



UNITED STATES MARINE CORPS
MARINE CORPS INSTALLATIONS NATIONAL CAPITAL REGION
MARINE CORPS BASE QUANTICO
3250 CATLIN AVENUE
QUANTICO VIRGINIA 22134 5001

IN REPLY REFER TO:
MCINCR-MCBQO 8020.1B
B 51J
23 Mar 16

MARINE CORPS INSTALLATIONS NATIONAL CAPITAL REGION-MARINE CORPS BASE QUANTICO
ORDER 8020.1B

From: Commander, Marine Corps Installations National Capital Region-Marine
Corps Base Quantico
To: Distribution List

Subj: HAZARDS OF ELECTROMAGNETIC RADIATION TO ORDNANCE (HERO) EMISSION
CONTROL (EMCON) BILL

Ref: (a) Hazards of Electromagnetic Radiation to Ordnance
Assessment of Marine Corps Base and Marine Corps Air
Facility Quantico, Virginia, Apr 08
(b) Electromagnetic Radiation Hazards (Hazards to
Ordnance), NAVSEA OP 3565/ NAVAIR 16-1-529, Volume 2,
Eighteenth Revision, 1 July 08

Encl: (1) General HERO Requirements
(2) Ordnance
(3) Station Drawings
(4) HERO Summary
(5) HERO EMCON Procedures
(6) Antenna and Transmitter Systems
(7) HERO Warning Label and Warning Symbol
(8) Station Call List for HERO EMCON
(9) Safety of Use Message dtg 081649Z Nov 11

1. Situation. This order publishes policy and procedures for the safe handling, storage, transportation, and use of ordnance that is susceptible to electromagnetic radiation aboard Marine Corps Installations National Capital Region-Marine Corps Base Quantico (MCINCR-MCBQ).

2. Cancellation. MCBO 8020.1A.

3. Mission. To disseminate policies and procedures for the safe handling, storage, field storage, transportation, and disposal of ammunition and explosives in an environment susceptible to the hazards of electromagnetic radiation to ordnance (HERO) and to outline procedures to set emission controls (EMCON) when required aboard MCINCR-MCBQ.

4. Summary of Revisions. This revision contains a significant number of changes and should be reviewed in its entirety.

5. Execution

a. Commander's Intent and Concept of Operations

(1) Commander's Intent. It is the intent of this Order to provide policy guidance on safe HERO procedures any time HERO SUSCEPTIBLE or HERO UNSAFE ORDNANCE is handled, loaded, or transported by personnel aboard

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

MCINCR-MCBQ at all ordnance locations. Enclosure (1) is a list of HERO SUSCEPTIBLE and HERO UNSAFE ORDNANCE commonly used aboard MCINCR-MCBQ.

(2) Concept of Operations. Oversight of the HERO Program will be a joint operation with responsibilities shared between the MCINCR-MCBQ Safety Division and G-6. For HERO issues that exceed the local knowledge or expertise of the HERO Committee, the Naval Surface Warfare Center, Dahlgren Division (NSWCDD) (Code J52) will be contacted.

b. Subordinate Element Missions

(1) Director of Operations, G-3

(a) Activate the MCINCR-MCBQ Emergency Operations Center as required, to support response to a HERO SUSCEPTIBLE or HERO UNSAFE incident aboard the installation.

(b) Identify Range Management and explosive ordnance disposal (EOD) HERO points of contact.

(2) Head, Range Management Branch

(a) Ensure units and personnel using MCINCR-MCBQ range training areas (RTA), and the special use airspace (R6608A, R6608B, and R6608C) west of Interstate 95 are aware of HERO and understand their responsibilities and procedures to prevent and respond to a HERO incident.

(b) Appoint a representative to serve on the HERO Committee.

(c) During certification training, educate range officers in charge and range safety officers on safety precautions and procedures when using ordnance susceptible to electromagnetic radiation.

(d) Incorporate HERO guidance and instruction into applicable standing operations procedures (SOPs) for RTAs and airspace; update HERO information in the SOPs, as required.

(e) Provide support to emergency personnel first responding to a HERO incident that occurs in the MCINCR-MCBQ RTA complex west of Interstate 95.

(f) Through the Range Management Branch Fire Desk, maintain required communications with all military aircraft operating within the special use airspace and brief pilots on necessary HERO precautions or threats. Civilian aircraft allowed flight through the special use airspace shall maintain a minimum altitude of 2,500 feet above sea level (outside of HERO sensitivity). In the event communications with an aircraft (military or civilian) fail, the fire desk will notify training units or first responders of the uncontrolled flight and potential HERO threat; they will then take appropriate action on the ground to safeguard personnel under their control.

(g) Take immediate action to halt training when the potential for a HERO incident is perceived.

(3) Explosives Ordnance Disposal Officer

(a) Appoint a representative to serve on the HERO Committee.

(b) Review enclosure (1) semiannually, and Provide updated information to the G-6 HERO point of contact for incorporation into the next revision to the HERO directive.

(c) Provide technical support to the ammunition supply point (ASP), training units, and emergency personnel first responding to a HERO incident that occur aboard MCINCR-MCBQ, as required.

(d) Safely transport and dispose of HERO SUSCEPTIBLE and HERO UNSAFE ORDNANCE that cannot be made safe.

(4) Director, Safety Division

(a) Appoint Explosives Safety Officer to serve on the HERO Committee.

(b) Be responsible for annual inspections of the MCINCR-MCBQ HERO Program to ensure it meets all requirements of the references and this order.

(c) Convene semiannual conferences of ordnance and radiation hazard (RADHAZ) personnel who are representatives of each organization to discuss and recommend changes to the instructions.

(d) Monitor the supply of HERO warning signs and stickers and order as necessary (see enclosure (2) for examples).

(e) Review RADHAZ requirements and request HERO surveys when required. (MCINCR-MCBQ is currently on a 7-year cycle per reference (a)).

(f) Maintain and update all ordnance transportation routes aboard the base.

(g) Ensure safety investigations are conducted for any mishaps involving HERO sensitive ordnance, as appropriate.

(h) Place and maintain safety signs aboard the installation to identify the HERO issue to motorists.

(i) Coordinate with the Federal Bureau of Investigation and Drug Enforcement Agency safety personnel to educate them about HERO as requirements change and on an annual basis.

(5) Assistant Chief of Staff (A/C S), G-6

(a) Appoint a representative to serve on the HERO committee.

(b) Provide frequency management specific expertise.

(c) Serve as the base point of contact for radio frequency coordination.

(d) Ensure all communications specialists are familiar with HERO restrictions from a radio frequencies (RF) perspective.

(e) Provide recommendations to the G-6 Operations Officer with regard to the approval/disapproval of any requests to operate amateur radio equipment aboard MCINCR-MCBQ. If approval is recommended, ensure the HERO Committee is consulted prior to approving the request; and ensure the HERO

Committee is notified of transmitter and antenna changes aboard the installation so committee members may review and provide comments on the ordnance specific implications of these changes. All new or modified transmitter installations should be submitted for HERO review per reference (b).

(6) Head, Electronics Maintenance Branch

(a) Ensure that all RF emitters under the cognizance of this command are marked with the safe operating distance prior to issue.

(b) Inform the Frequency Manager when stationary communications transmitters or radars are relocated or new equipment is obtained.

(c) Affix HERO warning labels to all mobile and portable radios. Enclosure (2) provides additional information on HERO warning labels.

(d) Establish check-in procedures for owners of citizens band and other mobile radios and cellular telephones to familiarize operators with HERO.

(7) Assistant Chief of Staff, G-4

(a) Appoint ASP Officer in Charge (OIC) to serve as a member of the HERO Committee;

(b) Ensure that all ASP personnel are familiar with HERO restrictions applicable to ammunition and explosives (A&E) operations;

(c) When issuing A&E, advise the user of ordnance HERO status during all aspects of its life cycle (e.g., assembly, handling, loading/downloading operations);

(d) Inform the HERO Committee upon receipt of ordnance items not listed in enclosure (1) that are categorized as HERO SUSCEPTIBLE or HERO UNSAFE ORDNANCE so that they may be included in this order and HERO issues can be mitigated;

(e) Ensure catalogued A&E items have gone through a Weapon System Explosives Safety Review Board (WSESRB) and identify packaging requirements based on drawing numbers per the Ammunition Component Handbook and, therefore require no additional packaging considerations. A&E items that are not catalogued, (i.e., commercial items) will be considered HERO UNSAFE at all times;

(f) Set the appropriate HERO condition during the handling of HERO SUSCEPTIBLE and HERO UNSAFE munitions within the ASP; and

(g) Place HERO warning signs prohibiting radio transmissions at the entrance to the magazine area and all ordnance handling or storage activities.

(8) Commanding Officer, Marine Corps Air Facility. Appoint the Operations Officer to serve as a member of the HERO Committee.

(9) Operations Officer, Marine Corps Air Facility

(a) Act as the point of contact for the setting and monitoring of HERO EMCON through the air facility, as outlined in reference (b). The

Operations Officer will maintain a list of names and telephone numbers for those activities impacted by HERO EMCON. All future emitter changes at the air facility should be provided via the Air Traffic Control Maintenance Officer to the AC/S G-6 and the HERO Committee for inclusion into this order;

(b) Restrict aircraft on the flight lines from indiscriminately energizing any RF transmitters (communications, radars, or electronic warfare equipment) while HERO conditions are in effect;

(c) Ensure that taxiing/landing aircraft are informed when HERO conditions are set;

(d) Establish and maintain liaison with Marine Helicopter Squadron-One (HMX-1), and the HERO Committee, and resolve any conflicts in HERO requirements;

(e) Include HERO EMCON radio operating training as a qualification requirement for vehicle operators throughout the air facility and;

(f) Inform the HERO Committee upon receipt of ordnance items not listed in enclosure (1) that are categorized as HERO SUSCEPTIBLE or HERO UNSAFE ORDNANCE so that they may be included in this order and HERO issues can be mitigated.

(10) Unit Leaders

(a) Ensure all operators of communications equipment and aircrews comply with this order.

(b) Ensure personnel operating transmitters are properly instructed in their use during EMCON conditions.

(c) Notify the Frequency Manager, G-6, MCINCR-MCBQ prior to using new electronic equipment (that radiates) aboard the installation.

(11) Tenant Activities

(a) Notify the AC/S G-6 MCINCR-MCBQ when new communications (or radar) equipment acquisitions are planned.

(b) Notify the HERO Committee in advance of the loading, downloading, or transportation of said equipment so that HERO concerns can be properly addressed.

6. Administration and Logistics

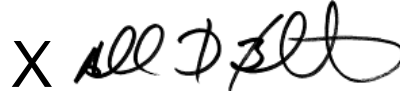
a. Recommendations concerning the contents of this Order are invited. Such recommendations will be forwarded to the Commander (B 51 Attn: ESO), Marine Corps Installations National Capital Region-Marine Corps Base Quantico, via the appropriate chain of command.

b. Electronic copies of this order can be accessed online via MCINCR-MCBQ homepage at <http://www.quantico.usmc.mil/directives.aspx?Command=MCBQ>.

7. Command and Signal

a. Command. This Order is effective the date signed.

b. Signal. This Order is applicable to all activities that handle, store, transport, or conduct the emergency destruction of ammunition and explosives aboard MCINCR-MCBQ and to all activities utilizing the ASP.

A handwritten signature in black ink, appearing to read "X all D Broughton", is positioned above a horizontal line.

ALLEN D. BROUGHTON

Chief of Staff

Signed by: BROUGHTON.ALLEN.DALE.1168122922

DISTRIBUTION: A

GENERAL HERO REQUIREMENTS

Enclosure (1)

GENERAL HERO REQUIREMENTS

1. The following requirements apply to all ordnance operations involving the presence, handling, and loading/unloading of ordnance unless otherwise specified in NAVSEA OP 3565/ NAVAIR 16-1-529.

a. Ordnance evolutions must be planned so that there is a minimum of ordnance exposure to the EMEs.

b. Avoid touching any exposed firing contact, wiring, or other exposed circuitry with any part of the body or with any metallic object.

c. Ensure all open electrical connectors on the ordnance are covered with non-shorting caps.

d. Ordnance will not be assembled/disassembled in an EME.

e. Ignitors, primers, detonators, and other items containing EIDs will not be stowed in magazines that have flexible waveguides routed through them.

2. Transport and store HERO UNSAFE/UNRELIABLE ORDNANCE in sealed, all-metal containers.

3. When transporting HERO SUSCEPTIBLE ORDNANCE, comply with the ordnance handling requirements listed in Chapter 7 of reference (b).

4. Establish a HERO liaison at each tenant activity to document and monitor future emitter and ordnance operation changes within the activity. This POC should relate all such changes to station Base Frequency manager and Explosives Safety Officer.

5. The Base Frequency Manager, along with the Explosives Safety Officer, should coordinate the HERO program and account for all station and tenant command information concerning ordnance inventory/operations and antenna/transmitter systems present. Additionally, the Frequency Manager should ensure future transmitter and antenna changes at this facility are submitted for HERO review in accordance with reference (b).

6. Post and maintain HERO warning signs at all entrance gates to ordnance areas.

7. Ensure ships berthed at the station silence all shipboard emitters whenever ordnance operations occur within the HERO separation distances listed in Appendix A of their respective report.
8. Observe the HERO separation distances listed in enclosure (6) for cellular telephones and mobile and portable radios, and affix HERO warning labels stating separation distances for HERO UNSAFE/UNRELIABLE and HERO SUSCEPTIBLE ORDNANCE to device.
9. Maintain control over the number, type, and placement of temporary emitter systems installed at the station. Ensure the calculated HERO safe separation distances are maintained between the antennas and ordnance operations. [See Chapter 2, paragraph 2-2.1 of reference (b).]
10. Ensure that operators of privately owned amateur and citizens band radios and cellular telephones are familiar with HERO and safe separation distance requirements for their particular radio or telephone.
11. Ensure that radio systems installed in ordnance handling vehicles maintain the minimum 10-foot antenna-to-ordnance separation distance required for HERO SAFE ORDNANCE. [See Chapter 7, paragraph 7-3.2 of reference (b).]
12. Ensure that operators, handlers, and riggers transferring ordnance maintain a minimum safe separation distance of 10 feet from HERO UNSAFE/UNRELIABLE ORDNANCE when using single portable radios operating in the 136-174 MHz frequency range and at a maximum output power of 2 watts. For the use of other single portable radios, refer to enclosure (6) or Chapter 2, paragraph 2-2.1 of reference (b) for applicable safe separation distances.
13. Prior to conducting geophysical surveys for unexploded ordnance (UXO) using equipment with electromagnetic transmitting detection/location (ground-penetrating radar, ground conductivity meters, etc.) systems, contact NOSSA, N84, for HERO safety guidance.
14. Any changes to the station's antenna/transmitter system or ordnance configurations are subject to the requirements cited in reference (c). This applies even if an activity moves from one site to another within the confines of the facility.
15. For transmitters and ordnance not specifically addressed in this report, see reference (b) for HERO guidance.

16. Cellular telephones and personal pagers should not be operated within ordnance facilities. It is recommended that passive pagers be used to contact personnel in ordnance facilities.

17. Keyless entry systems should not be radiated within ordnance facilities. It is recommended that these systems not be allowed into ordnance facility work areas.

18. If HERO UNSAFE/UNRELIABLE or HERO SUSCEPTIBLE ORDNANCE is exposed on the flight line or in the hangars, silence or apply the HERO separation distances listed in enclosure (6) for transmitters on all aircraft. Exceptions are very high frequency (VHF) and ultra high frequency (UHF) transmitters operating at less than 20 watts output power if HERO UNSAFE/UNRELIABLE ORDNANCE is exposed or transmitters operating at less than 40 watts output power if HERO SUSCEPTIBLE ORDNANCE is exposed. All transmitters may operate into dummy loads.

19. In the event of an ordnance accident, ensure that response units maintain a minimum separation distance of 150 feet from the accident site when 3 or more VHF/UHF mobile radios are in use, and 50 feet when 3 or more portable VHF radios are in use. For single VHF radio use, see the applicable separation distances listed in enclosure (6).

20. In the event of an ordnance accident or emergency involving aircraft carrying aviation ordnance (or an ordnance carrier along the ordnance transportation route), the appropriate HERO EMCON (defined in enclosures (4) and (5) will be set by the Range Control Officer, OIC ASP, or MCAF Operations Officer, as appropriate. The EMCON will remain in effect until EOD personnel have rendered the ordnance safe or determined that EMCON is no longer required. In all instances, the Operations Officer, MCAF will contact all activities impacted by HERO (stationary transmitters to be silenced) and inform all aircraft on the ground (or inbound aircraft) to discontinue the use of HF communications and high power radars.

ORDNANCE

Enclosure (2)

ORDNANCE

NOMENCLATURE

A	Bombs, Components, and Countermeasures
AAC	Antiaircraft, common
A/C, ACFT	Aircraft
AC	Aircraft, common
AD, ADF	Auxiliary detonating fuze
AGM	Air-surface attack missile
AIM	Air intercept-aerial missile
AN/ALE	Army/Navy - air-launched, expendable
ANTI-PERS, APERS	Antipersonnel
APDS	Armor piercing, discarding
APERS	Antipersonnel
API	Armor-Piercing Incendiary
APT	Armor-Piercing Tracer
ASSY, AY	Assembly
ATM	Air Training Missile
AUR	All-Up Round
AV	Attack fighter aircraft
B	Military Pyrotechnics
BBU	Explosive item unit
BCU	Battery Cooling Unit
BDU	Simulated bomb
BLP	Blind-loaded and plugged
BSU	Munitions stabilizing and retarding device unit
C	Military Chemicals
CAL	Caliber
CBU	Cluster Bomb Unit
CCG	Computer Control Group
CCU	Actuator cartridge
CH	Channel
CHG	Charge
Class	Classification
CNTR	Container
CNU	Shipping and storage container
C/O	Consist(s) of
CO.	Company
COMB	Combination
COMP	Composition
CP	Case-percussion
CS	Tear gas
CS-1	Tear gas (super)
CTG	Cartridge

NOMENCLATURE (CONT.)

CVT	Controlled variable time Fuze
D	Underwater sound signals, sonobuoys, and components
DBL	Double
DEA	Drug Enforcement Agency
DEMO	Demolition
DET	Detonator
DICASS	Direction command active sonobuoy system
DoDIC	Department of Defense Identification Code
DP	Dual-purpose
DWG	Drawing
E	Demolition explosives and materials
EA	Each
EOD	Explosive Ordnance Disposal
ERDL	Extended Range Data Link
F/	For
FCDC	Flexible, confined detonating cord
FL	Flashless
FLU	Flotation unit
FMLY	Formerly
FMU	Fuze Munition Unit
FRAG	Fragmentation
FREQ	Frequency
FT	Feet
FWD	Forward
FZ	Fuze
G	Underwater Mines and Components
GA	Gauge
GAU	Gun Aircraft Unit
GN, GR	Grain
GP	General-purpose
GRAN	Granular
GW	Guided Weapon
H	Cartridges and Cartridge-Actuated Devices
HARM	High-Speed Anti-Radiation Missile
HC	High Capacity
HE	High Explosive
HEDP	High Explosive Detonating Point
HEI	High Explosive, Incendiary
HERO	Hazards of Electromagnetic Radiation to Ordnance
HOW	Howitzer
HR	Hour
I, INC	Incendiary
IGN, INGR	Ignition, Igniter

NOMENCLATURE (CONT.)

ILLUM	Illuminating
IN	Inch
IR	Infrared
J	Aircraft rockets and components
JAU	Initiator, cartridge-actuated
L	Marine Corps ammunition
LAU	Aircraft-installed launcher
LB	Pound
LDD	Loaded
M	TOMAHAWK Cruise Missile and Components
MAU	Miscellaneous Armament Unit
MBEU	Multiple Bomb Ejection Unit
MDP	Miniature Double Plug
MECH	Mechanical
MG	Machine Gun
MIN	Minute
MK	Mark
MM	Millimeter
MOD	Model/Modification
MSL	Missile
MTL, METI	Metal
MTR	Motor
MXU	Miscellaneous units
NALC	Navy Ammunition Logistic Code
NATO	North Atlantic Treaty Organization
NAVAIR	Naval Air Systems Command
NAVSEA	Naval Sea Systems Command
NO	Number
NON-ELECT	Non-electric
NON FRAG	Non-fragmentation
O	Miscellaneous Ammunition Components and Containers
OA	Operational Assembly
OP	Ordnance Publication
OZ	Ounce
P	Small Arms and landing-force ammunition
PD, PDF	Point-detonating Fuze
PGU	Programmer unit
PIBD	Point-initiating, base detonating
P/N	Part Number
PRAC	Practice
PROJ	Projectile
PROP	Propellant
Q	Gun ammunition, 20 mm to 4-inch

NOMENCLATURE (CONT.)

R	Gun ammunition, over 4-inch
RBOC	Rapid Blooming Offboard Chaff
RD	Round
REF	Reference
REQ.	Requirement
RF	Rapid-Fire
RKT	Rocket
RR	Radar Reflector
S	Torpedoes and components
SEC	Second
SF	Slow-Fire
SMAW	Shoulder-Mounted Antitank Weapon
SMDC	Shielded, Mild Detonating Cord
SMK	Smoke
SQ	Super-Quick
STL	Steel
SUS	Signal Underwater Sound
SUSP	Suspension
SUU	Suspension and release unit
SWU	Switch unit
T	Surface-launched Guided Missiles and Components
T, TR	Tracer
TACT	Tactical
TNT	Trinitrotoluene
TOW	Tube-launched, optically tracked, wire-guided
TP	Target Practice
TRNR	Trainer
UK	United Kingdom
V	Air-launched guided missiles and components
VT	Variable time Fuze
W/	With
WAFFAR	Wrap-Around, Folding-Fin Aircraft Rocket
W/O	Without
WP	White Phosphorus
WTU	Warhead Training Unit
WX	Weather
WX PROOF	Weatherproof
Y	Countermeasures and decoys

