UNITED STATES MARINE CORPS
MARINE CORPS BASE QUANTICO
QUANTICO, VA 22134-5001

IN REPLY REFER TO:
MCBO 3570.1A
B032
16 Sep 14

MARINE CORPS BASE ORDER 3570.1A

From: Commander
To: Distribution List

Subj: MARINE CORPS BASE QUANTICO REGULATIONS FOR RANGES AND TRAINING AREAS (RTAs) AND AIRSPACE (SHORT TITLE: RANGE REGULATIONS)

Ref: (a) MCO 3570.1C/AR 385-63
(b) DoDO 4715.11
(c) DoDO 4715.12
(d) DoDI 4160.21-M
(e) MCO 3550.9
(f) MCO P3550.10
(g) MARADMIN 214/06
(h) MCO 8025.1D w/Ch 1
(i) MCO 3500.27B
(j) MCRP 3-11.4A
(k) MCBO 3130.1B
(l) MCBO P11320.1
(m) DoDI 3025.21
(n) DoDI 5410.18
(o) MCO 5760.3
(p) 16.USC 6709.670
(q) MCBO 8000.1
(r) CO, Naval Surface Warfare Center ltr Ser FT30/035 dtd 16 Sep 09 (NOTAL)
(s) MCBO P11015.2
(t) MCO 8020.10B
(u) MCBO P5560.2D
(v) MCBO P6100.2
(w) MCO P8020.10B
(x) NAVSEA OP 5 Vol. 1, Seventh Rev.
(y) NAVSEA SWO020-AG-SAF-010
(z) MCBO 8020.1
(aa) MCO 5104.1C

Encl: (1) RANGE REGULATIONS

1. Situation. The Commander, Marine Corps Base Quantico (MCBQ) is responsible for information, instructions, and procedures

governing the use of ranges, training areas and airspace operated and controlled by MCBQ.

2. Cancellation. MCBO 3570.1

3. Mission. To ensure all agencies and units operating within MCBQ Ranges and Training Areas (RTAs) under the control of the Commander, MCBQ adhere to these regulations.

4. Execution

a. Commander's Intent and Concept of Operations

(1) Commander's Intent. Personnel operating within MCBQ RTAs will operate in a safe manner, preserving life, equipment and natural resources. The MCBQ RTAs will be managed in a way that maximizes safe, effective training opportunities for MCBQ's diverse customer base.

(2) Concept of Operations. This Order will be distributed as directed and all agencies shall review and incorporate procedures from the current version.

b. Coordinating Instructions

(1) This Order contains substantial revision and should be read in its entirety.

(2) In the event these instructions conflict with those issued by higher authority, the orders of the higher authority shall take precedence. Notify the Commander (Attn: MCBQ, G-3, Director for Range Operations) of any conflict or questions of interpretation.

(3) Commanders of organizations utilizing MCBB ranges are encouraged to submit recommendations concerning improvements or changes to the Commander (Attn: MCBQ, G-3, Director for Range Operations).

5. Administration and logistics. This Order can be viewed on the MCBQ G-1 and G-3 Websites. Directives issued by the Commander are distributed via e-mail upon request.

6. Command and Signal

a. Command. This Order applies to all commands, organizations, units and activities authorized use of the ranges, training areas and airspace controlled by the Commander, MCBQ.

b. Signal. This Order is effective the date signed.

DAVID W. MAXWELL
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DISTRIBUTION: A

LOCATOR SHEET

Subj: MARINE CORPS BASE QUANTICO REGULATIONS FOR RANGES AND TRAINING AREAS (RTAs) AND AIRSPACE (SHORT TITLE: RANGE REGULATIONS)

LOCATION: _____

(Indicate the location(s) of the copy(ies) of this Manual.)

ENCLOSURE (1)

RECORD OF CHANGES

Log completed change action as indicated.

Change Number	Date of Change	Date Entered	Signature of Person Incorporating Change

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CHAPTER 1 GENERAL

1000. PURPOSE AND SCOPE

1. The primary purpose of this Order is to enhance the safety of training while maximizing the training value and utilization of the Ranges and Training Areas (RTAs). No portion of this Order will be construed as permitting activities that endanger lives or property. RTA users will always strive to prevent mishaps.

2. This order prescribes the regulations and general precautions to be taken in the firing or other use of live ammunition, energy producing weapons/equipment, explosives, pyrotechnics, training devices, as well as the use and maintenance of maneuver areas, airspace, Landing Zones (LZs), Drop Zones (DZs), water ways, and RTAs west of Interstate 95 (I-95) aboard Marine Corps Base Quantico (MCBQ).

3. The safety regulations prescribed in reference (a) apply for firing ammunition during training. Where conflicts occur with instructions contained in Field Manuals (FMs) and Technical Manuals (TMs), the more restrictive provisions govern.

4. This order will establish procedures designed to enhance safety and efficiency in operating, maintaining, and improving the RTA to support present and future training requirements.

1001. OVERVIEW

The MCBQ RTA complex is located west of I-95. The RTA complex consists of approximately 50,000 acres and 141 square nautical miles of Special Use Airspace (SUA) and is composed of 38 Training Areas (TAs) and 33 live fire ranges, Gun Positions (GPs), Observation Posts (OPs), and urban training facilities. The RTA serves as a unique and vital asset to Department of Defense (DoD) units, civilian law enforcement agencies, and numerous federal agencies in the vicinity of the National Capital Region.

1002. ABBREVIATIONS AND DEFINITIONS

A list of abbreviations and definitions used throughout this Order can be found in Appendix A.

1003. ESTABLISHMENT OF RANGES

1. Commander (COMDR), MCBQ has sole authority to establish ranges for live fire in the RTA complex. No individual or organization will utilize new weapons systems or munitions on existing ranges without the approval of the COMDR, MCBQ.

Requests will be addressed to the COMDR, MCBQ, via the Director, Range Management Branch (RMB). This will not be construed as prohibiting the placement of suitable targets on existing ranges by using organizations after observing all safety precautions and regulations.

2. Recommendations to improve present ranges or to construct new ranges and training facilities are encouraged and should be forwarded to the COMDR, MCBQ (B 032) via the Director, RMB.

1004. OPERATION AND MAINTENANCE OF RANGES

1. Operation of Ranges

a. Director, RMB will manage the RTA with the following exceptions:

(1) The daily operations of personnel in support of range activity aboard the Justice Training Facility (Federal Bureau of Investigation [FBI] Academy Ranges) will be managed by the Director, FBI Academy. All ranges must be certified by the Range Control Officer (RCO) and must be operated in accordance with reference (a). Outdoor ranges will be considered "Hot" from 0600–1800 daily with the exception of Sundays and federal holidays for the approved range activities scheduled and approved in the Range Facility Management Support System (RFMSS). All other outdoor range activities require submission in RFMSS, coordination and approval of RMB.

(2) The daily operations of personnel in support of the Weapons Training Battalion (WTBn) mission will be managed by the Commanding Officer (CO), WTBn. Management and scheduling of the WTBn ranges will be conducted via RMB. Only RMB has the authority to cancel or modify any approved range request in the Range Facility Management Support System (RFMSS).

(3) The daily operations of Camp Upshur and LZ Roadrunner will be managed by the Director, Reserve Support Unit (RSU). LZ Roadrunner is co-located with the Camp Upshur parking lot and parade deck and is intended for emergency Medical Evacuation (MEDEVAC) use. Other use of LZ Roadrunner by aircraft will be coordinated with RMB. The use of LZ Roadrunner for other activities will be managed by the Director, RSU.

b. All RTA are assigned to the Director, RMB. In those cases where certain units are primary users (The Basic School, FBI Academy Ranges, WTBn, and Officer Candidate School [OCS]); they inherit no titles to those ranges and possess no authority to modify the purpose or design of any range or facility.

c. All ranges will have an individual Range Standard Operating Procedure (SOP) with associated Surface Danger Zones

(SDZs) for each weapon and ammunition utilized on the range, approved by, and on file with, the installation RCO. Requests for modification or recommendations for improvement or development of a range description or range facility should be provided to the RCO.

d. RMB personnel are authorized access to all ranges and training facilities at all times for the purpose of inspection, operation, or maintenance. Training units will not interfere with these personnel in the performance of their duties. If required, units will be placed into a "check-fire" in order to allow access.

2. Maintenance of Ranges. RMB will identify all RTA maintenance requirements and forward a consolidated, prioritized list to the AC/S, G-5. Any other RTA users identifying a need for maintenance or improvement will make a submission to RMB for action. The CO, WTBn, will coordinate with RMB for all preventative and restorative maintenance of the ranges aboard the Calvin A. Lloyd Range Complex (WTBn ranges). The maintenance of ranges aboard the FBI Academy Ranges is the responsibility of the FBI Academy.

1005. RESPONSIBILITIES

1. COMDR, MCBQ will act as the deviation authority, or delegate such authority in accordance with paragraph 1-8, of reference (a). The COMDR is responsible for establishing a range safety program. This program will include the following:

a. The requirement that personnel are held accountable for range and explosive safety to the same extent that they are held accountable for mission accomplishment.

b. Integration of safety and operational risk management into planning and all subsequent phases of range operations.

c. Active and coordinated involvement of trained and qualified Range Control and installation safety professionals who:

(1) Routinely monitor units during training by Range Control, safety, and quality assurance specialist (ammunition surveillance) personnel.

(2) Establish an operational Range Control organization.

(3) Appoint a qualified installation RCO.

(4) Develop an installation-level range regulation and/or SOP.

(5) Develop a safety SOP for range clearance operations using the risk management process and the requirements of reference (b) and reference (c).

(6) Withdraw or suspend installation training complex privileges for willful violation of installation range requirements.

(7) Ensure that incidents or accidents involving weapons or ammunition with firing units are reported and investigated.

(8) Establish a medical support SOP for all range operations.

(9) Establish a central Point Of Contact (POC) for coordination and review of SDZs.

(10) Prohibit unauthorized persons from entering impact areas.

(11) For those individuals authorized access to areas known or suspected of containing Unexploded Ordnance (UXO), provide appropriate explosives safety training, UXO identification, and procedures to be taken if UXO is encountered.

(12) Restrict authorized access to areas known or suspected of containing UXO to personnel trained in UXO identification and procedures to be taken when UXO is encountered. When access to areas known or suspected of containing UXO is required, provide personnel authorized access with qualified escorts, such as Explosive Ordnance Disposal (EOD)-qualified personnel.

(13) Maintain permanent records of all munitions expended, to include an estimated dud rate, by type, quantity, location, and using organization. Include all UXO clearance operations or EOD incidents conducted on the range.

(14) Ensure to the extent practical that targets placed on ranges do not contain Hazardous Material (HAZMAT) such as Petroleum, Oils, and Lubricants (POL), radium dials, and batteries.

(15) Establish safe and practical methods for recycling or disposing of range residues, in accordance with reference (d).

(16) Ensure that range residues, to include cartridge cases, ordnance-derived waste, and targets, do not contain ammunition, explosives, or other dangerous articles prior to release from DoD control.

(17) Prohibit controlled burning of vegetation on ranges as a method to clear UXO. Controlled burns may be used to control dense brush or undergrowth or clear a range of vegetation to make UXO clearance operations safe for personnel conducting the clearance operation.

(18) Ensure procedures are in place that allow prompt response to a release of military chemical compounds, for example, chemical agents, chemical smoke, riot control agents, and so on, or other HAZMAT used for training, or to a substantial threat of a release on or off range when such a release poses an imminent and substantial threat to human health or the environment.

(19) Establish and implement all feasible access controls to deter unauthorized access.

(20) Establish and conduct an aggressive education program for all installation personnel, their families, and the general public on the dangers of dud ammunition and other UXO. Installations outside the continental United States (U.S.) will coordinate the need for such with the host nation and in accordance with applicable agreements.

2. Director, Operations Division (G3) (B 032). Acts as the direct representative for the COMDR, MCBQ for all matters related to the utilization of the RTA.

3. Headquarters, RMB, G3 (B 032)

a. Director, RMB, G3 (B 032). Reports to the Director, G3 and is responsible for all activities within the MCBQ RTA.

b. Deputy, RMB, G3 (B 032). Reports to the Director, RMB and is responsible for Staff liaison and coordination.

4. Range Operations

a. RCO. Reports to the Director, RMB. Provides overall supervision to the Range Operations Section, and is directly responsible for safe operations in the RTAs. Specific duties and responsibilities are provided in references (a), (e), and (f).

b. Range Operations Officer (ROO). Reports to the RCO and serves as the central point of control and coordination for all activities conducted within the installation training complex to ensure safe and concurrent operations.

c. Range Control Facility Supervisor. Reports to the RCO and is the RCO's representative for daily control of the RTA to include daily range use, communications, emergency response and

airspace advisories. Supervises all Range Control Facility (RCF) personnel and the Patrol Section.

d. Range Safety Specialist (RSS). Reports to the RCO and performs administrative and investigative duties related to the safe operation of ranges, TAs, and training facilities. Serves as the primary liaison for units desiring to conduct non-standard training.

e. Fire Desk Operator. Reports to the RCF Supervisor and assists the RCF supervisor with daily control of the RTA to include daily range use, communications, emergency response and airspace advisories. Collects all required training information.

f. Patrolman. Reports to the RCF Supervisor and serves as the primary inspector of daily range activities. Actively patrols the RTA and ensures range safety and physical security procedures are adhered to. Conducts post inspections of the RTA.

g. Scheduling Section

(1) Range Scheduling Supervisor. Reports to ROO and serves as primary liaison for all standard range scheduling, access, and coordination issues. Supervises the Scheduling Section.

(2) Range Scheduling Chief. Reports to the Range Scheduling Supervisor and acts as the single POC for scheduling of, and access to, the RTA. Supervises all Scheduling Section Personnel.

h. Range Airspace Manager (RAM). Reports to the ROO and serves as the focal point for matters relating to airspace management and aviation training, including the management, utilization, coordination, planning and oversight of MCBQ SUA. Trains Fire Desk Operators regarding airspace policies and procedures.

5. Range Support

a. Range Complex Developer. Reports to the Director, RMB and serves as the central POC for all matters pertaining to projects within the RTA and is responsible for all subordinate RMB Project Managers.

b. Range Sustainment Manager. Reports to the Director, RMB and is responsible for all RTA sustainment efforts. Serves as the RMB central POC for coordination of projects, maintenance, and sustainment within the RTA.

c. RTA Resource Manager. Reports to the Director, RMB and serves as the central POC for all fiscal planning, programming, budgeting and execution. Reports fiscal matters to the G3 Budget Analyst and Comptroller Division. Reports range usage for billing of Civilian Law Enforcement Agencies and External Agencies to the Comptroller Division. Assists the Range Complex Developer, Range Sustainment Manager, and Training Support Center Quantico (TSCQ) with determining resource requirements, developing acquisition strategies, and coordinating with contracting offices to meet training requirements. Serves as the direct liaison between RMB, the Business Performance Office, and RTA users in establishing Memorandums of Agreement (MOAs)/Memorandums of Understanding (MOUs)/Interdepartmental Support Agreements (ISA) with MCBQ.

d. RFMSS Administrator. Reports to the ROO and acts as the single POC for account access, troubleshooting, training and administration of RFMSS.

e. Geographic Information Systems (GIS) Manager. Reports to the Director, RMB and assists in the safe operation and management of daily activities. Creates dynamic SDZs for live-fire ranges. Assists in planning future range development and provides accurate maps for MCBQ.

6. TSCQ

a. Director, TSCQ. Is in direct support of MCBQ and reports to Head, Training Support Branch, Ranges and Training Area Management (RTAM), Training and Education Capabilities Directorate, Training and Education Command (TECOM). Serves as the central point of control and coordinates for all training support systems and services within the installation training complex.

b. Operations Officer, TSCQ. Reports to the Director, TSCQ and is responsible for the day to day activities of the TSCQ by coordinating the efforts of the TSCQ staff and contractors. Provides oversight for long-term projects and initiatives in support of TSCQ core functions.

c. Systems Support Officer, TSCQ. Is responsible for the coordination, management and tracking of system maintenance, technical data and trend analysis.

d. Exercise Scenario Design, TSCQ. Conducts individual training plan analysis and develops training packages, exercise and scenarios in accordance with current Training and Readiness standards throughout the LVC spectrum for MCBQ training units.

e. Tactical Training Support, TSCQ. Coordinates and provides direct on-site support for training packages, exercises and scenarios developed by the Exercise Scenario Design section.

Note: Refer to Appendix B for further additional information regarding the TSCQ.

7. Explosive Ordnance Disposal, G3. Reports to Director, G3, and is the technical advisor in all matters pertaining to EOD, UXO, and demolitions operations.

8. Weapons Training Battalion

a. CO. Responsible to the COMDR, MCBQ, for the daily operations, supervision and training of WTBn personnel assigned to range activities aboard WTBn ranges. Management of the range complex will be conducted via the Director, RMB.

(1) Responsible for the condition of the WTBn ranges and any RTA to which a WTBn unit has been assigned, the safe, proper conduct, as well as the actions of the unit's personnel and equipment.

(2) Maintains a unit range safety program that complies with the references and this Order, educates Officers-In-Charge (OICs) and Range Safety Officers (RSOs) on the installation range safety program, ensures that all OICs/RSOs are properly trained and qualified in accordance with all regulations and orders governing range safety, and designates the OICs/RSOs in writing. The range safety program will be inspected by the RCO annually to ensure compliance with all applicable range safety orders and directives.

(3) Ensures all OICs/RSOs have completed and have on file at RMB, completion certificates for the Marine Corps Level One Range Safety Course and the MCBQ Installation OIC/RSO Course.

(a) The Marine Corps Level One Range Safety Course is available for all Marines on the MarineNet website. The course title is “Range Safety.”

(b) Personnel without MarineNet access may schedule to take the Marine Corps Level One Range Safety Course test at RMB through the RSS at (703) 432-6552. A study guide is available for the Marine Corps Level One Range Safety Course at RMB.

(c) The MCBQ Installation OIC/RSO study guide and test are available on the MCBQ website under RMB. Testing will be conducted online.

(4) Ensures all personnel are familiar with local range procedures, safety requirements, and applicable FMs and TMs pertaining to the weapons systems they are using. The requirements include ensuring:

(a) Use of Operational Risk Management (ORM) in all phases of operations.

(b) Competence in the performance of assigned safety duties.

(c) Knowledge of the weapon systems and equipment used.

(d) Coordinate "Scheme of Maneuver" or training execution plans for exercises and training events with the RSS.

(e) OIC/RSO(s) are qualified in accordance with this Order and all applicable regulations.

b. Operations Officer (OpsO). The OpsO is responsible to the CO, WTBn for the safe conduct of all training aboard the WTBn ranges. He is guided in the performance of his duties by this Order and the Installation RCO. The OpsO will:

(1) Schedule, coordinate, and supervise all WTBn training and range use through RFMSS to the Director, RMB.

(2) Ensure all range use is conducted in accordance with all applicable range regulations and policies.

(3) Coordinate any recreational activities and other special events aboard the WTBn ranges through RFMSS to the Director, RMB.

9. Reserve Support Unit/Camp Upshur

a. Director, RSU. Responsible to the COMDR, MCBQ, for the daily operations, supervision and conduct of training aboard Camp Upshur. Management of the TA complex will be conducted via the Director, RMB.

b. Deputy, RSU. The Deputy, RSU is responsible to the Director, RSU for the safe conduct of all training aboard Camp Upshur. He is guided in the performance of his duties by this Order and the Installation RCO. The Deputy, RSU, will:

(1) Schedule and coordinate all training.

(2) Ensure all training activities are conducted in accordance with all applicable range regulations and policies.

(3) Coordinate any recreational activities and other special events within Camp Upshur.

c. Director, Base Safety Division. The Director, Base Safety Division is responsible to the COMDR, MCBQ, for the daily operations, supervision and training of Driver's Training personnel assigned to Camp Upshur and base safety inspections of facilities located within the RTA.

(1) Conduct of Driver's Training activities will be coordinated and approved by the Director, RSU.

(2) Ensure executions of all Base Safety Division inspections are coordinated with the Director, RMB. Ranges, training devices, and training systems that are not assigned a facility number are the responsibility of the Director, RMB per reference (a).

d. Manager, Driver's Training Branch. The Manager, Driver's Training Branch, is responsible to the Director, Base Safety Division for the safe conduct of all Driver's Training activities conducted aboard Camp Upshur. The Manager, Driver's Training Branch, will:

(1) Schedule and coordinate all training with the Director, RSU.

(2) Ensure all training activities are conducted in accordance with all applicable range regulations and policies.

(3) Ensure all supervisory personnel are properly trained and equipped to maintain communications and execute Medical Evacuation procedures.

10. Using Unit COMDRs. The CO of a designated unit or the individual in charge of the agency or department using MCBQ RTA.

a. Responsible for the condition of the RTA to which assigned and the safe, proper conduct and actions of the unit's personnel and equipment.

b. Maintains a unit range safety program that complies with the references and this Order that:

(1) Educates OICs and RSOs on the installation range safety program.

(2) Ensures that all OIC/RSO are properly trained and qualified in accordance with all regulations and orders governing range safety.

(3) Designates the OIC/RSO in writing.

(4) Each unit range safety program will be inspected by the RCO annually to ensure compliance with all applicable range safety orders and directives.

c. Ensures all OIC/RSO have completed and have on file at RMB, completion certificates for the Marine Corps Level One Range Safety Course and the MCBQ Installation OIC/RSO Course.

(1) The Marine Corps Level One Range Safety Course is available for all Marines on the MarineNet website. The course title is Range Safety.

(2) Personnel without MarineNet access may schedule to take the Marine Corps Level One Range Safety Course test at RMB through the RSS at (703) 432-6552 or the Scheduling Chief at (703) 784-5502/5507. A study guide is available for the Marine Corps Level One Range Safety Course on the MCBQ website under Range Management.

(3) The MCBQ Installation OIC/RSO study guide and test are available on the MCBQ website under Range Management. Testing will be conducted on-line.

d. Ensures all personnel are familiar with local range procedures, safety requirements, and applicable Field Manuals and Technical Manuals pertaining to the weapons systems they are using. The requirements include ensuring:

(1) Use of ORM in all phases of operations.

(2) Competence in the performance of assigned safety duties.

(3) Knowledge of the weapon systems and equipment used.

(4) Coordinate “Scheme of Maneuver” or training execution plans for exercises and training events with the RSS.

(5) OIC/RSO(s) are qualified in accordance with this Order and all applicable regulations.

e. OIC and RSO Designation. Unit COMDRs designate OICs and RSOs for each training event to included live-fire and non-live-fire events. The RSO shall have no additional duties during firing/training exercise. Appendix C contains an example of an OIC/RSO designation letter that may be used as part of the Unit RSO/OIC Certification Program. Appendix D contains the appointment requirements for OICs and RSOs.

f. OIC and RSO Requirements. Ensures OICs and RSOs meet the requirements listed in reference (a), as well as the requirements listed below:

(1) Personnel designated as an OIC or a RSO must successfully complete the MCBQ OIC/RSO training module. The MCBQ OIC/RSO training module is designed to ensure all personnel serving as an OIC or RSO are familiar with the installation RTA operating procedures and range safety information.

(2) OICs/RSOs must have successfully completed the MarineNet, Range Safety Course (Basic) - distance learning (course #CI060120CA), per reference (g).

(3) OICs/RSOs must be competent and properly instructed in the performance of their duties. OICs/RSOs must also have satisfactorily completed the MCBQ Range Safety Certification Program.

(4) OICs must be certified of the weapon systems for which they are held responsible, as well as safe ammunition handling and use procedures.

(5) RSOs must be qualified on the weapon systems for which they are held responsible, as well as knowledgeable on safe ammunition handling and use procedures.

g. Laser Operations. In accordance with reference (a), the unit commander develops unit training plans and SOPs for laser operations. The SOPs will include provisions for immediate medical attention for personnel who incur eye or other overexposure to laser energy and reporting laser overexposure incidents.

11. OIC

a. Qualifications

(1) Must be a commissioned officer, warrant officer, staff non-commissioned officer or civilian as outlined in Appendix D.

(2) Must have successfully completed the MarineNet Range Safety Course (Basic) - distance learning (course #CI060120CA), per reference (g).

(3) Must be certified to operate the weapon systems for which they are responsible. For weapon systems equipped with or dependent upon lasers, the OIC will be knowledgeable of associated laser hazards and proper employment. The OIC is responsible and accountable for the conduct of the activity and the adherence to governing regulations and guidance. The OIC must be able to fully influence the conduct of the event. For aviation weapon systems, the OIC must be weapons system knowledgeable.

(4) Must have satisfactorily completed the MCBQ Range Safety Certification Program.

b. Duties

(1) Assume responsibility for the RTA prior to occupying by signing for the scheduled RTA at RMB (WTBn S-3 for WTBN ranges) no earlier than 24 hours prior to occupying the

scheduled RTA. For any RTA scheduled on a weekend, the RTA must be signed prior to close of business on Friday.

(2) Be responsible for the check-in/checkout process for all RTAs

(3) Ensures the overall safe conduct of training and the proper use of the training complex.

(4) Receives range safety briefing from the installation range control organization on use of the RTAs.

(5) Ensures the RSO is physically present and executing the duties of the RSO during the conduct of the training exercise.

(6) Sign for all ammunition and explosives on the appropriate ASP issue document and enter the quantity received by DODIC, document number, and lot number on the expenditure report, ensuring the quantity matches the appropriate document.

(7) Responsible for ammunition accountability. The OIC is responsible for personnel shakedown and police call.

(a) The OIC shall inventory and sign for ammunition and explosives on the NAVMC 11381 Expenditure Report.

(b) The OIC ensures all ammunition malfunctions and accidents are reported to Range Control, in accordance with reference (h).

(8) Ensures the RSO has receipt of final clearance to fire from Range Control.

(9) Ensures dual means of communications are established and maintained with the RCF allowing instant communication between the actual OIC/RSO and the RCF.

(a) WTBn ranges will maintain continuous direct communication with the RCF. Radios are provided by WTBn S-3.

(b) WTBn ranges will maintain direct communication with WTBn S-3. WTBn S-3 will maintain continuous direct communication with the RCF. The direct communication with WTBn S-3 satisfies the dual communication requirement with the RCF.

(10) Ensures ammunition and explosives are properly handled, transported, stored, and accounted for within the training complex from the time of receipt to the time of expenditure or turn in.

(11) Reports the number and type of munitions expended by Department Of Defense Identification Code (DODIC) to Range Control upon conclusion of training event.

(12) Ensures confirmation briefs for firing and/or maneuver exercises are coordinated with Range Control.

(13) Ensures coordination and approval has been granted from the Range Scheduling Office for civilian personnel entering the training site.

(14) Briefs the RSO on the duties to be performed in support of the training event. Requires the RSO to brief the OIC on the safety of the facility and unit, and the preparedness to commence live-fire operations.

(15) In accordance with reference (i), implements ORM for all phases of the training event. The OIC shall have in their possession, at all times during the conduct of training, a detailed ORM worksheet signed by the unit commander covering all phases of training. An ORM Worksheet can be found in Appendix E.

(16) Is physically present and capable of influencing the conduct of training (live-fire or non-live-fire) during the entire event.

(a) The OIC of WTBn ranges will be physically present on the WTBn range complex during all live-fire training.

1. The range complex consists of the Weapons Training Battalion area to include Ranges 1-4, Requalification and Competition Pistol Ranges, the Small Arms Tactical (SAT) Range, the shotgun range, and Range 305.

2. The OIC must be physically present on the range during live fire with foreign weapons and live fire on Range 1.

(17) Ensures all personnel wear the appropriate Personal Protective Equipment (PPE), which at a minimum includes eye protection and hearing protection during all live-fire events. All military and civilian personnel conducting live-fire training will wear the appropriate PPE equivalent for their services or agency.

(18) Ensures the RSO is qualified with the weapon(s) or weapon system(s) being used.

(19) Reports all information to Range Control from the Live-Fire Brief provided in the Range Standard Operating Procedures and all other information directed by Range Control.

(20) In the event of a MEDEVAC/casualty evacuation, the OIC or an appointed representative will suspend fire and follow procedures as outlined in paragraph 1024 of this Chapter.

(21) Ensures the environmental requirements in Chapter 2 of this Order have been met.

(22) Additional OIC responsibilities prior to, during, and after firing can be found in Appendix F.

12. RSO

a. Qualifications

(1) The RSO must be a commissioned officer, warrant officer, staff noncommissioned officer or civilian. Civilian contractors may act as RSOs when approved by the installation commander/senior commander. Grade requirements will be in accordance with Appendix D. Personnel assigned as RSO will have no other duties during that period of training. Assistant Range Safety Officers (ARSOs) may be appointed as RSOs as required.

(2) Must have successfully completed the MarineNet Range Safety Course (Basic) - distance learning (course #CI060120CA), per reference (g).

(3) Must be qualified on the weapon systems for which they are responsible. For weapon systems equipped with or dependent upon lasers, the RSO will be certified on the laser system and proper employment. The RSO bears responsibility and accountability for the safety of the activity and the adherence to governing regulations and guidance. As such, the RSO must be able to fully observe the conduct of the event.

(4) Must have satisfactorily completed the MCBQ Range Safety Certification Program.

b. Duties

(1) The RSO is responsible for the enforcement of applicable safety regulations contained in this Order, reference (a), and all applicable Marine Corps Warfighting Publications (MCWPs), Marine Corps Reference Publications (MCRPs), FMs, Fleet Marine Force Manuals (FMFMs), TMs, and ordnance publications.

(2) Receives range safety briefing from the installation range control organization on use of the RTAs.

(3) Ensures the range flag is raised before commencing live-fire and lowered after informing Range Control of the intent to cease live-fire. During times of darkness or low lighting, a red flashing light shall be utilized in place of the flag.

(4) Determines when it is safe to fire in accordance with applicable regulations and this Order.

(5) Ensures proper supervision of personnel performing misfire, hang-fire, and cook-off procedures.

(6) Ensures control of target areas to prohibit entry by unauthorized personnel.

(7) Ensures that a Field Medical Technician HM/8404 Corpsman/Army or Air Force medic and dedicated emergency vehicle with driver are present on the range.

(8) Fully familiar with MEDEVAC/CASEVAC procedures contained in paragraph 1024. In the event of an emergency situation/accident, the RSO will notify Range Control.

(9) The RSO ensures the following before granting clearance to fire:

(a) Proper coordination, instruction, and positioning of road guards assigned throughout the RTAs. At a minimum, road guards shall be posted in pairs and shall:

1. Have and maintain positive two-way communication with the OIC and RSO.

2. Have sufficient water if separated from other Marines.

3. Restrict access to RTAs by unauthorized personnel.

4. Clear the access of personnel into the RTAs with the OIC.

(b) Proper positioning of weapons and personnel.

(c) Use of authorized ammunition and explosives to include proper charge, fuse, and fuse settings in conjunction with the current fire condition.

(d) Verify the firing settings and ensure the weapons systems are within the prescribed safety limits.

(e) Ensures the SDZ is clear of all unauthorized personnel.

(f) Ensure personnel wear PPE.

(g) Permission is received from Range Control to commence training and live-fire operations.

(10) Maintains positive two-way communication with Range Control at all times. If communication is lost, the RSO will stop training and/or order a check-fire until communication is re-established with Range Control.

(11) Conducts radio checks with Range Control every 30 minutes while in a “Hot” status. When in a “Cold”, check-fire

or occupied status, the OIC/RSO will send a situation report to Range Control every 3 hours on the hour and continue to monitor the safety network. The OIC/RSO will provide the final radio check when displacing. Training units will establish their own internal communications network for all administrative needs (road guards, etc.). Range Control will not provide radios or communication networks for internal communication needs.

(12) Orders immediate cease-fire or check-fire when any unsafe condition occurs.

(13) Physically present during all live-fire training.

(14) Verify, upon the completion of firing or firing order, to the OIC that all weapons and weapons systems are clear and safe before allowing the removal of weapons from the firing area.

(15) Verify to the OIC, upon the completion of the RTA police call that all personnel have been checked and are clear of all ammunition and ordnance before they secure from the area.

(16) Ensures a qualified, school-trained rappel/Helicopter Rope Suspension Training (HRST) master (or other DoD service equivalent), per reference (j) is present at all times during rappel/HRST operations.

(17) Ensures a certified assault climber, per reference (d) is present at all times during training for assault-climbing events.

(18) During laser operations the RSO will:

(a) Ensure unit personnel employing lasers receive thorough safety briefs, to include explanations of specific laser-related hazards, safety equipment, detailed range safety procedures, and comply with procedures outlined in reference (a).

(b) Know and observe horizontal and vertical safety limits of the laser range.

(c) Ensure unit SOPs comply with range safety procedures and reference (a) and follow unit SOPs for laser operations and training exercises.

(d) Cease laser operations immediately if positive control of the laser beam is lost.

(e) Ensures a qualified Laser Range Safety Officer (LRSO) is present, per reference (a). The RSO may serve as both, if qualified.

Note: An RSO checklist is provided in Appendix F of this Order to assist the RSO. The checklist in Appendix F is a guide, and while detailed, is not all encompassing.

1006. RESTRICTIONS

1. Live firing will only be conducted on designated live-fire ranges and then only when approved through RFMSS.

2. Blank ammunition, battlefield effects simulators, or pyrotechnics in designated maneuver areas or facilities will only be conducted when scheduled and approved through RFMSS.

3. The use of chemical ammunition will be in strict compliance with this Order and applicable regulations.

4. Firing must conform to the airspace restrictions contained in this Order and applicable regulations.

5. Privately-Owned Weapons (POWs) are not permitted on ranges unless authorized by the COMDR, MCBQ.

6. Personnel not specifically scheduled to be on ranges are not authorized. Unit/command sponsored functions including civilian participation, to include "Jane Wayne Days", must be requested through the Director, RMB and requires approval of the COMDR, MCBQ. Such requests will be submitted to the COMDR, MCBQ via the Director, Operations Division, MCBQ and the Director, RMB.

7. Quiet Hours are in effect from 2200-0600 daily and 0001-1200 on Sundays. The only live fire authorized during Quiet Hours is 7.62mm and below. Quiet Hours are established to promote good community relations. Units with valid training requirements during Quiet Hours may submit a special request to COMDR, MCBQ via the Director, RMB.

8. Access to the RTA is restricted to personnel specifically authorized by RMB.

1007. DEVIATIONS

1. Units requesting a deviation are encouraged to contact the RSS prior to the submission of a formal request in order to conduct initial coordination.

2. Units requiring a deviation from existing orders or regulations must submit a request in writing to the COMDR, MCBQ via the Director, RMB. Requests must be signed by the Unit COMDR or their designated representative.

3. Deviation requests will include the following information:

a. The order or reference from which the unit requests a deviation.

b. Justification for requesting the deviation.

c. A description of the training being requested.

d. An Operational Risk Assessment (ORA) for conduct of the training evolution.

4. Deviation requests for live fire training will also include:

a. Type of weapon and ammunition/munitions to be used.

b. Requested firing points and azimuths of fire if applicable.

c. Any special instructions, data or control measures relevant to the live fire training, weapons or ammunition/ munitions.

5. The unit must identify if the deviation is for a one-time use or a permanent change.

6. It is recommended that deviation requests be coordinated with the RCO prior to request submission. Deviations are limited to:

a. Reducing SDZ dimensions when terrain, artificial barriers, or other compensating factors make smaller SDZs safe.

b. Modifying prescribed firing procedures to increase training realism as appropriate for the proficiency of participating personnel.

c. Allowing personnel who are not directly participating in the actual conduct of training within the SDZ.

1008. SAFETY

1. Safety. Safety is the responsibility of every individual at all times, and is a key factor in successful training. Concerns for safety should never be limited to the training event itself and should always include associated activities as well, including convoy movement to and from training, maintenance activities, bivouac operations, etc.

a. Any individual who observes an unsafe condition shall report the unsafe condition immediately up the chain of command. Any activity may be halted until the unsafe condition has been corrected. Anyone has the option to call cease-fire over any Range Control safety network/frequency. A list of the frequencies used at MCBQ can be found in Appendix G. The greatest danger to life and limb is associated with live-fire; therefore, range restrictions for MCBQ RTAs are listed in paragraph 1006. These restrictions are in addition to other safety requirements listed throughout this Order.

b. Where conflicts occur with safety instructions contained in MCWPs, MCRPs, FMs, FMFMs and TMs, reference (a) will govern.

2. ORM. The risk management process as described in reference (c) will be used to assess/manage risks during training. Units using ranges will employ ORM procedures to identify operational hazards and implement appropriate controls in order to minimize training mission risks. A deliberate ORA may be required for any training event at the discretion of the RCO or RSS. Any required ORA Worksheets will be submitted from training units prior to the training request being approved.

3. Safety Briefs. The following briefs are required to be given by the OIC/RSO before conducting training in the RTAs located in MCBQ:

a. UXO and EOD.

b. Range Safety.

c. Ammunition Handling and Accountability.

d. Restricted Areas (i.e., Dams, Tombs, Construction Sites, etc.).

4. All personnel must drive on existing roads or trails to preserve plant and wildlife habitats. Off-road driving is permitted only with authorization from the RCO.

5. UXO may be present within the RTAs, resulting in ground access restrictions. Units shall stay away from all ordnance. Units finding UXO will note or mark the area in which the object is found and report its location to Range Control immediately.

1009. TRAINING ACCIDENTS AND INCIDENT REPORTING

1. Range Control shall be informed of any accident, incident, or injury, regardless of severity, that occurs within MCBQ RTAs.

2. MCBQ Reporting. Any unit operating in the MCBQ RTAs involved in any accident or incident will immediately report the situation to Range Control. If additional information or reports are required, the unit will be notified. In the event of serious injury or death, units will preserve the scene of the accident until released by the investigating officer or CO. In the event of an accident resulting in a death, a representative from the deceased's organization will be assigned to accompany the remains.

3. Parent Command Reporting. Reports submitted under this paragraph are not substitutes for reports required by appropriate directives, nor do they constitute notification of a unit's chain of command. Reports submitted per directives, to

include notification within the unit's chain of command, shall include the COMDR, MCBQ as an information addressee.

4. Reportable Incidents. Examples of accidents or incidents requiring a report to Range Control are:

a. Aircraft and vehicle accidents.

b. Unintentional jettison of any material from an aircraft.

c. MEDEVACs/CASEVACs.

d. Fires in/on the RTA.s

e. Any explosive mishap, to include duds, misfires, and hang fires.

f. Missing, lost, found or stolen munitions.

g. Injuries from minor to death.

h. Anything that is liable to create interest or inquiries from the local civilian community.

i. Missing or lost personnel.

1010. AIRCRAFT ACCIDENTS

1. Notify Range Control in the event of any actual aircraft accident in RTAs.

2. The following information shall be reported, if available:

a. Location.

b. Type of aircraft.

c. Personnel involved.

d. Name, grade, organization, and present location of caller and telephone number

3. Units or personnel involved in emergency rescue operations must ensure live-fire in that area has ceased before entering the crash site area.

4. Range Control will call "check-fire" on all RTAs that affect the crash site. Clearance from Range Control will then be given for the rescue party to access the crash site area.

5. Firing will not resume until the rescue has been completed and all personnel and equipment have been accounted for.

1011. SEARCH AND RESCUE

Units training within the MCBQ RTAs will be familiar with reference (k). Upon the realization that an individual is missing, the RSO/OIC will immediately advise Range Control. Range Control will ensure that the procedures outlined within

reference (k) are followed and will coordinate the search and rescue effort.

1012. MISSING, LOST, STOLEN, OR RECOVERED GOVERNMENT PROPERTY REPORTING

1. Report. Report Missing, Lost, Stolen, or Recovered (MLSR) government property to Range Control immediately. Property losses occur frequently because regulations relating to proper safeguarding and handling are not followed.

2. Range Control will record the information and determine what, if any, follow-up action is required. Range Control will obtain the following information:

a. Location of incident (grid coordinates preferred)

b. Date and time of incident reported

c. Name and contact information of individual reporting the incident

d. Material description to include quantity and types

e. National Stock Number (NSN) and lot number (where applicable)

f. Where ammunition and explosives are involved, Range Control will advise the individual not to remove item(s) for safety reasons and initiate possible follow-on investigatory requirements.

1013. FOREST FIRE DANGER CLASSIFICATIONS, DESTRUCTIVE WEATHER, AND WET BULB GLOBE TEMPERATURE INDEX

1. RMB will gather all information regarding fire, weather, and heat index from appropriate sources and distribute to all using units.

2. Unit firefighting details will be allowed down range only with authorization from Range Control. Firefighting details shall not enter any dud producing impact areas.

