

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



**AIR FORCE MANUAL 91-201**

**PACIFIC AIR FORCE  
Supplement**

**354 FIGHTER WING  
Supplement**

**29 OCTOBER 2019**

**Safety**

**EXPLOSIVES SAFETY STANDARDS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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**RELEASABILITY:** There are no releasability restrictions on this publication

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OPR: 354 FW/SEW

Certified by: 354 FW/SE  
(Lt Col Rodriguez)

Pages: 11

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AFMAN 91-201, *Explosives Safety Standards*, 21 March 2017, and PACAFSUP, 10 October 2017, are supplemented as follows: This publication applies to USAF, USA, USN, USMC, and other organizations handling explosives on Eielson Air Force Base. It is a standalone publication and must be read in conjunction with AFMAN91-201 and PACAFSUP. 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 Forms 847 from the field through the appropriate functional chain of command. Requests for waivers must be submitted through chain of command to the OPR listed above for consideration and approval. 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 IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

Reserve, Air National Guard, Civil Air Patrol, contractors, personnel on Eielson AFB, and other areas under jurisdiction of the 354th Fighter Wing Commander must follow this instruction while on Eielson AFB. In addition, this guidance, when specified, is applicable to DOD civilians and dependents assigned to, or visiting, Eielson AFB. This Instruction requires collecting and

maintaining information protected by the Privacy Act of 1974 IAW AFI 33-360 paragraph 1.12.3.

The OPR for the HHQ publication (parent) determines if implementing activities must create supplements or separate publications for their organization-specific guidance. Supplementary guidance (which includes supplements and separate publications) cannot be less restrictive than the parent publication, but it can be more restrictive. Supplementary guidance must not contradict the parent publication.

1.2.1.3. **(354FW)** The United States Department of Agriculture/Wildlife Services Division (USDA/WS), per agreement, provides management over and executes operations to support the 354 Fighter Wing Bird/Wildlife Aircraft Strike Hazard (BASH) program. The USDA/WS agrees to comply with all safety and security requirements regarding handling, transporting, and storing USDA-owned ammunition and pyrotechnics on Eielson AFB.

1.2.1.7. **(354FW)** The 354 FW/CC can request an explosive risk assessment from 354 FW/SEW as part of the pre-construction/service efforts for activities that will take place inside any of the established explosive clear zones. The 354 FW/SEW will be notified before construction starts and attend service meetings to provide safety and risk awareness briefings to contractors who will operate inside or near explosive clear zones. A signed copy of the notification by the contracting officer will be maintained in the SEW files.

1.3.5.1. **(354FW)** The 354 FW/CC has acknowledged the following compensatory measures. These compensatory measures eliminate or reduce the potential for personal injury in addition to preventing a violation to explosive safety standards. These compensatory measures are mandatory and apply to hazard class/division (HC/D) 1.1 operations.

1.3.5.1.1. **(354FW) Loop Taxiway** aircraft with HC/D 1.1 1,200K lbs or less can utilize spots 5-22 all 18 Combat Aircraft Parking Area (CAPA) spots. However Net Explosive Weight (NEW) of HC/D 1.1 over 1,200K lbs will be restricted the even number parking only with max NEW 4k lbs of HC/D 1.1

1.3.5.1.4. **(354FW) Railhead Explosives Operating Location (EOL)** unrelated vehicles will be prohibited from entering the area up to Public Traffic Route Distance (PTRD) when explosives operation are being conducted. The using organization will be responsible for posting signs and personnel in all direction to ensure traffic flow will be stopped. Explosive operation will be stopped to allow traffic to flow and operation will continue after traffic flow ceases.

1.3.5.1.5. **(354FW) Munitions Processing Facility (MPF) Bldg 4371** has the following Compensatory measure in place when training is being conducted for Army and Air Force personnel. 1.) Gates at each road leading to MPF will remain closed to unauthorized personnel anytime explosives are present at the MPF. 2.) The fire training area (Bldg 4327) will not be used whenever explosives are present at the MPF. 3.) The Range Area (Bldg 4325) will not be used whenever explosives are present at the MPF.