Ordinance List

DODIC	Nomenclature	Platform	HERO Class
1W18	EXPLOSIVE SEPARATOR	CH-53E	SUSCEPTIBLE
A011	CARTRIDGE, 12 GAUGE SHOTGUN, NO. 00 BUCKSHOT		NO REQUIREMENT
A011	CARTRIDGE, 12 GAUGE SHOTGUN, NO. 00 BUCKSHOT XM162	MAN	NO REQUIREMENT
A011	CTG., 12 GA SHOTGUN, NO.00 BUCKSHOT, M19	MAN	NO REQUIREMENT
A014	CARTRIDGE, 12 GAUGE SHOTGUN, NO. 7 1/2 SHOT		NO REQUIREMENT
A017	CTG, 12 GA SHOTGUN, NO. 9 SHOT		NO REQUIREMENT
A017	CARTRIDGE, 12 GAUGE SHOTGUN, NO. 9 SHOT	MAN	NO REQUIREMENT
A017	CTG, 12 GA SHOTGUN, NO. 9 SHOT	MAN	NO REQUIREMENT
A023	CARTRIDGE, 12 GAUGE SHOTGUN, 1 OZ SLUG LOADED, W/PLASTIC CASE NSN 1305-01-282-1256 P/N X12RS15 (2T COG CLASS X) NSN 1305-01-386-5604 P/N 6552019		NO REQUIREMENT
A024	CARTRIDGE, MK 246 MOD 0, 12 GAUGE SHOTGUN LOCKBUSTER, MOD LBC .05 LBS POWDERED METAL FILLER, IN MTL BOX NSN 1305-01-431-5624 P/N 7232080 NSN 1305-01-282-1257 P/N LB-C		NO REQUIREMENT
A059	CARTRIDGE, 5.56 MM, BALL, M855, CLIPPED, (ALL M855 CARTRIDGES IDENTIFIED BY GREEN BULLET TIP) NSN 1305-01-155-5459 P/N 9354626 OR 9342868 OR 9342867 NSN 1305-01-155-5462 P/N 9357724		NO REQUIREMENT
A062	CARTRIDGE, 5.56 MM, M855, LINKED W/M27 LINKS F/SAWS		NO REQUIREMENT
A062	CARTRIDGE, 5.56 MM, M855, LINKED 200 ROUND BELT IN M8 METAL CONTAINER, 2 CONTAINERS PER WIREBOUND BOX		NO REQUIREMENT
A063	CARTRIDGE, 5.56 MM, TRACER, M856, (ALL M856 CARTRIDGES ARE IDENTIFIED BY AN ORANGE TIP)		NO REQUIREMENT
A064	CARTRIDGE, 5.56 MM, LINKED W/M27 LINKS, 4-BALL M855 TO 1 TRACER M856 NSN 1305-01-131-5246 P/N 9349300 NSN 1305-01-156-7584 P/N 9354587 NSN 1305-01-252-0153 P/N 9342863 OR 9342862 OR 12597656		NO REQUIREMENT
A071	CARTRIDGE, 5.56 MM, BALL, M193, 10 RD CLIP		NO REQUIREMENT
A075	CARTRIDGE 5.56 MM, BLANK, LINKED, W/M27 LINKS		NO REQUIREMENT
A080	CARTRIDGE, 5.56 MM, BLANK, XM200 OR M200 SERIES, SINGLE ROUND		NO REQUIREMENT
A080	CARTRIDGE, 5.56 MM, BLANK, XM200 OR M200 SERIES, SINGLE ROUND NSN 1305-00-005-8005 P/N 7553296 NSN 1305-00-182-3217 P/N 7553347		NO REQUIREMENT
A091	CARTRIDGE, CAL .22, BALL, LONG RIFLE, MATCH GRADE, RIFLE		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
A097	CARTRIDGE, CALIBER.22 LR MATCH GRADE-REDUCED VELOCITY, BELOW THE SPEED OF SOUND AT MUZZLE .400 INCH AT 50 METERS 40 GRAIN LUBRICATED LEAD BALL F/SMALL BORE MATCH RIFLE		NO REQUIREMENT
A102	CARTRIDGE, 7.62 MM BALL INTERMEDIATE DESIGNED F/AK47 RIFLE NSN 1305-00-182-3096 P/N 11731648		NO REQUIREMENT
A110	CARTRIDGE, 7.62 MILLIMETER BLANK M82 PKG 5/CLIP, 12 CLIP/BAND T5, 7 BAND/MTL BX M2A1, 2 BX, 840 CTG/ WRBND BX.		NO REQUIREMENT
A111	CARTRIDGE, 7.62 MM, BLANK M82, NATO, LINKED FOR M60 MG 1305-01-181-1750 P/N 9381581		NO REQUIREMENT
A111	CARTRIDGE, 7.62 MM, BLANK M82, NATO, LINKED FOR M60 MG. PACKAGED 100 ROUNDS PER BELT M13, 1 BELT PER CARTON, 1 CARTON PER BAND T4, 2 BANDS PER M19A1 METAL BOX, 4 M19A1 BOXES PER WIREBOUND BOX		NO REQUIREMENT
A112	CARTRIDGE, 7.62 MM, BLANK, M82, SINGLE RD NSN 1305-00-008-8894 P/N 8597283 DELETED 4/01 NSN 1305-00-882-5677 P/N 8597283 NSN 1305-00-990-5594 P/N 10523082 OR 8597283		NO REQUIREMENT
A130	CARTRIDGE, 7.62 MM, BALL M59 OR M80, F/RIFLE M14, 5 RD CLIP		NO REQUIREMENT
A131	CARTRIDGE, 7.62 MM, BALL M59 OR M80 AND TRACER M62 LINKED W/M13 LINK, 4 TO 1 RATIO, F/M60 AND M73 MG NSN 1305-00-005-8007 P/N 8595543 OR 7553705		NO REQUIREMENT
A135	DUMMY CARTRIDGE, 7.62 MM, M63, SINGLE RD		NO REQUIREMENT
A143	CARTRIDGE, 7.62 MM, BALL M80 LINKED F/M60 AND M73 MG		NO REQUIREMENT
A146	CARTRIDGE, 7.62 MILLIMETER TRACER, LINKED, M62, F/M60/M219 MGS, PKG100/BELT M13, 1BELT/CNTR, 1CTN/BAND, 2 BAND/MTL BX M19 SERIES, 4 BX 800 CTG/WDN BX		NO REQUIREMENT
A151	CARTRIDGE, 7.62 MILLIMETER LINKED, 4-BALL M80, 1 TRACER M62, F/MG M60 AMMO FOR OVERHEAD FIRE PKG 100-RDS M13 BELT PER CTN/BANDOLEER, 2 BANDOLEERS 200-RDS M19A1 MTL BX, 4 BXS 800-RDS PER WRBND BX		NO REQUIREMENT
A171	CARTRIDGE, 7.62 MM, BALL, MATCH M852		NO REQUIREMENT
A222	CARTRIDGE, CAL .30, BLANK, SINGLE RD NSN 1305-00-028-6237 P/N 6006152 NSN 1305-00-028-6238 P/N 6006152 NSN 1305-00-028-6239 P/N 6006152 NSN 1305-00-028-6553 P/N 6006152 OR 173929 NSN 1305-00-028-6554 P/N 6006152 NSN 1305-00-028-6559 P/N 6006152 OR 173929 NSN 1305-00-819-3693 P/N 6006152		NO REQUIREMENT
A246	CARTRIDGE, CAL .30, BALL, BOAT TAIL, MATCH GRADE, SINGLE RD		NO REQUIREMENT
A260	CARTRIDGE, 9 MM, SUBSONIC, JACKETED HOLLOW POINT		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
A358	CARTRIDGE, 9 MM, PRACTICE M939, W/TRACER, F/AT4		NO REQUIREMENT
A359	DUMMY CARTRIDGE, 9 MM, M917		NO REQUIREMENT
A363	CARTRIDGE, 9 MM BALL, M882 NSN 1305-01-467-5408 P/N 9345211		NO REQUIREMENT
A363	CARTRIDGE, 9 MM BALL, M882. PACKAGED 50 PER CARDBOARD BOX, 20 BOXES PER M2A1 METAL BOX, 2 M2A1 BOXES PER WIREBOUND BOX		NO REQUIREMENT
A400	CARTRIDGE, CAL .38, SPECIAL, BALL M41 NSN 1305-00-007-5557 P/N 7553580		NO REQUIREMENT
A403	CARTRIDGE, CAL .38, SPECIAL BLANK FOR SCENT TRAINING OF DETECTION DOGS		NO REQUIREMENT
A403	CARTRIDGE, CAL .38, SPECIAL BLANK. PACKAGED 50 PER CARTON, 40 CARTONS PER WOODEN BOX (FOR USE BY EXPLOSIVE DETECTION DOGS)		NO REQUIREMENT
A407	CARTRIDGE, CALIBER .38 SPECIAL MATCH MIDRANGE WADCUTTER LEAD ALLOY 1.8 INCH AT 50 YARDS F/.38 SMITH AND WESSON MODEL 52 AUTOLOAD MATCH PISTOL COMMERCIAL PACKED 50 RDS/BX		NO REQUIREMENT
A413	CARTRIDGE, CALIBER .38 SPECIAL PLUS P RD, 1005 FPS MUZZLE VELOCITY 158 GRAIN LEAD SEMI-WADCUTTER HOLLOW POINT (LSWCHP) BALL F/NAVAL INVESTIGATIVE SERVICE USE		NO REQUIREMENT
A415	CARTRIDGE, CAL .380 OR 9 MM SHORT, BALL, F/SEMI AUTOMATIC PISTOL		NO REQUIREMENT
A475	CARTRIDGE, CAL .45, BALL, M1911, GRADE 1 NSN 1305-00-555-1225 P/N 6000503		NO REQUIREMENT
A479	CARTRIDGE, CAL .45, TRACER, M26 NSN 1305 00-905-6788 P/N 10534359		NO REQUIREMENT
A482	CARTRIDGE, CAL .45, AUTOMATIC, BALL, 185 GRAIN, WADCUTTER, MATCH GRADE NSN 1305-00-540-7862 P/N MIL-C-3030-1		NO REQUIREMENT
A483	CARTRIDGE, CAL .45, BALL, M1911, MATCH GRADE		NO REQUIREMENT
A501	DUMMY CARTRIDGE, CAL .45, M1921 NSN 1305-00-028-6639 P/N 6006253 2T COG NSN 1305-00-028-6641 P/N 7691565 0T/2T COG		NO REQUIREMENT
A555	CARTRIDGE CAL .50 BALL M33, LINKED W/M9 LINKS		NO REQUIREMENT
A560	DUMMY CARTRIDGE, CAL .50, SINGLE RD		NO REQUIREMENT
A576	CARTRIDGE, CAL .50, LINKED, LINK M2, API M8/API-T M20, GRADE AC IN M2A1 METAL BOX		NO REQUIREMENT
A576	CARTRIDGE, CAL .50, LINKED, LINK M2, 4-API M8/1-API-T M20, 105 IN M2A1 METAL BOX, 2 M2A1 BOXES PER WIREBOUND BOX		NO REQUIREMENT
A589	CARTRIDGE CAL .50, LINKED M15A2 LINKS, 4-API M8 TO 1-API-T M20 F/M85MG		NO REQUIREMENT
A598	CARTRIDGE, CAL .50 BLANK, M1A1, LINKED W/M9 LINKS NSN 1305-01-078-4879 P/N 9329735		NO REQUIREMENT
A606	CARTRIDGE, CALIBER .50 MK 211 MOD 0, API, SINGLE ROUNDS FOR SNIPER RIFLE		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
A940	CARTRIDGE, 25 MM TPDS-T, M910, LINKED FOR THE M242 MACHINE GUN NSN 1305-01-426-4359		NO REQUIREMENT
A940	CARTRIDGE, 25 MM TPDS-T, M910 FOR M242 MACHINE GUN. 1 30 ROUND BELT PER PA125 METAL CONTAINER. NSN 1305-01-286-5185, NSN 0T 1305-01-426-4359		NO REQUIREMENT
A974	CARTRIDGE, 25 MM APDS-T, M791, LINKED NSN 1305-01-356-9838 P/N D12013533 NSN 1305-01-092-0428 P/N 12013720 NSN 1305-01-095-6014 P/N 12033719		NO REQUIREMENT
A976	CARTRIDGE, 25 MM, TP-T, M793, LINKED, M28 LINKS, (FOR USE IN M242 M/G) NSN 1305-01-090-0429 P/N 12013724 NSN 1305-01-095-0248 P/N 12013723 NSN 1305-01-212-5066 P/N 12013224		NO REQUIREMENT
AA02	CTG., 5.56 M995		NO REQUIREMENT
AA07	CARTRIDGE, CALIBER .50 SHALL BE ASSEMBLED INTO BELTS SEQUENCED AS ONE API MK 211 MOD 0, ONE AP M2 AND ONE M20 API-DIM TRACE CARTRIDGE RESPECTIVELY. FOR MACHINE GUN F/M2 OR M85. PKG 100/BELT, 1 BELT/MTL BOX M2A1/2 BX, 200 CTG/WRBND BX		NO REQUIREMENT
AA11	CARTRIDGE, 7.62 MM, M118 LONG RANGE, SPECIAL BALL		NO REQUIREMENT
AA12	CARTRIDGE, 9 MM, FX MARKING, RED (0T AND 2T COG)		NO REQUIREMENT
AA18	CARTRIDGE, CAL .45, +P, FULL METAL METAL JACKET. PKGD 1000 TO A M2A1 CONTAINER, PKGD 2000 IN A WIREBOUND BOX		NO REQUIREMENT
AA19	CARTRIDGE, CAL. .357 MAGNUM FULL METAL JACKET. PKGD 700 TO M2A1 CONTAINER. PKGD 1400 TO WIREBOUND BOX		NO REQUIREMENT
AA21	CARTRIDGE, 9 MM, FX MARKING, BLUE		NO REQUIREMENT
AA29	CARTRIDGE, 12 GAUGE, BEAN BAG, NON-LETHAL		NO REQUIREMENT
AA30	CARTRIDGE, 12 GAUGE LAUNCHER, F/GRENADE NON-LETHAL NSN 1305-01-454-0187 P/N HS/4083/C97/1136 NSN 1305-01-464-8389 P/N 100617		NO REQUIREMENT
AA31	CARTRIDGE, 12 GAUGE RUBBER FIN-STABILIZED, NON-LETHAL		NO REQUIREMENT
AA33	CARTRIDGE, 5.56 MM BALL M855. PACKAGED 10 ROUNDS PER CLIP, 3 CLIPS (30 RDS)/FIBERBOARD CARTON, 30 CARTONS (900 RDS)/FIBERBOARD BOX, 2 FIBERBOARD BOXES (1800 RDS)/OUTER FIBERBOARD BOX		NO REQUIREMENT
AA40	CARTRIDGE, 5.56 MM, JACKETED FRANGIBLE ROUND		NO REQUIREMENT
AA53	CARTRIDGE, 5.56 MM SPECIAL MATCH. PKGD 50 RDS PER PLASTIC TRAY		NO REQUIREMENT
AA53	CARTRIDGE, 5.56 MM SPECIAL BALL, LONG RANGE MK 262 MOD 0, MILITARY PACK. PACKAGED 20 CTG/CARTON 41 CARTONS/M2A1 AMMO BOX, 2 M2A1 AMMO BOXES/WIREBOUND BOX		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
AA53	CARTRIDGE, 5.56 MM SPECIAL BALL, LONG RANGE, MK 262 MOD 1 CANNELURED PROJECTILE, MILITARY PACK. PKGD 20 CTGS/CARTON, 41 CARTONS/M2A1 AMMO BOX, 2 M2A1 AMMO BOXES/WIREBOUND BOX		NO REQUIREMENT
AA54	CARTRIDGE, 12 GAUGE		NO REQUIREMENT
AA55	CARTRIDGE, 12 GAUGE, MK 242 MOD 0, INERT		NO REQUIREMENT
AA62	CARTRIDGE, EOD, 12 GAUGE, MK 274 MOD 0, ULTRA VELOCITY SLUG, CONSISTING OF LEAD BASED PROJECTILE IN BRASS AND PLASTIC CARTRIDGE CASE W/CENTERFIRE PRIMER AND 140 GRAINS OF PROPELLANT. USED IN IMPROVISED EXPLOSIVE DEVICE (IED)STANDOFF DISRUPTER. PACKAGED 75 CTG PER M2A1 AMMUNITION CONTAINER		NO REQUIREMENT
AA63	CTG, EOD, 12 GAUGE, MK 275 MOD 0. DISINTEGRATING PROJ.(AVON), CONSISTING OF FRANGIBLE PLASTER & STEEL SHOT PROJ.LOADED IN A BRASS & PLASTIC CTG CASE W/CENTERFIRE PERCUSSION PRIMER & 65 GRAINS OF PROPELLANT USED IN IM PROVIDED EXP. DEVICE (IED)STANDOFF DISRUPTER. PKG 75 CTG PER M2A1 AMMO CNTR		NO REQUIREMENT
AA64	CARTRIDGE, 12 GAUGE MK 276 MOD 0. LOW VELOCITY BLANK, CONSISTING OF A BRASS AND PLASTIC CTG CASE W/CENTERFIRE PERCUSSION PRIMER AND 20 GRAINS OF PROPELLANT. USED IN IMPROVISED EXPLOSIVE DEVICE(IED)STANDOFF DISRUPTER PKG 160 CTG PER M2A1 AMMUNITION CONTAINER.		NO REQUIREMENT
AA66	CARTRIDGE, 12 GAUGE, MK 278 MOD 0 (BLACK POWDER BLANK). USED IN IMPROVISED EXPLOSIVE DEVICE (IED) STANDOFF DISRUPTOR. 160 CARTRIDGES PER M2A1 AMMO CONTAINER.		NO REQUIREMENT
AA67	CARTRIDGE 5.56MM SPECIAL MATCH, MOLYBDENUM COATED. PACKAGED 50 ROUNDS PER PLASTIC TRAY. 1 TRAY (50)RDS PER FIBERBOARD CARTON, 10 FIBERBOARD CARTONS (500)RDS PER FIBERBOARD BOX.(COMMERCIAL PACK) THIS IS THE SAME AS AA53 014743856 EXCEPT FORMOLYDENUM COATING.		NO REQUIREMENT
AX10	DUMMY CARTRIDGE SMAW , 9 MILLIMETER, SPOTTING RIFLE, INTERIM MK218 PKG 10-RDS W/1 EMPTY MAGAZINE PER M19A1 MTL BX, 4-BXS 40-RDS PER WRBND WDN BX		NO REQUIREMENT
AX11	CARTRIDGE, SMAW , FOR SPOTTING RIFLE, 9 MM, MK 217 MOD 0		NO REQUIREMENT
AX14	PRIMER, PERCUSSION, 12 GAUGE, SHOTGUN, BATTERY CUP TYPE W209 NSN 1390-01-466-9197 P/N NONE LISTED		NO REQUIREMENT
B472	DUMMY CARTRIDGE, 40 MM, M385, W/M169 CARTRIDGE CASE		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
B504	CARTRIDGE 40 MM, GREEN STAR PARACHUTE, M661 F/LAUNCHER M79/M203		NO REQUIREMENT
B505	CARTRIDGE 40 MM, RED STAR PARACHUTE, M662, F/LAUNCHER M79/M203		NO REQUIREMENT
B506	CARTRIDGE, 40 MM, RED SMOKE GROUND MARKER W/M733 IMPACT FUZE, F/LAUNCHER M79 AND M203		NO REQUIREMENT
B508	CARTRIDGE, 40 MM, GREEN SMOKE GROUND MARKER W/M733 IMPACT FUZE, F/LAUNCHER M79 AND M203		NO REQUIREMENT
B509	CARTRIDGE, 40 MM, YELLOW SMOKE GROUND MARKER W/M733 IMPACT FUZE, F/LAUNCHER M79 AND M203		NO REQUIREMENT
B519	CARTRIDGE, 40 MM, PRACTICE, M781, SINGLE RD, PLASTIC CARTRIDGE CASE, YELLOW DYE FILLER, W/O TRACER, F/M79 AND M203 LAUNCHER		NO REQUIREMENT
B534	CARTRIDGE, 40 MM, FIXED, MULTIPLE PROJECTILE XM576/XM576E1		NO REQUIREMENT
B535	CARTRIDGE, 40 MM, FIXED WHITE STAR PARACHUTE, XM583		NO REQUIREMENT
B536	CARTRIDGE, 40 MILLIMETER WHITE STAR, CLUSTER XM585, XM585E1 F/GRENADE LAUNCHER M79 PKD 1/FBR TUBE, 22 TUBE/MTL BX M2A1 2 BX, 44 CTG/WRBND BX		NO REQUIREMENT
B536	CARTRIDGE, 40 MILLIMETER WHITE STAR, CLUSTER XM585, XM585E1 F/GRENADE LAUNCHER M79 PKD 1/FBR TUBE, 22 TUBE/MTL BX M2A1 2 BX, 44 CTG/WRBND BX		NO REQUIREMENT
B542	CARTRIDGE, 40 MM, M430, HEDP, COMP A5, LINKED W/M16A2 LINKS, F/MK 19 MOD 3 MACHINE GUN, W/B549 PERCUSSION FUZE		NO REQUIREMENT
B546	CARTRIDGE, 40 MM, FIXED, HEDP, XM433E1, W/FUZE PIBD XM550E1, F/GRENADE LAUNCHER M79/M203		NO REQUIREMENT
B550	CARTRIDGE, 40 MM BLANK SALUTING		NO REQUIREMENT
B567	CARTRIDGE, 40 MM, W/FZ PDDT, XM581E1, MOD 4, F/GRENADE LAUNCHER M79/M203		NO REQUIREMENT
B576	CARTRIDGE, 40 MM PRACTICE M385A1, WITH M16A2 LINKS, LINKED 32 CARTRIDGES PER BELT		NO REQUIREMENT
B576	CARTRIDGE, 40 MM, PRACTICE, M385, LINKED WITH M18A2 LINK		NO REQUIREMENT
B584	CARTRIDGE 40 MM, TARGET PRACTICE M918, LINKED W/M16A2 LINK		NO REQUIREMENT
B642	CARTRIDGE, 60 MM, H.E. COMP B, M720 W/MULTI-OPTION FUZE M734 SHIPPED IN METAL PA70 CONTAINER		SUSCEPTIBLE
B642	CTG., 60MM, H.E. COMP B, M720 W/MULTI-OPTION FUZE M734	MAN	SUSCEPTIBLE
B643	CARTRIDGE, 60 MM, HE, M888 W/FZPD, M935		NO REQUIREMENT
B646	CARTRIDGE, 60 MM, SMOKE, WP, XM722, W/FZ XM745 PD, PROP CHG, IGN CHG AND FIN ASSY		NO REQUIREMENT
B647	CARTRIDGE, 60 MM, ILLUMINATING, W/FZ MTSQ M776, FIN ASSY, F/MORTAR M224		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
B650	CARTRIDGE, 40 MM, BLANK SALUTING, 200 GRAM BLACK POWDER CHARGE NSN 0T 1310-01-240-5741 P/N 1863095 NSN 2T 1310-01-240-5741 BRASS OR STEEL CASE P/N 1863095		NO REQUIREMENT
BA07	CARTRIDGE, 40 MM, NON-LETHAL FOAM RUBBER BATON NSN 1310-01-453-9168 P/N HS/4083/C97/1128 NSN 1310-01-500-7532		NO REQUIREMENT
BA08	CARTRIDGE, 40 MM, NON-LETHAL, RUBBER BALL NSN 1310-01-453-9154 P/N HS/4083/C97/1130 NSN 1310-01-500-7529		NO REQUIREMENT
BA12	CARTRIDGE, 40MM PRACTICE, XM1023 LINKED 32 RDS PER PA120 METAL CONT.		NO REQUIREMENT
C025	CARTRIDGE, 75 MILLIMETER BLANK, 1 LB CHARGE W/M337A1 BRASS CARTRIDGE CASE.PKD 1 RD/FBR CNTR/15 CNTRS PER WOODEN BOX		NO REQUIREMENT
C276	CARTRIDGE, 81 MM, SMOKE, WP, M375 SERIES, W/FZ PD, F/MORTAR M1 AND M29		NO REQUIREMENT
C440	CARTRIDGE, 105 MILLIMETER BLANK M395, F/HWTZR M2A1, M2A2, M4, M4A1, M49 PKG 1/FBR CNTR M34, 10 CNTR, 10 CTG/WDN BX.		NO REQUIREMENT
C445	CARTRIDGE, 105 MM, HE, M1 SERIES, W/O FZ, F/HOW M2, M4 SERIES, M49, M103, AND M137		NO REQUIREMENT
C869	CARTRIDGE, 81 MM, HE, COMP B M889, W/FUZE PD M935 NSN 1315-01-357-6159 P/N 9354444		NO REQUIREMENT
C871	CARTRIDGE, 81 MM, ILLUMINATING, M853, W/FZ TIME M768		NO REQUIREMENT
C875	CARTRIDGE, 81 MM, PRACTICE M879, W/FUZE PD M751, WARHEAD INERT MATERIAL FILLING M220 NSN 1315-01-352-0392 P/N 9310340		NO REQUIREMENT
C995	LAUNCHER AND CARTRIDGE, 84 MM, M136 (AT4)	MAN	SAFE
D540	CHARGE, PROPELLING, 155 MILLIMETER M3A1/M3E1, GREEN BAG W/O M82 PRIMER PKG 2 CHGS/M14 MTL CNTR		NO REQUIREMENT
D544	PROJECTILE, 155 MM, HE, W/O FZ, F/HOWITZER NSN 1320-01-257-4222 P/N 9216352		NO REQUIREMENT
D550	PROJECTILE, 155 MM, SMOKE, WP, M110A2, W/O FUZE, 8 RDS PER PALLET, 3 PALLETS PER BUNDLE F/HOWITZER		NO REQUIREMENT
DWBS	CHARGE, DIVERSIONARY, MK 141 MOD 0 NSN 1375-01-387-5748 P/N 6570654 OR 6990372		NO REQUIREMENT
DWCI	DEVICE, DECOY MJU-49/B. SIMILAR TO THE DEVICE, DECOY MJU-27A/B, NSN 1370-01-419-6385, NALC, EWAA, EXCEPT PAYLOAD IS TAILORED TO ROTARY WINGED AIRCRAFT.		NO REQUIREMENT
DWEC	CARTRIDGE, 12 GAUGE, MK 277 MOD 0 (ENHANCED BLANK). USED IN IMPROVISED EXPLOSIVE DEVICE (IED) STANDOFF DISRUPTOR. 75 CARTRIDGES PER M2A1 AMMO CONTAINER. FOR EOD USE ONLY.		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
DWED	CARTRIDGE, 12 GAUGE, MK 279 MOD 0 (STEEL SLUG). USED IN IMPROVISED EXPLOSIVE DEVICE (IED) STANDOFF DISRUPTOR. 75 CARTRIDGES PER M2A1 AMMO CAN. FOR EOD USE ONLY.		NO REQUIREMENT
DWEE	CARTRIDGE, 12 GAUGE, MK 280 MOD 0 (ALUMINUM SLUG). USED IN IMPROVISED EXPLOSIVE DEVICE (IED) STANDOFF DISRUPTOR. 75 CARTRIDGES PER M2A1 AMMO CONTAINER. FOR EOD USE ONLY		NO REQUIREMENT
DWEI	PYROTECHNIC LEAD SPOOL, ASSEMBLY, MK 34 MOD 0 (FOR PYROTECHNIC LEAD, 1000 FT) PACKAGED 2 REELS PER CNU - 405/E AMMO BOX.		NO REQUIREMENT
DX02	CHARGE, SUPPLEMENTARY ASSEMBLY F/155MM D544, D579 PKG AS REQD		NO REQUIREMENT
FZ14	GRENADE, 66 MM, DISCHARGER, ANTI-RIOT, CS, L96A1		SUSCEPTIBLE
FZ15	GRENADE, 66 MM, DISCHARGER, ANTI-RIOT, PRACTICE L97A1		SUSCEPTIBLE
G811	BODY, PRACTICE HAND GRENADE F/M69		NO REQUIREMENT
G811	BODY, PRACTICE HAND GRENADE F/M69. PACKAGED 50 PER FIBERBOARD BOX		NO REQUIREMENT
G815	GRENADE, RED PHOSPHORUS, SMK, SCREENING, UK L8A1, 4 PER M2A1 METAL BOX, 96 RDS PER WOOD PALLET		SUSCEPTIBLE
G815	GRENADE, RED PHOSPHORUS, SMK, SCREENING, UK L8A3		SUSCEPTIBLE
G826	GRENADE, SMOKE, IR SCREENING, M76		SUSCEPTIBLE
G878	FUZE DELAY, M228, FOR M69 PRACTICE HAND GRENADE		NO REQUIREMENT
G878	FUZE DELAY, M228, FOR M69 PRACTICE HAND GRENADE. PACKAGED 360 PER WIREBOUND BOX		NO REQUIREMENT
G881	GRENADE, HAND, FRAG, M67		NO REQUIREMENT
G895	GRENADE, HAND, ILLUMINATING		NO REQUIREMENT
G900	GRENADE, HAND, INCENDIARY, AN-M14 SERIES		NO REQUIREMENT
G924	GRENADE, HAND, RIOT, CS1, M25A2		NO REQUIREMENT
G930	GRENADE, HAND, SMOKE, WHITE, HC, AN-M8 SERIES NSN 1330-00-171-3112 P/N 13-19-32 NSN 1330-00-219-8511 P/N 13-19-32 NSN 1330-00-540-7622 P/N 13-19-32		NO REQUIREMENT
G940	GRENADE, HAND, SMOKE, GREEN, M18 SERIES NSN 1330-00-289-6851 P/N 13-19-37 NSN 1330-00-540-9147 P/N D13-19-37		NO REQUIREMENT
G945	GRENADE, HAND, SMOKE, YELLOW, M18 SERIES NSN 1330-00-289-6854 P/N 13-19-37 NSN 1330-00-540-9145 P/N D13-19-37		NO REQUIREMENT
G950	GRENADE, HAND, SMOKE, RED, M18 SERIES		NO REQUIREMENT
G955	GRENADE, HAND, SMOKE, VIOLET, M18 SERIES NSN 1330-00-289-6853 P/N 13-19-37 NSN 1330-00-540-7185 P/N D13-19-37		NO REQUIREMENT
G963	GRENADE, HAND, RIOT, CAPSULED CS, ABC-M7A2 OR PELLET CS, M7A3		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
G982	GRENADE, HAND, SMOKE, TA, PRACTICE M83 W/FUZE M201A1. PACKED 1 PER FIBER CONTAINER, 16 FIBER CONTAINERS PER WOOD BOX.		NO REQUIREMENT
GG03	GRENADE, 66 MM, TA SMOKE	HMMWV WITH LVOSS	SUSCEPTIBLE
GG04	GRENADE, HAND, RUBBER BALL, NON-LETHAL		NO REQUIREMENT
GG04	GRENADE, HAND, RUBBER BALL, NON-LETHAL, M9590		NO REQUIREMENT
GG05	GRENADE HAND, BODY, PRACTICE, NON-LETHAL		NO REQUIREMENT
GG09	GRENADE, HAND, NON-LETHAL (STUN) M84. PACKAGED 3 GRENADES PER M19A1 METAL CAN, 4 CANS PER WIREBOUND BOX		NO REQUIREMENT
GG20	GRENADE, HAND, STUN, BTV-1 EL PACKAGED 10 PER M2A1 METAL CONTAINER 68 M2A1 CONTAINERS PER PALLET (680 UNITS PER PALLET)		NO REQUIREMENT
H708	ROCKET PRACTICE, 35 MILLIMETER SUBCAL XM73/M73 PKG 30 PER FBR CNTR, 3 CNTRS, 90 RKTS PER WDN BX		NO REQUIREMENT
H709	ROCKET PRACTICE, 35 MM EMPTY SUBCALIBER M73		NO REQUIREMENT
HX04	ROCKET, PRACTICE, ASSAULT, ENCASED, SMAW 83 MM, MK 4 MOD 0, W/RKT MK 2 MOD 0, INERT WHD MK 121, RKT MTR MK 115 MOD 0 PKGED 1 RKT AND 6 9MM CTG PER MAG IN TUBE, 3 TUBES PER BARRIER BAG, 1 BAG PER BOX		UNSAFE
HX05	RKT, ASSAULT (SMAW) ENCASED, 83MM, DUAL MODE, MK 3-0		SUSCEPTIBLE
HX07	ROCKET, ASSAULT, ENCASED, 83MM HEAA, PRACTICE (SMAW) MK 7 MOD 0 PKG 1-RKT ENCASED (W/6-RDS 9MM CTG MK 223), 3-RKTS (W/18-RDS 9MM CTGS)PER STYROFOAM CNTR (OVER PACKED IN CRDBD BX AND BARRIER BAG), 2-CNTRS (6-RKTS W/36-RDS 9MM CTGS) PER WDN BX, 4 WDN BXS PER WDN PLT		SAFE
K139	MINE KIT, APERS, PRACTICE, M68, W/ACCESSORIES (INERT MINE AND INERT BLASTING CAP)		NO REQUIREMENT
K143	MINE, ANTI-PERS, M18A1, NONBOUNDING, NONMETALLIC		SUSCEPTIBLE
K180	MINE, ANTI-TANK, HEAVY, HE, METALLIC, M15 NSN 1345-01-476-3055 P/N 82-0-189		NO REQUIREMENT
K181	MINE, ANTI-TANK, HEAVY, HE, METALLIC, W/FZ, M607, M21 SERIES		NO REQUIREMENT
K231	MINE, ANTI-TANK, PRACTICE, HEAVY, EMPTY, METALLIC, M20		NO REQUIREMENT
K765	RIOT CONTROL AGENT, CS, CAPSULE		NO REQUIREMENT
K867	SMOKE POT, FLOATING, HC, M4A2		NO REQUIREMENT
L225	SIGNAL, ILLUMINATION, AIRCRAFT, RED-RED, AN-M37 SERIES NSN 1370-00-618-2401 P/N 8847462 NSN 1370-00-540-8506 P/N 8847462		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
L227	SIGNAL, ILLUMINATION, AIRCRAFT, GREEN-GREEN, AN-M39 SERIES NSN 1370-00-618-5784 P/N 8847462		NO REQUIREMENT
L258	SIGNAL, HAND FIRED, MK 80 MOD 0, MK 80 MOD 2 RED STAR NSN 1370-00-930-7746 P/N 615183 (MOD 0) NSN 1370-01-216-3243 P/N 6136000 (MOD 2)		NO REQUIREMENT
L283	SIGNAL, SMOKE AND ILLUMINATION, MARINE MK 124 MOD 0, DISTRESS, DAY AND NIGHT NSN 1370-01-030-8330 P/N 3139734 NSN 1370-01-144-3561 P/N 3139734		NO REQUIREMENT
L302	SIGNAL CARTRIDGE, WHITE FLARE, F/LAUNCHER KIT, SIGNAL, POCKET		NO REQUIREMENT
L304	SIGNAL CARTRIDGE, GREEN FLARE F/USE W/LAU.LX11.PKG 5 SIGNALS/ PLASTIC SLEEVE, 70 SLEEVES/MTL CAN M2A1, 2 CANS 700 SIGNALS/WRBND BOX FORMERLY LX13		NO REQUIREMENT
L306	SIGNAL, ILLUMINATION, GROUND, RED, STAR CLUSTER, M158/T133E2 NSN 1370-00-756-2591 P/N 8797320-1 36 PER BOX NSN 1370-01-343-1966 P/N 8797320-1 24 PER MTL CONT		NO REQUIREMENT
L307	SIGNAL, ILLUMINATION, GROUND, WHITE, STAR CLUSTER, M159/T137E2 NSN 1370-00-756-2588 P/N 8797320-2 36 PER WOODEN BOX NSN 1370-01-345-3000 P/N 8797320-2 24 PER METAL CONTAINER NSN 1370-01-345-4300 P/N 8797920 24 PER METAL CONTAINER		NO REQUIREMENT
L311	SIGNAL, ILLUMINATION, GROUND, RED, STAR, PARACHUTE, M126 NSN 1370-00-629-2336 P/N 8797968 36 PER BOX NSN 1370-01-343-1965 P/N 8797968 24 PER MTL CONTAINER		NO REQUIREMENT
L312	SIGNAL, ILLUMINATION, GROUND, WHITE, STAR, PARACHUTE, M127 NSN 1370-00-753-1859 P/N 8797968 36 PER BOX NSN 1370-01-341-5159 P/N 8797968 24 PER MTL CONTAINER		NO REQUIREMENT
L314	SIGNAL, ILLUMINATION, GROUND, GREEN, STAR CLUSTER, M125 NSN 1370-00-629-2335 P/N 8797920 36 PER BOX NSN 1370-01-341-6283 P/N 8797920 24 PER MTL CONTAINER		NO REQUIREMENT
L323	SIGNAL, SMOKE, GROUND, RED, PARACHUTE, M129A1 SERIES		NO REQUIREMENT
L324	SIGNAL, SMOKE, GROUND, GREEN, PARACHUTE, M128A1 SERIES NSN 1370-00-301-1131 P/N 8797996		NO REQUIREMENT
L367	SIMULATOR, M22, LAUNCHING, ANTITANK, GUIDED MISSILE AND ROCKET		NO REQUIREMENT
L367	SIMULATOR, LAUNCHING, ANTITANK, GUIDED MISSILE AND ROCKET		SAFE
L495	FLARE, SURFACE, TRIP, M49 SERIES		NO REQUIREMENT
L591	MARKER, LOCATION, MARINE, MK 80 MOD 0, YELLOW-GREEN FLUORESCENT SLICK SUBMARINE	SUBMARINE	SAFE
L594	SIMULATOR, PROJECTILE, GROUND BURST, M115A2		NO REQUIREMENT
L594	SIMULATOR, PROJECTILE, GROUND BURST	MAN	NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
L598	SIMULATOR, BOOBY TRAP, M117, FLASH		NO REQUIREMENT
L598	SIMULATOR, BOOBY TRAP, FLASH, M117 WITH SAFETY CLIP. PACKAGED 150 FLASH ASSEMBLIES PER FIBERBOARD BOX. ONE BOX PER WIREBOUND BOX. 30 BOXES PER PALLET.		NO REQUIREMENT
L599	SIMULATOR, BOOBY TRAP, M118, ILLUM		NO REQUIREMENT
L602	SIMULATOR, FLASH, ARTILLARY, M21	MAN	UNSAFE
LX21	SIMULATOR NOISE CARTRIDGE (SMAW) ASSAULT ROCKET TRAINER, MK 213MOD 0 PKG 20-RDS PER M19A1 MTL BX, 4-BXS (80-RDS) PER WRBND BX		NO REQUIREMENT
M023	CHARGE, DEMOLITION, BLOCK, M112, COMP C-4, 1-1/4 LB NSN 1375-00-724-7040 P/N 9204248 NSN 1375-01-330-0749 P/N 9204248 NSN 1375-01-389-3854 P/N 9204248-1		NO REQUIREMENT
M027	CHARGE, DEMOLITION PRACTICE MK 37 MOD 0, INERT PKD 4 CHGS/WDN BOX SPECIAL SHIPPING STORAGE CONTAINER		NO REQUIREMENT
M028	DEMOLITION KIT, BANGALORE TORPEDO, M1A2		NO REQUIREMENT
M030	CHARGE, DEMOLITION BLOCK, 1/4 LB, TNT.PKG.192 CHARGES W/48 ADAPTER, PRIMING M1A4/WDN BOX.		NO REQUIREMENT
M032	CHARGE, DEMOLITION, BLOCK, TNT, 1 LB NSN 1375-00-028-5142 P/N 82-13-24 NSN 1375-00-529-7701 P/N 8885249 NSN 1375-00-935-6139 P/N 8885249		NO REQUIREMENT
M039	CHARGE, DEMOLITION, CRATERING, AMMONIA NITRATE, 40 LB		NO REQUIREMENT
M039	CHARGE, DEMOLITION, CRATERING, AMMONIA NITRATE, 40 LB PACKAGED 1 PER M18A2 METAL CONTAINER		NO REQUIREMENT
M097	CAP, BLASTING, NON-ELECTRIC, INERT NSN 1375-00-784-8043 P/N 8864810		NO REQUIREMENT
M098	CAP, BLASTING, ELECTRIC, INERT NSN 1375-00-783-8040 P/N 8865211		NO REQUIREMENT
M130	CAP, BLASTING, ELECTRIC, M6, 12 FT LEAD.		UNSAFE/UNRELIABLE
M130	CAP, BLASTING, SPECIAL, ELECTRIC, TYPE 11.		UNSAFE/UNRELIABLE
M130	CAP, BLASTING, SPECIAL, ELECTRIC, TYPE 2, J2 PETN.	MAN	SUSCEPTIBLE
M130	CAP, BLASTING, ELECTRIC, M6.	MAN	SUSCEPTIBLE
M130	CAP, BLASTING, SPECIAL, ELECTRIC, TYPE 2, FOR UNDERWATER FUZE.	MAN	UNSAFE/UNRELIABLE
M130	CAP, BLASTING, ELECTRIC, M6.	MAN	UNSAFE/UNRELIABLE
M131	CAP, BLASTING, SPECIAL, NON-ELECT NSN 2T 1375-00-028-5226 P/N 393652 (OBSOLESCENT) NSN 0T 1375-00-028-5226 P/N 393652 NSN 1375-00-028-5227 P/N 393652 NSN 1375-00-028-5228 P/N 393652 (OBSOLESCENT) NSN 1375-00-283-9440 P/N 8830948 NSN 1375-00-370-3519 P/N 8830948 NSN 1375-00-756-1864 P/N 8830948 NSN 1375-01-057-6439 P/N 8830948 NSN 1375-01-193-2976 P/N MIL-C-45469 NSN 1375-01-315-1335 P/N 12929271		NO REQUIREMENT
M162	CARTRIDGE, IMPULSE F/H-46 AND -47 SERIES HELICOPTERS	CH-46E	SUSCEPTIBLE

