



**DEPARTMENT OF THE NAVY**  
**OFFICE OF THE CHIEF OF NAVAL OPERATIONS**  
**2000 NAVY PENTAGON**  
**WASHINGTON DC 20350-2000**

8020  
Ser N41/20U130435  
28 Jan 20

From: Director, Logistics – Supply Chain Operations Division (N41)  
To: Commander, Joint Region Marianas

Subj: CHIEF OF NAVAL OPERATIONS EXPLOSIVES SAFETY WAIVER 1-20 FOR  
PROJECT J001B FINEGAYAN CONSTRUCTION COMMANDER JOINT REGION  
MARIANAS

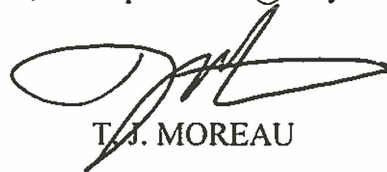
Ref: (a) COMJTREG MARIANAS ltr 8020 Ser J3/0659 of 13 Dec 19  
(b) CNIC ltr 8020 Ser N3/20U007 of 16 Jan 20  
(c) NOSSA ltr 8020 Ser N41/088 of 23 Jan 20

1. In response to reference (a) and endorsed by references (b) and (c), Chief of Naval Operations (CNO) explosives safety waiver Joint Region Marianas (JRM) 1-20 for J001B utilities and site improvement project for Finegayan construction is approved.

2. All compensatory measures listed in references (a) and (c) must be adhered to.

3. Naval Ordnance Safety and Security Activity (NOSSA) will update the quarterly waivers, exemptions, and secretarial certification summary report to reflect CNO explosives safety waiver JRM 1-20 with an expiration date of 31 January 2022. Any changes to the conditions of this deviation must be submitted to NOSSA for review and appropriate action.

4. My points of contact are Mr. John LeFevre, N411B, 703-695-4819, john.lefevre@navy.mil or Mr. David Preaseau, N411C, 703-695-4823, david.preaseau1@navy.mil.



T.J. MOREAU

Copy to:  
DDESB (PE)  
NAVAL BASE GUAM (N00, ESO)  
COMPACFLT PEARL HARBOR HI (N42/ESC)  
CNIC WASHINGTON DC (N35)  
COMJTREG MARIANAS (J3, J4, RESO)  
NOSSA (N41, N41A)  
NOSSA ESSOPAC (N9P)



**DEPARTMENT OF THE NAVY**  
JOINT REGION MARIANAS  
PSC 455 BOX 211  
FPO AP 96540-1000

8020  
Ser J3/0659  
13 Dec 19

**From:** Commander, Joint Region Marianas  
**To:** Chief of Naval Operations (N41)  
**Via:** (1) Commander, Navy Installations Command  
(2) Commanding Officer, Naval Ordnance Safety and Security Activity (N5)

**Subj:** REQUEST FOR CHIEF OF NAVAL OPERATIONS (CNO) EXPLOSIVE SAFETY  
WAIVER FOR PROJECT J001B FINEGAYAN CONSTRUCTION COMJTREG  
MARIANAS

**Ref:** (a) Joint Region Marianas ltr 8020 Ser J3/0353 of 10 Jul 19  
(b) NAVSEA OP 5 Volume 1 Seventh Revision  
(c) Explosive Safety Submission, Munitions Response Sites, Guam Construction Support  
(Amendment 6) DDESB Memo of 30 Jul 15  
(d) Department of Defense Explosive Safety Board (DDESB) Memo of 24 Aug 18  
[GG-052MOD]  
(e) Naval Ordnance Safety and Security Activity (NOSSA) ltr 8020 Ser N47/1117 of  
11 Sep 18  
(f) NOSSA Email/Review Package (Jackie Smith/Pat Altman) of 6 Apr 19

**Encl:** (1) Request for Chief of Naval Operations Waiver Explosive Safety Submission  
Requirements  
(2) Background/Supplemental Information For Explosives Safety Waiver/Exemption  
(3) Fragmentation Data Review Forms for 5 inch Projectile Mk 41 and 500 lb M64A1  
Bomb Resident  
(4) MEC Depth of Discovery Data  
(5) Grid Map/MEC Spot Report Log  
(6) Map showing Eastern/Western Finegayan Areas  
(7) Marine Corps Base Guam, Conceptual Development Plan for Early Turnover Pad  
(8) Bedrock Areas  
(9) Early Turnover Pad Grid Map

1. This waiver, which is requesting to reduce the Munition with the Greatest Fragmentation Distance (MGFD) on the J001B Utilities and Site Improvement Project, Finegayan, Guam, from the 500 lb bomb down to the 5 inch projectile, is being resubmitted with additional information requested. Reference (a) request is cancelled. Reference (b) is Ammunition and Explosives Safety Ashore. Reference (c) provides execution requirements for munitions response actions. References (d) and (e) amended reference (c) to incorporate the 500 lb M64A1 Bomb as the primary MGFD for the Finegayan area. Reference (f) provided response to initial information package that requested evaluation for a reduction of MGFD to accommodate construction efforts for follow on projects located on the eastern side of J001B construction project footprint.

2. Enclosure (1) is submitted in accordance with reference (b), Appendix I policy for submission of CNO Waiver requests. Enclosure (2) is building list for facilities potentially affected by

Subj: REQUEST FOR CHIEF OF NAVAL OPERATIONS (CNO) EXPLOSIVE SAFETY  
WAIVER FOR PROJECT J001B FINEGAYAN CONSTRUCTION COMJTREG  
MARIANAS

intrusive operations. Enclosure (3) provides MGFDF required separation distances for the 5 inch Caliber Mk 41 projectile and the 500 lb M64A1 Bomb. Enclosure (4) provides data concerning depth of discovery for MEC items. Enclosure (5) is MEC Map with associated MEC Spot Report Log. Enclosure (6) maps show separation distances for the 5 inch projectile and 500 lb bomb areas and the contingency (1000 lb bomb). Enclosure (7) is notional layout for early turnover pad follow-on projects. Enclosure (8) shows bedrock areas. Enclosure (9) shows grid information for early turnover pad.

3. The areas/grid(s) that have been defined for MGFDF reduction have been cleared using full clearance ahead of construction to 18" and the cleared layer(s) removed. A final scan using a magnetometer by qualified contracted Unexploded Ordnance (UXO) personnel has been performed at the new grade, and all identified contacts have been investigated to depth of detection, bedrock, and/or construction depth. The new layer has been verified by NAVFAC Marianas MEC Quality Assurance Technicians and/or Joint Region Marianas (JRM) Explosive Safety Specialists (ESS) and has been documented in writing as verified. The ToI will remain the 20mm for full clearance ahead of construction. All other Explosive Safety considerations remain in place (IAW applicable publications and JRM ESS) to include K40 separation distance of the MGFDF for UXO Team(s) at 74', and HFD for non-essential construction workers, non-essential personnel, and non-essential government staff at 359'.

4. NAVFAC Marianas is currently negotiating with the Government of Japan on a "Go Green" (limited low probability characterization) initiative for the entire construction site (J001B). The plan is to screen soil for the entire site (East/West areas) to a depth of four feet and clear soil of munitions down to a 20MM.

5. Approval of the waiver request is critical to prevent additional delays of follow on projects related to Marine Corps forces realignment to Guam in support of Defense Policy Review Initiative (DPR).

6. Point of contact is Mr. Larry E. Reisher, he may be contacted via phone at 671-349-4112, DSN 315-349-4112, or via e-mail at [larry.reisher@fe.navy.mil](mailto:larry.reisher@fe.navy.mil) or Mr. Troy Orender at 671-349-4780 or DSN 315-349-4780, or via e-mail at [Troy.Orender@fe.navy.mil](mailto:Troy.Orender@fe.navy.mil).