1.3.5.1.5.1. **(354FW)** Army and Air force personnel will not conduct simultaneous Explosive operations in the presence of each other. Explosives Ordnance Disposal (EOD)/Air Force personnel will evacuate the Ammunition Processing Facility to allow Army personnel to proceed with their operation.

1.3.5.1.6. **(354FW) South Ramp** Intermagazine (IM) distance K30 will be maintained between explosives loaded cargo aircraft and all other aircraft (i.e. Spot 2 has aircraft with 30k the next spot available would be spot 7). Contact SEW office for assistance.

1.3.5.1.6.1. **(354FW) South Ramp** IM distance K11 will be maintained between explosive loaded combat aircraft. (i.e. Y01 has an aircraft with 6,000 lbs the next Spot available would be Y04. If net explosive weight (NEW) is reduced, combat aircraft may be parked closer, i.e. Y01 has an aircraft with 1,200 lbs the next spot available would be Y03.) Contact the SEW office for assistance.

1.3.5.1.6.2. **(354FW) South Ramp Hot Cargo Pads (HCPs)** Spot 1 will be allowed to obtain up to 19K of Net Explosive Weight (NEW) HD 1.1. and spot 2 thru 16 will be allowed to obtain up to 30K. Intermagazine (IM) distance K30 will be maintained between explosive loaded cargo aircraft and all other aircraft, (i.e. Spot 2 has aircraft with 30k lbs the next spot available would be Spot 7). Contact the SEW office for assistance.

1.3.5.1.8. **(354FW) Yankee and Zulu Row** IM distance K11 will be maintained between explosive loaded combat aircraft. (i.e. Y01 has an aircraft with 6,000 lbs. the next Spot available would be Y04. If NEW is reduced, combat aircraft may be parked closer, i.e. Y01 has an aircraft with 1,200 lbs. the next spot available would be Y03.) Contact the SEW office for assistance.

1.3.5.1.9. **(354FW) Gun Clearing Butt** All 1.1 & 1.2.1 munitions must be downloaded prior to aircraft parking on the Gun Clearing Butt.

1.3.5.1.10. **(354FW) Polar Pad** HC/D 1.1 through 1.3 are not authorized within marked area on North/Northwest side of Pad. Contact SEW office for assistance.

1.3.5.1.11. **(354FW) Conventional Missile Maintenance (CMX) Bldg 1303** NEW is per bay. No munitions are authorized outside of the building unless they are being loaded / unloaded. NO concurrent ops, 1.2 munitions will be counted as 1.1 when removed from their shipping containers. 1.3 munitions removed from their shipping containers will be limited to 300 lbs 1.1 munitions will not be placed closer than 3 ft from any dividing wall. Storage Cells 1 & 10 will remain empty or only store inert material.

1.3.5.1.12. **(354FW) CMX Bldg 1324** No munitions are authorized on front pad of building. Munitions are authorized 30 feet beyond the outer walls of 1324 on the sides and rear of the building.

1.3.5.1.13. **(354FW) CMX Insp Bldg 6385** Operating bays will be limited to 25 lbs. of 1.1 / 1.2 to meet IL distances during dissimilar concurrent operations. 1.3 will be limited to 5,000 lbs. per bay if in its shipping container & 300 lbs. if unpackaged. 1.1 will not be stored closer than 3 ft. to any dividing wall.

1.3.5.1.14. **(354FW) CMX Bldg 6370** Munitions must remain in facility or on concrete pads. Concurrent operations must meet minimum IL distances IAW AFMAN 91-201. Contact SEW office for assistance.

4.1. **(354FW) Requirements for Risk Assessments.** Units will notify 354 FW/SEW and request assistance in conducting and documenting a risk assessment for any new or modified explosives, explosive operations, and facilities.

4.8. **(354FW) Risk Assessment for Explosives Operations.** Units will notify 354 FW/SEW before incorporating new or modified explosive operations. The 354 FW/SEW will ensure that a proper risk assessment is conducted, documented, and procedures included in a local operating instruction if needed.

