BY ORDER OF 22D AIR REFUELING WING COMMANDER (AMC)

MCCONNELL AIR FORCE BASE INSTRUCTION

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Maintenance

CRASHED, DAMAGED/DISABLED AIRCRAFT RECOVERY (CDDAR)

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This McConnell Air Force Base Instruction (MAFBI) establishes guidance to effectively respond to and recover crashed damaged or disabled aircraft during normal and major aircraft emergencies/mishaps on or off base. This MAFBI is implemented in conjunction with DAFI 21-101_AMCSUP, *Aerospace Equipment Maintenance Management,* 00-105E-9 *Aircraft Emergency Rescue Information*, McConnell Air Force Base Emergency Management (EM) Plan 10-2, *Air Force Institute for Environmental Safety and Occupational Health and Risk Assessment*, and AFI 91-204, *Safety Investigations and Reports, Technical Order,* 00-80C-1, *Crashed, Damaged, Disabled Recovery Manual,* KC-46 *Aircraft Recovery Document,* and the applicable 1C-135(k)-2 and 1C-135(k)-3 series Technical Orders *Aircraft.* This MAFBI is applicable to all organizations that may be tasked to support aircraft recovery operations. Home station will be prepared to rapidly deploy crash recovery equipment and personnel for their MDS as directed by 613 TACC/XOCL in order to recover AMC assets, IAW AMCI 21-108, *Logistic Support Operation.* Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the DAF847, *Recommendation for Change of Publication*. Route DAF847s through the appropriate Functional manager's chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFI 33-322, *Records management and Information Governance Program*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at **https://www.my.af.mil/gcss-af61a/afrims/afrims/**. The reporting requirements in

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Chapter 1

GENERAL CDDAR RESPONSIBILITIES

1.1. General Responsibilities. The 22d Maintenance Squadron Commander (22 MXS/CC) has the primary responsibility for conducting crash recovery operations, as directed by the 22d Maintenance Group Commander (22 MXG/CC). Maintenance Operations Center (MOC) will implement the Maintenance Group Commander's instructions and will request support from transient aircraft home station/MAJCOM as required. 22d Maintenance Squadron, Maintenance Flight, Repair and Reclamation Section (22/931 MXS/MXMTR) is primarily responsible for the crash recovery program. The Section Chief, Crash Recovery Team Chief (CRTC), or designated representative will assume the duties of CRTC. Maintenance Flight will develop crash recovery procedures in coordination with the 22d Civil Engineering Squadron Fire Department (22 CES/CEF), 22d Logistics Readiness Squadron POL Flight (22 LRS/LGRF), 22d Air Refueling Wing Safety (22 ARW/SE/SEG/SEW/SEF), 22d CES Readiness Flight (22 CES/CEX), 22d Medical Operations Squadron Base Bioenvironmental (22 MDOS/SGOAB), 22d Security Forces Squadron (22 SFS), 22d CES Explosive Ordnance Disposal Flight (22 CES/CED), 22d Operations Support Squadron Airfield Manager (22 OSS/OSAA), 931 ARW, and other on-base or off-base agencies as applicable.

1.1.1. Supervisors at all levels must recognize the sources of hazards and apply appropriate safety practices to minimize their effect. There is an infinite variety of possible emergency and crash recovery situations; therefore, specific procedures cannot be prescribed for every situation. The aircraft and crash site will be disturbed only to the extent required to eliminate any potentially dangerous situation to the aircraft, support equipment, or personnel, and will remain in an undisturbed state until the aircraft is released to maintenance by the Incident Commander (IC). All aircraft recovery actions are coordinated through the Emergency Operations Center to the IC. Practice and/or participation in wing crash recovery exercises and implementation of operational risk management techniques are imperative for all emergency and crash recovery operations.

1.1.2. 22 ARW will retain overall CDDAR responsibility for 22 ARW/931 ARW aircraft with manning assist as required.

1.1.3. McConnell AFB personnel will direct all media inquiries to 22 ARW/PA. The only authorized persons to provide information to the media concerning crashed aircraft are the 22 ARW/CC, 22 ARW/PA, or the formal Safety Investigation Board (SIB) President.

1.1.4. Crash Recovery Team (CRT) works with the IC and the CRTC to re-open runways for operational use, prevent secondary damage to aircraft, recover CVR/FDR equipment, and preserve evidence for mishap or accident investigations.

