

**BY ORDER OF THE COMMANDER
LUKE AIR FORCE BASE**

**LUKE AIR FORCE BASE
INSTRUCTION 21-201**



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Maintenance*

**CONTROL, ACCOUNTABILITY, AND
RECONCILIATION OF MUNITIONS**

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This instruction extends and implements Air Force Manual (AFMAN) 21-201, *Munitions Management*. It establishes procedures to account for captive missiles and all munitions items specified in Air Force Manual (AFMAN) 11-212, *Requirements for Aircrew Munitions*. These procedures are for flightline reconciliation with the Munitions Flight. This instruction applies to all Air Force organizations, activities, or units operating on Luke Air Force Base (AFB), that use or possess munitions including Active Duty, Air National Guard (ANG), Air Force Reserve Command (AFRC) units, as well as contracted munitions organizations. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using Air Force (AF) Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See DAFI 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. This publication may not be supplemented or further implemented/extended. 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 substantially revised and must be completely reviewed. Major changes include: addition of 25mm procedures and prescribes Luke AFB Form 25, *Worksheet* (25mm Gun Card), deletion of [Attachment 2](#), and substantial rewrite to streamline munitions business rules.

1. General.

1.1. The weekly aircraft utilization and maintenance schedule and approved changes list all munitions requirements and serves as the basis for requisition, assembly, and issue of aircrew training munitions. HQ Air Education and Training Command (AETC) approved allocations must exist for all requirements.

1.2. The types and quantities of aircrew training munitions must be listed in the weekly flying schedule.

1.3. Changes to the flying schedule affecting munitions will be submitted on AF Form 2407, *Weekly/Daily Flying Schedule Coordination* and coordinated with affected agencies.

1.3.1. Munitions Control will ensure proposed AF 2407 can be supported by applicable sections and the approving Munitions Controller will be annotated on the AF 2407 by name with date and time notified.

1.4. Munitions items previously scheduled that become physically unavailable for use due to returned munitions inspection, test or periodic inspection (i.e., line returned CATM-9X) will not require an AF 2407. Munitions will be supplemented with an equivalent (i.e., CATM-9M for CATM-9X), available munitions item.

1.5. All munitions users are responsible for safeguarding munitions under their control. Any losses or suspected thefts will be reported immediately to Munitions Control.

1.6. Munitions items taken from the flightline by Explosive Ordnance Disposal (EOD) for destruction need to be identified to Munitions Control by the releasing agency with the following: type of munitions, quantity, lot number, last location, Aircraft Maintenance Unit (AMU) Section and Point of Contact.

1.7. Munitions requests for load competitions, practices, retirements and final flights will be forecasted using the weekly flying schedule by munitions type, quantity and intended use. This will allow the Munitions Flight to validate requests against approved allocations.

1.8. During 100 percent semi-annual munitions inventories, all countermeasures, impulse carts, and aircraft gun ammunition will be downloaded from aircraft and cycled through the munitions storage area for accurate accountability.

1.9. Munitions supervision and Weapons Section supervision will work together to resolve any munitions accountability discrepancies that cannot be resolved by Munitions Control and the Weapons Expediter.

2. Responsibilities.

2.1. Munitions Flight.

2.1.1. Munitions Control will:

- 2.1.1.1. Direct the delivery of required quantities and types of munitions to the appropriate AMU. Quantities and types of munitions are based on information contained in the wing flying schedule.
- 2.1.1.2. Act as the focal point for the daily reconciliation of munitions.
- 2.1.1.3. Notify the Weapons Expeditor of any munitions or documentation discrepancies.
- 2.1.1.4. Provide Precision Guided Munitions (PGM) a daily copy of all AF 2434s, *Munitions Configuration and Expenditure Document*, for missile hour/flights input into Tactical Munitions Reporting System (TMRS).
- 2.1.1.5. Move munitions in Theater Integrated Combat Munitions System (TICMS) from holding areas or operating locations to AMU or Taxiway Echo.
- 2.1.1.6. After notification from Conventional Munitions Maintenance (CMM), move 20mm kickbacks in TICMS from the aircraft to a download location.
- 2.1.1.7. Process expenditures in TICMS for Foreign Military Sales (FMS) units.
- 2.1.2. Line Delivery will:
 - 2.1.2.1. Notify Munitions Control of all munitions movements to include trailer to trailer cross- loads. Information provided will be as follows: location, aircraft tail number, munitions type, quantity, weapons serial number (WSN) or lot number/serial number, and mod number for chaff/flare. For GBU-12s provide serial number of Computer Control Group (CCG). All information will be documented on the AF Form 4331, *Munitions Transaction Sheet*, with printed name and signature of recipient.
 - 2.1.2.2. Review and validate any forms and documentation with Munitions Control prior to tow, including but not limited to: Luke AFB Form 21, *20MM Worksheet* (Gun Card), Luke AFB Form 25, *25MM Gun Card*, AFTO Form 244, *Industrial/Support Equipment Record*, and AFTO Form 350, *Repairable Item Processing Tag*.
- 2.1.3. PGM Maintenance will:
 - 2.1.3.1. Account for, control, and charge TMU-72 argon bottles.
 - 2.1.3.2. Update TMRS with flight hours and all required inspection history data.
 - 2.1.3.3. Move missiles and missile components in TICMS from the operating location to trailers.
- 2.1.4. Conventional Munitions Maintenance (CMM) will:
 - 2.1.4.1. Move munitions in TICMS from the operating location to trailers, Universal Ammunition Loading System (UALS) and bulkloaders.
 - 2.1.4.2. Process upload UALS and notify Control of kickback numbers. After Control downloads the kickbacks from the aircraft, move the rounds in TICMS from the download location to the operating location.
 - 2.1.4.3. Process expenditures in TICMS for countermeasures and gun ammunition.
- 2.2. Armament Flight will:

2.2.1. Sign AF 4331 accepting receipt of jammed UALS with known and/or approximate munitions quantity.

2.2.2. Download UALS/bulkloader malfunctions (which could not be downloaded by the affected AMU prior to delivery to the Armament Flight) into 20mm/25mm cans.

2.2.2.1. Identify each can with an AFTO Form 350, including quantity, lot number, complete aircraft tail number, UALS/bulkloader number, AMU Section, and Point of Contact. This information will be forwarded to Munitions Control. **Note:** Notify Munitions Control as soon as UALS/bulkloaders are cleared of ammunition. In the event a dummy 20mm round is jammed inside of the UALS, the round will be documented on the UALS AFTO 244 located in the forms pouch. Once the dummy 20mm round is removed, notify Munitions Control to schedule pick-up.

2.3. AMU Weapons Sections will:

2.3.1. Move all munitions in TICMS between aircraft, aircraft parking spots, and munitions trailers. Correct discrepancies in TICMS before releasing trailers, UALS, or bulkloaders to a munitions driver.

2.3.1.1. Process 20mm ammunition uploads in TICMS as a quantity of 515 regardless of aircraft gun counter display. Munitions personnel will adjust the quantity after the UALS has been processed at CMM.

2.3.2. Upon receipt, verify that all munitions components are present and sign for all munitions delivered (including 85 inch lanyards and BDU-33 C-Blocks) on AF 4331, *Munitions Transaction Sheet*.

2.3.3. Accept responsibility for the security and accountability of all assets and safing gear received.

2.3.4. Document the AF 2434, or local equivalent, with aircraft tail number, munitions type, quantity, and WSN/lot number/serial number (except chaff/flare) on all aircraft configured with munitions. Additional documentation requirements include:

2.3.4.1. Countermeasure magazine serial number and quantity of chaff/flare.

2.3.4.2. Serial numbers of GBU-12 CCGs.

2.3.5. Document all munitions defects on an AFTO Form 350 with date, aircraft tail number, quantity, WSN/lot number/serial number, AMU Section and Point of Contact. Attach completed tag to applicable weapon, countermeasure magazine or UALS/bulkloader.

2.3.6. Document the Luke AFB Form 21 (20mm) or Luke AFB Form 25 (25mm) with aircraft tail number, quantity, lot number and signature for all gun ammunition uploads and downloads.

2.3.6.1. Downloaded ammunition will not be uploaded again until processed and inspected in the Munitions Storage Area.

2.3.7. In the event of a gun malfunction, request the "Gun Jam Trailer" from Munitions Control for consolidation of all recovered rounds. Document an AFTO Form 350 with

aircraft tail number, number of rounds, lot number, UALS/bulkloader number, AMU Section and Point of Contact.

2.3.7.1. Rounds remaining in the aircraft will be downloaded into an empty UALS/bulkloader.

2.3.7.2. Return all downloaded ammunition and expended brass regardless of condition to the Munitions Storage Area (MSA) for reconciliation.

Note: At no time will loose 20mm/25mm ammunition or expended rounds be placed in or on the UALS/bulkloaders for transportation.

2.3.8. Ensure incomplete uploads of 20mm/25mm ammunition are not used. Uploads that do not clear a gun system of all previously loaded ammunition and brass are considered incomplete. Uploads of empty gun systems that do not completely fill the system are considered partial uploads. Incomplete uploads will be cleared and downloaded of all ammunition as soon as practical and returned to CMM for processing and inspection.

