



UNITED STATES MARINE CORPS
MARINE CORPS MOUNTAIN WARFARE TRAINING CENTER
BRIDGEPORT, CALIFORNIA 93517-9802

TCO 3550.1H
CO
29 May 24

TRAINING CENTER ORDER 3550.1H

From: Commanding Officer
To: Distribution List

Subj: STANDARD OPERATING PROCEDURES FOR MARINE CORPS MOUNTAIN WARFARE
TRAINING CENTER RANGES, TRAINING AREAS, AND AIRSPACE OPERATIONS (SHORT
TITLE: SOP FOR MCMWTC RTAA)

Ref: (a) MCO 3120.11_ Parachuting Policy and Program Administration
(b) MCO 3550.9_ Marine Corps Ground Range Certification and
Recertification
(c) MCO 3550.10_ Policies and Procedures for Range and Training Area
Management
(d) MCO 3570.1_ Range Safety
(e) MCO 3574.2_ Marine Corps Combat Marksmanship Program
(f) MCO 5090.2_ Environmental Compliance and Protection Manual
(g) MCO 5100.29_ Marine Corps Safety Management System
(h) MCO 5104.1_ Navy LASER Hazards Control Program
(i) MCO 5215.1_ Directives Management Program
(j) MCO 8025.1_ Class V(W) Malfunction and Defect Reporting
(k) NAVSEA OP 5 Vol. 1, Seventh Rev. Ammunition Storage and Handling
Ashore
(l) NAVSEA SW020-AG-SAF-010_ Navy Transportation Safety Manual for
Ammunition
(m) TCO 3130.1_ Search and Rescue Operations
(n) TCO 3500.16_ Mountain Training Exercise
(o) TCO 3710.1_ Aviation Operations SOP
(p) TCO 8000.3_ SOP for Arms Ammunition and Explosives
(q) TCO 11011.1_ Encroachment Control Program
(r) MCMWTC AOP, dtd. 12 August 2021
(s) MCMWTC CASEVAC SOP, dtd. 23 September 2021

Encl: (1) SOP for MCMWTC Ranges Training Areas and Airspace

1. Situation. This order provides both range procedures and safety regulations for the Marine Corps Mountain Warfare Training Center (MCMWTC) Ranges, Training Areas, and Airspace (RTAA). The RTAA encompasses live-fire ranges, demolition ranges, maneuver areas, and field training facilities under the control of the Commanding Officer, MCMWTC.

2. Cancellation. TCO 3550.1G.

3. Mission. This order publishes information, instructions, and procedures governing the use of the RTAA operated and controlled by the Commanding Officer, MCMWTC to ensure sustainable use and management of ranges, protect Department of Defense (DoD) personnel, and safeguard the public from range hazards. Policy and procedures for training requirements, safety protocols, and land-use stipulations are addressed in references (a) through (s).

4. Execution

a. Commander's Intent and Concept of Operations

(1) Commander's Intent. The purpose of this order is to ensure MCMWTC mission accomplishment while providing safety for the RTAA. The desired end state is the appropriate and safe use of the MCMWTC RTAA.

(2) Concept of Operations

(a) All units and organizations training at the MCMWTC will review this order and apply all rules and regulations to all training conducted in the RTAA.

(b) In the event that the instructions contained herein conflict with those issued by higher authority, the orders of the higher headquarters will take precedence. Notify the Commanding Officer via the Range Control Officer (RCO) of any conflict or question of interpretation.

b. Coordinating Instructions. Commanders of organizations using the ranges of the MCMWTC are encouraged to submit recommendations, improvements, or changes to the RCO.

5. Administration and Logistics. Directives issued by this command are published and distributed electronically.

6. Command and Signal

a. Command. This order applies to all commands, organizations, units, and activities authorized to use the RTAA controlled by the Commanding Officer, MCMWTC.

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

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Copy to: Training Units
TECOM
Range and Training Area Management (Safety)

LOCATOR SHEET

Subj: STANDARD OPERATING PROCEDURES FOR MARINE CORPS MOUNTAIN
WARFARE TRAINING CENTER RANGES, TRAINING AREAS, AND AIRSPACE
OPERATIONS

Location: _____ (Indicate the location(s) of the copy(ies) of
this Order.)