J. V. MENONI

Copy to:  
CNO (N411)  
CNIC N35 (Explosive Safety)  
CJRM (RESO)  
NAVFACMARIANAS GU (MEC PM)  
NOSSA (N549)  
COMPACFLT (N42/ESO)

Request for Chief of Naval Operations Waiver of Explosives Safety  
Requirements for J001B Finegayan Construction Site

1. General statement of waiver or exemption requirements. This waiver request is submitted to reduce the Munition with the Greatest Fragmentation Distance (MGFD) from the 500lb bomb down to the 5 inch projectile.
2. Specific document(s) or table(s) containing the safety standard(s) to be waived. Joint Region Marianas, Explosive Safety Submission for Munitions Response Sites, Guam Construction Support, Amendment 6, dated 30 Jul 15 and further amended by Department of Defense Memo dated 24 AUG 2018 that changed the Munition with the Greatest Fragmentation Distance (MGFD) to the 500lb bomb for the entire J001B construction site due to the discovery of a 500lb during ground intrusive operations.
3. Specific description of the conditions creating the need for the waiver or exemption. In order for work to move forward on the early turnover pad; (vertical construction of Marine Corps Barracks) the construction team and MEC clearance team separation distances cannot be met with the MGFD being the 500 lb bomb for the entire J001B site. Part of the J001B site will retain the 500 lb bomb (western part) as the MGFD, while the other part (eastern part) of the site will revert to the 5 inch round as the MGFD. The area that will revert to the five inch round has been cleared down to at least 18 inches, bedrock or construction depth.
4. Statement specifying reason(s) why compliance with explosives safety standards cannot be effected. Currently, the DDESB approved Joint Region Marianas, Explosive Safety Submission for Munitions Response Sites, Guam Construction Support, Amendment 6A requires team separation distance to be based on the 500lb bomb.
5. Alternatives examined.
  - A. Submission and approval of Amendment 7, however timeline for approval is unknown.
  - B. Continue utilizing the 500lb bomb as the MGFD for MEC/Construction team separation distances; however, depending on timeline for Amendment 7 approval, there is a potential that the timeline for completion of Defense Policy Review Initiative (DPRI) projects will be impacted and international public relations ramifications with Government of Japan.
6. Mission effect of a maximum credible explosive accident. Death or injury to construction personnel performing vertical construction operations/MEC operations.
7. Additional or compensatory safety precautions to be enforced during the period of waiver.
  - A. Requirements associated with soil excavation efforts will be conducted in accordance with Chief of Naval Operations Exemption E1-16B, Joint Region Marianas Instruction 8020.3 (Munitions and Explosives of Concern Exclusion Zone Management Accountability 28 Sep 2018, and Explosive Safety Submission documents identified in para 2 above.
  - B. Prior to consideration for MGFD reduction from M46A1 500 LB bomb to the 5 inch Mk 41 projectile at J-001B, the grid(s), defined area, etc. shall have been cleared using full clearance ahead of construction to

18" and the cleared layer(s) removed. A final scan using a magnetometer by qualified contracted UXO personnel shall be performed at the new grade, and all identified contacts shall be investigated to depth of detection, bedrock, and/or construction depth. The new layer shall be verified by NFM MEC QA and/or JRM ES, and shall be documented in writing as verified. Once the final investigation is complete, the new MGFD for 5 inch projectile may be applied, whereby the Target of Interest (ToI) remains 20mm for full clearance ahead of construction. The reduction shall be documented in writing, and endorsed by the Contracting Officer prior to implementation.

C. JRM RESO and NFM MEC PM shall be provided copy of KO's endorsement prior to execution. All other Explosive Safety considerations remain in place (IAW applicable publications and JRM ESS) to include K40 separation distance of the MGFD for UXO Team(s) at 74', and HFD for non-essential construction workers, non-essential personnel, and non-essential government staff at 359'.

8. Resources necessary to eliminate this waiver or exemption. Approval of Amendment 7 or completion soil clearance down to 20MM down to 4 feet across entire site.



# NAVSEA OP 5 VOLUME 1 SEVENTH REVISION

BACKGROUND/SUPPLEMENTAL INFORMATION FOR EXPLOSIVES SAFETY WAIVER/EXEMPTION							
Deviation Description Assigned _____ (To be completed by CNO)							
<b>1. Potential Explosion Site(s) (PES) - Location where explosives will be present which require issuance of this deviation:</b>							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
a. Building No.	J001B Project						
b. Description/Use	MEC/MPPEH (MGFD) encountered during project.						
c. NEW (lbs.)	1.1						
	1.2.1						
	1.2.2						
	1.3						
	1.4						
(Attach continuation sheet for additional PES's)							
<b>2. On-Station Exposed Site(s) (ES) - Location on-base which will be within the ESQD arc(s) from a PES:</b>							
	(1)	(2)	(3)	(4)			
a. Building No.	285	NCS-6B	NCS-7B	NCS-12B			
b. Description/Use	SAT Comm Station	Water Well #6 Building	Water Well #7 Building	Water Well #12 Building			
c. Closest PES (No.)	J-001B Site	J-001B Site	J-001B Site	J-001B Site			
d. Distance from PES	324'	0'	133'	0'			
e. Estimated Value of ES	11,692,490	\$23,573	\$23,573	\$23,573			
f. Average Number Personnel Present	20	0	0	0			
(Attach continuation sheet for additional ES's)							
<b>3. Off-Station ES's - For off-base locations within ESQD arc(s) from a PES:</b>							
	(1)	(2)	(3)	(4)			
a. Building No./Name							
b. Description/Use							
c. Closest PES (Name)							
d. Distance from PES							
e. Distance from Base Boundary							
f. Estimated Value of ES							
g. Average Number Personnel Present							
(Attach continuation sheet for additional ES's)							
<b>4. Planned action/resources required to correct situation and eliminate need for deviation:</b>							
a. MILCON (or Special Project) No. (if assigned): J001B							
b. Estimated cost to correct: Costs will be absorbed within MILCON Funds							
c. Brief description of corrective action: Completion of ground intrusive operations.							
d. Expected date of completion: 31 December 2020							

ENCLOSURE (2)

**FIGURE I-2. BACKGROUND/SUPPLEMENTAL INFORMATION FOR EXPLOSIVES SAFETY WAIVER/EXEMPTION**

<b>2. On-Station Exposed Site(s) (ES) - Location on-base which will be within the ESQD arc(s) from a PES:</b>				
	(1)	(2)	(3)	(4)
a. Building No.	NCS-11B	323	324	323B
b. Description/Use	Water Well #11 Building	AN / FRC-87 Antenna	AN / FRC-87 Antenna	Communication Antenna
c. Closest PES (No.)	J-001B Site	J-001B Site	J-001B Site	J-001B Site
d. Distance from PES	156'	289'	300'	71'
e. Estimated Value of ES	\$23,573	\$185,208	\$185,208	\$185,208
f. Average Number Personnel Present	0	0	0	0

<b>2. On-Station Exposed Site(s) (ES) - Location on-base which will be within the ESQD arc(s) from a PES:</b>				
	(1)	(2)	(3)	(4)
a. Building No.	121			
b. Description/Use	Electrical Substation			
c. Closest PES (No.)	J-001B Site			
d. Distance from PES	0'			
e. Estimated Value of ES	\$26,637			
f. Average Number Personnel Present	0			

<b>2. On-Station Exposed Site(s) (ES) - Location on-base which will be within the ESQD arc(s) from a PES:</b>				
	(1)	(2)	(3)	(4)
a. Building No.				
b. Description/Use				
c. Closest PES (No.)				
d. Distance from PES				
e. Estimated Value of ES				
f. Average Number Personnel Present				

<b>2. On-Station Exposed Site(s) (ES) - Location on-base which will be within the ESQD arc(s) from a PES:</b>				
	(1)	(2)	(3)	(4)
a. Building No.				
b. Description/Use				
c. Closest PES (No.)				
d. Distance from PES				
e. Estimated Value of ES				
f. Average Number Personnel Present				

<b>2. On-Station Exposed Site(s) (ES) - Location on-base which will be within the ESQD arc(s) from a PES:</b>				
	(1)	(2)	(3)	(4)
a. Building No.				
b. Description/Use				
c. Closest PES (No.)				
d. Distance from PES				
e. Estimated Value of ES				

(2)

ENCLOSURE (2)

# Fragmentation Data Review Form

Database Revision Date 5/3/2018



Category: Surface-Launched HE Rounds

Munition: 5 In Mk 41

Case Material: Steel, Mild

Fragmentation Method: Naturally Fragmenting

Secondary Database Category: Projectile

Munition Case Classification: Robust

DODIC: D320

Date Record Created: 9/21/2004

Record Created By: MMC

Last Date Record Updated: 9/14/2011

Individual Last Updated Record: SDH

Date Record Retired:

## Theoretical Calculated Fragment Distances

HFD [Hazardous Fragment Distance: distance to no more than 1 hazardous fragment per 600 square feet] (ft): 359

MFD-H [Maximum Fragment Distance, Horizontal] (ft): 2377

MFD-V [Maximum Fragment Distance, Vertical] (ft): 1748

## Overpressure Distances

TNT Equivalent (Pressure): 0.85

TNT Equivalent Weight - Pressure (lbs): 6.273

3.5 psi, K18 Distance (ft): 33

2.3 psi, K24 Distance (ft): 44

1.2 psi, K40 Distance (ft): 74

0.0655 psi, K328 Distance (ft): 605

\*NOTE: Values shown within this section only address overpressure hazards and do not account for applicable distance values for fragments and debris as required per DoD 6055.09-M.\*