3. No units or personnel will enter the dud impact area to fight fires.

4. "Warming fires" may be permitted with approval from the RCF.

a. The OIC/RSO must specifically request authorization to start warming fires from RMB.

b. Warming fires will be small with flames not reaching heights greater than 3 feet.

c. Warming fires are not authorized during Fire Danger Classification IV or V.

5. Fire Danger Classifications are issued by the Base Fire Chief and Director, Natural Resource and Environmental Activity (NREA) in conjunction with the U.S. Forest Service. The restrictions emplaced are designed to preserve the RTA and protect the surrounding community. The guidelines established by the Fire Danger Classification codes may only be deviated from with approval of the COMDR, MCBQ. Requests for deviation will be routed through RMB.

6. Firefighting equipment is on-hand at RMB for training units during Fire Danger Classification III and above. WTBn Ranges are not required to check out the firefighting equipment required during Fire Danger Classification III and IV. All other policies noted apply.

7. The Director, Base Fire Protection/Fire Prevention Branch will provide basic firefighting procedural training to augmentation forces upon request to include the use of firefighting equipment, personnel deployment and control measures.

1014. FIRE DANGER CLASSIFICATIONS

1. All personnel training within the RTA will adhere to the following Fire Danger Classifications and corresponding restrictions. For the purposes of fire danger, pyrotechnics are defined as ammunition containing chemicals for producing smoke or light, used for signaling, illuminating, or screening.

a. Class I (Normal). Fire danger is low. Fires are not likely to become serious. Control is relatively easy. No restrictions on authorized munitions in the RTA. Normal safety precautions will be followed. "Warming fires" authorized with permission from RMB.

b. Class II (Normal). Fire danger is moderate. Fires are not likely to become serious. Control is relatively easy. No restrictions on authorized munitions in the RTA. Caution will be exercised in the use of all tracers, smoke grenades, pyrotechnics or demolitions. Normal safety precautions will be followed. “Warming fires” are authorized with permission from RMB.

c. Class III (Caution). Fire danger is intermediate. Fires may become serious and difficult to control unless extinguished when small.

(1) When Fire Danger Class III is reached, RMB will notify all training units.

(2) All training units signing out RTAs will be issued basic firefighting equipment at RMB prior to movement to the RTA.

(3) Extra caution will be exercised in the use of all blanks, pyrotechnics, tracer, and incendiary ammunition and to ensure firing does not go over impact berms.

(4) "Warming fires" will be used only in designated places under supervision of a Non-Commissioned Officer (NCO) or above and when approved by RMB.

d. Class IV (High). Fires start easily, spread rapidly, and quickly increase in intensity.

(1) Blanks, machine gun simulators, tracers, incendiary rounds and pyrotechnics are prohibited.

NOTE: Units will adhere to NAVY AND MARINE CORPS AMMO INFO NOTICE 043-2012 "DELINKING". The Ammo Notice can be found in Appendix H.

(2) Demolitions and high-explosive ordnance will only be permitted within a fire resistant perimeter, such as bare mineral soil (natural fuels such as brush and saplings cleared away) or recently burned over areas. Authorization is granted at the discretion of the COMDR, MCBQ. RMB will staff and forward requests to continue firing.

(3) Smoking is permitted only in approved locations (areas cleared to exposed earth) specifically designated by the training unit OIC. Smoking can be secured at any time by RMB.

(4) Warming fires are not authorized.

(5) All training units signing out RTAs will be issued basic firefighting equipment at RMB prior to movement to the RTA.

e. Class V (Hazardous). Fires start quickly, spread furiously and burn intensely.

(1) No live fire will be conducted without approval of the COMDR, MCBQ. RMB will staff and forward requests to continue firing.

(2) Demolitions, high-explosive ordnance, pyrotechnics, blanks, machinegun simulators, tracers, and incendiary rounds are prohibited.

(3) Smoking is prohibited in the RTA.

(4) Parking vehicles in tall grass is prohibited.

(5) All training units signing out RTAs will be issued basic firefighting equipment at RMB prior to movement to the RTA.

1015. DUD (EXPLOSIVE ORDNANCE) IMPACT AREAS

1. TA-9A, Range 3A Impact Area and the portions of TA-14B indicated on the Quantico Military Installation Map (MIM) are dud impact areas.

a. Fire Department personnel will allow fires in the dud impact areas to burn.

b. Fire Department personnel will not enter burning dud impact areas.

c. No personnel will fight fires in a dud impact area.

d. Any fire in the dud impact area will be evaluated by EOD personnel. Their recommendations will be briefed to the Director, RMB and the senior Fire Department and Forestry representative on scene.

1016. FIRE SAFETY AND PROCEDURES

1. All fires, regardless of size, will be reported immediately to the RCF.

2. The RCF will notify the Base Fire Department and Forestry Section.

3. Unit commanders will comply with the procedures established in reference (l).

4. RMB will consult with representatives from the Fire Department and Forestry to survey the situation and seek opportunities to allow training to continue.

5. The following actions will be taken whenever a fire is observed in the RTA:

a. The unit will immediately contact the RCF and await instructions.

b. The RCF will ask the OIC/RSO to provide information regarding the size, location and intensity of the fire; strength and direction of the wind and proximity of the fire to other fuel sources (brush, dead trees, etc.). A RMB Patrolman will be dispatched to the scene.

c. The OIC/RSO is the Incident Commander (IC) until the Fire Department, Forestry, or RMB personnel arrives. The Fire Department will assume primary incident command once they arrive on scene.

d. The OIC/RSO will provide unit personnel to extinguish small, manageable, contained fires when directed by the Fire Department, Forestry or RMB.

(1) Training unit personnel will not be exposed to fire conditions the OIC/RSO determines to be excessively hazardous. In such situations, or when the fire in increasing rapidly in size, all non-professional firefighting personnel will be evacuated from the hazardous area.

(2) At no time will training personnel or equipment be placed in jeopardy in order to fight a fire.

e. The using unit will provide assistance as required until The Basic School (TBS) augmentation force can be mustered on-scene.

f. The OIC/RSO will not allow personnel to move down range into a dud impact area or down range past the authorized maneuver area.

g. The RCF will alert the OpsO, TBS, to prepare the augmentation force when fires start in Fire Danger Classification III or above, in the vicinity of MCBQ boundaries, threaten base structures or the civilian community, or when the IC classifies fires as spreading or out of control.

h. Training units will comply with all instructions from the IC and the RCF. Instructions will be issued to the using unit OIC/RSO. Training unit personnel will remain under the authority and tactical control of the training unit.

i. The IC must coordinate accountability and utilization of training unit personnel to manage the fires.

j. Marines will not be placed in high-risk situations.

k. Marines assisting in firefighting will be made aware of safe areas and escape routes and will be accompanied by trained firefighting personnel.

l. When RMB personnel arrive on-scene they will immediately coordinate with the OIC/RSO and report all information to the RCF.

m. The unit will remain on-scene until released by RMB.

n. Upon determination by the IC, the RCF will alert the OpsO, TBS, to deploy the augmentation force.

o. The RCF will alert the OpsO, WTBn, if a backup augmentation force may be required.

6. Guidelines for Augmentation Force for Brush Fires

a. The senior ranking officer will account for all Marines on scene. All Marines names will be provided to the on-scene IC for assignment and accountability.

b. Marines will be assigned to a Fire Department representative before assisting in fire control/containment operations.

c. Marines will not be used for securing high-risk fire areas.

d. A safety briefing will be given to the augmentation force by a Fire Department representative prior to entry into any hazardous area.

e. The augmentation force will be given equipment and instruction on its use prior to entry into the fire lines.

f. The IC and the unit commander will maintain accountability for the augmentation force prior to departing the brush fire area.

1017. PRESCRIBED BURNING

1. Prescribed burning is essential for the long-term maintenance of the RTA. An annual burning plan is developed by NREA, Forestry in conjunction with RMB to incorporate range and military training requirements. NREA has primary responsibility for coordination and implementation of the prescribed burning program.

2. Requests for controlled burns in the RTA should be directed to the RSS. Controlled burns that are approved will be entered into RFMSS as a RTA event.

3. Given the complicated logistics and narrow weather parameters required for controlled burning, RMB will give maximum liberty in allowing these operations to proceed when there are no conflicts with scheduled operations.

4. The proposed locations for fire breaks/maintenance will be coordinated with the RSS and scheduled in RFMSS.

1018. DESTRUCTIVE WEATHER

Adequate and timely warning, coupled with prompt and effective actions by commanders will reduce loss of life and damage to property due to destructive weather conditions.

1. The MCBQ Destructive Weather Plan states the task assignments associated with each destructive weather condition.

2. RMB will maintain communication with Marine Corps Air Facility Quantico (MCAFQ) Weather Station and will notify all training units of impending destructive weather.

3. During certain conditions some types of training will be suspended until the weather condition has passed. Weather conditions are classified as follows:

a. Local Wind Warning. A local wind warning is issued when potentially hazardous winds (17 to 33 knots) are anticipated. Recreational activities may warrant special precaution.

b. Small Craft Warnings. A term used by the U.S. Weather Bureau to describe wind speeds of 18 to 33 knots over coastal areas and inland waters only. This warning is intended to warn small craft to take appropriate precautions to avoid damage to craft or injury to personnel.

c. Gale Warnings. Winds are steady and of sufficient force to cause heavy turbulence and high seas (34 to 45 knots). This is primarily for marine (water operation) interests.

d. Thunderstorms. Thunderstorms are small scale storms accompanied by lightning and thunder. These storms may develop within sight and not have a destructive appearance until shortly before passing overhead. Hail is frequently present during thunderstorms. Thunderstorms may produce high winds with gusts greater than 45 knots. Lightning strikes, torrential rainfall and low visibility are common.

e. Tornadoes. Often formed from thunderstorm clouds, tornadoes create winds that have been estimated to be 100 to more than 250 knots.

4. Destructive Weather Readiness Conditions. Weather readiness conditions describe the potential destructive force of established weather systems. The Marine Corps Combat Development Command (MCCDC) Destructive Weather Plan establishes precautionary measures to be taken during destructive weather conditions. Destructive weather conditions are outlined as follows:

a. Seasonal Tropical Storm/Hurricane Conditions. Normal conditions of alertness consisting of sound precautionary measures to be exercised during the annual tropical storm/hurricane season usually occurring between 1 June and 30 November.

(1) Thunder and Lightning Storm/Tornado Condition II. Destructive winds accompanying thunderstorms are reported or expected within 50 miles of MCBQ. The storm is accompanied by lightning, thunder, strong gusts of wind, heavy rain, and

sometimes hail. The storms are usually short in duration and seldom last over 2 hours. Ensure a state of readiness can be assumed on short notice.

(2) Thunder and Lightning Storm/Tornado Condition I. Thunderstorms/tornados are imminent. They have formed or are forecasted within 25 miles of MCBQ. The National Severe Storm Forecast Center has or may issue an Aviation Severe Weather Warning that encompasses MCAFQ. RMB will maintain close liaison with the Weather Section at MCAFQ concerning the progress of the storm.

(3) Thunder and Lightning Storm/Tornado Condition IA. Thunderstorms are imminent. They have formed within or are forecasted to move within 10 miles of MCBQ.

(4) Local Wind Warning. Possible sustained wind or gusts of 20-30 knots.

b. Major Cyclone Storms (Hurricanes)

(1) Hurricane Condition IV. The path of the storm has been adequately established and its trend indicates a possible threat of winds in excess of 64 knots within 72 hours.

(2) Hurricane Condition III. Winds in excess of 64 knots are anticipated within 48 hours.

(3) Hurricane Condition II. Winds in excess of 64 knots are expected within 24 hours.

(4) Hurricane Condition I. Winds in excess of 64 knots are expected within 12 hours.

c. Flood Warnings. Flooding represents a serious threat to the safety of personnel, equipment and facilities aboard MCBQ. Any severe weather that may result in flooding will warrant issuance of a flood warning. In the case of heavy precipitation and/or flood warnings access to the RTA may be restricted for safety reasons.

d. Snow and Ice Storms. Routine snowfall during winter storms accumulates up to 2 inches. Non-routine snowfall is an accumulation of 2 to 6 inches. Blizzards are defined as an accumulation in excess of 6 inches within a 24-hour period with high winds and subzero temperatures. RMB will provide updates on adverse weather positions/conditions to training units using the following criteria:

(1) Winter Storm/Blizzard Condition IV. This condition is issued when solid or freezing precipitation is possible within 72 hours.

(2) Winter Storm/Blizzard Condition III. This condition is typically issued when solid precipitation is forecast within 48 hours. Accumulation is expected to be blizzard type or non-routine snowfall.

(3) Winter Storm/Blizzard Condition II. This condition is issued when a storm is possible within 24 hours. The accumulation is expected to be blizzard type or non-routine snowfall.

(4) Winter Storm/Blizzard Condition I. This condition is issued when a storm is possible within 12 hours. Accumulation is expected to be blizzard type or non-routine snowfall.

1019. WET BULB GLOBE TEMPERATURE INDEX

1. RMB is the official Wet Bulb Globe Temperature (WBGT) Station for the west side of I-95 and the MCBQ RTA. RMB will monitor the WBGT from 1 May to 30 September and issue the flag condition for all units on the west side of I-95 when the temperature is over 80 degrees.

2. RMB will post a colored flag to visually represent the WBGT Index and will notify all training units of the current WBGT condition.

3. Training unit commanders will consider the WBGT index as it develops and conduct an ORA in order to mitigate risk to personnel within the RTA conducting field training. Garrison and individual activities will conform to the indicated training precautions.

4. The WBGT readings, corresponding flag conditions and training precautions are as follows:

a. Green Flag. The WBGT Index reads from 80 to 84.9 degrees. Heavy exercise for personnel that have not become thoroughly acclimated should be conducted with caution and under constant supervision.

b. Yellow Flag. The WBGT Index reads from 85 to 87.9 degrees. Strenuous exercise, such as marching at standard cadence, should be suspended for personnel during their first 2 or 3 weeks on-station. Outdoor classes in the sun are to be avoided.

c. Red Flag. The WBGT Index reads from 88 to 89.9 degrees. All Physical Training should be halted for those personnel not thoroughly acclimated by at least 12 weeks of living and working in the area. Acclimated personnel may perform limited activity not to exceed 6 hours per day.

d. Black Flag. The WBGT Index exceeds 90 degrees. All strenuous activity should be halted for all personnel.

e. Administrative Black Flag. A condition created when the Ray Hall Medical Facility cannot handle any more patients or all ambulances are off station. All outdoor training is suspended and will not resume until authorized by RMB. Administrative Black Flag is identified by a black flag with the current heat condition flag flying over it.

1020. CIVILIAN USE OF TRAINING AREAS

1. Use of ranges is generally limited to DoD use only. However, civilian use of RTAs may be allowed, subject to written approval of the COMDR, MCBQ, under the following conditions:

a. Local, state and federal law enforcement agencies may use RTAs for training or other authorized law enforcement purposes pursuant to reference (m). Other federal non-law enforcement agencies whose employees are required to carry and/or have proficiency training in firearms as part of their official duties may also be allowed to use RTAs for training purposes.

b. Civilians observing and/or participating in training evolutions and other organized events may use RTAs when the activity is sponsored or co-sponsored by the Marine Corps and determined by MCBQ's Public Affairs Office (PAO) to be a Community Relations activity pursuant to reference (n) or other regulations.

c. Civilian not-for-profit organizations that have been previously approved by the Commander pursuant to reference (o) to operate on MCBQ and whose organizational purposes involve fishing, hunting, shooting or archery may use RTAs for activities if use is consistent with the organizations' purpose and charter.

d. Civilians participating in hunting, fishing, woodcutting and other approved activities authorized by the Integrated Natural Resources Management Plan and who hold a valid license to engage in the activity may be allowed to use RTAs for these activities. This includes civilian and DoD participants in Wounded Warrior Hunts and/or Sikes Act (reference (p)) related activities.

e. Conditions

(1) Use of RTAs will only be approved subject to availability and staff resources.

(2) Use may be denied, stopped or suspended without notice for safety reasons.

(3) Marine Corps training and activities take precedence.

(4) Non-DoD entities are required to pay a range fee estimated to cover the average cost of consumables and reimbursable costs associated with the types of range use. Payment is to be made to Comptroller, MCBQ.

f. A written agreement in the form of an Inter-agency Support Agreement (ISA), MOA or MOU (as appropriate) and/or a real estate agreement is required before any non-Navy/Marine Corps use of RTAs. Written agreements are negotiated by the Business Performance Office (BPO) and routed to the COMDR, MCBQ for approval. No verbal approvals are allowed with the exception of emergency law enforcement matters.

g. Liability waivers are required before non-DoD personnel use any of the RTAs and Non-Federal civilian organizations must provide proof of insurance, an Indemnification Agreement from their agency or organization, and Waivers of Liability for each participating individual.

h. A sponsoring unit’s RSO or civilian law enforcement or a private organization’s RSO is responsible for taking all necessary safety precautions when non-military personnel are involved in firing weapons.

i. Civilian organizations must provide proof of insurance and an assumption of risk agreement for the organization; and a Waiver of Liability/Indemnification Agreement for each individual, whether present as a participant or as an observer. An MOA or MOU with MCBQ authorizing RTA use by any government agency or civilian organization must be approved and on file with the Comptroller Division and the AC/S G-3 beforehand.

j. Government agencies and civilian organizations with on-going range requirements must contact Range Management Branch to ensure an ISA, MOA, or MOU is in place. However, agencies and organizations may submit an event request for a one-time event.

k. The Quantico Shooting Club (QSC) must provide sufficient insurance for matches and recreational firing which it sponsors. A private organization may not sponsor another organization for Range usage. Other organizations or agencies such as the NRA must provide insurance for their sponsored events.

l. Government agencies, civilian organizations, and personnel using any MCBQ facility conducting independent training are subject to this Order and must receive appropriate RMB/EOD briefs and maintain sufficient and competent leadership and supervision (OIC and RSO certified by RMB) to preclude personnel from wandering into restricted/danger areas (e.g.,

impact areas, surface danger zones). The agency or organization must keep strict accountability of all personnel, provide a safety vehicle, and maintain continuous communications with RMB.

m. Federal, state, and local government agencies are required to establish an ISA, MOA, or MOU before using any RTA. For more information, contact RMB.

1021. PRIVATELY-OWNED VEHICLES

1. Privately-Owned Vehicles (POVs) may only operate on improved surface roads open to normal vehicular traffic. Any form of off-road recreational travel is strictly prohibited in all RTA aboard MCBQ. Violators are subject to administrative, legal and/or punitive action, to include traffic citations and towing at the owner's expense.

2. POVs/rental cars are not allowed in an active RTA except as authorized by RMB. The government will not be held responsible for any damage to POVs.

a. POVs may be used in an RTA as transportation for specific range exercises, classes, etc., as coordinated by the OIC/RSO. Personnel may not conduct unscheduled activities (i.e., leaders' reconnaissance, range tours, etc.) without calling Range Control for authorization.

b. Hunters possessing a hunting pass issued by the Game Check Station may park their POV in the designated parking areas identified in the MCBQ Hunting and Fishing regulations.

c. Operation of vehicles off-road must be coordinated with and approved by RMB on a case-by-case basis.

3. Use of a POV as the designated safety vehicle or to evacuate any casualties is strictly prohibited.

4. POVs will not block access to any RTA. Unrestricted access must be maintained for safety and MEDEVAC considerations.

5. If authorized, operation of POVs as transportation to or from training is authorized at the risk of the owner/operator.

6. Transporting military issued weapons off any installation in POVs is strictly prohibited.

7. Bypassing locked or closed gates is strictly prohibited.

1022. PRIVATELY-OWNED WEAPONS

The use of POWs aboard MCBQ is restricted to recreational activities by the Quantico Shooting Club and as part of the authorized hunting program. Use of POWs is prohibited in any other manner unless specifically authorized by the COMDR, MCBQ.

The use of government ammunition in POWs is prohibited. Requests for use of POWs must be submitted to the COMDR, MCBQ via the Director, RMB. Transporting POWs aboard the installation is governed by reference (q), Privately Owned Weapons and Ammunition.

1023. MEDICAL SUPPORT

1. Units training aboard MCBQ will plan, coordinate, and arrange for their own medical support.

a. MCBQ units and tenant commands will request medical support from Naval Health Clinic Quantico.

b. Requests must be routed for processing 30 days in advance via e-mail to medicalsupport@navy.mil.

2. Appropriate medical support includes a Field Medical Technician HM/8404 Corpsman, medic, or Emergency Medical Technician (EMT).

a. When any range in the WTBn range complex is "hot" a designated Field Medical Technician HM/8404 Corpsman must be co-located with WTBn S-3. If the Field Medical Technician HM/8404 Corpsman is dispatched from the WTBn ranges, all ranges must go into a "cease-fire" status.

b. Any EMT supporting training must be accredited by a state board and a copy of their certification must be provided to RMB prior to the start of training.

c. Authorized recreational activities are required to provide their own medical support in accordance with this Order.

3. A designated safety vehicle, government or rental, that is in direct support of training must be present and have the ability to transport a casualty horizontally on a stretcher.

a. The safety vehicle may not be used for any other purpose.

b. When any range in the WTBn range complex is "hot" a designated safety vehicle must be located at the WTBn Headquarters building.

c. When the designated safety vehicle is removed from the RTA, all training must cease. If the designated WTBn safety vehicle is dispatched from the WTBn ranges, all ranges must go into a "cease-fire" status.

4. The type of training being conducted will determine the appropriate level of medical support.

a. EMT/Field Medical Technician HM/8404 Corpsman/Army or Air Force medic and Safety Vehicle are required for:

(1) All live, blank, pyrotechnics and signaling devices; or Special Effects Small Arms Marking System (SESAMS) firing

(2) Night movement

(3) EOD Range sweeps

(4) Explosive training

(5) Parachute operations

(6) Military Operations in Urban Terrain

(7) HRST operations and rappelling

(8) All RTA use by units of 25 personnel or larger

b. The following activities require a safety vehicle only be present for training:

(1) Sniper Stalks

(2) Terrain Walks

(3) Non-live-fire training

(4) Non-live-fire rehearsals and set-up

(5) Land navigation (less than 25 personnel)

5. When approved by the responsible certified Medical Officer; Reservists who are medically qualified by their civilian occupation, but who do not possess a medical MOS may be assigned as medical support when military medical personnel are unavailable.

a. All requests for approval should be directed to the Commanding Officer, Naval Health Clinic Quantico 30 days in advance via David R. Ray Branch Clinic Senior Medical Officer for action.

b. A copy of the approval must be provided to RMB prior to the conduct of training.

6. The use of credentialed Combat Life Savers as medical support will be reviewed on a case by case basis. Requests must be submitted 45 days in advance to RMB. RMB will review the training event and forward to the David R. Ray Branch Clinic for action. The David R. Ray Branch Clinic will provide RMB a response within 96 hours.

1024. MEDICAL EVACUATION/CASUALTY EVACUATION PROCEDURES

1. General

a. MEDEVAC refers to U.S. Army, Navy, Marine Corps, and Coast Guard patient movement using designated tactical or logistic aircraft, boats, ships, and other watercraft

temporarily equipped and staffed with medical attendants for en route care.

b. CASEVAC is the unregulated movement of casualties that includes movement to and between medical treatment facilities.

c. The responsibility for determining the necessity for a MEDEVAC/CASEVAC rests with the OIC/RSO based upon advice from medical personnel present. The OIC/RSO may request MEDEVAC/CASEVAC by ground or air. However, MCBQ does not have organic emergency treatment facilities. Responses for MEDEVAC/CASEVAC transport and treatment involve the civilian Emergency Medical Support (EMS) network. RMB is the MCBQ agency responsible for facilitating all MEDEVAC/CASEVAC responses with the EMS network through RCF operations. The EMS network will make the final determination of means of transportation and treatment facility based on available assets, treatment required, and local traffic and weather conditions. The RCF will direct the OIC/RSO on actions required to facilitate the response in the most expeditious manner possible.

(1) The designated safety vehicle is the primary means of non-emergency MEDEVAC/CASEVAC. Use of the unit Safety Vehicle for transportation off base is unlikely and a means of last resort. EMS vehicles will be used for stabilization en route whenever possible.

(2) Other government vehicles may be used to transport routine injuries to local medical clinics in order to allow the safety vehicle to remain on-scene. The RCF must be notified immediately when any personnel are removed from the RTA for medical treatment. RMB will determine if training may continue.

(3) Ground transportation by EMS and Advanced Life Support (ALS) ambulance is the primary means of emergency MEDEVAC (i.e. Priority and Urgent).

d. The RCF shall be notified immediately of all MEDEVAC/CASEVACs. The RCF will contact Fire Dispatch (911), which will dispatch the appropriate emergency medical response. The Senior Fire Officer or Senior Medical personnel on scene will be in command of the incident.

2. Categories of MEDEVAC/CASEVAC

a. Urgent (Life Threatening). Emergency patients for whom speedy evacuation is necessary to save life, limb, eyesight, or to prevent complication of serious illness or to avoid permanent disability.

b. Priority (Non-Life Threatening). Patients who require specialized treatment not available locally and who are liable

to suffer unnecessary pain or disability unless evacuated with the least possible delay.

c. Routine (Minor Injuries). Patients whose immediate treatment requirements are available locally but would definitely benefit by ambulance evacuation on routine travel.

d. Mass Casualty. A mass casualty is a series of injuries with multiple priority and urgent medical patients.

3. Precedence. In order to help the assets determine the severity of a MEDEVAC/CASEVAC, the following priorities should be assigned and passed to the responsible authority when requesting a MEDEVAC/CASEVAC.

a. Urgent. Evacuation of critically wounded or injured that requires early hospitalization is an urgent precedence and is a matter of life or death. Examples requiring urgent MEDEVAC/CASEVAC include:

(1) Chest pain that doesn’t go away when sitting for a few minutes

(2) Intense and uncontrollable pain

(3) Head injury with loss of consciousness or eye damage

(4) Deep lacerations with uncontrollable bleeding

(5) Chemicals splashed in the eyes

(6) Severe asthma attacks with shortness of breath that prevents talking

(7) Possible poisoning or overdose

(8) Sudden weakness on one side of the body

(9) Serious fractures

(10) Snake bites

b. Priority. Evacuation of seriously wounded or injured personnel and require early hospitalization, but whose evacuation is not a matter of life or death is a prioritized event. Examples requiring priority MEDEVAC/CASEVAC include:

(1) Nausea and vomiting that won’t stop

(2) Asthma

(3) Minor reactions to medications

(4) Headaches

(5) Minor cuts that need to be sutured, but the bleeding is controllable

(6) Possible fractures of wrist or ankles but no deformity, numbness or bluish discoloration

c. Routine. Evacuation of a deceased serviceman, a patient with minor illness, or a patient requiring transfer between medical facilities for further treatment is a routine event. Examples requiring routine MEDEVAC/CASEVAC include:

(1) Colds, flu, sore throats

(2) Skin rashes

(3) Minor cuts and scrapes

4. Check-Fire Procedures. When a MEDEVAC/CASEVAC occurs, all live firing in the RTA shall cease. Firing/training may resume upon permission from the RCF. In the event an investigation is warranted, the unit(s) involved in the mishap exercise must terminate training and participants shall prepare statements for the investigating officer.

5. Launch Authority. In the event of an actual MEDEVAC/CASEVAC, the RCF will contact the EMS 911 Dispatch Center. The Dispatch Center will determine the plan for evacuating the casualty based on the medical attention required, the most expeditious method to transport the patient, the type of treatment center best equipped to handle the casualty, and the current weather and traffic conditions. Should an air CASEVAC be the most effective method, the RCF will coordinate with all parties involved and will facilitate efficient information exchange. The RCF will provide the OIC or RSO with the number, type of ambulance, type/size of aircraft, or surface craft and the expected timeline for arrival.

6. MEDEVAC/CASEVAC Procedures

a. For any injury that requires MEDEVAC/CASEVAC from the RTA the OIC/RSO will immediately notify the RCF using the MEDEVAC/CASEVAC format.

b. The RCF will coordinate with the appropriate agency: Ray Hall Branch Medical Clinic, Naval Medical Clinic Quantico, or 911 Dispatch.

c. The OIC or RSO from the using unit will be the on-scene commander and will initiate action for the MEDEVAC/CASEVAC until appropriate level EMS personnel take charge. The following information shall be immediately provided by the OIC or RSO to the RCF during the initial report:

(1) Location (best possible description: Range Number, TA, LZ name or grid coordinate, etc.)

(2) Number and types of victim(s) (i.e. Urgent- a threat to life, limb or eye-sight; Priority- Non-life threatening, Routine- Minor injuries).*

(3) Type(s) of injury(ies), victim(s) present condition, and whether a medical professional is on-scene and what medical aid has been provided.*

(4) If the victim(s) are conscious or unconscious.

d. The OIC or RSO will provide the following information as soon as possible or when directed by the RCF:

(1) Victim(s) name, rank and unit.

(2) Victim(s) known medicals (blood type, etc.).*

(3) Source of injury /illness (i.e. snake bite, gun shot, shrapnel, etc.).

(4) Hazards to aircraft, vehicle, or surface craft at the casualty collection point should movement of the casualty be directed by RMB.

* NOTE: Information annotated with an * is required to assist emergency room/CASEVAC crews in preparing to receive casualty.

e. In the event of serious injury requiring emergency MEDEVAC/CASEVAC, 911 Dispatch will have primary authority in identifying which mode of transportation (EMS ambulance, ALS Ambulance or helicopter) will be used and will relay this through the RCF.

f. The OIC/RSO or unit Field Medical Technician HM/8404 Corpsman will not bypass the RCF when calling for additional medical support.

g. The RCF will relay the direct steps to take to accomplish the MEDEVAC/CASEVAC.

h. The RCF will coordinate all emergency MEDEVAC/CASEVAC support to a designated site.

(1) RMB manages a series of gates that control access to the road network within the RTA. Locked gates are in place to ensure the safety of personnel not associated with specific training events. Bypassing locked gates is not authorized.

(2) RMB maintains the current status of all training activities, locked gates, and is enabled by a GIS route planning tool and live radar feed to identify the most expedient route to a MEDEVAC/CASEVAC site.

(3) RMB will determine the route to be used by all vehicles, ground or air, responding to an emergency within the RTA.

i. The injured person will only be moved to that designated site.

j. Emergency MEDEVAC/CASEVAC by helicopter will be requested via RMB to the 911 dispatcher when deemed appropriate by the Field Medical Technician HM/8404 Corpsman/medical personnel and OIC/RSO on-scene. The OIC/RSO must notify the RCF of this request immediately.

k. Helicopter MEDEVAC/CASEVAC should be limited to remote areas not accessible by wheeled vehicle or cases requiring immediate hospital treatment.

l. The Fire Department (FD) 911 Dispatcher and FD On-scene COMDR will coordinate communications with MEDEVAC/CASEVAC transports for instructions and patient updates.

m. The RCF will report every MEDEVAC/CASEVAC to the G-3. Units are responsible to provide all required reports to the proper agencies.

1025. CASUALTY REPORTING

1. Minor injuries and illnesses not requiring medical services need not be reported to the RCF but should be reported in unit training logs.

2. Using the MEDEVAC/CASEVAC format below, units will notify the RCF of injuries or illnesses requiring personnel to be evacuated from the RTA.

Line A: Classification of injury (Routine/Priority/Urgent/ Mass Casualty)
Line B: Location of incident (RTA designation and six-digit grid coordinate)
Line C: Type of injury
Line D: Portion of body affected
Line E: MEDEVAC ID (name, rank, last four digits of Social Security Number, unit)
Line F: Time and date of incident
Line G: MEDEVAC support required (If unit will provide transportation-give destination. If support is required, suggest nearest LZ or pick-up point)
Line H: Cause of injury

3. The unit will treat the injury to the best of its ability and await instructions from the RCF before moving injured personnel.

4. For any injury within the RTAs requiring a mishap investigation, the appointed Investigating Officer must report to RMB during the investigation. RMB will provide all recorded

information requested relating to the mishap for inclusion in the investigation.

1026. MEDICAL EVACUATION DECISION POINT DIAGRAMS

The following diagrams are provided to assist the OIC/RSO with decision points during the MEDEVAC process.

1. Routine MEDEVAC. Figure 1-1 shows the OIC/RSO decision points during a Routine MEDEVAC.

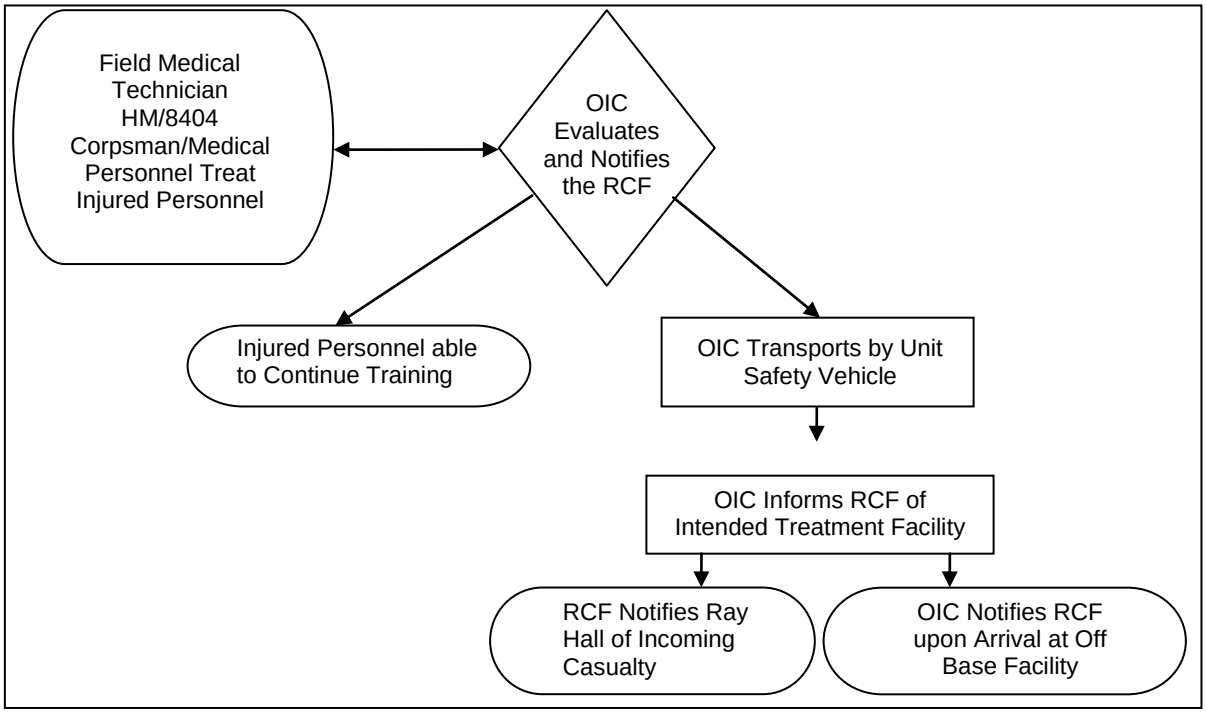


Figure 1-1 Routine MEDEVAC Decision Tree

2. Priority MEDEVAC. Figure 1-2 shows the OIC/RSO decision points during a Priority MEDEVAC.

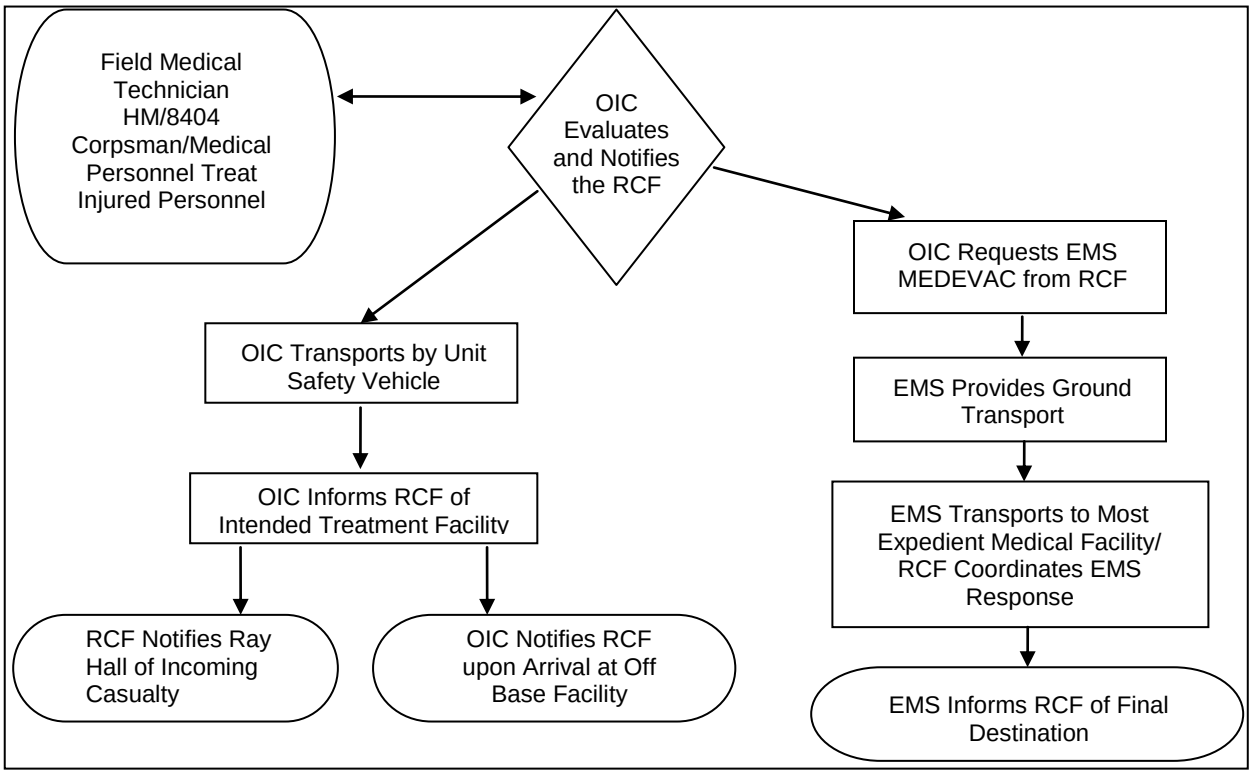


Figure 1-2 Priority MEDEVAC Decision Tree

3. Urgent MEDEVAC/Mass Casualty Situation. Figure 1-3 shows the OIC/RSO decision points during an Urgent MEDEVAC/Mass Casualty Situation.

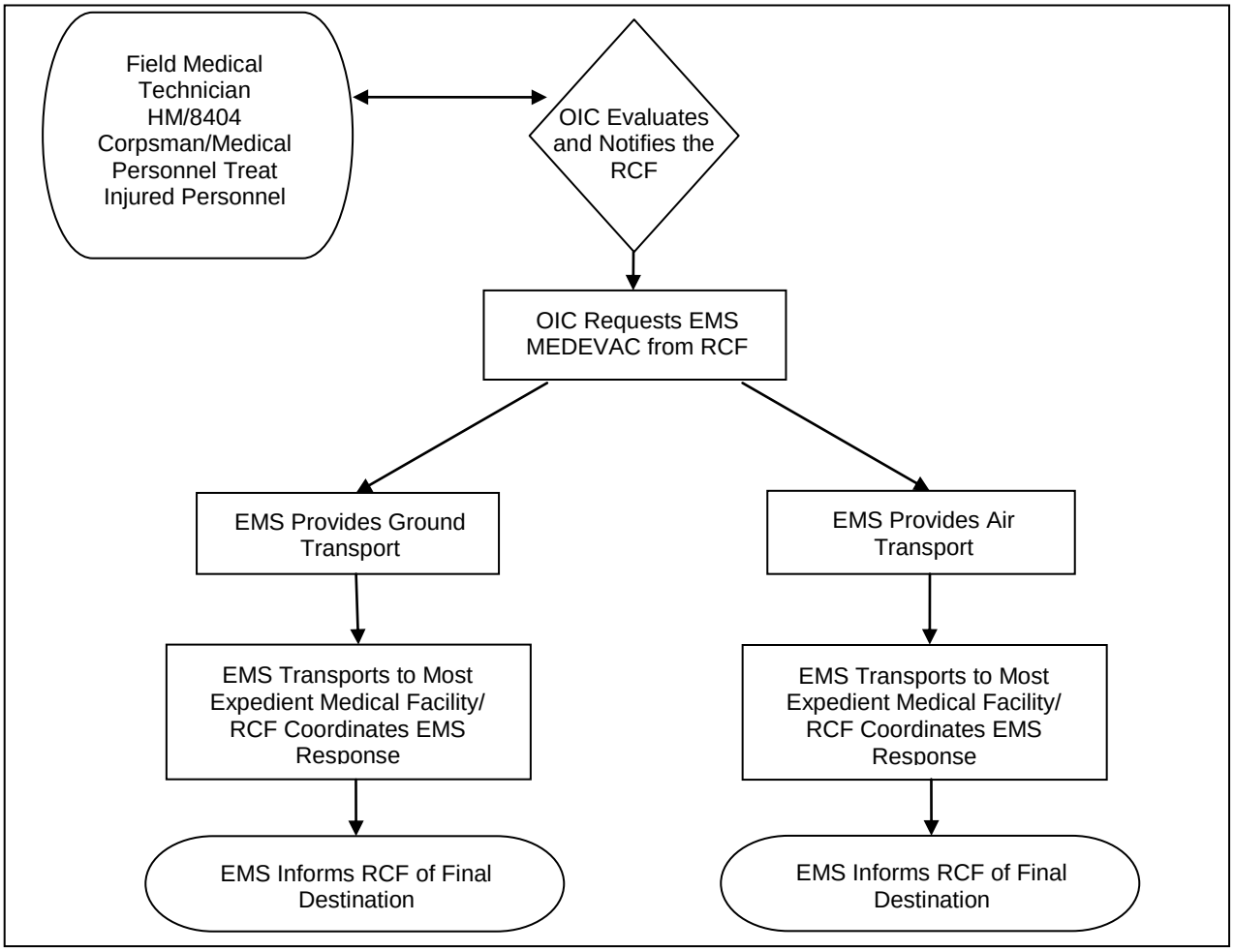


Figure 1-3 Urgent MEDEVAC/Mass Casualty Decision Tree

1027. APPLICABLE MAP SHEET

All grid coordinates listed in this Order apply to the current Quantico MIM. Current MIM information may be obtained via RMB scheduling section.