RECORD OF CHANGES

CHANGE NUMBER	DATE OF CHANGE	DATE ENTERED	SIGNATURE OF PERSON INCORPORATING CHANGE
1	09 July 2024	08 July 2024	Brian Callaway, MCMWTC Range Control Officer

UNITED STATES MARINE CORPS
Mountain Warfare Training Center



SOP FOR MCMWTC RTAA
09 August 2024

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LIST OF APPLICABLE REFERENCES

DIRECTIVE NO.	SUBJECT
FAAO JO 7400.2_	Procedures for Handling Airspace Matters
FAAO JO 7610.4_	Special Military Operations
FAAO JO 7930.2_	Federal Aviation Administration
DODD 3200.15_	Range Sustainment
DODD 4715.11_	Environmental and Explosive Safety Management on Operational Ranges within the United States
DODI 4165.57_	Air Installations Compatible Use Zones (AICUZ)
MIL-HDBK 828_	DoD Handbook Range LASER Safety
MIL-HDBK 1027/3_	Range Facilities and Miscellaneous Training Facilities other than Buildings
Joint Pub 3-09.3_	Joint Tactics Techniques and Procedures for Close Air Support (JCAS)
JAG 5219.1_	Chapter XII, Manual of the Judge Advocate General
OPNAVINST 1500.75_	Policy and Governance for Conducting High- Risk Training
OPNAVINST 3721.20_	DoD Notice to Airman (NOTAM) System
OPNAVINST 3770.2_	Airspace Procedures and Planning Manual

OPNAVINST 5530.13_	Department of the Navy Physical Security Instruction for Conventional Arms, Ammunition, and Explosives (AA&E)
NAVSEA OP5 VOL 1_	Ammunition Storage and Handling Ashore
AFI 13-217_	Drop Zone and Landing Zone Operations
MCO 3550.10_	Policies and Procedures for Range and Training Area (RTA) Management
MCO 5090.2_	Environmental Compliance and Protection Manual
MCO 5100.29C_	Marine Corps Safety Management System (MCMS)
MCO 3120.11_	Parachuting Policy and Program Administration
MCO 3550.9T_	Marine Corps Ground Range Certification & Recertification
MCO 3570.1_	Range Safety
MCO 3574.2_	Marine Corps Combat Marksmanship Program
MCO 5104.1_	Navy LASER Hazards Control Program
MCO 5215.1_	Directives Management Program
MCO 8025.1_	Class V(W) Malfunction & Defect Reporting
MCWP 3-1_	Ground Combat Operations
MCWP 3-11.4_	Helicopter Operations
MCWP 3-15.1_	Machine Guns and Machine Gun Gunnery
MCWP 3-15.7_	Static Line Parachuting Techniques and Training
MCRP 3-01B.1_	Helicopter Rope Suspension Techniques (HRST) Operations
MCRP 3-17.7_	Explosives & Demolitions
TM 70244A-O1_	USMC Military Free Fall Operations
TECOM SOUMs	Safety of Use Memorandums (SOUM)

TCO 3130.1_	Search and Rescue Operations
TCO 3710.1_	Aviation Operations SOP
TCO 3500.16_	Mountain Exercise
TCO 8000.3_	SOP for Arms, Ammunition and Explosives
TCO 11011.1_	Encroachment Control Program
MCMWTC CASEVAC SOP	SOP for Casualty Evacuation
MCMWTC Group 1 and 2 UAS	SOP for small Unmanned Aircraft Systems

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CHAPTER 1

GENERAL

1000. PURPOSE AND SCOPE

1. General. Located in the Sierra Nevada Mountains on land used by the Marine Corps under Special Use Permit (SUP) with the U.S. Forest Service, the Marine Corps Mountain Warfare Training Center (MCMWTC) conducts individual, small unit, and special purpose Marine Air Ground Task Force (MAGTF)-level training. The training emphasizes individual and collective mountain skills that enhance overall combat capability. Summer mountain operations include, but are not limited to, mountain safety, military rock climbing, fixed rope installations, mountain navigation, rappelling, stream crossing, and planning/coordinating unit movements in complex, compartmentalized terrain. Winter mountain operations include, but are not limited to, cold weather safety, individual survival, cold weather bivouacs, route selection, over-the-snow mobility techniques, and avalanche safety. The Installation Commanding Officer, Bridgeport, California, is charged with the safety of all air and ground operations in the Ranges, Training Areas, and Airspace (RTAA). Notify the Installation Commanding Officer via the Range Control Officer (RCO) of any conflict or question of interpretation.