## Minimum Thickness to Prevent Perforation (in)

	Intentional	Unintentional
4000 psi Concrete (Prevent Spall):	9.17	4.80
Mild Steel:	1.77	0.92
Hard Steel:	1.45	0.75
Aluminum:	3.43	1.86
LEXAN:	8.58	5.73
Plex-glass:	7.05	4.13
Bullet Resist Glass:	6.32	3.49

## Item Notes

### Munition Information and Fragmentation Characteristics

Explosive Type: Explosive D

Explosive Weight (lb): 7.38

Diameter (in): 5.0000

Cylindrical Case Weight (lb): 51.30473

Maximum Fragment Weight (Intentional) (lb): 0.6726

Design Fragment Weight (95%) (Unintentional) (lb): 0.1367

Critical Fragment Velocity (fps): 2538

### Sandbag and Water Mitigation Options

TNT Equivalent (Impulse): 0.81

TNT Equivalent Weight - Impulse (lbs): 5.978

Kinetic Energy  $10^6$  (lb-ft<sup>2</sup>/s<sup>2</sup>): 2.4521

#### Single Sandbag Mitigation

Required Wall & Roof Thickness (in): 36

Expected Max. Throw Distance (ft): 220

Minimum Separation Distance (ft): 220

#### Double Sandbag Mitigation

Required Wall & Roof Thickness (in): Not Permitted

Expected Max. Throw Distance (ft): Not Permitted

Minimum Separation Distance (ft): Not Permitted

#### Water Mitigation

Minimum Separation Distance (ft): 275

Water Containment System: 1100 gal tank

Note: Use Sandbag and Water Mitigation in accordance with all applicable documents and guidance. If a donor charge larger than 32 grams is utilized, the above mitigation options are no longer applicable. Subject matter experts may be contacted to develop site specific mitigation options.

Distribution Statement D. Distribution authorized to the Department of Defense and U.S. DoD contractors only for Administrative-Operational Use (3 May 2018). Other requests shall be referred to the Department of Defense Explosives Safety Board, 4800 Mark Center Drive, Suite 16E12, Alexandria, VA 22350.

ENCLOSURE (3)



# Fragmentation Data Review Form



Database Revision Date 5/3/2018

Category: Air-Launched HE Rounds

Munition: 500 lb M64A1 Bomb (Composition B filled)

Case Material: Steel, Mild

Fragmentation Method: Naturally Fragmenting

Secondary Database Category: Bomb

Munition Case Classification: Non-Robust

DODIC:

Date Record Created: 10/5/2009

Record Created By: SDH

Last Date Record Updated: 12/23/2009

Individual Last Updated Record: SDH

Date Record Retired:

## Munition Information and Fragmentation Characteristics

Explosive Type: Composition B

Explosive Weight (lb): 274

Diameter (in): 14.2000

Cylindrical Case Weight (lb): 114.40615

Maximum Fragment Weight (Intentional) (lb): 0.2491

Design Fragment Weight (95%) (Unintentional) (lb): 0.0221

Critical Fragment Velocity (fps): 9907

## Theoretical Calculated Fragment Distances

HFD [Hazardous Fragment Distance: distance to no more than 1 hazardous fragment per 600 square feet] (ft): 638

MFD-H [Maximum Fragment Distance, Horizontal] (ft): 2486

MFD-V [Maximum Fragment Distance, Vertical] (ft): 1995

## Overpressure Distances

TNT Equivalent (Pressure): 1.16

TNT Equivalent Weight - Pressure (lbs): 317.840

3.5 psi, K18 Distance (ft): 123

2.3 psi, K24 Distance (ft): 164

1.2 psi, K40 Distance (ft): 273

0.0655 psi, K328 Distance (ft): 2238

"NOTE: Values shown within this section only address overpressure hazards and do not account for applicable distance values for fragments and debris as required per DoD 6055.09-M."

## Sandbag and Water Mitigation Options

TNT Equivalent (Impulse): 1.14

TNT Equivalent Weight - Impulse (lbs): 312.360

Kinetic Energy  $10^6$  (lb-ft<sup>2</sup>/s<sup>2</sup>): 12.2227

### Single Sandbag Mitigation

Required Wall & Roof Thickness (in): Not Permitted

Expected Max. Throw Distance (ft): Not Permitted

Minimum Separation Distance (ft): Not Permitted

### Double Sandbag Mitigation

Required Wall & Roof Thickness (in): Not Permitted

Expected Max. Throw Distance (ft): Not Permitted

Minimum Separation Distance (ft): Not Permitted

### Water Mitigation

Minimum Separation Distance (ft): Not Permitted

Water Containment System: Not Permitted

Note: Use Sandbag and Water Mitigation in accordance with all applicable documents and guidance. If a donor charge larger than 32 grams is utilized, the above mitigation options are no longer applicable. Subject matter experts may be contacted to develop site specific mitigation options.

## Minimum Thickness to Prevent Perforation (in)

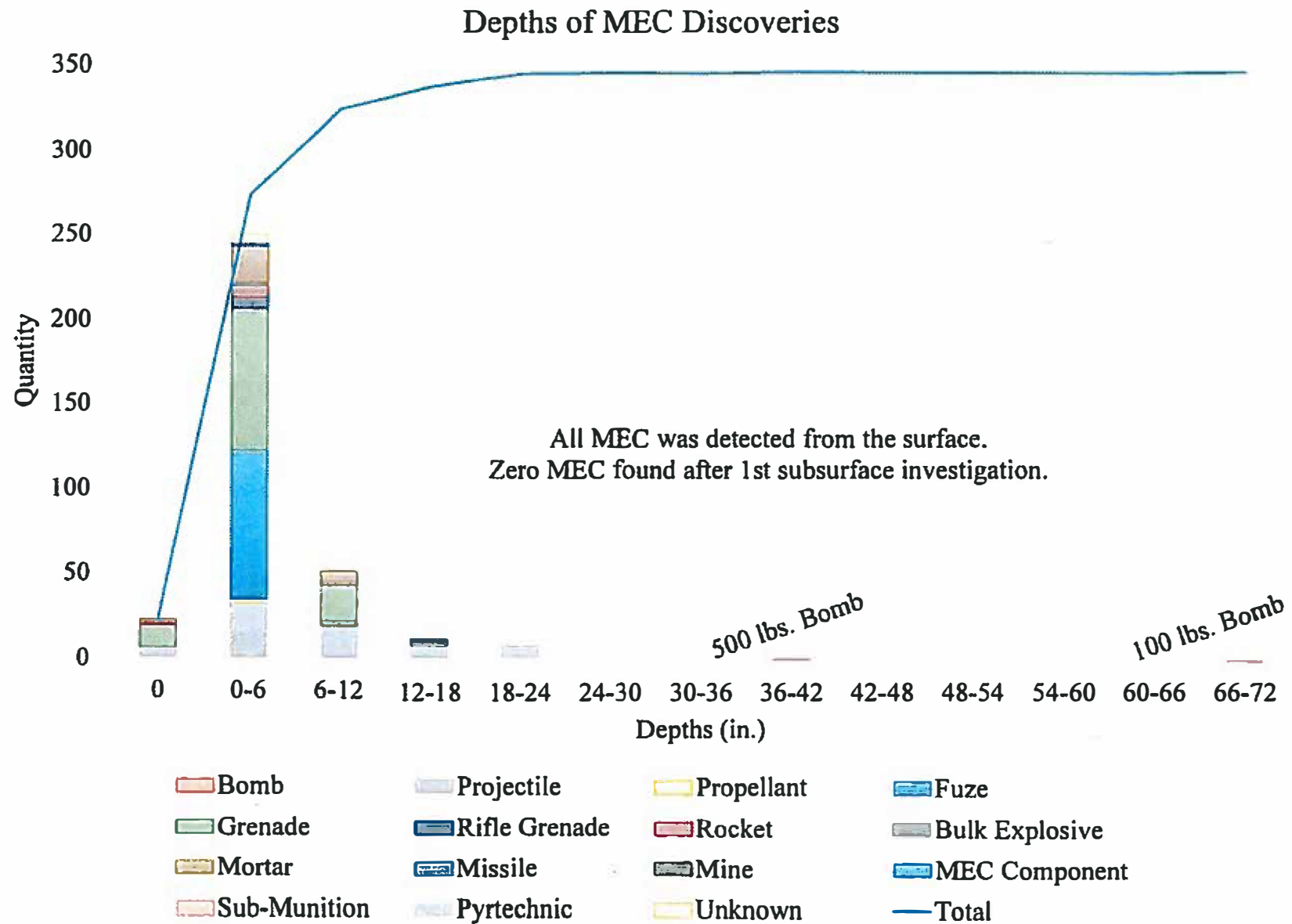
	Intentional	Unintentional
4000 psi Concrete (Prevent Spall):	32.57	11.69
Mild Steel:	4.74	1.82
Hard Steel:	3.89	1.49
Aluminum:	9.34	3.79
LEXAN:	13.62	7.55
Plex-glass:	12.95	5.91
Bullet Resist Glass:	11.79	4.93

## Item Notes

Distribution Statement D. Distribution authorized to the Department of Defense and U.S. DoD contractors only for Administrative-Operational Use (3 May 2018). Other requests shall be referred to the Department of Defense Explosives Safety Board, 4800 Mark Center Drive, Suite 16E12, Alexandria, VA 22350.

