



USMACC

AMMUNITION QUARTERLY

Marine Corps Information Publication



Volume 6, No. 2

April 2000

From the PM for Ammunition

Mr. Jerry L. Mazza
MARCORSYSCOM - AM



As we close in on the summer months, PM Ammunition, like many other organizations is braced for some personnel movements. Soon, we will lose two of our senior officers. LtCol Carl Lowe who serves as the Deputy PM will be retiring with 30 years faithful and dedicated service to our Corps and ammunition community. As the PM's right hand man, myself, as well as the former PM, have relied heavily on the corporate knowledge he has acquired during his career. He will be truly missed within our community and the Corps. I wish him the best. Carl will be replaced by LtCol Marshall Kindred who will assume the Deputy position within PM Ammunition.

In addition, LtCol Timothy Rollins will be departing during the May timeframe for duty as the Marine Forces Pacific Ammunition Officer. Tim's career has spanned virtually the full spectrum of ground ammo responsibility. His knowledge, coupled with the time spent here at Systems Command, will serve him well at MARFORPAC. I am convinced that he will continue to do great things for the Ammunition Community and at his next assignment.

Key to this edition of the Ammo Quarterly is an interesting article on the SAFER model; a tool for our Explosives Safety side of the house. As the Marine Corps principle to the Department of Defense Explosives Safety Board (DDESB), I have had the opportunity to attend numerous status briefings throughout the development of this risk-based explosives safety-siting model. I trust that once we have implemented this tool within the Marine Corps, our Explosives Safety Offices and installations will see it's value in reducing explosives waivers and exemptions, as well as

in reducing and/or negating costs associated with the more efficient use of our real estate.

Finally, since the last edition, this office has established the Program Manager for Ammunition WebPage which can be accessed through the Marine Corps Systems Command web address: www.marcorsyscom.usmc.mil.

We are confident that this WebPage, as it evolves and matures, will be an informative and functional tool for our customers. This WebPage coupled with the "Knowledge Management" initiative, which will stand up a usable, consolidated repository of structured databases, will accommodate the next level of communication among all stakeholders involved with the management of ammunition and explosives within the Marine Corps. I welcome your comments and suggestions as we continue to foster this exchange of information. Ω

Semper Fi

Inside This Issue.....

2/ NATO and Ammo

Empty Ammo Containers

3/ Please Don't Eat The Explosives

4/ SAFER Site Planning

5/ Kaneohe Bay ASP

6/ AMHAZ and ESI Schedules

7/ DDA Update

NATO AND AMMO

Maj. Darrell W. Tibbets

Marine Corps Liaison Officer for Ammunition, HQ IOC

The North Atlantic Treaty Organization (NATO), founded in 1949, is an alliance that links the United States, Canada, and Seventeen European nations for collective defense. NATO has pursued a program for Land Forces Ammunition Interchangeability (LFAI) guided by the LFAI Working Party (Ammo WP) to enhance flexibility in meeting NATO commitments. Allied Ordnance Publication AOP-6 is the catalogue that identifies the ammunition suitable for that purpose. This publication is available on the Internet at:

<http://qa.pica.army.mil/stdz/aop-6.html>

Ammunition is eligible for inclusion into AOP-6 if it is in the inventories of two or more NATO nations and if it meets the criteria for Volume 1, 2, or 3. Volume 1 is to identify ammunition that can be interchanged in case of logistic emergency in operations. Volume 2 specifies approved ammunition that can be used safely and reliably in training and operations, without further authorization. Volume 3 is to specify approved ammunition that can be used safely and reliably in training only. Volume 1, Edition 14 can answer a wide variety of interoperability questions. Ω



Tunnel Storage in Norway

Since writing this article, Maj. Tibbets has retired from the USMC. We wish him well, Semper Fi! His replacement at HQ IOC is LtCol. George Folta, former Head of Life Cycle Management Division here at PM AM. LtCol. Folta may be reached at DSN 793-5549.

EMPTY AMMO CONTAINERS?

Mr. Ray Scheibel

MCB Quantico/Explosives Safety Officer

Fall and spring are traditional times to clean house and get rid of junk and clutter. On a military base of Quantico's size, part of the clutter is empty ammunition containers.

