case, the IC and ESF will decide which removal methods are best, and which disaster response activities (such as EOD, firefighting, decontamination, and rescue) identified in CAFB IEMP 10-2 may or may not proceed. Under these conditions, every on-base asset may be called into recovery operations.

1.1.9. Recovery operations will proceed under the detailed instructions of CAFB IEMP 10-2 to ensure all functions work as a cohesive team utilizing detailed plans for maintenance activities, Crash Recovery and/or Emergency Aircraft Removal Procedures and appropriate checklists and IAW T.O. 00-80C-1. A list of possible equipment is detailed below. When required, bulldozers, flatbed trucks, front-end loaders, cranes, forklifts, and tractor trailers to transport CDDAR support equipment to the mishap site, as well as transport wreckage to the wreckage assembly point may be required for the recovery operation. A list of equipment status will be provided to the ESF upon notification of aircraft mishap.

1.1.10. 27 SOMSG will:

1.1.10.1. Provide emergency crash/fire response, as well as hazardous materials and spill containment capability beyond the scope of the unit spill teams.

1.1.10.2. Provide security forces personnel to secure mishap scene and the wreckage assembly point, as directed by the IC/ESF.

1.1.10.3. Provide heavy equipment, i.e., bulldozers, cranes, and dump trucks, as required by the CDDAR Team Chief through the IC.

1.1.10.4. Provide maintenance support to heavy equipment participating in the recovery operation, as directed by the IC/ESF.

1.1.10.5. Provide on-scene fuel servicing of recovery support equipment, to include AGE and heavy equipment. Also, provide fuel sample/analysis of aircraft fuel IAW T.O. 42B-1-1 para 4.9 and AFI 23-201 para 7.6.12.

1.1.10.6. Coordinate through the ESF for contracting support on specialized equipment not available to support recovery operations.

1.1.11. 27 SOMDG will:

1.1.11.1. Accomplish Bioenvironmental Engineering responsibilities as addressed in CAFB IEMP 10-2.

2. Personnel.

2.1. 27 SOMXS Maintenance Flight manages the CDDAR program and will ensure personnel are trained in recovery operations and use of essential equipment.

2.2. CDDAR Team Chief – Responsible for the overall CDDAR Program development, implementation, and management. CDDAR Team Chief(s) will be a SNCO or waived NCO appointed in writing by the 27 SOMXG/CC and tracked on a special certification roster. A CDDAR Team Chief will be designated upon notification of recovery operations. The Team Chief will be the focal contact for all CDDAR operations and report directly to the IC. Upon initiation of recovery operation all movement within the recovery area will be coordinated through IC and Team Chief to ensure a safe recovery of aircraft and safety to personnel. This individual will be easily identified by a red hard hat.

2.2.1. CDDAR Team Member – Works directly for and reports to the CDDAR Team Chief during recovery operations. All Team Members must be qualified in basic CDDAR operations and will be identified by yellow hard hats IAW T.O. 00-80C-1.

3. Equipment.

3.1. The following equipment is essential for CDDAR operations, including clearing active runways and taxiways. Equipment not on hand will be identified on a shortfall letter kept in the Maintenance Flight supervision office. When required the list of equipment will be given to maintenance supervision to coordinate through the ESF for availability.

3.1.1. Aircraft lifting bags and control consoles. (27 SOMXS/MXMMA).

3.1.2. Air compressors (MC-7), or equivalent. (27 SOMXS/MXMG).

3.1.3. MB-2 Tug or equivalent. (27 SOAMXS).

3.1.4. Tow bars for assigned aircraft. (27 SOMXS/ MXMG).

3.1.5. FL-1D light carts as required for night recovery operations. (27 SOMXS/ MXMG).

3.1.6. Composite dunnage/aircraft shoring. (27 SOMXS/MXMMA).

3.1.7. One diesel 4x4 6-Pack vehicle capable of hauling at least 14,000 pounds with 2,000 pound tongue weight capacity and one diesel 4x4 6-Pack vehicle. (27 SOMXS/MXMMA).

3.1.8. Initial response trailer. This trailer will store initial response equipment, CDDAR Team personal protection equipment (PPE) (gloves, hard hats, reflective belts/vests, composite material protective equipment, IAW AFI 91 series, T.O. 00-105E-9 and aircraft emergency rescue information), and other equipment deemed necessary by the CDDAR Team Chief.

4. On/Off-base crash recovery.

4.1. Upon notification of an on-base crash, the IC will direct recovery operations using the CDDAR Team Chief and CAFB IEMP 10-2.

4.1.1. Upon notification of an off-base crash, the 27 SOMXS Production Superintendent along with the 27 SOMXS/MXMMA Shop shift supervisor and the 27 SOMXG/MOC will implement the crash recovery recall roster.

4.2. 27 SOMXG/MOC will coordinate with LRS EOC/ESF representative to obtain the following vehicles and drivers as needed.

4.2.1. One 10K all-terrain forklift. (27 SOLRS).

4.2.2. Two 7.5-ton tractors or larger and 40-ft trailers for transporting equipment and wreckage. (27 SOLRS).

4.2.3. One 35-ton lifting crane for disabled aircraft movement. (27 SOCES).

4.3. The Crash Recovery Team Chief and IC will review the recovery area to determine additional equipment requirements.

4.4. Under no circumstances will personnel or equipment be dispatched off-base, if it jeopardizes the mission of the on-base recovery operation, unless directed by the 27 SOW/CC or designated representative.