2. Purpose. Per the references, this order assigns responsibilities, describes training facilities, provides procedures for obtaining training services or scheduling the use of facilities, and prescribes safety requirements and procedures for live-fire, non-live-fire, and air operations.

3. Scope. This Order applies to all commands, organizations, units, and agencies authorized to use the RTAA controlled by the Installation Commanding Officer. All personnel wishing to gain access to MCMWTC RTAA will comply with the provisions set forth in this manual and its references.

4. Warning. Failure to comply with these regulations may subject the offender to administrative or disciplinary action under the Uniform Code of Military Justice (UCMJ) and/or subject to civil or criminal prosecution under Federal Code of Regulations or regulatory agency statutes. Organizational Commanders using the RTAA are encouraged to submit

recommendations, improvements, or changes to the Installation Commanding Officer via the RCO.

5. Information. A range is a designated land or water area that is set aside, managed, and used for range activities of the Department of Defense (DoD), and includes airspace areas designated for military use by the Federal Aviation Administration (FAA). Range activities include Research, Development, Testing, and Evaluation (RDT&E), and the training of participating units in the use and handling of munitions, ordnance, and weapon systems. The term RTAA incorporates ranges, training areas, facilities, and any associated airspace areas used for such activities.

1001. APPLICABILITY

1. The primary purpose of this Order is to maximize safe and realistic training opportunities for aviation and ground training and to provide a source of general information. Nothing contained in these regulations will be construed as permitting live-fire or other training activities that endanger lives or property and equipment. The safety regulations, as prescribed by this Order and reference (a) are applicable to firing ammunition for training. Where conflicts occur with instructions contained in Field Manuals (FM), Technical Manuals (TM), and unit Standard Operating Procedures (SOPs), the provisions of reference (a) will take precedence.

2. Warning. All personnel (defined as all DoD personnel (military or civilian), foreign military, and contractors hired by the military (any branch including foreign militaries) to perform a service for the military) wishing to gain access to any MCMWTC RTAA will comply with the provisions set forth in this Order and its references. Failure to comply with this Order may subject the offender to administrative or disciplinary action under the UCMJ, or United States Code (USC) 1382_.

1002. RANGE CONTROL

1. Range Control is located on the west end of Building 4048.

2. Range Control is responsible for sound RTAA management practices, enhancing the safe and realistic training

opportunities available to the total force, and ensuring viable RTAA for future generations of Marines and DoD personnel.

3. The safe day-to-day operation of RTAAs is the Installation Commanding Officer's responsibility. Range Control agencies are an integral part of the installation staff. Staff functional areas impacting RTAA operations demand strict coordination. The installation Range Operations Manager (ROM) serves as the Installation Commanding Officer's primary representative for Range Control Facility (RCF) operations.

4. Range Control may be contacted at telephone extension 1628/1436/1439/1435 or by radio using the call sign "WHITE PEAK" on the Range Safety Net via these frequencies: 41.100 (Primary) or 46.900.

5. The RCO or Range Control representative will normally be present at Range Control or readily accessible during training exercises. If Range Control personnel secure, Range Control responsibilities may be turned over to the Command Duty Officer.

1003. RESPONSIBILITIES

1. Range Control Officer (RCO)

a. The RCO shall be appointed in writing by the Installation Commanding Officer.

b. The RCO serves as the Installation Commanding Officer's primary representative for RCF operations.

c. In close coordination with the Operations Officer, the RCO will:

- (1) Coordinate and enforce RTAA safety.
- (2) Coordinate emergency response within the RTAA.
- (3) Coordinate Explosive Ordnance Disposal (EOD) response.
- (4) Participate in training mishap investigations.

(5) Provide and conduct installation Range Safety training.

(6) Provide personnel briefs.

(7) Ensure inspections are completed.

(8) Implement and enforce occupational health and industrial hygiene regulations.

(9) Coordinate with the installation environmental office to promote environmental sustainability.

(10) Coordinate with the Community Plans and Liaison Office (CPLO) to assist in the prevention and mitigation of factors that degrade or have the potential to degrade RTAA mission capabilities and/or capacities.

(11) Schedule the RTAA using Range Facility Management Support System (RFMSS), which includes receiving, processing, integrating, prioritizing, coordinating, de-conflicting, and approving all installation RTAA.