NAVSEA OP 5 (OP5) requires "all empty containers, regardless of their origin must be inspected for markings and seals certifying their empty condition. Marking must include the removal/obliteration of all previous markings, indicating the presence of hazardous materials such as loading dates, lot numbers, serial numbers, maintenance due dates, and DOT/CG markings, etc." Empty markings must be applied by one of the following methods:

- The preferred method is to stencil on both ends or sides of the container the word "empty" in one inch high letters.
- Apply an empty label, NSN 7540-01-054-7252, on both ends and sides of the container.
- Attach a MIL-STD-129 tag, properly authenticated and stamped, "empty", to the container.

Ammo containers can be found just about anywhere, on or off base, storing everything from weapons cleaning material to nuts, bolts, and tools. This practice should not be condoned. Containers should be turned in to the Defense Reutilization and Management Office (DRMO) for recycling/resale.

When turned to Defense Reutilization and Management Office (DRMO) for recycling, it's up to the unit to certify their empty condition and obliterate the previous markings. The term "empty" means that there is no ordnance material inside, not that there is nothing inside. For further information see NAVSEA OP5, Vol. 1, paragraph 11-1.6.

So while doing your housecleaning, be sure to take note of the used ammunition containers that are in and around your areas. If they are being used for purposes other than the proper storage of ammunition turn them in, making sure that the original markings are removed in accordance with one of the approved methods. An empty ammunition container, not marked "empty", found with original markings not obliterated is a finding on Explosives Safety Inspections.Ω

Mr. Scheibel is assigned to the Safety Division, MCB Quantico and may be reached at DSN 278-2752 or Comm (703) 784-2752.

Please Don't Eat The Explosives!

Staff Article

Naval Safety Center Magazine, "Ground Warrior"

Don't laugh. One person was killed and another seriously injured after a stunt where each of them held plasticized explosives in their mouths. Several more were injured in the same manner using blasting caps. They now wear dentures. These mishaps are the product of blatant disregard for standard safety procedures and a total lack of common sense.

The Explosives Qualification and Certification program was implemented because of mishaps that occurred from improper handling, loading, processing and testing of ordnance and explosive devices. These mishaps killed 20 Marines and injured 380 others in the last 10 years, attesting to the dangers in handling explosives.

Since 1994, the number of Explosive Mishap Reports and Conventional Ordnance Discrepancy Reports has increased steadily. The most disturbing aspect of this trend is the number of safety-related mishaps that were personal error. That number has risen from 491 in 1994 to 563 in 1997. The causes of these mishaps can be traced to four major areas:

1. High operational tempo combined with haste and inattentiveness: In a previous article a Marine severely injured his hand while acting as a-gunner on a mortar team. Both he and the gunner had been dropping rounds down the tube, rather than just the a-gunner as in the manual.

2. Inexperience and bad attitude: Leaders must make sure their Marines have the proper attitude, enough training and experience to safely perform the task assigned.

Supervision is essential in the early development of correct explosives-handling skills. A new Marine should never handle explosives without qualified supervision. However, experienced Marines should listen to that lance corporal or private first class fresh from school. He or she might make you aware of maintenance procedures that have been updated over the years.

3. Ignoring technical and loading manuals, checklists : When switching to a new weapon system, don't assume your experience with one weapon makes you able to immediately handle any weapon. Take some time to read through the manual and ask an expert on the system for the gouge. He will be able to relate common problems or mistakes with the weapon. When conducting range-clearing operations, never pick up ordnance. This rule may save your hands.

4. Taking unnecessary risks and disregarding common safety practices: No ordnance is completely Marine-proof. They are designed to explode when and where required, but can also explode when least intended or expected. For example, one Marine took home a MK-46 decoy flare. He was dismantling it on his kitchen table, where it ignited and fell onto his lap. He severely burned his genitals and a couple of fingers.

These guidelines are designed to keep you alive and in one piece. The personnel in this article learned the hard way that explosives are not toys or food. Learn from their mistakes, rather than your own. Ω

The editor of Ground Warrior can be reached at pberthel@safcen.navy.mil, Comm (757) 444-3520, ext. 7255.

