BY ORDER OF THE COMMANDER
354TH FIGHTER WING (PACAF)

354th FIGHTER WING INSTRUCTION
21-110

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Maintenance

CRASHED, DAMAGED, DISABLED AIRCRAFT RECOVERY

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This publication establishes procedures for Airfield Emergency and Crashed, Damaged, Disabled Aircraft Recovery (CDDAR) procedures for the 354th Fighter Wing (354 FW). This instruction pertains to, but is not limited to maintenance actions within the 354th Maintenance Group (354 MXG), the 354th Aircraft Maintenance Squadron (354 AMXS), and the 354th Maintenance Squadron (354 MXS). It implements guidelines contained in Air Force Instruction (AFI) 21-101, *Aerospace Equipment Maintenance Management*, Eielson Air Force Base (AFB) Installation Emergency Management Plan (IEMP) 10-2 and T.O. 00-80C-1. It is applicable to all joint personnel assigned to the 354 FW including tenant units. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Instruction 33-322, *Management of Records*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at **https://www.my.af.mil/afrims/afrims/afrims/rims.cfm**. Contact supporting records managers as required. Refer recommended changes and questions regarding this publication to the office of primary responsibility (OPR) using AF Form 847, *Recommendation for Change of Publication.* Route AF Forms 847 through the base publications and forms manager.

SUMMARY OF CHANGES

This document is substantially revised and must be completely reviewed. Changes include the addition of Eielson AFB's F-35A, removal of the Contract Field Team (CFT), paragraph insertions, minor formatting updates, publication date updates, and base supporting agencies updates.

Chapter 1

354 FW RESPONSIBILITIES

1.1. This publication serves as joint operating guidance for all 354 FW personnel including tenant organizations. It was developed in close coordination with the 168 WG and fulfills the 354 FW's responsibility as the host wing.

1.2. In the event that an aircraft not assigned to the 354 FW is damaged and/or crashed within the area of responsibility: The 354 FW will take possession of IAW AFI 21-103, *Equipment Inventory, Status and Utilization Reporting.*

1.2.1. Possession does not change if the parent organization does the repair, reclamation, or termination. However, the unit Aerospace Vehicle Distribution Officer (AVDO) must initiate the proper station location code and possession purpose identifier changes (REF AFI 21-103, para 2.11.3.).

1.2.2. Owning aircraft agencies shall replenish supplies/consumables used during CDDAR operations.

1.3. The 354 FW/CC. Is responsible for implementing policy, plans, and agreements to ensure compliance with established recovery programs.

1.4. The 354 FW Command Post (CP) will: Maintain a copy of the current CDDAR Team recall roster. For **normal duty hours**, CP will complete appropriate checklists, contact EOD, and the MOCC. For **after duty hours,** CP will complete the appropriate checklists, contact EOD, and the CDDAR Team with the current recall roster.

1.5. 354 FW Safety will: Perform duties outlined in 354 FW IEMP10-2 and DAFI 91-204. The CDDAR TC will coordinate procedures with the 354 FW Safety office as required. Safety will also provide guidance for preservation for the Safety Investigation Board (SIB).

1.6. The 354th Mission Support Group (354 MSG) will: Provide **s**upport services during emergency response and CDDAR operations.

1.6.1. **The 354th MSG/CC or designated representative will: S**erve as the Emergency Operations Center (EOC) director during a major accident response, exercise, or real world aircraft incidents.

1.6.2. **The 354th Security Forces Squadron (354 SFS) will:** Notify all posts/patrols, establish security/cordons, and initiate applicable 354 SFS Quick Reference Checklist (QRC).

1.6.2.1. **The 354th SFS Remote Off-Base Disaster Team will:** Be activated at the direction of the Defense Force Commander for recovery responses off base and will initiate establishment of a National Defense Area (NDA) if appropriate.

1.6.3. **The 354th Civil Engineering Squadron (354 CES) will:**

1.6.3.1. Perform duties outlined in 354 FW Installation Emergency Management Plan (IEMP) 10-2 and the Civil Engineer Contingency Response Plan (CRP).