1027. RANGE MANAGEMENT BRANCH CONTACT INFORMATION

1. The following list provides various means of contacting Range Management.

a. Mailing address:

(1) For official mail:

Commander (B 032)
Marine Corps Base Quantico
3250 Catlin Avenue, Suite 216
Quantico, VA 22134-5001

(2) For direct package delivery:

Director, RMB
24157 Montezuma Avenue (Onville Road)
Camp Barrett, Marine Corps Base
Quantico, VA 22134

2. Table 1-1 contains a list of POCs and their respective contact numbers.

Table 1-1 MCBQ POC Phone Numbers

MCBQ PHONE NUMBERS (DSN 278)	
RCF Supervisor	(703) 784-6722
RCF	(703) 784-5321/5322
Scheduling Supervisor	(703) 432-6611
Scheduling	(703) 784-5502
Range Safety Specialist	(703) 432-6552
Airspace Manager	(703) 784-5370
RFMSS Administrator	(703) 432-6611
Fax	(703) 784-6725
Training Support Center	(703) 784-4492
Website	www.quantico.usmc.mil/activities/?Section=Range

CHAPTER 2 ENVIRONMENTAL REQUIREMENTS

2000. ENVIRONMENTAL DEFINITIONS

1. To Discard is to abandon, dispose, burn, incinerate, accumulate, store, or treat before or instead of being abandoned, disposed, burned, or incinerated.

2. Disposal is the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

3. Explosives or munitions emergencies are situations involving the suspected or detected presence of unexploded ordnance (UXO), damaged or deteriorated explosives or munitions, an improvised explosive device (IED), other potentially explosive material or device, or other potentially harmful military chemical munitions or device, that creates an actual or potential imminent threat to human health, including safety, or the environment, including property, as determined by an explosives or munitions emergency response specialist. Such situations may require immediate and expeditious action by an explosives or munitions emergency response specialist to control, mitigate, or eliminate the threat.

4. A Generator is any person, by site, whose act or process produces hazardous waste.

5. A Hazardous material is any material that, because of its quantity, concentration, or physical or chemical characteristics, may pose a real hazard to human health or the environment. Specifically, Flammable and Combustible Material; Toxic Material; Corrosive Material; Oxidizers; Aerosols; and Compressed Gases.

6. A Hazardous waste is waste that poses substantial or potential threats to public health or the environment. In the United States, the treatment, storage and disposal of hazardous waste is regulated under the Resource Conservation and Recovery Act (RCRA). Hazardous wastes are defined under RCRA where they are divided into two major categories: characteristic wastes and listed wastes. These wastes may be found in different physical states such as gaseous, liquids, or solids. A hazardous waste is a special type of waste because it cannot be disposed of by common means like other by-products of our everyday lives. Depending on the physical state of the waste, treatment and solidification processes might be required.

7. Characteristic hazardous wastes are materials that are known or tested to exhibit one or more of the following four hazardous traits: ignitability (i.e., flammable), reactivity, corrosivity, and toxicity.

8. Listed hazardous wastes are materials specifically listed by regulatory authorities as a hazardous waste which are from non-specific sources, specific sources, or discarded chemical products.

9. Management or hazardous waste management means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

10. Medical Waste is all waste materials generated at health care facilities, such as hospitals, clinics, physician's offices, dental practices, blood banks, and veterinary hospitals/clinics, as well as medical research facilities and laboratories. Includes blood-soaked bandages, discarded surgical gloves, discarded surgical instruments, discarded needles, and discarded lancets.

11. Military munitions are all ammunition products and components produced or used by or for the U.S. Department of Defense (DOD) or the U.S. Armed Services for national defense and security, including military munitions under the control of the DOD, the U.S. Coast Guard, the U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DOD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components thereof. However, the term does include non-nuclear components of nuclear devices, managed under DOE's nuclear weapons program after all required sanitization operations under the Atomic Energy Act of 1954, as amended, have been completed.

12. Solid wastes are any discarded (abandoned or considered waste-like) materials. Solid wastes can be solid, liquid, semi-solid or containerized gaseous materials.

13. A material is discarded if it is abandoned by being disposed of, burned or incinerated, or accumulated and/or stored, or

physically, chemically or biologically treated (other than burned or incinerated) instead of or before being disposed.

14. A material is disposed if it is discharged, deposited, injected, dumped, spilled, leaked or placed into or on any land or water so that such material or any constituent thereof may enter the environment or be emitted into the air or discharged into groundwater or surface water.

15. Used oil means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

2001. ENVIRONMENTAL CONSIDERATIONS

1. The following acts are strictly prohibited in any RTA aboard MCB Quantico:

a. Burying, dumping, or otherwise disposing of trash, rubbish, or garbage of any type.

b. Burying, dumping, or otherwise disposing of any type of ammunition, explosive material, pyrotechnic, chemical ammunition, or any type of hazardous waste.

c. The draining, dumping or spilling onto the ground or into the water of oil, fuel, or any other chemical from any vehicle, or other machinery, or from any container. Range Control shall be notified immediately of spills and the base Integrated Spill Management Plan (ISMP) will be executed immediately.

d. Deliberately introducing chemical agents into any body of water on or adjacent to MCBQ.

e. Removal of artifacts from pre-historic or historic sites.

2. Violation of these provisions will adversely impact future training opportunities aboard MCBQ, and may result in disciplinary action under the Uniform Code of Military Justice (UCMJ) and, potentially, federal/state judiciary action and fines.

3. Field Sanitation. Because waste acts as a disease reservoir, the sanitary disposal of all types of wastes must be carefully planned.

a. Human Waste

(1) If chemical toilets (portable toilets) are not available, each person must use a “cat hole” during short halts when troops are on a march.

(2) When occupying a TA for 36 hours or less, straddle trenches may be used if there are no portable toilets in the vicinity. Field heads (trenches) must be at least 100 feet away

from water sources and/or berthing/eating areas. If a trench is used it must be properly closed and marked in accordance with MCRP 4-11.1D indicating the type of trench and the date it was closed.

b. Solid Waste Management. Open dumping, disposing, treating, or storing solid waste is prohibited to protect public health and safety and the environment.

(1) Trash must be collected in a covered container that is waterproof and durable enough to withstand the intended usage.

(2) Trash containers must also be used to keep rodents and other pest out of the trash and prevent trash from spreading into surrounding areas.

(3) Wet garbage from field messes will be collected in covered containers and must be transported to the nearest mess hall for proper disposal.

(4) Refuse, to include ammunition containers, communications wire, and ration packs, will be collected, containerized, and disposed of properly.

(5) Due to animals and wind, which will scatter trash creating an additional police problem, stockpiling refuse for later removal is not authorized.

(6) Open burning of solid waste as a method of disposal is prohibited.

(7) Meal, Ready-to-Eat (MRE) heaters will only be disposed as solid waste after they have cooled down from activation. A MRE heater will be discarded as a HAZMAT if it is unused.

c. Medical Waste Management

(1) Infectious medical waste will be separated from non-infectious medical waste at the point of origin.

(2) Infectious medical waste will be segregated, transported and stored in red-colored marked/labeled bags or receptacles a minimum of 3 millimeters (mm) thick having such durability, puncture resistance, and burst strength to prevent rupture or leaks during ordinary use. Bags/containers shall not be over 22 pounds, taller than 16 inches, and longer than 28 inches. Leaking or wet bags shall be double or triple bagged as necessary to prevent leakage. Sharps will only be discarded into rigid plastic receptacles. Needles will not be clipped, cut, bent, or recapped before disposal. Bags and receptacles containing infectious medical waste must be placed into rigid or

semi-rigid, (cardboard box) leak-proof containers before being transported off-site.

(3) All bags or receptacles and containers used to segregate, transport or store infectious medical waste will be clearly marked with the universal biohazard symbol and the word "BIOHAZARD" and will include markings that identify the generator, date of generation, and the contents.

(4) Infectious medical waste will be maintained in a non-putrescent state, using refrigeration as necessary.

(5) Storage sites must be marked on the outside with the universal biohazard symbol and the word "BIOHAZARD" in English.

(6) All infectious medical waste will only be transported in an enclosed Government-Owned Vehicle and turned into the unit's Battalion Aid Station (BAS) or Medical Dispensary on the respective camp.

(7) Spills of infectious medical waste will be cleaned up as soon as possible by trained personnel from the generating unit wearing appropriate protective apparel or equipment such as gloves, coveralls, masks, and goggles sufficient to prevent the risk of exposure to infectious agents or pathogens. Blood, body fluid, and other infectious fluid spills must be removed with an absorbent material, which must then be managed as infectious medical waste. Surfaces contacted by infectious medical waste must be washed with soap and water and chemically decontaminated with sodium hypochlorite (household bleach), diluted 1:10 with clear water.

4. Natural Resources

a. Minimal use of live vegetation for camouflage purposes is permitted. Felling trees, removal of major branches, and clearance of large areas is prohibited.

b. No trees over 2 inches in diameter at breast height will be removed or cut without prior approval of the NREA Branch. Removal of grasses and trees will lead to soil erosion, which may cause soil runoff to a proximate zone and damage ecological systems. Camouflage netting will be used to camouflage vehicles and other equipment. If man-made camouflage is not available for use by personnel, leafy portions of grasses or small branches of the trees may be used.

c. The Conservation Law Enforcement Office at (703) 432-6793/94/95 or NREA Branch at (703) 784-4030 must be notified about problem or sick animals in the RTA. No animals will be collected or killed except by authorized NREA personnel unless there is immediate threat to human safety. In that case, the

OIC may authorize action to protect human life and will then immediately notify RMB. RMB will notify NREA Branch.

d. In order to prevent mud/red soil runoff during periods of inclement weather from being deposited on hard surface roadways, units will be responsible to ensure hard surface roads will be cleaned of mud and dirt deposited by military vehicles.

e. Excavation and Digging. Excavation or digging by any means and for any purpose is strictly prohibited unless approved by Range Control. Fighting holes, when authorized, will be filled in upon the completion of each training exercise. The digging of fighting holes must be specified on the training request and specifically approved by the NREA and the RCO.

f. Do not wash vehicles in reservoirs, lakes, pond, rivers or streams.

g. Protected Species

(1) A federally listed threatened plant, the small whorled pogonia (SWP), is found in the RTA. Some sites are marked with signage indicating a "no excavation" or "protected" natural resource management zone. Training personnel must not conduct any excavation or ground disturbance within these zones. Three SWP sites are encircled with a single strand barbed wire fence in addition to signs. The area within these fences is off-limits.

(2) Two federally listed endangered species, the dwarf wedge mussel and a plant called Harperella, occur in Aquia Creek adjacent to MCBQ. Protection of water quality within the RTA by compliance with the environmental provisions in this Chapter will meet the watershed management requirements for these species.

(3) Several bald eagle nests are located on MCBQ. Nest trees are protected and a 660 foot radius protection zone will be in place during the nesting season, 15 December to 15 July. NREA will mark protection zones for any nest trees that occur in the RTA and will coordinate that action with RMB.

5. Cultural Resource Management. Cultural resources consisting of historic structures, ruins, or pre-historic and historic artifacts are known to exist within the RTAs. The degradation or defacement of such structures and ruins, and the digging and collection of historic cultural artifacts is prohibited. If cultural resources are found in the course of training, they will be avoided and not disturbed. The areas will be identified to Range Control for notification to the NREA.

6. Field Vehicle Servicing and Equipment Maintenance. The following guidelines will be used:

a. All HAZMAT and Hazardous Waste Accumulation Points will have secondary containment. These areas will be located 30 meters from a body of water and 3 meters from any road.

b. Used Petroliums, Oils and Lubricants (POL) will be collected in drip pans and transferred to an appropriate container, clearly labeled with the words "Used Oil".

c. Abandonment or dumping of POLs or other materials (such as used tires, batteries, etc.) is a serious violation of existing environmental regulations. All waste oils and hazardous waste will be retrograded out of the RTAs.

d. The introduction and/or release of any hazardous substances into the environment is strictly prohibited and governed by the applicable orders and directives relating to HAZMAT control/clean up. Any contamination must be immediately reported to Range Control.

e. Dumping or burning used oil or using used oil as a dust suppressant is prohibited.

f. Contact NREA if assistance is required to turn in "Used Oil" generated during range training activities. The RCF can assist contacting NREA as required.

7. Generators and Fuel Storage Areas

a. If a fuel farm is established, all fuel containers, hoses, nozzles and connections will have secondary containment and will be checked frequently to detect fuel leakage. Tanker vehicles shall be parked in such a manner as to avoid the possibility of spilled fuel entering natural or man-made drainage systems. Tanker vehicles will have spill containment under them while staged. Refueling operators will stay with the vehicle during the entire field exercise. Spill kits will be located next to the secondary containment.

b. Generators and floodlights will be placed in secondary containment. The secondary containment will be set up properly, so as to contain any spill that might occur. Spill kits will be located next to the spill containment. Generator sites that are operational during the night will be checked hourly for detection of fuel leaks.

c. Rainwater collected in secondary containments must be inspected for contamination before release into the environment. If contaminated, the POL contamination will be removed with absorbent pads. After contamination is removed water may be released.

d. Accumulated, used, absorbent pads will be collected in properly marked containers.

8. Spill Prevention, Containment and Clean Up

a. Prevention of oil and HAZMAT spills and the resulting environmental damage is the responsibility of all commanders.

b. Personnel on-site shall attempt to contain the spill by using spill equipment or by erecting a sand/earthen dam around the perimeter of the spill to preventing the spill from entering bodies of water or a storm drain.

c. Spill Notification. The OIC/RSO will contact the RCF to report all spills, in accordance with the base Integrated Natural Resources Management Plan (ISMP). RMB will contact the Fire Department and NREA Branch. At a minimum, upon discovery of a discharge/release, or imminent discharge/release, of oil or a hazardous substance follow the steps shown below to report a spill.

(1) Any individual causing or discovering oil or hazardous substance (OHS) spill, or a situation that may lead to a spill of OHS, will immediately take the actions outlined below.

(2) If unit personnel are certain that it is safe to do so, take steps to control (stop the source, shut off valves, upright the spilling container, etc.) and/or contain (apply sorbent materials, block drains, etc.) the spill.

(3) The sequence of the following actions will depend on the site and situation specific conditions.

(a) Evacuate area to a safe distance upwind and upgrade from the spill.

(b) Restrict ignition sources, motors, electric currents, open flames, etc.

(c) Pass the word to people in adjacent spaces.

(d) Inform your supervisor or the supervisor of the nearest facility.

(e) Report spill immediately to Range Control via radio or dial (703) 784-5321/5322.

(f) Whenever possible, give the following information or that which can reasonably be determined. (Do not wait until all information on the spill is available to report.)

1. Your name and telephone number

2. Location of the spill (Range or Training Area with 8 digit MGRS grid)

3. Number and type of injuries

4. Identify the type and estimate amount of the spilled material

5. Source of spill (e.g., container, equipment, vehicle, etc.)

6. Behavior of spilled material (e.g., reactions, leak, spill, or fire observed)

7. Anticipated movement of spill

8. What has the spill contaminated (soil, concrete, water, etc.)

9. Actions being taken to control or contain spill

10. Estimated time when spill occurred

d. Do not allow unauthorized persons to enter the spill area.

e. Wait for the response team to arrive and direct them to the spill.

f. Provide information and assistance as instructed.

g. Complete a Spill Reporting Form following the cleanup of a spill and submit through your chain of command to NREA within 5 working days of the spill. A spill reporting form is required for all hazardous substance spills, regardless of location, and all petroleum spills into the environment. A written report is not required for petroleum spills less than 1 gallon onto concrete.

2002. POLICING OF TRAINING AREAS

1. No unit will depart their training location until it is in a proper state of police. Training units shall dedicate adequate time to police the TA and/or facility prior to departure.

2. In addition to ensuring a general state of police, COs/OICs/RSOs are responsible for declaring that none of the environmental considerations discussed within this chapter have been violated without appropriate corrective action and proper reporting to the RMB.

2003. HAZARDOUS MATERIALS AND HAZARDOUS WASTES

1. HAZMAT (i.e., paint, POLs, etc.) used while training shall be stored in approved, closed, leak-proof containers. All hazardous materials shall be clearly marked. Material Safety Data Sheets (MSDS) must be maintained and PPE must be utilized,

in accordance with applicable safety requirements, and all material must be on the base Authorized Use List (AUL). In all cases where a unit wishes to utilize a material that is not on the AUL, NREA Branch must be contacted to gain authorization prior to its use.

2. Hazardous Waste

a. Units are required to provide funding for Hazardous Waste Disposal from exercises with unique funding. Units may need to set up a Line Of Accounting with NREA to pay for Hazardous Waste Disposal. Non-MCBQ units will need to set up a Line Of Accounting with the Environmental Department for Hazardous Waste Disposal.

b. For all Hazardous Waste generated during range training activities:

(1) Place the hazardous waste in a container compatible for that waste.

(2) Label container with the words “Hazardous Waste” and mark the date upon which accumulation started.

(3) Contact NREA, via the RMB Environmental Coordinator, if assistance is required to turn in hazardous waste generated during range training activities.

c. Hazardous waste accumulation and storage is prohibited in the range training areas.

2004. FIELD HEADS, URINALS, WASTEWATER AND PORTABLE TOILETS

1. Any organization assigned to a RTA shall properly police and clean heads and urinals in their assigned area. Trash (ration containers, cans, etc.) will not be disposed of in any head, urinal, or portable toilet.

2. Wastewater from temporary showers must be coordinated prior to any exercise or training evolution with Range Control.

3. If additional portable toilets or cleaning services are needed, funding shall be provided by the using unit to G4, Logistics Division, or provided by the using unit. Unit’s that intend to contract their own portable toilets or cleaning services must coordinate with the RMB Range Resource Manager before the contract is in place.

CHAPTER 3 RANGE, TRAINING AREA, AND TRAINING FACILITY REQUEST AND SCHEDULING PROCEDURES

3000. GENERAL

1. This chapter establishes policies, procedures, and responsibilities for the scheduling of all ranges, training facilities, and courses within MCBQ RTAs. These training resources are available for use by all authorized RTA users.

2. RMB Scheduling Office is the scheduling agency for all RTAs and facilities assigned to the COMDR, MCBQ. To schedule, RMB Office must receive a RFMSS request prior to occupying or utilizing any RTA or facility area aboard MCBQ.

3. Once the requesting unit has submitted a request, it is the responsibility of that unit to ensure they are in compliance with their authorized times and dates. Should there be a requirement to modify or cancel their request the unit shall notify RMB at the earliest opportunity.

3001. RANGE FACILITY MANAGEMENT SUPPORT SYSTEM

1. General

a. In accordance with reference (f), "RFMSS is the centerpiece of the Range Management System; it is the approved Marine Corps RTA scheduling and management tool. This system provides a standard, integrated, Web-based program that installation RTA management personnel can use to schedule training support for users and manage Marine Corps RTA property. RFMSS supports all major range management processes, to include unit/organization RTA requests, subsequent range control approval/disapproval action, and the automation of range firing desk operations."

b. MCBQ Range Scheduling Office currently utilizes RFMSS for ground and airspace scheduling.

c. Ground ranges falling within restricted airspace require concurrent scheduling of associated airspace.

d. Users shall ensure that any necessary ground setup and/or teardown time requirements are equally reflected in ground and airspace requests.

2. Access

a. Users are required to establish a valid RFMSS user identification and password by requesting a RFMSS account.

b. For Navy Marine Corps Internet (NMCI) users, the MCBQ RFMSS site is

https://rfmss.quantico.usmc.mil/quantico/pages/login.aspx. For non-NMCI users, https://rfmssbackup.belvoir.army.mil/quantico/pages/login.aspx.

c. For assistance with RFMSS access, contact RFMSS Functional Administrator at (703)432-6611.

3. Request Control Number Identifier (RCNI)

a. This number is assigned by the RFMSS system to uniquely identify a request. The following information shall be provided:

b. Once a request has been submitted, follow-up tracking on the status is the responsibility of the requesting unit and tracking of the request may be performed via the RCNI. An RCNI assignment does NOT constitute approval/reservation of the request. Users are required to check their pending requests periodically until a reservation or other action has been made. Users failing to take appropriate actions on pending request will have their request cancelled or rejected. Once a request is submitted, users will receive a RFMSS status change notification to the e-mail address listed in their user account.

4. Training. Units or personnel requiring any training in the use or implementation of RFMSS, should review the dedicated RFMSS handbooks, which can be accessed and downloaded from https://rfmss.belvoir.army.mil/ or by contacting the MCBQ Range Scheduling Office.

3002. SCHEDULING

1. All requests to enter and use the MCBQ RTA will be submitted to RMB, Scheduling Section.

2. RMB Scheduling Section hours of operation are Monday-Friday 0700-1600 for the following:

a. Submission of RTA requests.

b. Checking out approved and scheduled RTA, keys, radios, and range equipment.

c. Battery exchange.

3. RFMSS is the primary method for scheduling requests at MCBQ.

a. RFMSS is available via the Wide Area Network (World Wide Web) through the link provided on the RMB website.

b. Personnel requiring RFMSS access should contact the RFMSS Administrator at (703)432-6611.

c. A RFMSS terminal is available for use at RMB.

4. Units that will conclude training during the hours of darkness must schedule an additional day in order to conduct cleanup and complete the post inspection.

5. TA requests do not include all facilities within the TA, such as Mess Areas, LZs, DZs, GPs, Mortar Positions or OPs, After Action Review (AAR) facilities, roads, or Training Support devices or services. Each must be specifically requested.

6. Requests for the Military Operations in Urban Terrain (MOUT) Facility and Urban Training Centers (UTC) do not include the MOUT Assault Course (MAC), the MOUT defensive building, the MOUT classroom, AARs, or instrumentation. Each must be specifically requested.

7. WTBn ranges are maintained primarily to support the training mission of WTBn.

a. WTBn has 15-day priority of use over other training events on WTBn Ranges.

b. Approved maintenance activities scheduled by RMB/TSCQ have priority and will not be cancelled or modified unless authorized by RMB/TSCQ.

c. Requests to use the WTBn ranges will be entered into RFMSS.

8. Each live-fire range has been certified for specific weapons and munitions. Only the weapons and munitions certified are authorized to be fired. Any deviations must be submitted to and approved by RMB.

9. Requests for live-fire ranges do not include all facilities and structures on the range. Automated targetry, target control towers, generators, and battery charging stations are managed by TSCQ and require separate RFMSS requests and coordination for use.

10. Requests must include all inclusive occupying times and specific "hot" and "cold" times. Pre-staging ammunition must be requested and coordinated.

11. Range requests that include TSCQ support of automated targets, contractor support, or battlefield effects simulators must include the start and end times the support is required.

(1) Units that have requested TSCQ support that are not present at the specified location within 1 hour of the requested time and have not contacted TSCQ will forfeit all support.

(2) Units that have occupied a range with approved TSCQ support services and that have not begun to use that support

within 2 hours of the requested hour of operation will forfeit all support.

(3) Units that are training with TSCQ support services that place themselves into a voluntary check fire for 2 hours during the approved support operational hours will forfeit all support.

(4) Units that forfeit support will not be issued gear for unit operation.

12. SUA (R6608/DEMO MOA)

a. The R-6608A, B and C Special Use Airspace (SUA) is activated and managed by RMB for range activities from 0500-2400 daily. SUA requests for beyond 2400 must be made by written request to the COMDR, MCBQ via the Director, RMB no later than 7 working days prior to date of execution.

b. Any activity within the RTA requiring greater than 45 meters (150 feet) Above Ground Level (AGL) requires the activation of the SUA. All live fire activities and use of aerial signaling devices (i.e., white star parachutes, green star clusters, etc.) require in excess of 150 feet AGL.

c. Requests or event activities in which aircraft will fire/drop ordnance will include the open time, “hot” time, “cold” time, and close time. Airspace requests for aircraft not bringing ordnance only need to indicate the open and close times.

13. Units requesting to conduct parachute operations will conduct those operations per applicable regulations and the unit's SOP. Requests for parachute operations will not be approved until a copy of the unit's SOP is provided to RMB.

14. Units contracting non-TSCQ services and/or equipment must coordinate with RMB. Units will ensure that contracted equipment and services are removed from the RTA prior to the Post Inspection.

15. The RCO may require units to submit an ORA before a request for training or other operations will be approved. ORAs are reviewed by RMB.

16. PT Courses (Endurance Course, Obstacle Course, Confidence Course and the NATO Obstacle Course).

a. The PT Courses are continually reserved for use by TECOM. Scheduling of the courses for TECOM units is managed by the CO, TBS. The CO, TBS, will ensure compliance with all safety requirements.

b. Units external to TECOM must schedule the PT Courses through RMB. RMB will coordinate availability of the courses with TBS. Should an external unit be authorized access to the courses, RMB will ensure that the unit complies with all safety requirements.

c. A qualified OIC/RSO must be present to occupy the PT Courses for unit training.

d. The RCF will be notified prior to occupation and upon conclusion of the courses for unit training.

e. Using units will have communication with RMB (a cell phone can be used provided that communication is confirmed with a call to the RCF from the course).

f. A safety vehicle and medical personnel must be on standby in close proximity (less than 1500 m) to the PT Course. The safety vehicle must not be assigned to other training.

g. All MEDEVACs will be coordinated through the RCF.

h. Maintenance of the PT Courses is the responsibility of the Area Commander.

3003. RANGE AND TRAINING AREA REQUESTS

1. RTA requests submitted through RFMSS or other authorized means are approved according to the following prioritization:

a. Special events directed by higher headquarters

b. TECOM

c. Other Marine Corps formal school training

d. Units stationed aboard MCBQ

e. External Unit training/reserve training (in order of receipt)

f. Maintenance/Environmental projects

g. Recreational events (hunting, fishing, etc.)

2. All scheduling precedence is lost for units whose scheduling request is received by RMB less than 60 days prior to the event. In order to receive priority scheduling, requests must be complete and accurate. Incomplete requests or requests with invalid information shall not be used as "placeholders".

3. Priority units that must reschedule events due to extraordinary circumstances beyond their control (i.e. severe weather, natural disasters, etc.) will be assisted by RMB to meet scheduling requirements.

4. In the event that a unit is "bumped" from scheduled training RMB will make a concentrated effort to find another RTA that will facilitate that training.

5. If no suitable RTA is available to satisfy the required training, the unit with lower precedence will be advised by RMB as soon as possible.

6. Training requests not requiring airspace must be submitted No Later Than (NLT) 10 days prior to the event. Any requests submitted less than 10 days prior to the event will only be approved under the following conditions:

a. The request must not require a deviation from this Order, the range certification for the RTA, or any applicable order.

b. The requested RTA and training evolution may not interfere with any approved RTA training or maintenance.

c. Any required documents (i.e., MOAs, ISAs, ORA, MOU, etc.) must be completed and provided at the time of the request.

7. Any request that includes the use of airspace must be submitted no later than 14 days prior.

8. During approved MCBQ Hunting Seasons the following additional restrictions apply.

a. Next-day requests will not be processed or approved after 1000 if they interfere with any approved RTA training, maintenance, or recreational activity.

b. Same-day requests will not be approved if they interfere with any approved RTA training, maintenance, or recreational activity.

9. No changes to scheduled events or same-day requests requiring additional airspace will be approved.

10. Users may request immediate use of the RTA via telephone by contacting the RCF. Approval will be based on availability of the requested RTA and airspace required. The following information must be provided for telephone requests:

a. RTA requested

b. Qualified OIC and RSO

c. Number of personnel and vehicles

d. Type of weapons, ammunition by Department of Defense Identification Code (DODIC) and description of training being conducted

e. Location of safety vehicle and medical personnel

11. Units requesting to enter the RTA to conduct leader's reconnaissance, walk-through, etc., will contact the Scheduling Section (or the RCF if after hours) before entering the RTA.

12. Training Devices and Contractor Range Support

a. Units requesting training device support for a RTA will identify types of devices, desired delivery locations and contractor support requirements. Requests will be submitted via RFMSS or other authorized request formats.

b. Requests for Training Support Systems and Services must be made through RFMSS no later than 72 hours prior to the training event. No changes to support requests shall be made within 24 hours prior to the training event.

c. Contractors will depart the range 1 hour after the approved contracted support time, if the training unit has not arrived or fails to contact the TSCQ.

d. Minimum lead time for basic training analysis and scenario design is 5 business days prior to the event. The complexity of the support requested will determine the feasibility of support. All other support will be provided as efficiently and effectively as time allows.

e. Training systems will be used in accordance with the TSCQ and support contractor guidance and instructions. Training systems shall not be relocated, manipulated, or altered in any way not previously coordinated with the TSCQ or the support contractor.

f. Any disputes or complications with contractor personnel will be addressed to the TSCQ.

g. Units will be responsible for damage to training systems not caused by standard system use or that goes beyond fair wear and tear. Units are responsible to inform the TSCQ of any damage to training systems and will reimburse the Government to correct deficiencies caused by improper use or abuse of training systems.

h. Units that plan to bring their own targets must identify in their RFMSS request the type of target and where targets will be located. All targets will be removed upon completion of training.

i. Targets will not be placed or removed from any dud producing impact area without EOD support. Targets will be removed once training is complete. The unit requesting target insertion/removal is responsible for providing medical support.

j. RMB reserves the right to deny training requests for units that have not reimbursed the government for equipment or facilities damaged by negligence or misuse.

13. Non-DoD Organizations. Non-DoD organizations are required to reimburse MCBQ for use of the RTA and training facilities. For one-time use of the RTA, G-3 may authorize scheduling the activity without an approved support agreement. For recurring use of the RTA, it is essential that an ISA/MOA/MOU is established and a purchase request or check is in place for funding prior to scheduling. Organizations anticipating approval for regular and habitual use of the RTA may provide funding at the beginning of each fiscal year to expedite scheduling and avoid delays in training schedules. Detailed instructions and costs can be obtained by contacting the RMB Range Resource Manager at (703) 784-5605.

14. Cancellations. Units canceling a scheduled RTA will notify the Scheduling Section as soon as possible.

15. No Shows

a. Units that have a RTA reservation that have neither occupied the RTA nor contacted RMB to report a delay, will be designated as a "No Show" after 2 hours of the scheduled occupied time. Units designated as a "No Show" will have their reservation in RFMSS cancelled and the RTA will be made available for scheduling by other units

b. Three consecutive "No Shows" and all further RTA events will be suspended until the unit's S-3/RFMSS Scheduler reports to Range Control to validate the unit's training schedule.

c. Units that have requested TSCQ support services (i.e., automated targets, target operators, battlefield effects simulators, etc.) must utilize those support services within 2 hours of the requested hour of support. The unit will forfeit all support if TSCQ support services are not being utilized within 2 hours of the requested hour of operation.

3004. CO-USAGE PROCEDURES

1. All co-use within the RTA must be coordinated between all effected units and RMB.

a. The unit requesting co-use will be responsible for coordinating with the unit already scheduled for the RTA.

b. Both units will provide documentation to RMB detailing the activities to be conducted and all control measures for the co-use.

2. All co-use requests will include designation of a single OIC and a single RSO. Units may appoint multiple RSOs in order to satisfy weapon systems' qualification requirements. All RSOs must have current installation RSO certifications. Weapon systems may not go "Hot" on the range without a weapon system-qualified RSO on-site.

a. The designated OIC and RSO are responsible for the conduct of both units.

b. Both units will have a qualified RSO for the weapon systems their unit will be utilizing during the training event.

3. If one unit plans to complete training early the unit remaining in the RTA will assume all OIC/RSO responsibilities.

4. Co-use of WTBn ranges must be coordinated and approved by RMB and identified in the RFMSS requests.

3005. EXPLOSIVE ORDNANCE DISPOSAL SUPPORT

1. Requests for EOD support will be submitted to RMB at least 30 days prior to the scheduled event.

2. During demolitions, mortar or artillery training units are not required to have EOD support on-site. If the using unit requires EOD support, they will coordinate through the RCF.

3006. WEAPONS TRAINING BATTALION

1. Ranges and facilities located aboard WTBn are scheduled through RFMSS and approved by RMB based upon availability.

2. WTBn requests for the WTBn Ranges will be given priority over all other requests for those facilities when submitted 15 days prior to the training event.

3. Range activities in support of entry level and annual qualification, the competition at arms program and formal schools will be given priority scheduling over other training events.

4. Pit Sentry Safety System

a. The Pit Sentry Safety System installed in the pits of the WTBn known distance rifle ranges utilizes light beam-break detection technology to protect Marines from crossing a designated threshold (red line) into the projectile impact zone in pit area behind the protective berms.

b. In the event of an incident in the pits involving injury, death, or damage to Government Property; personnel from RMB will be dispatched to retrieve/download the video of the incident captured by the Pit Sentry Safety System. The video will be

transported back to RMB and maintained in the RCF electronic library.

c. Malfunctions of the Pit Sentry Safety System will be reported to RMB.

3007. GOETTGE DEMOLITION RANGE

1. Goettge Demolition Range (GDR) is an explosive dynamic entry range. The range is used primarily by Methods Of Entry School (MOES) for range activities in support of the approved program of instruction.

2. When not in use by MOES, the range is available for use by other training units.

a. Range requests for all training and maintenance activities will be submitted in RFMSS.

b. MOES maintains numerous storage containers with expendable items (doors, windows, lumber, etc.) on the range. Other training units do not have access to these storage containers or expendable items without authorization from and reimbursement to MOES.

c. MOES creates, funds, and maintains several training devices on the range (cinderblock walls, brick walls, ship hatches, mechanical door breaching façade, etc.). Other training units do not have access to these expendable items without authorization from and reimbursement to MOES.

d. Range requests for GDR that do not include adequate maintenance time and a plan to return the range to the same state of repair before use will not be approved (i.e., resetting doors, windows, wall sections, etc.).

e. MCBQ does not maintain engineer assets to repair, reset, or replace expendable items. Training units are responsible for all work to operate the range and return it to original condition.

f. The range is equipped with an AAR Facility. Use of the AAR must be indicated in the RFMSS request.

g. A pre-inspection of GDR is required with the RSS and MOES Staff prior to occupation of the range by other training units.

h. A post-inspection is required with the RSS and MOES prior to departing the range.

i. Requests that interfere with the approved schedule for the MOES Program of Instruction will not be approved.

3008. CAMP UPSHUR

1. The Camp Upshur area is dedicated for use by and is permanently reserved for MCBQ, RSU. Activities to be conducted aboard Camp Upshur are scheduled through the Director, RSU.

a. Marine Corps Reserve units will contact MCBQ, RSU, directly for use of Camp Upshur facilities.

b. All other organizations will contact RMB, TSCQ, for requesting Camp Upshur facilities. RMB, TSCQ, can be contacted by e-mail at MCBQ_RMB@usmc.mil.

2. The Director, RSU, will ensure that training activities to be conducted aboard Camp Upshur adhere to the policies prescribed by this Order. Training involving maneuvering or the use of blanks, Special Effects Small Arms Marking System (SESAMS) or pyrotechnics must be coordinated with RMB.

3. Any activities involving aircraft or Unmanned Aerial Systems (UASs) must be coordinated and approved by RMB.

4. Driver's Training activities are routinely conducted aboard the Camp Upshur parade deck. These events are not range activities and are incompatible with military training. In order to ensure efficient utilization of the parade deck the following procedures have been established:

a. Driver's Training will be assigned a RFMSS user account.

b. The Driver's Training RFMSS account will be placed in a hierarchy subordinate to RSU.

c. Use of the parade deck will be scheduled in RFMSS and forwarded by RSU for approval by RMB.

d. The Manager, Driver's Training Branch, will ensure personnel assigned to supervise Driver's Training courses are trained and equipped to maintain continuous communication with the RCF and to execute MEDEVAC procedures.

5. The land navigation and orienteering course located in the TA-17 series is maintained by RSU. It is available to other users by request.

a. RSU has 60-day priority of use.

b. The course can be requested by other units in RFMSS.

c. Course Materials

(1) RSU will maintain and issue course materials for units supported by RSU.

(2) TSCQ will maintain and issue course materials for all other units.

d. All units will check out the TA-17 series and applicable range materials from RMB scheduling.

e. Use of the land navigation and orienteering course does not prohibit co-use of the TA-17 series. RMB will determine compatibility of events for all co-use requests.

3009. FIRE TRAINING FACILITY COMPOUND

1. The Fire Training Facility is dedicated for use by, and is permanently reserved for, the MCBQ Fire Department. Activities to be conducted within the Fire Training Facility are scheduled through RFMSS.

2. The Fire Chief will ensure that training activities to be conducted within the Fire Training Facility adhere to the policies prescribed by this Order and National Fire Protection Association (NFPA) standards.

3. Confined Space Training System. Confined Space Training is routinely conducted within the Fire Training Facility compound by Marine Corps Embassy Security Group (MCESG) School.

a. Confined Space Training shall not be conducted in the Confined Space Trainer when live-burn training is being conducted within the Fire Training Center.

b. MCESG School will schedule Confined Space Training in RFMSS.

c. MCESG School will have qualified OIC and RSO to conduct Confined Space Training.

d. Ammunition is not authorized for use within the Confined Space Training system.

4. In order to ensure efficient utilization of the Fire Training Facility compound the following procedures have been established:

a. MCBQ Fire Department and MCESG School will be assigned a RFMSS user account.

b. Use of the Fire Training Facility Compound will be scheduled in RFMSS and forwarded for approval by RMB.

c. The Fire Chief will ensure personnel assigned to supervise fire training are qualified and equipped to provide oversight and safe conduct of all activities within the compound in accordance with NFPA standards.

d. Personnel conducting training will maintain continuous communication with the RCF and to execute MEDEVAC procedures.

e. Non-MCBQ Fire Departments must have an active MOA with MCBQ to conduct training. MCBQ Fire Station 3 will submit RFMSS requests for all non-MCBQ fire departments conducting any training within the complex.

5. Organizations other than the MCBQ Fire Department, MCESG School, and non-MCBQ Fire Departments with an approved MOA must receive written approval from the COMDR, MCBQ to use the compound before requests will be processed by RMB.

3010. MAINTENANCE/ENVIRONMENTAL PROJECTS

In order to provide a safe environment within the RTA regular maintenance and environmental projects are routinely conducted.

1. All personnel requiring access to the RTA in order to conduct maintenance/environmental projects will submit requests to RMB. The use of RFMSS is the primary scheduling method. Only urgent, non-routine requests will be approved without submission through RFMSS.

2. Scheduled maintenance/environmental projects have priority over all late requests.

3. Personnel entering the RTA for maintenance/environmental projects will check-in and maintain communication with the RCF prior to entry.

3011. RECREATION

1. The Lunga Park Recreation Area and athletic fields are designated as recreational areas aboard MCBQ. These areas have been specifically designed to provide a safe environment readily accessible to emergency response vehicles for sports and other recreational activities.

2. Any recreational activity to be conducted within the RTA (to include the WTBn ranges) must be specifically requested through and approved by RMB.

3. Recreational activities in the RTA are approved and scheduled after all training, maintenance and environmental projects have been approved and scheduled.