1.1.5. Transient aircraft's home station shall be contacted for technical advice pertaining to the specific aircraft to determine composite material risks, and potential requirements for Personal Protective Equipment (PPE).

Chapter 2

SPECIFIC CDDAR RESPONSIBILITIES

2.1. Incident Commander (IC). The 22 ARW/CC designates the IC. The IC directs all military response and recovery actions at an incident scene until operations conclude or are relieved by higher authority. The IC will direct the Emergency Operation Center (EOC) director to meet at the designated EOC assembly point. The IC will request additional expertise or equipment through MOC. In the event that either equipment or personnel are not in the Maintenance Group, they will be requested through the EOC for outside sourcing.

2.2. Maintenance Operations Center (MOC). Will verify the Command Post (22 ARW/CP) has notified the 22 ARW/CC of the incident. The MOC will update Command Post throughout the incident and ensure accurate completion of the Crash Removal From Runway Checklist (QRC-18) and/or Aircraft Crash Checklist (QRC-13).

2.2.1. When notified of a crashed, damaged, or disabled aircraft incident, the senior controller will notify the 22 MXG/CC, the 22d Aircraft Maintenance Squadron (22 AMXS) Production Superintendent, as well as the 22d Maintenance Squadron (22 MXS) Production Superintendent. Notification will include type of aircraft, location, amount of fuel and/or explosives on board, and known extent of aircraft damage.

2.2.2. Lock out aircraft forms in the aircraft maintenance data collection automated system (G081).

2.2.3. Notify 22 AMXS and 22 MXS Maintenance Supervision that a crash recovery operation is underway and to prepare for the possible need for assistance. Direct all personnel to stay clear of the recovery site unless requested by the IC.

2.2.4. Contact the 22d Logistics Readiness Squadron, Fuels Management Flight (22 LRS), to impound any fuel trucks used during ground refueling operations if mishap aircraft's last ground refuel took place at McConnell Air Force Base (MAFB).

2.2.5. Request 22 LRS de-fuel equipment, both pit type and tank type trucks, be placed in standby status for use in recovery operations.

2.2.6. Notify 22d Aerospace Medicine Squadron, Bioenvironmental Engineering, 759-5104.

2.2.7. Contact 22 MXS Aerospace Ground Equipment Flight (AGE), to impound equipment used during ground servicing operations if mishap aircraft's last sortie departed from McConnell Air Force Base (MAFB).

2.3. 22 MXS Production Superintendent. Upon notification: Will assume the duties of CRTC until relieved by the appointed CRTC.

2.3.1. Implement aircraft and equipment impoundment procedures IAW DAFI 21-101_AMC Sup, **Chapter 7 Section 7.6**, as necessary.

2.3.2. Direct ground movement of any home station or transient aircraft the IC or CRTC requests to be moved to facilitate recovery operations.

2.3.3. Coordinate a tow vehicle, tow bar, and a qualified tow team. The tow team will stand by and remain available during recovery operations directed by the IC or CRTC.

2.3.4. Ensure the CRT is assembled and available to respond to the recovery site when directed by the IC.

2.3.5. Coordinate AGE requirements for CDDAR operations, the CRTC will determine the required equipment for that particular recovery operation.

2.4. Crash Recovery Team Chief (CRTC). CRTC will meet the requirements of DAFI 21-101_AMC Sup, **Chapter 11 Section 11.28** and will be familiar with the following directives:

Figure 2.1. Directive Familiarity Requirements.

- 22 ARW OPLAN 91-1
- 22 ARW Emergency Management Plan 10-2
- 22 ARW 91-202, *Mishap Prevention Program*
- 00-105E-9 *Aircraft Emergency Rescue Information*
- 00-80C-1, *Crashed, Damaged, Disabled Aircraft Recovery Manual*

2.4.1. The CRTC will serve as the point of contact for MAFBI 21-112, *CDDAR Procedures,* and maintain a continuity book with the following information.

Table 2.1. CDDAR Continuity Book Contents.