(12) Publish notices, reports, and utilization data.

(13) Control personnel and vehicle movement and access to RTAA.

(14) Provide and enforce regulations. Range Control measures and other RTAA regulations are provided for the safety of personnel, protection of government property, and environmental resources. Through regular patrols, Range Control personnel will ensure compliance with those measures and regulations. The RCO may revoke and/or suspend RTAA privileges or Officer in Charge (OIC)/Range Safety Officer (RSO) certification of any person, organization, agency, or entity that willfully violates established policy or whose conduct is incompatible with the safe use of installation facilities.

(15) Provide and coordinate RTAA communications with the following guidelines:

(a) RTAA communications established by installations communications, require a common operative link for all training evolutions. The RCO will monitor the Range Safety Net and report any issues to the installation communications section.

(b) The Range Safety Net shall be monitored at all times in order to support training evolution safety and emergency response. The Range Safety Net is for communications with Range Control only. Administrative or logistical communications is not authorized, as such communications could interfere with RTAA safety and are not acceptable.

(c) The using unit will establish and maintain communications between the RCF and their unit for all training events via the Range Safety Net.

d. Maintenance. Provide limited maintenance by utilization of the range maintenance section and coordinate general maintenance of training facilities through the Director of Facilities.

e. Ensure RTAA requirements are reflected in the annual Regional Airspace Plan.

f. Complete administrative responsibilities for the following:

(1) Certify and Recertify Ranges.

(2) Conduct Range Inventories.

(3) Coordinate RDT&E relating to RTAA after consulting with Range and Training Area Management (RTAM)

(4) Coordinate RTAA Special Events.

(5) Develop SOPs and RTAA Regulations.

g. additional duties and responsibilities are provided in references (a), (f), and (g).

2. Installation Range Operations Officer. Responsible to the RCO for the daily plans, schedules, coordination, and operation of the RTAA.

3. Installation Range Safety Officer. Responsible to the RCO for the installation range safety program.

4. Range Facility Management Support System (RFMSS) Functional Administrator (FA). Maintains the system network and ensures connectivity for the RCF and end-users.

5. Range Scheduler. Performs the RTAA scheduling function for the installation training complex. The scheduler receives, processes, integrates, prioritizes, coordinates, de-conflicts, and approves RTAA training requests. The RTAA scheduler publishes the installation range schedule.

6. Fire Desk Operator/Range Controllers. The fire desk coordinates RTAA training operations status, tracks all RTAA incidents, initiates and coordinates emergency response, records RTAA usage, clears and monitors any down-range personnel, dispatches Range Safety Personnel (RSP)/inspectors as needed, and alerts Range Control supervisory personnel of emergency or other situations as determined by the RCO.

a. Coordinates the release, activation, and deactivation of the MCMWTC Special Use Airspace (SUA), Walker Military Operations Areas (MOAs), and Temporary Flight Restriction (TFR) areas.

b. Admits scheduled units onto appropriate ranges and authorizes personnel and aircraft movement within the RTAA. The installation fire desk monitors and controls access of personnel, vehicles, and aircraft activities within the training areas.

c. Provides real-time services to de-conflict multiple, simultaneous training activities.

d. Coordinates and monitor MEDEVACs.

e. Catalogs all mishaps and collect range utilization data.

7. Range Safety Specialist/Range Inspectors. Assists the installation Range Safety Officer (RSO) in the execution of the range safety program.

a. Per reference (c), conducts random inspections of the RTAs to confirm strict adherence to range safety regulations, ensure area policing is performed, and identify required maintenance.

b. Evaluates risk assessments to mitigate the risks associated with the MCMWTC RTAA.

c. Reports safety violations or other discrepancies to Range Control supervisory personnel for corrective action and coordination.

d. Are the direct representatives of the RCO. They are responsible to the RCO for ensuring safety of firing and training operations and compliance with the references and local Training Center Orders.

e. As needed, dispatched by the Fire Desk Operator/Range Controller.