DODIC	Nomenclature	Platform	HERO Class
M174	CARTRIDGE, CALIBER 50, BLANK, ELECT INITIATED, W/MK 1-2 SQUIB.	MAN	SUSCEPTIBLE
M182	CARTRIDGE, AIRCRAFT, FIRE EXTINGUISHER, DUAL SQUIB (E92 DUPONT SQUIB) REPLACED BY 1377-01-257-1358		SUSCEPTIBLE
M182	CARTRIDGE, AIRCRAFT, FIRE EXTINGUISHER, DUAL SQUIB, CCU-93/A	SH-3	SUSCEPTIBLE
M182	CARTRIDGE, AIRCRAFT, FIRE EXTINGUISHER, DUAL SQUIB, CCU-93/A	UH-3	SUSCEPTIBLE
M182	CARTRIDGE, AIRCRAFT, FIRE EXTINGUISHER, DUAL SQUIB, CCU-93/A	VH-3	SUSCEPTIBLE
M190	CARTRIDGE, IMPULSE, MK 2 MOD 1		SUSCEPTIBLE
M190	CTG., S/R, IMPULSE, MK 2 MOD 1	CH-53E	SAFE
M232	CTG., A/C FIRE EXTINGUISHER	CH-46E	SUSCEPTIBLE
M232	CTG., A/C FIRE EXTINGUISHER	CH-53D	SUSCEPTIBLE
M327	COUPLING BASE, FIRING DEVICE, W/PRIMER W/ M27 PRIMER NSN 1375-00-038-5280 P/N 1773626 W/ M39A1 PRIMER NSN 1375-00-699-5236 P/N 8837262		NO REQUIREMENT
M363	CARTRIDGE, IMPULSE MK 124 MOD 0 F/STORES RELEASE/EJECTION MECHANISMSPKG 40/HERMETICALLY SEALED CNTR, 8 CNTRS/WDN BX, REPLACED BY MD65		SUSCEPTIBLE
M363	CARTRIDGE, IMPULSE MK 124 MOD 0 F/STORES RELEASE/EJECTION MECHANISMSPKG 40/HERMETICALLY SEALED CNTR, 8 CNTRS/WDN BX, REPLACED BY MD65. IN AUXILIARY FUEL TANK ON CH-53E.	CH-53E	SUSCEPTIBLE
M420	CHARGE, DEMOLITION, SHAPED, M2 SERIES, 15 LB NSN 1375-00-028-5237 P/N 8858382 0T/2T COG NSN 1375-01-023-7994 P/N 8861565 0T/2T COG		NO REQUIREMENT
M421	CHARGE, DEMOLITION, SHAPED, M3, 40 LB		NO REQUIREMENT
M456	CORD, DETONATING, REINFORCED NSN 1375-00-028-5168 P/N MIL-C-17124 NSN 1375-00-180-9356 P/N MIL-C-17124 NSN 1375-00-180-9410 P/N MIL-C-17124 NSN 1375-00-204-0851 P/N MIL-C-17124 NSN 1375-00-310-2677 P/N MIL-C-17124 NSN 1375-01-083-0699 P/N 2114302-5 NSN 1375-01-083-0700 P/N 2114302-6 NSN 1375-01-332-9665 P/N 2114302-7		NO REQUIREMENT
M474	CONTAINER, DEMOLITION CHARGE MK 1 MOD 0, EMPTY		NO REQUIREMENT
M475	CONTAINER, DEMOLITION CHARGE MK 2 MODS, EMPTY		NO REQUIREMENT
M476	CONTAINER, DEMOLITION CHARGE MK 3 MODS, EMPTY		NO REQUIREMENT
M514	CTG., IMPULSE, MK 44 MOD 0 IN RESCUE (UTILITY) HOIST ON CH-53E	CH-53E	SAFE
M591	DYNAMITE, MILITARY, M1 1375-00-724-9613		NO REQUIREMENT
M670	FUSE, BLASTING, TIME, EXPLOSIVE LOADED NSN 1375-00-028-5149 P/N MIL-F-45144A NSN 1375-00-028-5151 P/N MIL-F-45144A NSN 1375-00-028-5152 P/N MIL-F-45144A NSN 1375-00-028-5246 P/N MIL-F-45144A NSN 1375-00-167-3856 P/N MIL-F-45144A NSN 1375-00-262-1674 P/N MIL-F-45144A		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
M757	CHARGE ASSY, DEMOLITION, M183 NSN 0T-1375-00-926-3985 OR NSN 2T-1375-01-398-0060		NO REQUIREMENT
M766	IGNITER, TIME BLASTING FZ, M2, M60/T2, PULL WIRE TYPE, WEATHERPROOF NSN 1375-00-028-5199 P/N 79-9-62 0T/2T COG NSN 1375-00-028-5200 P/N 79-9-62 2T COG NSN 1375-00-283-9452 P/N 2128181 NSN 1375-00-691-1671 P/N 8822497		NO REQUIREMENT
M766	IGNITER, TIME BLASTING FUZE, M60		NO REQUIREMENT
M862	SQUIB, ELECTRIC, S-75, 1.5 GRAIN	MAN	UNSAFE
M977	CORD, DETONATING, LIGHTWEIGHT E-CORD TEXTILE AND PLASTIC LIGHTWEIGHT PETN F/UDT/SEAL TEAMS PKG 1000 FT SPOOL 2 SPOOLS WOOD BOX		NO REQUIREMENT
M980	CHARGE, DEMOLITION, EXPLOSIVE SHEET, 38 FT ROLL		NO REQUIREMENT
M981	CHARGE, DEMOLITION, EXPLOSIVE SHEET, 25 FT ROLL		NO REQUIREMENT
M982	CHARGE DEMOLITION, EXPLOSIVE SHEET, 19 FT ROLL NSN 1375-01-444-1562 P/N 2114203 NSN 1375-01-036-0445 P/N 3139754		NO REQUIREMENT
M983	CHARGE DEMOLITION EXPLOSIVE SHEET .208 IN X 10 IN X 15FT LONG FLEXIBLE PKD 1 RO TO FIBERBOARD BX 1 FIBERBOARD BX TO WOOD BOX		NO REQUIREMENT
M984	CHARGE DEMOLITION EXPLOSIVE SHEET .250 IN X 10 IN X 13 FT LONG FLEXIBLE PKG 1 ROLL TO FIBERBOARD BX 1 FIBERBOARD BX TO WOOD BOX		NO REQUIREMENT
M994	CHARGE DEMOLITION EXPLOSIVE SHEET .043 IN X 10 IN X 76 FT LONG FLEXIBLE PKG 2 ROLL TO FIBERBOARD BX 1 FIBERBOARD BX TO WOOD BOX		NO REQUIREMENT
MC11	CORD, DETONATING SMDC F/CANOPY REMOVAL SYS ON F-14A ACFT PKG 1/HEAT SEALED PLASTIC BAG		NO REQUIREMENT
MC12	CORD, DETONATING SMDC F/EMER EGRESS SYS ON S-3A ACFT PKG 1/HEAT SEALED PLASTIC BAG		NO REQUIREMENT
MH92	CARTRIDGE, A/C FIRE EXTINGUISHER CCU-90/A, F/UH-60A ACFT, PKG 4/HER- METICALLY SEALED CNTR	UH-60A	SUSCEPTIBLE
MJ02	DETONATION TRANSFER ASSEMBLY FOR F-16 AIRCRAFT		NO REQUIREMENT
MJ06	CORD ASSEMBLY, DETONATING F/F-16 AIRCRAFT, PKG 1/FIBERBOARD BOX		NO REQUIREMENT
MJ08	CORD ASSEMBLY, DETONATING F/F-16 AIRCRAFT, PKG 1/PPP-B-636		NO REQUIREMENT
MJ10	DETONATION TRANSFER ASSEMBLY FOR F-16 AIRCRAFT		NO REQUIREMENT
MJ11	DETONATION TRANSFER ASSEMBLY FOR F-16 AIRCRAFT		NO REQUIREMENT
MJ12	DETONATION TRANSFER ASSEMBLY FOR F-16 AIRCRAFT		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
MJ13	DETONATION TRANSFER ASSEMBLY FOR F-16 AIRCRAFT		NO REQUIREMENT
MJ14	DETONATION TRANSFER ASSEMBLY FOR F-16 AIRCRAFT		NO REQUIREMENT
MJ21	CTG., IMPULSE CCU-92/A (MJ21)	HH-60G	SAFE
MJ21	CTG., IMPULSE CCU-92/A (MJ21)	MH-60K	SAFE
MJ21	CTG., IMPULSE CCU-92/A	MH-60R	SAFE
MJ21	CTG., IMPULSE CCU-92/A (MJ21)	MH-60S	SAFE
MJ21	CTG., IMPULSE CCU-92/A	SH-60B	SAFE
MJ21	CTG., IMPULSE CCU-92/A	SH-60F	SAFE
MJ91	INITIATOR, CARTRIDGE ACTUATED JAU-52/A, F/INFLATION DEVICE ON H-46 HELICOPTER FLOTATION SYS, PKG 4/FIBERBOARD BOXNI		NO REQUIREMENT
MJ91	CTG., INITIATOR, ACTUATED JAU-52/A		SAFE
ML03	FIRING DEVICE, DEMOLITION, MULTIPURPOSE, M142		NO REQUIREMENT
ML04	CUTTER, POWDER ACTUATED MK 23 MOD 0, MOD 1 EXROD		NO REQUIREMENT
ML05	CUTTER, POWDER ACTUATED MK 24 MOD 0, MOD 1 EXROD		NO REQUIREMENT
ML15	CHARGE, DEMOLITION, SHAPED, FLEXIBLE, LINEAR, 225 GR/FT		NO REQUIREMENT
ML47	CAP, BLASTING, NON-ELECTRIC, M11 WITH 30 FOOT SHOCK TUBE, MODERNIZED DEMOLITION INITIATOR		NO REQUIREMENT
ML47	CAP, BLASTING 30 FT SHOCK TUBE, XM11 OR M11		NO REQUIREMENT
ML65	DETONATOR, PERCUSSION, W/175 MILLISECOND DELAY, ORANGE IN COLOR, W/NON-ELECTRIC TYPE BLASTING CAP		NO REQUIREMENT
MM29	CHARGE, DEMOLITION EXPLOSIVE SHEET (DETA SHEET) 4 GRAMS PER SQ. INCH PKGD: 19 FT.PER 20 LB ROLL 2 ROLLS (40 LBS) PER FIBERBOARD BOX		NO REQUIREMENT
MM30	CHARGE, DEMOLITION MK 140 MOD 0, FLEXIBLE, 20 GRAM NSN 1375-01-281-8696 P/N 6545554		NO REQUIREMENT
MM31	CHARGE, DEMOLITION SHAPED, FLEXIBLE, LINEAR, LEAD SHEATHED 30 GRAINS RDX PER FOOT, EACH CHG 6-FT LONG PKGD: AS REQUIRED		NO REQUIREMENT
MM32	CHARGE, DEMOLITION SHAPED, FLEXIBLE, LINEAR, LEAD SHEATHED, 40 GRAINS RDX PER FT, EACH CHG 6-FT LONG PKGD: AS REQUIRED		NO REQUIREMENT
MM33	CHARGE, DEMOLITION SHAPED, FLEXIBLE, LINEAR, LEAD SHEATHED, 60 GRAINS RDX PER FT, EACH CHG 6-FT LONG PKGD: AS REQUIRED		NO REQUIREMENT
MM36	CHARGE, DEMOLITION SHAPED, FLEXIBLE, LINEAR, LEAD SHEATHED 150 GRAINS RDX PER FT, EACH CHG 6 FT LONG PKGD: AS REQUIRED NAVY STOCK LIST OF CONVENT		NO REQUIREMENT
MM38	CHARGE, DEMOLITION SHAPED, FLEXIBLE, LINEAR, LEAD SHEATHED, 225 GRAINS RDX PER FT, EACH CHG 6-FT LONG PKGD: AS REQUIRED		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
MM40	CHARGE, DEMOLITION SHAPED, FLEXIBLE, LINEAR, LEAD SHEATHED 600 GRAINS RDX PER FT, EACH CHG 6 FT LONG PKGD: AS REQUIRED		NO REQUIREMENT
MM42	CHARGE DEMOLITION SHAPED, FLEXIBLE, LINEAR, LEAD SHEATHED, 40 GRAINS CH-6 PER FT. EACH CHG 6-FT LONG; PKG 6 SIX-FT LENGTHS W/CUSHION TRAYS IN WOODEN BOX		NO REQUIREMENT
MM44	CHARGE DEMOLITION SHAPED, FLEXIBLE, LINEAR, LEAD SHEATHED, 75 GRAINS CH-6 PER FT EACH CHG 6-FT LONG; PKG 6 SIX-FOOT LENGTHS WITH CUSHIONS IN WOODEN BOX		NO REQUIREMENT
MM45	CHARGE DEMOLITION SHAPED, FLEXIBLE, LINEAR, LEAD SHEATHED, 125 GRAINS CH-6 PER FOOT EACH CHG 6-FOOT LONG; PKG 6 SIX-FOOT LENGTHS W/CUSHION TRAYS IN WOODEN BOX		NO REQUIREMENT
MM46	CHARGE, DEMOLITION SHAPED, FLEXIBLE, LINEAR, LEAD SHEATHED, 225 GRAINS CH-6 PER FT. EACH CHARGE SIX FOOT LONG; PACKAGED THREE (3) SIX FOOT LENGTHS W/CUSHION TRAYS IN WOODEN BOX		NO REQUIREMENT
MM47	CHARGE, DEMOLITION SHAPED, FLEXIBLE, LINEAR, LEAD SHEATHED, 400 GRAINS CH-6 PER FOOT EACH CHARGE SIX FOOT LONG; PACKAGED THREE (3) SIX FOOT LENGTHS W/CUSHION TRAYS IN WOODEN BOX		NO REQUIREMENT
MM48	CHARGE DEMOLITION SHAPED, FLEXIBLE, LINEAR, LEAD SHEATHED, 600 GRAINS CH-6 PER FOOT EACH CHARGE SIX FEET LONG; PKG. (3) 6-SIX FOOT LENGTHS W/CUSHION TRAYS PER WOODEN BOX.		NO REQUIREMENT
MM51	CHARGE, DEMOLITION, LOW HAZARD FLEXIBLE LINEAR SHAPED MK 143 MOD 0, 600 GRAINS/FOOT		NO REQUIREMENT
MM56	DETONATOR, NONELECTRIC, MK 123 MOD 0, DUAL 100-FOOT SHOCK TUBE LEADS		NO REQUIREMENT
MM57	DETONATOR, NONELECTRIC MK 126 MOD 0, DUAL DETONATORS WITH 1000 FOOT SHOCK TUBE LEADS. OLIVE DRAB IN COLOR, PKG 1 PER SPOOL, 1 SPOOL PER CNU-405/E CNTR		NO REQUIREMENT
MM91	INITIATOR, PYROTECHNIC LEAD MK 24 MOD 0 PKG 1 IN PA60 AMMO BOX		NO REQUIREMENT
MN01	CANINE EXPLOSIVE SCENT KIT		NO REQUIREMENT
MN02	CAP, BLASTING, NON-ELECTRIC, M12 WITH 500 FT SHOCK TUBE, MODERNIZED DEMOLITION INITIATOR		NO REQUIREMENT
MN03	CAP, BLASTING, NON-ELECTRIC M13 WITH 1000 FOOT SHOCK TUBE, MODERNIZED DEMOLITION INITIATOR		NO REQUIREMENT
MN08	IGNITER, TIME BLASTING FUSE W/SHOCK TUBE CAPABILITY M81.		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
MN52	DETONATOR, PERCUSSION, NON-ELECTRIC WITH IN-LINE INITIATOR, DUAL MK 154 MOD 0. 100FT, 8 SPOOLS PER CNU-405/EMETAL.MILITARY SPECIFICATION/DRAWING30003-986AS106.		NO REQUIREMENT
MN52	DETONATOR, PERCUSSION, NON-ELECTRIC WITH IN-LINE INITIATOR, DUAL MK 154 MOD 0. 100 FT, 8 SPOOLS PER CNU-405/E METAL. MILITARY SPECIFICATION/DRAWING 30003-986AS106		NO REQUIREMENT
MN69	BOOSTER, DEMOLITION CHARGE, NO-DELAY, NON-ELECTRIC, M152, INSENSITIVE INITIATION SYSTEM. PACKAGED 20 PER FIBERBOARD BOX, 3 BOXES PER WOOD BOX, 30 WOOD BOXES PER PALLET		NO REQUIREMENT
MN79	ANTI-PERSONNEL OBSTACLE BREACHING SYSTEM, MK 7 MOD 2, CONSISTING OF 1 REAR BACKPACK ASSEMBLY, 1 FRONT BACKPACK ASSEMBLY, 1 MK 126 MOD 0 ROCKET MOTOR, 1 NON-ELECTRIC SQUIB, 1 LAUNCH TUBE, 1 TOOL KIT, 1 FRONT FUZE, 1 REAR FUZE, 1 FOAM TRANSPORT CONTAINER, AND 1 SOFT PACK		NO REQUIREMENT
MN79	ANTI-PERSONNEL OBSTACLE BREACHING SYSTEM, MK 7 MOD1, CONSISTING OF 1 REAR BACKPACK ASSEMBLY, 1 FRONT BACKPACK ASSEMBLY, 1 MK 126 MOD 0 ROCKET MOTOR, 1 MK 19 MOD 0 ELECTRICSQUIB, 1 LAUNCH TUBE, 1 TOOL KIT, 1 FRONT FUZE, 1 REAR FUZE, 1 FOAM TRANSPORT CONTAINER, AND 1 SOFT PACK	MAN	SUSCEPTIBLE
MN86	CAP, BLASTING, DUAL IN-LINE INITIATOR, NON-ELECTRIC, 200-FOOT MINI-TUBE, M19. PACKAGED 8 PER FIBERBOARD BOX, 5 BOXES PER WOODEN BOX		NO REQUIREMENT
MN90	CAP, BLASTING, DUAL-INITIATOR, NON-ELECTRIC, M23 WITH 1000 FEET MINITUBE. PACKAGED 4 PER FIBERBOARD BOX, 5 BOXES PER WOOD BOX		NO REQUIREMENT
MT23	CARTRIDGE, A/C FIRE EXTINGUISHER ELECTRICALLY INITIATED SCREW IN TYPEUSED ON CH53 AND MH53 HELO		SUSCEPTIBLE
MT23	CARTRIDGE, A/C FIRE EXTINGUISHER ELECTRICALLY INITIATED SCREW IN TYPEUSED ON CH53 AND MH53 HELO	CH-53E	SUSCEPTIBLE
MT23	CARTRIDGE, A/C FIRE EXTINGUISHER ELECTRICALLY INITIATED SCREW IN TYPEUSED ON CH53 AND MH53 HELO	MH-53E	SUSCEPTIBLE
MU40	CORD, DETONATING PETN, WTRPRF W/POLYETHYLENE OVER- EXTRUSION, COLOR PALE GREEN, 400 GRAIN PETN PER FT PKGD: 500 FT PER PLYWOOD SPOOL 1 SPOOL (500 FT) PER FBRBD BOX		NO REQUIREMENT

DODIC	Nomenclature	Platform	HERO Class
MU42	CORD, DETONATING PETN, WTRPRF W/POLYETHYLENE OVER- EXTRUSION, COLOR CLEAR, 100 GRAIN PETN PER FT.PKDG:800-FT PER PLYWOOD SPOOL 2-SPOOLS (1600 FT) PER FIBERBOARD BX		NO REQUIREMENT
MW49	CONNECTOR, DETONATING CORD, PLASTIC NSN 1377-01-316-5558 P/N 2995437L		NO REQUIREMENT
N290	FUZE, ELECTRONIC		SAFE
N291	FUZE, PROXIMITY M732A2 ET W/BOOSTER	105 MM HOWITZER	SAFE
N340	FUZE, POINT DET, XM739 .05 SEC SELECTIVE DELAY		NO REQUIREMENT
N523	PRIMER, PERCUSSION M82. PKG.1/WTRPRF BAG, 25 BAG/CTN, 1 CTN/WTRPRF BAG, 20 BAG, 500 PRIMER/ WDN BX.		NO REQUIREMENT
N523	PRIMER, PERCUSSION M82. PKG.1/BARRIAR BAG, 25 BAG/CTN, 1 CTN/WTRPRF BAG, 20 BAG, 100 PRIMER/M2A1 METAL CAN, 2 M2A1 CANS PER WOODEN BOX.		NO REQUIREMENT
PL64	GM, JAVELIN, FRP III, FGM-148C	MAN	SAFE
WA83	CARTRIDGE, IMPULSE ASSEMBLY CCU-136A/A	CH-46E	SAFE
WA83	CARTRIDGE, IMPULSE ASSEMBLY CCU-136A/A	CH-53E	SAFE
WB53	CTG., AIRCRAFT FIRE EXTINGUISHER, CCU-147/A	UH-60A	SAFE
WF10	GUIDED MISSILE SURFACE ATTACK BGM-71D-5		SUSCEPTIBLE

Enclosure (2)

STATION DRAWINGS

Enclosure (3)

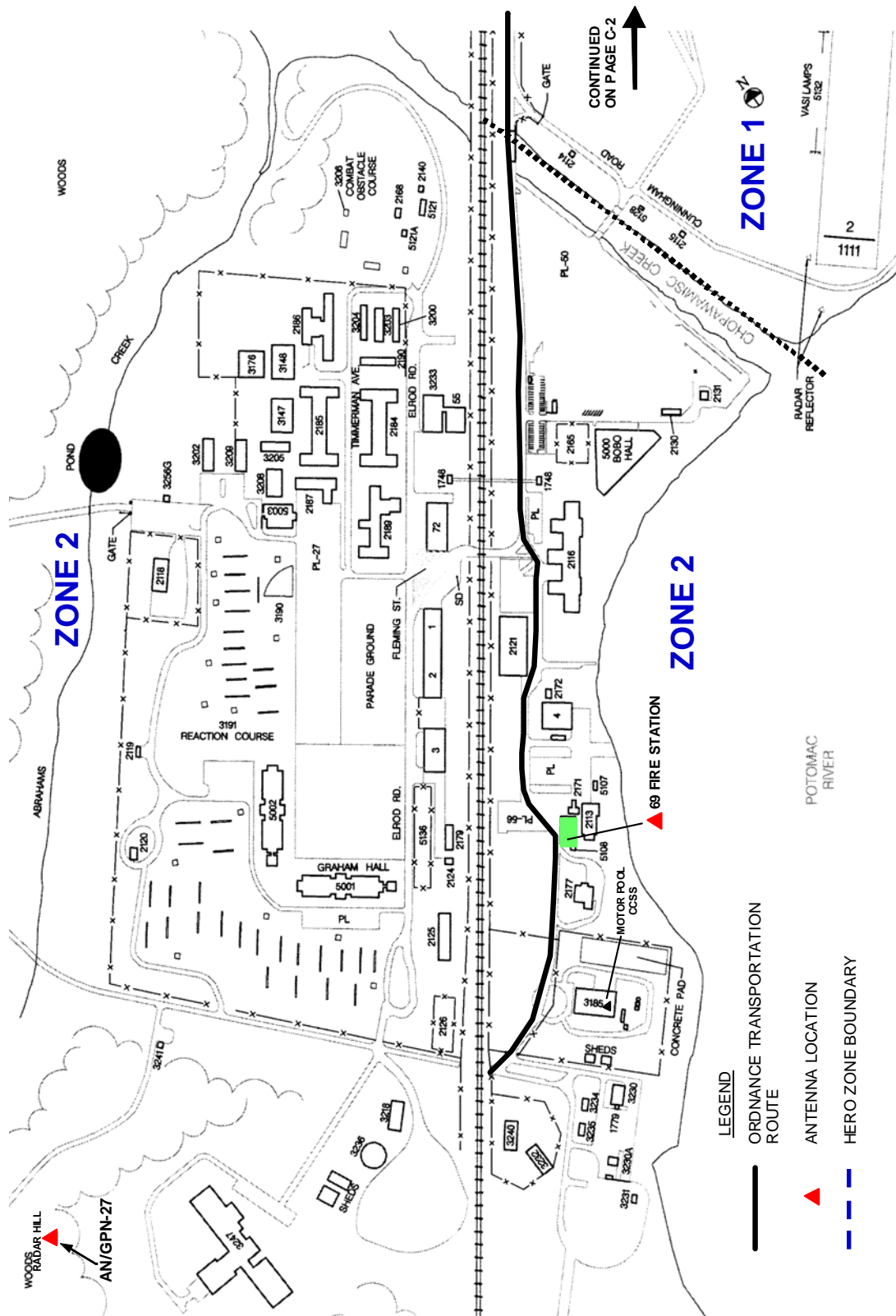
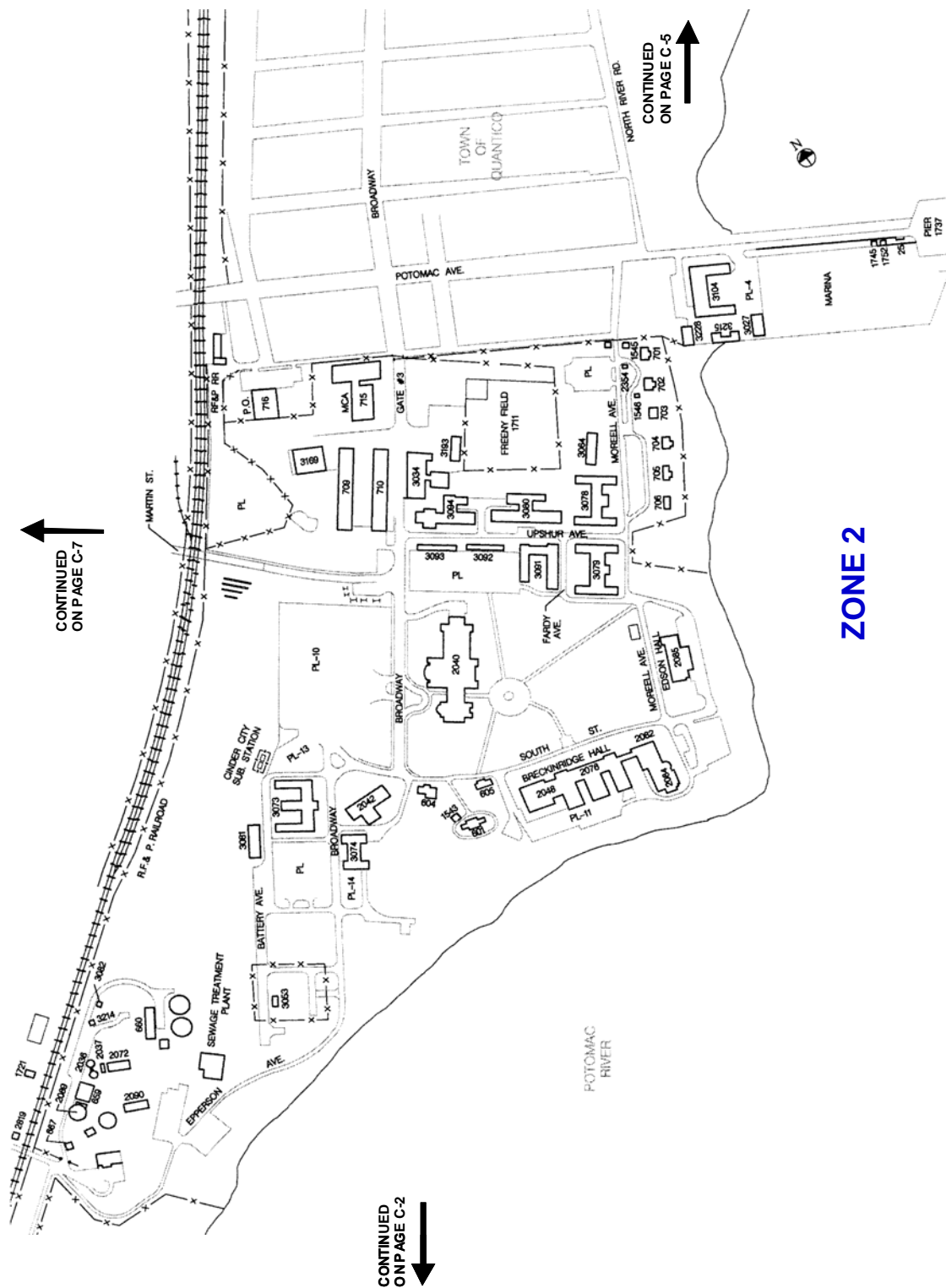


FIGURE C-2. MCB/MCAF QUANTICO HERO ZONES 1 AND 2 (CONT.)