Tab 1	Appointment letters and CRTM Training Certificates
Tab 2	Copy of MAFBI 21-112 (Crashed, Damaged/Disabled Aircraft Recovery)
Tab 3	Copy of OPLAN 91-l (Response Plan for Aircraft Mishap Safety Investigations)
Tab 4	Copy of EM Plan 10-2 (Emergency Management)
Tab 5	Copy of McConnell Air Force Base Mission Assurance Plan (MAP)
Tab 6	Record of Past CDDAR Exercises and Real World Events
Tab 7	Memorandums of Agreement/Understanding and Contracts
Tab 8	List of CDDAR Tools and Equipment
Tab 9	Base and Local Area Maps
Tab 10	Important telephone numbers
Tab 11	CRT Personal Protective Equipment (PPE) requirements
Tab 12	Equipment and Supplies Forecast
Tab 13	Budget Forecast

2.4.2. Develop, in conjunction with the 22d Maintenance Operations, Maintenance Training Flight (22 MXO), course control documents and schedule dates for CDDAR training.

2.4.3. Review support agreements and the base disaster response plan on an annual basis. Provide inputs/changes as required.

2.4.4. Ensure recovery procedures are coordinated with OC-ALC/CEA, 22 CES, 22 ARW, 22 MXG, 22 SFS, 22 MDOS, 22 LRS, and 22 OSS and on/off base agencies.

2.4.5. Ensure the CDDAR equipment is centrally located and available for emergency dispatch. The 22 MXG/CC will be notified of equipment shortages/un-serviceability that precludes effective crash recovery support/response.

2.4.6. The CRTC will ensure that CDDAR annual training exercises for all potential crash scenarios are coordinated with 22 ARW/XP and 22 MXG/QA.

2.5. Crash Recovery Team (CRT). Will be the individuals tasked to perform aircraft recovery duties as directed by the IC and the CRTC.

2.5.1. Assist Transient Aircraft contractors and 22 AMXS (on assigned aircraft) with any incident involving blown or flat tires to ensure the aircraft is removed from the active runway in a timely manner.

2.5.2. Respond to crashed, damaged, or disabled aircraft and In-Flight Emergencies (IFEs) as directed.

2.5.2.1. For IFE's come to a safe work stoppage and assume a pre-positioned posture for immediate response. This action does not require dispatch of the crash recovery trailer.

2.5.3. The CRT will be responsible for composite material mitigation, containment/clean up. **Note:** Recovery team members may be exposed to fibers and respirable/inhalable dusts as aircraft parts are moved, modified by cutting, breaking, twisting, or hammering. Personnel tasked to participate in crash or post-crash response, recovery, maintenance, and/or clean up operations must be aware of/briefed on all possible health issues involved. The CRT will ensure local policies and procedures for handling crash damaged composites are addressed to include training and PPE.

2.5.4. Aircraft removal/recovery will not commence until the IC, SIB/Impoundment Official, and/or SFO has released the aircraft to the CRTC.

2.6. 22 MXS Aircraft Ground Equipment. Will provide powered/non-powered ground equipment at the request of the Senior Fire Official (SFO), IC and/or CRTC.

2.7. 22 LRS Ground Transportation. Upon notification, LRS will provide immediate response and 24 hour coverage of two semi tractors with drivers. One Semi Truck will have modifications for moving the 38' CDDAR equipment trailer. The other semi-truck will have a minimum 30-foot flatbed trailer for moving additional CDDAR equipment to the incident location. 22 LRS may need to provide additional vehicles and qualified drivers for vehicles such as heavy duty 4X4s and all terrain forklifts.

2.7.1. The CRT will assist the 22 LRS personnel with connecting the CDDAR equipment trailer and loading/securing additional equipment on flatbed trailer(s) as necessary.

2.7.2. Provide qualified personnel for arranging means of transportation, parking, and loading requirements for aircraft parts as deemed necessary by the IC.

2.7.3. Coordinate additional 30-40' flatbed trailer(s) to facilitate removal of aircraft from runway. ***NOTE:*** When base transportation cannot support heavy equipment requirements such as cranes and/or semi tractors and trailers, units must establish lease agreement(s) with local suppliers. IAW lease procedures established in AFI 24-302, *Vehicle Management,* section 4.

2.8. 22 LRS Fuels Management Flight. Upon notification: Will take the following actions as outlined in 22 ARW OPLAN 91-1 and MAFB IEMP 10-2.