1.6.3.2. Provide manpower and equipment necessary to support the recovery mission as directed by the On Scene Commander (OSC) and CDDAR TC. Assist in providing access to crash site and assist in site setup in accordance with Eielson AFB IEMP 10-2 and CRP. Make provisions to recall a representative for non-duty hours.

1.6.3.3. Coordinate delivery of heavy machinery with operators as determined by the CDDAR TC and OSC.

1.6.3.4. Procure and deliver necessary supplies needed for the recovery/removal operation (i.e. plywood, planking, etc).

1.6.3.5. When directed by the OSC and SIB, CES will complete a grid survey of the area and identify the location of aircraft parts and remains.

1.6.3.6. In the event a crash occurs in a remote location outside of Eielson AFB property, CE will deploy the **Base Emergency Aircraft Recovery (BEAR) Team**. The BEAR Team will provide CES support capabilities at the site to assist the CDDAR Team in recovery operations.

1.6.4. **The Fire Department Incident Commander (IC) will:** Be the senior fire official during IFE and GE responses. The IC is the final authority on fire and recovery methods/procedures and controls all personnel performing their required duties IAW AFI 32-2001, *Fire Protection Operation and Fire Prevention Program*, and DAFI 91-204, *Safety Investigations and Reports*. The IC will respond to accidents/emergencies IAW T.O. 00-105E-9, *Aerospace Emergency Rescue and Mishap Response Information*, and perform duties outlined Eielson AFB IEMP 10-2.

1.6.5. **The 354th CES Emergency Managers (EM) will:** Respond to airfield emergencies or crash situation to provide Hazardous Material (HAZMAT) and Chemical, Biological, Radiological, and Nuclear (CBRN) capabilities IAW AFI 10-2501, as well as staff and manage the EOC under the MSG/CC or designated representative's direction.

1.6.6. **The 354th CES Explosive Ordnance Disposal (EOD) will:** Respond to airfield emergencies during IFE, GE or crash situations involving known or suspected ordnance or explosive components. Provide safe capabilities per AFI 32-3001, *Explosive Ordnance Disposal.*

1.6.7. **The 354th Logistics Readiness Squadron (354 LRS) Fuels Management Flight when directed by the OSC and SIB will:** Conduct a fuel quality assessment as required per T.O. 42B-1-1.

1.6.8. **The 354 LRS Vehicle Operations will:** Provide at the request of the OSC or CDDAR TC support vehicles to transport CDDAR team members and any other equipment items required. Vehicle Operations will designate and make provisions for distribution of base vehicle assets to be utilized by the CDDAR team dependent upon area and terrain. Make provisions to recall a representative for non-duty hours.

1.6.9. **The 354th Force Support Squadron (354 FSS) will:** Provide (billeting, meals, ice, water, etc.) and any other services as deemed necessary by the OSC or CDDAR TC.

1.6.10. **The 354th Contracting Squadron (354 CONS) will:** Procure needed supplies, and coordinate with the OSC and CDDAR TC for availability and delivery of all emergency requests. Make provisions to recall a representative for non-duty hours.

1.6.10.1. **The 354 CONS Financial Management Office (FMO) will:** Establish a fund site to procure needed equipment and supplies necessary for CDDAR recovery operation.

1.7. 354th Medical Group (354 MDG) will: Assist the OSC and be available for medical consultation and evaluation of personnel in case of ill effects of composite exposure or any other hazard.

1.7.1. **354 MDG Bioenvironmental Engineering Office (BEE)**

1.7.1.1. BEE will perform duties outlined in **Bioenvironmental Engineering Checklist-Aircraft Mishap**. BEE is the focal point for determining the presence of chemical and physical hazards associated with an aircraft crash. BEE provides necessary expertise of carbon fiber and composite containment procedures. BEE also provides respirator training for CDDAR qualified personnel. BEE will conduct a breathing zone air sample test to detect airborne particles and hazards at the aircraft incident site when requested by the IC. If BEE cannot provide immediate results for certain material and hazards, samples will be shipped to a qualified lab for further analysis. Once results have been received, BEE will review the data and establish an exposure record if any contaminants were present. BEE will provide Fuels Management personnel PPE (HAZMAT suit) for fuel sampling procedures if necessary.