8. Unit Commanders. A commander of any service element whose structure is prescribed by competent authority, such as a table of organization and equipment.

a. Marine Corps Battalion or Squadron Commanders are responsible for establishing and maintaining a certification program for their OICs and RSOs commensurate to the assigned duties and responsibilities. The unit Designation Letter serves as verification from the unit that prospective OICs and RSOs have met the standards established by the unit certification program.

b. Unit commanders will:

(1) Ensure compliance with this publication, MCO 3570.1C/AR 385-63_, DA PAM 385-63_, applicable technical manuals, field manuals, doctrinal publications, and local regulations and applicable standard operating procedures (SOPs) for safe training as well as firing for each weapon system with the command.

(2) Ensure all personnel within the command are briefed on and comply with installation range procedures and safety requirements including required personal protective equipment (PPE).

(3) Designate a Range Officer in Charge (ROIC) and a Range Safety Officer (RSO) for each firing exercise and/or maneuver in accordance with OIC/RSO appointment requirements stipulated in Appendix I. The unit command will comply with range safety certification program requirements in DA PAM 385-63_ for OIC and RSOs to ensure they:

(a) Complete the MarineNet Range Safety Course with appropriate verification submitted to the RCO.

(b) Complete, for LASERs, the MarineNet Range LASER Safety Course, with appropriate verification submitted to the RCO.

(c) Demonstrate individual competence in the performance of assigned training and safety duties.

(d) Meet the criteria, depending on assigned duty, of Knowledgeable or Qualified on the weapon/LASER/event systems to be employed during training, which shall be noted on the OIC and RSO Designation Letter.

(e) Complete the installation RTAA OIC and RSO Course on MarineNet.

(f) Demonstrate an understanding of coordinated plans for the exercises and training events.

(4) Ensure personnel performing duties of OIC and RSO are certified in accordance with the installation Range Safety Certification Program. For tenant personnel, the installation Range Safety Certification is good for three years. For non-tenant personnel, the installation Range Safety Certification is good for one year. Unit commanders of tenant personnel will ensure OICs and RSOs complete annual seasonal refresher training in order to maintain a three-year certification status.

(5) Develop SOPs for LASER operations to include provision for immediate medical attention for personnel who incur eye or other overexposure for LASER energy and reporting LASER overexposure incidents in accordance with DA PAM 385-24_, DA PAM 385-40_, TB MED 524_, MIL-HDBK 828_, and MCO 5104.1C_.

(6) Apply Risk Management (RM) and develop controls and procedures for all phases of training events.

c. Unit commanders will provide the RCO with a letter designating unit OICs and RSOs, LRSOs, small Unmanned Aircraft System (sUAS) OIC/RSO, and Steel Reactive Target (SRT) RSOs as applicable. The letter must be signed by the Battalion/Squadron Commanding Officer (or personnel with "By Direction" authority). See Appendix K for the MCMWTC Designation Letter templates.

d. The Designation Letter for OIC and RSO will remain current for the duration of the Battalion/Squadron Commanding Officer (or personnel with "By direction" authority) tenure or the expiration date limit has been exceeded. A new Battalion/Squadron Commanding Officer will require a new OIC and RSO Designation Letter.

e. Recertification/requalification of an MCMWTC OIC and RSO will require a new Designation Letter.

f. A Designation Letter is void once an OIC and RSO transfers to a new unit. For MCMWTC personnel, a transfer to a new company requires a new Designation Letter.

g. Personnel attempting to assume OIC and RSO duties for a unit in which they are not assigned will require a new Designation Letter from that unit's Battalion/Squadron Commanding Officer. For example: A training unit (non-MCMWTC) must provide a Designation Letter for personnel assigned to MCMWTC to perform OIC and RSO duties for the training unit (non-MCMWTC) performing live-fire training.

9. Range Officer in Charge (ROIC)

a. The ROIC must be a Commissioned, Warrant, Staff Noncommissioned Officer (pay grade E-6 or above), or civilian (pay grade GS-7 or above, contractors not authorized).

Personnel serving as ROIC will be in the grade as shown in Appendix I and certified as per the unit commander's certification requirements. An MCMWTC ROIC is only certified to perform OIC duties for the MCMWTC RTAA (TAs 1-16, and CA-1).

b. ROICs will be knowledgeable in the weapon systems for which they are responsible. This shall be noted on the unit Designation Letter. For weapon systems equipped or dependent on LASERs, the ROIC will be knowledgeable of the LASER hazards associated with the specific system, as well as the unit's SOP for LASER employment.

c. Duties of the ROIC:

(1) Ensures the overall safe conduct of training and proper use of the RTAA. The ROIC may be required to execute many of the same skills as the instructors and students, such as skiing, hiking, climbing, etc. The ROIC will not allow any of these actions to interrupt their ability to supervise and influence training. The ROIC may participate in training.