ZONE 2

FIGURE C-3. MCB QUANTICO HERO ZONE 2

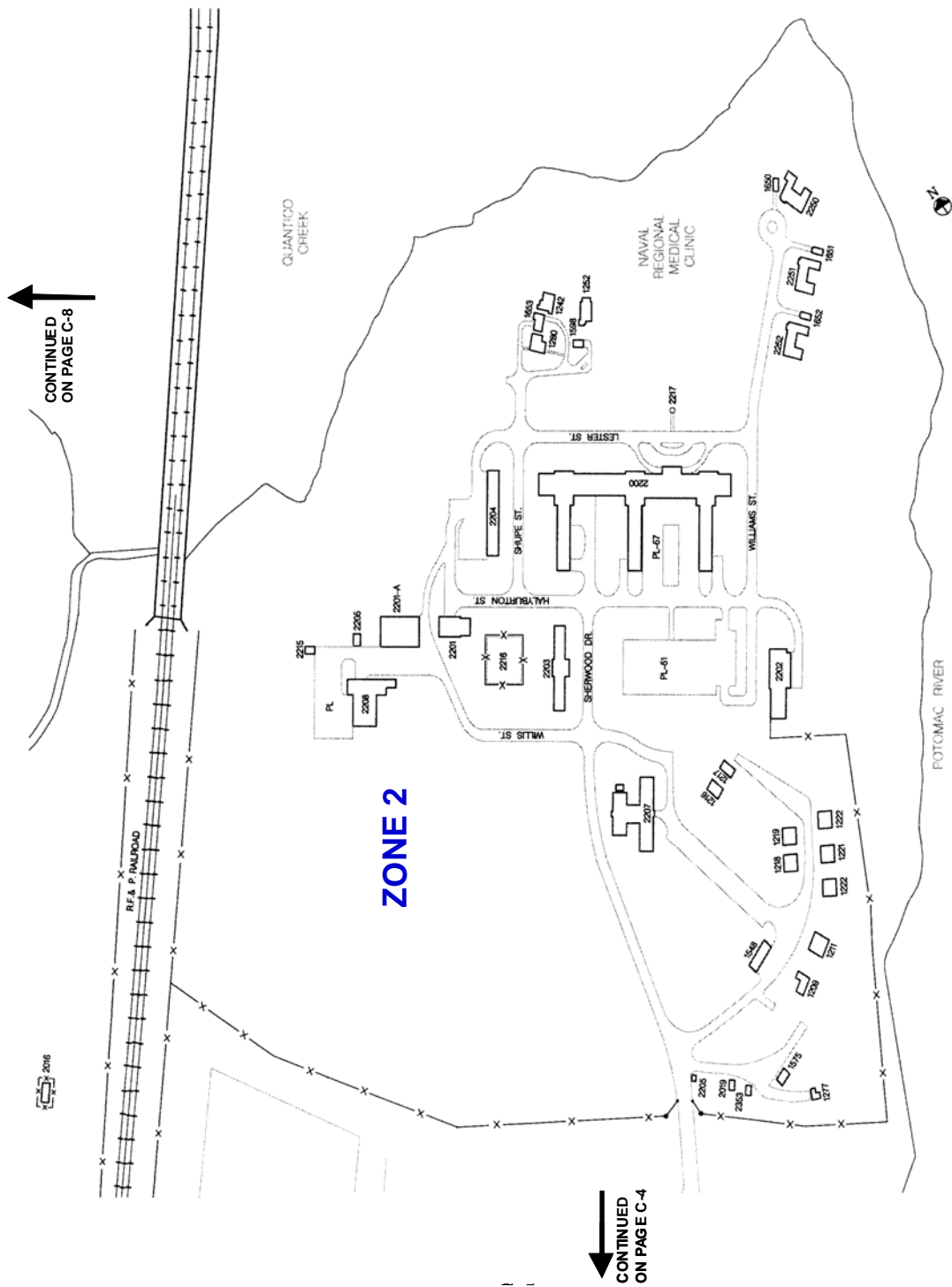


FIGURE C-3. MCB QUANTICO HERO ZONE 2 (CONT.)

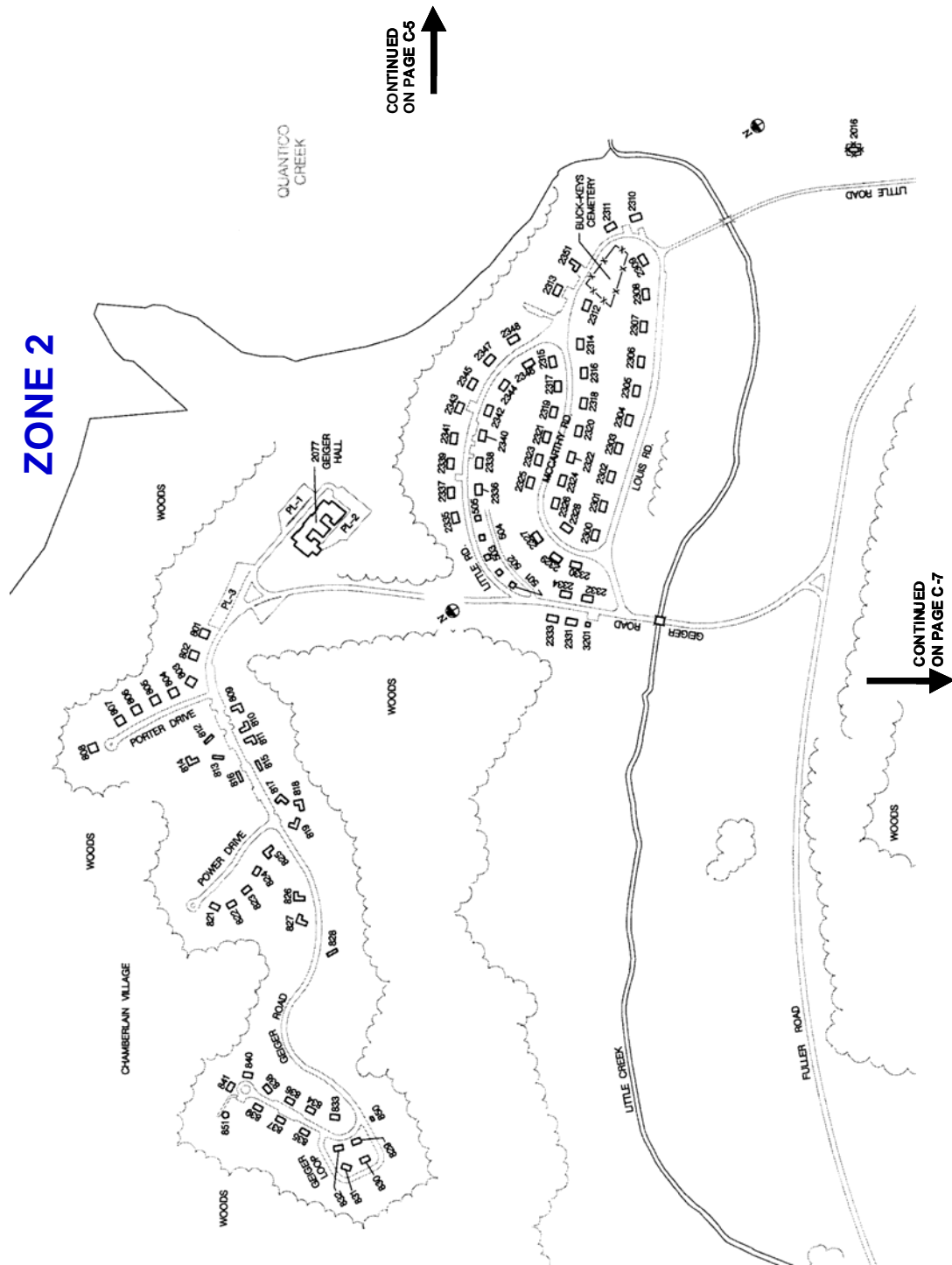
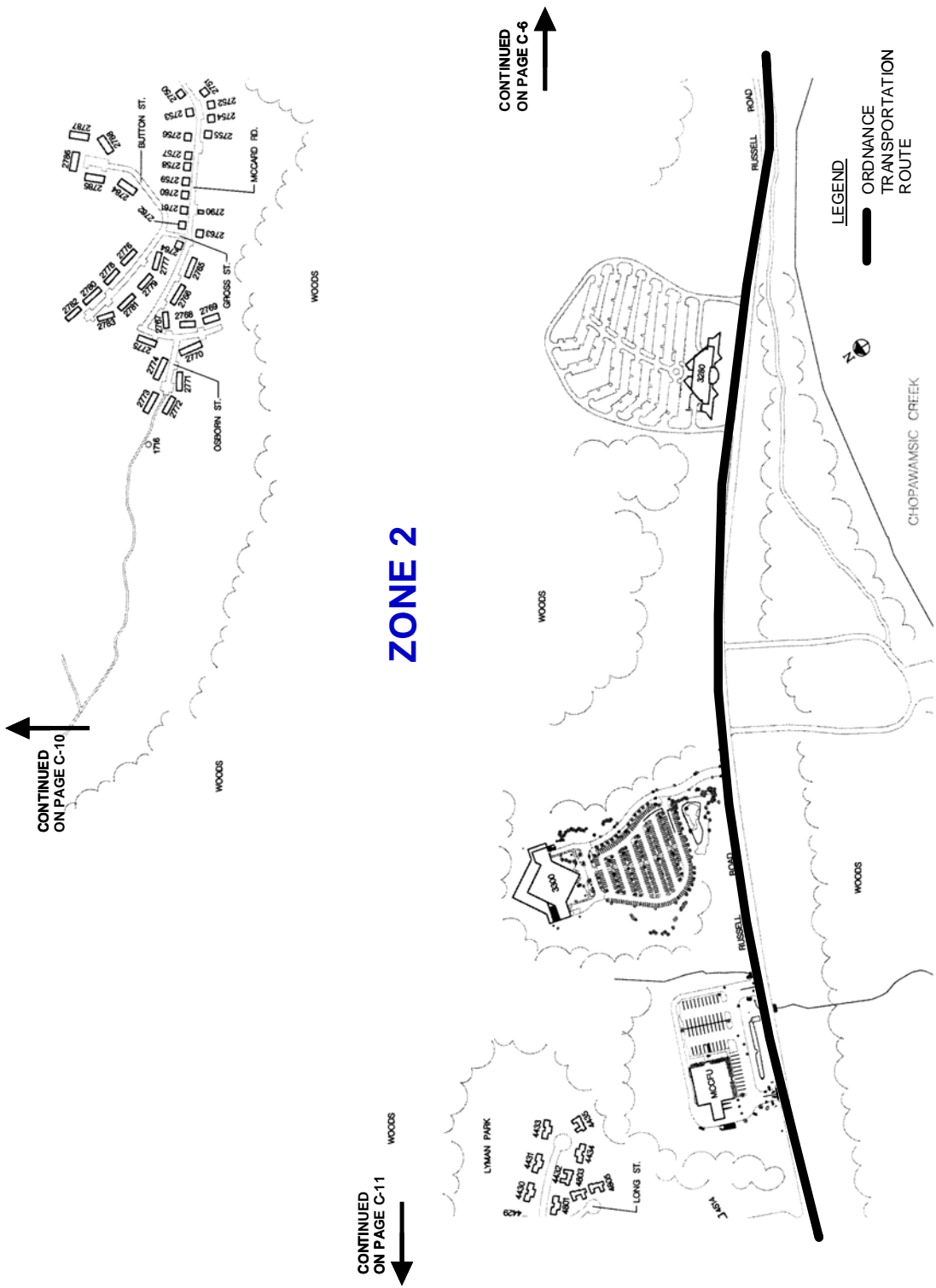


FIGURE C-3. MCB QUANTICO HERO ZONE 2 (CONT.)



ZONE 2

FIGURE C-3. MCB QUANTICO HERO ZONE 2 (CONT.)

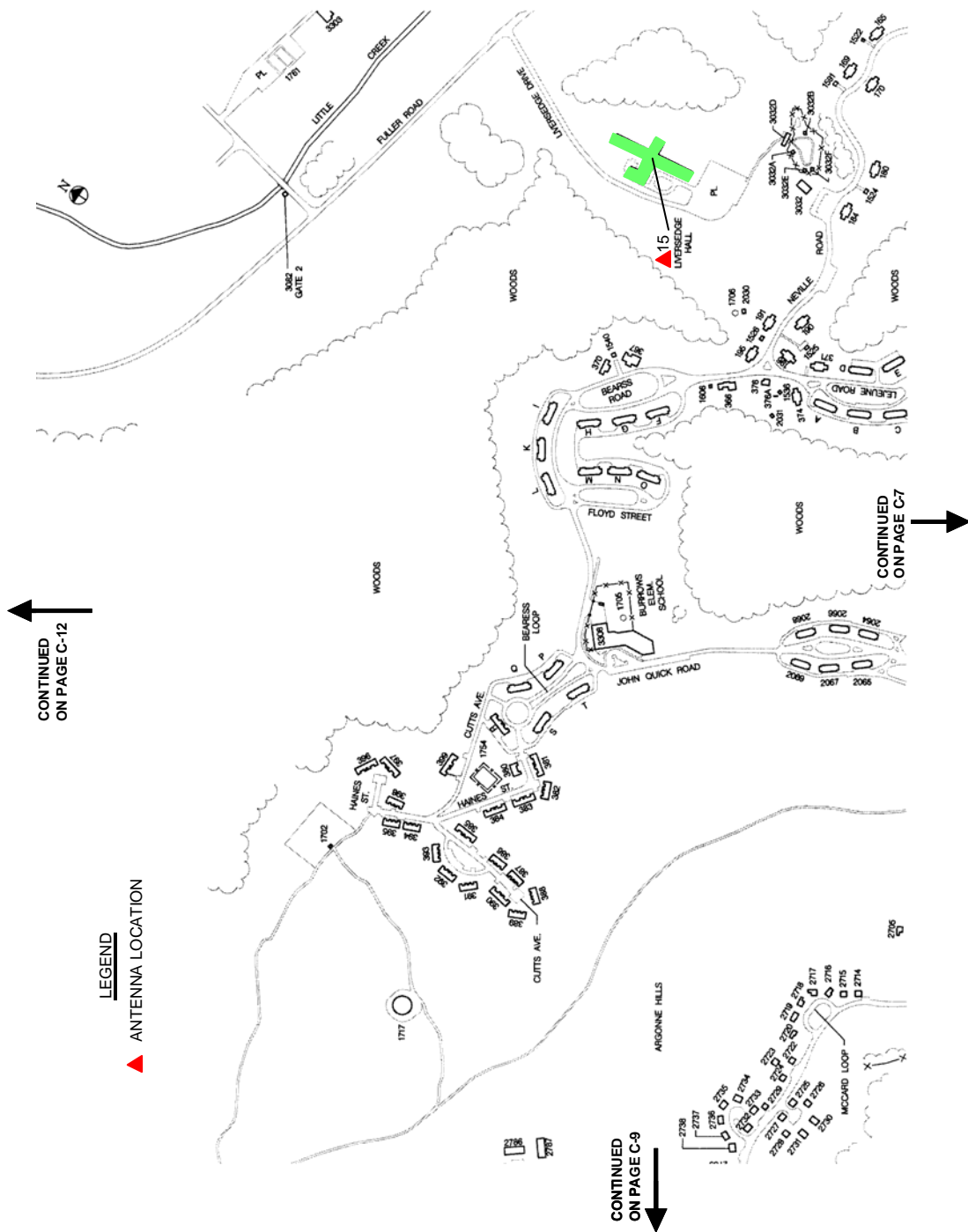


FIGURE C-3. MCB QUANTICO HERO ZONE 2 (CONT.)

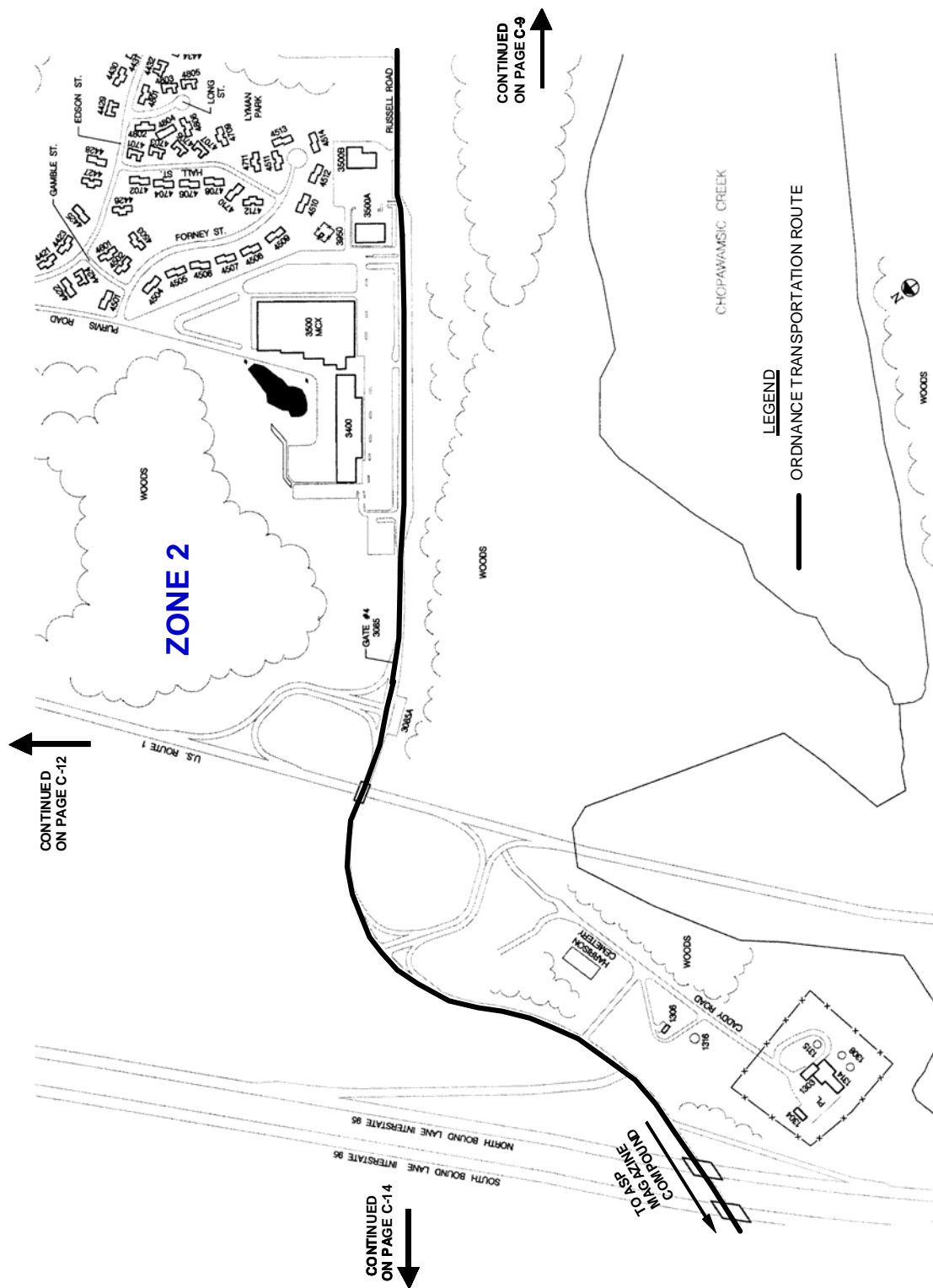


FIGURE C-3. MCB QUANTICO HERO ZONE 2 (CONT.)

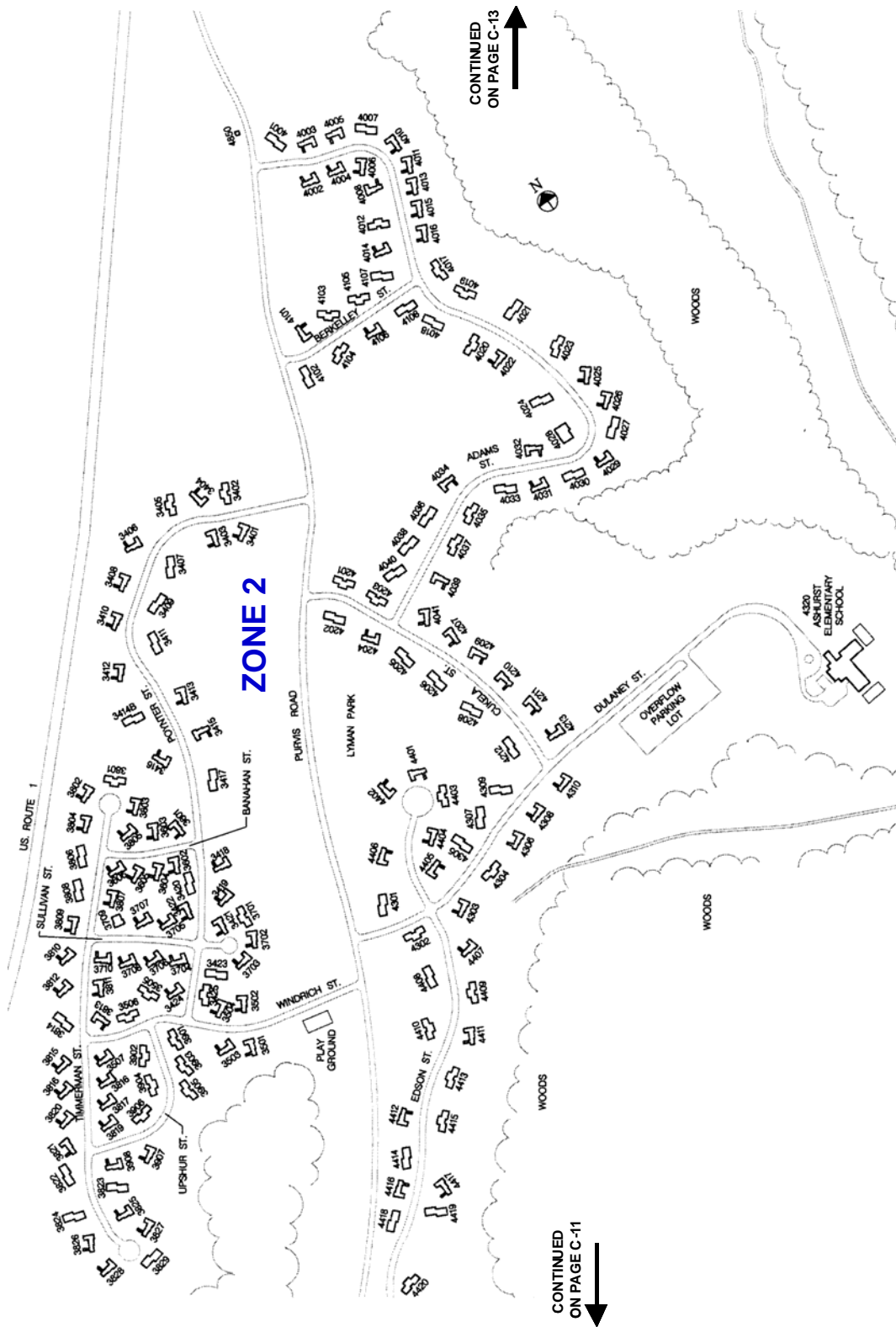


FIGURE C-3. MCB QUANTICO HERO ZONE 2 (CONT.)

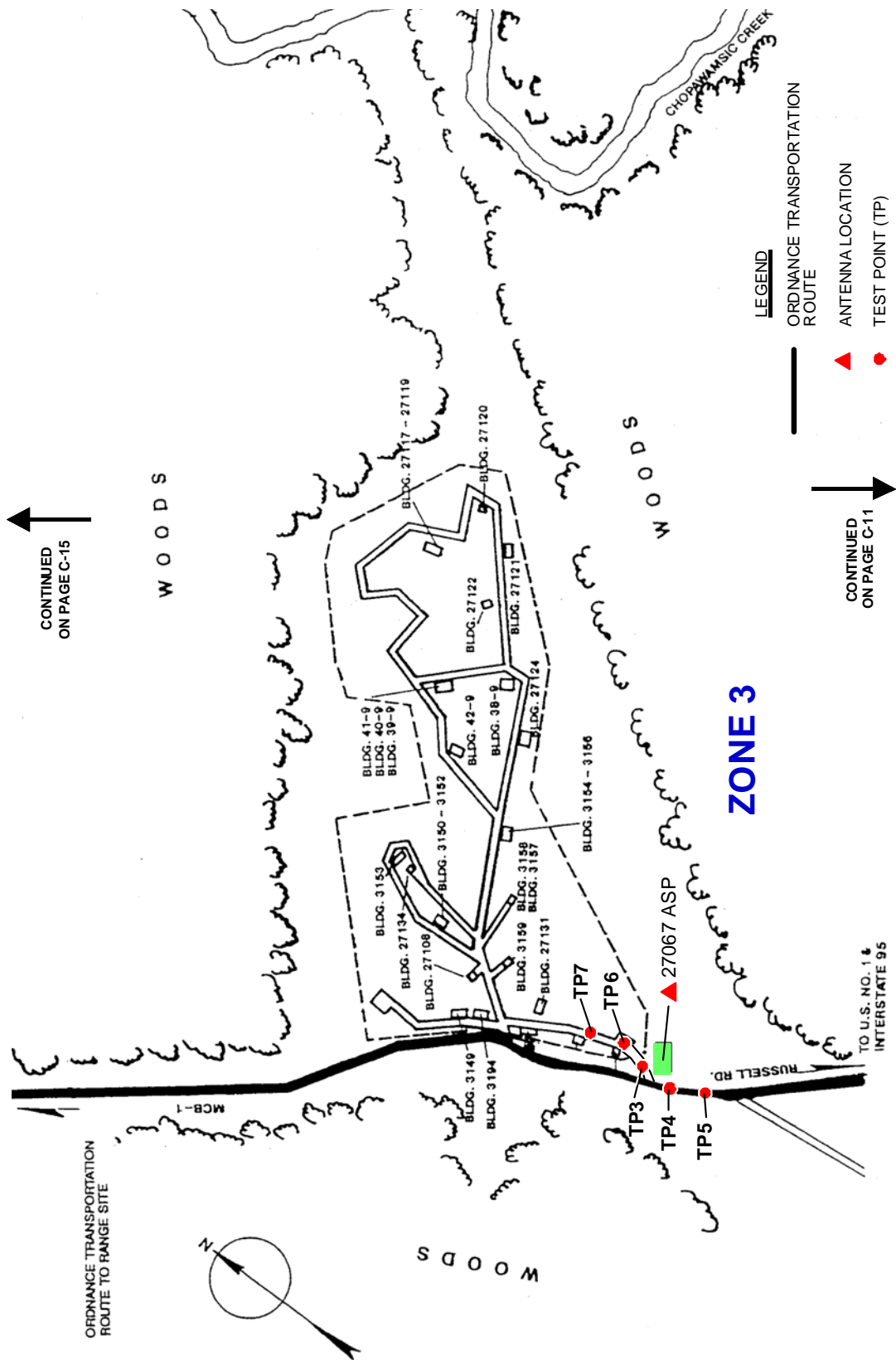


FIGURE C-4. MCB QUANTICO HERO ZONE 3

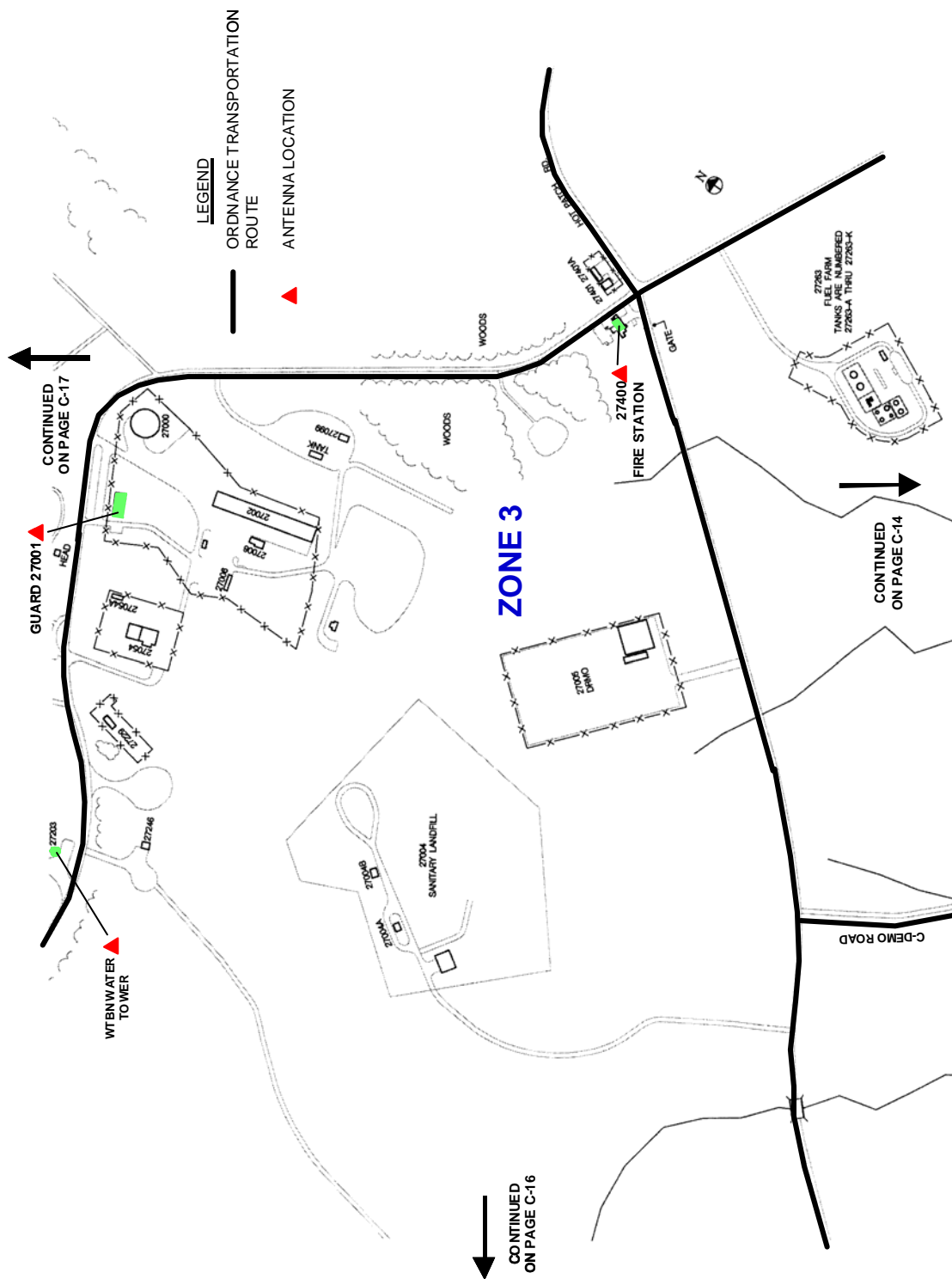


FIGURE C-4. MCB QUANTICO HERO ZONE 3 (CONT.)