1.8. 354th Operations Group (354 OG):

1.8.1. **The 353d Combat Training Squadron (353 CTS)** will coordinate technical expert support for CDDAR operations during exercises. Prior to the beginning of local flying operations, Mission Design Series (MDS) technical experts will provide 354 MXS CDDAR personnel with MDS specific familiarization briefings. 354 MXS CDDAR representatives will also brief guest units of local CDDAR procedures and capabilities. The technical experts will also assist 354 MXS CDDAR personnel during emergency response as necessary for the duration of their stay.

1.8.2. **The 354th Operations Support Squadron (354 OSS) Airfield Manager (AM)** will perform duties outlined in Eielson AFB IEMP10-2**.**

1.9. 168 WG.

1.9.1. The 168 WG will assume the primary role in the recovery operation in the event of a a KC-135 IFE, GE, or crash. 168 WG will provide technical/procedural guidance, personnel, and equipment unique to KC-135 operations to the IC.

1.9.2. Will provide KC-135 systems familiarization training to 354 MXS CDDAR personnel and manpower augmentation as needed per AFI 21-101 and TO 00-80C-1.

1.9.3. The following special equipment is required and will be provided by the 168 WG along with qualified personnel to execute a KC-135 recovery operation.

1.9.3.1. Complete set of KC-135 lifting jacks.

1.9.3.2. A motorized lift or equivalent personnel lifting/work platform.

1.9.3.3. Individual fall restraint equipment for use on aircraft and/or personnel lift

1.9.3.4. KC-135 tow bar.

Chapter 2

354 MXG RESPONSIBILITIES

2.1. The 354 MXG/CC will: Ensure sufficient equipment is available, approve selections for CDDAR TCs, and any required program waivers. The 354 MXG/CC will also review the status and inventory levels of CDDAR equipment during monthly Health of the Fleet (HOF) briefs.

2.2. The 354 MXG Weapons Load Training (WLT) will: Accomplish transient aircraft weapons safeing procedures. WLT will also provide annual Explosive Safety qualification training for CDDAR personnel.

2.3. 354 MXG Quality Assurance (QA) will: Evaluate proficiency of CDDAR personnel during local and Higher Head Quarters (HHQ) exercises. QA will provide the CDDAR section with quarterly weight and balance (W&B) updates for all wing assigned aircraft.

2.4. 354 MXG MOCC will: In the event of a crashed/disabled aircraft, complete the appropriate checklists IAW LCL-354MXG-01-1. MOCC will coordinate the needs of the CDDAR Team via radio after they have been activated. All requirements will be coordinated with the OSC while at the mishap site.

2.5. 354 MXS:

2.5.1. **The 354 MXS/CC will:** Ensure personnel are trained and resources are available to ensure compliance with this instruction.

2.5.2. **The 354th MXS Maintenance Operations Officer/Superintendent will:** Ensure the viability of unit CDDAR capabilities through program reviews. He/she will also review the status and inventory levels of CDDAR equipment during monthly HOF briefs.

2.5.3. **The Hydrazine Response Team** will respond according to 354 FW Instruction 21-125 *Hydrazine (H-70) Familiarization Training, Leak Detection, Spills, and Recovery of Aircraft with Fired Emergency Power Units.*

2.5.4. Provide CDDAR climatized secure storage area for CDDAR equipment. Access will be limited to assigned/qualified CDDAR Team personnel only.

2.6. 354 MXS Transient Alert (TA) will perform the following actions IAW Performance Work Statement (PWS), Transient Alert Services for Eielson AFB, AK.

2.6.1. The contractors will respond to all transient related emergencies.

2.6.2. Assist CDDAR Team as necessary until the emergency is terminated by the IC.

2.6.3. Assist in removing disabled transient aircraft from the runway at the request of the AM or IC.

2.6.4. In the event of an aircraft crash, assist emergency units as requested.

Chapter 3

CDDAR TEAM CHIEF (TC) RESPONSIBILITIES

3.1. CDDAR TCs will:

3.1.1. Attend the Basic CDDAR Training course (CC 310523) at Sheppard AFB, Texas IAW T.O. 00-80C-1 and AFI 21-101PACAFSUP para 11.28.2.6 and the Arctic Survival Course S-V87-A (CC 031050) IAW AFI 16-1301 Table 2.1 note 4.