(2) ROIC is responsible and accountable for the conduct of the activity and the adherence to governing regulations and guidance. ROIC must be present for live-fire and High-Risk Training (HRT). The ROIC must be able to fully influence the conduct of all other non-live fire and non-HRT.

(3) Receives a Range Safety Briefing from the installation Range Control organization on use of the RTAA.

(4) Ensures the RSO is physically present at the training site.

(5) Determines when it is safe to fire in accordance with applicable regulations and installation range requirements.

(6) Ensures receipt of final clearance to fire from Range Control.

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

(8) Ensures required communications are established and maintained with range control.

(9) Ensures safe LASER operations.

(10) Ensures adequate medical support is available.

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

(12) Shall sign for all ammunition and explosives on the DD 1348-1A and enter the quantity received by Department of Defense Identification Code (DODIC), document number, and lot number on the expenditure report, ensuring the quantity matches the DD 1348-1A.

(13) Maintains written log of pertinent safety and control data concerning the operation of firing ranges, weapons training facilities, and maneuver areas, authorized operating times, impact area entries and exits, and cease-fire authorizations.

(14) Ensures plans for firing exercises and maneuvers are coordinated with Range Control.

(15) Ensures control of target areas to prohibit/deter entry by unauthorized personnel.

(16) Ensures all ammunition malfunctions and accidents are reported to Range Control in accordance with AR 75-1 and AR 385-40 (Army), or references (c) and (l).

(17) Ensures coordination and approval has been gained from Range Control for all civilian personnel that will be entering the training site.

(18) Briefs the RSO on the duties to be performed in support of the training event. Clearly establishes the requirement for the RSO to brief the OIC on the safety of the RTAA, the unit, and the readiness to commence live-fire operations prior to the start of firing.

(19) Implements Risk Management in all phases of the training events.

(20) Ensures the RTAA is checked out by the OIC and RSO at Range Control via the checkout form.

(21) Notifies Range Control immediately of any hazardous material (HAZMAT) spill, damage to the environment, vehicle/equipment accident, property damage, and other notices/reports/incidents as required by this Order.

(22) Understands and adheres to environmental policies and regulations.

(23) Signs for and understands the implementation of live-fire co-uses required for multiple units to conduct training in the same training area on the same range.

d. Prior to Training/Firing

(1) The ROIC must be able to fully influence the conduct of those training events to which they have been assigned. Live-fire ranges and HRT are the ROIC's appointed places of duty. The ROIC must be familiar with every aspect of this manual. Additionally, prior to firing/training, the ROIC will also:

(a) Provide a copy of the approved (signed) event Risk Management document to Range Control.

(b) Check out the assigned range(s)/training area(s) from Range Control.

(c) Assume responsibility for the scheduled range/area, related airspace, and training facility.

(d) Obtain and/or verify possession of required safety equipment. Ensure all personnel are wearing the required safety equipment.

(e) Receive a briefing from Range Control on conditions or events that may affect range utilization.

(f) Verify that all pertinent range and safety regulations have been read, understood, and are complied with.

(g) Ensure appropriate medical support and safety vehicle are present with the unit.

(h) Ensure the impact area or range is clear of all personnel and all safety measures directed by this manual have been taken (e.g., use of barriers, posting of range gate guards when necessary to deny access to the range/impact area).

(i) Ensure unit has two forms of communication between the unit conducting training and Range Control (e.g., PRC-117, black gear, satellite phone, and/or radio). The ROIC is responsible for ensuring proper communications with Range Control.

[1] Thirty-minute radio checks will be made to Range Control while in a "Hot Status (live fire) status. When in a "Cold" status, the ROIC will send a situation report to Range Control and continue to monitor the Range Safety Net. During non-live fire training events (Including High Risk Training), situation reports will be sent to Range Control at the top of every hour or when moving from one location to another in the training areas.

[2] Training Units will establish and maintain their own internal communications for all non-training/safety related radio traffic.

(j) Ensure all processes and equipment identified in the Risk Matrix are properly implemented.

(k) Ensure plans for firing exercises and maneuvers are coordinated with Range Control. The ROIC will coordinate with Range Control 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 MCMWTC Air Officer.