4. Reference (s) regulates hunting, fishing, trapping, and other wildlife related recreational activities within the RTA.

a. Access to approved areas will be strictly controlled.

b. RMB provides the NREA Branch a daily report of areas within the RTA safe for hunting, trapping, scouting and firewood collection during the base hunting season.

c. NREA will only approve access, during authorized seasons, into areas that have been designated as open by RMB. All other NREA access must be coordinated with and approved by RMB via RFMSS.

d. The Game Check Station will issue passes to enter the specific RTA indicated on the daily report.

e. The Guest Hunt Program and Wounded Warrior hunting and fishing activities, to include maintenance of stands, scouting and tracking, will be scheduled in RFMSS. Entry into any area within the RTA not specifically designated as open will be coordinated with and approved by RMB.

CHAPTER 4 AIRSPACE AND AIRCRAFT OPERATIONS

4000. SPECIAL USE AIRSPACE (SUA)

1. SUA. SUA is airspace of defined dimensions wherein activities must be confined because of their nature, or wherein limitations may be imposed upon aircraft operations that are not a part of those activities.

2. Using Agency. The using agency is the military unit or other organization whose activity established the requirement for the SUA. The using agency is responsible for ensuring that:

a. The airspace is used only for its designated purpose.

b. Proper scheduling procedures are established and utilized.

c. The controlling agency is kept informed of changes in scheduled activity, to include the completion of activities for the day.

d. A POC is made available to enable the controlling agency to verify schedules, and coordinate access for emergencies, weather diversions, etc.

3. Controlling Agency. The controlling agency is the Air Traffic Control (ATC) facility that exercises control of the airspace when an SUA area is not activated. A military ATC facility may be assigned as the controlling agency, subject to the concurrence of the service area office and the concerned Air Route Traffic Control Center (ARTCC). A controlling agency shall be designated for each joint-use SUA area.

4. Restricted Area. Restricted areas contain airspace identified by an area on the surface of the earth within which the flight of aircraft, while not wholly prohibited, is subject to restrictions. Restricted areas denote the existence of unusual, often invisible, hazards to aircraft such as artillery firing, aerial gunnery or guided missiles. Penetration of restricted areas without authorization from the "Using" or "Controlling Agency" may be extremely hazardous to the aircraft and its occupants.

5. Figure 4-1 details the airspace boundaries and Figure 4-2 depicts MCBQ SUA and the DEMO Military Operations Area (MOA).

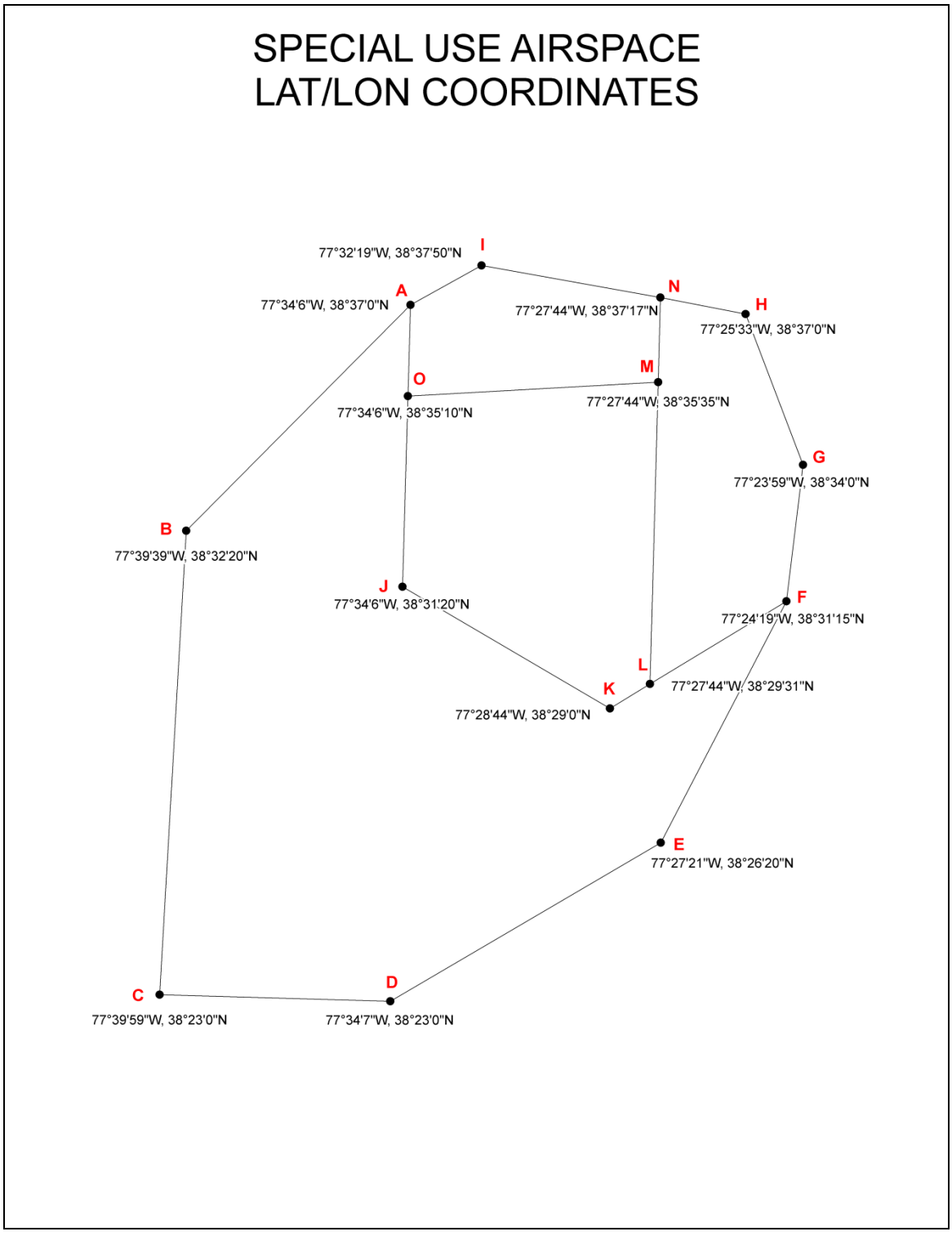


Figure 4-1 Airspace Boundaries

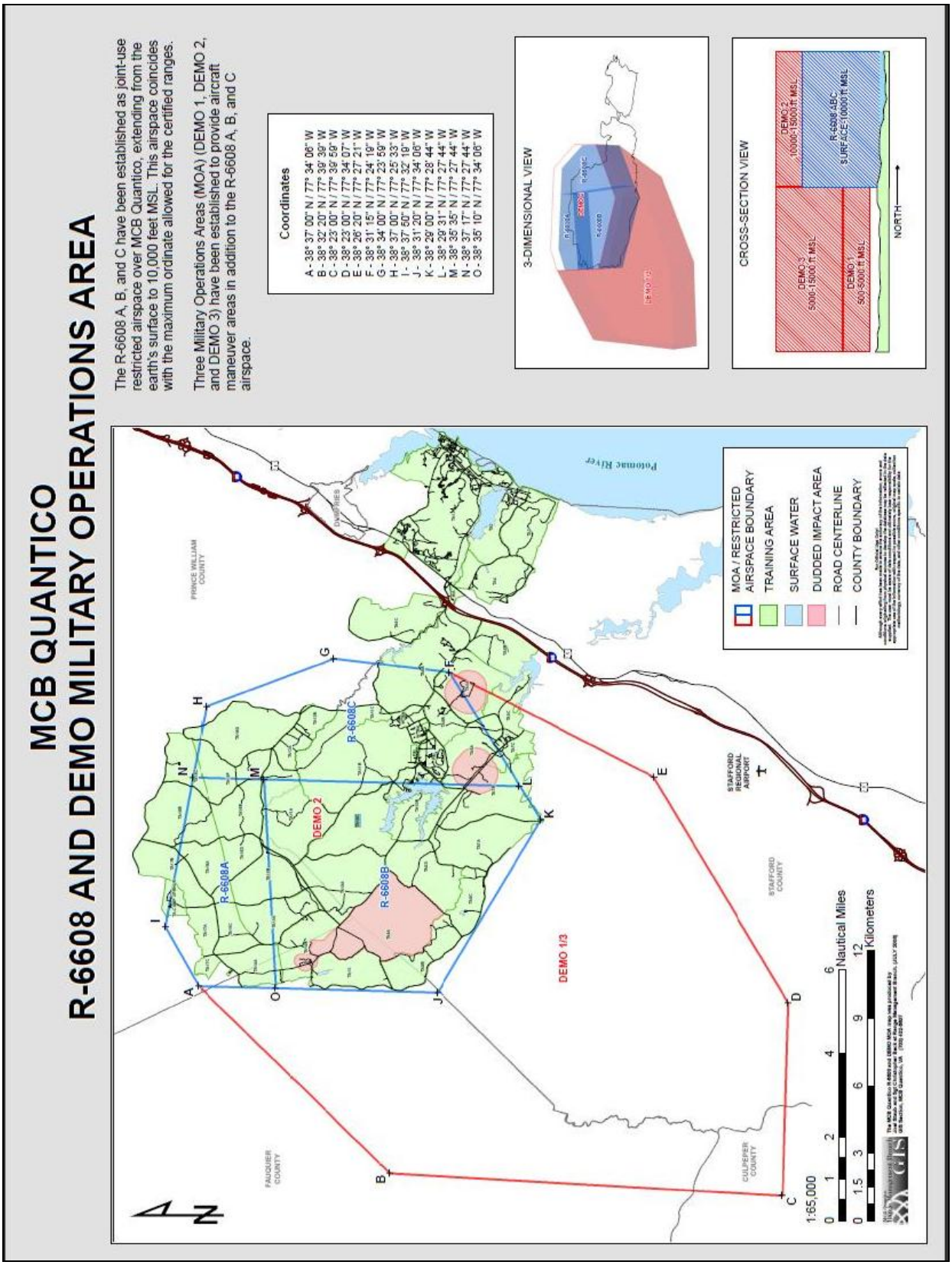


Figure 4-2 MCBQ SUA and DEMO MOA

4001. GENERAL

1. MCBQ Range Control is categorized as a Ground-Air Facility. Appropriate airspace control measures have been coordinated and established with the Federal Aviation Administration (FAA) to satisfy the range requirements for MCBQ while protecting aircraft from damage or destruction from live-fire. R-6608 and DEMO MOA have been established as joint-use airspace. The "Controlling Agency" for R-6608 and DEMO MOA is Potomac Terminal Radar Approach Control (TRACON) and the "Using Agency" is MCBQ. When open, MCAFQ provides range containment and advisory services for aviation training requiring R-6608 at or above 5,000 feet and/or DEMO MOA's activation. All airspace requests regardless of altitude will require coordination and approval by the RCF. Requests for LZs, DZs and ordnance release clearances require direct communication and authorization from the RCF.

2. R-6608 and the DEMO MOAs are listed in Flight Information Planning (FLIP) documents and are depicted in the FLIP high and low altitude en-route charts. Table 4-1 displays the designated Airspace Control Points. Table 4-2 contains the control points for Rotary Wing aircraft.

Table 4-1 Fixed-Wing Airspace Control Points

POINT	DESCRIPTION	GRID COORD	RADIAL/DME FROM BRCOKE (BRV)VORTAC	LAT/LONG
Chevy R-7 IP	Intersection of Rt. 17 and N/S power lines	TH 729543	301/12.3	38 24'29"N 77 36'03"W
Alpha	Finger extending into Smith Lake (Aquia Res)	TH 904628	353/10.0 NM	38 29'20"N 77 24'12"W
Bravo	Spillway at Breckinridge Reservoir	TH 916681	360/12.5 NM	38 32'13"N 77 23'28"W
Lima	Spillway at Lunga Reservoir	TH 853667	343/12.5 NM	38 31'22"N 77 27'46"W
Romeo	Red and White Tower with Silver Building (R-14)	TH 879731	353/15.5 NM	38 34'52"N 77 26'06"W
Sierra	Southern Finger of Lunga Reservoir	TH 830676	339/13.5 NM	38 31'49"N 77 29'22"W
Tango	The Basic School	TH 872641	345/11.0 NM	38 30'0"N 77 26'25"W
Uniform	Camp Upshur	TH 802785	343/20 NM	38 37'40"N 77 31'30"W
Whiskey	Northern Finger of Lunga Reservoir	TH 833692	341/14.5 NM	38 32'41"N 77 29'12"W
X-ray	David Crossroads White Tower	TH 791712	335/16.5 NM	38 33'43"N 77 32'07"W
Zulu	Northern Tip of Lake Arrowhead	TH 780651	326/14 NM	38 30'24"N 77 32'46"W

Table 4-2 Rotary Wing Airspace Control Points

HA ELLEN	HA SALLEY	HA WILMA	HA NOELLE	HA NADIA
817660	786657	763688	765740	785740
834660	816660	777683	782740	824740
835630	815646	786672	777721	798720
816646		779666	768724	

3. MCAFQ is located on the west bank of the Potomac River, 25 nautical miles south of Washington D.C. and 60 nautical miles north of Richmond, Virginia, at latitude 38° 30′ 08.91″N, longitude 77° 18′ 21.37″W. MCAFQ maintains Class "D" airspace around the facility 4 nautical miles from the center of the runway and from the surface to 2,500 feet MSL. MCAFQ additionally has radar-controlled airspace for arriving and departing aircraft to MCAFQ and three outlying fields. Additionally, the area includes Stafford Regional Airport, Shannon Airport at Fredericksburg, and the Naval Surface Warfare Center at Dahlgren. Vertical airspace in this area is from the surface to 3,000 feet MSL. Aircraft will establish communications with Quantico Tower or Quantico Arrival prior to entering Class "D" airspace or within 10 nautical miles northbound due to the Special Flight Rules Area (SFRA). It is recommended that all pilots flying under Visual Flight Rules (VFR) within 100 nautical miles of the DCA VOR/DME complete special awareness training for the Washington DC Metropolitan Area. This training is mandatory for all pilots that fly under VFR within 60 nautical miles of the DCA VOR/DME (14 CFR parts 61 and 91, effective February 9, 2009). This training is available in the Aviation Learning Center at http://www.faasafety.gov.

4002. AIRSPACE CONTROL PROCEDURES

1. General. All aircraft operating within MCBQ SUA shall check-in and out with the RCF before entering/departing the airspace. Unless otherwise coordinated, aircraft shall maintain communications with the RCF at all times while operating within the SUA.

2. MCBQ RCF Responsibilities

a. Approving arrival and departure of aircraft utilizing the SUA.

b. Approving arrival and departure of aircraft landing on any LZ.

c. Providing advisory service to aircraft entering R-6608 of the active airspace, "HOT" ranges/altitudes, concurrent ground and air operations/participants, and other pertinent information as required.

3. Lost Communications

a. Aircraft experiencing lost communications while operating in a SUA shall proceed with Naval Air Training and Operating Procedures Standardization (NATOPS) procedures and squawk transponder code 7600. Aircraft with a Beacon Code of 7600 represents that the aircraft has lost radio communications. The RCF and aircrew personnel should be alert for transmissions. The RCF will coordinate lost communication information with the appropriate agency. Aircraft may only have a bad transmitter. Aircraft should expect to perform "IDENT" procedures to establish that they are receiver only.

b. Aircraft experiencing an emergency while operating in a SUA proceed with NATOPS procedures and squawk transponder code 7700. Aircraft with a beacon code of 7700 represents that the aircraft is experiencing an emergency. If able the pilot in command shall relay aircraft identification, type of aircraft, nature of emergency, and pilot's desires. The RCF will coordinate emergency situations.

4. Advisories

a. All aircraft operating in SUA shall remain alert to RCF advisory calls. The RCF will provide safety advisories to the maximum extent possible about the presence of other aircraft, the location of "HOT" impact areas, or any other appropriate situational awareness advisories. All aircraft cleared into SUA must remain in Visual Meteorological Conditions. All aircraft must exercise extreme vigilance for unauthorized intrusions by other military and civil aircraft and be vigilant in their employment of VFR "see-and-be-seen" criteria to ensure avoidance of other aircraft operating in the SUA.

b. In order to ensure timely relay of advisories, aircraft shall maintain communications with the RCF at all times while operating within SUA.

4003. AIRCRAFT OPERATIONS

1. Fixed Wing Procedures for R-6608 & DEMO MOAs Entry and Exit

a. Prior to take-off, aircrews shall call RMB (DSN 278-5321/5322 or (703) 784-5321/5322) for a hot range brief. When applicable, liaison must be made with tanker assets before the mission for Aerial Refuel. The refueling track is NE-SW in Demo MOA 2.

b. If an aircraft is under the control of Potomac TRACON Facility, the pilot will be instructed to contact MCAFQ Arrival ATC on 290.375 or 127.05. Aircraft under VFR and not under the control of any FAA facility, shall contact MCAFQ ATC, call sign

"Quantico Range" on 346.25 five minutes prior to entering the R-6608 or DEMO MOA airspace.

c. The pilot must gain contact with MCAFQ ATC on 346.25 in order to receive clearance into the SUA. Expect an initial minimum altitude assignment upon initial entry into the SUA in order to remain clear of non-associated training hazards.

2. Check-In/Checkout

a. Before entering SUA, the aircrew shall contact the RCF on the range safety network (323.7). The pilot/flight leader checking in will provide:

(1) Call sign(s)

(2) Number and type of aircraft

(3) Number of personnel onboard

(4) Position/altitude and intention for SUA

(5) Ammunition types and quantity

Note: The RCF will provide a range brief.

b. All aircraft shall checkout with the RCF before departing the SUA. The pilot/flight leader checking out shall provide call sign(s) and departure direction/instruction, and the type and amount of ammunition fired.

c. Entry. Once aircraft have been cleared into the SUA, MCAFQ will issue a containment, refueling and exiting brief. If applicable, aircraft will verify Military Aircraft Assume Responsibility for Separation of Aircraft (MARSA) with MCAFQ ATC for refueling operations in Demo MOA 2. After all necessary information is passed from MCAFQ ATC, the aircraft will be instructed to monitor MCAFQ "Quantico Range" frequency 346.25 for the duration of the mission. Once refueling is complete, Close Air Support (CAS) aircraft will contact MCBQ "RCF". The pilot will then contact the Forward Air Controller (FAC) on the Tactical Air Direction(TAD) frequency provided by "RCF". Supporting ground Forward Air Controller (FAC) will obtain a "hot" range brief from the RCF before occupying the range. The FAC will ensure the pilot has checked in with the RCF before conducting any training.

d. Approximately 10 minutes prior to completing the mission, the pilot will advise MCAFQ ATC of the Estimated Time of Departure and any special requests. MCAFQ ATC will request the clearance if flying Instrument Flight Rule (IFR), or coordinate if VFR. Until cleared to depart, aircraft will remain within the SUA boundaries. Once aircraft have safely departed, the FAC

will check the aircraft out with the RCF and provide the type and number of ordnance expended, if applicable.

e. RMB schedules the Quantico SUA with Potomac TRACON. Airspace is scheduled 3 weeks in advance and is confirmed daily at 30 minutes prior and 10 minutes prior to activation and deactivation. By Letter of Procedure, the SUA cannot be activated for fixed-wing aircraft if they are not present. Therefore, the FAC must maintain communications with the RCF at all times while fixed-wing aircraft are in the SUA in support of training. If communications between the FAC and the RCF fails, the RCF will either establish communications with the aircraft or advise MCAFQ ATC to abort the mission and vector the aircraft out of the SUA.

NOTE: The following coordination applies when units/squadrons schedule airspace within R-6608 above 5,000 feet MSL or activation of DEMO MOAs 1, 2 and 3. Additionally, MCAFQ ATC is only applicable when the facility is open. Refer to appropriate Notice to Airmen (NOTAM) and other FAA publications for field hours.

3. Rotary Wing Procedures for R-6608 & DEMO MOA Entry and Exit. Prior to take-off, aircrews will call the RCF (DSN 278-5321/5322 or (703)784-5321/5322) for a hot range brief/frequencies. Prior to entering MCBQ restricted airspace or crossing toward the west over I-95 into the base boundary adjacent to, but not in the restricted airspace pilots will contact the RCF (call sign - "RANGE CONTROL"). The RCF will provide aircraft approval to enter the restricted airspace and pass an updated “hot” range brief. Aircraft not working with a FAC must check in with the RCF every 30 minutes to confirm their status. The OIC/RSO will include aircraft status in their normal radio checks with the RCF. Aircraft working with a ground FAC will then push to TAD frequency for CAS operations. All aircraft are required to notify the RCF prior to departing the airspace. The FAC must also confirm with the RCF that participating aircraft have departed. Aircraft sorties not scheduled on the Weekly Range Bulletin must notify the RCF of their requirements to enter the restricted airspace/western training boundary and hold outside the area until entry approval is coordinated.

4. Preferred Routing

a. Fixed-Wing IFR Stereo Routes have been created by MCIEast to flow aircraft originating from Marine Corps Air Station (MCAS) Cherry Point and MCAS Beaufort into the R-6608/DEMO MOA.

Stereo Routes:
NYG01 NKT..EWN..CVI..RIC..RIC345..COAT..BRV..NYG (Delay in R-6608) ALT FL210

NYG01R NYG..FLUKY..GVE..FAK..TYI..FEELY..NKT (Depart R-6608)
ALT FL220

NYG02 NBC..CHS.J79.TYI..RIC.RIC345..COAT..BRV.NYG (Delay in R-6608)
ALT FL290

NYG02R NYG..FLUKY..GVE..RDU..FAY..CHS..MICKK..NBC (Depart R-6608) ALT FL280

b. Aircraft not originating from NKT/NBC coming from the north or south should fly to the BROOKE VORTAC (BRV) before entry into the SUA. Flying to BRV will keep aircraft clear of the Dulles approach corridor before entry in the SUA. Flying to BRV is the only coordination fix available outside the Special Flight Rules Area prior to entry into R-6608 and DEMO MOAs.

c. Aircraft returning to points south will plan on departing the MOA and Restricted Airspace to the southwest until they are picked up by the appropriate controlling agency.

4004. AIRCRAFT COORDINATION AND CONTROL

1. Close Air Support

a. Special Instructions will be sent to RMB 30 days prior for coordination and de-confliction.

b. Combined air-ground exercises require positive control by a qualified FAC (7502 MOS) or a student FAC under the instruction of a qualified FAC and must have an OIC/RSO.

c. The FAC will go to RMB on the day of the exercise to sign for the RTA and receive a copy of the execution day hot range brief.

d. After control has been transferred from MCAFQ ATC, the RCF will direct aircraft to switch to the frequency of the assigned FAC.

e. CAS aircraft will adhere to the RCF "Hot" range brief and remain clear of adjacent "Hot" ranges, impact areas, TAs, or training facilities. The FAC will ensure Initial Points (IPs), headings, attack cones, maximum/minimum altitudes and egress routes safeguard supporting aircraft. Aircraft may transit "hot" areas only if above the minimum safe altitude for that area as briefed by RMB or the supporting FAC.

f. If the aircraft are used in conjunction with surface maneuver units/fires and/or indirect fire, the FAC must be located within the fire support coordination element, consisting

of forward observers or commanders of maneuver units which have communication with all units or elements. Additionally, the RSO must have instantaneous communications with the RCF and be located near the fire support coordination element so that the RCF may relay information through the FAC to the supporting aircraft.

2. Simulated Close Air Support (SIMCAS)

a. SIMCAS (rotary and fixed-wing) missions do not require a MOS-qualified FAC, unless conducted in conjunction with a live fire event. SIMCAS aircraft will be under the control of the supported ground unit.

b. SIMCAS aircraft will adhere to RMB "Hot" range brief and remain clear of adjacent "Hot" RTA. Aircraft may transit "Hot" areas only if above the minimum safe altitude for that area as briefed by the RCF or the supported FAC.

c. Upon completing the mission, aircraft will notify the RCF prior to departing the area. The supported ground unit will also notify the RCF when aircraft have departed.

3. Aerial Lasing

a. Aerial lasing is authorized in accordance with all applicable orders, regulations and current Laser Range Safety Survey Report. Laser operations are covered in detail in Chapter 7 of this Order.

4. Restrictions

a. The minimum altitude for aircraft flying over residential areas is 1,500 feet AGL.

b. The minimum altitude for fixed wing aircraft within the R-6608 airspace is 500 feet AGL.

c. Multiple fixed wing missions, **(maximum of 2 missions)** may be conducted in the R-6608 airspace at the same time. Arriving aircraft will be notified of other aircraft operating in the restricted area upon initial check-in with the RCF. Aircraft will adhere to VFR or see-and-avoid operations.

d. Aircraft must remain within the SUA until receiving flight clearance from MCAFQ ATC. Unscheduled exiting or spilling out may result in disruption of local civilian traffic and airspace safety. MCAFQ and/or Potomac TRACON make immediate notification to the RCF of any aircraft spilling out of the SUA. Spill-outs may result in termination of the training mission, whereupon their aircraft will be handed off to MCAFQ or Potomac TRACON for expeditious departure from the SUA.

e. In the event of an emergency, Potomac TRACON may request from the RCF the immediate release of the R-6608 A, B, or C, airspace and/or DEMO 1, 2, and 3 MOA. If this occurs, the RCF will then order all affected parties to terminate their training and advise Potomac TRACON when all parties have vacated the airspace and/or ceased fire. Potomac TRACON will then issue an expected time for return of the airspace to RMB.

f. Maximum trajectory altitudes for indirect fire weapons are not to exceed 10,000 feet MSL, due to maximum altitude of the R-6608 airspace.

g. The FAC must report all fixed-wing aircraft ammunition expenditures on the End of Training Report at the RCF. Additionally, all UXO must be reported to include a six-digit MGRS grid reference.

5. Hazards to Navigation

a. There are two large, free-standing communication towers along the boundary of the TA-9A Impact Area:

(1) Dirt 7 – 120 feet AGL at GRID 79847 66812 (352 feet ASL) Lat/Long 38 31’20.85’N / 77 31’31.28’ W

(2) Range 8 – 150 feet AGL at GRID 77646 68789 (407 feet ASL) Lat/Long 38 32’23.2’N / 77 33’4.45’ W

(3) There is a large, free-standing communications tower located at Building 24144 (RMB) in TA-5C – 200 feet AGL at GRID 87397 63516 (230 feet ASL) Lat/Long 38 29’40.75’N / 77 26’16.12’ W.

(4) There is a large, free-standing communications tower located at the MOUT Facility in TA-14B – 200 feet AGL at GRID 79407 72757 (390' ASL) Lat/Long 38 34' 33.28’N / 77 31' 56.13’ W.

4005. EMERGENCY RESPONSE TO AIRCRAFT MISHAPS

In the event of an aircraft mishap, RMB will be notified immediately. The MCBQ Fire Department will act as first responder to any aviation related mishap within the RTAs. Aviation mishaps occurring within dedicated high hazard impact area will be attended to with support from EOD. The information provided will include MEDEVAC information in accordance with this Order.

4006. AVIATION ORDNANCE DELIVERY

1. Rotary wing CAS aircraft will only engage targets within the SDZ as specified by the range description for the range being used. Targets will be engaged only under the direction of a FAC

(MOS 7502) or student FAC under the instruction of a qualified FAC. Aircraft using lateral weapons engagement (i.e., door guns) will be routed and controlled by the FAC so as not to present a hazard to ground troops or established facilities.

2. Fixed-wing CAS aircraft will only engage targets according to the range description for the range being used. Targets will be engaged only under the direction of a FAC (MOS 7502) or student FAC under the instruction of a qualified FAC.

3. Aviation Munitions Impact Points (AMIP) 7 and 8 are the only authorized targets for engagement by fixed wing aircraft with live general purpose bombs.

4. Aviation ordnance delivery will be terminated should any of the following conditions exist:

a. The CAS aircraft does not meet standard Cleared Hot/Abort Criteria.

b. The CAS aircraft lack positive identification of troop location(s).

c. The CAS aircraft lack positive identification of the target

d. Loss of direct communications between:

(1) The aircraft and the FAC.

(2) The FAC and the RCF.

(3) The aircraft and MCAFQ (containment).

e. The CAS aircraft lack knowledge of the location of other units.

f. The CAS aircraft loses visual observation of the target area.

g. If targeting equipment fails to operate or any aircraft failure that would affect accurate delivery of ordnance.

5. All types of aerial gunnery conducted without associated ground personnel (non-CAS delivered aviation ordnance) is a special request and must be coordinated with the RSS prior to approval.

6. Unobserved impacts will be handled in accordance with the instructions in paragraph 6014 of this Order.

7. A dry pass or range sweep for the entire range, focusing on the target area, will be accomplished to ensure personnel are clear from hazardous effects. Aircraft may use onboard sensors (advance targeting pods, sniper, lighting), or Unmanned Aerial

Systems (UAS) targeting payload in lieu of a dry pass. Terminal controllers observing the target area may waive the dry pass.

8. Prior to first weapons release/firing for each pass, final switch configuration will not be accomplished until the aircraft is in such a position that accidental activation or release will be contained within the range, and not represent a danger to ground personnel.

9. Aircraft will be a minimum of one switch position (excluding trigger) away from weapons release/firing when not oriented toward the target area unless approved by the RCF. Switch manipulation shall not occur until after safe recovery of weapons delivery/firing. Rotary wing aircraft will be in a safe condition prior to departing an aerial firing point unless otherwise directed.

4007. AVIATION ORDNANCE ARMING AND REFUELING

1. Rotary Wing Forward Arming and Refueling Points (FARP)

a. GP-44 may be used as Rotary Wing expeditionary FARP sites. All pertinent Orders and FM/TMs apply. Any unit desiring to use the FARP must specifically request to do so. RMB will provide safety data for rearming and conduct of the FARP.

b. Load/Arm facing impact area oriented on an azimuth of 135 degrees grid.

2. Table 4-3 contains the MCBQ Battle Positions.

Table 4-3 Battle Positions

RANGE POINT	LIVE-FIRE BATTLE POSITION	LOCATION	ORDNANCE	FIRING HEADING
7-A	ASP	79006655-79036652-79016658-79056655	7.62mm, .50 cal, 20mm, 2.75”	038
7-B	BOA	79676636-79736633-79666633-79736635	7.62mm, .50 cal, 20mm, 2.75”	006
8	CORAL	77636893-77936895-77646881-77946883	7.62mm, .50 cal, 20mm, 2.75”	091
15	EEL	78837088-78927096-78987074-79027084	7.62mm, .50 cal, 20mm, 2.75”	141

4008. HELICOPTER LANDING ZONES AND DROP ZONES

1. LZs

a. The locations of the LZs located at MCBQ can be found in Appendix J.

b. The establishment of permanent LZs aboard MCBQ must be approved by the COMDR, MCBQ. Use of all LZs west of I-95 must be specifically scheduled through Range Scheduling. Permanent

LZs will be maintained as required and rehabilitated annually to ensure their continued usability.

c. The following LZs are permanently reserved:

(1) LZ-6 and LZ-7 are permanently reserved for TBS use. TBS will cease training in these LZs in the event of an air MEDEVAC.

(2) LZ-9 (co-located on WTBn Range 4) is permanently reserved for WTBn use. WTBn will cease training on Range 4 and in this LZ in the event of an air MEDEVAC.

(3) LZ Roadrunner (the Camp Upshur parking lot/parade deck) is permanently reserved for RSU use. Use of the parade deck must be approved by the Director, RSU. RSU will cease training in this LZ in the event of an air MEDEVAC.

d. Aircraft conducting personnel inserts and extracts will be under the direction of the supported ground unit. The OIC/RSO will report aircraft status when normal radio checks are conducted with the RCF.

e. Rotary Wing aircraft wishing to execute LZ practice approaches and landings will obtain approval from the RCF ensuring the zones requested are not occupied.

f. LZ handbooks are available through the Geographic Information Systems section at (703) 432-6607 or on RMB website in the Airspace section.

2. DZs

a. The locations of the DZs located at MCBQ can be found in Appendix J.

b. DZ exercises are authorized at DZ Redwing, Raven, and Cockatoo.

c. Whenever a DZ is being used for parachute operations, a DZ Control will be established in the zone to control operations. DZ Control is responsible for coordinating with the RCF at the commencement of operations and every hour thereafter until the operation is complete.

d. Conduct of parachute operations in any other location requires approval from RMB.

4009. UNMANNED AERIAL SYSTEMS (UAS)

1. All UAS exercises will be contained within the R-6608.

2. UAS will fly within elevation requirements scheduled and approved by the Scheduling Section, RMB.

3. UAS must have a manufactured design that prohibits it from leaving its allowed airspace in a case where the flight control system fails.

4. UASs will not fly over occupied buildings, RTAs or recreational areas (except those occupied by using/testing unit) unless coordinated with and approved by the RCF.

5. Recovery of downed UAS will not disrupt scheduled training. If a UAS is down in any duded impact area it will not be recovered without EOD support.

6. Independent UAS operations do not require an RSO or OIC. Similar to independent aerial operations, the certification procedures to operate UAS include safety procedures for the systems. Personnel responsible for an RTA solely for the purpose of launching, recovery and flight of UAS must be familiar with RTA operating procedures prior to occupying the RTA. All other RTA regulations apply (communications, MEDEVACs, scheduling, etc.).

7. The training/testing unit must have an established UAS SOP and provide a copy to the RCO for review prior to any training or testing being approved. The RCO will ensure the unit receives familiarization with RTA procedures during the review process.

8. UAS operations will not be conducted within 500 meters of the installation boundary without specific approval of RMB

9. The RCO will review and approve all UAS training/testing.

4010. WEATHER MINIMUMS

1. For aircrews inbound to R-6608 current weather conditions are available from the Weather Section, MCAFQ (DSN: 278-2298).

2. If at any time the controlling FAC and/or participating aircrew determine the weather conditions in the R-6608 airspace are "unworkable" or present a hazard, flight operations will be terminated regardless of reported conditions from the MCAFQ Weather Section.

CHAPTER 5 RANGE, TRAINING AREA, AND TRAINING FACILITY OPERATING PROCEDURES

5000. GENERAL

1. The using unit commander is responsible for the scheduled RTA, all actions and conduct of unit personnel, and the use or employment of equipment.

2. Using units may check out but not occupy a scheduled and approved RTA up to 24 hours prior to the scheduled use time.

a. Only the OIC/RSO may check-out the scheduled RTA. Check-out must occur during the specified business hours of 0700-1600.

b. If the OIC/RSO is unable to meet their scheduled range check-out or occupy time they must notify RMB Scheduling Section.

c. Pre-staging of ammunition is authorized if specified on the original RTA request and coordinated with RMB.

3. Extensions to live firing times must be coordinated with the RCF. High Explosive Ordnance firing times will not be extended past the scheduled "hot" times during Quiet Hours. Extensions beyond 2400 will not be granted without a previously approved SUA request.

4. Brief descriptions of the RTAs and training facilities available for scheduling can be found in Appendix K and on the RMB website at http://www.quantico.usmc.mil/opm/?m=rmb&a=ranges.

5001. CHECK-IN AND CHECK-OUT PROCEDURES

1. Training Areas

a. The OIC/RSO is required to physically check-in at RMB and sign for the scheduled RTA for training evolutions and maintenance operations. This must be done during the specified business hours of 0700-1600.

b. Check-out will be completed in the RTA with RMB personnel during daylight hours. If training ends during the hours of darkness check-out will be delayed until the following day in order to facilitate a post inspection.

(1) Urban Facility check-out will be conducted with the assistance of the TSCQ.

(2) Units that will conclude training during the hours of darkness must schedule an additional day in order to conduct cleanup and complete the post inspection.

c. Foot movement routes and tracked vehicle routes throughout the RTAs must be scheduled prior to use.

d. OIC/RSO must contact the RCF immediately prior to conducting their Hike/Track route.

e. Maintenance units/personnel will check-in at RMB and sign for any keys required.

2. Live-Fire Ranges

a. Prior to reporting to RMB, the OIC and RSO will be completely familiar with the contents of this Order and all other applicable orders pertaining to range safety.

b. The OIC/RSO may obtain all pertinent information concerning heat stress data, fire danger classification index, range descriptions and weather reports from RMB.

c. The OIC/RSO will contact RMB with any concerns or potential safety issues prior to commencing training.

d. RTA gate keys are issued to the OIC/RSO for access to their assigned areas only.

(1) Keys will not be issued to any gate that allows access into an SDZ for non-associated training.

(2) Any gate opened must either be relocked or posted with a gate guard.

e. Any RTA affected by an active SDZ is closed to other use without prior approval from RMB.

3. End of Training/Maintenance Activity Report Usage Data. Information for an End of Training/Maintenance report will be reported to the RCF. Units occupying more than one location will report in the following manner:

a. When a training unit uses multiple ranges, the OIC/RSO will annotate the quantity of munitions expended on each range.

b. When using multiple TAs and LZs, the OIC/RSO will provide the quantity of munitions expended for each area.

c. For exercises maneuvering over vast spans of RTA, the OIC/RSO will provide quantities of munitions by key locations where most expenditure took place.

4. WTBn Range Operations

a. The CO, WTBn maintains a range safety program for WTBn personnel.

b. The OIC/RSO on WTBn ranges is responsible for informing WTBn S-3 prior to conducting any activity or changing of the training status on the range.

c. The OIC/RSO of each WTBn range is responsible for following all communication requirements with the RCF outlined in this Order.

d. The WTBn S-3 will control and approve downrange movement for WTBn ranges from the number boards forward.

e. Access to the impact area behind the number boards is approved only by RMB.

5002. AUTHORIZATION TO FIRE

1. A Range Firing Warning and Airspace Utilization Order will be produced for each day by RMB and promulgated by the COMDR, MCBQ in the form of a Weekly Range Bulletin.

2. No firing will be conducted unless it is approved in RFMSS, or authorized by the RCO. In addition, authorization to fire must be obtained from RMB via the RCF immediately prior to firing.

5003. RANGE CONTROL FEATURES

1. Signs and Markers. Signs and markers are provided on all ranges to indicate lateral limits and other information. Signs and markers are described below.

a. Lateral and Rear Limits Signs. Range limit markers will be placed on all ranges to identify left and right range limits for direct fire weapons. The left and right sides of Bullet Traps serve as lateral limit markers. All direct fire weapons will fire between the inside edges of the limit markers only. Under no circumstances will weapons be fired outside these limits. Range markers must not be used as targets. Units destroying range markers will be reported to the RCO and a range violation will be issued.

b. Range Name Sign. A sign bearing the range name for each range.

c. Impact Area Sign. A sign warning personnel of live-fire impact areas.

d. Off-Limits Signs. A sign warning that the area is off-limits by order of the COMDR unless scheduled through the MCBQ RMB.

e. Additional Signs. Self-explanatory in nature, signs announcing specific instructions or precautionary measures are posted at certain TAs as deemed necessary by RMB.

2. Gates and Road Guards

a. Either gates or guards shall cover normal approaches to danger areas created by unit training events. Gates combined with appropriate warning signs are adequate and guards are not required except in special cases as noted in this Order. Range Gates consist of heavy posts, embedded on both sides of the road or trail.

b. Road Guards

(1) Road guards shall be posted to prevent entry into the danger areas that cannot be observed, or which do not lie within the established impact areas.

(2) OIC/RSO may post additional road guards, as necessary, to ensure safety. The arbitrary blocking of roads or the denial of access to an area other than a danger area is not permitted.

(3) Road guards shall be provided with a means of communication by the unit posting them. Road guards shall also be provided with some means of lighting for the identification of their positions from sunset to sunrise.

3. Barricades, when required, will be provided by Range Control for all roads and trails leading into the restricted area. There are 3 types of barricades:

a. Portable barricades consisting of a sawhorse-like structure at least 2 feet high, placed directly across the road.

b. Portable water-filled barricades placed across the road or trail to restrict access.

c. Cones with fluorescent tape strips placed across the road or trail to restrict access.

4. Air Sentries

a. Aeronautical charts limit aerial access to ranges within restricted areas. However, when conducting live-fire on ranges air sentries shall be posted to identify and report incursions by non-participating aircraft.

b. Air sentries shall be provided with a means of communication by the unit posting them.

c. OICs/RSOs may post additional air sentries, as necessary, to ensure safety.

5. Warning Flags and Warning Lights. During daylight hours, the warning flag shall be raised whenever firing is in progress. During hours of darkness on authorized ranges, a red light will

be raised up the flagpole and shall be illuminated whenever firing is in progress.