3.1.2. Designate individual(s) to be CDDAR Team Lead (TL). The CDDAR TL(s) must be a 7-skill level Non-Commissioned Officer or civilian equivalent. CDDAR TL will be the primary responder for all IFE/GE. CDDAR TL will ensure that a fully qualified response team is available during the local flying window and prepared to respond.

3.1.3. Maintain a CDDAR Team with the minimum amount of personnel to support a recovery operation. Additionally, the OSC or CDDAR TC may utilize other personnel necessary to accomplish operations as required. Augmentees will be given a safety brief and not used in actual CDDAR operations unless properly trained.

3.1.4. Ensure capability to respond to In-Flight Emergencies (IFE)/Ground Emergencies (GE), hot brakes, and barrier engagements IAW T.O. 00-80C-1 and LCL-354MXG-60-12. Familiarization training on TDY aircraft can be coordinated through 353 CTS, Base Operations, and Wing Safety upon aircraft arrival and shall be provided by the owning maintenance personnel. Familiarization training will be documented in the Individual Training Plan (ITP).

3.1.5. Maintain a current recall roster for after normal duty hours and make available to the MOCC and the CP. The roster will have current assigned personnel and telephone numbers. This list will be updated quarterly or whenever a change occurs. The CP will use the CDDAR Team recall roster for after duty hours response.

3.1.6. Consider special tasks such as identifying/handling of classified equipment, Aircrew Flight Equipment, or Egress system specific tasks IAW AFI 21-101 while executing CDDAR duties. Develop, in conjunction with 354 MXG Maintenance Training Section (MTS), course control documents for CDDAR initial/annual training, review support agreements and base disaster response plans annually. Provide inputs for changes as required.

3.1.7. Coordinate with EOD, munitions, armament, and egress shops to ensure all explosives are safed and removed prior to aircraft movement/recovery.

3.1.8. Coordinate with **QA W&B Manager** when weight and Center of Gravity (CG) conditions are unknown.

3.1.9. Train all personnel assigned to the crash recovery team in accordance with MXG CDDAR Lesson Plan. Annual Training will be documented in the CDDAR Continuity book TAB I. Training is to include:

3.1.9.1. Basic equipment inspection and operation.

3.1.9.2. Familiarization with training on any unique characteristics, hazards, and materials for primary MDS assigned aircraft (F-16C/D, F-35A and KC-135.)

3.1.9.3. Proper use of PPE, in coordination with BEE and utilizing appropriate technical data.

3.1.9.4. All tools and support equipment for a safe recovery operation (i.e. lifting bags, slings, etc.)

3.1.9.5. Composite Hazard Cleanup and PPE in accordance with IEMP 10-2, 48-4 Respirator Program, and T.O. 00-105E-9, Chapter 3.

3.1.10. Ensure qualifications for personnel are identified and documented to include supervisors for towing/jacking and qualifications to operate specialized support equipment (SE) and special purpose vehicles.

3.1.11. Maintain all required PPE for CDDAR operations and composite recovery as determined by the technical data and BEE. The CDDAR TC must notify the MXG/CC in writing of equipment shortages and serviceability issues that may impede an effective CDDAR operation.

3.1.12. **CDDAR TCs may:** Direct support agencies to switch radio nets to CRASH net. CDDAR TCs must ensure the strict adherence to published policies, procedures, and general safety requirements IAW LCL-354MXG-60-12, *Crashed, Damaged, Disabled Aircraft Recovery (CDDAR) Procedures Checklist,* aircraft specific -2 and -3 technical orders, TO 00-80C-1 *Crashed, Damaged, Disabled Aircraft Recovery Manual*, and TO 00-105E-9 *Aerospace Emergency Rescue and Mishap Response Information,* as well as 48- and 91- series Air Force Occupational Safety and Health (AFOSH) Standards.

3.1.13. **CDDAR TCs must:** conduct/participate in annual training exercises, coordinate with the EM Office before exercises.