WEBSITES

General Quality Assurance, Ammo Surveillance, (soon to come- Ammunition Data Cards).

www.ioc.army.mil/io/qa/qa1

Military Munitions Rule (MR)

www.epa.gov

Links to Logistics problem solving advice

www.sole.org

Naval Ordnance Safety and Security Activity (NOSSA)

<http://nossa.ih.navy.mil>

Navy Publications

<http://neds.nebt.daps.mil>

DoD Publications

<http://web7.whs.osd.mil/corres.htm>

AMMUNITION QUARTERLY IS NOW ON THE WEB

<http://www.marcorsyscom.usmc.mil>, click Syscom Organizations, click PM for Ammunition, click Access PM Ammunition, click Ammo Quarterly.

SAFER Site Planning

Mr. George Morrison
MARCORSYSCOM/AM-EES

On 9 Dec. 1999, the Department of Defense Explosives Safety Board (DDESB) approved a 3-year trial implementation of a risk based explosives safety-siting model. The model will be used in conjunction with normal quantity-distance (QD) requirements.

Site Assessment for Explosives Risk (SAFER) is the product of over three years' research and development by a joint Services, contractor, and DDESB team. The Risk Based Explosives Safety Criteria Team (RBESCT), combined the resources and talents of the DoD, private industry, and international experts to produce SAFER.

Why was SAFER developed?

Currently, QD criteria consider only limited parameters to establish safe siting distances, i.e. quantity of explosives and hazard classification. Clearly, there are many more factors involved, such as type of operation, numbers of people involved/exposed, engineering/construction details, and environment, which should be considered in assessing the complete risk of explosives operations. SAFER was developed to bring in these, other additional parameters, and to establish quantitative criteria for assisting decision-makers in defining acceptable risk.

What does SAFER do?

In simple terms, SAFER calculates the risk of statistical expectation of death from an explosives mishap. SAFER produces two results, expected fatalities and the maximum individual probability of fatality for a given explosives event. These calculations are then compared to risk criteria developed through study of comparable accident statistics, legal considerations, regulatory experience, and consistency with other safety data/criteria.

What are the benefits of SAFER?

Initially, SAFER will be used to evaluate the risk acceptability and approval level of site plans which do not meet normal QD requirements. Site plans, which would have been rejected or generated a waiver, may now be approved without waiver if SAFER criteria are met. Expected benefits include:

- Providing commanders with the knowledge of actual risk being accepted.
- Decreasing the numbers of waivers/exemptions.
- Providing a tool for prioritizing corrective actions to eliminate non-compliant situations.

- Providing a means to identify factors contributing to increased/decreased risk.
- Potential cost savings in more efficient use of real estate, less expensive building design, reducing potential liability, and streamlining the waiver review process.

Who will be using SAFER?

The DDESB approval language left the details for implementation of SAFER to the discretion of each Service. The Marine Corps vision for SAFER is as a tool for Explosives Safety and Ammunition personnel at the installation level in both site planning and daily risk management or reduction.

MARCORSYSCOM will review installation-prepared site plans using SAFER, but the real utility of SAFER is at the installation. SAFER was designed for individuals with some knowledge of the application of QD principals, explosives hazard divisions, explosives quantity, and information concerning the facilities and personnel surrounding the potential explosion site. All this information is most readily available at the installation. Since SAFER is menu driven, judgements must be made choosing which menu item fits the situation. These choices are best made by those personnel closest to the problem.

What are SAFER's PC system requirements?

SAFER software runs on 486 (or above) processors using Microsoft 95/98 and NT operating systems.

Will I need a degree in Quantum Physics to use SAFER?

NO, DEFINITELY NOT! In fact, all probability/statistical calculations are completely transparent to the user. All that is required of the user is to input basic information and make choices from drop down menus. Examples of basic information include building number, type of building (choices are provided), type of activity in the building (19 choices), type of explosives in the building, expected and maximum Net Explosives Weight (NEW), hazard class, compatibility group, roof type, distance from Exposed Site (ES) to Potential Explosion Site (PES), floor areas, window sizes, number of people, hours present in the building, etc.

One of the guiding principals in developing SAFER was user-friendliness. This will remain a priority in later versions.

Is QD dead? Can I rip those tables out of OP 5?

NO. As previously stated, SAFER is in a trial status. It is to be used only in those instances when QD requirements

Continued on Page 5

SAFER...Continued from Page 4

cannot be met, and all alternatives to meet QD standards are exhausted. For the trial period, all site plans submitted using SAFER will be closely checked in both the normal review process and by the RBESCT to determine if SAFER was properly used, justified, and applied.