5004. COMMUNICATIONS

1. Two means of communications are required between the using unit and Range Control. Enterprise Land Mobile Radios (ELMRs) are the primary means of communications. Tactical radios may be used as primary communication when an ELMR is not available. Tactical radios or telephone may be used for the alternate means of communication. Units will monitor the Range Control Safety Network to ensure constant, continuous communication. The RCF is the network control, call sign "RANGE CONTROL," on the ELMR Range Safety channel; 323.7 Ultra High Frequency (UHF) (air). The RCF telephone numbers are (703) 784-5321 and (703) 784-5322.

a. It is the training unit's responsibility to establish and maintain constant and continuous communication with the RCF. Any delay of communications constitutes a serious threat to operational safety.

b. A unit must cease firing/training if communication with the RCF is lost. Training may not be resumed until communication is re-established and approved by the RCF.

c. Continued failure to maintain communication will result in notification of the parent command and corrective action by the RCO.

d. Administrative traffic over the Range Control Safety Network is prohibited.

e. The following radio/communications checks/transmissions are required:

(1) Unit occupies RTA

(2) Request "hot" status for live-firing ranges/airspace

(3) Radio check every 30 minutes on the hour and 1/2 hour for live-fire ranges, every 3 hours on the hour for non-live-firing events

(4) All MEDEVACs

(5) All fires regardless of size or intensity

(6) When entering or "check-fire" status for any reason

(7) Request for "cold" for live-firing ranges/airspace

(8) End of training reports

(9) Unit departs the RTA

f. Units that have ceased training but are remaining in the field (i.e., overnight bivouac) are required to maintain constant communication with the RCF and make radio checks every 3 hours.

2. When operating within the RTA units will use their occupied range or TA as their call sign (i.e., "Training Area 8", "Range 7" or "MOUT Facility").

5005. POLICE OF RANGES, TRAINING AREAS, AND TRAINING FACILITIES

1. Police of RTAs is the responsibility of the using unit. Units must properly police all assigned RTAs. Failure to conduct proper police call will result in returning to the training location and repeating the police call.

2. Before securing from the RTA, each using unit will thoroughly police the area to restore it to the same state of police as prior to training.

a. When the assigned unit has completed the police call, the OIC/RSO will request a post inspection. Requests for post inspections aboard WTBn ranges will be submitted to WTBn S-3.

b. When training in a MOUT facility only, Tactical Training Support (TTS) personnel from the TSCQ will provide a MOUT post inspection checklist to the training unit. The TTS will conduct a preliminary walk-through of MOUT facilities prior to the OIC/RSO requesting a post inspection.

c. The RCF will dispatch a range patrolman to the appropriate RTA. WTBn S-3 will dispatch personnel to the appropriate WTBn range. When training in a MOUT facility, the TTS will provide the patrolman an initial assessment of checklist items to focus the post inspection.

d. The post inspection will be conducted with the OIC/RSO.

e. All solid waste brought to RTAs and training facilities, including cardboard, wrapping materials, food waste, communication wire, expended brass and ammunition containers must be removed from those areas. No unit will depart from their training location until that area is in proper state of police.

3. RMB post training inspections are only conducted during daylight hours. Units securing from RTAs during hours of darkness will ensure that the OIC/RSO and range patrolman/WTBn S-3 representative inspect the area the following day. Post inspection must take place before the next scheduled unit can occupy the range.

4. If, upon arriving at a RTA, the training unit finds the area police to be unsatisfactory, the unit OIC should IMMEDIATELY report the discrepancy to the RCF for the record and corrective action to be promptly initiated. Discrepancies on WTBn ranges will be reported to WTBn S-3.

5. Formal schools aboard MCBQ will plan appropriate time for police of RTAs as an integral part of each Program Of Instruction.

a. Specific use of TAs for designated field exercises on the same terrain (fixed positions along regular routes/legs) will require a complete police at the end of the training.

b. Formal schools may be required to conduct a periodic general clean-up of the TAs that they routinely use as coordinated by the Operations Division, MCBQ.

6. Maintenance units must remove all excess and scrap materials and debris upon completion of their work.

7. Graffiti will not be tolerated and perpetrators will be punished to the full extent of the law and UCMJ.

5006. POST TRAINING INSPECTIONS

1. RMB patrolmen and WTBn S-3 will conduct post inspections to verify strict adherence to regulations, ensure proper state of police, and note required maintenance. WTBn will conduct a thorough post inspection before any non-WTBn unit occupies a WTBn range.

2. All patrol and inspection reports will be turned in to RMB Project Manager, the RCF and/or WTBn S-3 as applicable.

3. The following are procedures and standards to which the RTA will be inspected on post inspections:

a. Post inspections will focus on the police of the facility and the maintenance state of the facilities, ranges, LZs and DZs.

b. The entire RTA will be inspected. Some facilities may require inspecting personnel to walk the length of the range or training facility to ensure complete coverage.

c. Certain facilities, ranges, LZs, DZs, and UTFs may have specific police call standards. The general standards of police for RTA are as follows:

(1) All brass and other ammunition casings, machine gun links, plastic practice rounds that have not broken, pyrotechnic cases and parachutes, MRE/rations trash, any components of ammunition (except munitions components known as hazardous),

components of targets or expedient/improvised targets, and trash must be removed by the unit on the range at that time.

(2) Barbed wire, concertina wire, sand bags, engineer tape, abatis or other obstacles, debris/ashes from warming fires, and training devices must be removed.

(3) Any contracted services or support (i.e. portable toilets) must be retrieved or scheduled for retrieval within one day after the units' departure. If there is a scheduled retrieval, the OIC/RSO is responsible to ensure that it is retrieved as planned and will note the scheduled time in the RFMSS request.

(4) Units utilizing LZs and DZs are responsible for policing 25 meters into the tree line surrounding their area.

(5) Units utilizing MOUT facilities will coordinate with the TTS to receive the MOUT post-inspection checklist for their specific facility, and for a walk-through prior to arrival of the inspecting patrolman.

d. Patrolmen will inspect RTA maintenance on patrols and during inspections to ensure all facilities are safe, accessible, and within training standards.

e. At the completion of the inspection, inspecting personnel will gather all inspection sheets and determine if the RTA is in a satisfactory state of police and verify that the unit has provided its end of training report to Range Control.

f. If the RTA is in a satisfactory state of police, the Patrolman will sign the post inspection, collect all paperwork and gear and return them to RMB. WTBn S-3 will collect inspection paperwork and range gear for WTBn ranges.

g. If RTA policing is unsatisfactory, inspecting personnel will inform the OIC/RSO of the discrepancies cited on the inspection sheets and coordinate with the RCF or WTBn S-3 as applicable for a follow up inspection.

5007. DAMAGE TO FACILITIES

1. The CO of the using unit is responsible for all damages to the RTA, structures, and training devices within the RTA during the scheduled period. If damage is noted upon arrival at a RTA, the OIC will immediately notify the RCF or WTBn S-3 as applicable and record the damage. Failure to do so will result in the using unit being held responsible for the damage.

2. Damage caused by the using unit will be reconciled with RMB Range Complex Development Section, TSCQ, and the Range Resource Manager.

3. Units will be held accountable for damage to RTAs or range systems determined to be caused by misuse, abuse, or violations of this Order or the range SOPs.

5008. RANGE, TRAINING AREA, AND TRAINING FACILITY RESTRICTIONS

1. General

a. Live-fire will be conducted on authorized ranges and range TAs only. This does not prohibit the use of blank ammunition, SESAMS, training Improvised Explosive Devices (IEDs) or other training devices provided by Contractor Operated and Maintenance Support and the Tactical Engagement Simulation System (TESS) issue points within the non-live-fire portions of the RTAs.

b. Non-participating personnel and units are not authorized on ranges or within TAs without the approval of the RCO.

c. Units are prohibited from blocking or denying access to any open roadway within the RTA.

2. To promote the maximum use of the RTA and assure safety of all users, various limitations on users' freedom of action must be established. The following apply:

a. Conduct of all live-fire operations must strictly follow this Order and all applicable FMs/TMs.

b. All personnel and units will observe all RMB measures (i.e., limit markers, limits of advance, azimuths of fire, charges, surveyed firing positions, etc.) detailed in this Order and the individual Range SOP issued by RMB.

c. Personnel and units will only occupy or use those TAs for which they have been scheduled and approved. Area boundaries are clearly defined by readily recognizable and prominent terrain features or barriers.

d. RMB is the ONLY unit that controls access to, and the use of, the RTA west of I-95. Entry and access to WTBn ranges must be coordinated with WTBn S-3 prior to RMB approval.

3. Range SOPs provide specific information and restrictions for each individual range.

4. TA boundaries are delineated on the MIM. Current maps are available at RMB on a limited basis.

5. Any additional restrictions and special instructions will be briefed to the OIC/RSO at the time of check-in.

6. The minimum engagement distance of steel targets with 5.56mm and larger is 100 m. Targetry with steel bases must be

sandbagged or protected with an approved ballistic material in order to be engaged at closer than 100 m.

7. Authorized Vehicles

a. Authorized Vehicles. Four categories of vehicles are allowed in the RTAs:

(1) Tactical vehicles

(2) Non-tactical government vehicles

(3) Government-leased vehicles

(4) Government contractor's vehicles

b. Speed Limits. The maximum speed for all vehicles operating throughout the MCBQ RTAs is 35 miles per hour (mph) on unimproved roads and 45 on improved roads. Non-emergency GOV and GME vehicles will not exceed 45 mph. When passing troops, the speed limit is 10 mph. During poor or inclement weather conditions this should be further reduced depending upon road conditions.

c. Vehicle Convoys. The Convoy COMDR must maintain radio communications with Range Control while conducting convoy operations throughout the RTAs. Vehicle Convoys will not conduct blackout operations without prior approval from Range Control.

8. PT. PT within the RTA Complex in any manner other than those specified in reference (v) is prohibited. Personnel conducting authorized PT will not bypass locked gates under any circumstances.

9. Alcohol. Alcohol is not allowed within the RTA.

10. Foot Marches and hikes. A foot march or hike is defined as the organized foot movement of any distance by a unit of any size on the roads, trails or any TAs within the RTA. Hike formations on or in the immediate vicinity of primary roadways will travel in two columns, one on each side of the road. Personnel will stay off the main portion of the road whenever possible. Trailing vehicles will remain behind the right-hand column, as far to the right as possible.

a. TBS is authorized to make administrative movements on Application Trail for the purpose of training at WTBn.

b. TBS is authorized to conduct orientation hikes of less than 3 miles in proximity of Camp Barrett without scheduling in RFMSS.

(1) The OIC will call the RCF to report the route, confirm communication, and indicate the step off time.

(2) The OIC will call the RCF and report conclusion of the event.

(3) The OIC will call the RCF to report any casualty.

(4) The Basic School S-3 will ensure that medical support is on stand-by in Ray Hall before orientation hikes occur. Orientation hikes conducted when Ray Hall is secured require a Field Medical Technician HM/8404 Corpsman be present for the training.

c. Routes for foot marches will be included in the initial RTA request in RFMSS.

d. Foot marches in the immediate vicinity of primary roadways require traffic guards outfitted with reflective vests and stationed 50 meters in front of and to the rear of the column. During periods of reduced visibility, blinking lights will be positioned 100 meters to the front and to the rear of the column.

e. The OIC/RSO will maintain communications with the RCF throughout the march.

11. Quiet Hours. Quiet Hours promote good community relations. Quiet Hours are in effect for all munitions greater than 7.62mm from 2200-0600 daily and from 0001-1200 on Sundays. Units with valid training requirements requiring the use of munitions greater than 7.62mm and high explosive munitions between the hours of 2200-0600 daily and from 0001-1200 on Sundays must submit a request for extension of Quiet Hours to the COMDR, MCBQ via the Director, RMB.

12. Live Fire Hours. Live fire will only be conducted aboard MCBQ ranges between 0500 and 2400 daily. Any request to deviate from these approved times must be submitted at least 14 days prior to the scheduled training date.

13. Dud Impact Areas. Only the MCBQ EOD section is authorized unescorted access into the dud impact areas. Digging of any type in impact areas is prohibited unless approved by the Director, RMB. All material (scrap metal or other fragments from munitions) found in the dud impact areas will be treated as containing explosive residue. No materials will be removed from the dud impact areas without approval from the Director, RMB.

14. Range Modifications/Improvements. MCBQ RTA may not be modified or altered without written approval from the COMDR, MCBQ.

15. Engineer Training. Engineer assets to be used in training will be specified in the RTA Request as well as a description of the type of training to be conducted (i.e., obstacles,

emplacements, tank traps/cribs, wire barriers, materials to be used, etc.). All RTA must be returned to their original state upon completion of training. Additional guidance is available at RMB. The following restrictions apply:

a. No heavy equipment or obstacles will be placed in the restricted areas, on the hard surface roads, on gravel roads, or within 50 feet of a culvert.

b. Any tactical roadblocks such as practice mines, trees, concertina wire, etc., must be manned at all times and allow for non-training vehicles to freely access the RTA.

c. Units desiring to construct temporary facilities must submit their request to RMB.

16. Tracked Vehicles. Caution will be used to minimize the negative effects Tracked Vehicle use has in the RTA. Additional guidance is available at RMB. The following restrictions apply:

a. Tracked Vehicles will only travel on improved roads and established unimproved roads that have been requested and approved by RMB. Operation on firebreaks is strictly prohibited.

b. Wheeled escort vehicles are required in the front and rear of any Tracked Vehicle unit while traveling on improved roads.

c. Dismounted road guards with florescent vests are required while crossing any paved surfaces. Between the hours of sunset and sunrise the road guards will also be equipped with flashlights. Once a paved surface has been crossed, the roadway will be swept clear of all debris.

d. Neutral Steers are prohibited in the RTA.

e. Tracked vehicle operators will make every effort to preserve the unimproved surface roadways. Hard steers that are likely to result in significant damage will be avoided. Units may be held responsible for the repair of roads that are damaged by excessive tracked vehicle use.

5009. TRESPASSING

1. Persons who enter the RTA without authority from RMB or who violate laws or regulations once allowed onto MCB, Quantico property will be reported to the Game Warden or Provost Marshal's Office (PMO).

2. RMB, PMO, the Game Warden, and all using units will take precautions to ensure:

a. No unauthorized persons enter a SDZ before or during firing.

b. No unauthorized persons are in the RTA during live firing. The firing unit must maintain presence throughout RTA to deter unauthorized entrance, dumping, and poaching.

3. Unless scheduled, no person will depart from an asphalt surface road within the RTA without first receiving permission from the RCF.

4. Use of privately-owned All-Terrain Vehicles (i.e. 4x4s, motorcycles, quad runners, etc.) on improved surface roads or trails within the MCBQ RTA is strictly prohibited unless approved by RMB.

5. Unauthorized personnel and vehicles found within range boundaries, spotted by either an airborne crew or authorized ground personnel, is cause to abort all hazardous activity.

5010. FOULED RANGES

It is possible for unauthorized personnel and vehicles to trespass onto RTAs and foul target complexes or RTAs. Fouled ranges not only hamper mission readiness, but also pose a significant hazard to the trespassers themselves. In order for MCBQ to determine the magnitude of this dilemma and apply appropriate corrective measures, documentation is necessary. Any training event interrupted or aborted due to a fouled range will be immediately reported to Range Control. If a training event is interrupted or aborted due to a fouled range, Range Control will make every effort possible to relocate or reschedule the event.

5011. NON-LETHAL WEAPONS

1. General. The term “non-lethal” should be understood as a function of intent. It is a goal, not a guarantee for these weapons. The RCO must approve the concept of employment of any non-lethal weapons not previously addressed in this Order.

2. The OIC and RSO for non-lethal weapons must be an E-6 (SSgt) or above.

5012. OFF-LIMITS AND RESTRICTED ACCESS AREAS

1. All cemeteries, burial plots, significant pre-historic, and historic sites will be avoided. Training units will bypass all such areas by at least 50 m.

2. Access to all areas west of I-95 requires specific approval and coordination with RMB to maintain real-time accountability and control.

5013. RANGE VIOLATIONS

Infractions will result in a range violation. Range Operations personnel are the issuing agents for these violations. In the event of a violation, all training may be halted until corrective action has been taken. OIC/RSO privileges may be revoked by the RCO based on the severity of the infraction(s).

Warning: Failure to comply with these regulations may subject the offender to administrative action or disciplinary action under the UCMJ. COMDRs of organizations using the ranges of are encouraged to submit recommendations, improvements, or changes to the COMDR MCBQ, G-3.

5014. MODIFICATIONS TO EXISTING RANGES/TRAINING FACILITIES

Units identifying a requirement for new ranges or training facilities will submit requests to RMB. The request must include:

1. The purpose of the modification.
2. The training requirement the modification will support.
3. The scope of the modification and a recommended design.

CHAPTER 6 SAFETY PRECAUTIONS AND PROCEDURES FOR AMMUNITION AND WEAPONS

6000. GENERAL

1. Safety precautions as prescribed in appropriate Warfighting/ FMs and TMs, reference (a) and this Order will be strictly adhered to for all weapons and ammunition employed in the MCBQ RTA.

2. Safety Equipment

a. PPE will be worn as prescribed in Appendix L per reference (a). Additionally, helmets and body armor will be worn by personnel, participants and observers on all high explosive munitions or demolition live-fire ranges. All personnel will wear hearing protection during all live and blank firing.

b. Red flags provided by RMB must be displayed from range flagpoles during all live firing.

c. Red or amber blinking lights provided by RMB will be placed on the range flagpoles during night firing or periods of reduced visibility.

d. Red smoke grenades and red pyrotechnics will only be used as emergency signaling devices. These devices may not be used for training. Using units must provide any emergency signals.

e. Blank Firing Adapters (BFAs) will be used with all weapon systems designed for their use when firing blanks.

3. No experimental, non-standard or POWs and/or munitions will be used aboard MCBQ without prior written approval by the COMDR, MCBQ.

4. Battlefield Effects Simulators, training IEDs and simulators, or any other authorized training support device shall not be altered from its original operating condition or be connected to any other pyrotechnic or simulation device without prior approval from RMB and the TSCQ.

5. The ammunition authorized for use on MCBQ RTAs can be found in the Authorized Ammunition Matrix found in Appendix M.

6001. TRANSPORTATION, HANDLING, AND STORAGE OF AMMUNITION AND EXPLOSIVES

1. General. Ammunition & Explosives (A&E), regardless of type, quantity, or location must meet basic minimum safety and security requirements established in reference (x) governs policies and procedures associated with the use, storage and

accountability of Class V "W" A&E. Reference (t), Marine Corps Ammunition Management and Explosive Safety governs policies and procedures associated with the use, storage and accountability of Class V "W" A&E. Reference (y) governs transportation of A&E and related HAZMAT.

2. Qualified Drivers. All drivers/operators of government-owned vehicles transporting A&E on or off MCBQ RTAs will meet specific administrative and medical criteria. These individuals must be qualified as an explosive driver as outlined in reference (t).

3. POVs. Using POVs aboard MCBQ RTAs to load, store, or transport ammunition, pyrotechnics, or explosives of any kind, for military training is prohibited.

4. Ammunition Handling. MCBQ POCs for Ordnance concerns is the Explosive Safety Officer (ESO) at (703)432-1092 (commercially)/378-1092 (DSN), or EOD at (703)784-5314 (commercially)/278-5314 (DSN).

a. Duds

(1) A dud is ammunition, of any caliber or weight, that has been fired, placed, dropped, thrown or launched, but which fails to function as designed. Duds are commonly referred to as UXO. If units plan to train with dud-producing munitions, they must provide EOD support and all duds must be cleared prior to departure of the unit. Duds found outside an impact area, or in a TA, must be reported to Range Control immediately. Do not disturb a dud or UXO in any manner.

(2) The OIC will report all UXO (dud) ammunition to the installation RCO. In the case of grenades or other munitions that may be immediately hazardous to personnel (that is, bursting radius), firing will be halted until qualified EOD personnel clear the dud. In other cases, firing need not be halted.

NOTE: Demolition materials like C4 or TNT which fail to function are misfires, not duds.

b. Misfires and Hang Fires

(1) General. A misfire is defined as the failure of a primer or the projectile propelling charge to function, a line charge or demolition material which fails to function. In the interest of safety, all misfire procedures shall be completed on the range.

(2) Misfire procedures in training manuals for the appropriate weapon system will be followed. In the event

misfires present an immediate hazard to personnel or a ceasefire is necessary, they will be reported to Range Control.

(3) Hang Fire. An undesired delay in the functioning of a firing system. A hang fire for a rocket occurs if the rocket propellant is ignited by the firing impulse, but the rocket fails to exit the launcher within the expected time frame. A hang fire occurs when a Tube-launched, Optically-tracked, Wire-guided missile (TOW) fails to launch, but internal components of the missile, such as batteries and gyros, are initiated. If a TOW hang fires, contact Range Control to request EOD assistance. A TOW hang fire will not be transported off the range.

c. Rounds Fired Off-Range. Rounds fired off-range must be immediately reported to Range Control. This requirement complies with the 1997 Military Munitions Rule amendments to the Resource Conservation and Recovery Act.

(1) If a munition lands off-range, and is not promptly rendered safe or retrieved, the munition becomes a solid and hazardous waste, and any imminent and substantial threats shall be addressed.

(2) If remedial action is not feasible, the RCO will maintain a record of the event for as long as any threat remains. The record shall include the munitions type (DODIC and nomenclature) and location (to the extent the location is known).

d. In case of ammunition malfunction and/or accident, notify Range Control immediately and the unit commander of the firing unit will initiate reports required by the current edition of reference (b). Army, Navy, and Air Force units will comply with their appropriate service regulations concerning ammunition malfunctions. Reports will be submitted via the MCBQ S-4.

e. Unless specifically authorized by Range Control, no person will enter the impact area for any reason, to include the marking of duds.

f. The OIC of the firing unit will ensure accurate records are kept on the number of rounds fired, the number of duds experienced, and the location of the duds. At the conclusion of each day's firing, a Dud Report will be submitted to Range Control as part of the Range Utilization Report by the RSO.

g. Duds will not be destroyed, moved, or disturbed in any way, except by EOD personnel.

h. Only MCBQ EOD personnel or other EOD organizations with approval from MCBQ G-3 are authorized.

i. Misfired ordnance will have all safety pins and devices reinstalled, and will be replaced in its original shipping container before being returned to the ASP.

5. Temporary Field Storage Point locations are requested through and approved by the RCO. Field storage requests will be forwarded via the operational chain of command to the CO, MCBQ (G-3 Safety/ESO).

6. A&E shall be positioned to minimize the possibility of accidental ignition, explosion, or detonation. A&E shall be staged to best minimize the effects of weather. Ignition sources such as matches, lighters, or other spark-producing items will not be located near ammunition, pyrotechnics or explosives. Fire extinguishers and/or firefighting equipment will be maintained near the A&E.

7. A&E storage within the ammunition breakout structures on ranges is temporary in nature. A&E will not be locked or left unattended within the structures. A&E must be guarded at all times.

8. An Ammunition Checklist can be found in Appendix N.

6002. CELL PHONES

Cellular phones and distances from ordnance will be specified in the local installation Hazards of Electromagnetic Radiation to Ordnance (HERO) survey. See the local HERO survey for the distances that should be kept between cell phones and sensitive ammunition.

6003. EXPLOSIVE ORDNANCE DISPOSAL

1. The Base EOD section is under the staff cognizance of the AC/S, G-3 MCBQ.

a. 24-hour emergency assistance is available aboard MCBQ.

b. EOD will be contacted through RMB.

2. Unclassified information on ordnance is available to any OIC/RSO desiring a better understanding of the ordnance they may encounter.

3. EOD Operations. EOD operations are defined as emergency or non-emergency disposal operations and training. The following definitions apply:

a. Emergency Disposal. Emergency disposal is any disposal of munitions or other explosives that poses an actual or potential threat to human health, the environment, public safety or public/private property. EOD training and responses in connection with emergency EOD operations, are not subject to

environmental regulations, per the Environmental Protection Agency's MMR. All safety precautions and disposal procedures are the same as non-emergency procedures.

b. Non-Emergency Disposal. Non-emergency disposal is the disposal of A&E that are obsolete, subject to malfunction, or otherwise unserviceable and cannot be economically salvaged or safely sold. Non-emergency disposal operations fall under the full purview of environmental regulations. All safety precautions and disposal procedures are to be strictly followed.

4. Emergency Disposal Authority. The COMDR, MCBQ is the approving authority for all emergency disposal operations.

6004. REQUIRED EMERGENCY ORDNANCE DISPOSAL SUPPORT

1. EOD support must be scheduled when training with high explosive hand grenades.

a. Coordination is conducted to provide on-call assistance for the safe disposal of duds incurred during training.

b. Requests for EOD training support will be submitted to RMB at least 30 days prior to the scheduled event.

c. RMB will notify the EOD Section when the OIC/RSO requests permission to go "hot".

2. EOD personnel are required in order for any unit/personnel that enter a designated dud/sensitive fuse impact area.

a. Units desiring to emplace additional targets may request EOD support for a target insert.

b. Portable Infantry Target Systems will not be placed in explosive/sensitive fuse impact areas.

3. Only EOD may perform disassembly and/or inerting of munitions in support of training or testing.

4. Units must observe the impacts of all indirect fire munitions, air delivered munitions and direct fire missiles and rockets.

a. If any impact is not observed, or if there is any doubt of a dud being on a road, the OIC/RSO will immediately notify the RCF.

b. No person or unit will be granted access to travel on a road when there has been an unobserved round or dud that could affect the road in question until an EOD technician has conducted a sweep.

6005. DUDS

1. With the exception of dud hand grenades, UXO that occurs within a designated dud impact area does not require an immediate EOD response.

a. UXO will be reported to RMB on the End of Training Report by providing the type of munitions and the estimated location.

b. When reporting UXO impacting or found outside the dud impact area, in any maneuver area or off the installation detailed information must be provided to RMB by the unit OIC or the person or unit discovering the potential UXO. The minimum information that must be included in the report is:

(1) Eight-digit MGRS grid

(2) Munitions nomenclature and DODIC, if available

(3) If in conjunction with a scheduled training event the date, time, operator/gunner, OIC/RSO and event name

(4) If, from a weapons platform such as artillery or mortars, the elevation/deflection, direction and eight digit MGRS grid position of the weapon when suspect UXO was fired

c. The RCF will record all UXO in RFMSS.

d. UXO Marking. EOD and Range Control mark the presence of known UXO. UXO is marked utilizing red/orange bicycle flags and will be destroyed by EOD personnel at the first opportunity. The removal or tampering with these flags by anyone other than EOD personnel is strictly prohibited.

2. EOD Response Actions

a. Upon notification that a round has landed outside the assigned impact area (off range) EOD will take immediate action to assess the extent and nature of the threat and conduct an appropriate response.

b. Should the munitions not be rendered safe, retrieved or destroyed a record of the event will be maintained until the munitions item has been recovered or destroyed. At a minimum the record will include:

(1) The date the munition(s) was fired off range or the date that the installation became aware that a munition has been fired off range.

(2) The type and quantity of munitions fired off range.

(3) The location of the munition as near as can be determined.

(4) The date and nature of the response actions taken.

(5) The nature of the remaining threat and an estimate of how long the threat will remain.

6006. MISFIRES

Misfires will be handled by the firing unit as follows:

1. Ammunition will be left in the weapon for the period prescribed in the appropriate TM before unloading.

2. Ammunition will then be unloaded and all safety devices replaced as the appropriate TM prescribes. Safety devices and shipping containers will not be discarded until completion of firing.

3. The misfired round will be returned to its shipping container. The outside of the shipping container will be marked with the word "misfire."

4. The misfired round will then be returned to the ASP.

5. In the event a round cannot be unloaded or all safety devices cannot be replaced the firing unit will request EOD support via the RCF.

6. Misfires resulting in injury or damage will be handled as a serious incident and must be reported to the RCF immediately. All evidence such as components or fragments of the weapon system, ammunition, missile, or rocket will be carefully preserved at the incident site. RMB will notify the Base Explosives Safety Officer, and the OIC, ASP.

6007. MALFUNCTIONS

1. A malfunction is defined as the failure of an ammunition item to function in accordance with the design, intent, and expected performance when fired, launched, or otherwise employed as specified. Malfunctions include the abnormal or premature functioning of an item as a result of normal handling, maintenance, storage, transportation, or tactical employment. Ammunition malfunctions do not include incidents resulting from negligence, improper use as intended, user error, etc. However, reporting of these incidents is required since they provide useful data in evaluating future incidents.

2. Ammunition that fails to perform as expected can normally be attributed to a malfunction, human error, or a weapon/equipment deficiency. In every instance it is imperative that certain facts surrounding the matter be immediately noted and appropriately reported so that immediate action can be initiated to prevent reoccurrence. Using units are responsible for malfunction reports, which should be reported through the unit's

logistics personnel. COMDRs should be aware that in some instances, it is required to report ammunition malfunctions or defects via message within 24 hours to the Commandant of the Marine Corps.

3. In the case of an ammunition malfunction all activities involving the use of the ammunition will be suspended. All ammunition will be secured until qualified personnel have investigated the incident and determined appropriate disposition and/or reports are generated. Detailed malfunction reporting requirements are contained in reference (h).

4. Unserviceable Ammunition. Unused or unserviceable ordnance will not be reported as duds, but returned to the ASP by the using unit. Misfires and hang fires will be cleared by the using unit by application of proper immediate or remedial action or notification of the RCO. If notification of EOD is needed ensure proper ammunition malfunction reporting is concurrently conducted.

5. Any person having knowledge of the whereabouts of live ammunition, pyrotechnics, abandoned ammunition or potentially hazardous ammunition will report such information to Range Control.

6. The OIC/RSO will report malfunctions to the RCF in the End of Training Report.

7. RMB will notify the Base Explosives Safety Officer, and the OIC, ASP, of all reported malfunctions.

8. Ammunition or weapons systems may be suspended for use aboard MCBQ until an appropriate investigation has been completed.

6008. UNEXPLODED ORDNANCE

1. UXO Brief. All personnel scheduled to train in MCBQ RTAs shall receive an UXO brief by the OIC/RSO before commencement of training.

2. MCBQ EOD Section. EOD can be contacted through Range Control at (703) 784-5321/5322 (DSN) 278-5321/5322, 24 hours per day, 7 days per week.

3. UXO. UXO shall not be destroyed, moved or tampered with in any manner by anyone other than EOD personnel. UXO may be found throughout RTAs and is extremely dangerous. Units will report UXO immediately to Range Control, and conspicuously mark the location of any known UXO.

6009. AMMUNITION

1. Ammunition and explosives (to include pyrotechnics) will be positioned to minimize potential for ignition from external sources, explosion, rapid burning or sympathetic detonation and will be located, staged and stored in accordance with the requirements of the current reference (x) for compatibility and safe separation distance.

2. Ammunition will not be removed from the ranges except as authorized by published orders and returned to the ASP with the appropriate packaging and documentation.

a. Ammunition will never be abandoned, destroyed, fired indiscriminately or otherwise disposed of.

b. Altering ammunition or assembly of explosive components to inert rounds is prohibited.

c. Any attempt to use ammunition in an unorthodox manner or to purposely attempt to make it malfunction is prohibited.

d. Use of non-standard munitions/ammunition requires prior approval from the COMDR, MCBQ.

3. Unit ammunition personnel will be familiar with inherent hazards of specific types of ammunition, proper identification markings and color codes and all handling and transportation regulations. Training units are entirely responsible for the safe transportation, storage, and use of the above listed and all other HERO sensitive munitions. For additional information on HERO, including general information, storage/transportation requirements, safe transmitting distances, and a complete HERO classification of munitions reference (z).

4. Training evolutions that require ammunition and/or explosives to be staged must be staged in areas that are temporary in nature. It is not intended that these locations require approval by the Department of Defense Explosives Safety Board if A&E are in total support of a specific training mission. Ammunition staged on a range for training must be positioned in a manner such that the Minimum Safe Distance/Inhabited Building Distance for the Net Explosive Weight (NEW) of the ammunition does not escape the range boundary. Ammunition and explosives brought to a range that are consistently drawn and fired and never left in a storage mode may be staged in support of that training.

5. Blank ammunition and pyrotechnics may be used for non-live fire exercises in the RTA.

6. **Blank and live ammunition will never be mixed.** Strict accountability procedures will be employed to ensure they remain separate. **Blank and live ammunition will not be stored in or issued from the same building at the same time. Additionally, blank and live ammunition will not be utilized or stored on the same range at the same time.** If the use of blanks is necessary, the OIC/RSO will ensure separate storage sites are utilized for blank and live ammunition.

7. Blank ammunition and pyrotechnics will not be fired in heavily populated public areas.

8. The BFA is a necessary component for operational safety while firing blank ammunition for weapons systems designed to accept BFAs.

a. The safe separation distance for firing blanks at personnel is 5 meters (17 feet). Less than 5 meters (17 feet) separation distance could result in serious injury. Separation distances of less than 1 meters (3 feet) could result in fatality.

b. **Blanks will never be fired after live fire training on the same day**.

c. The OIC/RSO will ensure all gear and weapons are inspected between live fire and blank fire training.

9. Arms, Ammunition, and Explosives Handling

a. The OIC will ensure ammunition and explosives are properly handled, transported, stored, and accounted for within the training complex from the time of receipt to the time of expenditure or turn in.

b. NAVMC 11381 be used for all expenditure reporting.

c. The RSO will ensure Class V(W) Expenditure Reports (NAVMC 11381) and a legible copy of turn-in documents for unexpended assets are completed and turned in by the unit ammunition technician. The RSO will also ensure the ammunition technician submits completed expenditure reports (NAVMC 11381) to include issue and turn-in documents for unexpended A&E to the A&E audit and verification officer.

d. The OIC and RSO are responsible for security and accountability of all A&E for any training exercise. Unauthorized removal of ammunition is theft of government property.

e. All expenditure reports and documentation will be completed prior to departing the range.

f. Figure 6-1 details the chain of custody for A&E.

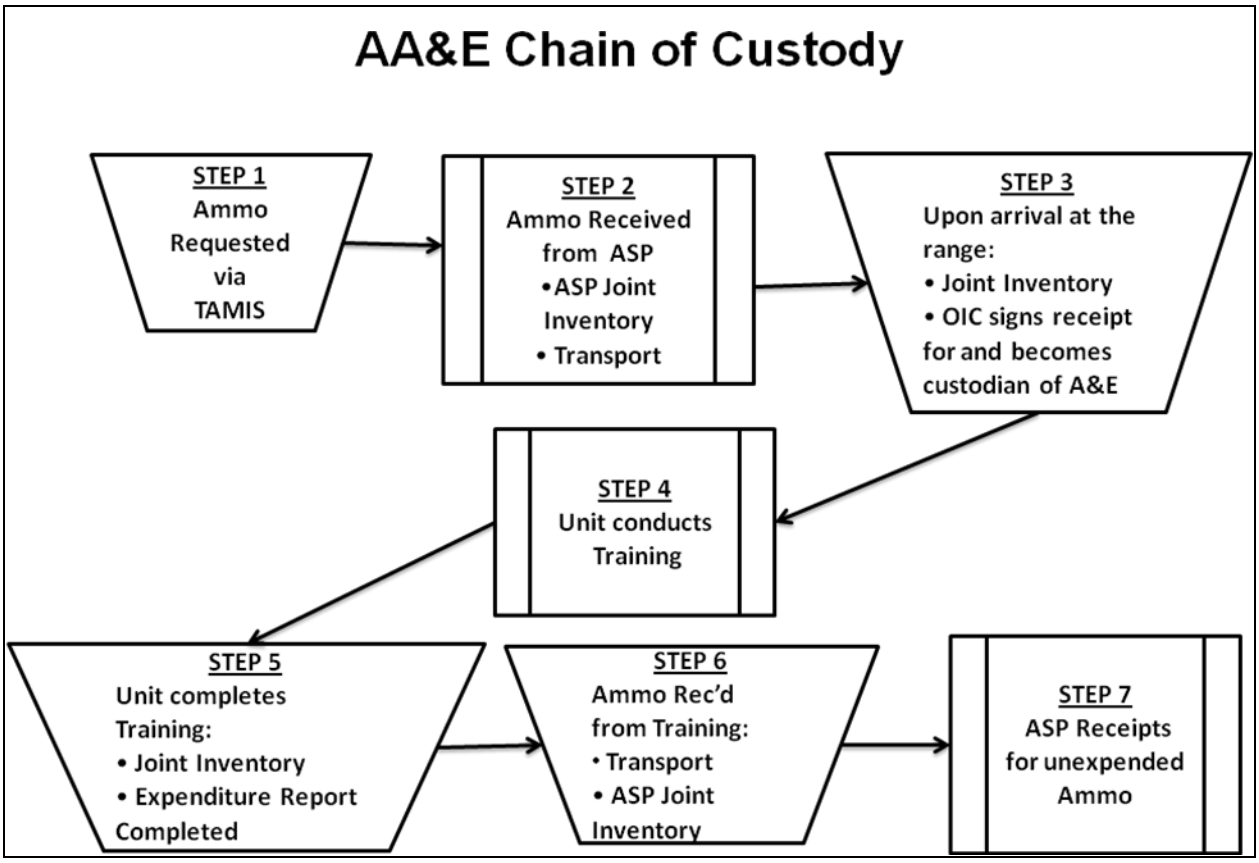


Figure 6-1 A&E Chain of Custody

6010. AMMUNITION BREAKDOWN POINTS

1. Ammunition placed on ranges will be guarded at all times.

2. Ammunition will be covered to protect it from the elements and properly ventilated.

3. Precautions will be taken to prevent accidental ignition or detonation by brush fires or by high frequency radio emissions.

4. Compatibility and safe distance specifications will be observed.

5. Distribution of ammunition to individual crews or Marines will occur only at ammunition breakdown buildings, ready lines, firing lines, attack positions, assembly areas or defilade positions as designated on each range.

6. The quantity of ammunition unpacked at an ammunition breakdown point will be kept to the minimum number of rounds needed for efficient firing of the exercise.

7. Packaging material, propelling increments and fuses will be retained until firing is complete.

8. FARP operations and separation distances for fuel, ready ammunition staging areas and basic load staging areas will be sited and managed in accordance with FM 1-104 and FM 10-68.

9. Units requesting to pre-stage ammunition must specifically distinguish between pre-stage times, training/occupy times and live fire times.

10. Units are required to maintain files of and comply with Notices of Ammunition Reclassification as they pertain to the handling, transportation, and expenditure of munitions or clearance for overhead fire of unprotected troops.

11. The OIC/RSO will report all expenditures on the End of Training Report.

6011. CHEMICAL AGENTS AND SMOKES

1. General. Riot agents, smoke, and other obscuration materials shall be used only during scheduled training, per the provisions in applicable TMs and directives, as improper use may result in injury.

a. Chlorobenzalmalononitrile (CS). When CS is used in conjunction with scheduled training, ensure non-toxic vapors are not employed under conditions, which are dangerous to personnel, wildlife, or property in adjacent TAs, or outside the boundaries of MCBQ. CS shall also be employed in such a manner to ensure that fumes do not drift over any public roads located within the TA. The intent to use CS shall be specified when scheduling maneuver areas.

2. Chemical Agents

a. Live chemical ammunition other than training approved Riot Control Agents (RCA) and training smoke will not be used for training purposes unless approval is granted by the COMDR, MCBQ. The following are specifically approved: CS, CSX, CS1, CS2 and CR. Chloroacetophenone (CN) is classified obsolete and is not authorized for use in training.

b. When RCA are used in the Nuclear, Biological, Chemical (NBC) Facility the unit will ensure that a CBRN officer (5702) or CBRN Specialist (5711) of the grade E-6 or higher are present as the OIC and that a CBRN Specialist (5711) of the grade E-5 or higher is present as the RSO. USMC units are authorized to assign a CBRN Specialist (5711) of the grade E-4 or higher for both the OIC and RSO.

c. RCA used in conjunction with scheduled field training (not contained inside an NBC Facility), will be only under the supervision of an officer/staff noncommissioned officer/NCO who

has received formal training in the characteristics, capabilities, and training applications of these agents. For the Marine Corps, when CS is used in outdoor confidence courses, the RSO must have been trained in the CS chamber within the past year. The use of a 5702 CBRN Defense Officer and 5711 CBRN Defense Specialist is not required. Care will be taken to ensure vapors are not employed under conditions dangerous to personnel, vehicular and aircraft traffic, wildlife, or property in adjacent TAs or outside the boundaries of MCBQ.

(1) During field exercises RCA will not be used closer than 500 meters to hard-surface roads, railroads or built-up areas aboard MCBQ or within 1,000 meters of installation boundaries.

(2) Chemical grenades will not be held in the hand after the safety lever is released.

(3) All personnel will know the functioning of the grenade, specifically whether it is a bursting grenade or a burning grenade, and actuate the grenade according to safe operating procedures.

NOTE: Burning-type grenades consume oxygen and are not to be used in confined spaces such as in buildings or tunnels.

3. Smoke

a. The use of any smoke pyrotechnics must be specified at the time the RTA is requested.

b. The following precautions apply to all smoke training with fog oil, hexachlorethane, red phosphorous, white phosphorous, plasticized WP and colored and diesel smokes.

(1) Personnel will carry a protective mask when participating in exercises that include use of smoke.