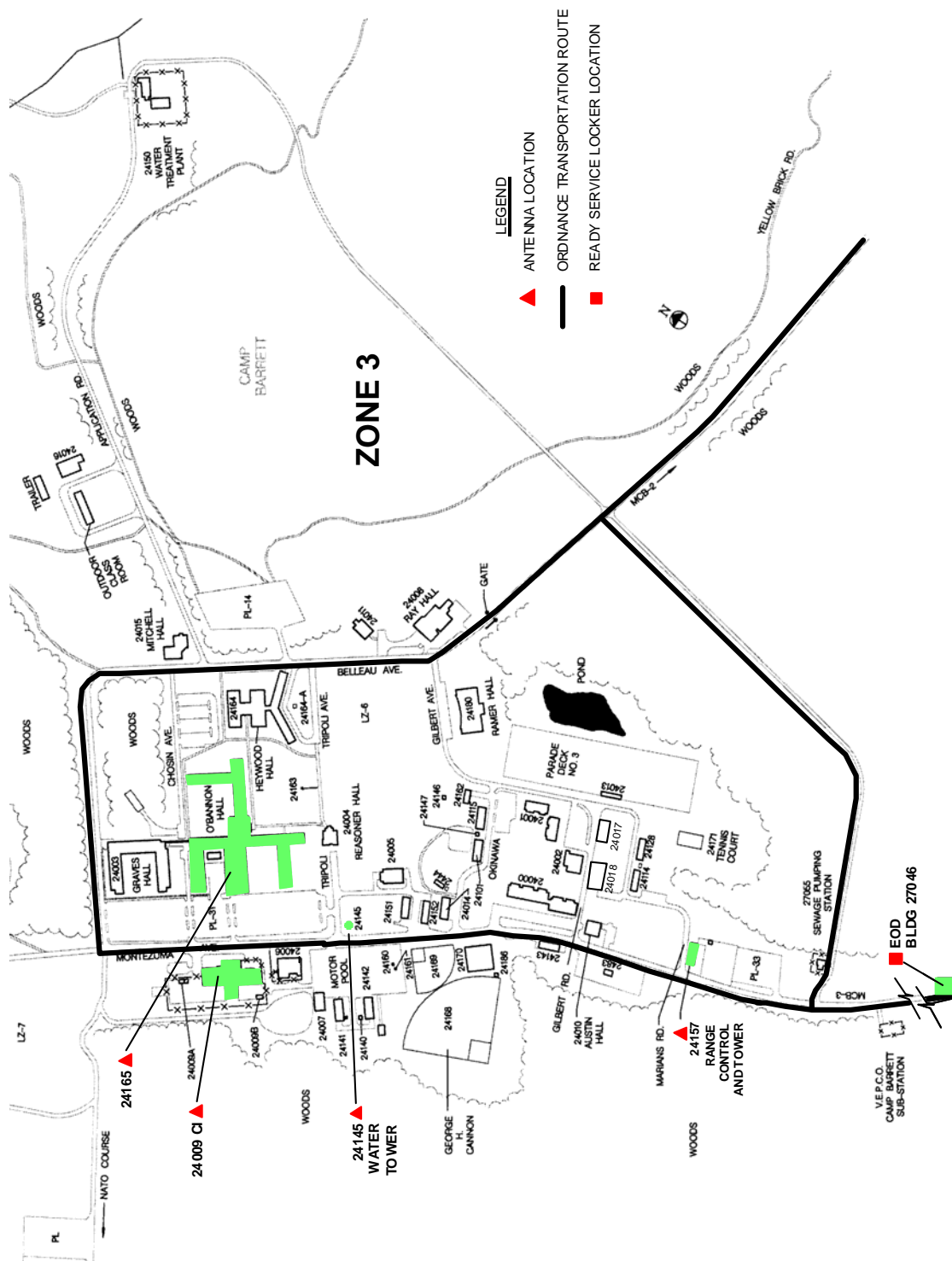
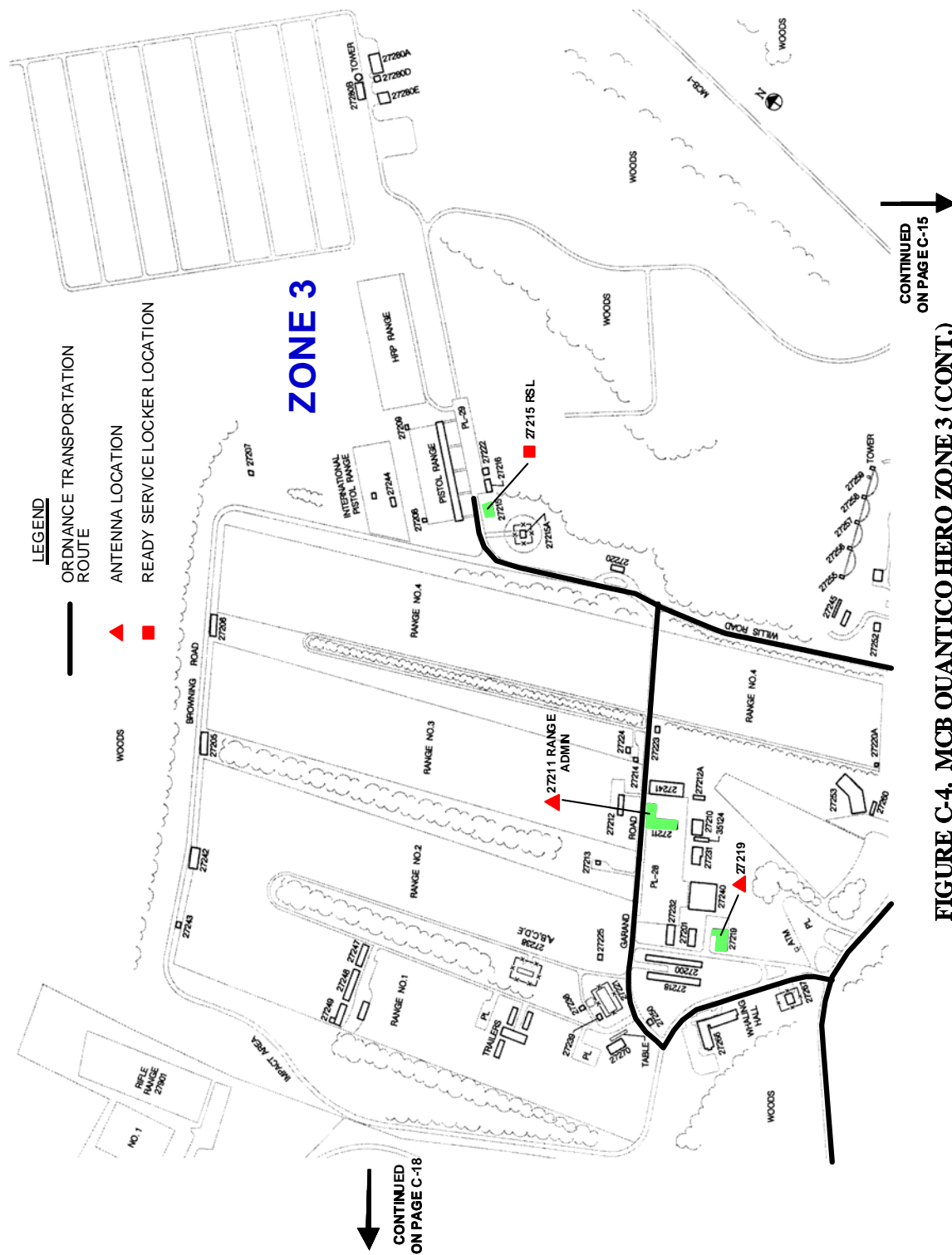
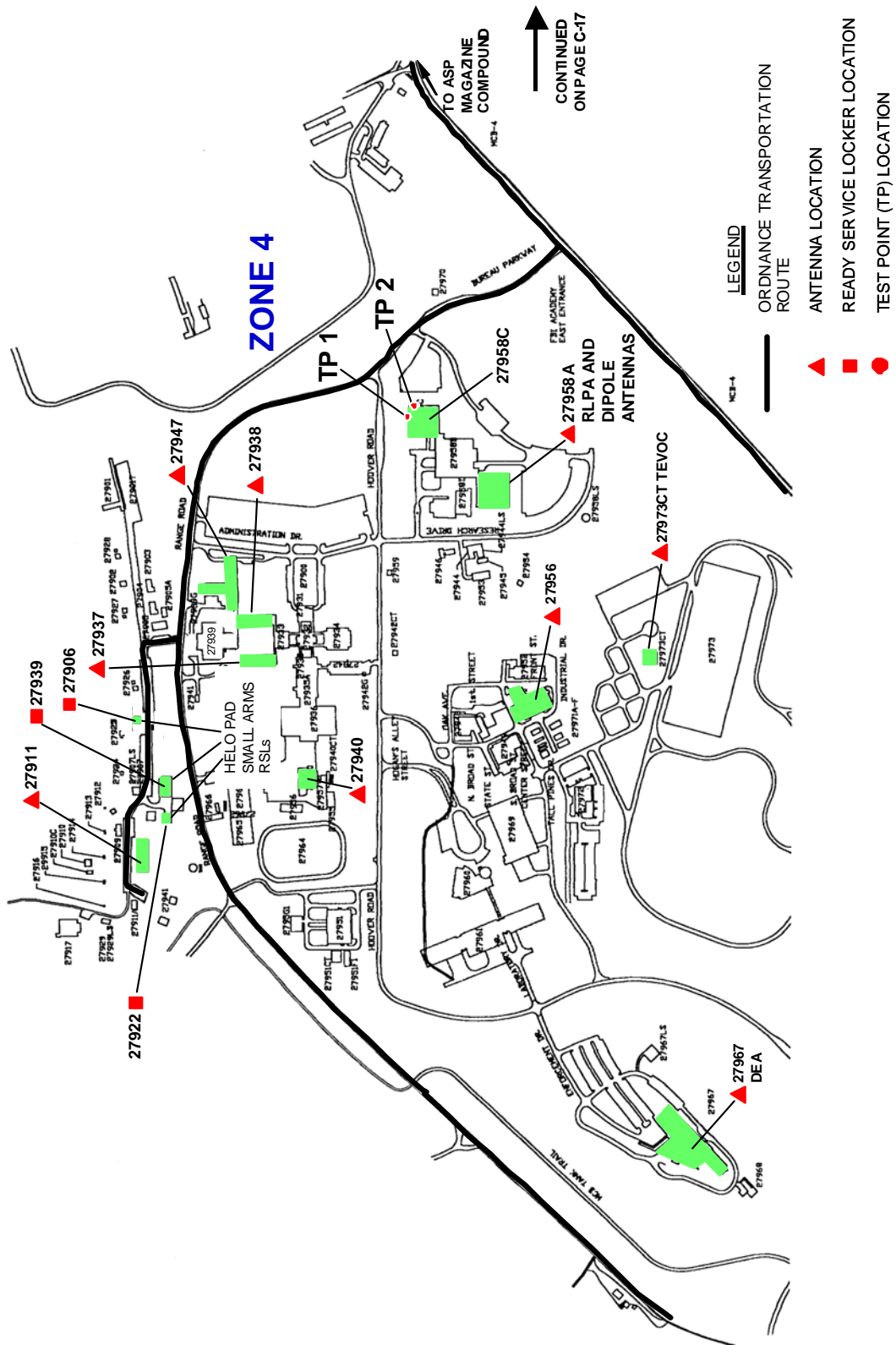


FIGURE C-4. MCB QUANTICO HERO ZONE 3 (CONT.)





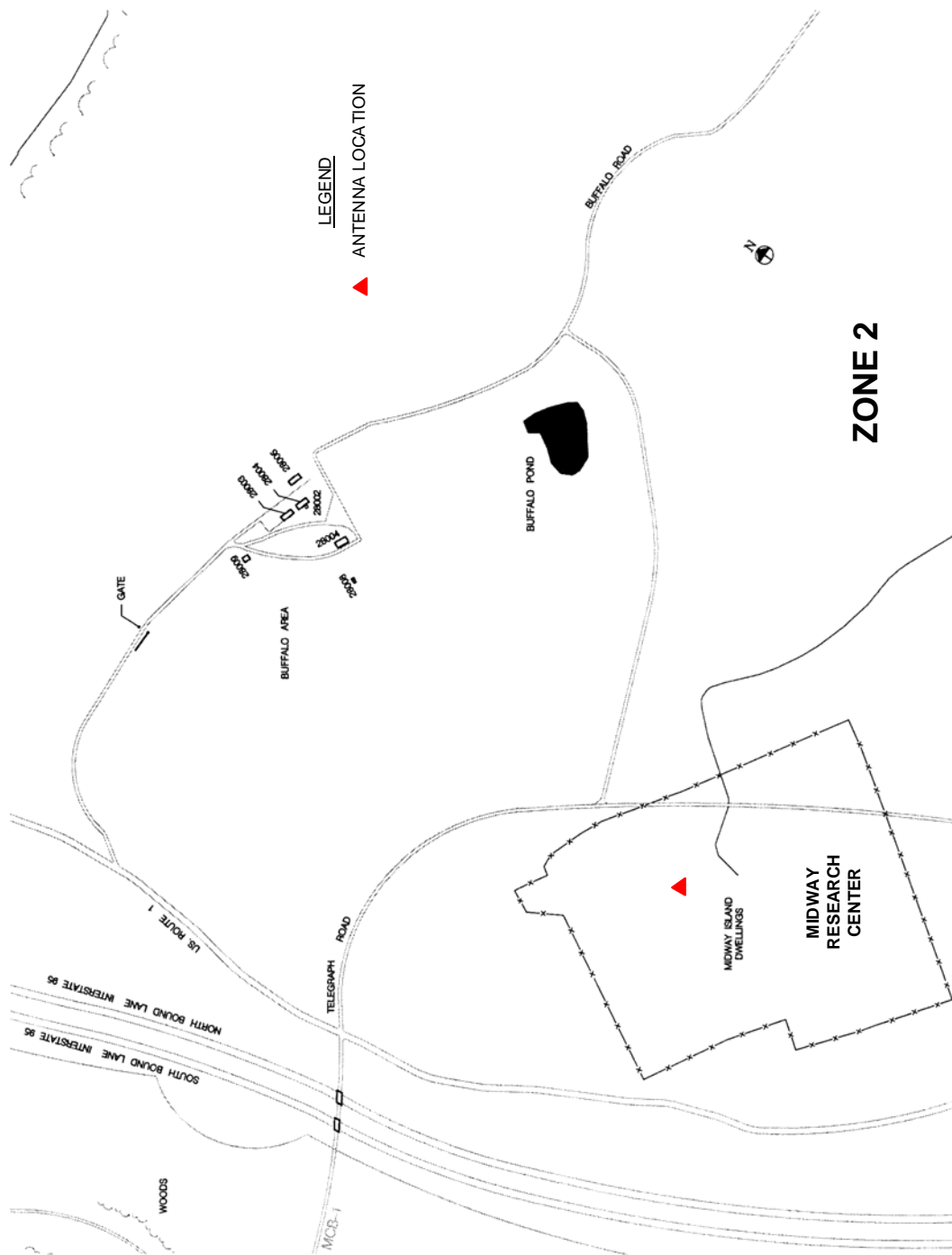


FIGURE C-6. MCB QUANTICO HERO ZONE 2 (MIDWAY RESEARCH CENTER)

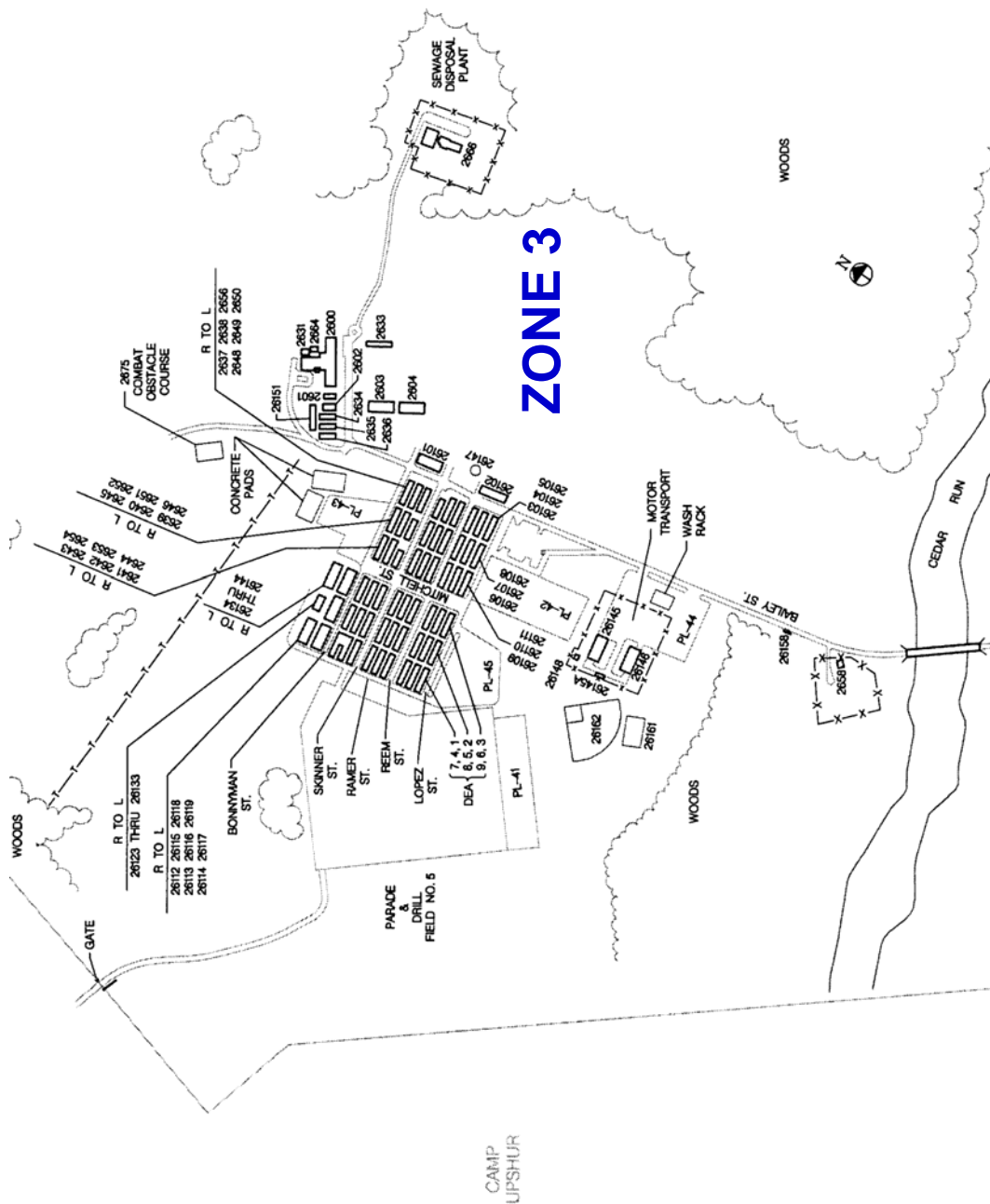


FIGURE C-7. MCB QUANTICO HERO ZONE 3 (CAMP UPSHUR)

HERO SUMMARY

Enclosure (4)

HERO SUMMARY

<u>NALC</u>	<u>Ordnance</u>	<u>S4 Phases</u>	<u>Location</u>	<u>HERO CONDITION</u>
<u>General Applications</u>				
All	HERO SAFE ORDNANCE	All S4 phases	All locations	0
All	HERO UNSAFE/UNRELIABLE ORDNANCE	All S4 phases	Zone 1	1
			Zone 2	1
			Zone 3	1
			Zone 4	1
All	HERO SUSCEPTIBLE ORDNANCE	All S4 phases	Zone 1	2
			Zone 2	2
			Zone 3	2
			Zone 4	2

HERO EMCON PROCEDURES

Enclosure (5)

HERO EMCON PROCEDURES

HERO CONDITION 0

HERO EMCON is not required; all transmitters [as listed in enclosure (6)] may be operated. Observe the general HERO requirements outlined in Chapter 7 of reference (b).

HERO CONDITION 1

This condition applies to HERO UNSAFE/UNRELIABLE ORDNANCE in HERO zone 1.

- Silence all aircraft transmitters except VHF/UHF communications transmitters operating at less than 20 watts or transmitters operating into dummy loads.
- For in-flight aircraft carrying ordnance items directly exposed to the station's EME, observe the HERO UNSAFE/UNRELIABLE ORDNANCE separation distances listed in enclosure (6) for all stationary transmitters.
- Observe the HERO UNSAFE/UNRELIABLE ORDNANCE separation distances listed in enclosure (6) for all mobile and portable transmitters.
- For an ordnance accident, emergency response units such as the Fire Department, Weapons Department, and Security responding to the scene with radio equipment must maintain a minimum separation distance of 150 feet from the accident site if using 3 VHF (132-174 MHz) mobile radios; similarly, a minimum separation distance of 50 feet must be maintained when using 3 VHF portable radios. Silence all other radios at the scene; for single radio use, apply the separation distances cited in enclosure (6) for that specific mobile or portable unit.

HERO CONDITION 2

This condition applies to HERO UNSAFE/UNRELIABLE ORDNANCE in HERO zones 2 and 4.

- Observe the HERO UNSAFE/UNRELIABLE ORDNANCE separation distances listed in enclosure (6) for all mobile and portable transmitters.
- For an ordnance accident, emergency response units such as the Fire Department, Weapons Department, and Security responding to the scene with radio equipment must maintain a minimum separation distance of 150 feet from the accident site if using 3 VHF (132-174 MHz) mobile radios; similarly, a minimum separation distance of 50 feet must be maintained when using 3 VHF portable radios. Silence all other radios at the scene; for single radio use, apply the separation distances cited in enclosure (6) for that specific mobile or portable unit.

HERO EMCON PROCEDURES (CONT.)

HERO CONDITION 3

This condition applies to HERO UNSAFE/UNRELIABLE ORDNANCE in HERO zone 3.

- Silence the Motorola Maxtrac transmitter in Building 27067 when ordnance is exposed within 178 feet (54 meters).
- Observe the HERO UNSAFE/UNRELIABLE ORDNANCE separation distances listed in enclosure (6) for all mobile and portable transmitters.
- For an ordnance accident, emergency response units such as the Fire Department, Weapons Department, and Security responding to the scene with radio equipment must maintain a minimum separation distance of 150 feet from the accident site if using 3 VHF (132-174 MHz) mobile radios; similarly, a minimum separation distance of 50 feet must be maintained when using 3 VHF portable radios. Silence all other radios at the scene; for single radio use, apply the separation distances cited in enclosure (6) for that specific mobile or portable unit.

HERO CONDITION 4

This condition applies to HERO SUSCEPTIBLE ORDNANCE in HERO zone 1.

- Silence all aircraft transmitters except VHF/UHF communications transmitters operating at less than 40 watts or transmitters operating into dummy loads.
- Observe the HERO SUSCEPTIBLE ORDNANCE separation distances listed in enclosure (6) for all mobile and portable transmitters.

HERO CONDITION 5

This condition applies to HERO SUSCEPTIBLE ORDNANCE in HERO zones 2, 3, and 4.

- Observe the HERO SUSCEPTIBLE ORDNANCE separation distances listed in enclosure (6) for all mobile and portable transmitters.

ANTENNA AND TRANSMITTER SYSTEMS

ANTENNA AND TRANSMITTER SYSTEMS

Building Number	Antenna Nomenclature	Antenna Type	Antenna Gain (dBi)	Transmitter Frequency (MHz)	Transmitter Max. Avg. Power (watts)	Transmitter Type	Separation Distances	
							HERO UNSAFE/ UNRELIABLE ORDNANCE (feet/meters)	HERO SUSCEPTIBLE ORDNANCE (feet/meters)
69 (FIRE AND RESCUE)	SINCLAIR DSSC323-HT1LDF	COLLINEAR OMNI	5.1	380-400	40.0	MOTOROLA ASTRO DIGITAL XTL 5000 CONSOLETTTE (UHF R1)	86/26	21/7
505 (FIRE AND RESCUE ADMIN)	SINCLAIR DSSC323-HT1LDF	COLLINEAR OMNI	5.1	380-400	40.0	MOTOROLA ASTRO DIGITAL XTL 5000 CONSOLETTTE (UHF R1)	86/26	21/7
2043 (PMO/GEMU)	SINCLAIR DSSC323-HT1LDF	COLLINEAR OMNI	5.1	380-400	40.0	MOTOROLA ASTRO DIGITAL XTL 5000 CONSOLETTTE (UHF R1)	86/26	21/7
2045 (FIRE AND RESCUE)	SINCLAIR DSSC323-HT1LDF	COLLINEAR OMNI	5.1	380-400	40.0	MOTOROLA ASTRO DIGITAL XTL 5000 CONSOLETTTE (UHF R1)	86/26	21/7
2102	CHANNEL MASTER TYPE 123	1.2-METER DISH	43.3	14000-14500	4.0	IDIRECT NETMODEN II PLUS	60/18	15/5
2105 (ATC TOWER)	TACO 4072	TACO	0.0	225-400	50.0	CM-200/UT (W/CM-50 AMPLIFIER)	90/28	23/7
2105 (ATC TOWER)	TACO 4072	TACO	0.0	225-400	10.0	CM-200/UT	40/12	10/3
2105 (ATC TOWER)	TACO 2295-3	MULDIPOLE	1.0	225-400	50.0	CM-200/UT (W/CM-50 AMPLIFIER)	101/31	25/8
2105 (ATC TOWER)	TACO 2295-3	MULDIPOLE	1.0	225-400	10.0	CM-200/UT	45/14	11/3
2105 (ATC TOWER)	TACO 2296-1	MULDIPOLE	1.0	225-400	50.0	CM-200/UT (W/CM-50 AMPLIFIER)	101/31	25/8
2105 (ATC TOWER)	TACO 2296-1	MULDIPOLE	1.0	225-400	10.0	CM-200/UT	45/14	11/3
2105 (ATC TOWER)	TACO 4074	TACO	0.0	225-400	50.0	CM-200/UT (W/CM-50 AMPLIFIER)	90/28	23/7
2105 (ATC TOWER)	TACO 4074	TACO	0.0	225-400	10.0	CM-200/UT	40/12	10/3
2105 (ATC TOWER)	AS-1729/VRC	WHIP ANTENNA	2.1	30-76	35.0	AN/VRC-46 (HIGH POWER)	271/83	68/21
2105 (ATC TOWER)	AS-1729/VRC	WHIP ANTENNA	2.1	30-76	8.0	AN/VRC-46 (LOW POWER)	130/40	32/10
2105 (ATC TOWER)	TACO 4073	TACO	0.0	225-400	50.0	CM-200/UT (W/CM-50 AMPLIFIER)	90/28	23/7
2105 (ATC TOWER)	TACO 4073	TACO	0.0	225-400	10.0	CM-200/UT	40/12	10/3
2117 (FBI)	MIL-SPEC 1030C	INVERTED V	2.1	0.01-30	200.0	MIL-SPEC 1030C (HIGH)	648/198	162/49
2117 (FBI)	MIL-SPEC 1030C	INVERTED V	2.1	0.01-30	150.0	MIL-SPEC 1030C (LOW)	561/171	140/43
2117 (FBI)	DIPOLE	DIPOLE	2.1	1.8-30	1000.0	DRAKE TR7A (W/DRAKE L7 AMPLIFIER)	1450/442	362/111
2117 (FBI)	DIPOLE	DIPOLE	2.1	1.8-30	150.0	DRAKE TR7A (CW)	561/171	140/43
3250 (LEJEUNE HALL)	SINCLAIR DSSC323-HT1LDF	COLLINEAR OMNI	5.1	380-400	40.0	MOTOROLA ASTRO DIGITAL XTL 5000 CONSOLETTTE (UHF R1)	86/26	21/7
3259 (MEDICAL)	SINCLAIR DSSC323-HT1LDF	COLLINEAR OMNI	5.1	380-400	40.0	MOTOROLA ASTRO DIGITAL XTL 5000 CONSOLETTTE (UHF R1)	86/26	21/7

ANTENNA AND TRANSMITTER SYSTEMS (CONT.)

Building Number	Antenna Nomenclature	Antenna Type	Antenna Gain (dBi)	Transmitter Frequency (MHz)	Transmitter Max. Avg. Power (watts)	Transmitter Type	Separation Distances	
							HERO UNSAFE/ UNRELIABLE ORDNANCE (feet/meters)	HERO SUSCEPTIBLE ORDNANCE (feet/meters)
5103 (AERO CLUB)	AS-3972/A	COLLINEAR ARRAY	2.1	30-88	23.0	AN/ARC-210(V)	220/67	55/17
5103 (AERO CLUB)	AS-3972/A	COLLINEAR ARRAY	2.1	30-88	15.0	AN/ARC-210(V)	178/54	44/14
5103 (AERO CLUB)	AS-3972/A	COLLINEAR ARRAY	2.1	108-156	15.0	AN/ARC-210(V)	131/40	33/10
5103 (AERO CLUB)	AS-3972/A	COLLINEAR ARRAY	2.1	108-156	10.0	AN/ARC-210(V)	107/33	27/8
5103 (AERO CLUB)	AS-3972/A	COLLINEAR ARRAY	2.1	156-174	23.0	AN/ARC-210(V)	112/34	28/9
5103 (AERO CLUB)	AS-3972/A	COLLINEAR ARRAY	2.1	156-174	15.0	AN/ARC-210(V)	91/28	23/7
5103 (AERO CLUB)	AS-3972/A	COLLINEAR ARRAY	2.1	225-400	15.0	AN/ARC-210(V)	63/19	16/5
5103 (AERO CLUB)	AS-3972/A	COLLINEAR ARRAY	2.1	225-400	10.0	AN/ARC-210(V)	51/16	13/4
5122C (RADAR PAD)	AS-3160/UPN	ELEVATION ARRAY	42.3	9100-9160	52.8	AN/FPN-63	299/91	75/23
5122C (RADAR PAD)	AS-3161/UPN	AZIMUTH PARABOLIC	41.8	9100-9160	52.8	AN/FPN-63	282/86	71/22
5156 (FIRE AND RESCUE STATION)	SINCLAIR DSSC323- HT1LDF	COLLINEAR OMNI	5.1	380-400	40.0	MOTOROLA ASTRO DIGITAL XTL 5000 CONSOLETTTE (UHF R1)	86/26	21/7
24002 (MESS HALL)	MAXUS REPEATER ANTENNA	DIPOLE	7.0	1850-1910	0.01	MAXUS MGR-319 SERIES CELLULAR REPEATER	1/0.3	1/0.3
24009 (CI)	SINCLAIR DSSC323- HT1LDF	COLLINEAR OMNI	5.1	380-400	40.0	MOTOROLA ASTRO DIGITAL XTL 5000 CONSOLETTTE (UHF R1)	86/26	21/7
24157 (RANGE CONTROL)	SINCLAIR DSSC323- HT1LDF	COLLINEAR OMNI	5.1	380-399.995	50.0	AN/URC-200 (UHF) (WITH UPA-50)	96/29	24/7
24157 (RANGE CONTROL)	SINCLAIR DSSC323- HT1LDF	COLLINEAR OMNI	5.1	380-399.995	10.0	AN/URC-200 (UHF) (FM/AM HIGH POWER)	43/13	11/3
24157 (RANGE CONTROL)	SINCLAIR DSSC323- HT1LDF	COLLINEAR OMNI	5.1	380-399.995	5.0	AN/URC-200 (UHF) (FM MEDIUM/AM LOW)	30/9	10/3
24157 (RANGE CONTROL)	SINCLAIR DSSC323- HT1LDF	COLLINEAR OMNI	5.1	380-399.995	1.0	AN/URC-200 (UHF) (FM LOW)	14/4	10/3
24157 (RANGE CONTROL)	SINCLAIR DSSC323- HT1LDF	COLLINEAR OMNI	5.1	380-400	40.0	MOTOROLA ASTRO DIGITAL XTL 5000 CONSOLETTTE (UHF R1)	86/26	21/7
24165 (MESS HALL)	MAXUS REPEATER ANTENNA	DIPOLE	7.0	1850-1910	0.01	MAXUS MGR-319 SERIES CELLULAR REPEATER	1/0.3	1/0.3
27001 (GUARD)	SINCLAIR DSSC323- HT1LDF	COLLINEAR OMNI	5.1	380-400	40.0	MOTOROLA ASTRO DIGITAL XTL 5000 CONSOLETTTE (UHF R1)	86/26	21/7
27067 (ASP)	AS-2809/SRC	DIPOLE	2.0	136-162	45.0	MOTOROLA MAXTRAC (VHF)	178/54	45/14
27067 (ASP)	AS-2809/SRC	DIPOLE	2.0	136-162	25.0	MOTOROLA MAXTRAC (VHF)	133/41	33/10
27211 (RANGE ADMINISTRATION)	DECIBEL PRODUCTS DB201-G (144-150 MHZ)	GROUND PLANE	2.1	144-150	45.0	MOTOROLA MAXTRAC (VHF)	170/52	43/13
27211 (RANGE ADMINISTRATION)	DECIBEL PRODUCTS DB201-G (144-150 MHZ)	GROUND PLANE	2.1	144-150	25.0	MOTOROLA MAXTRAC (VHF)	127/39	32/10

ANTENNA AND TRANSMITTER SYSTEMS (CONT.)