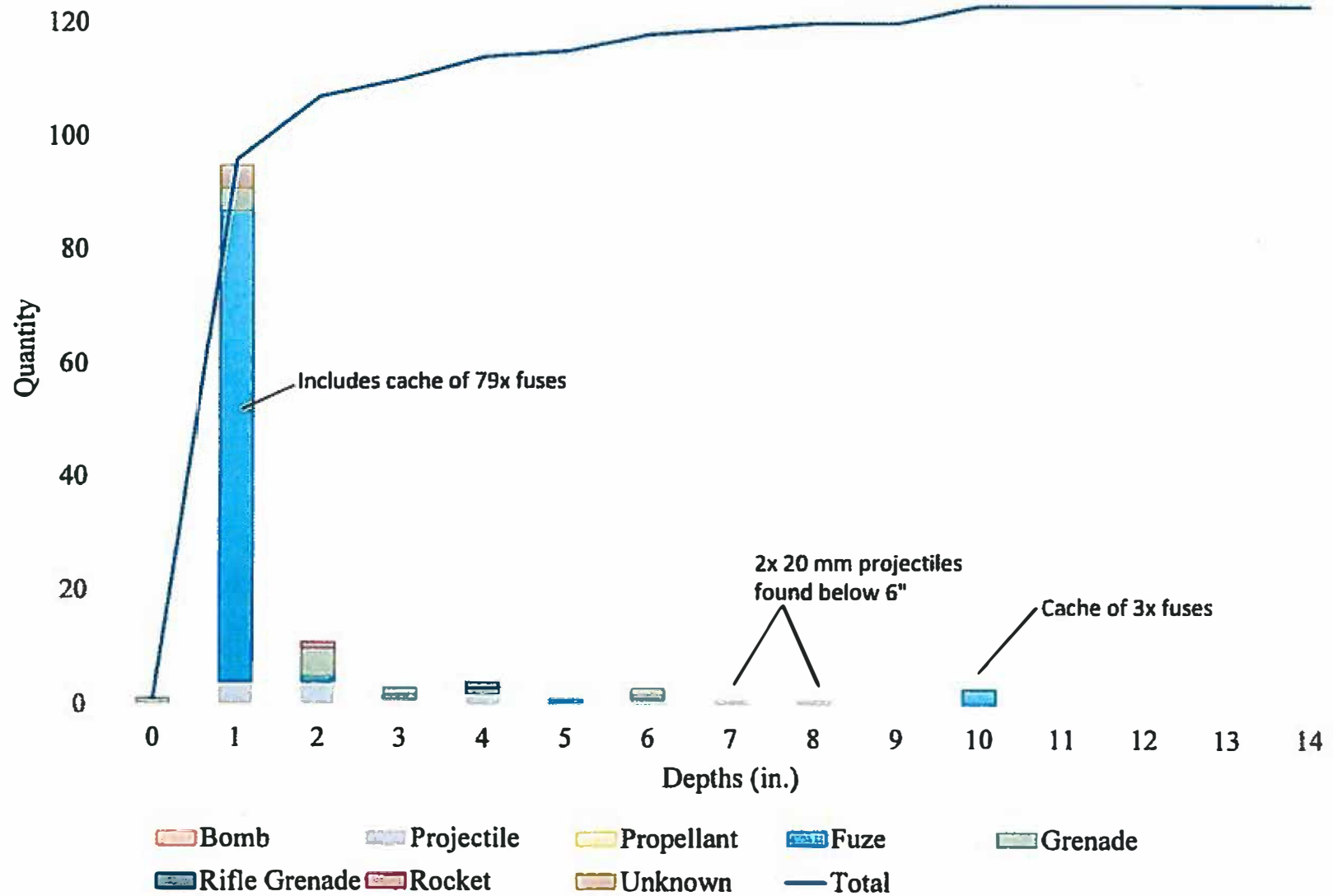
(2)

ENCLOSURE (3)



ENCLOSURE (4)

# Depths of MEC Smaller than 60 mm



(2)

ENCLOSURE (4)



MEC Map as of  
Feb. 06, 2019

## Investigation Grids





MEC Spot Report Log  
2/25/19

[illegible]

ENCLOSURE (2)