3.2. Upon recall, CDDAR TCs will. Ensure adequate manning for disabled aircraft recovery and assign duties IAW LCL-354MXG-60-12 (3-person team represents minimum requirements). Additional augmentees may be required to assist transporting supplies and equipment, setting up tents and similar structures, excavating soil or snow, moving heavy equipment, etc.

Chapter 4

IFE/GE TL RESPONSIBILITIES

4.1. CDDAR TL must be a 7-skill level technician or civilian equivalent.

4.2. The CDDAR TL will: Be the on-scene technical advisor to the IC and perform IAW TO 00-80C-1 and LCL-354MXG-60-12. Select a minimum of two additional team members and assign responsibilities based on individual qualifications and incident requirements.

Chapter 5

CDDAR TEAM RESPONSIBILITIES

5.1. Team members must be qualified in basic CDDAR operations (except augmentees). All recovery team members must receive initial and annual training comprised of both academic and hands-on training/exercises. Team members will attend Arctic Survival Course S-V87-A (CC 031050) on IAW AFI 16-1301 Table 2.1 note 4. Personnel used to augment real-world recoveries do not require CDDAR specific training. All newly assigned CDDAR team members must complete training requirements within six months of being assigned CDDAR responsibilities. Team members previously CDDAR qualified at any duty assignment and returned/reassigned these responsibilities must complete CDDAR academics and hands on refresher training within six months of being assigned. Additionally, when available, team members should attend the Basic CDDAR training course (CC310523) at Sheppard AFB, Texas. MXG/CC may waive requirements as circumstances dictate; waivers will not be used in lieu of training if training is available.

5.2. When responding to an IFE/GE: Assemble and pre-position a tow team for immediate response, and remain in place until the IFE/GE is terminated by the IC or until the aircraft is towed and turned over to the owning unit.

5.3. CDDAR Teams will: Provide response and/or recovery capability of disabled or crashed aircraft in an expeditious manner consistent with the following considerations IAW AFI 21-101:

5.3.1. Requirement to open the runway for operational use.

5.3.2. Prevention of secondary damage to the aircraft.

5.3.3. Preservation of evidence for mishap or accident investigation IAW AFI 91-202 and AFI 91-204.

5.4. CDDAR Teams will: Maintain capability to provide and support recovery operations for F-16C/D, F-35A, and KC-135 aircraft IAW 168 WG/354 FW support agreements.

5.4.1. Provide proficiency/task/operations training and maintain specified equipment needed to: Provide KC-135 in-flight emergencies IAW 168 WG/354 FW support agreements

5.4.2. Ensure CDDAR procedures are coordinated with: Fire Department, Safety, CES, EM, EOD, SFS, BEE, AM, and other on/off-base agencies as applicable.

5.5. All members will ensure strict adherence to published procedures and policies. Members will have the authority to terminate a recovery operation in the interest of safety if an unsafe condition arises. Team members will notify the CDDAR TC of concerns and the TC will coordinate alternative solutions with IC, BEE, QA, and Safety. Team members will perform assigned duties as directed by CDDAR TC IAW LCL-354MXG-60-12.

Chapter 6

RESPONSE SCHEDULE

6.1. Qualified CDDAR personnel will: Be on duty during the 354 FW flying windows, including weekends, local, HHQ exercises, and contingency operations to respond to IFEs and GEs.

6.2. The 354 FW Command Post and MOCC will: Maintain a list of standby personnel/phone numbers in the event after hours support is required (i.e. incidents involving transient aircraft).

6.3. Water or mountain aircraft recovery will: Be accomplished as directed by the EOC or IC. Recovery methods and procedures will depend upon site survey findings.

Chapter 7

CDDAR EQUIPMENT

7.1. CDDAR will: Be equipped with a base station radio and/or land mobile radios (LMRs) for monitoring the fire department dispatch net. CDDAR members will be responsible for monitoring daily serviceability of assigned vehicles/equipment and coordinate with 354 LRS for maintenance when required. All required crash recovery equipment will be stored in a climate controlled hangar or equivalent maintaining temperatures above 32°F to ensure maximum service life.