Building Number	Antenna Nomenclature	Antenna Type	Antenna Gain (dBi)	Transmitter Frequency (MHz)	Transmitter Max. Avg. Power (watts)	Transmitter Type	Separation Distances	
							HERO UNSAFE/ UNRELIABLE ORDNANCE (feet/meters)	HERO SUSCEPTIBLE ORDNANCE (feet/meters)
27219 (MESS HALL)	MAXUS REPEATER ANTENNA	DIPOLE	7.0	1850-1910	0.01	MAXUS MGR-319 SERIES CELLULAR REPEATER	1/0.3	1/0.3
27400 (FIRE AND RESCUE)	SINCLAIR DSSC323-HT1LDF	COLLINEAR OMNI	5.1	380-400	40.0	MOTOROLA ASTRO DIGITAL XTL 5000 CONSOLETTTE (UHF R1)	86/26	21/7
27911 (FBI) (17)	SINCLAIR SC488-HF3SNF	COLLINEAR	12.1	851-870	75.0	MOTOROLA MTR2000 (800/900 MHZ)	118/36	29/9
27911 (FBI) (17)	SINCLAIR SC488-HF3SNF	COLLINEAR	12.1	935-940	75.0	MOTOROLA MTR2000 (800/900 MHZ)	107/33	27/8
27937 (FBI) (7)	SINCLAIR SC-229	WHIP	8.1	132-174	100.0	MOTOROLA MTR2000 (UHF/VHF)	553/169	138/42
27937 (FBI) (7)	SINCLAIR SC-229	WHIP	8.1	136-174	45.0	MOTOROLA MTR2000 (UHF/VHF)	360/110	90/27
27937 (FBI) (7)	SINCLAIR SC-229	WHIP	8.1	403-470	100.0	MOTOROLA MTR2000 (UHF/VHF)	181/55	45/14
27937 (FBI) (7)	SINCLAIR SC488-HF3SNF	COLLINEAR	12.1	851-870	75.0	MOTOROLA MTR2000 (800/900 MHZ)	118/36	29/9
27937 (FBI) (7)	SINCLAIR SC488-HF3SNF	COLLINEAR	12.1	935-940	75.0	MOTOROLA MTR2000 (800/900 MHZ)	107/33	27/8
27938 (FBI) (8)	SINCLAIR SC329H	COLLINEAR	8.1	403-470	100.0	MOTOROLA MTR2000 (UHF/VHF)	181/55	45/14
27938 (FBI) (8)	SINCLAIR SC488-HF3SNF	COLLINEAR	12.1	851-870	75.0	MOTOROLA MTR2000 (800/900 MHZ)	118/36	29/9
27938 (FBI) (8)	SINCLAIR SC488-HF3SNF	COLLINEAR	12.1	935-940	75.0	MOTOROLA MTR2000 (800/900 MHZ)	107/33	27/8
27940 (FBI) (10)	SINCLAIR SC488-HF3SNF	COLLINEAR	12.1	851-870	75.0	MOTOROLA MTR2000 (800/900 MHZ)	118/36	29/9
27940 (FBI) (10)	SINCLAIR SC488-HF3SNF	COLLINEAR	12.1	935-940	75.0	MOTOROLA MTR2000 (800/900 MHZ)	107/33	27/8
27947 (FBI) (16)	SINCLAIR SC488-HF3SNF	COLLINEAR	12.1	851-870	75.0	MOTOROLA MTR2000 (800/900 MHZ)	118/36	29/9
27947 (FBI) (16)	SINCLAIR SC488-HF3SNF	COLLINEAR	12.1	935-940	75.0	MOTOROLA MTR2000 (800/900 MHZ)	107/33	27/8
27950 (FBI) (15)	SINCLAIR SC488-HF3SNF	COLLINEAR	12.1	851-870	75.0	MOTOROLA MTR2000 (800/900 MHZ)	118/36	29/9
27950 (FBI) (15)	SINCLAIR SC488-HF3SNF	COLLINEAR	12.1	935-940	75.0	MOTOROLA MTR2000 (800/900 MHZ)	107/33	27/8
27958 (FBI) (19)	AS-3772B/U (SINGLE)	35-FOOT WHIP	2.1	2-30	1000.0	HARRIS RF-350 (RF-353/354 1KW POWER AMP)	1450/442	362/111
27958 (FBI) (19)	AS-3772B/U (SINGLE)	35-FOOT WHIP	2.1	2-30	500.0	HARRIS RF-350 (RF-355 500W LINEAR POWER AMP)	1025/313	256/78
27958 (FBI) (19)	AS-3772B/U (SINGLE)	35-FOOT WHIP	2.1	2-30	100.0	HARRIS RF-350 (RF-350 TRANSCEIVER)	458/140	115/35
27958 (FBI) (19)	LST-5C	SATCOM	9.0	225-399.995	18.0	MOTOROLA LST-5C (FM, PM)	153/47	38/12
27958 (FBI) (19)	LST-5C	SATCOM	9.0	225-399.995	5.0	MOTOROLA LST-5C (AM)	80/25	20/6
27958 (FBI) (19)	LST-5C	SATCOM	9.0	225-399.995	2.0	MOTOROLA LST-5C (AM)	51/16	13/4
27958 (FBI) (19)	LST-5C	SATCOM	9.0	225-399.995	2.0	MOTOROLA LST-5C (FM, PM)	51/16	13/4
27958 (FBI) (19)	RLPA (12-30 MHZ)	LOG PERIODIC ARRAY	12.0	12-30	1000.0	HARRIS RF-350 (RF-353/354 1KW POWER AMP)	4532/1382	1133/345

ANTENNA AND TRANSMITTER SYSTEMS (CONT.)

Building Number	Antenna Nomenclature	Antenna Type	Antenna Gain (dBi)	Transmitter Frequency (MHz)	Transmitter Max. Avg. Power (watts)	Transmitter Type	Separation Distances	
							HERO UNSAFE/ UNRELIABLE ORDNANCE (feet/meters)	HERO SUSCEPTIBLE ORDNANCE (feet/meters)
27958 (FBI) (19)	RLPA (12-30 MHZ)	LOG PERIODIC ARRAY	12.0	12-30	500.0	HARRIS RF-350 (RF-355 500W LINEAR POWER AMP)	3205/977	801/244
27958 (FBI) (19)	RLPA (12-30 MHZ)	LOG PERIODIC ARRAY	12.0	12-30	100.0	HARRIS RF-350 (RF-350 TRANSCEIVER)	1433/437	358/109
27958 (FBI) (19)	RLPA (6-12 MHZ)	LOG PERIODIC ARRAY	9.0	6.2-12	1000.0	HARRIS RF-350 (RF-353/354 1KW POWER AMP)	3209/978	802/245
27958 (FBI) (19)	RLPA (6-12 MHZ)	LOG PERIODIC ARRAY	9.0	6.2-12	500.0	HARRIS RF-350 (RF-355 500W LINEAR POWER AMP)	2269/692	567/173
27973 (TEVOC)	SINCLAIR DSSC323-HT1LDF	COLLINEAR OMNI	5.1	380-400	40.0	MOTOROLA ASTRO DIGITAL XTL 5000 CONSOLETT (UHF R1	86/26	21/7
27958 (FBI) (19)	RLPA (6-12 MHZ)	LOG PERIODIC ARRAY	9.0	6.2-12	100.0	HARRIS RF-350 (RF-350 TRANSCEIVER)	1015/309	254/77
27958 (FBI) (19)	DIPOLE	DIPOLE	2.1	1.6-30	1000.0	HARRIS RF-350 (RF-353/354 1KW POWER AMP)	1450/442	362/111
27958 (FBI) (19)	DIPOLE	DIPOLE	2.1	1.6-30	500.0	HARRIS RF-350 (RF-355 500W LINEAR POWER AMP)	1025/313	256/78
27958 (FBI) (19)	DIPOLE	DIPOLE	2.1	1.6-30	100.0	HARRIS RF-350 (RF-350 TRANSCEIVER)	458/140	115/35
27958 (FBI) (19)	LONGWIRE	LONGWIRE	2.1	2-30	1000.0	HARRIS RF-350 (RF-353/354 1KW POWER AMP)	1450/442	362/111
27958 (FBI) (19)	LONGWIRE	LONGWIRE	2.1	2-30	500.0	HARRIS RF-350 (RF-355 500W LINEAR POWER AMP)	1025/313	256/78
27958 (FBI) (19)	LONGWIRE	LONGWIRE	2.1	2-30	100.0	HARRIS RF-350 (RF-350 TRANSCEIVER)	458/140	115/35
27958 (FBI)	SATURN 3S.90	PARABOLIC	21.6	1626-1647	13.2	INMARSAT B	77/24	19/6
ARGONNE HILL	WHIP	WHIP	2.1	66-79	1.0	ESTEEM MODEL 95	46/14	11/3
ARGONNE HILL	OE-254/GRC	MULTI-ELEMENT	5.1	30-88	50.0	AN/PRC-119 (WITH AMP)	458/140	114/35
ARGONNE HILL	OE-254/GRC	MULTI-ELEMENT	5.1	30-88	4.5	AN/PRC-119	137/42	34/10
ARGONNE HILL	AS-3134/UPX	CIRCULAR ARRAY	19.0	1030	1.2	AN/UPX-23 (HIGH)	27/8	10/3
ARGONNE HILL	AS-3134/UPX	CIRCULAR ARRAY	19.0	1030	0.76	AN/UPX-23 (MID)	22/7	10/3
ARGONNE HILL	AS-3134/UPX	CIRCULAR ARRAY	19.0	1030	0.3	AN/UPX-23 (LOW)	14/4	10/3
ARGONNE HILL	DECIBEL PRODUCTS DB264 (DIRECTIONAL)	DIPOLE	11.1	150-174	110.0	MOTOROLA MICOR	721/220	180/55
ARGONNE HILL	DECIBEL PRODUCTS DB264 (OMNIDIRECTIONAL)	DIPOLE	8.1	150-174	110.0	MOTOROLA MICOR	510/156	128/39
ARGONNE HILL	AS-1018/URC	COLINEAR DIPOLE ARRAY	5.0	225-400	50.0	AN/GRT-22 (W/AM-6155 AMP)	161/49	40/12
ARGONNE HILL	AS-1018/URC	COLINEAR DIPOLE ARRAY	5.0	225-400	10.0	AN/GRT-22 (LOW)	72/22	18/5
ARGONNE HILL	AS-2809/SRC	DIPOLE	2.0	116-150	50.0	AN/GRT-21 (W/AM-6154 AMP)	220/67	55/17
ARGONNE HILL	AS-2809/SRC	DIPOLE	2.0	116-150	10.0	AN/GRT-21 (VHF)	99/30	25/8

ANTENNA AND TRANSMITTER SYSTEMS (CONT.)

Building Number	Antenna Nomenclature	Antenna Type	Antenna Gain (dBi)	Transmitter Frequency (MHz)	Transmitter Max. Avg. Power (watts)	Transmitter Type	Separation Distances	
							HERO UNSAFE/ UNRELIABLE ORDNANCE (feet/meters)	HERO SUSCEPTIBLE ORDNANCE (feet/meters)
ARGONNE HILL (CINGULAR)	KATHREIN SCALA 742-264 (1710-2180 MHZ)	65-DEGREE MULTIBAND DIRECTIONAL	16.8	1930-1945	16.0	LUCENT FLEXENT MODCELL	41/13	10/3
ARGONNE HILL (MCAF)	MONOPOLE	MONOPOLE	3.1	115-174	50.0	AN/URC-200 (VHF) (WITH UPA-50)	252/77	63/19
ARGONNE HILL (MCAF)	MONOPOLE	MONOPOLE	3.1	115-174	10.0	AN/URC-200 (VHF) (FM/AM HIGH POWER)	113/34	28/9
ARGONNE HILL (MCAF)	MONOPOLE	MONOPOLE	3.1	115-174	5.0	AN/URC-200 (VHF) (FM MEDIUM/AM LOW)	80/24	20/6
ARGONNE HILL (MCAF)	MONOPOLE	MONOPOLE	3.1	115-174	0.1	AN/URC-200 (VHF) (FM LOW)	11/3	5/1.5
ARGONNE HILL (MCAF)	MONOPOLE	MONOPOLE	3.1	225-399.995	50.0	AN/URC-200 (UHF) (WITH UPA-50)	129/39	32/10
ARGONNE HILL (MCAF)	MONOPOLE	MONOPOLE	3.1	225-399.995	10.0	AN/URC-200 (UHF) (FM/AM HIGH POWER)	58/18	14/4
ARGONNE HILL (MCAF)	MONOPOLE	MONOPOLE	3.1	225-399.995	5.0	AN/URC-200 (UHF) (FM MEDIUM/AM LOW)	41/12	10/3
ARGONNE HILL (MCAF)	MONOPOLE	MONOPOLE	3.1	225-399.995	1.0	AN/URC-200 (UHF) (FM LOW)	18/6	10/3
ARGONNE HILL (NEXTEL/SPRINT)	CELWAVE AP859012		14.1	851-940	52.0	MOTOROLA IDEN 800 AND 900	123/38	31/9
ARGONNE HILL (T-MOBILE)	ERICSSON RR90-18-00DP	DUAL LINEAR SLANT	17.5	1930-1990	30.0	ERICSSON RBS2106	61/19	15/5
FBI ACADEMY	EMS RV90-12-XXXXA2	PANEL	13.3	851-896	52.0	MOTOROLA IDEN 800 AND 900	113/34	28/9
LIVERSEDGE HALL (T-MOBILE)	ERICSSON RR90-18-00DP	DUAL LINEAR SLANT	17.5	1930-1990	30.0	ERICSSON RBS2106	61/19	15/5
MARS TOWER	SINCLAIR DSSC323-HT1LDF	COLLINEAR OMNI	5.1	380-400	110.0	MOTOROLA QUANTAR STATION/REPEATER (T5365) (X640)	143/43	36/11
MARS TOWER	CELWAVE AP859012	PANEL	14.1	851-940	52.0	MOTOROLA IDEN 800 AND 900	123/38	31/9
MARS TOWER (T-MOBILE)	ERICSSON RR90-18-00DP	DUAL LINEAR SLANT	17.5	1930-1990	30.0	ERICSSON RBS2106	61/19	15/5
RADAR HILL	FA-9344	PARABOLIC	35.6	2755-2825	875.0	AN/GPN-27 ASR-8	1859/567	465/142
SPRINT (ARGONNE HILL)	RFS APXV18-206516L-C	PANEL	17.6	1930-1945	60.0	LUCENT MODCELL 4.0 (6 CHANNELS)	87/27	22/7
SPRINT (GEIGER HILL)	RFS APXV18-206516L-C	PANEL	17.6	1930-1945	60.0	LUCENT MODCELL 4.0 (6 CHANNELS)	87/27	22/7
SPRINT (RIFLE RANGE)	RFS APXV18-206516L-C	PANEL	17.6	1930-1945	60.0	LUCENT MODCELL 4.0 (6 CHANNELS)	87/27	22/7
VARIOUS	KING FISHER KF50037 (138-174 MHZ)	3DB GAIN HI BAND	5.1	133-174	1.0	KING FISHER KFRTI 20	39/12	10/3
VARIOUS	KING FISHER KF50037 (138-174 MHZ)	3DB GAIN HI BAND	5.1	138-174	1.0	KING FISHER KF3 (GOVERNMENT USE ONLY)	37/11	10/3
WTBN WATER TOWER (T-MOBILE)	ERICSSON RR90-18-00DP	DUAL LINEAR SLANT	17.5	925-960	28.0	ERICSSON RBS 2102	123/38	31/9
WTBN WATER TOWER (T-MOBILE)	ERICSSON RR90-18-00DP	DUAL LINEAR SLANT	17.5	1805-1880	22.0	ERICSSON RBS 2102	56/17	14/4
WTBN WATER TOWER (T-MOBILE)	ERICSSON RR90-18-00DP	DUAL LINEAR SLANT	17.5	1930-1990	22.0	ERICSSON RBS 2102	52/16	13/4
MOBILE	AS-4255	PARABOLIC GRID	20.0	1350-1850	3.0	AN/MRC-142	37/11	10/3

ANTENNA AND TRANSMITTER SYSTEMS (CONT.)

Building Number	Antenna Nomenclature	Antenna Type	Antenna Gain (dBi)	Transmitter Frequency (MHz)	Transmitter Max. Avg. Power (watts)	Transmitter Type	Separation Distances	
							HERO UNSAFE/ UNRELIABLE ORDNANCE (feet/meters)	HERO SUSCEPTIBLE ORDNANCE (feet/meters)
MOBILE	AS-3567/PSC (LOW)	CROSSED DIPOLE	6.0	240-318	35.0	AN/PSC-3 (SATCOM)	141/43	35/11
MOBILE	AS-3567/PSC (LOW)	CROSSED DIPOLE	6.0	240-318	2.0	AN/PSC-3 (LOS)	34/10	10/3
MOBILE	AS-3684/MRC	DIPOLE	2.1	30-88	50.0	AN/MRC-145 (HIGH)	324/99	81/25
MOBILE	AS-3684/MRC	DIPOLE	2.1	30-88	10.0	AN/MRC-145 (LOW)	145/44	36/11
MOBILE	MK-145	WHIP	2.1	30-88	50.0	AN/MRC-145 (HIGH)	324/99	81/25
MOBILE	MK-145	WHIP	2.1	30-88	10.0	AN/MRC-145 (LOW)	145/44	36/11
MOBILE	MK-142	WHIP	2.1	1350-1850	3.0	AN/MRC-142	10/3	10/3
MOBILE	MK-148	WHIP	2.1	1.6-29.9999	150.0	AN/MRC-148 (HF HIGH)	561/171	140/43
MOBILE	MK-148	WHIP	2.1	30-59.9999	60.0	AN/MRC-148 (VHF)	355/108	89/27
MOBILE	AT-271A/PRC	WHIP	2.1	2-30	20.0	AN/PRC-104 (SSB)	205/63	51/16
MOBILE	AT-1011/U	32-FOOT WHIP	2.1	2-30	400.0	AN/GRC-193 (HIGH)	917/280	229/70
MOBILE	AT-1011/U	32-FOOT WHIP	2.1	2-30	100.0	AN/GRC-193 (LOW)	458/140	115/35
MOBILE	AS-1729/VRC	WHIP	2.1	30-76	50.0	AN/MRC-145 (HIGH)	324/99	81/25
MOBILE	AS-1729/VRC	WHIP	2.1	30-76	10.0	AN/MRC-145 (LOW)	145/44	36/11
PORTABLE	AN/PRC-150 (RF 1940 SERIES)	BNC DIPOLE	6.0	3-60	400.0	AN/PRC-150(C) (WITH RF-5834H-PA)	1437/438	359/109
PORTABLE	AN/PRC-150 (RF 1940 SERIES)	BNC DIPOLE	6.0	3-60	150.0	AN/PRC-150(C) (WITH RF-5033PA)	880/268	220/67
PORTABLE	AN/PRC-150 (RF 1940 SERIES)	BNC DIPOLE	6.0	3-60	20.0	AN/PRC-150(C)	321/98	80/24
PORTABLE	AN/PRC-150 (RF 1940 SERIES)	BNC DIPOLE	6.0	3-60	5.0	AN/PRC-150(C)	161/49	40/12
PORTABLE	AN/PRC-150 (RF 1940 SERIES)	BNC DIPOLE	6.0	3-60	1.0	AN/PRC-150(C)	72/22	18/5
PORTABLE	AS-2259/GR	NVIS	6.0	2-30	20.0	AN/PRC-104 (SSB)	321/98	80/24
PORTABLE	AN/PRC-119	WHIP	2.1	30-88	50.0	AN/PRC-119 (WITH AMP)	324/99	81/25
PORTABLE	AN/PRC-119	WHIP	2.1	30-88	4.5	AN/PRC-119	97/30	24/7
PORTABLE	WHIP	WHIP	2.1	1.6-30	150.0	AN/PRC-138 (RF-5033PA-150 AMP)	561/171	140/43
PORTABLE	WHIP	WHIP	2.1	1.6-30	20.0	AN/PRC-138	205/63	51/16
PORTABLE	WHIP	WHIP	2.1	30-60	20.0	AN/PRC-138	205/63	51/16
PORTABLE	AN/PRC-119	WHIP	2.1	30-88	50.0	AN/PRC-119 (WITH AMP)	324/99	81/25
PORTABLE	AN/PRC-119	WHIP	2.1	30-88	4.5	AN/PRC-119	97/30	24/7
PORTABLE	AT-1011/U	32-FOOT WHIP	2.1	2-30	400.0	AN/GRC-193 (HIGH)	917/280	229/70
PORTABLE	AT-1011/U	32-FOOT WHIP	2.1	2-30	100.0	AN/GRC-193 (LOW)	458/140	115/35
PORTABLE	LST-5C	SATCOM	9.0	225-399.995	18.0	MOTOROLA LST-5C (FM, PM)	153/47	38/12
PORTABLE	LST-5C	SATCOM	9.0	225-399.995	5.0	MOTOROLA LST-5C (AM)	80/25	20/6
PORTABLE	LST-5C	SATCOM	9.0	225-399.995	2.0	MOTOROLA LST-5C (AM)	51/16	13/4
PORTABLE	LST-5C	SATCOM	9.0	225-399.995	2.0	MOTOROLA LST-5C (FM, PM)	51/16	13/4
PORTABLE	AN/PRC-117F (90-512 MHZ)	FLEX ANTENNA	2.1	225-420	20.0	AN/PRC-117F (UHF-LOS) (FM)	73/22	18/6
PORTABLE	AN/PRC-117F (90-512 MHZ)	FLEX ANTENNA	2.1	225-420	10.0	AN/PRC-117F (UHF-LOS) (AM)	51/16	13/4

ANTENNA AND TRANSMITTER SYSTEMS (CONT.)

Building Number	Antenna Nomenclature	Antenna Type	Antenna Gain (dBi)	Transmitter Frequency (MHz)	Transmitter Max. Avg. Power (watts)	Transmitter Type	Separation Distances	
							HERO UNSAFE/ UNRELIABLE ORDNANCE (feet/meters)	HERO SUSCEPTIBLE ORDNANCE (feet/meters)
PORTABLE	AN/PRC-117F (90-512 MHZ)	FLEX ANTENNA	2.1	420-512	10.0	AN/PRC-117F (UHF-LOS) (FM)	28/8	10/3
PORTABLE	AN/PRC-117F (90-512 MHZ)	FLEX ANTENNA	2.1	420-512	4.0	AN/PRC-117F (UHF-LOS) (AM)	17/5	10/3
PORTABLE	AN/PRC-117F (90-512 MHZ)	FLEX ANTENNA	2.1	291-318	50.0	AN/PRC-117F (SATCOM) (W/AM-7588A AMPLIFIER)	89/27	22/7
PORTABLE	AN/PRC-117F (90-512 MHZ)	FLEX ANTENNA	2.1	291-318	20.0	AN/PRC-117F (SATCOM) (SATCOM)	56/17	14/4
PORTABLE	AN/PRC-117F (90-512 MHZ)	FLEX ANTENNA	2.1	291-318	1.0	AN/PRC-117F (SATCOM) (SATCOM)	13/4	10/3
PORTABLE (VARIOUS)	CELLULAR TELEPHONE	STUB	3.1	824-849	4.0	CELLULAR TELEPHONE (HANDHELD) (ANALOG/DIGITAL)	10/3	10/3
PORTABLE (VARIOUS)	CELLULAR TELEPHONE	STUB	3.1	1805-1880	2.0	CELLULAR TELEPHONE (HANDHELD) (DCS1800 CELL PHONE BAND)	10/3	10/3
PORTABLE (VARIOUS)	CELLULAR TELEPHONE	STUB	3.1	1850-1910	1.0	CELLULAR TELEPHONE (HANDHELD) (DIGITAL PCS BAND)	10/3	10/3
PORTABLE (VARIOUS)	AN/PRC-148	30-90 MHZ BLADE OR 30-512 MHZ HELICAL WHIP	0.0	30-512	5.0	AN/PRC-148(V)(C) MBITR (FM OR AM)	80/25	20/6
PORTABLE (VARIOUS)	AN/PRC-148	30-90 MHZ BLADE OR 30-512 MHZ HELICAL WHIP	0.0	30-512	3.0	AN/PRC-148(V)(C) MBITR (FM)	62/19	16/5
PORTABLE (VARIOUS)	AN/PRC-148	30-90 MHZ BLADE OR 30-512 MHZ HELICAL WHIP	0.0	30-512	1.0	AN/PRC-148(V)(C) MBITR (FM OR AM)	36/11	10/3
PORTABLE (VARIOUS)	AN/PRC-148	30-90 MHZ BLADE OR 30-512 MHZ HELICAL WHIP	0.0	30-512	0.5	AN/PRC-148(V)(C) MBITR (FM)	25/8	10/3
PORTABLE (VARIOUS)	AN/PRC-148	30-90 MHZ BLADE OR 30-512 MHZ HELICAL WHIP	0.0	30-512	0.1	AN/PRC-148(V)(C) MBITR (FM)	11/3	10/3
PORTABLE (VARIOUS)	MOTOROLA XTS 5000	STUB	0.9	136-174	6.0	MOTOROLA XTS 5000 (VHF)	57/17	14/4
PORTABLE (VARIOUS)	MOTOROLA XTS 5000	STUB	0.9	380-520	5.0	MOTOROLA XTS 5000 (UHF R1/R2)	19/6	10/3
PORTABLE (VARIOUS)	MOTOROLA XTS 5000	STUB	0.9	764-806	2.5	MOTOROLA XTS 5000 (700 MHZ)	10/3	10/3
PORTABLE (VARIOUS)	MOTOROLA XTS 5000	STUB	0.9	806-870	3.0	MOTOROLA XTS 5000 (800 MHZ)	10/3	10/3
PORTABLE (VARIOUS)	MOTOROLA HT-750	STUB	0.9	29-50	6.0	MOTOROLA HT-750 (HIGH)	98/30	24/7
PORTABLE (VARIOUS)	MOTOROLA HT-750	STUB	0.9	29-50	1.0	MOTOROLA HT-750 (LOW)	40/12	10/3
PORTABLE (VARIOUS)	MOTOROLA HT-750	STUB	0.9	136-174	5.0	MOTOROLA HT-750 (HIGH)	52/16	13/4
PORTABLE (VARIOUS)	MOTOROLA HT-750	STUB	0.9	136-174	1.0	MOTOROLA HT-750 (LOW)	23/7	10/3

ANTENNA AND TRANSMITTER SYSTEMS (CONT.)