4.9. **(354FW) Risk Assessments for Explosives Facilities.** Units will ensure 354 FW/SEW is notified in the beginning stages of planning for new explosive storage or operation facility construction. 354 FW/SEW will ensure a proper risk assessment is conducted and documented for the construction proposal.

4.19. **(354FW) Emergency Operations.** In the event of an immediately dangerous explosive situation, all operations will cease and personnel will evacuate initially to a safe distance, or a further distance in accordance with user Technical Order (T.O.) or Checklist (CL). The incident commander on scene will ultimately direct evacuations and changes to the safe cordon area.

7.2. **(354FW) Locally Written Instructions.** All units that store explosives or transport explosives on Eielson, will have a unit commander approved operating instruction (OI) in accordance with AFMAN 91-201, Paragraph 7.2.1.

7.2.1.2. **(354FW)** All local OIs will be coordinated with 354 FW/SEW prior to being approved by the unit commander. Documentation of coordination must be retained by the unit Additional Duty Weapons Safety Representative (ADWSR) or unit plans and programs personnel, if assigned.

7.2.1.5. **(354FW)** All units that store, handle, transport, or maintain explosives will have an established written explosive safety briefing either in a checklist or unit OI. A safety briefing will be given prior to the start of any explosive operations.

7.3.6. **(354FW)** All unit OIs, when addressing emergency actions, will as a minimum either determine the minimum initial evacuation distance or the means to calculate the minimum evacuation distance based on the type explosives hazard class present for the following events: lightning within 5 NM (paragraph 5.25.6), munitions involved in fire (paragraph 10.10), and dropped munitions (paragraph 10.12).

7.4. **(354FW) Trained Qualified Personnel will:** Give a safety briefing to all individuals involved in their explosives operations. Units can use a separate document to brief visitors/casuals by filling in the spaces and details required.

7.5.5. **(354FW)** Personnel limits will be included in local OIs or checklists. Personnel limits can be determined at the time of the operation by writing them into a fill-in type checklist, however personnel limits will not exceed the facility approved personnel limit.

7.22. **(354FW) Fireworks Displays and Airshow Events.** Units planning an on-base explosive/firework demonstration will ensure that the 354 FW/SE is contacted 60 days prior to planning stages and before submitting a request to award a contract. The 354 FW/SEW will provide all safety requirements that must be met before explosive/firework displays can be conducted on Eielson AFB.

7.22.7. **(354FW)** The 354 FW/SEW, 354 CES/CED (EOD), 354 CES/CEF (Fire Emergency Services (FES)), 354 OSS/OSAA, and the 354 WG/JA will conduct and document a risk assessment for the scheduled explosive demonstration events. 354 FW/SEW will forward to PACAF/SEW for coordination and approval.

7.26. **(354FW) Personnel assigned as:** Part of the wing inspection team (WIT) and tasked to activate simulators and smoke producing devices during local exercises will be trained by EOD prior to handling, transporting, and activating explosives annually and annually thereafter.

7.26.2.1. **(354FW)** Units conducting annual refresher training must have personnel EOD certified to conduct this training and have a Weapons Safety Manager approved lesson plan.

7.27.1. **(354FW)** Units planning events involving explosives will ensure the area desired is approved for the type of activity by contacting the area owner and 354 CES Environmental. Units will ensure proper base notifications are made before the event begins.

7.34. **(354FW) Units will follow local written OI procedures for all weather system advisories/warnings.** Areas where Lightning Protection System (LPS) is deficient or absent units should use the D-8 Map which has a chart and column established for adequate protection. Each explosives locations has Inhabited Building Distance (IBD) and PTRD relation listed, personnel should evacuate to PTRD when LPS isn't available for protection.

7.41.3. **(354FW)** Dormitory and billeting residents who need to store privately owned firearms and ammunition will contact the 354 SFS Law Enforcement Desk at 377-1100. Residents will adhere to 354 SFS requirements when courtesly storing personally owned firearms and ammunition.