30



MEC Spec Report Log  
202019

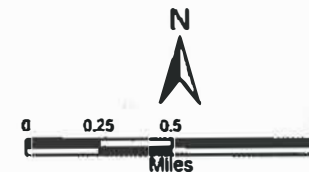
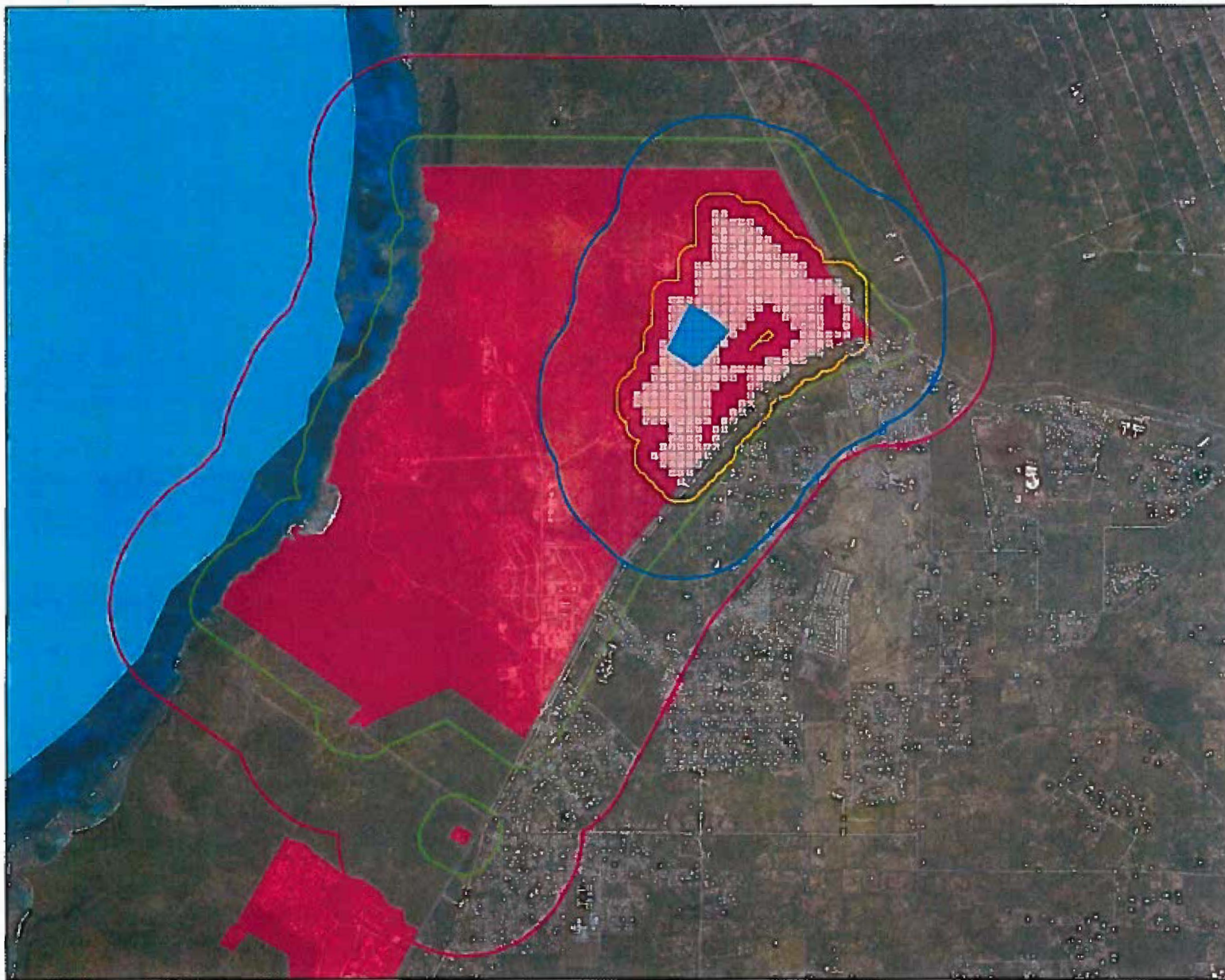
MEC No	Date	Code	Sampled Layer	Depth (ft)	Remarks	Length	Width	Height	Volume	Weight	Notes	MEC Category	MEC Label	Source File
1	1/1/2019	MEC1	MEC1	1.0	MEC1	1.0	1.0	1.0	1.0	1.0	MEC1	MEC1	MEC1	MEC1
2	1/1/2019	MEC2	MEC2	1.0	MEC2	1.0	1.0	1.0	1.0	1.0	MEC2	MEC2	MEC2	MEC2
3	1/1/2019	MEC3	MEC3	1.0	MEC3	1.0	1.0	1.0	1.0	1.0	MEC3	MEC3	MEC3	MEC3
4	1/1/2019	MEC4	MEC4	1.0	MEC4	1.0	1.0	1.0	1.0	1.0	MEC4	MEC4	MEC4	MEC4
5	1/1/2019	MEC5	MEC5	1.0	MEC5	1.0	1.0	1.0	1.0	1.0	MEC5	MEC5	MEC5	MEC5
6	1/1/2019	MEC6	MEC6	1.0	MEC6	1.0	1.0	1.0	1.0	1.0	MEC6	MEC6	MEC6	MEC6
7	1/1/2019	MEC7	MEC7	1.0	MEC7	1.0	1.0	1.0	1.0	1.0	MEC7	MEC7	MEC7	MEC7
8	1/1/2019	MEC8	MEC8	1.0	MEC8	1.0	1.0	1.0	1.0	1.0	MEC8	MEC8	MEC8	MEC8
9	1/1/2019	MEC9	MEC9	1.0	MEC9	1.0	1.0	1.0	1.0	1.0	MEC9	MEC9	MEC9	MEC9
10	1/1/2019	MEC10	MEC10	1.0	MEC10	1.0	1.0	1.0	1.0	1.0	MEC10	MEC10	MEC10	MEC10
11	1/1/2019	MEC11	MEC11	1.0	MEC11	1.0	1.0	1.0	1.0	1.0	MEC11	MEC11	MEC11	MEC11
12	1/1/2019	MEC12	MEC12	1.0	MEC12	1.0	1.0	1.0	1.0	1.0	MEC12	MEC12	MEC12	MEC12
13	1/1/2019	MEC13	MEC13	1.0	MEC13	1.0	1.0	1.0	1.0	1.0	MEC13	MEC13	MEC13	MEC13
14	1/1/2019	MEC14	MEC14	1.0	MEC14	1.0	1.0	1.0	1.0	1.0	MEC14	MEC14	MEC14	MEC14
15	1/1/2019	MEC15	MEC15	1.0	MEC15	1.0	1.0	1.0	1.0	1.0	MEC15	MEC15	MEC15	MEC15
16	1/1/2019	MEC16	MEC16	1.0	MEC16	1.0	1.0	1.0	1.0	1.0	MEC16	MEC16	MEC16	MEC16
17	1/1/2019	MEC17	MEC17	1.0	MEC17	1.0	1.0	1.0	1.0	1.0	MEC17	MEC17	MEC17	MEC17
18	1/1/2019	MEC18	MEC18	1.0	MEC18	1.0	1.0	1.0	1.0	1.0	MEC18	MEC18	MEC18	MEC18
19	1/1/2019	MEC19	MEC19	1.0	MEC19	1.0	1.0	1.0	1.0	1.0	MEC19	MEC19	MEC19	MEC19
20	1/1/2019	MEC20	MEC20	1.0	MEC20	1.0	1.0	1.0	1.0	1.0	MEC20	MEC20	MEC20	MEC20
21	1/1/2019	MEC21	MEC21	1.0	MEC21	1.0	1.0	1.0	1.0	1.0	MEC21	MEC21	MEC21	MEC21
22	1/1/2019	MEC22	MEC22	1.0	MEC22	1.0	1.0	1.0	1.0	1.0	MEC22	MEC22	MEC22	MEC22
23	1/1/2019	MEC23	MEC23	1.0	MEC23	1.0	1.0	1.0	1.0	1.0	MEC23	MEC23	MEC23	MEC23
24	1/1/2019	MEC24	MEC24	1.0	MEC24	1.0	1.0	1.0	1.0	1.0	MEC24	MEC24	MEC24	MEC24
25	1/1/2019	MEC25	MEC25	1.0	MEC25	1.0	1.0	1.0	1.0	1.0	MEC25	MEC25	MEC25	MEC25
26	1/1/2019	MEC26	MEC26	1.0	MEC26	1.0	1.0	1.0	1.0	1.0	MEC26	MEC26	MEC26	MEC26
27	1/1/2019	MEC27	MEC27	1.0	MEC27	1.0	1.0	1.0	1.0	1.0	MEC27	MEC27	MEC27	MEC27
28	1/1/2019	MEC28	MEC28	1.0	MEC28	1.0	1.0	1.0	1.0	1.0	MEC28	MEC28	MEC28	MEC28
29	1/1/2019	MEC29	MEC29	1.0	MEC29	1.0	1.0	1.0	1.0	1.0	MEC29	MEC29	MEC29	MEC29
30	1/1/2019	MEC30	MEC30	1.0	MEC30	1.0	1.0	1.0	1.0	1.0	MEC30	MEC30	MEC30	MEC30
31	1/1/2019	MEC31	MEC31	1.0	MEC31	1.0	1.0	1.0	1.0	1.0	MEC31	MEC31	MEC31	MEC31
32	1/1/2019	MEC32	MEC32	1.0	MEC32	1.0	1.0	1.0	1.0	1.0	MEC32	MEC32	MEC32	MEC32
33	1/1/2019	MEC33	MEC33	1.0	MEC33	1.0	1.0	1.0	1.0	1.0	MEC33	MEC33	MEC33	MEC33
34	1/1/2019	MEC34	MEC34	1.0	MEC34	1.0	1.0	1.0	1.0	1.0	MEC34	MEC34	MEC34	MEC34
35	1/1/2019	MEC35	MEC35	1.0	MEC35	1.0	1.0	1.0	1.0	1.0	MEC35	MEC35	MEC35	MEC35
36	1/1/2019	MEC36	MEC36	1.0	MEC36	1.0	1.0	1.0	1.0	1.0	MEC36	MEC36	MEC36	MEC36
37	1/1/2019	MEC37	MEC37	1.0	MEC37	1.0	1.0	1.0	1.0	1.0	MEC37	MEC37	MEC37	MEC37
38	1/1/2019	MEC38	MEC38	1.0	MEC38	1.0	1.0	1.0	1.0	1.0	MEC38	MEC38	MEC38	MEC38
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47	1/1/2019	MEC47	MEC47	1.0	MEC47	1.0	1.0	1.0	1.0	1.0	MEC47	MEC47	MEC47	MEC47
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62	1/1/2019	MEC62	MEC62	1.0	MEC62	1.0	1.0	1.0	1.0	1.0	MEC62	MEC62	MEC62	MEC62
63	1/1/2019	MEC63	MEC63	1.0	MEC63	1.0	1.0	1.0	1.0	1.0	MEC63	MEC63	MEC63	MEC63
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67	1/1/2019	MEC67	MEC67	1.0	MEC67	1.0	1.0	1.0	1.0	1.0	MEC67	MEC67	MEC67	MEC67
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73	1/1/2019	MEC73	MEC73	1.0	MEC73	1.0	1.0	1.0	1.0	1.0	MEC73	MEC73	MEC73	MEC73
74	1/1/2019	MEC74	MEC74	1.0	MEC74	1.0	1.0	1.0	1.0	1.0	MEC74	MEC74	MEC74	MEC74
75	1/1/2019	MEC75	MEC75	1.0	MEC75	1.0	1.0	1.0	1.0	1.0	MEC75	MEC75	MEC75	MEC75
76	1/1/2019	MEC76	MEC76	1.0	MEC76	1.0	1.0	1.0	1.0	1.0	MEC76	MEC76	MEC76	MEC76
77	1/1/2019	MEC77	MEC77	1.0	MEC77	1.0	1.0	1.0	1.0	1.0	MEC77	MEC77	MEC77	MEC77
78	1/1/2019	MEC78	MEC78	1.0	MEC78	1.0	1.0	1.0	1.0	1.0	MEC78	MEC78	MEC78	MEC78
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80	1/1/2019	MEC80	MEC80	1.0	MEC80	1.0	1.0	1.0	1.0	1.0	MEC80	MEC80	MEC80	MEC80
81	1/1/2019	MEC81	MEC81	1.0	MEC81	1.0	1.0	1.0	1.0	1.0	MEC81	MEC81	MEC81	MEC81
82	1/1/2019	MEC82	MEC82	1.0	MEC82	1.0	1.0	1.0	1.0	1.0	MEC82	MEC82	MEC82	MEC82
83	1/1/2019	MEC83	MEC83	1.0	MEC83	1.0	1.0	1.0	1.0	1.0	MEC83	MEC83	MEC83	MEC83
84	1/1/2019	MEC84	MEC84	1.0	MEC84	1.0	1.0	1.0	1.0	1.0	MEC84	MEC84	MEC84	MEC84
85	1/1/2019	MEC85	MEC85	1.0	MEC85	1.0	1.0	1.0	1.0	1.0	MEC85	MEC85	MEC85	MEC85
86	1/1/2019	MEC86	MEC86	1.0	MEC86	1.0	1.0	1.0	1.0	1.0	MEC86	MEC86	MEC86	MEC86
87	1/1/2019	MEC87	MEC87	1.0	MEC87	1.0	1.0	1.0	1.0	1.0	MEC87	MEC87	MEC87	MEC87
88	1/1/2019	MEC88	MEC88	1.0	MEC88	1.0	1.0	1.0	1.0	1.0	MEC88	MEC88	MEC88	MEC88
89	1/1/2019	MEC89	MEC89	1.0	MEC89	1.0	1.0	1.0	1.0	1.0	MEC89	MEC89	MEC89	MEC89
90	1/1/2019	MEC90	MEC90	1.0	MEC90	1.0	1.0	1.0	1.0	1.0	MEC90	MEC90	MEC90	MEC90
91	1/1/2019	MEC91</												