Building Number	Antenna Nomenclature	Antenna Type	Antenna Gain (dBi)	Transmitter Frequency (MHz)	Transmitter Max. Avg. Power (watts)	Transmitter Type	Separation Distances	
							HERO UNSAFE/ UNRELIABLE ORDNANCE (feet/meters)	HERO SUSCEPTIBLE ORDNANCE (feet/meters)
PORTABLE (VARIOUS)	MOTOROLA HT-750	STUB	0.9	403-470	4.0	MOTOROLA HT-750 (HIGH)	16/5	10/3
PORTABLE (VARIOUS)	MOTOROLA HT-750	STUB	0.9	403-470	1.0	MOTOROLA HT-750 (LOW)	10/3	10/3
RADAR HILL	FA-9344	PARABOLIC	35.6	2755-2825	875.0	AN/GPN-27 ASR-8	1859/567	465/142
SPRINT (ARGONNE HILL)	RFS APXV18-206516L-C	PANEL	17.6	1930-1945	60.0	LUCENT MODCELL 4.0 (6 CHANNELS)	87/27	22/7
SPRINT (GEIGER HILL)	RFS APXV18-206516L-C	PANEL	17.6	1930-1945	60.0	LUCENT MODCELL 4.0 (6 CHANNELS)	87/27	22/7
SPRINT (RIFLE RANGE)	RFS APXV18-206516L-C	PANEL	17.6	1930-1945	60.0	LUCENT MODCELL 4.0 (6 CHANNELS)	87/27	22/7
VARIOUS	KING FISHER KF50037 (138-174 MHZ)	3DB GAIN HI BAND	5.1	133-174	1.0	KING FISHER KFRTI 20	39/12	10/3
VARIOUS	KING FISHER KF50037 (138-174 MHZ)	3DB GAIN HI BAND	5.1	138-174	1.0	KING FISHER KF3 (GOVERNMENT USE ONLY)	37/11	10/3
WTBN WATER TOWER (T-MOBILE)	ERICSSON RR90-18-00DP	DUAL LINEAR SLANT	17.5	925-960	28.0	ERICSSON RBS 2102	123/38	31/9
WTBN WATER TOWER (T-MOBILE)	ERICSSON RR90-18-00DP	DUAL LINEAR SLANT	17.5	1805-1880	22.0	ERICSSON RBS 2102	56/17	14/4
WTBN WATER TOWER (T-MOBILE)	ERICSSON RR90-18-00DP	DUAL LINEAR SLANT	17.5	1930-1990	22.0	ERICSSON RBS 2102	52/16	13/4
CH-46E (SEA KNIGHT) AIRCRAFT								
ALTIMETER	AS-1858/APN	DUAL HORN	13.0	4300	0.5	AN/APN-171(V)1	10/3	10/3
BEACON	ARRAY	ARRAY	6.0	8800-9500	8.0	AN/APN-154(V)	10/3	10/3
COMMS	437R-1	LONGWIRE	2.1	2-30	400.0	AN/ARC-94 (SSB)	917/280	229/70
COMMS	437R-1	LONGWIRE	2.1	2-30	100.0	AN/ARC-94 (CW/AM)	458/140	115/35
COMMS	OMNI 50-7-4	BLADE	2.1	30-88	15.0	AN/ARC-182(V) [FM (SINCARS)]	178/54	44/14
COMMS	OMNI 50-7-4	BLADE	2.1	118-156	10.0	AN/ARC-182(V) (VHF-AM)	98/30	25/7
COMMS	OMNI 50-7-4	BLADE	2.1	156-174	15.0	AN/ARC-182(V) (VHF-FM)	91/28	23/7
COMMS	OMNI 50-7-4	BLADE	2.1	225-400	15.0	AN/ARC-182(V) (UHF-FM)	63/19	16/5
COMMS	OMNI 50-7-4	BLADE	2.1	225-400	10.0	AN/ARC-182(V) (UHF-AM)	51/16	13/4
COMMS	BLADE	BLADE	2.1	225-400	20.0	AN/ARC-51A	73/22	18/6
COMMS	OMNI 50-7-4	BLADE	2.1	30-88	23.0	AN/ARC-210(V)	220/67	55/17
COMMS	OMNI 50-7-4	BLADE	2.1	30-88	15.0	AN/ARC-210(V)	178/54	44/14
COMMS	OMNI 50-7-4	BLADE	2.1	108-156	15.0	AN/ARC-210(V)	131/40	33/10
COMMS	OMNI 50-7-4	BLADE	2.1	108-156	10.0	AN/ARC-210(V)	107/33	27/8
COMMS	OMNI 50-7-4	BLADE	2.1	156-174	23.0	AN/ARC-210(V)	112/34	28/9
COMMS	OMNI 50-7-4	BLADE	2.1	156-174	15.0	AN/ARC-210(V)	91/28	23/7
COMMS	OMNI 50-7-4	BLADE	2.1	225-400	15.0	AN/ARC-210(V)	63/19	16/5
COMMS	OMNI 50-7-4	BLADE	2.1	225-400	10.0	AN/ARC-210(V)	51/16	13/4
DOPPLER	N/A	PLANAR ARRAY	37.3	13300	5.0	AN/APN-182(V)	35/11	10/3
DOPPLER	N/A	APERTURE	26.2	13285-13315	0.2	AN/APN-217A	10/3	10/3
IFF	AT-741B/A	BLADE	2.6	1090	5.0	AN/APX-72A	10/3	10/3

ANTENNA AND TRANSMITTER SYSTEMS (CONT.)

Building Number	Antenna Nomenclature	Antenna Type	Antenna Gain (dBi)	Transmitter Frequency (MHz)	Transmitter Max. Avg. Power (watts)	Transmitter Type	Separation Distances	
							HERO UNSAFE/ UNRELIABLE ORDNANCE (feet/meters)	HERO SUSCEPTIBLE ORDNANCE (feet/meters)
PLRS	AS-3446/ASQ-177	BLADE	2.1	420-450	100.0	AN/ASQ-177(V)2 (HIGH-POWER)	87/27	22/7
PLRS	AS-3446/ASQ-177	BLADE	2.1	420-450	20.0	AN/ASQ-177(V)2	39/12	10/3
PLRS	AS-3446/ASQ-177	BLADE	2.1	420-450	3.0	AN/ASQ-177(V)2	15/5	10/3
PLRS	AS-3446/ASQ-177	BLADE	2.1	420-450	0.4	AN/ASQ-177(V)2	10/3	10/3
TACAN	BLADE	BLADE	2.1	1025-1150	10.9	AN/ARN-118(V)	12/4	10/3
CH-53E (SUPER STALLION) AIRCRAFT								
ALTIMETER	LG-81A1	FLUSH-MOUNT	13.0	4290-4310	0.5	AN/APN-171(V)1	10/3	10/3
BEACON	ARRAY	ARRAY	6.0	8800-9500	8.0	AN/APN-154(V)	10/3	10/3
COMMS	LONGWIRE	LONGWIRE	2.1	2-30	400.0	AN/ARC-94 (SSB)	917/280	229/70
COMMS	LONGWIRE	LONGWIRE	2.1	2-30	100.0	AN/ARC-94 (CW/AM)	458/140	115/35
COMMS	OMNI 50-7-4	BLADE	2.1	30-88	15.0	AN/ARC-182(V) [FM (SINCGARS)]	178/54	44/14
COMMS	OMNI 50-7-4	BLADE	2.1	118-156	10.0	AN/ARC-182(V) (VHF-AM)	98/30	25/7
COMMS	OMNI 50-7-4	BLADE	2.1	156-174	15.0	AN/ARC-182(V) (VHF-FM)	91/28	23/7
COMMS	OMNI 50-7-4	BLADE	2.1	225-400	15.0	AN/ARC-182(V) (UHF-FM)	63/19	16/5
COMMS	OMNI 50-7-4	BLADE	2.1	225-400	10.0	AN/ARC-182(V) (UHF-AM)	51/16	13/4
COMMS	AS-3881/ASQ	BLADE	2.1	30-88	23.0	AN/ARC-210(V)	220/67	55/17
COMMS	AS-3881/ASQ	BLADE	2.1	30-88	15.0	AN/ARC-210(V)	178/54	44/14
COMMS	AS-3881/ASQ	BLADE	2.1	108-156	15.0	AN/ARC-210(V)	131/40	33/10
COMMS	AS-3881/ASQ	BLADE	2.1	108-156	10.0	AN/ARC-210(V)	107/33	27/8
COMMS	AS-3881/ASQ	BLADE	2.1	156-174	23.0	AN/ARC-210(V)	112/34	28/9
COMMS	AS-3881/ASQ	BLADE	2.1	156-174	15.0	AN/ARC-210(V)	91/28	23/7
COMMS	AS-3881/ASQ	BLADE	2.1	225-400	15.0	AN/ARC-210(V)	63/19	16/5
COMMS	AS-3881/ASQ	BLADE	2.1	225-400	10.0	AN/ARC-210(V)	51/16	13/4
COMMS	LONGWIRE	LONGWIRE	2.1	2-30	100.0	AN/ARC-174(V)	458/140	115/35
COMMS	LONGWIRE	LONGWIRE	2.1	2-30	100.0	AN/ARC-220 (HIGH)	458/140	115/35
COMMS	LONGWIRE	LONGWIRE	2.1	2-30	50.0	AN/ARC-220 (MED)	324/99	81/25
COMMS	LONGWIRE	LONGWIRE	2.1	2-30	10.0	AN/ARC-220 (LOW)	145/44	36/11
DOPPLER	N/A	APERTURE	26.2	13285-13315	0.2	AN/APN-217A	10/3	10/3
IFF	AT-234	STUB	2.1	1090	5.5	AN/APX-64(V)	10/3	10/3
IFF	AS-133	STUB	2.1	1090	5.5	AN/APX-72B	10/3	10/3
TACAN	LB-147	STUB	2.1	1025-1150	1.0	AN/ARN-52	10/3	10/3
TACAN	AT-741B/A	BLADE	2.6	1025-1150	10.9	AN/ARN-118(V)	12/4	10/3
H-3H (SEA KING) AIRCRAFT								
ALTIMETER	AS-1858/APN	DUAL HORN	13.0	4300	0.5	AN/APN-171(V)1	10/3	10/3
HF	939149	LONGWIRE	2.1	2-30	150.0	AN/ARC-199 (HIGH)	561/171	140/43
HF	939149	LONGWIRE	2.1	2-30	40.0	AN/ARC-199 (MED)	290/88	72/22
HF	939149	LONGWIRE	2.1	2-30	4.0	AN/ARC-199 (LOW)	92/28	23/7
IFF	AT-741B/A	BLADE	2.6	1090	5.0	AN/APX-72A	10/3	10/3
N/A	LONGWIRE	LONGWIRE	2.1	2-30	400.0	AN/ARC-190(V) (HIGH)	917/280	229/70
N/A	LONGWIRE	LONGWIRE	2.1	2-30	200.0	AN/ARC-190(V) (LOW)	648/198	162/49
N/A	LONGWIRE	LONGWIRE	2.1	2-30	400.0	COLLINS 618T	917/280	229/70
TACAN	AS-3392/ASQ	BLADE	3.0	1025-1150	10.9	AN/ARN-118(V)	13/4	10/3

N/A = Not assigned

ANTENNA AND TRANSMITTER SYSTEMS (CONT.)

Building Number	Antenna Nomenclature	Antenna Type	Antenna Gain (dBi)	Transmitter Frequency (MHz)	Transmitter Max. Avg. Power (watts)	Transmitter Type	Separation Distances	
							HERO UNSAFE/ UNRELIABLE ORDNANCE (feet/meters)	HERO SUSCEPTIBLE ORDNANCE (feet/meters)
H-3H (SEA KING) AIRCRAFT (CONT.)								
UHF	AT-1256/ARC	STUB	3.0	225-400	10.0	AN/ARC-159(V) (CW)	57/17	14/4
VHF	AT-141A/ARC	BLADE	2.1	30-88	16.0	AN/ARC-186(V) (FM)	183/56	46/14
VHF	AT-141A/ARC	BLADE	2.1	116-152	10.0	AN/ARC-186(V) (AM)	100/30	25/8
VHF	BLADE	BLADE	2.1	160-172	20.0	AN/URC-112 (HIGH)	102/31	26/8
VHF	BLADE	BLADE	2.1	160-172	1.5	AN/URC-112 (LOW)	28/9	10/3
VHF	BLADE	BLADE	2.1	225-416	20.0	AN/URC-112 (HIGH)	73/22	18/6
VHF	BLADE	BLADE	2.1	225-416	1.5	AN/URC-112 (LOW)	20/6	10/3

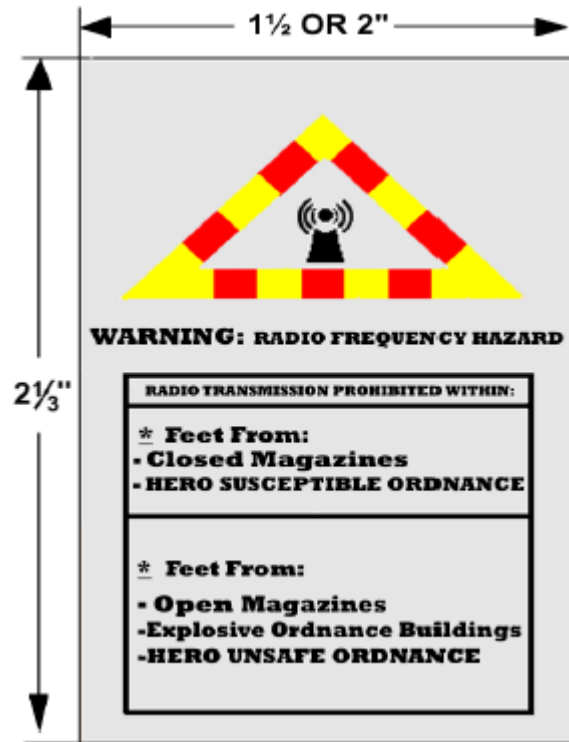
.

HERO WARNING LABEL AND WARNING SYMBOL

Enclosure (7)

HERO WARNING LABEL AND WARNING SYMBOL

The HERO warning label shown below is to be affixed to mobile and portable emitter systems such as radios and cellular phones. This warning label alerts the emitter operator to a potential hazard if the emitter is operated within the prescribed distance of ordnance operations.



HERO WARNING LABEL

The table below provides data pertaining to the above label. The label has blank spaces for inserting HERO SUSCEPTIBLE or HERO UNSAFE/UNRELIABLE separation distances in feet. The distances are obtained from enclosure (6) of this report for individual mobile or portable emitter systems. The smaller label is recommended for hand-held portable radios and the larger for mobiles.

HERO WARNING LABEL INFORMATION*

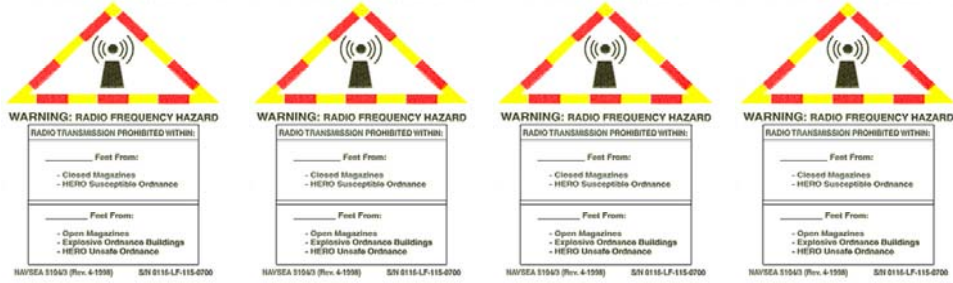
NAVSEA FORM	STOCK NUMBER	SIZE	DESCRIPTION
NAVSEA 5104/3	0116-LF-115-0700	2" x 2 ² / ₃ "	RADHAZ Warning Label (Blank) Feet
NAVSEA 5104/4	0116-LF-115-0800	1 ¹ / ₂ " x 2 ¹ / ₃ "	RADHAZ Warning Label (Blank) Feet

*Available from Defense Automated Printing Service (DAPS) Philadelphia: (877) 327-7226 or on the World Wide Web at <http://forms.daps.dla.mil>.

HERO warning labels (NAVSEA Forms 5104/3 and 5104/4) may be created by performing the following:

1. Copy the following label sheet to a Label Maker Program or Power Point file.
2. Expand label sheet to borders of sheet of paper. This will place the labels in the size required.
3. Add the HERO UNSAFE/UNRELIABLE ORDNANCE and HERO SUSCEPTIBLE ORDNANCE safe separation distances (number) by clicking on the tool bar, "Insert, Text Box," move cursor to label, and insert at blank feet from. Click again to add number obtained utilizing the HERO Calculator in NAVSEA OP 3565, Volume 2 or refer to enclosure (6) of command's respective HERO Instruction.
4. Ensure printer has Avery label paper and print.
5. The smaller label is recommended for hand-held portable radios and the larger for mobiles.

Note: Avery label paper has an adhesive backing and can be cut to corresponding size. Avery label paper can be found at most office supply stores.



HERO WARNING LABEL NAVSEA 5104/3



HERO WARNING LABEL NAVSEA 5104/4

The recommended HERO warning symbol is shown below. This symbol is placed along ordnance transportation routes at prescribed locations to ordnance operations (e.g., missile assembly, ammunition pier, etc.) to alert operators of mobile and portable emitter systems such as radios and cellular phones to a potential hazard when using radios and cellular phones past this point. Guidance for manufacturing symbols is provided below.



HERO WARNING SYMBOL

Materials: Anodized aluminum, adhesive backing optional

Colors: Base material of anodized silver background; black anodized messages in bottom triangle: alternating colored blocks of anodized red and yellow in a border surrounding black anodized logogram in top triangle.

Logogram: Design will be a pictorial presentation of a radar antenna consisting of a pylon with a dot simulating an antenna and concentric area simulating pulsed energy.

Wording: The title, WARNING: RADIO FREQUENCY HAZARD, is standard for all symbols; the messages in the lower triangle will vary according to particular situation; use of descriptive wording or warning information.

STATION CALL LIST FOR HERO EMCON

STATION CALL LIST FOR HERO EMCON

Explosives Safety Officer	703-432-1092
Ammunition Supply Point OIC	703-784-5711/5744
MCB Quantico EOD Team	703-784-5314
MCAF Operations	703-784-1449
Fire Department Dispatch	703-784-2636
Range Control Fire Desk	703-784-5321
MCB Quantico Spectrum Manager	703-784-4212
Base CDO	703-784-2701

Safety of Use Alert

***** UNCLASSIFIED/ FOR OFFICIAL USE ONLY *****

Subject: SAFETY OF USE ALERT VERSION TWO REGARDING HAZARDS OF
ELECTROMAGNETIC RADIATION TO ORDNANCE (HERO) AWARENESS FOR USE OF
GROUND VE

Originator: COMMARCORSYSCOM QUANTICO VA(UC)

DTG: 081649Z Nov 11

Precedence: ROUTINE

DAC: FOUO

To: CG I MEF FWD(UC), CG II MEF FWD(UC), AL 11192(UC), COMUSMARCENT(MC)
cc: COMMARCORSYSCOM QUANTICO VA(UC), COMMARCORSYSCOM QUANTICO
VA 00T(UC), CMC WASHINGTON DC PPO(UC), CMC WASHINGTON DC L LPE(UC),
COMNAVSEASYSYSCOM WASHINGTON DC, CG MARCORLOGCOM ALBANY GA(UC),
COMMARFORSOC(UC), TACOM SAFETYOFUSE(UC)

UNCLASSIFIED///FOR OFFICIAL USE ONLY

BT

UNCLAS //5100//

UNCLASSIFIED//

MSGID/GENADMIN, USMTF, 2011/COMMARCORSYSCOM//

SUBJ/SAFETY OF USE ALERT VERSION TWO REGARDING HAZARDS OF
ELECTROMAGNETIC RADIATION TO ORDNANCE (HERO) AWARENESS FOR USE OF
GROUND VEHICLE AND PORTABLE EMITTERS IN PROXIMITY TO GROUND
ORDNANCE CLASSIFIED AS HERO UNSAFE AND HERO SUSCEPTIBLE//

REF/A/ DESC:DOC/NAVSEA/01JUL2008//

REF/B/DESC:DOC/NAVSEA/01AUG2008//

REF/C/MSGID:SOUA/COMMARCORSYSCOM GTES/021746Z OCT 08//

REF/D/MSGID:SOUA/COMMARCORSYSCOM GTES/241905Z MAR 08//

REF/E/MSGID:SOUA/COMMARCORSYSCOM GTES/292003Z JAN 08//

REF/F/MSGID:GENADMIN USMTF 2009/COMMARCORSYSCOM/201652Z OCT 09//

NARR/REF A IS HERO MANUAL, OP3565, VOL II, REV 16//

NARR/REF B IS HERO MANUAL, OP3565, VOL III, REV 1//

NARR/REF C IS REVISED SAFETY OF USE ALERT, MINE

RESISTANT AMBUSH PROTECTED (MRAP) VEHICLES, LAR R UNCLAS

COMMARCORSYSCOM QUANTICO VA GTES (UC) 021746Z OCT 08//

NARR/REF D IS REVISED SAFETY OF USE ALERT, MINE RESISTANT AMBUSH

PROTECTED (MRAP) VEHICLES, LARGER SEPARATION DISTANCES

FOR ORDNANCE CLASSIFIED AS HERO UNSAFE AND HERO SUSCEPTIBLE. UNCLAS

DMS

MESSAGE RELEASE 241905Z MAR08//

NARR/REF E IS A SAFETY OF USE ALERT, KEEP ALL ORDNANCE, FUEL, AND

PERSONNEL OF MINE RESISTANT AM R UNCLAS DMS MESSAGE RELEASE 292003Z

JAN 08//

NARR/REF F IS A SAFETY OF USE ALERT REGARDING HAZARDS OF ELECTROMAGNETIC RADIATION TO ORDNANCE (HERO) AWARENESS FOR USE OF GROUND VEHICLE AND PORTABLE EMITTERS IN PROXIMITY TO GROUND ORDNANCE CLASSIFIED AS HERO UNSAFE AND HERO SUSCEPTIBLE AM R UNCLAS DMS MESSAGE RELEASE 201652Z OCT09//
POC FOR HERO/CHARLES DENHAM/GS-15/NOSSA/LOC: INDIAN HEAD, MD/TEL: (301) 744-4447/TEL:DSN 354-4447/EMAIL:CHARLES.DENHAM@NAVY.MIL//

GENTEXT/REMARKS/1. THIS SAFETY OF USE MESSAGE (SOU) PROVIDES UPDATED GUIDANCE REGARDING HAZARDS OF ELECTROMAGNETIC RADIATION TO ORDNANCE (HERO). INFORMATION PROVIDED BELOW NEEDS TO BE PROMULGATED TO DOD FORCES DEPLOYED IN THEATER IN ORDER TO PROVIDE SITUATIONAL AWARENESS AND MITIGATE THE POSSIBILITY OF INADVERTENT INITIATION OF ORDNANCE IN PROXIMITY OF TRANSMITTER SYSTEMS.

2. BACKGROUND: HISTORICALLY, THE HERO ENVIRONMENT HAS BEEN ASSOCIATED WITH AIR FIELDS, AMMUNITION SUPPLY POINTS (ASPS) AND SHIPS, WHICH RECEIVE HERO SURVEYS AND APPLY APPROPRIATE CONTROLS FOR ELECTROMAGNETIC TRANSMISSIONS AND MOVEMENT OF ORDNANCE TO ESTABLISH AND MAINTAIN SAFETY AS PRESCRIBED BY REFERENCES A AND B. HERO GUIDANCE FOR MINE RESISTANT AMBUSH PROTECTED VEHICLES WAS PREVIOUSLY PROVIDED IN REFS C THROUGH E AND APPLIED ONE WORST-CASE SAFE SEPARATION DISTANCE FOR ALL ORDNANCE REGARDLESS OF THE TRANSMITTER SYSTEM FREQUENCY BAND, RESULTING IN UNNECESSARY RESTRICTIONS. REFERENCE F WAS ISSUED TO PROVIDE HERO GUIDANCE SPECIFIC TO EACH ORDNANCE TYPE AND TRANSMITTER SYSTEM FREQUENCY BAND FOR ALL MOBILE PLATFORMS EVALUATED BY NSWCDD. THIS SOU PROVIDES AN UPDATE TO REFERENCE F AND SHOULD BE USED WHEN SELECTING ORDNANCE TO SUPPORT MISSIONS, WHEN CONSIDERING THE PLACEMENT OF COMMUNICATION VEHICLES WITHIN CONVOYS, DURING FREQUENCY PLANNING, AND DURING EOD OPERATIONS. THIS MESSAGE IDENTIFIES CURRENT TRANSMITTER SYSTEMS AND ORDNANCE ITEMS IN THEATER WITH THE POTENTIAL TO INADVERTENTLY INITIATE IF THE HERO ENVIRONMENT IS NOT CONTROLLED.

3. THE NSWCDD HAS CONDUCTED A NUMBER OF HERO TESTS ON A VARIETY OF MARINE CORP, NAVY EOD, ARMY AND AIR FORCE MRAP/MATV/HMMWV/JLTV VEHICLES. BASED ON THESE TESTS, WORST-CASE HERO SAFE SEPARATION DISTANCES ARE PROVIDED BELOW FOR EACH TRANSMITTER SYSTEM BY FREQUENCY BAND AND OUTPUT POWER TO FURTHER CONTROL THE HERO ENVIRONMENT AROUND ELECTRICALLY INITIATED ORDNANCE. HERO SAFE SEPARATION DISTANCES ARE PROVIDED FOR TRANSMITTER SYSTEMS BY FREQUENCY BAND AND OUTPUT POWER, REGARDLESS OF THE TYPE OF VEHICLE OR WHETHER THE TRANSMITTER SYSTEM(S) ARE MOUNTED ON A VEHICLE OR IN A SELF-SUPPORTING CONFIGURATION. IT IS IMPORTANT TO NOTE THAT OTHER TRANSMITTER SYSTEMS MAY BE PRESENT AND WILL POTENTIALLY REQUIRE A SAFE SEPARATION DISTANCE DIFFERENT THAN THAT LISTED BELOW. FOR SYSTEMS OPERATING OUTSIDE OF THE FREQUENCY BANDS OR ABOVE THE

OUTPUT POWERS IDENTIFIED BELOW, THE HERO CALCULATOR FOUND IN REF B CAN BE USED TO DETERMINE THE HERO SAFE SEPARATION DISTANCES, OTHERWISE CONTACT NOSSA INDIAN HEAD (N8), MR. DENHAM AT COMMERCIAL (301) 744-4447 OR E-MAIL CHARLES.DENHAM@NAVY.MIL FOR SPECIFIC GUIDANCE.

A. 2-30 MHZ (HF BAND RADIOS INCLUDING AN/VRC-104, AN/TRC-209, AN/MRC-148, and AN/PRC-150 RATED AT 150 WATTS OR LESS): HERO UNSAFE ORDNANCE STANDOFF DISTANCE IS 783 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE STANDOFF DISTANCE IS 337 FEET OR GREATER.

B. 30-88 MHZ (VHF BAND VEHICLE RADIOS INCLUDING AN/VRC-88/89/90/91/92, AN/MRC-145 and AN/PRC-119 RATED AT 50 WATTS OR LESS): HERO UNSAFE ORDNANCE STANDOFF DISTANCE IS 324 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE STANDOFF DISTANCE IS 81 FEET OR GREATER.

C. 30-2000 MHZ (MULTI-BAND MANPACK AND VEHICLE LOS RADIOS INCLUDING AN/PRC-117F/G, AN/VRC-103, AN/VRC-110, AN/VRC-114, AN/PSC-5, AND AN/VRC-111 RATED AT 50 WATTS OR LESS): HERO UNSAFE ORDNANCE STANDOFF DISTANCE IS 324 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE STANDOFF DISTANCE IS 81 FEET OR GREATER.

D. 30-512 MHZ (MULTI-BAND HANDHELD RADIOS INCLUDING AN/PRC-148 AND AN/PRC-152 RATED AT 5 WATTS OR LESS): HERO UNSAFE ORDNANCE STANDOFF DISTANCE IS 89 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE STANDOFF DISTANCE IS 22 FEET OR GREATER.

E. 512-1350 MHZ (AN/PRC-117G MANPACK RATED AT 20 WATTS OR LESS): HERO UNSAFE ORDNANCE STANDOFF DISTANCE IS 25 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE STANDOFF DISTANCE IS 10 FEET OR GREATER.

F. 380-470 MHZ (LAND, MOBILE RADIOS INCLUDING AN/PRC-153 AND MOTOROLA ASTRO RATED AT 5 WATTS OR LESS): HERO UNSAFE ORDNANCE STANDOFF DISTANCE IS 22 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE STANDOFF DISTANCE IS 10 FEET OR GREATER.

G. 1350-5000 MHZ (GROUND LOS RADIOS RATED AT 1.4 WATTS OR LESS): HERO UNSAFE ORDNANCE STANDOFF DISTANCE IS 10 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE STANDOFF DISTANCE IS 10 FEET OR GREATER.

4. A NUMBER OF GROUND ELECTRONIC WARFARE (EW) SYSTEMS HAVE BEEN EVALUATED AT NSWCD AND DUE TO THE VARYING LOAD SETS ASSOCIATED WITH THESE SYSTEMS; THE SAFE SEPARATION DISTANCES FOR UNSAFE AND SUSCEPTIBLE ORDNANCE WILL VARY THROUGHOUT THE GROUND ELECTRONIC WARFARE SYSTEM BAND. THE FOLLOWING SAFE SEPARATION DISTANCES APPLY. FOR SPECIFIC HERO GUIDANCE FOR GROUND ELECTRONIC WARFARE SYSTEMS NOT LISTED HERE, CONTACT NAVSURFWARCEN DAHLGREN (Q52), MR. ANTHONY STATON AT COMMERCIAL (540)653-6961 OR E-MAIL ANTHONY.STATON@NAVY.MIL.

A. AN/PLT-4 - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 38 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 10 FEET OR GREATER.

B. CESAS (OMNI-DIRECTIONAL, 500 WATTS) - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 850 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 212 FEET OR GREATER.

C. CESAS (DIRECTIONAL, 500 WATTS) HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 1604 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 401 FEET OR GREATER.

D. CHAMELEON - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 201 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 50 FEET OR GREATER.

E. CHANNEL ACORN - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 78 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 20 FEET OR GREATER.

F. CHANNEL BEECH - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 53 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 13 FEET OR GREATER.

G. CHANNEL PECAN - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 458 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 115 FEET OR GREATER.

H. CHANNEL SPRUCE - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 648 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 162 FEET OR GREATER.

I. CVRJ-2.1 - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 124 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 31 FEET OR GREATER.

J. CVRJ-2.1 FIXED SITE - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 829 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 207 FEET OR GREATER. CVRJ-2.1 FIXED SITE DISTANCES ARE BASED ON CALCULATIONS

K. DUKE V2 AND V3 - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 228 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 57 FEET OR GREATER.

L. DUKE / JUKEBOX - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 15 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 10 FEET OR GREATER.

M. GUARDIAN - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 21 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 5 FEET OR GREATER.

N. HUNTER - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 121 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 31 FEET OR GREATER.

O. MICE - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 15 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 4 FEET OR GREATER.

P. MMBJ - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 76 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 19 FEET OR GREATER.

Q. SSVJ - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 31 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 10 FEET OR GREATER.

R. SYMPHONY - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 60 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 15 FEET OR GREATER.

S. THOR I - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 79 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 19 FEET OR GREATER.

T. THOR II (AN/PLT-5) - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 86 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 21 FEET OR GREATER.

U. THOR III - HERO UNSAFE ORDNANCE SAFE SEPARATION DISTANCE IS 84 FEET OR GREATER. HERO SUSCEPTIBLE ORDNANCE SAFE SEPARATION DISTANCE IS 21 FEET OR GREATER.

5. ALL USMC CLASS V(W) GROUND ORDNANCE IN INVENTORY WAS CONSIDERED AS WELL AS NAVY EOD AND SPECWAR ORDNANCE, AIR FORCE EOD ORDNANCE, AND SOME ARMY ORDNANCE. MOST OF THE NAVY, USMC, AND AIR FORCE ITEMS, AND THE RESPECTIVE HERO CLASSIFICATIONS AND SUSCEPTIBILITIES CAN BE FOUND IN REF C. AVIATION ORDNANCE ASSETS WERE NOT CONSIDERED AS THEY ARE NOT EXPECTED TO BE IN/AND AROUND MOBILE SYSTEMS IN AN UNMANAGED HERO ENVIRONMENT. NOTE: A COMPLETE LIST OF ALL DOD SUSPECT ORDNANCE THAT WAS CONSIDERED, AND THE HERO CLASSIFICATIONS, IS AVAILABLE THROUGH THE MARCORSYSCOM (PM AMMO) POC. MARCORSYSCOM (PM AMMO) IS CONTINUING TO WORK WITH THE OTHER SERVICES TO PRODUCE A MORE COMPREHENSIVE LIST OF DEPLOYED GROUND MUNITIONS.