(2) Before exposure to any concentration of smoke produced by M8 white smoke grenades, personnel will wear the mask.

(3) Personnel will wear the mask when passing through or operating in dense smoke (visibility less than 50 m) such as smoke blankets and smoke curtains.

(4) Personnel will wear the mask when passing through or operating in smoke haze (visibility greater than 50 m) and duration of exposure will exceed 4 hours.

(5) Personnel will wear the mask anytime exposure to smoke produces breathing difficulty, eye irritation or discomfort.

(6) Personnel will not wear the mask when using smoke in MOUT training or similarly enclosed operating spaces. The protective mask is not effective in oxygen deficient atmospheres.

(7) Use of smoke or chemical agents within MOUT buildings is prohibited.

(8) Planning and positive controls must be taken when using HC smoke to prevent exposure of unprotected personnel.

(9) Detailed hazard information is available on appropriate Materiel Safety Data Sheets.

(10) FS (sulfur trioxide-chlorosulfonic acid solution) and FM (titanium tetrachloride) smokes are prohibited.

(11) Smoke will not be used in public demonstrations, displays or ceremonies unless positive dissipation of the smoke can be assured and no exposure to the public or non-essential personnel is expected.

(12) Units conducting demonstrations, displays or ceremonies must submit a detailed ORA to RMB.

6012. NON-STANDARD WEAPONS AND AMMUNITION

The Commanding General, MCCDC (C465) must approve the use of any non-standard ammunition, explosives or weapons before use aboard MCBQ. **The COMDR, MCBQ is the final authority for use of non-standard ammunition, explosives or weapons aboard the installation.**

1. Requests to use non-standard or foreign weapons and/or ammunition will be made in RFMSS (the comments block will include a list of the non-standard items).

2. A copy of the Limited Safety Release, Safe and Ready Certification or Safety of Use Memorandum will be provided to RMB prior to the request being approved.

3. COMDRs of Special Operations Forces groups may approve the use of nonstandard items of explosives when necessary for Special Forces training and operations. Also, grade 0-6 commanders of Special Operations Forces may approve use of nonstandard ammunition and/or explosives for units conducting training unique to Special Operations Forces. Use of all nonstandard items of ammunition and/or explosives, to include by Special Operations Forces, require approval of the CO, MCBQ.

6013. RESEARCH, DEVELOPMENT, TESTING & EVALUATION

1. All Research, Development, Testing & Evaluation (RDT&E) activities within the MCBQ RTA must contact Range Control, 60 days prior for coordination and approval.

Note: RDT&E activities requiring the use of radio frequencies can take up to 6 months or longer for frequency management approval.

2. Certifications. Personnel desiring to conduct RDT&E events on MCBQ RTAs will comply with the provisions of Chapter 1 of this Order regarding OIC/RSO certifications and applicable briefs. RDT&E Event Coordinators will ensure that RTAs are properly scheduled and accessed in accordance with this Order. Events not properly qualified through MCBQ Range Safety and properly coordinated will be ordered to exit the RTA until proper coordination has taken place.

6014. INFANTRY WEAPONS

1. Small Arms

a. Range and field firing of small arms include the firing of rifles, pistols, automatic rifles, shotguns and sub-machine guns at ground targets.

b. Overhead or flanking fire is authorized only as prescribed in reference (a) and when requested and approved by RMB.

2. Machine guns

a. Range and field firing for machineguns include the firing of 5.56mm, 7.62mm, and .50 caliber machineguns at ground targets.

b. Machineguns may be fired over protected or unprotected troops in live firing exercises. This training is permitted only at authorized locations and provided the provisions of reference (a) and appropriate firing tables and FMs are followed. The ammunition lot must be cleared for overhead fire and identified by NSN and DODIC.

(1) The Gunner’s Rule is the only USMC approved method for training with troops. It is applied when the range to the target is 850 meters or less and troops are at least 350 meters in front of the gun position. Minimum vertical clearance requirements apply as stated in reference (a).

(2) Rates of fire will not exceed 70 rounds per minute for 5.56mm and 7.62mm machineguns and 40 rounds per minute for .50 caliber machineguns.

(3) Firing positions for weapons delivering overhead fire will provide unobstructed field(s) of fire. Each weapon will have positive stops to prevent crossfire and depression of weapon systems during overhead fire. Weapons will be test fired before delivery of overhead fire to verify the effectiveness of positive traverse and depression stops. Applicable ballistic tabular firing tables will be used to determine the minimum angle of elevation for all overhead fire.

(4) Infiltration Courses that involve overhead fire will only be established through specific approval by RMB and will be operated and maintained in accordance with reference (a).

(5) Weapons will be test fired before delivery of overhead fire to certify effectiveness of the positive traverse and elevation stops. Test fire will use tracer ammunition to track the projectile flight path.

(6) No person will be allowed forward of the firing line unless authorized by the RSO. Under no circumstance will persons be allowed to stand in the infiltration lanes while machine guns are firing.

(7) Projectiles are not permitted to impact between the firing position and unprotected troops downrange. All impacts shall be at least 30 meters beyond the individual most distant from the weapon.

(8) There must not be any obstacles (i.e. trees, poles, etc.) between the machine guns and the forward line of unprotected troops which might alter the flight of bullets or cause ricochets.

(9) An ARSO, having positive communications with the maneuver element, will be assigned to supervise the overhead fire position.

c. Flanking fire will be executed in accordance with this Order and reference (a).

(1) Ground-mounted or vehicle-mounted small arms may be used to provide low angle flanking fire when a minimum angle of 15^{O} between the limit of fire and the near flank of the closest individual of exposed troops is maintained. Projectiles must not impact any closer to unprotected troops than 100 m.

(2) Positive means will be employed to ensure that the firing unit knows the location of the maneuver unit(s) while fire support is being provided.

(3) Weapons will be mounted on ground-mount tripods or vehicle mounts.

(4) Only non-explosive and non-discarding sabot projectiles may be used.

(5) Because of the danger of lateral ricochets flanking fire must be coordinated with and approved by the RSS.

3. Mortars

a. Mortars will only be fired from authorized ranges.

b. High Explosive mortar ammunition may only be fired across publically trafficked roads when using ammunition approved for overhead fire and with explicit approval from RMB.

c. Once registration is complete the minimum range for 60mm mortars is 300 meters and 400 meters for 81mm mortars.

d. A positive means to observe all impacts is required. The observer must be someone other than the RSO.

e. Increments removed before firing will be placed in a metal or wooden covered container located at least 25 meters from the firing position. Increments not used during firing will only be burned at the conclusion of live fire as part of a specific training objective in the combat application of destroying excess increments. All increments not used in the conduct of live firing and burned at the conclusion of training will be recorded separately and reported as non-expended ammunition on the End of Training Report.

f. The RSO will confirm by charge for each mortar the left and right deflection limits and the minimum and maximum quadrant elevations that can safely be fired from that position.

g. The OIC will ensure that the Fire Direction Center (FDC) and each Gun Chief has a copy of the safety information calculated by the RSO for their mortar. The information will be written on a range card in the form of a "SAFETY T" for each charge to be fired from that position.

h. When the FDC calculates the firing data the data will be checked against the appropriate "SAFETY T" by either the Fire Direction Officer or the Section Chief to ensure that the data calculated is safe and that the data placed on the mortar is accurate. Only then can a round be fired.

i. Hand-held firing requires observation of the impact area from the personnel actually firing the mortar.

4. Hand Grenades

a. Hand grenades will only be thrown from established pits or positions on dedicated grenade ranges.

b. Safety pins will not be re-inserted.

c. Before live grenade training begins all personnel must be proficient in the safety precautions for handling and throwing live grenades. Additionally, all personnel must have completed grenade training with practice grenades prior to throwing live grenades.

d. The OIC/RSO and grenade pit RSO must be certified to perform these duties by the Unit COMDR. Certification will include training detailing actions in the event of a dropped grenade, short throw, a grenade thrown other than down range, the SDZ for the grenade, control of observers, misfire/dud grenade procedures, arming, throwing techniques and pre-live bay requirements.

e. When a grenade fails to function the OIC/RSO will:

(1) Cease all grenade throwing. All personnel will remain under cover for 10 minutes. After 10 minutes all bays will be cleared of all personnel.

(2) Notify the RCF of the dud hand grenade and request EOD personnel. The RCF will determine if the range may continue to train or will place it into "cease-fire" status depending on the location of the dud. Prior to EOD arrival, training may continue on the range only if the dud grenade is in the far left or right impact areas with approval from the RCF. In this case, only the block of throwing pits on the far side of the range opposite of the block with the dud will be used to continue training. If a dud occurs in the center impact area, all training shall cease.

(3) EOD will observe a waiting period of at least 60 minutes from the time of the report until clearing the dud grenade.

(4) Hand grenade duds are to be rendered safe or destroyed by qualified-EOD personnel only. They will not be marked, handled, moved or destroyed except by EOD personnel.

(5) Once the dud has been cleared request permission from the RCF to re-enter a "hot” status.

f. All handling and throwing of live hand grenades will cease one hour prior to sunset.

g. No down range movement is authorized on grenade ranges unless accompanied by EOD personnel.

h. Only one high explosive hand grenade will be thrown on the range at a time. Any subsequent grenade will not be thrown until the previous grenade has detonated.

i. Targets may only be placed on grenade ranges with approval from RMB. Such target emplacement must be coordinated in advance of the training evolution.

j. White phosphorous grenades will not be thrown on grenade ranges. Contact the RCF for information on using grenades other than practice and HE grenades.

k. All personnel within 150 meters of the grenade pits must wear approved PPE ballistic helmet, body armor and hearing protection.

l. Live grenades will not be thrown into standing water, snow or dense vegetation. Range Control will determine when these conditions exist.

m. Requests to use the live fire grenade house requires coordination with the RCO or RSS prior to approval.

5. 40MM Grenade Launchers

a. Although M32, M79 and M203 40mm grenade launchers are designed to prevent accidental chambering of 40mm high velocity grenade cartridges, the OIC/RSO will ensure only low velocity cartridges are fired from them.

b. HE grenades will only be fired on authorized ranges and into a dedicated impact area.

(1) All duds must be noted to the RCF on the End of Training Report.

(2) Firing 40mm grenades in an impact area that contains puddles or any permanent water body is prohibited.

(3) Firing through obstructions and vegetation is prohibited.

(4) Firing grenade launchers is prohibited when it is snowing, during freezing rain or when there is snow on the ground. Range Control will determine when these conditions exist.

(5) Targets for the Mk19 MOD3 machine gun must be at least 75m away for TP ammunition and at least 310 meters away for High Explosive ammunition. Targets for M32, M79 and M203 must be at least 165 meters away. All other requirements for firing the Mk19 MOD3 40mm machine gun in reference (a) and applicable FM/TMs will be observed.

c. M32, M79 and M203 practice grenades are restricted to specified ranges.

6. Guided Missiles and Rockets

a. Field firing of guided missiles and rockets must be consistent with reference (a), and this Order.

b. Before firing the back blast danger zone will be clear of personnel, material and vegetation.

c. All loading preparations for firing and unloading will be done on the firing line with the weapon pointed down range. Handling and assembly will be in a manner consistent with the appropriate FM/TM. Any alteration to guided missiles or rockets is prohibited except as authorized by official publications.

d. Only inert TOW missiles may be fired aboard MCBQ.

e. Unobserved impacts will be reported to the RCF immediately.

f. Rockets and missiles will not be fired from within buildings or within 50 meters of a vertical or nearly vertical backstop, barrier or obstacle.

g. Prone or fighting position firing of the HE AT4 (M136) and LAW (M72) is prohibited.

h. JAVELIN missiles will not be fired aboard MCBQ.

6015. ARTILLERY

1. Artillery will only fire from designated GPs.

2. Artillery unit safety certification programs, to include specific artillery safety billets, will be conducted in compliance with reference (a).

3. Range descriptions specify the ammunition authorized; other types of ammunition require a deviation request submitted to the COMDR, MCBQ via RMB.

4. The maximum height will not exceed 10,000 feet MSL. RFMSS requests must indicate the desired maximum height in order to facilitate the activation of adequate airspace.

5. The unit must ensure a positive means to observe all rounds fired impact inside the confines of the target box. Impacts outside the target box necessitate an immediate "check-fire" and notification to the RCF.

6016. AIR DEFENSE WEAPONS

Use of air defense weapons is a special training requirement at MCBQ. Such weapons require specific request and approval from the COMDR, MCBQ. Submit all requests via RMB.

6017. AVIATION GUNNERY

1. Field Operations - General Requirements

a. Pilots and gunners must be qualified under the criteria established in reference (a).

b. The OIC/RSO of the ground unit supported by the aircraft or the OIC/RSO of the aircraft unit must conduct a detailed brief of the range description to each firing aircraft Pilot-In-Command (PIC) prior to live fire exercises.

c. The PIC will ensure that the firing aircraft are properly oriented within the established SDZ are safe to fire.

d. For CAS all firing elements must have two-way communications with the OIC/RSO and use a qualified FAC. The FAC must be co-located with the OIC/RSO. The OIC/RSO must have continuous and instantaneous communications with the RCF.

2. Firing Conditions-General Procedures

a. Aircraft weapons systems will only be loaded/unloaded in approved areas. Requests will specify all weapons and munitions to be uploaded/downloaded at the FARP.

b. When conducting running fires ground markers are required for the start and cease-fire lines. Hover-fire firing positions must be marked. Range descriptions will be annotated with the requirements for marking each range.

3. Gunnery Operations

a. Door gunnery operations will be conducted in accordance with aerial gunnery manuals, and the applicable FMs and TMs for the specified aircraft.

b. Diving fire will only be conducted as coordinated with and approved by the RSS. All approved diving fire training must be on file with RMB.

4. Weapon Danger Zones (WDZs)

a. Units requesting aviation gunnery must coordinate with the RSS prior to approval.

b. Aviation munitions will have WDZs specific to their use in aviation gunnery.

c. WDZs will be provided during coordination of the training event.

5. Hellfire anti-tank guided missile (semi-active LASER) fire requires specific approval from the COMDR, MCBQ.

6018. DEMOLITIONS

1. General

a. The following safe practices pertain to standard military and commercial explosives used by USMC units and to all items containing explosives. Using units and the Base EOD Section will apply requirements contained in reference (x), and the Guidebook for Assault Entry Techniques.

b. General safe practices for handling and transporting explosives are prescribed in reference (x), applicable NAVSEA SWO020-AC series manuals and reference (t).

c. The use of commercial explosives must be specifically requested and approved by the COMDR, MCBQ via RMB. Such explosives must be transported, handled and used in accordance with reference (a).

d. Unserviceable ammunition and explosives not used as designated for training and operations will be returned to the ASP until MARCORSYSCOM (AM-ES) provides disposition guidance.

e. Explosives release toxic gases when detonated. Exposure to these fumes must be avoided. Personnel must be positioned upwind from detonation points and wait until smoke and fume disperse before proceeding down range.

f. Detonating cords should be used to prime charges on above-ground charges to minimize the need to use blasting caps. Explosive charges primed with detonating cords will be initiated with an above-ground electric, non-electric blasting cap or modernized demolition initiator.

g. All demolition training/operations must be discontinued at the approach of an electric or severe dust storm or when the RCF advises the unit of Thunder/Lightning Storm Condition I or IA.

h. Detonation circuits will not be connected or armed on any munitions unless the intent is to detonate them. When munitions are to be detonated, the area will be cleared of all non-essential personnel with a minimum crew remaining to connect the detonation circuit. Live blasting caps or other live detonators will not be located at the training site(s) if munitions will not be detonated.

i. All personnel within the SDZ will wear approved protective helmets and hearing protection for all detonations, including when in the confines of missile proof shelters. In addition to helmet and hearing protection, personnel within the SDZ, but outside the missile proof shelter will wear flak vests.

Only mission-essential personnel will be allowed in the SDZ during firing.

j. Mixing of live and inert demolitions for training is prohibited.

k. When explosives are temporarily stored in support of training, stacks will not exceed the equivalent of 500 pounds of TNT NEW. Distance between stacks will be at least 45 m.

l. Live and inert munitions will not be mixed when staged. Demolitions Effects Simulators containing explosives, as well as other simulators, are considered live munitions.

2. Basic Demolition Training

a. FM 2-250 procedures are used for all demolitions training. The use of field expedient demolitions (i.e., modified/
improvised Claymore Mines, Bangalore Torpedoes, Cratering Charges and Fu-gas) is not authorized unless approved by the RCO. If expedient demolitions are approved, only field expedient methods outlined in applicable FMs are authorized.

b. While engaging in demolition training, using units will comply with all safety precautions and the minimum distances listed in Chapter 17 of reference (a).

c. During basic and/or familiarization demolition training, instructors will supervise no more than five students while they are priming individual charges. No more than five students will prime charges at a time. The remainder of students and observers will withdraw to a safe position before priming of charge(s) occurs.

d. Single charges placed against steel, concrete, wood or other solid material during training or demonstrations will be emplaced on the side nearest observers so that major fragments are propelled away from the observers.

e. Dual-initiation systems are preferred over single-initiation systems to increase reliability. Consulting FM 5-250 and using the best combination of initiation systems will reduce the possibility of misfires.

3. Assault Breaching

a. Explosive entry techniques are used in special missions where assault personnel require access to the target. To train for this type of mission, individuals may be required to be closer to the detonation than authorized by this Order. Such training must be requested in writing to the COMDR, MCBQ via RMB.

b. The U.S. Marine Corps Methods of Entry School (MOES) (taught by WTBn) must submit any modifications to existing training requirements and assault breaching SOP to the COMDR, MCBQ via RMB. CG, MCCDC must approve the range activities prior to training being authorized.

4. Simulated Enemy/Supporting Fires

a. Demolitions may be used to simulate enemy or supporting fires on specified ranges. Charges will be fired in specially prepared pits with positive means to keep personnel at safe distances per reference (a) and this Order. It is recommended that units requiring simulated Enemy/Supporting fires use Battlefield Effects Simulators available through the TSCQ whenever possible.

b. When explosive charges (TNT blocks or composition C4) are used to simulate detonation of mines and incoming artillery projectiles, mortars and bombs during exercises or on the infiltration course, the following procedures will be used:

(1) Charges will be fired in specially prepared detonation pits with the charge positioned in the center of the pit.

(2) Only charges of standard issue TNT blocks or composition C4 of 1/4 pounds will be used. Composition C4 may be cut into 1/4 pound blocks. TNT blocks will be cut in accordance with the instructions in the corresponding TM.

(3) Charges will be detonated electrically from a position that allows a clear view of the pit and the immediate vicinity around the pit.

(4) Blasting circuit wires leading to charges in the detonation pits will be buried in conduit, or otherwise secured to prevent personnel from becoming entangled in or tripping over the wires.

(5) Only one charge will be emplaced in a pit at a time.

(6) Pits will be inspected and cleared of objects prior to emplacing charges to remove potential hazardous missiles.

(7) Charges may only be detonated when crawling personnel are 3m or more from the center of the pits and upright personnel are 25m or more from the pit.

5. Destruction/Render Safe of Unserviceable Ammunition (Duds)

a. Destruction/Render Safe will be conducted by qualified-EOD technicians.

b. Use of ranges for the destruction of dud ammunition must be approved by RMB.

6. Civil Engineering/Construction Demolitions. When requested engineer/construction units are authorized to use demolition charges in the performance of their duties. The size and type of charge used will be coordinated at the time of the request and will be based on appropriate engineering requirements and safety requirements stated in reference (a).

7. Police of Demolitions Ranges and Pits

a. Upon completion of training units will rake the sand of each pit to a smooth flat surface.

b. Sand bags and lumber used to reinforce pits will be replaced in their original position. Any unserviceable lumber or sandbags will be reported to RMB during the post inspection.

c. All components (used fuse igniters, wire, etc.) will be policed.

d. Units conducting training in which explosives leave wood, metal particles or debris on the range are responsible for having those items removed prior to the post inspection.

6019. MINES, BOOBY TRAPS, PYROTECHNICS, AND SIMULATORS

1. Mines and Booby Traps. Using units will comply with reference (a) and all other applicable orders/TMs governing the use of mines and booby traps.

a. High explosive mines are only authorized through special request.

b. Practice mines and practice booby traps may be used in all maneuver areas and on all demolition ranges provided necessary safety precautions are taken and they are requested in RFMSS.

c. Using units shall ensure that no explosive mines, practice mines or booby traps with any type of explosive device are left on any range.

d. Practice and inert mines will be color coded in accordance with MIL STD-709A and TM 9-1300-200, paragraph 8-6, and have appropriate stenciled identification markings. Service, practice and inert mines and fuses will not be mixed.

(1) Inert mines. Inert mines and mine fuses do not present a safety hazard. They will be color coded and marked in accordance with MIL STD-709C to prevent mixing with practice and high explosive mines.

(2) Practice mines. Practice mines and their fuses contain a small, low explosive charge or a smoke producing increment. They will be marked in accordance with MIL STD-709A.

2. Pyrotechnics. The following apply to the use of all types of ground pyrotechnic signals and flares (except red).

a. Pyrotechnics may be used throughout the RTA. The use of pyrotechnics must be requested in RFMSS.

b. Pyrotechnics shall be stored in small amounts, away from any firing points, either to the right or left of, but not directly behind the firing point. Pyrotechnics shall be placed to minimize the possibility of ignition or explosion in case of an accident during firing.

c. Extreme care shall be used when handling pyrotechnics so the pyrotechnics do not fall onto personnel, into boxes of pyrotechnics or other ammunition.

d. Extreme care shall be exercised when firing through any type of obstruction.

e. Smoke grenades will be used in clear areas away from any grass or shrubbery.

f. Caution will be used when operating pyrotechnics in close proximity to helicopters and public traveled roads.

g. 40mm and handheld signaling devices ("Pop-Ups") must be elevated to ensure no personnel or materials will be in the line of fire.

h. All expended pyrotechnics will be reported on the End of Training Report.

3. Commercial Fireworks. Commercially manufactured fireworks will not be handled, stored, or used in any way aboard MCBQ.

4. Non-Pyrotechnic IED Simulators

Marine units training with non-pyrotechnic IED simulators will receive training prior to using the equipment. Only those Marines who have completed the required training will be authorized to draw and use approved equipment.

5. Trip Flares

a. Trip flares shall be fenced or guarded to prevent personnel from approaching within 5 feet of each installed flare.

b. Trip flares shall be positioned so the hazard pattern or the impacting flare does not endanger personnel.

c. Trip flares shall not be left in any RTA. Trip flares shall be counted before being issued to ensure all items issued are retrieved on completion of the demonstration or exercise.

6020. FIRE AND MOVEMENT/FIRE AND MANEUVER/SHOOTING ON THE MOVE

1. Fire and movement/fire and maneuver/shooting on the move training and exercises will only be conducted on designated ranges.

a. Fire and movement is when individuals fire to engage targets and then move to another position to fire.

b. Fire and maneuver is when units or sub-elements of a unit fire to engage targets on independent and differing axes from other adjacent units or other elements of the unit moving forward or laterally.

c. Shooting on the move is when individuals, units or sub-elements of a unit fire to engage targets while moving in relation to the targets (Marine Corps Marksmanship Program Table 3 and 4 style training).

2. All OICs/RSOs will conduct a reconnaissance of the range prior to use in order to review the conduct of training and to note any recent changes or irregularities with the range.

3. Fire and movement/fire and maneuver/shooting on the move exercises require additional safety controller personnel and will be assigned as per reference (a).

a. Each safety controller will be located so that every individual is within observation and can be positively controlled at all times.

b. The RSO and safety controllers will be equipped with an appropriate signaling device to initiate a "cease-fire" in the event of danger or emergency. Firing exercises conducted during darkness will require more stringent control measures and rehearsals using appropriate signaling measures.

c. The OIC, RSO, and designated safety controllers will be thoroughly familiar with safety provisions of reference (a) describing criteria for flanking fire.

4. Due to the inherent complexity of fire and movement/fire and maneuver/shooting on the move training, a deliberate ORA will be used in all phases of the training or exercise. Specifically, the OIC/RSO will:

a. Train safety/controller personnel before conducting live fire exercises.

b. Provide the RSS with a detailed plan of the exercise including:

(1) A detailed list of all firing positions and target locations will be provided prior to approval.

(2) A list of weapons, ammunition, pyrotechnics, smoke and chemicals to be used.

(3) Unit control and communications measures.

(4) Terrain and facilities to be used.

(5) Number of personnel in the training exercise versus number of safety controllers and other personnel in support of the exercise.

c. Ensure personnel are trained and have fired the weapon assigned to them.

d. Brief participants on the capabilities of the weapons used by other units/components in the live fire exercise.

e. Ensure all personnel participating in the exercise have conducted a "dry" rehearsal.

5. Fire support by aircraft requires direct communication between the OIC, the FAC and the Fire Support Coordination Center (FSCC)/FDC coordinating the supporting fire or the RCF if the FSCC is not present.

a. All OICs/RSOs will review the range each time prior to use to ensure they are familiar with the terrain, the conduct of training and to note any recent changes or irregularities with the range.

b. FACs will ensure pilots of participating aircraft are familiarized with the range description, SDZ, and the exercise scheme of maneuver before conducting live fire.

c. Units conducting exercises supported by aircraft, indirect fire weapons and/or surface fires from ground units require the presence of a Fire Support Team (FST). At a minimum, the FST will consist of the ground unit commander/OIC, the FAC, all indirect fire Forward Observers and the RSO. All FST personnel must be colocated and capable of proper de-confliction. Additionally, the RSO must maintain instantaneous communication with the RCF in order to receive instruction, "cease-fire" notification, and other critical information.

6021. SPECIAL EFFECTS SMALL ARMS MARKING SYSTEM (SESAMS)

1. Units requesting use of SESAMS (also referred to as simunitions) marking cartridges with adapter kits will conduct an ORA per reference (i) prior to conducting any SESAMS

training. Non-USMC organizations and agencies will coordinate their training plan and equipment with the RSS prior to approval of any SESAMS training event.

2. Unit COMDRs will ensure that an RSO of the grade E-6 or above (or organizational equivalent) that has been qualified with the SESAMS system is appointed for the training event.

3. Live ammunition will not be present in any RTA where SESAMS training exercises are being conducted.

4. When two or more units are authorized co-use of an RTA or when adjacent training is within the established safety zone all personnel must comply with the protective equipment standards.

5. The duties of the SESAMS RSO are outlined below:

a. Before Firing

(1) Ensure that **only** USMC procured adapter kits (NSN listed in USMC TM 81014A-14&P) are used by USMC organizations and personnel.

(2) Ensure that **only** USMC procured marking cartridges will be used by USMC organizations and personnel.

(3) Ensure that **all** weapons and adapter kits are maintained in strict per USMC TM 81014A-14&P.

(4) Remove all live ammunition from the designated TA prior to commencement of the SESAMS training exercises.

(5) Prohibit force-on-force SESAMS training at temperatures below 38 degrees Fahrenheit when training with DODICs AA12 and AA21. For DODICs AB05 and AB06, training is prohibited when temperatures are below 18 degrees Fahrenheit and above 104 degrees Fahrenheit.

(6) Inspect all weapons, magazines, and ammunition pouches or pockets prior to commencement of SESAMS training exercises.

(7) Remove all weapons systems not modified to fire the SESAMS marking cartridge from the TA.

(8) Ensure all SESAMS capable magazines are clearly marked.

(9) Ensure that magazines are not filled until the SESAMS training evolution is ready to commence.

(10) Establish a 150m minimum safety zone in the TA reserved for SESAMS training.

(11) Ensure that all personnel within the 150m minimum safety zone wear the following minimum protective equipment and clothing:

(a) Head/Face/Neck Protection

1. The FX 9000 and 9003 FX™ Protective Face Masks are authorized for use. Only the FX 9000 and 9003 are authorized with DODICs AB05 and AB06.

2. The MCU-2A/P Chemical Biological Mask may be used for face and eye protection **only** if the hard outer eye shields and the C2 canister are attached prior to use with the SESAMS training system.

3. A balaclava towel or neck scarf will be worn so as not to expose any portion of the neck and throat. A commercially produced neck protector may also be used.

(b) Body Protection

1. The utility uniform, flight suit, or clothing covering the arms and legs entirely will be worn.

2. Groin protection and gloves are highly encouraged.

3. Instruct all personnel that head shots are not authorized.

(12) Ensure that 150 meters minimum safety zone is established, controlled and remains clear of unprotected personnel.

b. During Firing

(1) Ensure that qualified medical personnel and appropriate medical equipment is available during all SESAMS training exercises.

(2) Ensure that all personnel wear approved hearing protection during all SESAMS training exercises.

(3) Control access to the 150-meter safety zone.

(4) Ensure all personnel within the 150-meter safety zone continually wear face, eye, ear canal and neck protection.

(5) Ensure there are absolutely no shots taken above the shoulders with the SESAMS training system.

(6) Ensure that a minimum safe engagement distance of 2 meters (7 feet) for 9mm systems and 4 meters (14 feet) for 5.56mm systems from the muzzle is established and maintained.

c. After Firing

(1) Inspect all weapons, magazines, and ammunition pouches or pockets immediately following SESAMS training exercises.

(2) Ensure all weapons are returned to their operational state. A function check must be performed.

(3) Account for and return all unused ammunition to the appropriate place in accordance with applicable directives.

(4) Account for and return all weapons to the appropriate location in accordance with applicable directives.

(5) Account for and return all SESAMS adapter kits to the appropriate location in accordance with applicable directives.

(6) Ensure that the SESAMS ammunition, and any of its components, is not removed from the training environment by unauthorized personnel.

6. Units requesting to conduct SESAMS training with targets only (no force-on-force engagement) must coordinate with the RSS for restrictions and safety requirements prior to approval of the request.

CHAPTER 7 LASER OPERATIONS

7000. GENERAL

Military lasers are being integrated into many aspects of training aboard MCBQ. Although lasers are prohibited from being used directly as a weapon, they enhance the accuracy of many of the weapon systems in the current DoD arsenal.

7001. BACKGROUND

1. The word laser is an acronym derived from a description of the physical process, Light Amplification by Stimulated Emission of Radiation (LASER). The laser generates a beam of intense, monochromatic light that is usually invisible under normal operating conditions. The basic hazard associated with laser light is eye damage. This damage can vary from a small burn, undetectable by the injured person, to severe vision impairment. Eye damage by laser light occurs three ways:

    a. Intrabeam or direct viewing.

    b. Diffuse reflection.

    c. Specular reflection.

2. Direct viewing is the most hazardous form of damage, as the light beam is focused directly on the retina. Diffuse reflections occur when the laser beam intercepts a rough surface and is reflected in a scattered pattern. Specular (mirror-like) reflections redirect the light beam and cause the same eye damage as direct viewing. The use of appropriate eyewear (goggles or visors) with the correct Optical Density (OD) for the frequency of the laser will eliminate the ocular hazards associated with lasers.

7002. LASER USER PROCEDURES

Users of laser systems will comply with the following:

1. Treat all lasers as you would any direct fire weapon.

2. Ensure complete familiarity with laser system operation and the associated hazards.

3. Only remove the lens cap when ready to fire the laser down range. Remove the lens cap before applying power source.

4. Do not leave the power source connected to the laser while not lasing.

5. Laser systems that do not have lens caps or disconnects from power source must ensure that the down range area of the laser

is clear, that the system is safe, and that the operator is not touching the trigger to the laser system.

7003. LASER SYSTEMS SAFETY PROGRAM

Units that have an inventory of Class 3B or 4 laser systems will establish a local laser safety program. This program shall be established as directed by reference (aa). A certified Administrative Laser Systems Officer (ALSO) will manage this program.

7004. LASER RANGE SAFETY OFFICER PROCEDURES (LRSO)

1. An LRSO is one who implements installation SOPs to ensure safe use of lasers on Marine Corps RTAs. The LRSO must be laser system qualified (have successfully completed a standard program of instruction for a particular laser/system). To be qualified as an LRSO, one must complete and pass the Laser Range Safety Computer Based Training module on MarineNet. Unit commanders will designate LRSOs in writing to the installation commander as per procedures established in reference (a). In addition, an RSO may assume the additional responsibilities of an LRSO if properly qualified.

2. LRSOs will:

a. Be knowledgeable with this Order, reference (a), MCO reference (aa), and applicable FMs/TMs and other laser references.

b. Prepare and submit laser training plans for specific laser ranges or TAs.

c. Conduct a face-to-face LRSO brief with Range Control prior to commencing laser operations.

d. Provide range safety briefs to laser range users prior to laser operations.

e. Know the azimuths, elevations and lateral limits of each laser range, each firing position, and targets to be used.

f. Ensure protective eyewear is used when required. Be sure that unprotected personnel are not exposed to either direct beam or a beam reflected from a specular (reflective) surface.

g. Maintain continuous communication with Range Control and any personnel in the target area. Notify Range Control when lasing operations commence and stop lasing immediately if communications are lost.

h. Ensure lasing ceases immediately if positive control of the laser beam is lost.

i. Approve each specific laser firing.

j. Ensure there are no specular reflectors that could be a hazard in the TA.

k. Ensure controls are in place (range guards/barriers with laser warning signs) to prohibit unauthorized personnel entry into the Laser SDZ (LSDZ). Laser warning signs are available from Range Control.

l. Ensure the recording of all laser firings (time, location of laser and target, azimuth to target, type laser) in RFMSS and/or for unit records in accordance with reference (aa). Unit laser firing logs will be maintained for 5 years. A Laser Firing Log can be found in Appendix O.

m. Comply with all range control laser procedures identified in paragraph 7005, Range Control Laser Procedures.

n. Comply with applicable duties of the OIC/RSO as listed in Chapter 1.

7005. RANGE CONTROL LASER PROCEDURES

1. All laser operations must be scheduled through Range Control.

2. The laser range boundary must be marked with signs (DANGER, Laser Range in Use, DO NOT ENTER) and access roads blocked by signs/barricades or radio-equipped personnel to ensure that unprotected personnel do not enter the range area.

3. Prior to lasing, the target and range area must be visually inspected to ensure no unauthorized personnel and aircraft are in the hazard area.

4. Lasers will not be activated until the operator has positively identified the target.

5. Never designate aircraft, moving vehicles, or personnel.

6. Never designate specular reflectors such as Plexiglas, water, mirrors, unpainted metal, etc.

7. Only the specific designated run-in headings/flight profiles/
laser range parameters will be utilized.

8. Laser operations shall cease in fog, rain, or other inclement weather conditions.

9. The beam must be terminated on government-owned or controlled property and within the LSDZ. Lasers will not be directed at or above the horizon.

10. Personnel movements in areas adjacent to the range area should be known by lasing safety personnel. The OIC of the movement or occupied position adjacent to or across from the lasing range shall be advised of the hazards.

11. When laser-equipped vehicles travel on range roads or public highways, or are not engaged in tactical/operations, the laser exit port must be covered. This includes all ground mounted/handheld systems. The LRSO must ensure lens caps are in place.

12. Force-on-force scenarios will be approved by Range Control. Instrumented Tactical Engagement Simulation System [I-TESS] is a Class 1 system.

13. Force-on-Force Laser Operations. Due to the inherent risk of laser use during force-on-force operations, a deliberate ORA will be used in all phases of the training or exercise. Specifically, the OIC/RSO will:

a. Train safety/controller personnel before conducting force-on-force exercises with lasers.

b. Provide the RSS with a detailed plan of the exercise including:

(1) A detailed list of all laser use during the exercise will be provided prior to approval in the RFMSS request.

(2) A list of weapons, ammunition, pyrotechnics, smoke and chemicals to be used.

(3) Unit control and communications measures.

(4) Terrain and facilities to be used.

(5) Number of personnel in the training exercise versus number of safety controllers and other personnel in support of the exercise.

14. All lasers used aboard MCBQ must be in compliance with the Naval Laser Safety Review Board (LSRB) with an approval letter on file. Similar laser systems approval letters from other DoD services are also authorized on Marine Corps ranges. In addition, all Class 3B and 4 laser operations require a Range Laser Safety Specialist-certified laser range. The section of the latest MCBQ laser survey applicable to the range being utilized will be provided to each LRSO. This document provides the user with specific information such as lasing points, PDF and right and left firing points for specific day and night specific targets areas.

15. The underlying concept of laser safety is to prevent intrabeam viewing by unprotected personnel. This is done by

locating target areas where no line-of-sight exists between the laser and uncontrolled, potentially-occupied areas, and by removing reflective surfaces from targets. The controls to prevent exposure to hazardous levels of laser radiation are:

a. Beam stops

b. Controlled access

c. Restricted airspace

d. A buffer zone around the target area

16. The following rules apply for all laser use in the MCBQ RTA:

a. The OIC/RSO/LRSO must be aware of all personnel movements in areas adjacent to the range area. The OIC of any moving personnel or occupied position adjacent to or across from the lasing range must be advised of the hazard. The RCF will pass a coordinating safety advisement as needed to all units.

b. Announcement of laser firing, audible to all training personnel, must be made prior to firing (Example: "Lasing, Lasing, Lasing" shouted out-loud).

c. The RMB will:

(1) Maintain laser firing logs for the Base indefinitely.

(2) Conduct a quarterly sweep of laser ranges to remove specular surfaces that may cause reflection.

(3) Report all mishaps or unusual occurrences to the Command LSSO immediately.

7006. SUPPLEMENTAL LASER INFORMATION

1. Laser Classification. Laser systems are classified according to their relative hazards from Class 1 (least hazardous) to Class 4 (most hazardous).

a. Class 1 laser systems pose no hazard under any normal viewing conditions. Class 1M laser systems are only hazardous when viewed by magnifying optics.

b. Class 2 laser systems are low power visible wavelength lasers which are not considered hazardous for momentary (0.25 s) unintentional exposure because the normal observer will blink or look away before eye damage can occur. Class 2M laser systems are low-power visible wavelength lasers similar to Class 2, but are hazardous when viewed with magnifying optics, even for a momentary exposure.

c. Class 3 laser systems are medium power lasers. They are hazardous to personnel who are in the beam path and viewing the

source directly or by specular reflection. They usually do not present a diffuse reflection or skin hazard. Class 3R laser systems are considered safe if handled carefully, with restricted intrabeam viewing. With a Class 3R laser, the MPE can be exceeded, but with a low risk of injury. Class 3B laser systems are powerful and can cause serious eye injury for exposures of very short duration. They can be hazardous for long distances downrange from the laser system.

d. Class 4 laser systems are very powerful and the most dangerous laser systems. They can be hazardous for extremely long distances downrange from the laser system. They can also present a potential diffuse reflection viewing risk, and skin and fire hazard.

2. Definition of Terms

a. Diffuse Reflection. The scattering of laser light as it reflects off of a rough surface.

b. Divergence. The increase in the diameter of the laser beam as the distance from the aperture of the laser increases.

c. Maximum Permissible Exposure (MPE). The level of radiation a person may be exposed to without hazardous effect.

d. Nominal Ocular Hazard Distance (NOHD). The distance from the laser to the human eye, where laser exposure does not pose a hazard.

e. OD. Refers to the density of the eyewear (goggles or visors) required to protect the eye from laser radiation.

f. Specular Hazard. A shiny or mirror-like surface. Examples are vehicle windows, polished metals, standing water, Plexiglas, and chrome bumpers.

3. Class 1, Class 2, and Class 3R lasers are authorized for use in all MCBQ RTA.

a. Use of all safety features that limit power output are mandatory on ranges not certified for Class 3B and higher lasers.

b. RSO will ensure use of applicable safety features per laser technical manuals.

c. Use of Class 3R and below lasers for force-on-force operations must be coordinated with the RSS.

4. DoD exempt, unfiltered Class 3B, and Class 4, laser use is restricted to Ranges 7, 8, 15 and GP44. Use of Class 3B and higher lasers are not authorized for force-on-force operations unless safety switch is engaged, reducing the Laser to Class I.

NOTE: DoD Exempt Lasers are lasers designed for actual combat, combat training operations, or classified in the interest of national security and are exempted from the requirements specified in 21 CFR 1040 (Performance Standard for Light Emitting Products).

7007. USING UNIT RESPONSIBILITIES

1. Unit COMDRs. The CO or designated representative of the lasing unit will:

a. Select, train, and certify safety personnel necessary to assist in complying with the provisions of reference (a) and other applicable laser regulations.

b. Provide adequate control of the target area to prohibit entry of unauthorized personnel.

c. Designate an LRSO for each lasing site; the LRSO can be the OIC/RSO of the firing unit provided he is at the lasing site and is laser qualified/certified).