Although SAFER, in its current form, is fully useable, it is a work in progress. The RBESCT is working to expand capability, refine calculations, and populate the database. There will be further improved revisions that will incorporate both the work of the RBESCT, and lessons learned from site plans submitted by the users. The current top three priorities include development of SAFER capability in assessing port operations, field storage, and refinement of Public Traffic Route (PTR) calculations. Each of the Services and the DDESB representatives on the RBESCT submit ideas for product improvement and the team prioritizes these projects. Limited funding dictates this focused approach to SAFER development. User input will also be vital as SAFER evolves.

How will the Marine Corps implement SAFER?

While all the details are not yet finalized, as previously mentioned, SAFER will be an installation level program. Implementation could be by Naval Message or other formal means yet to be determined.

Formal implementation will be preceded by an introduction to SAFER through informative newsletter articles, WebPages, and other information dissemination media. This article is part of that effort to get the word out.

It is anticipated that some minimal training will be required. The Marine Corps RBESCT member is working with the contractor and senior ammunition staff members to determine the level of training necessary, and the best means to provide training. Several methods are available including regional classes, computer-based training (CBT), training in conjunction with scheduled conferences, user manuals, and inclusion in the ammunition course at Redstone. One or more of these methods may be employed. Because SAFER is user friendly, training will stress how and when to use the program, rather than focusing on the mechanics of data entry.

Bottom line...

We now have a tool which, when properly used, will help reduce waiver/exemptions, provide decision-makers with a quantitative measurement of risk, and be useful in daily risk management decisions. Services are currently planning implementation programs to bring SAFER on line. Ω

Mr. Morrison is the Marine Corps RBESCT member and may be reached at MARCORSSYSCOM/AM-EES, DSN 278-9476, Comm (703) 784-9476.

Unique in Every Way... Kaneohe Bay

MSgt. Vince A. Lawson
*Ammunition Supply Point
MCB Hawaii*

The Ammunition Supply Point (ASP), located at MCB Hawaii, Kaneohe Bay, HI, is unique in every way. It may not be the largest or busiest ASP in the Marine Corps, however, it is the only Marine Corps ASP that stores, transports, accounts for, and supports Marine Corps Aviation and Ground units, as well as Naval Aviation units with ammunition/ordnance on a daily basis. You might think to yourself that the Center Magazine Area (CMA), at 29 Palms, provides the same, however, while CMA certainly supports both Marine Corps Aviation and Ground units, they do not support Naval units on a daily basis.

The personnel make-up at the Kaneohe Bay ASP is also unique, crossing Service and specialty lines to include Marine Ground Ammunition Technicians (2311's), Marine Aviation

Ordnance Technicians (6541's), Marine Aviation Ordnance Officer (6502), Naval Aviation Ordnance Technicians, Warehousemen (3501's), machine gunners (0351's), and mortar man (0331). These diverse specialties present many challenges in education and training. In addition to competency in their own MOS, personnel are cross-trained in each others, making all ASP personnel more diverse and flexible.



Tunnel Magazines at MCBH, Kaneohe Bay ASP

Continued on Page 6

Unique... Continued from Page 5

The ASP storage area is also unique in that it is the only ASP in the Marine Corps that uses tunnel magazines. These tunnels vary in depth to 257 feet, and in width to 18 feet. The close proximity to base housing imparts restrictions to explosive weights and types, as well as public traffic route and inhabited building distance Explosives Safety arc's. These restrictions, in addition to limited storage space, require ASP personnel to constantly monitor and verify that storage conforms to applicable regulations.



Interior View of Tunnel Magazine

The ASP manages the Marine Ammunition Requirement Support Order (MARSO) for MCB Hawaii. This includes EOD, two rifle ranges, HQ Bn, HQ&Svc Bn, and 1st Radio Bn. Additionally, the ASP supports requirements for visiting MEU's, Navy and Marine Corps Aviation Squadrons, 4th Recon, local Reserve Seabee unit, and all other units training at Kaneohe. With the transfer of Naval Aviation Units from Barbers Point, NAS to MCB Kaneohe, the types and quantities of ammunition and ordnance needed to support the inbound units required a complete restructuring of the ASP's storage layout. Marines and Sailors worked hand in hand for seven months rewarehousing the ASP to support the P-3 squadrons. This type of effort is indicative of the quality and ability of the Marines and Sailors assigned to the Kaneohe Bay ASP.