A. THE FOLLOWING ITEMS ARE CONSIDERED HERO UNSAFE ORDNANCE AND THE HERO UNSAFE SEPARATION DISTANCES WILL APPLY WHEN THESE ITEMS ARE NOT ENCLOSED IN A SEALED ALL-METAL CONTAINER OR IN AN APPROVED ELECTROSTATIC DISCHARGE (ESD)/HERO BARRIER BAG (NOTE: MOST OF THE BELOW ITEMS ARE CONSIDERED HERO UNSAFE ORDNANCE AS THEY HAVE NEVER BEEN EVALUATED FOR HERO AND SOME ARE NO LONGER AVAILABLE FOR SERVICE ISSUE AND ARE ANNOTATED AS OBSOLETE):

D514 PROJECTILE, 155 MM, AT, M741A1 (ARMY) (SAFETY CONSEQUENCE)

D515 PROJECTILE, 155 MM AT, M718A1 (ARMY) (SAFETY CONSEQUENCE)

HX04 SMAW, 83MM (NAVY, ARMY, USMC) OBSOLETE (RELIABILITY CONSEQUENCE)

JN03 CUTTER, CARTRIDGE ACTUATED (USMC) (SAFETY CONSEQUENCE)

J003 CANISTER, MINE, ANTI-TANK, VOLCANO, M87A1 (ARMY) (SAFETY CONSEQUENCE)

K886 FUZE, SMOKE POT, M209 ELECTRIC, TYPE (ARMY, USMC) (SAFETY CONSEQUENCE)

L367 SIMULATOR, M22, LAUNCHING, ANTITANK, GUIDED MISSILE/ROCKET (ARMY) (SAFETY CONSEQUENCE)

L592 BLAST SIMULATOR ASSY, F/TOW M70 TRAINING SET (USMC) (SAFETY CONSEQUENCE)
L596 SIMULATOR, FLASH, ARTILLERY, M110, W/IGNITER (USMC) (SAFETY CONSEQUENCE)
L602 SIMULATOR, FLASH, ARTILLERY, M21 (ARMY, USMC) (SAFETY CONSEQUENCE)
L709 SIMULATOR, TARGET HIT, M25 (USMC) (SAFETY CONSEQUENCE)
L720 SIMULATOR, TARGET KILL, M26 (USMC) (SAFETY CONSEQUENCE)
ML07 CAP, BLASTING, SHIELDED ELECTRIC F/EARTH ANCHOR (NAVY) (SAFETY CONSEQUENCE)
MM16 MUNITION, ATTACK, DEMOLITION, M3, WITH BLASTING CAP (NAVY) (SAFETY CONSEQUENCE)(NOTE: W/O BLASTING CAP NO HERO REQUIREMENT)
MN60 IGNITER, ELECTRIC MATCH, M79 (ARMY) (SAFETY CONSEQUENCE)
MW02 VALVE, EXPLOSIVE, ELECTRIC INITIATED (USMC) (SAFETY CONSEQUENCE)
MW52 CHARGE KIT, EXPLOSIVE SHEET MK 57 MOD 0 (ARMY, NAVY) (SAFETY CONSEQUENCE)
M091 CAP, BLASTING, SPECIAL, ELECTRIC, NO 11 DELAY (NAVY) (SAFETY CONSEQUENCE)
M092 CAP, BLASTING, SPECIAL, ELECTRIC, NO 12 DELAY (NAVY) (SAFETY CONSEQUENCE)
M093 CAP, BLASTING, SPECIAL, ELECTRIC, NO 13 DELAY (NAVY) (SAFETY CONSEQUENCE)
M094 CAP, BLASTING, SPECIAL, ELECTRIC, NO 14 DELAY (NAVY) (SAFETY CONSEQUENCE)
M095 CAP, BLASTING, SPECIAL, ELECTRIC, NO 15 DELAY (NAVY) (SAFETY CONSEQUENCE)
M845 SQUIB, ELECTRIC, S67, 72 IN. LEG LG (USMC, NAVY) (SAFETY CONSEQUENCE)
M852 SQUIB, MK 13 MOD 0 (NAVY) (SAFETY CONSEQUENCE)
M862 SQUIB, ELECTRIC, S-75, 1.5 GRAIN (NAVY, USMC) (SAFETY CONSEQUENCE)
N464 FUZE, PROXIMITY, M732 (ARMY) (RELIABILITY CONSEQUENCE)
PL65 GUIDED MISSILE AND LAUNCHER, SURFACE ATTACK ATACMS M48 (ARMY) (SAFETY CONSEQUENCE)
PM75 GUIDED MISSILE, ATACMS UNITARY MISSILE (ARMY) (SAFETY CONSEQUENCE)
9W23 KIT, CONTROL UNIT, MK 126 TYPE, F/LIMPET ASSEMBLY, MODULAR MK 5 (NAVY) (SAFETY CONSEQUENCE)

B. THE FOLLOWING ITEMS ARE CLASSIFIED AS HERO SUSCEPTIBLE ORDNANCE (RESTRICTED) AND THE HERO SUSCEPTIBLE SEPARATION DISTANCES WILL APPLY FOR THE ABOVE FREQUENCY BANDS WHEN THESE ITEMS ARE NOT ENCLOSED IN A SEALED ALL-METAL CONTAINER OR IN AN APPROVED ELECTROSTATIC DISCHARGE (ESD)/HERO BARRIER BAG AS DESCRIBED BELOW:
BA33 CTG, 40MM MULTI-FLASH-BANG, TUBE LAUNCHED, VENOM RESTRICTIONS APPLY IN THE 2 MHZ TO 1000 MHZ FREQUENCY BANDS DURING HANDLING AND LOADING PHASES OF OPERATIONS WHEN OUTSIDE OF AN APPROVED MIL-PRF-

81705 TYPE 1 BARRIER BAG. IT IS UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS AND PHASES OF OPERATION. (SAFETY CONSEQUENCE)

CA32 CTG, 105 MM HEP-T M393A3 (ARMY) UNEVALUATED FOR HERO AND RESTRICTIONS APPLY TO ALL OF THE ABOVE FREQUENCY BANDS IN ALL PHASES OF OPERATION. (SAFETY CONSEQUENCE)

C508 CTG, 105 MM (ARMY) UNEVALUATED FOR HERO AND RESTRICTIONS APPLY TO ALL OF THE ABOVE FREQUENCY BANDS IN ALL PHASES OF OPERATION (SAFETY CONSEQUENCE)

C511 CTG, 105 MM (ARMY) UNEVALUATED FOR HERO AND RESTRICTIONS APPLY TO ALL OF THE ABOVE FREQUENCY BANDS IN ALL PHASES OF OPERATION (SAFETY CONSEQUENCE)

C518 CTG, 105 MM (ARMY) UNEVALUATED FOR HERO AND RESTRICTIONS APPLY TO ALL OF THE ABOVE FREQUENCY BANDS IN ALL PHASES OF OPERATION (SAFETY CONSEQUENCE)

D510 PROJECTILE, 155 MILLIMETER, HE, GUIDED COPPERHEAD , M712 (ARMY) RESTRICTIONS APPLY IN THE 2 MHZ TO 700 MHZ FREQUENCY RANGE FOR HANDLING/LOADING, STAGED, AND PLATFORM LOADED PHASES AND WHEN EXPOSED OUTSIDE OF ITS SEALED ALL-METAL CONTAINER. IT IS UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS. (RELIABILITY CONSEQUENCE)

FZ14 GREN, RIOT CONTROL CS L96 (ARMY, USMC) FSEP STRYKER, LAV-AD, LAV-AT, LAV-M AND ASSAULT BREACHER VEHICLE APPLICATIONS HAVE NO RESTRICTIONS. RESTRICTIONS APPLY TO ALL OTHER PLATFORMS IN ALL OF THE ABOVE FREQUENCY BANDS AND IN ALL PHASES OF OPERATIONS. (SAFETY CONSEQUENCE)

FZ15 GREN, PRAC RIOT CONTROL L97 (ARMY, USMC) FSEP STRYKER, LAV-AD, LAV-AT, LAV-M AND ASSAULT BREACHER VEHICLE APPLICATIONS HAVE NO RESTRICTIONS. RESTRICTIONS APPLY TO ALL OTHER PLATFORMS IN ALL OF THE ABOVE FREQUENCY BANDS AND IN ALL PHASES OF OPERATIONS. (SAFETY CONSEQUENCE)

FZ16 GREN, DISTRACTION M98 (USMC) FSEP STRYKER, LAV-AD, LAV-AT, LAV-M AND ASSAULT BREACHER VEHICLE APPLICATIONS HAVE NO RESTRICTIONS. RESTRICTIONS APPLY TO ALL OTHER PLATFORMS IN ALL OF THE ABOVE FREQUENCY BANDS AND IN ALL PHASES OF OPERATIONS. (SAFETY CONSEQUENCE)

FZ17 GREN, BLUNT TRAUMA M99 (USMC) FSEP STRYKER, LAV-AD, LAV-AT, LAV-M AND ASSAULT BREACHER VEHICLE APPLICATIONS HAVE NO RESTRICTIONS. RESTRICTIONS APPLY TO ALL OTHER PLATFORMS IN ALL OF THE ABOVE FREQUENCY BANDS AND IN ALL PHASES OF OPERATIONS. (SAFETY CONSEQUENCE)

G815 GREN, LAUNCHER SMK INFRARED SCREEN (ARMY, USMC) FSEP STRYKER, LAV-AD, LAV-AT, LAV-M AND ASSAULT BREACHER VEHICLE APPLICATIONS HAVE NO RESTRICTIONS. RESTRICTIONS APPLY TO ALL OTHER PLATFORMS IN ALL OF THE ABOVE FREQUENCY BANDS AND IN ALL PHASES OF OPERATIONS. (SAFETY CONSEQUENCE)

G826 GREN, LAUNCHER SMK INFRARED SCREENING M76 (ARMY, USMC) FSEP STRYKER, LAV-AD, LAV-AT, LAV-M AND ASSAULT BREACHER VEHICLE APPLICATIONS HAVE NO RESTRICTIONS. RESTRICTIONS APPLY TO ALL OTHER PLATFORMS IN ALL OF THE ABOVE FREQUENCY BANDS AND IN ALL PHASES OF OPERATIONS. (SAFETY CONSEQUENCE)

G978 GREN, LAUNCHER SMK SIM SCREENING M82 (ARMY, USMC) FSEP STRYKER, LAV-AD, LAV-AT, LAV-M AND ASSAULT BREACHER VEHICLE APPLICATIONS HAVE NO RESTRICTIONS. RESTRICTIONS APPLY TO ALL OTHER PLATFORMS IN ALL OF THE ABOVE FREQUENCY BANDS AND IN ALL PHASES OF OPERATIONS. (SAFETY CONSEQUENCE)

GG03 GREN, SMOKE TA M90 (ARMY, USMC) RESTRICTIONS APPLY TO THE HMMWV W/LVOSS DURING HANDLING AND LOADING EVOLUTIONS FOR EMITTERS BETWEEN 30 MHZ AND 90 MHZ. FOR ALL OTHER PLATFORMS THE RESTRICTIONS APPLY TO ALL OF THE ABOVE BANDS AND FOR ALL PHASES OF OPERATIONS. (SAFETY CONSEQUENCE)

J143 ROCKET MOTOR, 5-INCH MK 22 MOD 3 (ARMY, USMC) RESTRICTIONS APPLY WHEN USED WITH THE LINEAR DEMOLITION CHARGE SYSTEM IN THE 30 MHZ TO 790 MHZ FREQUENCY BAND DURING THE TRANSPORTATION AND STORAGE, HANDLING AND LOADING, STAGED, AND PLATFORM LOADED PHASES OF OPERATIONS. IT IS UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS. (SAFETY CONSEQUENCE)

J247 ROCKET MOTOR, 5 IN MK 16 MOD 3, (USMC) RESTRICTIONS APPLY WHEN EXPOSED OUTSIDE OF AN RF PROTECTIVE CONTAINER DURING HANDLING AND LOADING FOR EMITTERS BETWEEN 2 MHZ AND 150 MHZ. ALL OTHER BANDS REQUIRE NO HERO RESTRICTIONS OTHER THAN THE GENERAL HERO REQUIREMENTS OF REF B. (SAFETY CONSEQUENCE)

K143 MINE, APERS M18A1 W/M57 FIRING DEVICE (ARMY, USMC, NAVY, AIR FORCE) RESTRICTIONS APPLY IN THE 2 MHZ TO 150 MHZ FREQUENCY BAND DURING HANDLING AND LOADING OPERATIONS WHEN EXPOSED OUTSIDE OF AN APPROVED MIL-PRF-81705 TYPE 1 BARRIER BAG. IT IS UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS. (SAFETY CONSEQUENCE)

L595 SIMULATOR, PROJECTILE, LIQUID AIR BURST, M9 (ARMY) UNEVALUATED FOR HERO AND RESTRICTIONS APPLY TO ALL OF THE ABOVE FREQUENCY BANDS. (SAFETY CONSEQUENCE)

M130 CAP, BLASTING ELECTRIC M6 (ARMY, USMC, NAVY, AIR FORCE) RESTRICTIONS APPLY IN THE 2 MHZ TO 30 MHZ, 30 MHZ TO 150 MHZ, AND 225 MHZ TO 790 MHZ FREQUENCY BANDS DURING THE HANDLING AND LOADING PHASES OF OPERATIONS WHEN OUTSIDE OF AN APPROVED MIL-PRF-81705 TYPE 1 BARRIER BAG. IT IS UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS AND PHASES OF OPERATION. (SAFETY CONSEQUENCE)

M025 CHARGE, DEMOLITION, HE, LINEAR, M58 (ARMY) RESTRICTIONS APPLY WHEN USED WITH M1134 SERIES FUZES IN THE 30 MHZ TO 150 MHZ, 150 MHZ TO 225 MHZ AND 225 MHZ TO 790 MHZ FREQUENCY BANDS WHEN OUTSIDE OF A SEALED, ALL-METAL CONTAINER DURING TRANSPORTATION AND STORAGE, HANDLING AND LOADING, STAGED, PLATFORM LOADED, AND IMMEDIATE POST-

LAUNCH PHASES. THESE ITEMS ARE UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS. (SAFETY CONSEQUENCE)

M598 DESTROYER, CRYPTO EQUIPMENT M1 SERIES TH4 (USMC) RESTRICTIONS APPLY IN THE 2 MHZ TO 30 MHZ FREQUENCY BAND DURING THE HANDLING AND LOADING PHASE OF OPERATIONS WHEN OUTSIDE OF ITS SEALED, ALL-METAL CONTAINER. IT IS UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS AND PHASES OF OPERATION. (SAFETY CONSEQUENCE)

M913 CHG, DEMO HE LINEAR M58A4 (ARMY, USMC) RESTRICTIONS APPLY WHEN USED WITH M1134 SERIES FUZES IN THE 30 MHZ TO 150 MHZ, 150 MHZ TO 225 MHZ AND 225 MHZ TO 790 MHZ FREQUENCY BANDS WHEN OUTSIDE OF A SEALED, ALL-METAL CONTAINER DURING TRANSPORTATION AND STORAGE, HANDLING AND LOADING, STAGED, PLATFORM LOADED, AND IMMEDIATE POST-LAUNCH PHASES. THESE ITEMS ARE UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS. (SAFETY CONSEQUENCE)

ML25 CHG, DEMO HE LINEAR M59A1 (USMC) RESTRICTIONS APPLY WHEN USED WITH M1134 SERIES FUZES IN THE 30 MHZ TO 150 MHZ, 150 MHZ TO 225 MHZ AND 225 MHZ TO 790 MHZ FREQUENCY BANDS WHEN OUTSIDE OF A SEALED, ALL-METAL CONTAINER DURING TRANSPORTATION AND STORAGE, HANDLING AND LOADING, STAGED, PLATFORM LOADED, AND IMMEDIATE POST-LAUNCH PHASES. THESE ITEMS ARE UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS. (SAFETY CONSEQUENCE)

MW86 KIT, FIRING DEVICE, MK48 MOD 0 AND 1 (NAVY) RESTRICTIONS APPLY IN THE 30 MHZ TO 150 MHZ AND 225 MHZ TO 790 MHZ FREQUENCY BANDS DURING THE HANDLING AND LOADING, STAGED, AND PLATFORM LOADED PHASES OF OPERATIONS. IT IS UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS. (SAFETY CONSEQUENCE)

NA09 FUZE, MULTI-OPTION M782 (ARMY, USMC) RESTRICTIONS APPLY WHEN EXPOSED OUTSIDE OF AN RF PROTECTIVE CONTAINER DURING HANDLING AND LOADING FOR EMITTERS BETWEEN 2 MHZ AND 790 MHZ. IT IS UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS AND PHASES OF OPERATION. (RELIABILITY CONSEQUENCE)

WF82 GM, SURFACE ATTACK, BGM-71H, BUNKER BUSTER (ARMY) UNEVALUATED FOR HERO AND RESTRICTIONS APPLY TO ALL OF THE ABOVE FREQUENCY BANDS IN ALL PHASES OF OPERATION. (SAFETY CONSEQUENCE)

WH05 MISSILE, SURFACE ATTACK BGM-71E (TOW-2A) (USMC) UNEVALUATED FOR HERO AND RESTRICTIONS APPLY TO ALL OF THE ABOVE FREQUENCY BANDS IN ALL PHASES OF OPERATION. (SAFETY CONSEQUENCE)

WH06 MISSILE, SURFACE ATTACK BGM-71E (TOW-2A) (USMC) UNEVALUATED FOR HERO AND RESTRICTIONS APPLY TO ALL OF THE ABOVE FREQUENCY BANDS IN ALL PHASES OF OPERATION. (SAFETY CONSEQUENCE)

C. THE FOLLOWING ITEMS, CLASSIFIED AS HERO SUSCEPTIBLE ORDNANCE (RESTRICTED), HAVE BEEN GROUPED BY SIMILAR CHARACTERISTICS TO PROVIDE MAXIMUM FLEXIBILITY TO MARINE CORP, NAVY, AIR FORCE, AND ARMY GROUND FORCES. THE BELOW SAFE SEPARATION DISTANCES APPLY (SAME FREQUENCY BANDS AND POWER LEVELS AS DESCRIBED IN PARAGRAPH 3) FOR THE FOLLOWING ITEMS:

J143, M025, M913, AND ML25 ARE RESTRICTED IN THE 30 TO 150 MHZ FREQUENCY RANGE TO 170 FEET, IN THE 150 TO 225 MHZ FREQUENCY RANGE TO 10 FEET, IN THE 225 TO 790 MHZ FREQUENCY RANGE TO 12 FEET.

D510, J247, K143, MW86, NA09 ARE RESTRICTED IN THE 2 TO 30 MHZ FREQUENCY RANGE TO 254 FEET, IN THE 30 TO 150 MHZ FREQUENCY RANGE TO 170 FEET, IN THE 150 TO 225 FREQUENCY RANGE TO 73 FEET, IN THE 225 TO 790 FREQUENCY RANGE TO 37 FEET.

BA33, M130, M598 ARE RESTRICTED IN THE 30 TO 150 MHZ FREQUENCY RANGE TO 158 FEET, IN THE 150 TO 225 MHZ FREQUENCY RANGE TO 64 FEET, IN THE 225 TO 790 MHZ FREQUENCY RANGE TO 37 FEET.

D. THE FOLLOWING ITEMS ARE CLASSIFIED AS HERO SUSCEPTIBLE ORDNANCE (UNRESTRICTED); HOWEVER, A REVIEW OF THE SUSCEPTIBILITY DATA AND THE ENVIRONMENTS ASSOCIATED WITH SYSTEMS LISTED IN THE AFOREMENTIONED COMMUNICATION BANDS HAS SHOWN THAT THESE ITEMS WILL NOT REQUIRE ANY RESTRICTIONS IN THE FORM OF SAFE SEPARATION DISTANCES. IN ADDITION, THE REF B 10-FOOT SAFE SEPARATION DISTANCE (GENERAL REQUIREMENT) IS WAIVED; HOWEVER, DURING OPERATIONS INVOLVING THESE ITEMS, ALL OTHER GENERAL HERO REQUIREMENTS IN REF B APPLY:

C379 CTG, MORTAR, 120MM HE, M934, W/M734 MULTI-OPTION FUZE (ARMY) (RELIABILITY CONSEQUENCE)

CA40 CTG., 105MM APERS XM1040 (ARMY) (SAFETY CONSEQUENCE)

D501 PROJECTILE 155MM (USMC) RESTRICTIONS APPLY IN THE 2 MHZ TO 700 MHZ FREQUENCY RANGE FOR HANDLING/LOADING, STAGED, AND PLATFORM LOADED PHASES AND WHEN EXPOSED OUTSIDE OF ITS SEALED ALL-METAL CONTAINER. IT IS UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS. (RELIABILITY CONSEQUENCE)

D502 PROJECTILE 155MM (USMC) RESTRICTIONS APPLY IN THE 2 MHZ TO 700 MHZ FREQUENCY RANGE FOR HANDLING/LOADING, STAGED, AND PLATFORM LOADED PHASES AND WHEN EXPOSED OUTSIDE OF ITS SEALED ALL-METAL CONTAINER. IT IS UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS. (RELIABILITY CONSEQUENCE)

D503 PROJECTILE 155MM (USMC) RESTRICTIONS APPLY IN THE 2 MHZ TO 700 MHZ FREQUENCY RANGE FOR HANDLING/LOADING, STAGED, AND PLATFORM LOADED PHASES AND WHEN EXPOSED OUTSIDE OF ITS SEALED ALL-METAL CONTAINER. IT IS UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS. (RELIABILITY CONSEQUENCE)

D509 PROJECTILE 155MM (USMC) RESTRICTIONS APPLY IN THE 2 MHZ TO 700 MHZ FREQUENCY RANGE FOR HANDLING/LOADING, STAGED, AND PLATFORM LOADED PHASES AND WHEN EXPOSED OUTSIDE OF ITS SEALED ALL-METAL CONTAINER. IT IS UNRESTRICTED IN ALL OF THE OTHER ABOVE FREQUENCY BANDS. (RELIABILITY CONSEQUENCE)

DA39 PROJECTILE, 155 MM (ARMY)) (RELIABILITY CONSEQUENCE)

HA08 ROCKET AND LAUNCHER, 83MM, SMAW-D (ARMY) (RELIABILITY CONSEQUENCE)

H104 ROCKET POD, 298MM TACTICAL M26 MLRS (ARMY, USMC) (RELIABILITY CONSEQUENCE)

K152 MINE, ANTIPERSONNEL (ARMY) (RELIABILITY CONSEQUENCE)
M174 CTG, CAL .50 IMPULSE ELECTRICALLY-INITIATED (ARMY, USMC, NAVY, AIR FORCE) (SAFETY CONSEQUENCE)
ML82 FUZE, ELECTRIC M1134A3 (USMC) (SAFETY CONSEQUENCE)
MN79 MINE CLEARANCE, APOBS MK 7 MOD 1 (ARMY, USMC) (SAFETY CONSEQUENCE)
PB93 GM, SURFACE ATTACK TOW (USMC) (SAFETY CONSEQUENCE)
PB97 GM, SURFACE ATTACK TOW (USMC) (SAFETY CONSEQUENCE)
PB99 GM, PRAC TOW (USMC) (SAFETY CONSEQUENCE)
PD62 GM, SURFACE ATTACK TOW-2A (ARMY, USMC) (SAFETY CONSEQUENCE)
PE96 GM, SURFACE ATTACK TOW-2A (ARMY, USMC) (SAFETY CONSEQUENCE)
PV18 GM, SURFACE ATTACK TOW-2B (ARMY, USMC) (SAFETY CONSEQUENCE)
PV47 GM, SURFACE ATTACK BGM-71E-3B (TOW-2A) (ARMY, USMC) (SAFETY CONSEQUENCE)
PV82 GM, SURFACE ATTACK BGM-71F-1 (TOW-2B) (ARMY, USMC) (SAFETY CONSEQUENCE)
WF10 GM, SURFACE ATTACK BGM-71D-5 (TOW-2) (USMC) (SAFETY CONSEQUENCE)
WH03 MISSILE, SURFACE ATTACK BGM-71E (TOW-2A) (USMC) (SAFETY CONSEQUENCE)
WH04 MISSILE, SURFACE ATTACK BGM-71E (TOW-2A) (USMC) (SAFETY CONSEQUENCE)

6. FOR STATIC FACILITIES IN THEATER (AIR FIELDS AND ASPs), HERO SURVEYS SHOULD BE CONDUCTED TO ESTABLISH A BASELINE HERO POSTURE AND SPECIFIC HERO EMCON PROCEDURES FOR MANAGING THE STORAGE, TRANSPORTATION, BUILD-UP, AND DEPLOYMENT OF ORDNANCE. INFORMATION REGARDING HERO SURVEYS AND TRAINING CAN BE OBTAINED BY CONTACTING THE NAVSURFWAR CEN DAHLGREN (Q52), MR. RICHARD MAGROGAN AT COMMERCIAL (540)653-3445 OR E-MAIL RICHARD.MAGROGAN@NAVY.MIL

7. ACTION: ENSURE ALL RESPECTIVE TRAINING AND TECHNICAL MANUALS ARE UPDATED PER THIS MESSAGE.

8. ACTION: A. ALL HERO SUSCEPTIBLE (RESTRICTED) AND UNSAFE ORDNANCE SHALL EITHER BE KEPT OUTSIDE THE STANDOFF DISTANCE EXCLUSION ZONES, AS DISCUSSED ABOVE, OR BE PROPERLY PACKAGED IN EITHER A SEALED ALL-METAL CONTAINER OR IN AN APPROVED ELECTROSTATIC DISCHARGE (ESD)/HERO BARRIER BAG WHEN WITHIN THE EXCLUSION ZONES. THIS INCLUDES ITEMS THAT ARE TRANSPORTED INSIDE VEHICLES. NOTE: IN ACCORDANCE WITH REF D, 120MM TANK ROUNDS USED IN ALL M1 SERIES TANKS, THE TANK TURRET ACTS AS AN ELECTROMAGNETIC INTERFERENCE (EMI) 'CAGE', PROTECTING AMMUNITION INSIDE FROM EXTERNAL RADIO FREQUENCY (RF) ENERGY. THEREFORE, THE SAFE SEPARATION DISTANCES DO NOT APPLY TO TANK AMMUNITION INSIDE THE TURRET AS DESCRIBED IN REF D. UNCERTAINTIES REGARDING HERO SHALL BE BROUGHT TO THE ATTENTION OF THE UNIT'S EXPLOSIVE SAFETY OFFICER (ESO) AND EXPLOSIVE ORDNANCE DISPOSAL (EOD) PERSONNEL. FOR ALL HERO SAFE ORDNANCE, THE REF B 10-FOOT SAFE SEPARATION DISTANCE (GENERAL REQUIREMENT) IS WAIVED

PROVIDED ORDNANCE DOES NOT COME INTO CONTACT WITH THE ANTENNA; HOWEVER, DURING OPERATIONS INVOLVING THESE ITEMS, ALL OTHER GENERAL HERO REQUIREMENTS IN REF B APPLY.

B. VEHICLE COMMANDERS AND EMITTER OPERATORS SHALL MAINTAIN SITUATIONAL AWARENESS TO THE MAXIMUM EXTENT PRACTICAL TO NOT OPERATE EMITTING SYSTEMS IF ANY OF THE ABOVE UNSAFE OR SUSCEPTIBLE (RESTRICTED) ORDNANCE ITEMS ARE BEING UTILIZED WITHIN THE STANDOFF DISTANCES FROM THEIR EMITTER/VEHICLE. THE BEST USE OF THE AFOREMENTIONED INFORMATION IS AT THE MISSION PLANNING AND CONVOY PLANNING STAGES WHERE FREQUENCY MANAGEMENT AND THE CHOICE OF ORDNANCE FOR MISSION SUPPORT CAN BE PLANNED TO MINIMIZE HERO CONCERNS ONCE DEPLOYED.

C. ASPS ENTRY POINT PERSONNEL SHALL ESTABLISH ENTRY POINTS AND PROVIDE PERSONNEL TO ENFORCE STANDOFF DISTANCE REQUIREMENTS ON APPROACHING VEHICLES. ADDITIONALLY, ASPS SHALL SAFEGUARD UNSAFE/SUSCEPTIBLE ORDNANCE FROM THE HERO ENVIRONMENT BY PLACING ITEMS IN SEALED METAL CONTAINERS AND/OR BY PLACING THESE ITEMS AWAY FROM TRANSPORTATION ROUTES WHERE EMITTERS MAY BE UNINTENTIONALLY UTILIZED.

9. COMPLIANCE IS REQUIRED TO THE MAXIMUM EXTENT POSSIBLE DUE TO THE POTENTIAL FOR INADVERTENT INITIATION OF HERO SENSITIVE ORDNANCE WHICH MAY CAUSE EQUIPMENT DAMAGE, PERSONNEL INJURY, AND/OR DEATH. THE SAFE SEPARATION DISTANCES PROVIDED ABOVE REPRESENT A WORST-CASE DISTANCE FOR EMITTER SYSTEMS BELOW A RATED OUTPUT POWER WITHIN SPECIFIC FREQUENCY BANDS. HERO RESULTS ARE ALSO PROVIDED WITHIN EACH OF THE SPECIFIC VEHICLE/EMITTER SYSTEM CONFIGURATION TEST REPORTS GENERATED BY NSWCD AND MAY VARY SLIGHTLY FROM THE GUIDANCE HEREIN AS THOSE REPORTS APPLY TO A SPECIFIC PLATFORM CONFIGURATION. RECOMMEND CONVOY ORM WORKSHEET ADDRESS THE HERO HAZARD PROBABILITY AS SELDOM 'D' AND THE SEVERITY AS CATASTROPHIC 'I'. DUE TO THE COMPLEX NATURE OF BATTLEFIELD OPERATIONS IT IS RECOMMENDED CONVOY PLANNERS SELECT ORDNANCE ITEMS THAT HAVE BEEN EVALUATED AS HERO SAFE OR HERO SUSCEPTIBLE-UNRESTRICTED. OTHER MEASURES INCLUDE MONITORING TRANSMITTER USAGE, AND MAINTAINING ORDNANCE IN SEALED ALL-METAL SHIPPING CONTAINERS. SHORTER SAFE SEPARATION DISTANCE ASSIGNMENTS REQUIRE A MORE ACCURATE PROBABILITY OF A CATASTROPHIC EVENT AND IS PROBLEMATIC.

10. THIS SOUA SUPERSEDES AND CANCELS REFERENCES C THROUGH F.

11. THIS SOUM WILL BE CANCELLED BY THIS COMMAND VIA A SEPARATE MESSAGE.

12. REQUEST READDRESSAL OF THIS MESSAGE TO SUBORDINATE COMMANDS FOR WIDEST DISSEMINATION TO AFFECTED UNITS AND PERSONNEL.//

Enclosure (9)