8.4. **(354FW) Local Laws Regulating Transportation of Explosives and Dangerous Articles.** Units that transport explosives off base for military conveyance will ensure they have trained/qualified drivers and that the movement is coordinated with 354 FW/SEW, 354 FW LRS Traffic Management and 354 EOD to ensure proper documentation, procedures, and packaging requirements are established prior to the off base movement event. Units that transport explosives will develop local instructions that cover transporting and handling explosives with a safety briefing.

9.22.2. **(354FW)** The 354 CS Installation Spectrum Manager will provide 354 FW/SEW with Radio Frequency (RF) emitter data (Category A) (see Figure 9.1 in AFMAN 91-201) necessary to perform Electromagnetic Radiation (EMR) Surveys and Safety analyses. This will be required on an annual basis.

9.22.3. **(354FW)** The 354 CS Installation Spectrum Manager will coordinate with 354 FW/SEW before installing any new RF transmitting equipment and will provide electromagnetic radiation data for new equipment.

9.30.4. **(354FW)** The use and presence of privately owned Modern Mobile Emitters (MME) (cellular phones, personal digital assistants, barcode readers, RFID devices, wireless computers, and network access points, and other transmitters like remote keyless entry devices) are prohibited in explosive operations where electro-explosive devices are present. The exception to this is a properly prepared and safe static display aircraft. Government owned MME will comply with standoff distances in paragraph 9.30.4 of the basic manual.

10.8.8.1. **(354FW)** Units with explosive storage will establish procedures to ensure that fire symbols are changed when explosives are introduced or removed from a facility. Units will call the 354 FW CES/CEF Emergency Control Center at 377-4156 to ensure they are updated with the most current symbols.

11.1.3. **(354FW)** Units will complete the AF Form 2047, Explosive Storage License, and coordinate through required agencies. With exception of our geographically separated units, 354 FW/SEW will be the final approver of the license.

BENJAMIN W. BISHOP, Colonel, USAF  
Commander

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

DoD 6055.9-Std, *DoD Ammunition and Explosives Safety Standards*, 29 February 2008

AFPD 91-2, *Safety Programs*, 24 July 2012

AFI 63-125, *Nuclear Certification Program*, 8 August 2012

AFI 91-101, *Nuclear Weapons Surety Program*, 15 August 2014

AFI 91-202, *The US Air Force Mishap Prevention Program*, 24 June 2015

AFI 91-204, *Safety Investigations and Reports*, 12 February 2014

AFI 91-208, *Hazards of Electromagnetic Radiation to Ordnance (HERO) Certification and Management*, 16 May 2013

AFMAN 33-363, *Management of Records*, 1 March 2008, and USAFESUP, 25 November 2008

AFMAN 91-201, *Explosives Safety Standards*, 12 January 2011, and USAFESUP, 27 March 2013