7.2. Crash Recovery equipment custodians will be designated in writing. CDDAR members will conduct a semi-annual inventory on all assigned crash recovery equipment and the equipment monitors will certify the inventory. The following equipment will be maintained by CDDAR members (unless otherwise stated) and will be readily available to perform the CDDAR mission. NOTE: Equipment quantities do not necessarily reflect authorization quantity as shown on the Custodian Authorization/Custody Receipt List (CA/CRL).

7.2.1. Lifting bags in sufficient quantity to support wing aircraft, including 168 WG/354 FW Support Agreement. Aircraft lifting bags will be stored in approved containers which prevent puncturing, wear, and exposure to the environment.

7.2.2. Control consoles in sufficient quantity to operate the required number of airbags in a single operation.

7.2.3. One generator for use where NF-2 or TP-5 light carts cannot be accessed.

7.2.4. At a minimum two NF-2 or TP-5 light carts; maintained and stored at the 354 MXS Aerospace Ground Equipment (AGE) Flight.

7.2.5. One F-15 tail-hook sling.

7.2.6. One MD-1 universal tow bar, maintained by AGE.

7.2.7. One 15 ton, which may be substituted with similar axle jacks of equal or greater capacity only and one F-35A axle jack, maintained by AGE. A 7-day serviceability check will be performed and documented on the AFTO Form 244.

7.2.8. General lifting/securing devices such as web straps, shackles, load binders, chains, cargo tie-down straps, block and tackle, sling adapters, jack adapters, nylon/cotton rope, etc.

7.2.9. Rapid Runway Repair (RRR; NSN 5680-00-132-9991), (also called AM-2 matting) and cribbing material will be available for CDDAR operations. CDDAR will provide storage for 30 pieces (enough to move an aircraft 60 feet). When CDDAR operations require additional distances, CE will scrape off organic material and overburden as required, then back fill with gravel and compact to provide a workable surface.

7.2.10. 50 pieces of cribbing material will be maintained by CDDAR to support F-16C/D and F-35A operations only. Additional material required for KC-135 aircraft will be procured when required as stated in 168 WG/354 FW support agreement.

7.3. A 7-day serviceability check will: Be accomplished on all equipment assigned to the initial response vehicles and disabled wheel dolly. Inspection will be documented on AFTO Form 244 maintenance records or equivalent.

7.4. Tire pressure checks on spare aircraft wheel assemblies will: Be accomplished weekly, prior to local flying.

Chapter 8

CDDAR VEHICLES

8.1. The following general-purpose and special-purpose vehicles are required to: Execute an efficient CDDAR Program will be readily available during 354 FW/353 CTS flying windows:

8.1.1. **The primary response vehicle (designated Recovery 1)** will be a 6-passenger, four wheel drive pickup with utility body (or equivalent), for storage and security of all tools and crash equipment. The vehicle will be equipped with necessary emergency lights, siren, radios (capable of independently monitoring all maintenance nets to include the 168 WG MOCC, and the fire dispatch net with the capability of switching to TAC 1 or TAC 2), T.O.s, tools, and safety equipment to perform immediate response operations. Additionally, the vehicle must be rated to tow a minimum of 19,000lbs.

8.1.2. **The secondary response vehicle (designated recovery 2)** will be a 6-passenger, four wheel drive pickup equipped with utility body (or equivalent), for storage and security of all tools and crash equipment. The vehicle will be equipped with necessary emergency lights, siren, radios (capable of independently monitoring all maintenance nets to include the 168 WG MOCC, and the fire dispatch net with the capability of switching to TAC 1 or TAC 2), T.O.s, tools, and safety equipment to perform immediate/secondary response operations. Additionally, the vehicle must be rated to tow a minimum of 13,000lbs.

8.1.3. **A MB-2 tow tractor (designated Recovery 3)** will be equipped with emergency lights and radios (capable of independently monitoring all maintenance nets to include the 168 WG MOCC and the fire dispatch net independently with the capability of switching to TAC 1 or TAC 2).

8.1.4. **A 7.5-ton or 10-ton tractor with a 40-foot trailer (designated Recovery 4**) for transporting equipment/aircraft to and from mishap site.