As noted by the chief inspector of the Naval Ordnance Safety and Security Activity team, during a recent Explosives Safety Inspection, "This ASP is more diverse than any other place in the Service."Ω

MSgt. Lawson is assigned to the ASP at MCB Hawaii and may be reached at DSN 457-2942, or Comm 257-2942.

3RD Quarter ESI Schedule

4-6 April/ MCRD Parris Island

**22-26 May/ NUWC Det Hawthorne/
NSWC DIV Crane USMC Program
Office**

23-25 May/ MCLB Albany

**13-30 June/ MCB Camp Butler/HQ
BN Camp Fuji/MCAF
Futenma/Third FSSG/Third
MARDIV**

*Provided by NAVORDSAFSECACT, Indian Head MD
POC for ESSOPAC is Gene Vickers, DSN 735-9560
POC for ESSOLANT is Mark Priest, DSN 564-9217*

Amhaz Board Visits CY-00 and 01

3 – 7 Apr 00 / New England/New Jersey

16 – 18 May 00 / Keflavik

16 –20 Oct 00 / San Diego/Seal Beach

23 – 27 Oct 00 / Northern California

5 – 9 Mar 01 / Washington Capital

2 – 6 Apr 01 / Norfolk

8 – 18 May 01 / Korea

19 – 22 Jun 01 / Puget Sound

23 –29 Jun 01 / Pearl Harbor

22 –26 Oct 01 / Florida/Gulf Coast

29 Oct – 2 Nov 01 / Kings Bay/Charleston

Activities in each geographic area will be notified by message, 90 days in advance. Specific dates will be established based on response.

*Provided by CNO/Ordnance Programs and Policy Branch
POC: Mr. Eric Alchowiak, DSN 664-9964*

USMC Designated Disposition Authority Update 2000

Mr. Thierry Chiapello
MARCORSYSCOM/AM-EES

Since the last Designated Disposition Authority (DDA) article in 1999, several key developments have taken place that will be identified in this article, but first a brief recap of the DDA process. The DDA was created to provide disposition instructions for the management of excess, obsolete, unserviceable and waste ammunition in compliance with EPA and DoD regulations and directives. Each Service has at least one DDA. The DDA for Marine Corps Class V (W) assets is located at MARCORSYSCOM PMAM while the Navy DDA located at Crane Provides disposition instructions for Class V (A) assets.

To date, the DDA process has reduced the amount of waste generated, found alternative uses for unserviceable munitions, such as recycling and maintenance of Individual Training Standards (ITS), as well as quantitatively captured amounts of Condition Code H ammunition generated for increased validity in demilitarization forecasting,

As we all know, the best process that is not officially recognized, sanctioned, and easy to use will not provide the desired outcome within the ammunition community. With that in mind, here are recent developments that help to ensure the DDA process is validated and communicated:

Naval Message DTG: R 151237Z NOV 99 ZYB, Subject: MUNITIONS MANAGEMENT POLICY FOR UNSERVICEABLE AND WASTE CLASS V (W) MATERIAL. This message identified the process that ASP's and other activities must follow to request Munitions Disposition Instructions as well as the DDA's management philosophy.

Chapter 7 of the Draft MCO P8020.10A (Notice this is now a "P" directive.). We put a lot of effort into getting a document the FMF will use regularly—don't pass up your chance to formally comment on it when it comes to you shortly. We forwarded it to MATCOM at the end of March and you should see it any time. Chapter 7 is the 17 page detailed instruction of the 5 W's for managing your excess, obsolete, unserviceable, and waste ammunition.

Ammunition Information Notice (AIN) 021-00, Subject: PROPELLANT AND PROPELLING CHARGES MANAGEMENT. This AIN applies to US Marine Corps Stock only. This AIN again captures the DDA process for the management of propellants.

The Marine Corps and other Services monitor the chemical stability of stored propellant. Testing occasionally identifies ammunition lots that have hazardous stabilizer loss and are no longer safe for continued storage. When USMC ammunition (OT COG Class V (W) materiel) is so identified, Notices of Ammunition Reclassification (NAR) are issued IAW TWO24-AA-ORD-010, Ammunition Unserviceable, Suspended, and Limited Use. These NAR's will include a time limit before which the propellant must be destroyed. These items become hazardous waste immediately upon NAR issuance and must be managed IAW MRIP DTD 01 JUL 97.