[illegible]

工





Coordinate System:  
WGS 1984 UTM Zone 55N

**FIGURE C-15**  
**ESQD Arcs Map**  
**Finegayan**  
**5 IN / 500 LB**  
*For Official Use Only*  
**GUAM**

**Legend**

- 5IN\_HFD (359 ft)
- 5IN\_MGFD (2,131 ft)
- 500LB\_HFD (638 ft)
- 500lb\_MGFD (2,486 ft)
- 5IN\_GRIDS
- EARLY\_TURNOVER



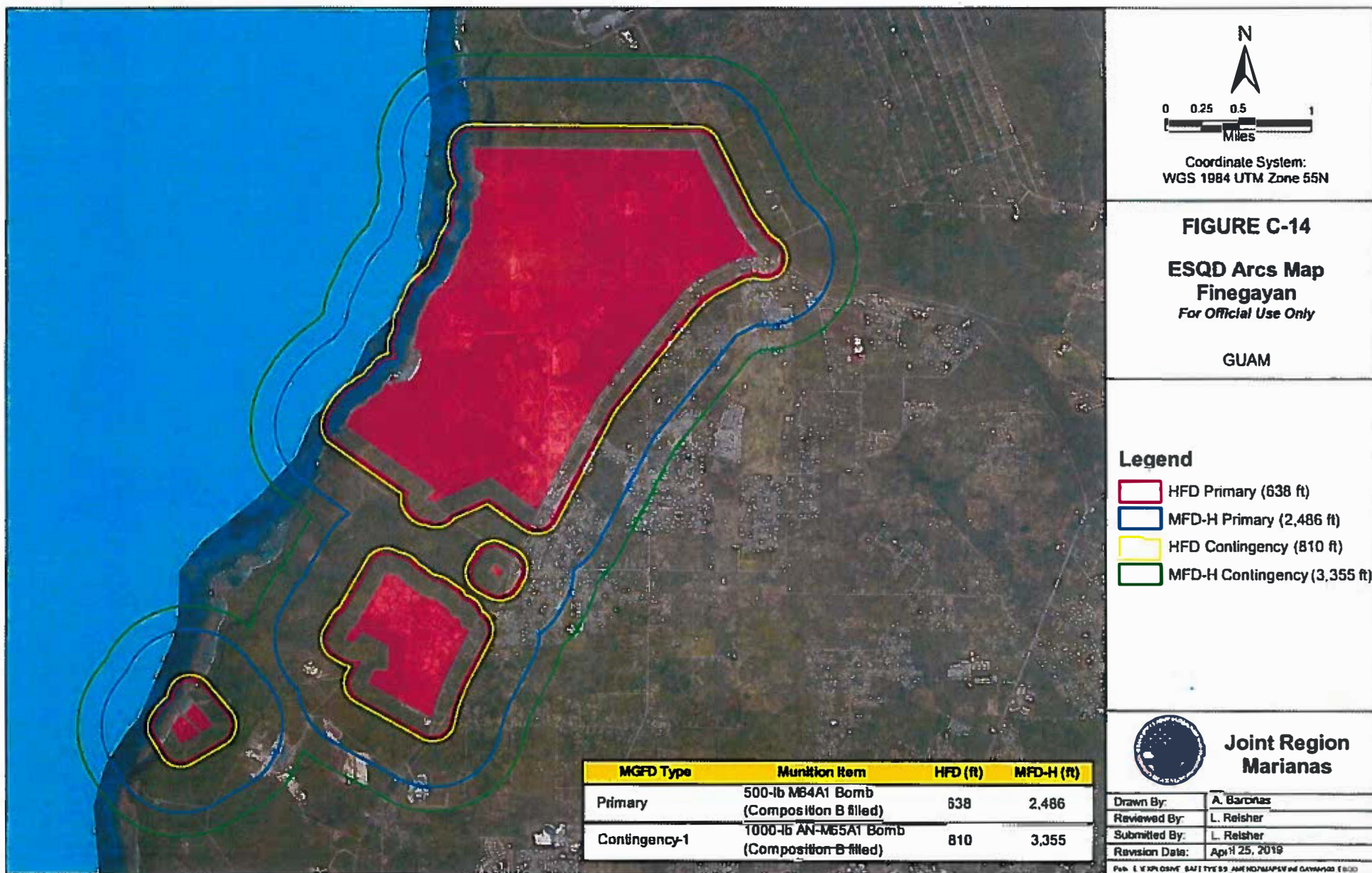
**Joint Region**  
**Marianas**

Drawn By:	A. Barinas
Reviewed By:	L. Reisher
Submitted By:	L. Reisher
Revision Date:	April 25, 2018

Path: I:\MAPS\ESQD\_SAFETY\ESQD\_SAFETY\FINEGAYAN\_1500

ENCLOSURE (6)