2.8.1. As directed, impound any fuel trucks used during ground refueling operations if mishap aircraft received last ground fuel servicing at McConnell AFB.

2.8.2. Ensure de-fuel equipment, both pit type and tank type trucks, is placed in standby status for possible use in recovery operation (i.e. aircraft gear collapse).

2.8.3. Remove from service any tank, separator, pit, outlet, refueling unit and/or fill stand used to fill incident aircraft or to fill an aircraft that refueled an incident aircraft.

2.8.4. Immediately notify the fuels laboratory technician. Lab personnel will pull all fuel samples for involved aircraft and send to the area lab for analysis.

2.9. 22 MXG Quality Assurance. The IC, SFO or CRTC will coordinate with the unit QA Weight and Balance manager when Weight and Center of Gravity (CG) conditions are unknown. QA will assist in gathering system and structural information for the weapon system involved in the mishap.

2.10. 22 CES Senior Fire Official. Will assign responsibility for all firefighting and rescue actions as outlined in 22 ARW OPLAN 91-1 and MAFB IEMP 10-2.

2.10.1. The SFO is in command of IFEs and GEs until the danger of fire or explosion has been eliminated or the designated IC assumes command IAW MAFB IEMP 10-2.

2.11. 22 CES Fire Services. Will, in conjunction with the 22 SFS, be responsible for establishing a 300- foot cordon. Once established, the MOC will be notified to have the work site cleared. The SFO or IC may expand the cordon size as the situation warrants IAW AFI 21-101 AMC SUP I.

2.12. 22 CES . Will provide/operate heavy equipment as outlined in 22 ARW OPLAN 91-1 and MAFB IEMP 10-2.

2.13. 22 MDG Bio-Environmental. Upon request, will check the area for nuisance hazards, hazardous vapors, composite materials, and report the findings to the IC, SFO or CRTC.

2.13.1. Will determine protective measures/PPE requirements and report to the CRTC.

2.14. 22 SFS. Will be responsible for site security and will set the initial cordon as outlined in 22 ARW OPLAN 91-1, MAFB IEMP 10-2, and McConnell Air Force Base Mission Assurance Plan.

2.14.1. When directed by the SFO or IC, will establish and maintain a cordon and entry/exit control point until released by the SFO, IC or SIB.

2.15. 22 OSS/OSAA. Execute any specific actions or checklist run by OSAA ie. BDA of airfield, reestablish operations, publish NOTAMS, divert aircraft.

Chapter 3

CRASH RECOVERY RESPONSE PROCEDURES

3.1. Overview. The KC-135R, KC-135RT, KC-135T & KC-46A model aircraft are the primary Mission Design Series (MDS) assigned to 22 ARW.

3.1.1. The 22 ARW/CC has determined that the 22 MXS CRT will primarily train and equip for recovery of 22d ARW assigned aircraft.

3.2. Typical Sequence of Events:

3.2.1. Immediately after notification of the incident, first responders proceed IAW MAFB IEMP 10-2, Appendix 7 to Annex A. This initiates the Response Phase of the plan.

3.2.2. The IC ensures initial rescue, firefighting, security and ensuring the aircraft is safe. No one other than first responders may enter the mishap area. The mishap scene must be determined safe by the IC prior to any investigation or CDDAR actions.

3.2.3. The incident aircraft and its equipment must not be disturbed or removed unless directed or released by the IC, ISB President or Impoundment Official/owning unit representative. Control of the mishap scene/site remains with the IC. Once the scene has been deemed safe to enter, command of the incident aircraft/wreckage is transferred from the IC to Instillation Safety Office/Interim Safety Board President. Following the conclusion of the initial safety investigation, the scene will be transferred to the Impound Official/Owning Unit.

3.2.3.1. While the initial response is in progress, the CDDAR Team members should prepare and posture their equipment and materials required to recover the aircraft.

3.2.4. The unit owning the aircraft will work through their designated representatives to the EOC to advise the IC of any special considerations. When the incident site is secure, the owning unit representatives will coordinate actions through the EOC to provide assistance or information on special recovery requirements (e.g. classified material/equipment).

3.2.5. When first-responder actions are complete, the Response Phase will end and the Recovery Phase, which includes investigation actions, will begin. The CDDAR Team Chief then coordinates recovery actions with appointed investigation officials.