AFMAN 91-221, *Weapons Safety Investigations and Reports*, 8 November 2010

***Adopted Forms***

AF Form 847, Recommendation for Change of Publication

AF Form 2047, Explosive Facility License

AFTO Form 22, Technical Manual (TM) Change Recommendation and Reply

AF Form 332, Base Civil Engineer Work Request

AF Form 103, Base Civil Engineering Work Clearance Request

DD Form 1391, FY-Military Construction Project Data

***Abbreviations and Acronyms***

**ADWSR**—Additional Duty Weapons Safety Representative

**AE**—Ammunition & Explosives

**AFI**—Air Force Instruction

**AFMAN**—Air Force Manual

**AFPD**—Air Force Policy Directives

**AFSAS**—Air Force Safety Automated System

**AGE**—Aerospace Ground Equipment

**AMS**—Air Mobility Squadron

**CBT**—Computer Based Training

**CC**—Commander

**CEI**—CES Resources Flight

**CES**—Civil Engineering Squadron

**DoD**—Department of Defense

**DS**—Dull Sword

**EAFB**—Eielson Air Force Base

**EED**—Electro-Explosive Devices

**EMR**—Electromagnetic Radiation

**EOD**—Explosives Ordnance Disposal

**ESP**—Explosives Site Plan

**FW**—Fighter Wing

**GSU**—Geographically Separated Unit

**HAS**—Hardened Aircraft Shelter

**HERO**—Hazards of Electromagnetic Radiation to Ordnance

**HN**—Host Nation

**IAW**—In Accordance With

**ISM**—Installation Spectrum Manager

**MFR**—Memo for Record

**MICT**—Management Internal Control Toolset

**MOC**—Maintenance Operations Center

**MME**—Modern Mobile Emitters

**MNCL**—Master Nuclear Certification List

**MUNSS**—Munitions Support Squadron

**NCE**—Nuclear Certified Equipment

**NEW**—Net Explosives Weight

**NLT**—No Later Than

**OPR**—Office of Primary Responsibility

**PGM**—Precision-Guided Munitions

**PRP**—Personnel Reliability Program

**QA**—Quality Assurance

**QD**—Quantity Distance

**RDS**—Records Disposition Schedule

**SE**—Safety

**SEW**—Weapons Safety

**USAF**—United States Air Force

**USAFE**—United States Air Forces in Europe

**USR**—Unit Safety Representative

**WOMS**—Work Order Maintenance System

**WSM**—Weapons Safety Manager

## Attachment 2

## EXPLOSIVE WEIGHT OF COMMONLY USED MUNITIONS

Figure A2.1. Explosive Weight of Commonly used Munitions.

CLASS/DIVISION	HC/D	NEW
CTG, 5.56MM BLANK M200	1.4 S	0.001100
CTG, 5.56MM BALL M855 CLIPPED	1.4 S	0.003790
CTG 5.56MM TCR M856 SGL RND	1.4 S	0.003560
5.56MM, BLUE MARKING	1.4 S	0.00012
5.56MM, RED MARKING	1.4 S	0.00012
CTG, 5.56MM FRANGIBLE	1.4 S	0.00367
CTG, 9MM BALL NATO XM882	1.4 S	0.000911
9MM, BLUE MARKING CARTRIDGE	1.4 S	0.00012
9MM, RED MARKING CARTRIDGE	1.4 S	0.00012
CTG , 9MM FRANGIBLE	1.4 S	0.00103
20 MM HEI	1.2.2 E	0.0285
20 MM TP/TPT	1.4 C	0.0891
20 MM API	1.4 G	0.0954
30 MM HEI	1.2.2 E	0.4335
30 MM TP	1.4C	0.3310
30 MM API	1.4C	0.3419
AGM 65A	1.1 E	85.0
AGM 65B	1.1 E	85.0
AGM 65D	1.1 E	85.0
AGM 65G	1.1 E	100.0
AGM 88 (IN CONTAINER)	1.2.1 E	45.2
AGM 88 (OUT OF CONTAINER)	(04) 1.1 E	45.2
AIM 120 (IN CONTAINER)	1.2.1 E	16.9
AIM 120 (OUT OF CONTAINER)	(05) 1.1 E	16.9
AIM 9P	(04) 1.1 E	10.5
AIM 9L	(04) 1.1 E	7.4
AIM-9M	(04) 1.1 E	7.4
CBU-58/B	1.2.1 D	158.0
CBU-87	1.1 D	129.0
CBU-89 SERIES	1.1 D	116.1
MK 82	1.1 D	192.0

MK 84	1.1 D	945.0
BLU 109	1.1 D	535.0
ROCKETS 2.75 WARHEAD (TP)	1.3 C 6.4 X 7 = 44.8	44.8
ROCKETS 2.75 WARHEAD (WP)	1.2.1 H 8.6 X7 = 60.2	60.2
CHAFF W/SQUIB	1.4 S	.0004
FLARE LUU-2A/B	1.3 G 22.0 X 8 = 176	176
FLARE M206	1.3 G	.2866
FLARE MJU-7	1.3 G	.6278