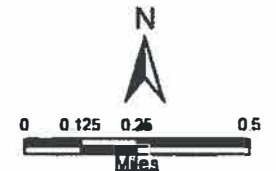
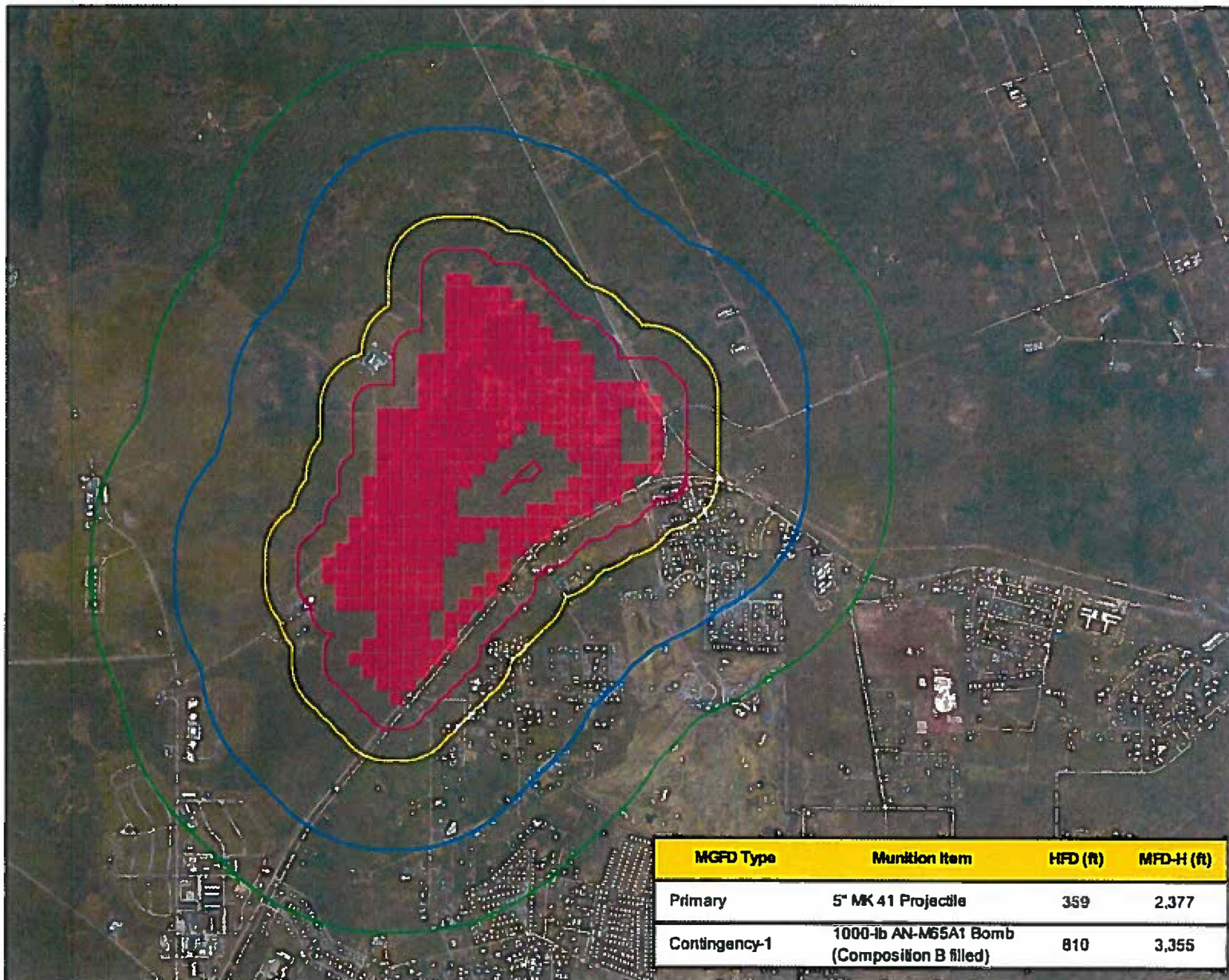




(2)

ENCLOSURE (6)





Coordinate System:  
WGS 1984 UTM Zone 55N

## FIGURE C-15

### J-001B Finegayan Breakout *For Official Use Only*

GUAM

#### Legend

- SIN\_GRIDS
- HFD Primary (359 ft)
- MFD-H Primary (2,377 ft)
- HFD Contingency (810 ft)
- MFD-H Contingency (3,355 ft)



**Joint Region  
Marianas**

MGFD Type	Munition Item	HFD (ft)	MFD-H (ft)
Primary	5" MK 41 Projectile	359	2,377
Contingency-1	1000-lb AN-M65A1 Bomb (Composition B filled)	810	3,355

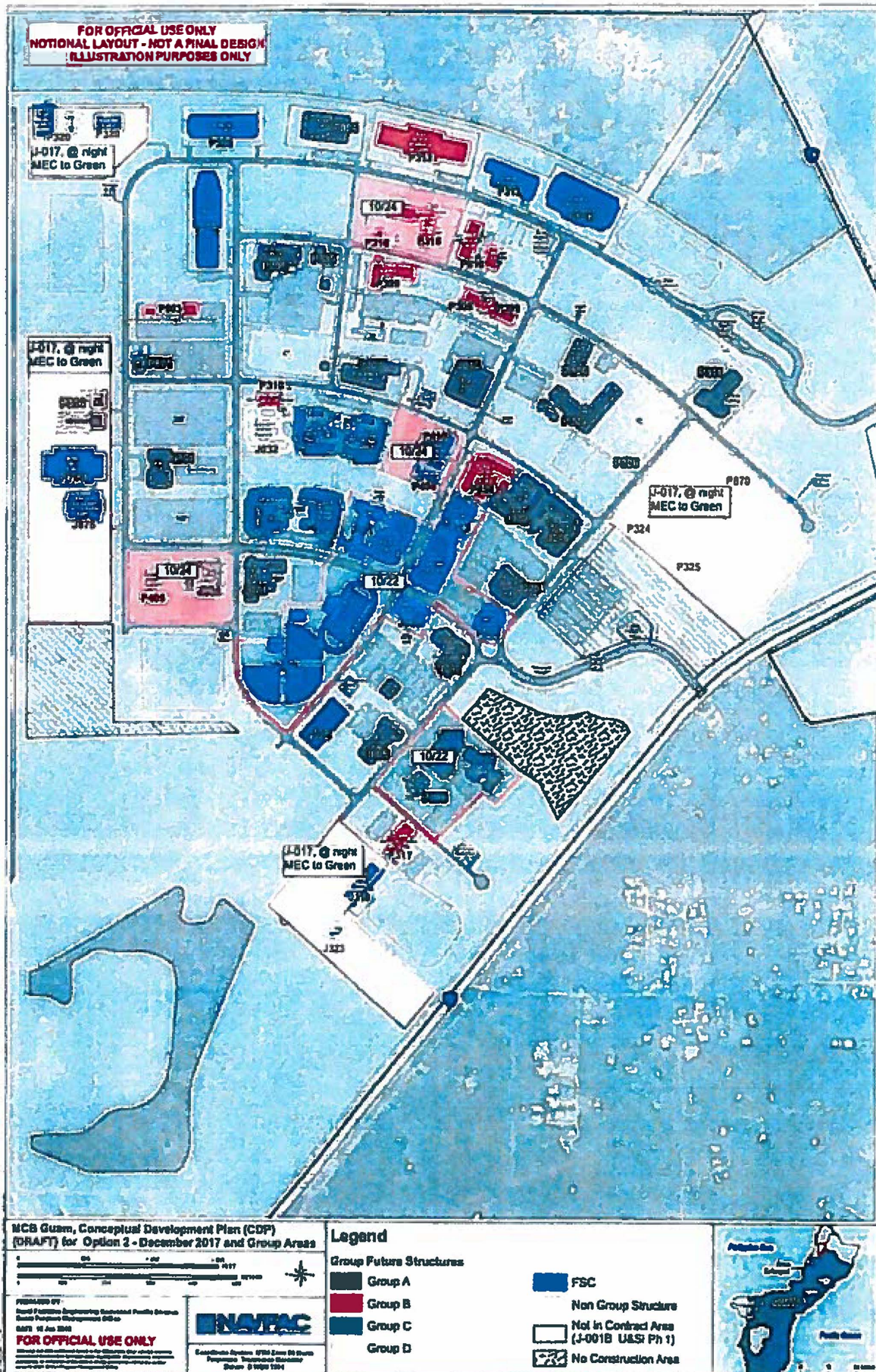
Drawn By:	A. Barajas
Reviewed By:	T. Orander
Submitted By:	L. Reisher
Revision Date:	April 25, 2019

Pub. E 180105AF. SAFE FIVE SB ARE NOT MAP BY THE DAYTONS 1500

(3)

ENCLOSURE (6)