4.5. Control of the on/off-base mishap scene belongs to the IC until released to the president or interim president of the Safety Investigation Board.

4.6. Do not remove or disturb equipment unless directed by the Safety Investigation Board or IC, to accomplish rescue operations or for security reasons.

4.7. Once the wreckage is released to the crash recovery team, augmented personnel from base resources will load the wreckage for return to Cannon AFB. A facility large enough to house wreckage will be identified and secured, allowing only essential, authorized personnel access to the facility.

4.8. CDDAR Team Chief will assist in the development of a mishap site clean-up plan.

4.9. The CDDAR Team must be capable of deploying in support of assigned aircraft as directed by 27 SOW/CC. If tasked, all base agencies will provide required support to expedite CDDAR Team/equipment departure.

5. Training.

5.1. The 27 SOMXS CDDAR Team Chief will:

5.1.1. Implement a realistic training program and coordinate practice exercises through 27 SOW Wing Plans to allow for productive joint unit training. Training plans will be developed and reviewed/updated on an annual basis.

5.1.2. Crash recovery personnel will be trained on all recovery operations. The AC-130W, MC-130J, CV-22, MQ-9, PC-12/U-28, and C-146 aircraft are the only Mission Design Series (MDS) assigned to Cannon AFB. CDDAR trained personnel will be identified as a “Team Chief” (TC) or “Team Member” (TM) on the section’s recall roster. Special equipment qualifications will be identified using a maintenance

information system or locally developed spreadsheet located in the CDDAR Initial Response Book.

5.1.3. Provide actual and simulated training to include, but not limited to:

5.1.3.1. Basic concepts of crash/disabled recovery procedures.

5.1.3.2. Safety precautions to include hazards associated with initial response (i.e., hazardous liquids, composite materials, depleted uranium, and potentially hazardous cargo).

5.1.3.3. Tower light signals, runway crossing procedures, and runway markings.

5.1.3.4. Aircraft lifting bags and control console operation.

5.1.3.5. Crash trailer equipment.

5.1.4. Ensure trained personnel and resources are available to support CDDAR responsibilities.

5.1.5. Ensure proper use of and training on PPE as determined by technical data and the base Bioenvironmental Engineer.

5.1.6. Establish a CDDAR continuity book containing at a minimum a training plan, memorandums of agreement/understanding with other units and an inventory to identify the locations of all CDDAR equipment IAW T.O. 00-80C-1.

6. Transient Aircraft Support.

6.1. 27 SOMXS Maintenance Flight will provide CDDAR support through the IC for recovery operations with the unit of assignment.

6.2. Transient Alert personnel will assist 27 SOMXS CCDAR Team Chiefs with installing ground and weapons safety pins on transient aircraft.

6.3. Transient Alert personnel will provide a tow vehicle operator to assist with towing disabled aircraft from active runways or taxiways.

6.4. All requirements for additional equipment and personnel will be coordinated through 27 SOMXG or appropriate agencies for availability.

BENJAMIN R. MAITRE, Colonel, USAF
Commander

ATTACHMENT 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 21-1, *Maintenance of Military Materiel, 29 Oct 2015*

AFI 21-101_AFSOCSUP1, *Aircraft and Equipment Maintenance Management*, 29 Sep 2015

AFI 23-201, *Fuels Management*, 20 Jun 2014

AFI 91 Series, *AF Occupational Safety Series*

CAFB IEMP 10-2, *Cannon Air Force Base Installation Emergency Management Plan*

T.O. 00-105E-9, *Emergency Rescue Information*

T.O. 00-80C-1, *Crashed, Damaged, Disabled Aircraft Recovery Manual*

T.O. 42B-1-1, *Quality Control of Fuels and Lubricants*

Prescribed Forms

None

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*, 22 Sep 2009

ATTACHMENT 2

ASSIGNED CRASH, DAMAGED, DISABLED AIRCRAFT RECOVERY VEHICLES

A2.1. The following vehicles assigned to 27 SOMXS Maintenance Flight are primary vehicles for crash recovery purposes:

04B1277Ford 4x4 6-Pack
01B300Ford 4x4 6-Pack
08X9965434 ft. InTech Trailer

ATTACHMENT 3

IN-FLIGHT EMERGENCY DATA SHEET

Table A3.1. In-Flight Emergency Data Sheet.

1. Date_____	Time_____
2. Nature of emergency_____	
3. Aircraft Call Sign _____	
4. Type Aircraft _____	
5. Personnel on board _____	
6. Cargo/Munitions _____	
7. Fuel _____	
8. ETA _____	
9. Landing Runway _____	
10. Winds _____	

ATTACHMENT 4

CDDAR MISHAP DATA SHEET

Table A4.1. CDDAR Mishap Data Sheet.

1. Date_____	Time Notified_____
2. Nature of emergency _____	
3. Aircraft Call Sign _____	
4. Type Aircraft _____	
5. Personnel on board _____	
6. Cargo/Munitions _____	
7. Fuel _____	
8. Location _____	
9. Winds _____	
10. Cordon Coordinates _____	
11. ECP Location _____	
12. Incident Commander_____	
13. Safety Investigation Board POC _____	
14. Convoy Assembly Point _____	