2. Laser Range OIC/RSO. The OIC/RSO of a laser range will:

a. Comply with applicable duties of the OIC/RSO as listed in this Order.

b. Be knowledgeable of and ensure compliance with this Order, reference (a), and applicable FM/TMs.

c. Brief unit personnel who work with lasing devices and any laser range support personnel on laser-related hazards and safety devices, procedures, and measures. Warn all personnel on the range of imminent laser operations.

d. Know the features (azimuths, elevations and lateral limits of each range, firing positions, and targets to be used) as identified in the laser range certification and this chapter.

e. Ensure laser protective eyewear is used when required, in order to prevent unprotected personnel from viewing the laser beam or its specular reflection (with or without magnifying optics).

f. Post at least one person as an air sentry with the sole purpose of watching for unauthorized aircraft entering the Laser Target Area (LTA) or the LSDZ.

g. Maintain continuous control of all laser use on the range.

h. Maintain continuous communications with the RCF and all personnel in the target area.

i. Cease lasing immediately if positive control of a laser beam is lost, if unprotected or unauthorized personnel/aircraft enter the LTA or LHZ, if the laser operator or the RMB is dissatisfied with target tracking, or if communication is lost with the RCF or any personnel in the TA.

j. Ensure no flat, mirror like (specular) surfaces are downrange of the laser. Any specular surfaces that cannot be removed must be covered with a diffused material.

k. Maintain a laser log of the firing of all Class 3B lasers and higher (type of laser, time of each firing, location of laser, location of target, and azimuth to target) for unit records and submit a copy to RMB upon completion of laser training. A copy of a laser log will be provided by RMB during RTA check-out and will be collected during the post inspection/ turn-in process.

l. Report all mishaps or unusual occurrences to the RCF immediately.

7008. LASER RANGES

1. Limitations

a. MCBQ will support lasing operations from fixed and rotor wing aircraft in accordance with current laser range certification.

b. The laser certification for MCBQ addresses only those class laser systems approved for training scenarios by the Laser Safety Review Board (LRSB). Any laser system used in nontraditional modes, R&D applications, and prototype systems will be handled separately and coordinated with the RSS and RCO. The Command LSSO will do the specific certification on a case-by-case basis.

2. Ranges

a. Laser certifications may change should the character of the laser-certified ranges change. Units planning to use lasing devices will confer with the RSS as to MCBQs current laser certifications.

b. MCBQ has four LTAs certified for unfiltered Class 3B and Class 4 laser systems. These LTAs are located on R-7, R-8, R-15 and GP-44.

c. Ranges 7, 8, 15 and GP-44, with SDZs extending into the Quantico impact area, have been safety-certified contingent upon adherence to safety regulations contained herein and the current laser certification. These ranges are only approved for use

with lasers specifically identified in the current Safety Of Use Memorandums (SOUMs) or the current MCBQ laser certification.

d. There are a total of five Firing Points (FP) and three Helicopter Firing Positions (HFP) within the MCBQ Laser Ranges.

e. For detailed information about laser use aboard MCBQ contact the RSS at (703)432-6552.

f. Ensure personnel are trained and have fired the laser and weapon assigned to them.

g. Brief participants on the capabilities of the lasers and weapons used by other units/components in the exercise.

h. Ensure all personnel participating in the exercise have all personal protective gear required by all orders and regulations governing the use of lasers.

APPENDIX A ACRONYMS & DEFINITIONS

The abbreviations and definitions listed below are pertinent to this Order and are used throughout.

A&E.....Ammunition & Explosives
AAR.....After Action Review
AGL.....Above Ground Level
ARSO.....Assistant Range Safety Officer
ARTCC.....Air Route Traffice Control Center
ASP.....Ammunition Supply Point
ATC.....Air Traffic Control
BAS.....Battalion Aid Station
BFA.....Blank Firing Adapters
CAS.....Close Air Support
CO.....Commanding Officer
COMDR.....Commander
CS.....Compound 2-Chlorobenzalmalononitrile
DoD.....Department of Defense
DODIC.....Department Of Defense Identification Code
DZ.....Drop Zone
ELMR.....Enterprise Land Mobile Radio
EMT.....Emergency Medical Technician
EOD.....Explosive Ordnance Disposal
FAA.....Federal Aviation Administration
FAC.....Forward Air Controller
FARP.....Forward Arming and Refueling Points
FBI.....Federal Bureau of Investigation
FDC.....Fire Direction Center
FLIP.....Flight Information Planning
FM.....Field Manual
FMFM.....Fleet Marine Force Manual
FP.....Firing Point
FSCC.....Fire Support Coordination Center
FST.....Fire Support Team
GIS.....Geographic Information System
GP.....Gun Position
HAZMAT.....Hazardous Material
HERO.....Hazard of Electromagnetic Radiation to Ordnance
HFP.....Helicopter Firing Point
HRST.....Helicopter Rope Suspension Training
IC.....Incident Commander
IED.....Improvised Explosive Device
IFR.....Instrument Flight Rules
IP.....Initial Point
ISA.....Interdepartmental Support Agreement
LSRB.....Laser Safety Review Board

LTA.....Laser Training Area
LZ.....Landing Zone
MAC.....MOUT Assault Course
MCAFQ.....Marine Corps Air Facility Quantico
MCBQ.....Marine Corps Base Quantico
MCCDC.....Marine Corps Combat Development Command
MCESG.....Marine Corps Embassy Security Group
MCO.....Marine Corps Order
MCRP.....Marine Corps Reference Publication
MCWP.....Marine Corps Warfighting Publication
MEDEVAC.....Medical Evacuation
MIM.....Military Installation Map
MLSR.....Missing, Lost, Stolen, or Recovered
MOA.....Memorandum of Agreement
MOES.....Methods Of Entry School
MOU.....Memorandum of Understanding
MOUT.....Military Operations in Urban Terrain
MPH.....Miles Per Hour
MRE.....Meal, Ready-to-Eat
MSL.....Mean Sea Level
NATOPS.....Naval Air Training and Operating Procedures Standardization
NBC.....Nuclear, Biological, Chemical
NCO.....Non-Commissioned Officer
NEW.....Net Explosive Weight
NFPA.....National Fire Protection Act
NLT.....No Later Than
NMCI.....Navy and Marine Corps Intranet
NOTAM.....Notice To Airmen
NREA.....National Resource and Environmental Activity
NSN.....National Stock Number
OCS.....Officer Candidate School
OD.....Optical Density
OIC.....Officer-In-Charge
OP.....Observation Point
ORA.....Operational Risk Assessment
ORM.....Operational Risk Management
PIC.....Pilot-In-Command
PMO.....Provost Marshal’s Office
POC.....Point Of Contact
POL.....Petroleum, Oils, and Lubricants
POV.....Privately-Owned Vehicle
POW.....Privately-Owned Weapon
PPE.....Personal Protective Equipment
PT.....Physical Training
RAM.....Range Airspace Manager
RCA.....Riot Control Agent

RCF.....Range Control Facility
RCNI.....Request Control Number Identifier
RCO.....Range Control Officer
RDT&E.....Research, Development, Testing & Evaluation
RFMSS.....Range Facility Management Support System
RMB.....Range Management Branch
RSO.....Range Safety Officer
RSS.....Range Safety Specialist
RSU.....Reserve Support Unit
RTA.....Range and Training Area
RTAM.....Range and Training Area Management
SDZ.....Surface Danger Zone
SESAMS.....Special Effects Small Arms Marking System
SIMCAS.....Simulated Close Air Support
SOP.....Standard Operating Procedure
SOUM.....Safety Of Use Memorandums
SUA.....Special Use Airspace
TAD.....Tactical Air Direction
TBS.....The Basic School
TECOM.....Training Education Command
TESS.....Tactical Engagement Simulator System
TM.....Technical Manual
TOW.....Tube-launched Optically-tracked Wire-guided
TRACON.....Terminal Radar Approach Control
TSCQ.....Training Support Center Quantico
U.S.....United States
UAS.....Unmanned Aerial System
UCMJ.....Uniformed Code of Military Justice
UHF.....Ultra High Frequency
UTC.....Urban Training Center
UTF.....Urban Training Facility
UXO.....Unexploded Ordnance
VFR.....Visual Flight Rules
VHF.....Very High Frequency
WBGT.....Wet Bulb Globe Temperature
WDZ.....Weapon Danger Zone
WTBn.....Weapons Training Battalion

DEFINITIONS

Air and Ground Range Control Facility; This facility provides safety, control, maintenance, and administrative functions for aviation, ground, and combined-arms training activities on RTAs, to include both live-fire and non-live-fire events. Services can include SUA surveillance. Ground functions for this facility encompass land RTAs. Range Control is this type of facility.

Air Sentry; An individual designated by the Officer-In-Charge (OIC) of Firing to maintain surveillance of an assigned sector of airspace to warn of the approach of aircraft.

Bivouac Area; An area assigned for administrative and logistical functions, such as troop billeting. Field training and live-firing are not conducted within bivouac areas.

Bivouac Operations; Those operations involving troop administrative and logistical functions; troop field billeting.

Cantonment; An area assigned for administrative and logistical functions, such as housing, troop billeting, offices, storage and maintenance areas. Normally, field training and live-firing are not conducted within cantonment areas.

Controlled Firing Area (CFA); Airspace established to conduct activities that would be hazardous to nonparticipating aircraft if not conducted in a controlled environment. It is the range user's responsibility to provide for the safety of persons and property on the surface and to cease firing when aircraft transit the CFA.

Deviation; A departure from the requirements and/or procedures of this Order.

Drop Zone (DZ); A tactical landing zone in which personnel or cargo paradrops are authorized.

Dud; Ammunition of any caliber or weight that has been fired, placed, dropped, thrown or launched but which fails to function as designed.

Explosive Ordnance Disposal (EOD); The detection, identification, field evaluation, render-safe, recovery, and final disposal of unexploded explosive ordnance (UXO). It may also include the rendering-safe and/or disposal of Explosive Ordnance (EO), which has become hazardous by damage or deterioration, when the disposal of such EO requires techniques, procedures, or equipment, which exceeds the normal requirements for routine disposal.

Field Training Areas; Those areas designated for a specific type of training, normally not requiring the use of live ordnance.

Fire and Maneuver Range; Range on which troop movement and live-firing may be conducted simultaneously.

Fire Danger Rating (FDR); Forestry Service rating based on weather conditions and fire burning indices describing the potential for ignition, rate of spread, and suppression probability with regard to fires.

Firing Lane; The area within which a weapon system is fired. It consists of a start firing line, cease-firing disarm line, and left and right limits of fire.

Firing Line or Point; The location from which a weapon is fired at a target or into an impact area.

Formal School; A school, or a course within a school, which produces, as a result of its Program of Instruction (POI), a Marine qualified in an Military Occupational Specialty (MOS). This definition includes Weapons and Field Training Battalion (WFTBN) Coaches and Primary Marksmanship Instructors Course.

Fouled Range; The result of any event that precludes the expenditure of ordnance or munitions.

Gray Water; Wastewater produced from field baths and showers.

Hang Fire; An undesired delay in the functioning of a firing system. A hang fire for a rocket occurs if the rocket propellant is ignited by the firing impulse, but the rocket fails to exit the launcher within the expected time frame.

Impact Area; Impact areas are areas within and above an operational range used to contain fired or launched military munitions. Impact areas may be delineated by operational range use. For example, the delineation of an indirect-fire weapon system impact area accounts for probable error in military munitions range and deflection. The delineation of a direct-fire weapon system impact area accounts for the total surface danger zone form the firing point or position downrange to impact. Impact areas may be further delineated by other operational range uses. These include:

Dedicated impact area, duded; An impact area with permanently-delineated boundaries normally used to contain non-sensitive, high-explosive, military munitions.

High-hazard impact area; A permanently-designated impact area used to contain sensitive, high-explosive military munitions. A high-hazard impact area is normally delineated within a

dedicated impact area where access is restricted due to UXO explosive safety hazards.

Impact area, non-dudded; An impact area with designated boundaries used to contain non-explosive military munitions. These areas are primarily composed of small arms range safety fans and are available for maneuver when not used for military munitions training.

Impact area, temporarily-dudded; An impact area primarily used to contain non-explosive military munitions that may be temporarily used to contain non-sensitive, high-explosive, military munitions. A temporarily-dudded impact area should be capable of being cleared for maneuver.

RDT&E range impact area, dudded; A high-hazard impact area limited to RDT&E activities.

Laser; A device capable of producing a narrow beam of intense light (LASER-light amplification by stimulated emission of radiation). See TB MED 524 and JP 3-09 for more information on lasers.

Landing Zone (LZ); A pre-designated, numbered or named helicopter landing zone, which provides major commands ready access to air transportation and medical evacuation.

Leased Area; Government property within the confines of MCBQ that is leased to non-military tenants.

Live-Fire Range; A range on which live-fire exercises, including the use of some types of practice ammunition, may be conducted.

Malfunction; Failure of munition to function in accordance with design, intent, or expected performance.

Maneuver Area; Two or more contiguous training areas designated and scheduled by a using unit for tactical exercises of battalion level or higher.

Military Operations Area (MOA); An airspace assignment established to separate or segregate certain military aircraft activities from IFR traffic and to identify for VFR traffic where these activities are occurring.

Misfire; A failure of a primer, initiation charge or propelling charge to function; a demolition charge fails to function; or a small arms primer fails.

Net Explosive Weight (NEW); The actual weight of explosive mixture of compound in pounds, including the TNT equivalent of other energetic material, which is used in the determination of explosive limits and ESQD arcs.

No Fire Area (NFA); A designated area into which neither live-fires nor effects of live-fire will occur. NFAs are designated by a six-digit grid with a radius in meters.

Non-Lethal; Also known as less than lethal. Pertains to training conducted with munitions not intended to be lethal.

No Show; A scheduled range event where the range time was not cancelled and went unused.

Notice To Airmen (NOTAM); A message to aircraft pilots in a specific area warning of airspace restrictions, equipment outages, or other factors which may affect flight activities.

Observation Post (OP); A point from which impacting ordnance may be observed.

Officer-In-Charge (OIC); An individual designated by the Commanding Officer of the training unit who assumes responsibility for all aspects of training to include, but not limited to live-fire, paradrops, or air exercises.

Paradrop; The controlled aerial delivery of personnel or equipment by parachute.

Pyrotechnics; Smoke or signals, either flares or grenades. White phosphorous is not considered a pyrotechnic.

Range; A training facility designated for non-live-fire or live-fire weapons training, practice firing of weapons, demolitions, flame weapons, or fire and maneuver exercises.

Range Guard; An individual designated to maintain surveillance over an assigned locale to prohibit unauthorized entry into a surface danger area, and to give the alarm in the event that entry is detected.

Range Safety Officer (RSO); A designated individual who has attended the MCBQ Range Safety Officer Course and completed the Distance Learning Course (CI060120CA).

Restricted Airspace/Area; Airspace designated under Federal Aviation Regulations, Part 73, within which the flight of non-participating aircraft, while not wholly prohibited is subject to restriction.

Special Use Airspace (SUA); Airspace in which aviation activities must be confined because of their nature and where limitations may be imposed on aircraft operations that are not a part of those activities. Types of SUA include Restricted Areas, CFAs, MOAs, and Warning Areas.

Standard Altitudes; Regularly scheduled effective altitudes pertaining to Special Use Airspace (SUA) that are not necessarily the published effective altitudes.

Surface Danger Zone (SDZ); The ground and airspace designated within the training complex (to include associated safety areas) for vertical and lateral containment of projectiles, fragments, debris, and components resulting from the firing, launching, or detonation of weapons systems to include explosives and demolitions.

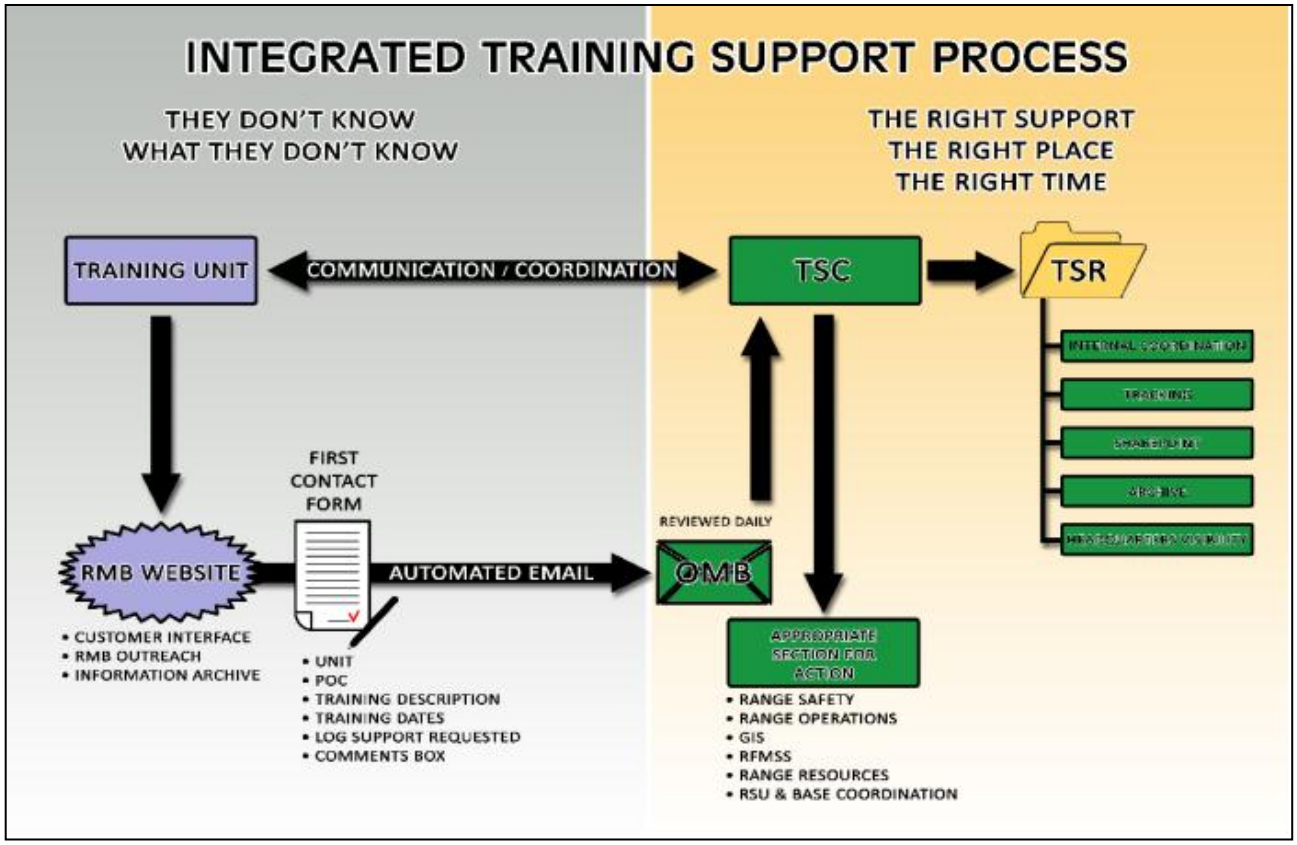
Training Area; All areas on MCBQ outside of cantonment area boundaries.

TERF Route; Terrain Flight route used for helicopter low altitude navigation training.

Visual Flight Rules (VFR); Aircraft operations conducted under visual flight rules

APPENDIX B TRAINING SUPPORT CENTER INFORMATION

The Training Support Center (TSCQ) is the initial point of entry for units requesting training coordination. The TSCQ can coordinate all aspects of unit training from scenario development and training devices, to logistical support and billeting. Our goal is to ensure unit training is coordinated efficiently and effectively. The TSCQ will assist units in navigating the processes and procedures required to conduct training aboard the installation.



1. Mission

Marine Corps Base Quantico (MCBQ) TSCQ matches existing and emerging technologies with unit training requirements to develop system supported training solutions and training enabler services in order to ensure realistic and relevant training environments in support of all units training aboard MCBQ. In conjunction with Range Management Branch, provides a single POC for all range issues and reduces the administrative burden on training units through training support services.

2. Specified Tasks Per MOA Dated 083109

"The MCBQ TSCQ mission is to provide training support for all units training aboard MCBQ through the use of training systems

in order to provide Marines with the most realistic training environment while they prepare for combat. The TSCQ will optimize the training benefit derived from the modern and capable training enabler systems and services such as automated targetry, battlefield effects, MOUT facilities, live fire ranges, sniper towers, simulators, minor training devices, exercise design, etc."

3. Equipment. A wide variety of training devices are available to training units including, but not limited to:

a. Automated targets and ranges

b. IED simulators and training devices

c. Battlefield Effects Simulators

d. Atmospherics

e. I-TESS Force on Force Tactical Engagement System

f. Op-For Small arms simulators

g. SESAMS

4. Services. TSCQ provides contractor support for all systems available aboard MCBQ. Services vary from system to system and are executed via contracted services.

a. Equipment emplacement/retrieval

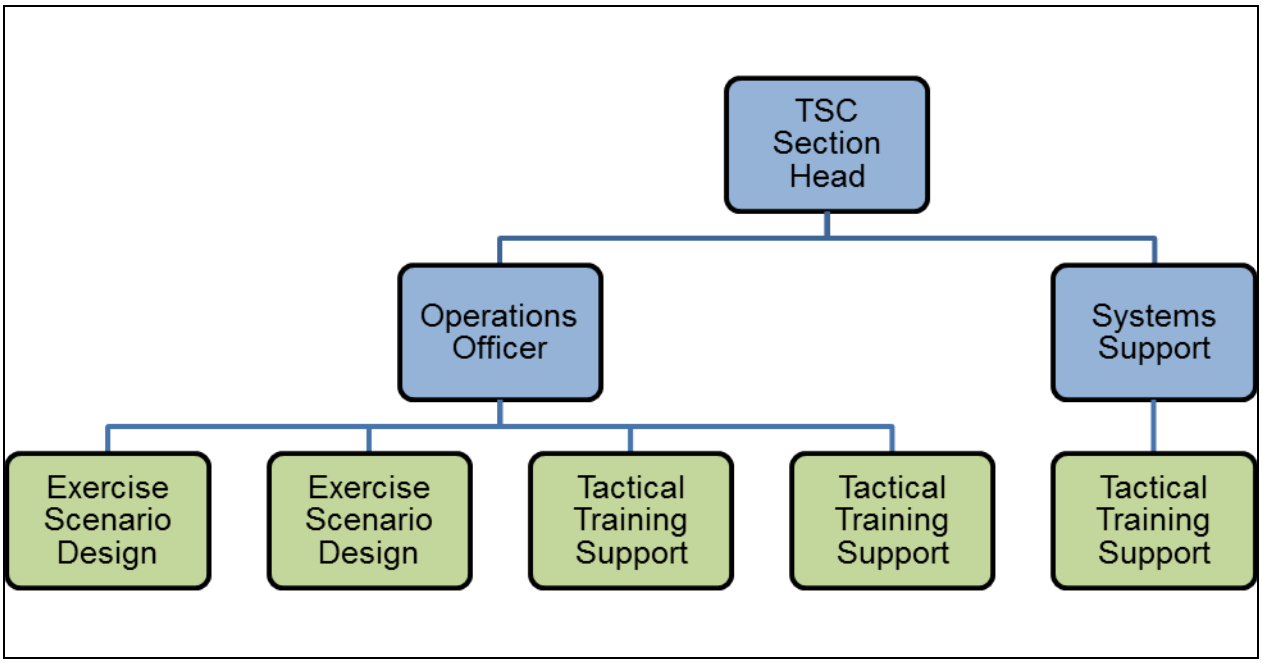
b. System maintenance/repair

c. System operation

d. Role Player coordination

e. Exercise planning, scheduling and coordination support

f. After Action Review support



5. Tactical Training Support Specialist (updated 13 JUN 2012)

a. Coordinates training exercise support that the Training Support Center (TSCQ) offers as part of the "One Stop Shop" that integrates training resources available aboard MCBQ;

(1) Range Facility Management Support System (RFMSS)

(2) Reserve Support Unit (RSU)

(3) Training and Education Command (TECOM) organizations (The Basic School [TBS], Officer Candidate School [OCS])

(4) Range Management Branch (RMB)

(5) Selected Marine Corps Base Support Services

b. Facilitates the coordination of logistical support capabilities with Marine Corps Base units and organizations.

c. Advises units on training resources available to integrate into the unit pre-deployment training plan and field training exercises by identifying appropriate training areas, devices, weapon ranges, and logistical support required

(1) Is the subject matter expert on capabilities of ranges, training areas and facilities aboard MCBQ

(2) Assists units with exercise development, ascertaining training objectives, and scheduling of training venues.

d. Records and tracks all assigned Training Support Requests (TSR) via the TSCQ SharePoint.

(1) Unit establishes contact to TSCQ through email, phone call, or in person

(2) TSCQ personnel that receive contact will record pertinent information on a TSCQ first contact form and initiate a TSR on the SharePoint for follow up by Operations Officer (OpsO) who will assign an action officer.

(3) Once an action officer is assigned, the TSR status is changed from first contact to in progress

(4) Action Officer (AO) will contact the unit and gather additional training requirement details and provide the unit with additional TSCQ information (Brochure, link to website).

(5) AO will record significant actions to the comments section of the TSR

(6) AO will post significant appointments, range tours, and meetings to the SharePoint calendar

e. Manages the C-IED training support capabilities for the TSCQ, MCBQ, including:

(1) Repair and construction of training aids and devices

(2) Inventory and accountability of TSCQ equipment

(3) Maintains currency on emerging C-IED TTPs, concepts, enablers, and initiatives to assist units as required with developing training venues that require C-IED training support.

(4) Collaborates with various C-IED stakeholders (TECOM G3 C-IED Cell, MCWL C-IED Division, MCEC, et al) to provide units with subject matter expertise

(5) Research and resource C-IED training support capabilities to include procurement of “up to date” C-IED training device kits to provide units a realistic training venue.

(6) Advises units on C-IED training resources available to integrate C-IED training into the unit pre-deployment training plan and field training exercises.

(7) Identifies appropriate training devices and determines proper employment of training devices and effects simulators.

(8) Integrates IED battle field effects simulators and training devices into the unit training plan.

(9) Operation and triggering of training devices and effects simulators as required when unit is unable to provide certified operators.

(10) Informs units of training and certification requirements for simulators and devices; Units are encouraged to provide certified personnel to operate simulators as part of internally resourced opposing forces or aggressors.

NOTE: IED effects simulators are managed by Katmai and ProActive warehouse contractors and are issued with safe operating instructions but no employment consideration. Tactical Training Support (TTS) fills the gap between the managers of C-IED training resources and the training unit by providing local devices and resources to users and assisting unit trainers with relevant employment considerations.

6. Urban Training Facility (UTF) oversight and procedures

a. TSCQ will assign a TTS to provide oversight for MCBQ UTF.

b. The TSCQ is responsible for pre- and post-facility inspections of Urban Facilities aboard MCBQ and will be supported by RMB Patrolmen as necessary.

c. Units are responsible for the satisfactory police of Urban Facilities, resetting of atmospheric devices where applicable and reporting of any and all damage. Units will receive the Urban Facility Checklist and restrictions upon checking out the facility at Range Control.

7. Training System Support. Numerous training support systems and services are available to units training aboard Quantico. Systems vary from Portable Infantry Targets and Automated Ranges to Battlefield Effects systems and force-on-force engagement systems and are provided to improve the quality, realism and efficiency of unit training.

a. Training system support is a finite resource that involves money, personnel, and resources. Units will schedule training system support based on actual training requirements. Known gaps in training will be identified in the request process to enable efficient scheduling and allocation of resources. For example, a unit that intends to occupy a range at 0600, conduct dry runs until 0830, and then conduct live fire at 0900 on automated targets, break for chow from 1300-1400, and go cold at 1800; will submit a request for automated targets from 0900-1300 and 1400-1800.

b. Units will schedule support no later than 72 hours prior to training to allow for the efficient management of support systems and services and timely support of all training units aboard Quantico. Changes to training support requests will be made no later than 24 hours in advance of training.

c. Units are financially responsible for damage incurred through the abuse, negligence or improper use of training systems. Damage to systems will be investigated and final determination will be made by the TSCQ and RMB. Additionally, training support systems shall not be relocated, manipulated or altered in any way not previously coordinated with the TSCQ or the support contractor.

d. Training Support Contractors will depart the training venue 1 hour after the scheduled start time absent communication from the training unit. Units will coordinate with the TSCQ to reschedule support.

e. Units that have occupied a range with approved training system support and do not use that support within 2 hours of the approved start time will lose all support. For example, if a unit requests to occupy the range at 0800, to go hot engaging automated targets at 0830, and is still cold at 1030; then the training system support for that range will be cancelled.

(1) Units that place themselves into check-fire status for 2 hours will forfeit all training system support.

(2) Units that lose training system support will not be issued equipment for self-use. Violation of these procedures will result in loss of training system support.

f. Training system support will not normally be used for dry runs/rehearsals. Use of training system support for dry runs/rehearsals requires coordination and approval from TSCQ.

8. Exercise Scenario Design. The Exercise and Scenario Design Cell at TSCQ Quantico focuses on the development of exercises and scenarios as desired by the specific training unit. Capability to develop comprehensive exercises up to and including battalion level operations are achieved through a team approach incorporating the Marine Corps Planning Process applied the specific requirement. The process for development is via an informal action officer level request to TSCQ Quantico:

a. Initial Contact Between Supported Unit And TSCQ Quantico. AO-level request followed by an Initial Planning Conference (IPC). Specific requirements will be provided by the supported unit and initial framework will be developed and approved. Plan of Action & Milestone (POA&M) will be developed and approved at this meeting so planning may begin.

b. Planning and Development. TSCQ Quantico will form internal OPT with assistance of an LNO from the supported unit. Initial concept brief/Course Of Action (COA) development will be accomplished followed by approval or refinement from the unit.

c. Midterm Planning Conference (MPC). An in-stride update on product development and request for guidance will be held to ensure timelines are on track and attainment of requirement remains valid.

d. Final Planning Conference (FPC). This is the final meeting of the OPT prior to product completion and delivery to the supported unit. Usually held 2 weeks prior to due date, this is the final opportunity for the supported unit to influence the final product.

e. The complexity and detail of the desired support will be the primary factor driving the level of support provided given time available. Requests for Exercise/Scenario Design will be made no later than 5 days prior to training.

APPENDIX C RSO AND OIC DESIGNATION LETTER

Units may use this document as part of their Range OIC/RSO Programs. Units are NOT required to submit this document to Range Control

UNITED STATES MARINE CORPS
Unit Header

IN REPLY REFER TO:
3570
S-3
Date

From: Commanding Officer
To: Range Control Officer, MCBQ

Subj: OFFICER-IN-CHARGE (OIC)/RANGE SAFETY OFFICER (RSO)/LASER SAFETY SYSTEMS OFFICER (LSSO) CERTIFICATION LETTER

Ref: (a) AR 385-63(MCO 3570.1C)

1. The following Officers, Staff Non-Commissioned Officers, and Non-Commissioned Officers have been trained in accordance with the references and are certified as Officers-in-Charge (OICs) and or Range Safety Officers (RSOs) as indicated:

RANK	NAME	MOS	MCB QUANTICO ID #	MCB QUANTICO EXPIRE	QUALIFICATIONS				
					SMALL ARMS	HMG	MORT	RCKTS. MISS.	OTHER (SPECIFY)
									CBRNE
									RAPPEL
									DEMO
									MCWIS
									JTAC
									ALSO
									LASERS

2. This roster supersedes all previous editions.

3. The Point of Contact (POC) is xxxxxxx at (703) xxx-xxx.

I.M. Commander
Col USMC

APPENDIX D OIC/RSO APPOINTMENT REQUIREMENTS

WEAPON SYSTEM	OIC[1]			RSO[1]		
	OFF	WO	NCO	OFF	WO	NCO
Practice hand grenades; sub-caliber training devices; laser devices; firing devices; simulators & trip flares; small arms and machine guns.	X	X	E-6	X	X	E-5
Chemical agents and smoke[2]	X	X	E-6	X	X	E-5
Aerial gunnery & air defense weapons; live grenades, grenade launchers, and grenade machine guns; live mines & demolitions; tank & fighting vehicle cannons.	X	X	E-7	X	X	E-6
Field artillery[3]	X	X	E-7	X	X	E-6
Mortars	X	X	E-6	X	X	E-6[4]
Air defense artillery rockets and guided missiles	X	X		X	X[5]	
Direct fire antitank rockets and missiles	X	X	E-7	X	X	E-6
Live-fire exercises using organic weapons, squad through company, battery, troop.	X	X	E-7	X	X	E-6
CALFEX/CAX using outside fire support, troop, battery, squad, platoon, company; or battalion and larger.[6]	X	X	E-7	X	X	E-6

Notes:

[1] Civilians in the grade of GS–07 and above, or equivalent, may act as OIC; GS–05 and above, or equivalent, may act as RSO. Civilian contractors may act as RSOs when approved by the installation commander/senior commander.

[2] For the Marine Corps, OIC and RSO must be E–4 and above and be chemical, biological, radiological, and nuclear (CBRN) MOS 5702/5711 when conducting CBRN or smoke training. For the Army, OIC and RSO must be CBRN qualified when conducting CBRN or smoke training.

[3] Use of E–7s as OICs is authorized only when approved by the senior commander (Army)/installation commander (Marine Corps). Duties of the RSO are normally performed by either the battery executive officer or the platoon leader.

[4] RSO for Marine Corps can be an E–5 for mortar training activities.

[5] SRSO will be a CW3, CW03, or higher or civilian in the grade of GS–11 or above.

[6] For battalion or larger CALFEX/CAX, OIC will be a field grade officer; exercise RSO will be E–7 or above.

APPENDIX E MCB QUANTICO STANDARD ORM/RISK ASSESSMENT FORM

1. Description. Units conducting training for which there is not an approved detailed training plan on file with Range Control must submit an Operational Risk Assessment (ORA) worksheet to RMB.

2. Point Of Contact. The POC is the Range Safety Specialist at (703) 432-6552/DSN 378-6552.

OPERATIONAL RISK MANAGEMENT MATRIX
MARINE CORPS BASE QUANTICO

TRAINING EVOLUTION:	**ORGANIZATION:**	**PREPARED BY:**	**DATE:**

OPERATIONAL PHASE	**HAZARD**	**CAUSES**	**INITIAL RAC**	**DEVELOP CONTROLS**	**RESIDUAL RAC**	**HOW TO IMPLEMENT**	**HOW TO SUPERVISE**

HAZARD SEVERITY:

I - CATASTROPHIC- Death, permanent disability, major property damage.
II - CRITICAL- Permanent partial disability, major system damage, minor property damage.
III - MARGINAL- Minor injury, minor system or property damage.
IV - NEGLIGIBLE- 1st aid, minor system repair.

MISHAP PROBABILITY:

A - FREQUENT
B - LIKELY
C - OCCASIONAL
D - UNLIKELY

RISK ASSESSMENT CODE: (RAC)

1 - CRITICAL
2 - SERIOUS
3 - MODERATE
4 - MINOR
5 - NEGLIGIBLE

RAC ASSESSMENT CODE MATRIX

HAZARD SEVERITY	**MISHAP PROBABILITY**				
		A	**B**	**C**	**D**
	I	1	1	2	3
	II	1	2	3	4
	III	2	3	4	5
	IV	3	4	5	5

COMMAND REVIEW / APPROVAL

OFFICER-IN-CHARGE (OIC) AND RANGE SAFETY OFFICER (RSO) CHECKLIST

(Duties listed are to be performed by the OIC and RSO as noted)

PHASE I – BEFORE TRAINING/FIRING	
OIC RESPONSIBILITIES	
	Checkout the assigned range(s) from Range Control.
	Assume responsibility for the scheduled range, related airspace, and training facility.
	Obtain or certify possession of required safety equipment (range regulations, range flag, blinking red light).
	Receive the Range SOP from Range Control for the specific range being used. Ensure all special instructions in the Range SOP are adhered to.
	Certify that all pertinent range and safety regulations have been read, understood, and are complied with.
	Ensure appropriate medical support and safety vehicle are present with the unit and that all personnel are wearing proper safety equipment.
	Ensure that the impact area or range is clear of all personnel and that all safety measures directed by this Order, specific Range SOPs, and applicable directives have been taken (e.g., use of barriers, posting of air sentries, posting of range gate guards when necessary to deny access to the range/impact area).
	Ensure that two means of communications are utilized between the unit conducting training and Range Control (e.g., AN/PRC-119, and MCBQ black or green gear). The responsibility for proper communications with Range Control rests with the training unit. Handheld radios can be drawn from Range Control to meet this requirement. The frequencies used by Range Control at MCBQ can be found in Appendix E. If a cell phone is to be used, it will only be used as a secondary communication method and a connection must be able to be established from range control to the cell phone.
	Ensure radio checks are made to Range Control every 30 minutes, on the half-hour, while in a “Hot” status. When in a “Cold”, check-fire, or occupied status, the OIC/RSO will send a situation report to Range Control every 3 hours on the hour and continue to monitor the safety network. The OIC/RSO will provide the final radio check when displacing. Training units will establish their own internal communications network for all administrative needs (road guards, etc.). Range Control will not provide radios or communication networks for internal communication needs.
	Ensure all applicable safety precautions are taken.
	Conduct a joint inventory of the ammunitions and explosives at the range with personnel delivering the ammunition and explosives.
	The RSO will compare their inventory against what is reflected on the appropriate Ammunition Supply Point (ASP) issue document and verify that the lot number on every container matches the lot number on the issue document.
	Open all containers that are not factory sealed and visually inspect the ammunition and explosives to ensure the contents correspond with what is indicated on the issuing document.
	Ensure ammunition and explosives are properly handled, transported, stored, and accounted for within the training complex from the time of receipt to the time of expenditure or turn-in in accordance with appropriate service level directives.

	Ensure plans for firing exercises and maneuvers are coordinated with the MCBQ RCO or MCBQ RSS. The Range OIC will coordinate with the MCBQ RCO or MCBQ RSS and units using adjacent ranges or facilities to ensure safe conduct of training. De-confliction of airspace with the air detachment or any aircraft on-station will be conducted with the assistance of the unit Air Officer.
	Implement risk management in all phases of the training exercises. An ORM worksheet can be found in Appendix D. Event ORM must be made available upon request to MCBQ range safety personnel.
	Obtain clearance from Range Control to go "Hot" and notify Range Control when going “Cold”.
RECEIPT, CONTROL, ASSUMPTION OF RESPONSIBILITY FOR AMMUNITION (OIC RESPONSIBILITY)	
	Ammunition separated by DODIC
	All delivered Ammo & Explosives (A&E) physically inventoried with delivery ammo tech
	Ammo DODICs never mixed during use or storage
	Guard supervised and instructed on A&E security procedures
	Using unit briefed on ammo to be used on the range/training area
	Training unit briefed on proper handling procedures
	Shake-down procedures briefed
	Only enough ammo to accommodate each training phase is broken-out
RSO RESPONSIBILITIES PRIOR TO FIRING	
	Points of interest and potential safety highlights outlined in ORM have been addressed
	Range regulations for the specific range/training area have been read
	Range inspected for safety hazards
	Range flag erected (indicates the range is occupied with intention to fire ammunition or explosives)
	Target material inspected for safety hazards
	Safety personnel and proper safety equipment are present
	Safety Field Medical Technician HM/8404 Corpsman/ Army or Air Force medic is present with medical kit and equipment (may include unit 1 or unit 5 medical kit, spine board, c-collar neck brace, and oxygen kit with bag valve mask)
	Safety vehicle with qualified driver is present
	Safety vehicle driver briefed on duties
	Vehicles staged on the range to facilitate quick access to training area
	Safety radio operator with communication gear is present
	Communication gear checked to ensure it’s in working condition

	Extra batteries are present
	Radio operator briefed on procedures
	Radio frequency confirmed
	OE-254 erected (if necessary)
	Radio operator monitoring radio at all times with immediate access to the actual OIC or RSO
	Safety road guards posted with positive two-way communication
	Air sentries posted with positive two-way communication
	Ammo guards posted
	All guards briefed on post requirements
	Communication with range control established
	Fire danger rating confirmed
	Permission from range control requested to assume hot status
	Number of personnel on range reported
	Type(s) of weapons to be fired on range reported
	Type(s) of rounds to be fired on range reported
	Safety radio operator conducting radio checks (hot status = every 30 minutes) (cold status = every 3 hours)
	Receive the specific Range SOP from Range Control and adhere to all RSO duties and specific range regulations prescribed in this Order, the Range SOP, and applicable directives.
	Conduct a joint inventory of the ammunitions and explosives at the range with personnel delivering the ammunition and explosives.
	The RSO will compare their inventory against what is reflected on the appropriate Ammunition Supply Point (ASP) issue document and verify that the lot number on every container matches the lot number on the issue document.
	Open all containers that are not factory sealed and visually inspect the ammunition and explosives to ensure the contents correspond with what is indicated on the issuing document.
	Conduct a safety brief for all personnel present using the Range Safety Card issued with the range can from Range Control.
	Ensure weapons are properly positioned at authorized firing sites as indicated by the Range Tables and overlays.
	Brief road guards and air sentries in their duties and positions, ensure that barriers or gates are properly positioned and that road guards and air sentries have positive two-way communication with the RSO (radio, landline, etc.).
	Communication must be maintained between the RSO, road guards and air sentries at all times.
	If communication is lost the range will go into a check-fire status until communication is re-established.