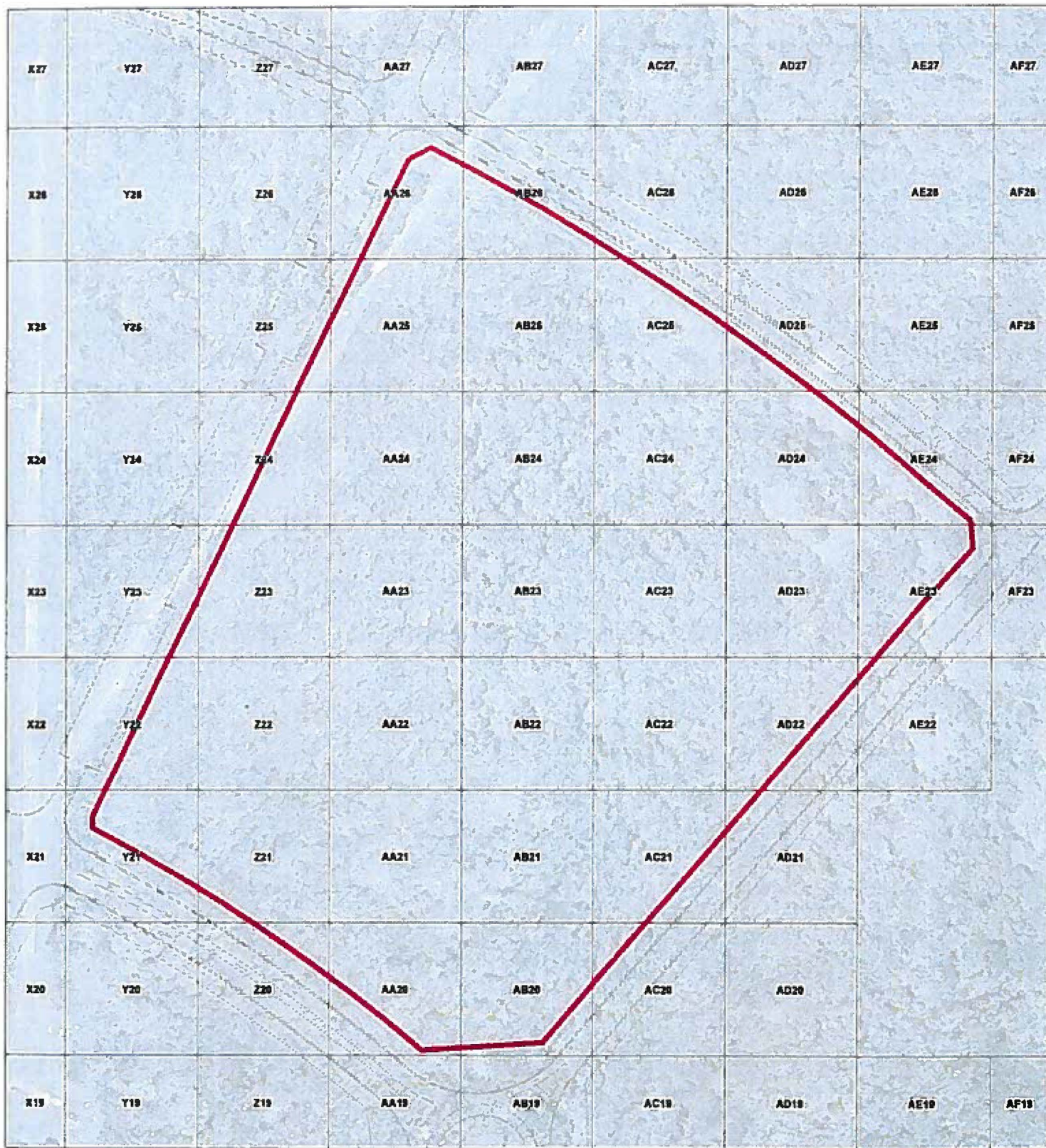












**MAP TITLE**  
Early Turnover Pad\_MEC Backfill

**MAP DATE**  
9/12/2019 3 02 55 PM  
**LOCATION/INSTALLATION**  
NBGTs Finegayan

**FOR OFFICIAL USE ONLY**

MARINE CORPS ACTIVITY GUAM  
PUBLIC WORKS DEPARTMENT  
GEOREADINESS CENTER  
CONTACT: (871) 355-1340



**MAP PROJECTION & SCALE**  
DATUM: WGS 1984  
PROJECTION: UTM ZONE 55N



15 000 7 500 0 15 000 Meters

## Legend

Road Area

— Site Boundary







**DEPARTMENT OF THE NAVY**  
**COMMANDER NAVY INSTALLATIONS COMMAND**  
716 SKARD STREET SE SUITE 1000  
WASHINGTON NAVY YARD DC 20374-5140

8020  
Ser N3/ 20U007  
16 JAN 2020

FIRST ENDORSEMENT on Joint Region Marianas ltr 8020 Ser J3/0659 of 13 Dec 19

From: Commander, Navy Installations Command  
To: Chief of Naval Operations (N41)  
Via: Commanding Officer, Naval Ordnance Safety and Security Activity (N54)

Subj: REQUEST FOR CHIEF OF NAVAL OPERATIONS (CNO) EXPLOSIVES SAFETY  
WAIVER FOR PROJECT J001B FINEGAYAN CONSTRUCTION COMJTREG  
MARIANAS

1. Forwarded, concurring with Joint Region Marianas request for CNO Explosives Safety Wavier for Project J001B to reduce the Munition with the Greatest Fragmentation Distance (MGFD) from a 500 lb. M64A1 bomb to a MK41 5-inch projectile. This deviation will align the risk profile of the project with the type of Munition and Explosives of Concern (MEC) that has been found at the site and is supported by the conceptual site model.

2. My point of contact is Mr. Mark Mentikov, N35 Explosives Safety, (202) 433-7711 or DSN: (315) 288-7711.

T. G. ALEXANDER  
By direction

Copy to:  
CNO WASHINGTON DC (N41)  
COMPACFLT PEARL HARBOR HI (N42)  
NAVORDSAFSECACT INDIAN HEAD MD (N4)  
COMJTREG MARIANAS GU (J3, J4)



DEPARTMENT OF THE NAVY  
NAVAL ORDNANCE SAFETY & SECURITY ACTIVITY  
FARRAGUT HALL  
3817 STRAUSS AVENUE, SUITE 108  
INDIAN HEAD, MD 20640-5151

8020  
Ser N41/088  
23 Jan 20

SECOND ENDORSEMENT on Joint Region Marianas ltr 8020 Ser J3/0659 of 13 Dec 19

From: Commanding Officer, Naval Ordnance Safety and Security Activity  
To: Chief of Naval Operations (N41)

Subj: REQUEST FOR CHIEF OF NAVAL OPERATIONS EXPLOSIVES SAFETY  
WAIVER FOR PROJECT J001B FINEGAYAN CONSTRUCTION COMJTREG  
MARIANAS [N61128/PROPOSED JRM WAIVER 1-20/D-20-004]

1. CNO ACTION REQUESTED - Review and approve.
2. APPROVAL REQUESTED FOR - Change of the primary Munition with the Greatest Fragmentation Distance (MGFD) from the 500 pound M64A1 bomb to the MK 41 5" projectile for the eastern area of MILCON J001B Finegayan construction site as shown on page 1 of enclosure (6). This will result in a reduction of explosives safety quantity distance (ESQD) arcs and more specifically the Hazardous Fragment Distance (HFD) arc which will drop from 638 feet to 359 feet. This reduction in HFD will permit construction work for the early turnover pad (shown in enclosures (7) and (9)) to commence while Munitions and Explosives of Concern (MEC) clearance operations continue for the rest of the J001B site.
3. NUMBER OF ON-STATION/OFF-STATION EXPOSED SITES (ESs) ENCUMBERED - Per enclosure (2) and shown on the maps in enclosure (6):
  - a. On-Station ESs - Nine (9) total encumbered by the 359-foot HFD arc.
  - b. Off-Station ESs - There are no off-station encumbrances.
4. CORRECTIVE ACTIONS - Approval of Amendment 7 to reference (c).
5. COMPENSATORY/ADMINISTRATIVE MEASURES - The following compensatory measures to mitigate exposure of non-related personnel are required:
  - a. Evacuate non-related personnel from appropriate exclusion zones (EZs) based on the distances for the MK 41 5" projectile shown in enclosure (6) and per the operations being conducted shown in Table 6-3.9 of reference (d).
  - b. This change in MGFD only applies to the eastern part of the J001B construction site as shown in enclosure (6) and the requirements and stipulations of reference (c) for the remainder of the J001B site remain in effect as approved by reference (d).



Subj: REQUEST FOR CHIEF OF NAVAL OPERATIONS EXPLOSIVES SAFETY  
WAIVER FOR PROJECT J001B FINEGAYAN CONSTRUCTION COMJTREG  
MARIANAS [N61128/PROPOSED JRM WAIVER 1-20/D-20-004]

c. The contingency MGFED for the entire J001B site remains the 1,000 pound AN-M65A1 bomb.

6. CANCELLATION/OTHER ACTIONS REQUIRED - This will be a new Waiver.

7. NOSSA RECOMMENDATION - Forwarded and per the information provided in enclosures (1) through (9), recommending approval.

8. NOSSA POINT-OF-CONTACT (POC) - The NOSSA POC for questions relating to this submission is Mr. Victor Thomson at DSN: (312) 354-6096; Commercial: (301) 744-6096; or e-mail to: preston.v.thomson@navy.mil.

WAHLE.PHILLIP.RA  
NDALL.1056975353

Digitally signed by  
WAHLE.PHILLIP.RANDALL.10569  
75353  
Date: 2020.01.23 13:15:28 -05'00'

P. R. WAHLE  
By direction

Copy to:  
NAVAL BASE GUAM (N00, ESO)  
COMJTREG MARIANAS GU (J3, J4, ESO)  
NAVFAC MARIANAS GU (MEC PM)  
COMPACFLT PEARL HARBOR HI (N42)  
CNIC WASHINGTON DC (N35)