8.1.5. **An enclosed type trailer** , capable of storing and transporting required CDDAR equipment for composite recovery, lifting, and aircraft recovery operations.

8.2. The following special purpose vehicles are: Required to execute a CDDAR recovery or mishap operation and will be procured in coordination with 354 CES when the need arises:

8.2.1. **A minimum 50-ton crane** will be utilized to support CDDAR operations. Crane support operations will be coordinated through the **354 CES/CEOH, Heavy Operations Superintendent**. The 168 WG/354 FW Support Agreement contains provisions for acquiring two additional cranes for KC-135 lift operations.

8.2.1.1. Crane operations will be conducted by qualified and trained Pavements & Construction Equipment personnel, to include the crane operator and ground guide/signalman.

8.2.1.2. Prior to lifting operations, the CDDAR TC, crane ground guide/signalman, and the crane operator must develop a plan that addresses at a minimum: safety, hand and arm signals, and emergency/knock-it-off procedures. Additionally, only the ground guide/signalman will direct/communicate with the crane operator, according to the CDDAR TC’s directions.

8.2.1.3. All cranes that are leased/rented from a commercial vendor must have documented proof of current operational inspections and load certifications as outlined in 29 Code of Federal Regulations (CFR) 1910.180.

8.2.1.4. All straps, webbing, slings, tag lines, ropes, shackles, hooks, or other equipment to be used in the lifting operation must be inspected and be free of damage, tears, rips, or defects as outlined in 29 CFR 1910.180.

8.2.2. An **all-terrain forklift** capable of lifting 10,000 pounds or greater.

8.2.3. **354 CES/CEOH will:** provide at a minimum one D-6 dozer and qualified 3E2X1 personnel to operate equipment.

DAVID J. BERKLAND, Colonel, USAF
Commander, 354th Fighter Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORT INFORMATION

References

168 MXG Instruction *21-05,* 21 January 2021

354th Civil *Engineer Squadron, Contingency Response Plan (CRP),* 12 June 2020

AFI 10-2501, *Emergency Management Program,* 9 March 2020

AFI 16-1301, *Survival, Evasion, Resistance, and Escape (SERE) Program,* 2 August 2017

AFI 21-101, *Aircraft and Equipment Maintenance Management,* 15 January 2020

AFI 21-103, *Equipment Inventory, Status and Utilization Reporting,* 31 October 2022

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

DAFI 13-213, *Airfield Driving*, 3 February 2020

DAFI 91-204, *Investigating and Reporting US Air Force Mishaps*, 9 March 2021

Eielson Air Force Base *Mishap Response Plan (MRP),* 23 July 2021

Eielson Air Force *Base Installation Emergency Management Plan (IEMP) 10-2*, 1 July 2021

FWI 21-125, *Hydrazine (H-70) Familiarization Training, Leak Detection, Spills, and Recovery of Aircraft with Fired Emergency Power Units*, 11 May 2020

LCL-354MXG-60-12, *Crashed, Damaged, Disabled Aircraft Recovery (CDDAR) Procedures Checklist,* 31 August 2020

TO 00-80C-1, *Crashed, Damaged, Disabled Aircraft Recovery Manual*, 17 November 2020

TO 00-105E-9, *Aerospace Emergency Rescue and Mishap Response Information*, 1 April 2015

Adopted Form

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFRIMS—Air Force Records Information Management System

BEE—Bioenvironmental Engineer

CDDAR—Crash, Damaged, Disabled Aircraft Recovery

CFT—Contract Field Team

CTS—Combat Training Squadron

ECP—Entry Control Point

FW—Fighter Wing

GE—Ground Emergency

IEMP—Installation Emergency Management Plan

IFE—Inflight Emergency

QA—Quality Assurance

OI—Operation Instruction

OSC—On-Scene-Commander

MOCC—Maintenance Operations Control Center

PWS—Performance Work Statement

RDS—Records Disposition Schedule

SCR—Special Certification Roster

SE—Support Equipment

SIB—Safety Investigation Board

TA—Transient Alert

TC—Team Chief

TL—Team Lead

W&B—Weight and Balance

WLT—Weapons Load Training