3.2.6. Under routine removal conditions when the investigation actions are complete, the Investigation Authority transfers command of the incident aircraft/wreckage to the Recovery Operations Chief to have the recovery or salvage teams restore, reclaim or dispose of the aircraft. Once incident aircraft/wreckage is recovered, command of the aircraft/wreckage is transferred back to the Investigative Authority.

3.3. On/Off-Base Recovery Procedures:

3.3.1. The 22 ARW/CC coordinates on/off base recovery actions and the disaster response force through the Wing Command Post (22 ARW/CP), Unit Control Centers (UCC), Emergency Operation Center (EOC), and specialized teams. Refer to MAFB IEMP 10-2, Base Operation Plan 32-1, 22 ARW OPLAN 91-1, and MAFB Mission Assurance Plan, for agency/ team responsibilities.

3.3.2. Off-base responders must observe the jurisdictional rights of civilian authorities and private citizens. Off-base accidents may require the establishment of an NDA, approved by 22 ARW/CC, to permit control of civilian property by military forces. Even after establishment of the NDA, close coordination with civil law enforcement agencies is essential to ensure an effective security program.

Chapter 4

4.1. TRAINING AND CERTIFICATION REQUIREMENTS FOR CRT PERSONNEL.

4.1. 1. All CRTM will be provided initial and recurring crash recovery training. Training will be tracked by G081 course code ACFT 000100 and ACFT 000101 IAW 00-80C-1 Section 2.3.2.2.

4.1.2. All CRTM are specifically trained to recover the KC-135/KC-46 primary assigned aircraft. All CRTM will, as a minimum, receive familiarization training on primary assigned aircraft.

4.1.3. All CRTM will, as a minimum, receive aircraft familiarization training on any transient aircraft operating flying missions at McConnell AFB for an extended length of time, (i.e., 3 or more months). Aircraft Familiarization Training will consist of (at a minimum):

4.1.3.1. Specific aircraft -21 safety equipment locations and installation required to safe the aircraft in an emergency.

4.1.3.2. Aircraft Danger Areas: Engine inlet and exhaust(s) zones, flight control surface hazards, auxiliary power supply/unit exhaust port(s), and any other hazards CRT may encounter during an emergency response/recovery.

4.1.3.3. Training will be conducted by the transient aircraft contractors, specific aircraft commander, flight crew and/or qualified aircraft crew chief(s).

4.1.4. Perform recovery exercises at least annually to maintain proficiency

4.1.5. All crane operators will be trained per specific vehicle guidance IAW DAFI 21-101 AMC SUP, **Chapter 11**, **Paragraph 11.35**. Training is tracked in G081 under course code VEHL 000325. Crane operators must be SrA or above and placed on a special certification roster.

GEORGE N. VOGEL, Colonel, USAF
Commander, 22d Air Refueling Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

DAFI 21-101_AMCSUP , Aerospace Equipment Maintenance Management, 02 Feb 2022

T.O. 00-105E-9, Aircraft Emergency Rescue Information, 15 October 2021 22 ARW Emergency Management Plan (IEMP) 10-2, 30 November 2021

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AFI 33-322, Records Management and Information Governance Program, 27 Jul 2021

AFI 33-324, The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections, 21 Jul 2019

22 ARW OPLAN 91-1, 23 March 2022

AFI 91-202, Mishap Prevention Program, 11 March 2020

AFI 24-302, Vehicle Management, 20 February 2020

T.O. 1C-135-2-07, C-135 Aircraft Recovery Manual, 1 November 2021 McConnell Air Force Base Mission Assurance Plan, 30 June 2016

Prescribed Forms

None

Adopted Forms

None

Abbreviations and Acronyms

CRT—Crash Recovery Team

CRTC—Crash Recovery Team ChiefCRTM—Crash Recovery Team Member

EOR—End of Runway

EM—Emergency Management

IFE—In-Flight Emergency

GITA—Ground Instructional Trainer Aircraft

IC—Incident Commander

MAFB—McConnell Air Force BaseMAJCOM—Major CommandMDS—Mission Design Series

MOC—Maintenance Operations Control CenterNDA—Non-Disclosure Agreement

OPLAN—Operations Plan

PPE—Personnel Protective Equipment

SFO—Senior Fire Official

TACC—Tanker/Airlift Control Center

T.O.—Technical Order