	The RSO conducts final coordination with the OIC. This coordination will include a summary of checks, inspections, and actions that the RSO has completed. Then the RSO will contact Range Control and request a "Hot" status.
DESIGNATION AND ESTABLISHMENT OF A FIELD AMMUNITION SUPPLY POINT (FASP)	
	FASP establishment
	Two-man ammo guard (100% alert) assigned for stored ammo in the FASP
	Ammo guard(s) in condition three (with 30 rounds of ammo each)
	Site for dunnage consolidation point established
	Site for trash collection established
	Clear plastic trash bags used (for ease of inspection)
	Using unit briefed on trash and dunnage handling
FASP REQUIREMENTS	
	Ammo stored 100 meters (m) from bivouac site
	No flame-producing items within 50m (i.e., lit cigarettes)
	Ammo sheltered with water-resistant cover (poncho/tarp)
	Ammo stored on pallets at all times
	No radio transmitters within 25 feet (ft.) of stored ammo
	All ammo, demolition, and pyrotechnics storage in compliance with FASP regulations
	Compliance with FASP regulations
ESTABLISHMENT OF TRAINING EVOLUTION SAFETY STANDARDS	
	Special safety considerations for the range/training area briefed
	Four safety rules for handling weapons briefed
	Weapons condition for each weapon system used on the range/training area briefed
	Misfire procedures for each weapon system used on the range/training area briefed
	Assistant RSO (ARSO) designated and briefed
	Safety brief which includes ORM assessments is provided
PHASE II – DURING TRAINING/FIRING	
OIC RESPONSIBILITIES	
	No misconduct occurs on the firing line.

	All ordnance impacts are observed to ensure projectiles land within the prescribed impact area. Firing will be stopped immediately and Range Control notified if ordnance impacts outside of prescribed impact areas.
	The impact area is constantly observed and controlled to ensure that it remains clear.
	Firing is stopped immediately when any unsafe act is observed or reported.
	All accidents, injuries, or fires, regardless of severity, are reported immediately to Range Control.
IN THE EVENT OF SERIOUS INJURY OR DEATH, THE RANGE OIC WILL:	
	Call an Immediate “Cease-Fire”
	Ensure medical aid is rendered.
	Contact Range Control and report the location, nature and category of the accident, and assistance required. If an evacuation is required, the senior service member from the using unit will be the on-scene commander and will initiate action for the MEDEVAC/CASEVAC.
	Preserve the range for accident investigation.
	In the event of a non-serious injury or near miss that could have resulted in a serious injury, the OIC will ensure that corrective action is taken to prevent the incident from happening again.
RSO RESPONSIBILITIES	
	Ensure ONLY AUTHORIZED WEAPONS, as indicated by the Range SOP are utilized on the scheduled range.
	Allow ONLY AUTHORIZED MUNITIONS and ensure they are properly utilized in accordance with all applicable regulations.
	Verify that proper safety data is applied to all weapons systems.
	Monitor the communications network at all times. Make radio checks every 30 minutes on the half-hour to Range Control.
	Order an immediate cease-fire or check-fire when any unsafe condition is observed, including loss of communication.
	Enforce the safety regulations prescribed in this Order, Range SOPs, and applicable directives
	Ensure the SDZ is clear and that personnel wear appropriate safety equipment and hearing protection.
	Ensure all ammunition found on the range is reported to Range Control immediately.
SAFETY SUPERVISION DURING CONDUCT OF TRAINING	
	ARSO(s) in place prior to beginning of training
	Helmets and flak jackets, and any other personnel protective equipment properly worn
	Final sweep of impact/training area conducted or visual inspection if a physical sweep is not possible (i.e. for dud-producing impact areas
	Training unit conducted inspection for proper ammo and equipment

	Targets and target materials placed in a safe location and direction
	Blank firing attachments properly mounted (if applicable)
	Ammunition shake-down procedures supervised and conducted for each ammunition type transition
PHASE III – AFTER FIRING	
OIC RESPONSIBILITIES	
	All weapons have been cleared, and notification of going "Cold" is given to Range Control.
	An accurate count and type of all munitions expended is maintained, and the count is turned in to Range Control upon completion of the exercise.
CONTROL OF UNEXPENDED AMMO TO RECEIVING UNIT AMMO TECH TURN-OVER	
	Completed ammo expenditure report turned over to ammo tech
	Joint inventory of unexpended ammo (with ammo tech) completed
	Form 1348-1 completed with the ammo tech while on the range/training area
	All Grade III ammo identified for turn-in
	Ammo properly packaged
	Only properly transported ammo allowed to leave the range/training area
	The area is policed before leaving. Ensure all brass, cartridge cases, and reusable containers are removed from the range and returned to the appropriate facility.
	All safety equipment and checked-out items are promptly returned to Range Control.
	Required paperwork associated with range utilization is completed and turned into Range Control.
	All checkout procedures are completed with Range Control and responsibility for the facility is relinquished.
UNEXPENDED AMMO AND EXPLOSIVES ACCOUNTABILITY	
	All unexpended ammo at the FASP consolidated
	Each DODIC at the FASP physically counted
	All dunnage and trash inspected
	Clear plastic trash bags inspected; all dunnage for unexpended ammo physically inspected
	Supervise separation of dunnage from trash
	Coordination made for removal of dunnage and trash from the range/training area
	Ammunition expenditure (to determine how much ammo was actually expended) reconciled
	NAVMC 11381 Form completed

	Responsible unit ammo tech contacted for ammunition turn-in
RSO RESPONSIBILITIES	
	Verify all weapons are safe and cleared.
	Assist OIC in supervising police call.
	Perform a shakedown on all personnel.
	Account for all saved/expended munitions.
	Communication with range control maintained while occupied
ESTABLISHMENT OF SHAKE-DOWN SITE AND SUPERVISION OF ALL AMMUNITION HANDLING	
	Three stations (with distance between each) established
	Download station – all unexpended munitions are removed from magazines and equipment
	Inspection station – supervised pat-downs and magazine checks
	Issue point – supervised issuance of the correct type of ammunition for the next training evolution
SUPERVISION OF CONDUCT OF DOWNLOAD SITE	
	Buddy-system used to download unexpended ammo from magazines, pouches, equipment and uniforms
	Participants received proper instructions
	All participants accounted for at this station using the roster provided by the OIC of training
	All munitions are segregated and stored in properly marked containers
SUPERVISION OF CONDUCT OF INSPECTION STATION	
	ARSO received proper instructions
	Thorough pat-down of all individual clothing and pockets
	Detailed magazine check conducted for all weapon systems
	Equipment displayed and inspected by RSO or ARSO
	All participants accounted for at this station
SUPERVISION OF CONDUCT OF AMMO ISSUE POINT	
	Proper ammo issued for next training event
	Participants have ensured all magazines are loaded with proper ammo
	Test-fire conducted (if feasible)
	All participants are accounted for at this station using the roster provided by the OIC of training

CONDUCT RANGE INSPECTION	
	Sweeps range and/or training area for unexpended ammo and duds from misfires
	Range control contacted for disposal and EOD liaison requirements
CONDUCT FINAL DOWNLOAD AT CONCLUSION OF TRAINING	
	Final shake-down inspection conducted before participants depart the range/training area
	All personnel (including safety personnel, observers, and participants) inspected for ammo and explosives
	All personnel to be inspected are accounted for and supervised
	Supervised and accounted for all personnel to be inspected

APPENDIX G RANGE FREQUENCY CARD

AGENCY	EQUIPMENT	TYPE	CH	FREQ TX	FREQ RX
Range Safety Network	ELMR	Motorola	1	N/A	N/A
Range Safety Network (AIR)	UHF	Tactical	N/A	323.7	323.7

The Call Sign for Range Control is "Range Control."

Phone Numbers

Range Control Facility Supervisor -	(703) 784-6722
Range Control Facility -	(703) 784-5321/5322
Scheduling -	(703) 784-5502
Range Safety Specialist -	(703) 432-6552
Airspace Manager -	(703) 784-5370
RFMSS Administrator -	(703) 432-6611
Fax -	(703) 784-6725
Training Support Center	(703) 784-4492

APPENDIX H DELINKING AMMUNITION INFORMATION NOTICE

SUBJ/NAVY AND MARINE CORPS AMMO INFO NOTICE 043-2012
UNIT LEVEL DELINKING OF SMALL ARMS AMMUNITION//
REF/A/DOC/NAVSUP P-801/1 APR 12//
AMPN/NAVSUP P-801 DTD 1 APR 12//
POC/ANNA LUCAS/GS12/49935/LOC:BLD407/TEL:DSN 430-2107
/TEL:717-605-2107/FAX: 430-5390/EMAIL: ANNA.LUCAS@NAVY.MIL
RMKS/

1. Last AIN xmitted 181935ZAPR12

2. This AIN supersedes NAVSUP LOC AIN 073-11 (171955ZJUL11)

3. This AIN applies to Marine Corps stock only

4. Delinking and linking of small arms ammunition in order to meet range conditions is strongly discouraged. Delinking and linking for adjustment of belt length is authorized. Using units will verify range conditions prior to ordering ammunition. Ammunition supply points must be cognizant of local range conditions and maintain ammunition stocks that are authorized for various range conditions.

5. Linked ammunition must be utilized for its intended purpose/weapon system. At no time will linked ammunition be requisitioned for the purpose of delinking to be expended as a single round.

6. The delinking of any ammunition where every round has an incendiary element (i.e. DODIC A576, 4&1 linked) is prohibited. All linked ammunition manufactured in this type of configuration is capable of starting fires during high fire hazard conditions in the same manner as a round with the tracer element. The use of straight ball ammunition shall be utilized during times of high fire hazards.

7. The delinking and linking of ammunition will only occur if no authorized substitute ammunition is available. If an authorized substitute is not available and a delinking operation is to take place, the commanding officer of the unit conducting the delinking operation must ensure that a written standard operating procedure is in place and that the delinking and linking operations must be conducted within the range complex area. Additionally, the amount of ammunition to be delinked will be limited to the amount required for the firing line and the ready line, in the event range conditions change causing a cease-fire event or cancelling the live fire. This will reduce the amount of unserviceable ammunition generated during the delinking process and subsequent loss of ammunition from the unit's allocation.

8. When conducting delinking/linking operations, the following concerns must be addressed:

a. Conduct all delinking/linking operations in a safe, controlled manner according to an approved written SOP.

b. Personnel will perform linking/delinking operations with proper supervision.

c. Maintain lot integrity of the delinked rounds by properly marking, repackaging and separating them.

d. To prevent possible link failure, minimize the reuse of machinegun links. M27 links that have been used in delinking/relinking operations lose 2 inch lbs of torque after just one disassembly and reassembly operation.

9. If a delinking operation has occurred, the unit shall link the unused ammunition back together in the same quantity as the original belts were issued. This linking operation must be done within the range complex area prior to departure and subsequent turn-in of ammunition back to the supporting ammunition supply point. Units must maintain the lot integrity of the delinked ammunition by properly repackaging these rounds back into their original containers.

10. Contact PM-AMMO at ammomail@usmc.mil, DSN 378-8794/8796 or COMM 703-432-8794/8796 for assistance on this matter.

BT
#1930
NNNN

APPENDIX I HOLD HARMLESS AGREEMENT & AGREEMENT TO INDEMNIFY

WAIVER OF LIABILITY

The event that I am about to observe and/or participate in will be held on Marine Corps Base Quantico ranges and/or training areas. I understand the following three cautions with regard to these MCB, Quantico ranges and training areas: first, all such ranges and training areas, including recreational fields, are designed for and used by the Marine Corps for training its personnel in the deadly art of individual and unit combat; second, these ranges and training areas have been subject to countless live fire exercises and may well have involved use of ammunition and placement of manmade or natural obstacles which, if triggered or encountered by or during physical presence on the ranges/training areas, could result in serious bodily injury or death to me; third, range and training area conditions are often aggravated by the weather such that extreme heat, humidity, cold, wind, or wet will increase the likelihood of physical danger and my exposure to serious bodily injury, sickness, accident or death. I further understand that this activity may cause injuries associated with physical fitness training like muscle sprains or strains, tendon pulls, dislocation of joints, broken bones, and injuries associated with physical contact with other participants, and injuries from playing conditions, to include field conditions and the inherent dangers associated with environmental conditions.

Nonetheless, and in spite of my full knowledge of the risks involved in the above named event, I EXPRESSLY AND KNOWINGLY, FREELY AND VOLUNTARILY, ACCEPT AND ASSUME ALL RISKS INVOLVED IN AND ASSOCIATED WITH ALL ASPECTS OF THE ABOVE NAMED EVENT, AND AGREE TO HOLD HARMLESS THE UNITED STATES GOVERNMENT, THE DEPARTMENT OF DEFENSE, THE DEPARTMENT OF THE NAVY, THE UNITED STATES MARINE CORPS, AND THE MARINE CORPS BASE, QUANTICO.

Therefore, and in consideration of the privilege to attend and/or participate in the **Name of Group MCBQ Tour/Visit**. I, the undersigned person, do hereby, freely, voluntarily and intending to be legally bound, accept all risks associated with the above named event and waive any and all rights to any claims or demands or any other actions whatsoever, including those attributable to simple negligence, for damages, due to accident, injury, or my death resulting from my participation in the above named event, or any use I may make of Marine Corps Base, Quantico, or government equipment or facilities in furtherance of my participation in the **Name of Group Tour/Visit**, for myself, my spouse, my parents or guardians, heirs, executors,

administrators of my estate, legal representatives or anyone else on my behalf, which I have against any of the following: The United States of America, the Department of Defense, the Department of the Navy, the United States Marine Corps, Marine Corps Base, Quantico, or any and all individuals assigned to or employed by the United States, to include but not limited to, the Secretary of the Navy, the Commandant of the Marine Corps, the Commanding General of the Marine Corps Combat Development Command, or the Commanding General of Marine Corps Base, Quantico, in both their official and personal capabilities, or any medical personnel assigned thereto, or their representatives, successors, or assigns.

I understand that the above language means I have abandoned any rights I may have, or any rights anyone associated with me may have, through legal or friendship or family ties, to sue the federal government for any injury I may sustain because of my participation in or attendance of the above named event that results in any damage whatsoever to my property, my person, or in my death. By signing this document, I acknowledge that the federal government, or any agency or employee thereof, is not liable for any injury I may sustain, to include death, as a result of my participation in the **Name of Group MCBQ Tour/Visit.** By signing this document, I effectively and comprehensively assume all risk associated with the above named event. This document shall remain in effect and be held until notice of cancellation is received by the Commander, Marine Corps Base, Quantico.

Lastly, I understand that should I decline to execute this waiver of liability and agreement to hold harmless (not to sue for damages and reimburse the federal government for costs associated with a suit should anyone so sue), I will not be permitted to participate in or attend the above named event on **Date.**

_____

Printed Name & Signature of Participate/Attendee Date

_____

Printed Name & Signature of Witness Date

AGREEMENT TO INDEMNIFY
BY THE *(insert full name of entity/event)*
HELD ABOARD
MARINE CORPS BASE
QUANTICO, VIRGINIA

The signature at the bottom of this Agreement to Indemnify is a certification by the _____ *(insert full name of entity)* representative that every participant covered by this agreement has had his/her Waiver of Liability signed by their appropriate parent or legal guardian if that participant is under the age of eighteen (18), or signed by the participant if he/she is over the age of eighteen (18); and, that the _____ *(insert full name of entity)* representative has in his or her possession all individual participants' Waivers of Liability, available for inspection on demand. The _____ *(insert full name of entity)* understands that there are inherent risks involved in participation in the _____ *(insert event, i.e., game of soccer)*, and that injury or death could arise from, but not limited to physical contact with other participants, physical exertion, or from playing conditions, to include field conditions. The _____ *(insert full name of entity)* understands that by signing this agreement, it expressly assumes any and all risks involved in the _____ *(insert entity name and event)* held aboard Marine Corps Base (MCB) Quantico, Virginia including, but not limited to, injury or death caused to participants, volunteers, or spectators, and any damage to property.

In consideration for the use of various open fields aboard MCB Quantico, Virginia, for the conduct of the _____ *(insert entity name and event)* during the period _____ (*insert days, month and year*), the _____ *(insert full name of entity)* agrees to indemnify the United States Government, the United States Navy, the United States Marine Corps, its officers, military personnel, employees and agents, and all agencies and instrumentalities thereof, against any and all claims, whether for damage, loss, injury, or death, brought by any person, group, or organization, as a result of, or in connection with, the conduct of the _____ *(insert full name of entity and event).*

_____ *(Insert full name of entity and event)*
Authorized Representative

SIGNATURE

PRINTED NAME

DATE

APPENDIX J LANDING ZONES AND DROP ZONES

NAME	LOCATION	NAME	LOCATION
LZ ALBATROSS	TA-17A	LZ LOON	TA-9C
LZ BIGBIRD	TA-14A	LZ MALLARD	TA-11C
LZ BLACK BIRD	TA-9B	LZ MARTIN	TA-16G
LZ BLUE BIRD	TA-12A	LZ ORIOLE	TA-12B
LZ BLUEJAY	TA-14B	LZ OSPREY	TA-16C
LZ BUZZARD	TA-15A	LZ OWL	TA-8A
LZ CANARY	TA-16B	LZ PARROT	TA-14B
LZ CARDINAL	TA-15A	LZ PEACOCK	TA-16G
LZ CHICKADEE	TA-15A	LZ PELICAN	TA-15B
LZ CHICKEN	TA-10A	LZ PEREGRINE	TA-16E
DZ COCKATOO	TA-8A	LZ PENGUIN	TA-15C
LZ CONDOR	TA-10C	LZ PHEASANT	TA-16A
LZ CRANE	TA-16D	LZ PIGEON	TA-16G
LZ CROW	TA-16G	LZ QUAIL	TA-11A
LZ CUCKOO	TA-15C	DZ RAVEN	TA-8B
LZ DOVE	TA-7B	LZ REDBIRD	TA-9B
LZ DRAKE	TA-15C	DZ REDWING	TA-15C
LZ DUCK	TA-15B	LZ ROADRUNNER	CAMP UPSHUR
LZ EAGLE	TA-16B	LZ SNIPE	TA-16D
LZ EGRET	TA-14B	LZ SPARROW	TA-16F
LZ FALCON	TA-6B	LZ STARLING	TA-5A
LZ FINCH	TA-16F	LZ STORK	TA-15C
LZ GOOSE	TA-15A	LZ SWAN	TA-9C
LZ GOSHAWK	TA-15A	LZ TERN	TA-15B
LZ GRACKLE	TA-12A	LZ THRUSH	TA-5C
LZ GROUSE	TA-14B	LZ TOUCAN	TA-17A
LZ GULL	TA-5A	LZ TURKEY	TA-14B
LZ HARRIER	TA-16G	LZ VULTURE	TA-16B
LZ HAWK	TA-5B	LZ WOODPECKER	TA-11A
LZ HEN	TA-7B	LZ WREN	TA-10C
LZ HERON	TA-14B	LZ 6	CAMP BARRETT
LZ HUMMINGBIRD	TA-15A	LZ 7	CAMP BARRETT
LZ KIWI	TA-14B	LZ 9	WTBn

MCB QUANTICO LANDING ZONES

APPENDIX K RANGE DESCRIPTIONS AND SPECIAL INSTRUCTIONS

RANGE 3A:
Individual small arms range
Ammunition - Up to 7.62mm Special Ball
-Hand held grenade launchers
Max range - 445m
Impact area - Dudded (No forward movement)
Targets - steel hulks, EODT and infantry

RANGE 3B:
Hand grenade range
Ammunition - Fragmentation grenades
Max range - 50m
Three bays with 6 concrete throwing pits each
Practice throwing pits
Impact area - Dudded (No forward movement)
Targets - E silhouettes

RANGE 5:
Small arms static/fire and movement range for squad-sized units
Ammunition - Up to 7.62mm Special Ball
-Hand held grenade launchers(Practice and illum only)
Max range - 400m
Impact area-Non - dudded
Targets - Automatic, battery-operated static/mover infantry

RANGE 6:
Small arms multipurpose range
Ammunition - Up to 5.56mm
Max range - 50m
Impact area - Non-dudded
Targets - Static (Provided by training unit or TSCQ)

RANGE 7:
Direct and indirect live-fire range
Class 3B and Class 4 lasers
Ammunition - Up to 30mm cannon
-All rockets
-All mortars
-All grenade launchers
-155mm artillery
-Up to 500 lbs. bombs
Max range - 1800m
Impact area - Dudded (No forward movement)
Targets - EODT, Infantry

RANGE 8:
Small arms, machine gun and mortar range
Class 3B and Class 4 lasers
Ammunition - Up to 50 cal MK211
-All rockets
-All mortars
-All grenade launchers
Max range - 700m
Impact area - Dudded (No forward movement)
Targets - Steel hulk, infantry

RANGE 8A:
Small arms, rocket and hand grenade range
Ammunition - Up to 7.62mm link
-All rockets
-Fragmentation hand grenades
Max range - 343m
Impact area - Dudded (No forward movement)
Targets - Steel hulk, EODT, infantry

RANGE 11:
Small arms static and fire and maneuver/sniper range
Ammunition - up to 7.62mm Special Ball
Max range - 950m (from tower)
Impact area - Non-dudded
Targets - Automatic infantry

RANGE 12:
Small arms multipurpose range
Ammunition - up to 7.62mm Special Ball
Max range - 100m
Impact area - Non-dudded
Targets - Static (Provided by training unit or TSCQ)

RANGE 14:
Small arms multipurpose/machine gun/fire and movement range
Ammunition - Up to 7.62mm link
Max range - 600m
Impact area - Non-dudded
Targets - Automatic infantry

RANGE 14C:
Small arms multipurpose/BZO range
Ammunition - Up to 7.62mm Special Ball
Max range - 300m
Impact area - Non-dudded
Targets - Automatic infantry

RANGE 14D:
Squad defense/multipurpose range
Ammunition - Up to 7.62mm Special Ball
Max range - 125m
Impact area - Non-dudded
Targets - Automatic infantry

RANGE 14F:
Small arms multipurpose range
Ammunition - Up to 7.62mm Special Ball
Max range - 450m
Impact area - Non-dudded
Targets - Static (Provided by training unit or TSCQ)

RANGE 15:
Multipurpose range used for Rifle Company or platoon defensive firing.
Alternate Uses - Class 3B and Class 4 lasers
Ammunition – Up to .50 cal., 40mm, mortars, and rockets
Max range – 750m
Impact area - Dudded (No forward movement)
Targets - EODT, Hulks and steel infantry

RANGE 15A:
Small arms multipurpose range
Ammunition - Small arms multipurpose/machine gun up to 7.62mm
Max range – 300m
Impact area
Targets - Static (Provided by training unit or TSCQ)

MORTAR POSITIONS

RANGE 10:
Mortar firing position.
Ammunition - up to 81mm mortars
Max range - 3800m (Range 7 target box)
Impact area - Dudded (No forward movement)
Targets - EODT and steel infantry

MORTAR POSITION 15:
Mortar firing position for Range 15
Ammunition - 60mm and 81mm mortars
Max range - 600m
Impact area - Dudded (No forward movement)
Targets - EODT, Hulks and steel infantry

ARTILLERY POSITIONS

GUN POSITION 4:
Artillery gun position.
Ammunition - up to 155mm howitzer
Max range - 5500m (Range 7 target box)
Impact area - Non-dudded (Range 7 is dudded)
Targets-EODT and steel infantry

GUN POSITION 44:
Artillery gun position
FARP, MG, Mortar Position
Class 3B and Class 4 Lasers
Ammunition - Up to 155mm howitzer
Max range - 4500m (Range 7 target box)
Impact area - Dudded (No forward movement)
Targets - EODT and steel infantry

CONVOY COURSES

LIVE FIRE CONVOY COURSE (LFCC):
Small arms LFCC range/Mounted
Ammunition - Up to 7.62mm
Max range - 75m
Impact area - Non-dudded
Targets - Static (Provided by training unit or TSCQ)

EXPLOSIVE RANGES

CHARLIE DEMOLITION RANGE:
Demolitions Range
Charge NEW – 50 lbs. (fragmentation and non-fragmentation)

GOETTGE DEMOLITION RANGE:
Assault Breacher (Range with Classroom)
Charge NEW – 5 lbs. (non-fragmentation)
Structures - Classroom
-SACON breacher house with window facade
-Roof breaching facade
-Door breaching facade
-Breachable wall compound with 5 interior buildings
-2 small Breachable houses

MURPHY DEMOLITION RANGE:
Demolitions Range
Charge NEW – 50 lbs. (non-fragmentation)
-15 lbs. (fragmentation)
-Bangalore Torpedo
-Claymore Mine

URBAN FACILITIES

MOUT FACILITY (Military Operations in Urban Terrain):
17 brick and concrete structures used for urban training to include a lighted classroom, a tunnel network and outfitted with Middle-Eastern atmospherics. Non-live fire. Blanks and simulated munitions only.

MOBILE ASSAULT COURSE (MAC) NORTH:
Small arms dismounted assault
1 moving target range (max range 250m)
1 SACON wall with door and windows (max range 75m)
Ammunition - Up to 7.62mm ball
Impact area - Non-dudded
Targets - Static and moving infantry

MOBILE ASSAULT COURSE (MAC) SOUTH:
Small arms dismounted assault
1 two-story SACON wall with door and windows (max range 200m)
1 static and moving target fire and movement range (max range 300m)
Small arms room clearing and hand grenade training.
Ammunition - Up to 7.62mm ball
Impact area - Non-dudded
Targets - Static and moving infantry

COMBAT TOWN (CBT):
13 brick and concrete structures used for urban training outfitted with Middle-Eastern atmospherics. Non-live fire. Blanks and simulated munitions only.

RAID/NEO TRAINING FACILITY (RAID FAC):
Used for conducting raid training, Non-Combatant Evacuation Operation (NEO) training, or for limited MOUT training. Includes a radar site complex consisting on one main administrative building and two large radar dishes. Non-live fire. Blanks and simulated munitions only.

URBAN TRAINING CENTER (UTC) ZONE A:

64 container structures used for MOUT training to include an After Action Review (AAR) classroom (scheduled separately). This facility can be tied into training on the MAC ranges and MOUT Facility. Non-live fire. Blanks and simulated munitions only.

URBAN TRAINING CENTER (UTC) ZONE B:
40 container structures used for MOUT training to include an After Action Review (AAR) classroom (scheduled separately). This facility can be tied into training on the MAC ranges and MOUT Facility. Non-live fire. Blanks and simulated munitions only.

URBAN TRAINING CENTER (UTC) ZONE C:
60 container structures used for MOUT training to include an After Action Review (AAR) classroom (scheduled separately). This facility can be tied into training on the MAC ranges and MOUT Facility. Non-live fire. Blanks and simulated munitions only.

URBAN TRAINING CENTER (UTC) ZONE D:
9 container structures used for MOUT training to include an After Action Review (AAR) classroom. This facility can be tied into training on the MAC ranges and MOUT Facility. Non-live fire. Non-kinetic. **No Blanks or simulated munitions.**

URBAN TRAINING CENTER (UTC) FORWARD OPERATING BASE (FOB):
Used to train personnel in FOB procedures and as a FOB facility for operations throughout the RTA. Includes an Entry Control Point (ECP), guard towers, lights, and protective walls. Non-live fire. Blanks and simulated munitions only.

WEAPONS TRAINING BATTALION

WTBN RANGE 1:
Small arms multipurpose range
Ammunition - Up to 7.62 special Ball/7.62mm X 54R Foreign Weapons
Max range – 300 yds
Impact area - Non-dudded
Targets - Static (Provided by training unit or TSCQ)

WTBN RANGE 2:
Known Distance Rifle Qualification Range
Ammunition - Up to 7.62 special Ball/7.62mm X 54R Foreign Weapons
Max range – 600 yds

Impact area - Non-dudded
Targets - Manually-operated 6’ X 6’ qualification targets

WTBN RANGE 3:
Known Distance Rifle Qualification
Ammunition - Up to 7.62 special Ball/7.62mm X 54R Foreign Weapons
Max range – 600 yds
Impact area - Non-dudded
Targets - Manually-operated 6’ X 6’ qualification targets
-14 turning target lanes located on protective berm

WTBN RANGE 4:
Known Distance Rifle Qualification/Rifle Team/Sniper Range
Ammunition - Up to .50 cal MK211
Max range – 1000 yds
Impact area - Non-dudded
Targets - Manually-operated 6’ X 6’ qualification targets
-Static (Provided by training unit or TSCQ)

SMALL ARMS TACTICAL RANGE:
Multipurpose/Combat Shooting Small Arms Ranges
Ammunition - Up to 7.62mm
Max range – 50 yds
Impact area - Non-dudded
Targets - Static (Provided by training unit or TSCQ)
-Pneumatic target system

WTBN RANGE 305:
Unknown Distance Multipurpose Small Arms Range
Ammunition - Up to 7.62 special Ball/7.62mm X 54R Foreign Weapons
Max range – 400 yds
Impact area - Non-dudded
Targets - 10 lanes of automated individual/moving targets with LOMAH bars (Location of Misses and Hits)
-2 lanes of space for static user-provided targets

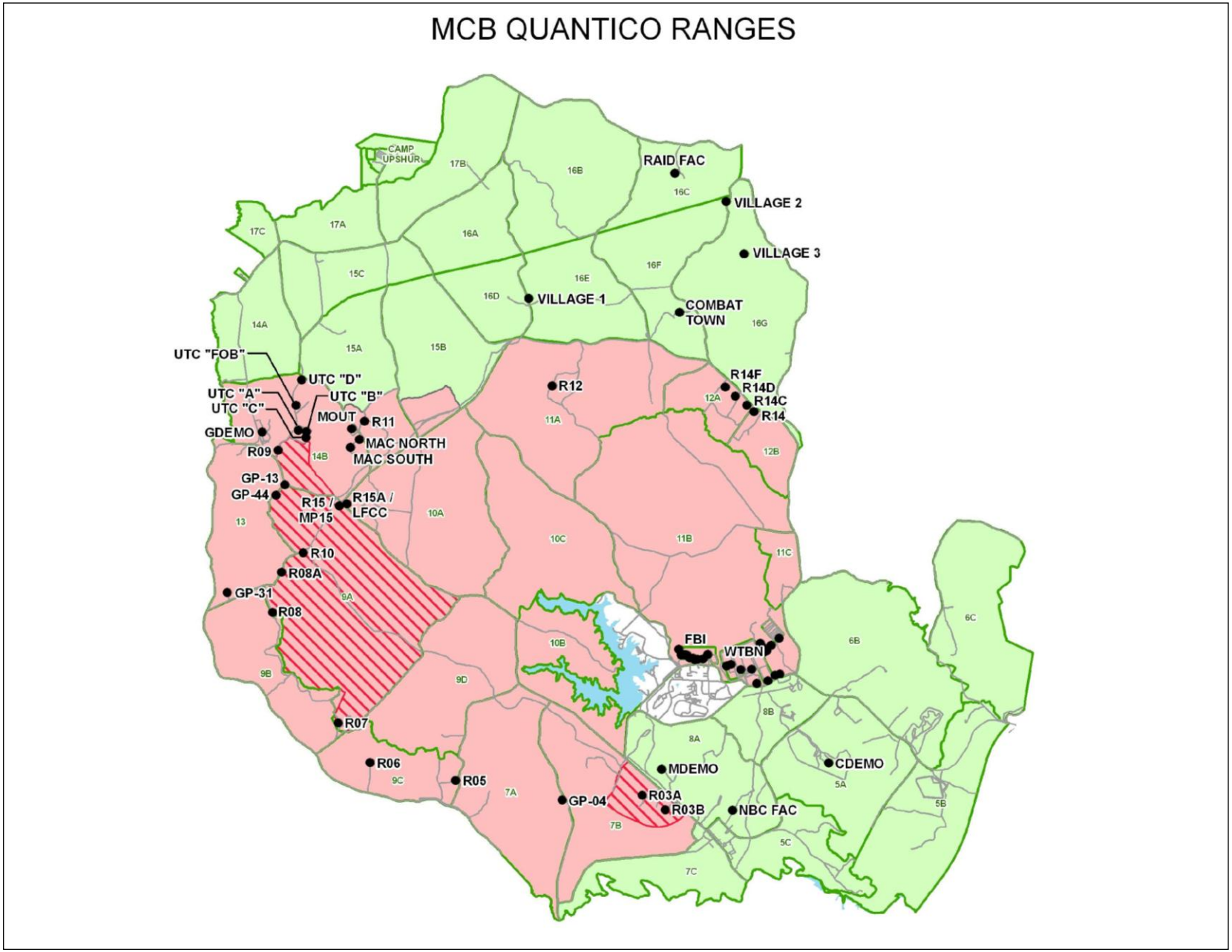
WTBN COMPETITION PISTOL:
Known Distance Competition Pistol Range
Ammunition - .22, .38, 9mm and .45 cal
Max range – 50 yds
Impact area - Non-dudded
Targets - 50 pneumatic turning target system (user-provided)

WTBN REQUALIFICATION PISTOL:
Known Distance Pistol Requalification (Walk-down)

Ammunition - .22, .38, 9mm and .45 cal
Max range – 50 yds
Impact area - Non-dudded
Targets - 50 pneumatic turning target system (user-provided)

WTBN SHOTGUN RANGE
Skeet and trap shooting
10, 12, 20 and .410 gauge birdshot
Targets - clay pigeons (provided by training unit)

WTBN WEAPONS TESTING FACILITY
Rifle and Pistol Testing and Evaluation
Ammunition - Up to .50 cal
Max range – 300 yds
Impact area - Bullet Trap
Targets - Paper/Cardboard


MCB QUANTICO RANGES
CAMP UPSHUR
RAID FAC
VILLAGE 2
VILLAGE 3
VILLAGE 1
COMBAT TOWN
UTC "FOB"
UTC "D"
UTC "A"
UTC "B"
UTC "C"
MOUT
R11
GDEMO
MAC NORTH
MAC SOUTH
R09
GP-13
GP-44
R15 / MP15
R15A / LFCC
R10
R08A
GP-31
R08
R07
R06
R05
GP-04
R03A
R03B
NBC FAC
MDEMO
CDEMO
FBI
WTBN
R12
R14F
R14D
R14C
R14
16A
16B
16C
16D
16E
16F
16G
17A
17B
17C
15A
15B
15C
14A
14B
12A
12B
11A
11B
11C
10A
10B
10C
9A
9B
9C
9D
8A
8B
7A
7B
7C
6B
6C
5A
5B
5C
13

APPENDIX L PERSONAL PROTECTIVE EQUIPMENT

PERSONAL PROTECTIVE LEVEL	PERSONAL PROTECTION REQUIRED
0[1]	Combat uniform/standard utility uniform, hearing/eye protection
1[1]	Body armor and helmet, hearing/eye protection
2[1]	Body armor with front/back enhanced small arms protective insert (E–SAPI) plates and helmet, hearing/eye protection
3	Body armor with front/back/side E–SAPI plates and helmet, hearing/eye protection
Notes: [1] Eye protection is encouraged. Based on risk assessment, the unit commander may require ballistic and/or laser eye protection.	

APPENDIX M AUTHORIZED AMMUNITION

RANGE	SMALL ARMS DIRECT FIRE	SMALL ARMS AUTOMATED	SMALL ARMS MANEUVER	MACHINE GUN	MORTAR	ARTILLERY	AERIAL GUNNERY	HAND GRENADE	DEMO-LITIONS	KNOWN DISTANCE	URBAN	ROCKETS
RANGE 3A	RANGE 3A			RANGE 3A								RANGE 3A (TRAINER)
RANGE 3B								RANGE 3B				
RANGE 5	RANGE 5	RANGE 5										
RANGE 6	RANGE 6											
RANGE 7					RANGE 7 / AMIP 7		RANGE 7 / AMIP 7					RANGE 7 / AMIP 7
RANGE 8	RANGE 8			RANGE 8	RANGE 8							RANGE 8
RANGE 8A	RANGE 8A			RANGE 8A	RANGE 8A			RANGE 8A				RANGE 8A
RANGE 9												
RANGE 9A	RANGE 9A											
RANGE 10	RANGE 10				RANGE 10							
RANGE 11	RANGE 11	RANGE 11	RANGE 11	RANGE 11								
RANGE 12	RANGE 12											
RANGE 14	RANGE 14	RANGE 14	RANGE 14	RANGE 14								
RANGE 14C	RANGE 14C	RANGE 14C										
RANGE 14D	RANGE 14D	RANGE 14D										
RANGE 14F	RANGE 14 F	RANGE 14 F										
RANGE 15	RANGE 15				RANGE 15		RANGE 15					RANGE 15
RANGE 15A	RANGE 15A		RANGE 15A									
WTBN RANGE 1	WTBN RANGE 1											
WTBN RANGE 2	WTBN RANGE 2									WTBN RANGE 2		
WTBN RANGE 3	WTBN RANGE 3									WTBN RANGE 3		
WTBN RANGE 4	WTBN RANGE 4									WTBN RANGE 4		
WTBN SAT RANGE	WTBN SAT RANGE											
WTBN RANGE 305	WTBN RANGE 305	WTBN RANGE 305										
WTBN P REQ RANGE	WTBN RANGE RP	WTBN RANGE RP										

WTBN P COMP RANGE	WTBN RANGE CP	WTBN RANGE CP										
WTBN RANGE SGR												
WTBN RANGE TEST SHED	WTBN RANGE TEST SHED											
FBI RANGE 1												
FBI RANGE 2												
FBI RANGE 3												
FBI RANGE 4												
FBI RANGE 5												
FBI RANGE 6 ROGERS												
FBI RANGE 7												
FBI RANGE 8 HRT												
FBI RANGE HRT SNIPER												
FBI BRF												
GUN POSITION 4						GUN POSITION 4						
GUN POSITION 44						GUN POSITION 44						
GUN POSITION 13												
MAC NORTH		MAC NORTH	MAC NORTH								MAC NORTH	
MAC SOUTH		MAC SOUTH	MAC SOUTH					MAC SOUTH			MAC SOUTH	
LFCC			LFCC								LFCC	
UTC											UTC (non-live fire)	
MOUT											MOUT (non-live fire)	
RAID FACILITY											RAID FACILITY (non-live fire)	
COMBAT TOWN											COMBAT TOWN (non-live fire)	
C DEMO									C DEMO			
M DEMO									M DEMO			
G DEMO									G DEMO			

APPENDIX N AMMUNITION CHECKLIST

UPON DELIVERY OF CLASS V TO FIRING SITE	
	Have range supervisory personnel, in conjunction with the unit ammo tech, completed a physical inventory of all items matching quantities inventoried against quantities on the requisition document (DD Form 1348-1)?
	Has the Officer-In-Charge (OIC) or his/her appointed representative signed/accounted for the ammunition and explosives?
	Has the number of individuals making the issue to the troops been kept to the minimum number necessary to enhance control and accountability?
	Are issues being made with respect to lot integrity (i.e., if a malfunction occurs to a specific lot) that lot can easily be identified and collected from individuals?
	Is ammunition being prematurely removed from packing prior to actual need?
	Is packaging being saved for turn-in?
	Has security been established on the ammunition?
	Has ammunition been provided proper protection from the elements?
DURING EXERCISE	
	Do supervisory personnel have in their possession an Ammunition Malfunction Data Collection Guide (NAVMC 10155 Card) in the event of a malfunction?
	Do supervisory personnel know what to do in the event of a malfunction (i.e., cease firing, render assistance to casualties, identify all witnesses to the malfunction and safeguard weapon material and fragments which could provide evidence as to the cause of the malfunction)? Reference (b) and Chapter 6 apply.
AFTER COMPLETION OF EXERCISE	
	Has all unexpended ammunition been collected and repackaged by matching lot numbers of ammunition to packaging?
	Have supervisory personnel, in conjunction with the unit ammo tech, conducted a physical inventory of unexpended ammunition and completed a turn-in document (DD Form 1348-1)?
	Has the OIC signed the turn-in document (DD Form 1348-1) verifying the types and quantities of ammunition to be turned in are correct?
	If there was a malfunction, has a malfunction/deficiency report been initiated per reference (b)?

APPENDIX O LASER FIRING LOG

COMMAND	
RANGE	
DATE	
SYSTEM	
USER	
MISSION COMMANDER	

FIRING # TIME	TARGET LOCATION	FIRING POSITION/HEADING