2.3.9. Ensure all munitions being moved or returned to the MSA have all applicable safety equipment, index pins, covers, straps, etc. If loaded on munitions handling trailers, ensure the munitions are positioned and secured in accordance with T.O. 11-1-38, *Position and Tie-down Procedures for Non-Nuclear Munitions*.

2.3.10. Ensure missile flight hours are documented on the AF 2434, or local equivalent.

2.3.11. AMU Weapons Supervision will notify Munitions Control of any extended duty hours prior to start of last duty day of the week. This communication will enable Munition Flight to make the necessary shift changes to facilitate seamless Flightline Support.

3. Reconciliation Procedures.

3.1. Weapons Sections will:

3.1.1. Document expenditures on AF 2434s, or local equivalent, and provide a copy to Munitions control prior to next takeoff.

3.1.2. Process all expenditures, with the exception of aircraft gun ammunition and countermeasures, in TICMS within one hour of aircraft recovery if possible but NLT between aircraft sorties.

Note: Jettisoned munitions or inadvertent activation of munitions on the ground WILL NOT be expended in TICMS. Expeditors will notify Munitions Control immediately and the Munitions Flight will take the necessary actions to account for and process as a loss.

3.1.3. Document first-go line walk on AF 2434, or local equivalent, and send to Munitions Control NLT 2 hours prior to aircraft take off. Send subsequent-go line walks to Munitions Control prior to aircraft takeoff.

3.1.4. Complete end of day reconciliation and send completed AF 2434, or local equivalent, to Munitions Control within 2 hours of last down. After Munitions Control validates the AF 2434, or local equivalent, munitions support may resume.

3.1.5. Provide the corresponding quantity of accountable safing gear (i.e., BDU-33 C-Blocks and streamers) and expended impulse cartridges for all bomb expenditures. The

quantity of impulse cartridges listed below will be collected for each munitions type and Alternate Mission Equipment (AME) configuration.

Table 3.1. Munitions Type.

TYPE	Station	Impulse Cartridge	Quantity
BDU-33	TER	ARD-863	1
500 lb	TER	ARD-863	1
500 lb	MAU-12	ARD-863 ARD-446	1 1
2000 lb	MAU-12	ARD-863 ARD-446	1 1

3.1.5.1. Report any munitions, safing gear, or expended impulse cartridges not accounted for at the end of flying as a lost item in accordance with AFI 21-101_AETCSUP, *Aircraft and Equipment Maintenance Management*.

3.1.6. Work with Munitions Control to clear up all discrepancies and maintain accurate accountability of expenditures.

3.1.7. Provide Munitions Control with configuration data for the next day's flying and validate against the flying schedule.

Note: Munitions will not be delivered in anticipation of an approved AF Form 2407 without prior Maintenance Group Commander (MXG/CC) approval. Munitions Control will be the final approval authority based on munitions availability.

3.2. Additionally, F-35 Weapons Sections will:

3.2.1. Annotate the pilot country of origin that expended the munition (ie, "USAF", "NOR", "AUS", etc) on the AF 2434 or local equivalent, for comptroller/partner nation billing. Consult with Maintenance Debrief, as applicable, for pilot country of origin.

GREGORY KREUDER
Brigadier General, USAF
Commander

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

AFI 21-101_AETCSUP, *Aircraft and Equipment Maintenance Management*, 10 August 2020

AFI 21-101_AETCSUP_LUKEAFBSUP, *Aircraft and Equipment Maintenance Management*, 3 February 2021

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

AFMAN 11-212, *Requirements for Aircrew Munitions*, 25 June 2020

AFMAN 21-201, *Munitions Management*, 26 March 2019

TO 11-1-38, *Position and Tie-down Procedures for Non-nuclear Munitions*, 14 October 2020

TO 11A11-24-7, *Specialized Storage and Maintenance Procedures – Aircraft Rockets*, 9 January 2020

Prescribed Forms

Luke AFB Form 21, *20mm Worksheet*

Luke AFB Form 25, *25mm Worksheet*

Adopted Forms

AFTO Form 350, *Repairable Item Processing Tag*

AF 2407, *Weekly/Daily Flying Schedule Coordination*

AF 2434, *Munitions Configuration and Expenditure Document*

AF 4331, *Munitions Transaction Sheet*

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFB—Air Force Base

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AME—Alternate Mission Equipment

AMU—Aircraft Maintenance Unit

CATM—Captive Air Training Missile

CCG—Computer Control Group

CMM—Conventional Munitions Maintenance

EOD—Explosive Ordnance Disposal

MSA—Munitions Storage Area

OPR—Office of Primary Responsibility

TICMS—Theater Integrated Combat Munitions System

TMRS—Tactical Munitions Reporting System

UALS—Ammunition Loading System/ Universal Loading System

WSN—Weapon Stock Number