Accordingly, storing activities must request Disposition Instructions from the USMC DDA. The DDA will evaluate available options and provide coordinated disposition instructions. Requests may be submitted via either email to dda@mcsc.usmc.mil or Naval MSG to COMMARCORSYSCOM Quantico VA//AM-EES. All requests shall contain the following information:

- (A) DODIC
- (B) NOMENCLATURE
- (C) QUANTITY
- (D) CONDITION CODE
- (E) APPLICABLE NAR, AIN, OR REASON PROMPTING LOCAL CONDITION CODE CHANGE.
- (F) ANY OTHER INFORMATION PERTINENT TO THE REQUEST (I.E. AVAILABILITY OF STORAGE UNDER CONDITIONAL EXEMPTION, RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) PERMITTED TREATMENT FACILITY STATUS, ETC.).

Loose, Mixed, Cut, Wet, or otherwise suspect Propelling Charges or Propellant:

- (A) Storage activities managing USMC Propelling Charges or Propellant that may be suspect will initially contact EOD for determination whether an emergency response or imminent and substantial endangerment exists, governed by MRIP DTD 01 JUL 97, Chapter 9. If EOD determines suspect propelling charges or propellant are safe to store and transport, the storage activity will request munitions disposition instructions from the USMC DDA within 3 days of EOD determination.

Continued on Page 8

DDA ... continued from Page 7

(B) Suspect Propelling Charges or Propellant include:

- (1) Charges or propellant removed from cartridge ammunition, commonly referred to as an "all up round".
- (2) Excess charges removed from propelling charge assemblies (cut charges).
- (3) Propellant charges that are leaking or that can not be identified to include propelling charges that are "mixed" or "unknown".
- (4) Propelling charges that are contaminated, loose, mixed, wet, soaked, or moldy.

Lessons Learned from similar NAR actions include:

Completion of Hazardous Waste (HW) Manifest must be coordinated with both the shipping and receiving installation Environmental Offices prior to shipment; for continuity and record keeping purposes, installation Environmental Office personnel authorized to sign the HW Manifest should sign at both shipping and receiving installations; treatment must be accomplished within the time parameters specified in the disposition instructions; transportation coordination should be accomplished by respective installation TMO Offices since carriers have to meet EPA and DOT HW and Explosives transportation licensing requirements.

Documentation to include:

The applicable NAR; DDA's munitions disposition instructions; DODIC; and quantity will be maintained by the shipping storage activity for a minimum of three years.

The USMC Munitions Management Policy MSG for Unserviceable and Waste Class V (W) Material (DTG 151237Z NOV 99 COMMARCORSYSCOM) amplifies current USMC Munitions Management Policy.

Questions regarding this policy may be directed to the USMC DDA, Mr. T. L. Chiapello, DSN: 278-9475, COMM: (703) 784-9475, FAX (703) 784-9496.

It might not be a bad idea to get hold of these documents and maintain in your desktop/turnover or even capture the contents into your SOP's.

The DDA process has been up and running for almost 2 years now and the results are amazing. Remember by requesting Munitions Disposition Instructions you not only comply with mandatory regulations and directives, but also reduce (if not eliminate) the chances of environmental regulators challenging your decisions for the management of excess, obsolete, unserviceable, and waste ammunition.

One example of what not to do would be requesting to conduct ED/CD training, with a 2-day turn around for instructions. Remember that the DDA has up to 60 days to provide Munitions Disposition Instructions. Generally, a short fuze is not a problem, however, it could be. Wait for the instructions. Conducting unauthorized training is not only highly discouraged, but also highly illegal. By training without DDA authorization, the individual making the decision to train takes the legal responsibilities upon themselves and could face criminal charges under environmental statute and regulations as well as UCMJ charges. The proper course of action in this case, although not the easiest, would be to pack up and return the Condition Code H assets to home base and use them in the next authorized ITS training evolution.

In closing, remember the process works and is in place to protect our Marines, our ammunition assets and our environment. Ω

Mr. Chiapello is the USMC DDA, and the AM-EES Branch Head at MARCORSYSCOM. He may be reached at DSN 278-9475.

U.S. Marine Corps
Ammunition Quarterly

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