(l) Implement Risk Management in all phases of the training exercises. The ROIC will have a detailed RM document signed by the appropriate unit authority that covers all phases of training to be conducted prior to checking out the range/training area.

(m) Obtain clearance from Range Control to go "Hot" and notify Range Control when going "Cold" or in a "Cease-Fire" status.

b. ROIC Duties During Training/Firing

(1) Ensure no misconduct occurs on the firing line or training facility.

(2) Ensure all ordnance impacts are observed to ensure projectiles land within the prescribed impact area. Firing will be stopped immediately and Range Control will be notified if ordnance impacts outside of prescribed impact areas.

(3) Ensure the impact area is constantly observed and controlled to ensure that it remains clear.

(4) Ensure firing is stopped immediately when any unsafe act is observed or reported.

(5) Ensure all environmental damage, accidents, injuries, fires, or hazmat spills are reported immediately to Range Control.

(6) In the event of serious injury, the ROIC will call an immediate "Cease Fire" and will:

(a) Ensure appropriate medical care is provided.

(b) Contact Range Control and report the location, nature, and category of the accident, and assistance required. If an evacuation is required, the senior Marine from the using unit will be the On-Scene Commander and will initiate action for the CASEVAC. For any formal school, the On-Scene Commander will be the senior instructor present.

(c) Preserve the range/area for accident investigation.

(d) No later than 24 hours after the incident, meet with unit/installation safety representative to ensure safety reporting requirements are fulfilled.

(e) In the event of a non-serious injury or near-miss that could have resulted in a serious injury, ensure that corrective action is taken to prevent the incident from happening again. Report the incident to Range Control. Provide Range Control with corrective action taken, if any, to prevent/resolve the issue.

c. ROIC Duties After Firing or Training

(1) Ensure all weapons have been cleared, and notification of going "Cold" is given to Range Control.

(2) Ensure an accurate count and DODIC of all munitions expended is maintained and the count is turned in to Range Control upon completion of the training event.

(3) Ensure 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. Ensure all personnel and equipment LEAVE NO TRACE on the range and associated areas of operation.

(4) Ensure all safety equipment and checked-out items are returned to Range Control within 24 hours of training completion.

(5) Ensure required paperwork associated with range utilization is completed for turn in to Range Control immediately following completion of training.

(6) Ensure check-in procedures are completed with Range Control and responsibility for the facility is relinquished.

10. Range Safety Officer (RSO)

a. The RSO must be a Commissioned/Warrant/Staff Noncommissioned Officer/Noncommissioned Officer (pay grade E-5 or above), or a civilian (GS-5 or above, and contractor with Installation Commanding Officer's authorization). Personnel serving as an RSO will be in the grade as shown in Appendix I and certified as per the unit commander's certification

requirements. An MCMWTC RSO is only certified to perform RSO duties for the MCMWTC RTAA (TAs 1-16, and CA-1).

b. The RSO will be qualified in the weapon/LASER system for which they are responsible, which shall be noted on the RSO Designation Letter. For weapon systems equipped or dependent on LASERs, the RSO will be knowledgeable of LASER hazards and proper employment.

c. Duties of the RSO

(1) The RSO shall not participate in training. The RSO shall not assume any additional duties unless specifically authorized by this order. The RSO is authorized to execute many of the same skills as the instructors and students such as skiing, hiking, climbing, etc. The RSO will not allow any of these actions to interrupt their ability to supervise and influence training.

(2) Receives Range Safety Briefing from Range Control on use of the RTAA.

(3) Ensures weapons and personnel are properly positioned (before granting clearance to fire).

(4) Ensures authorized ammunition and explosives, to include proper charge, fuse, and fuse settings, are used.

(5) Ensures firing settings and weapons systems are within prescribed safety limits and verified.

(6) Ensures the Surface Danger Zone (SDZ) is clear of all unauthorized personnel.

(7) Ensures proper hearing protection is worn by personnel within noise hazard areas.

(8) Ensures proper eye protection is worn by personnel within eye hazard areas.

(9) Ensures permission is received from Range Control to commence training and live-fire operations.

(10) Prior to commencing live-fire operations, conducts final coordination with the OIC. This coordination will include a summary of checks, inspections, and actions that the RSO has completed. Also, the coordination will include verification that required communications have been established, and that a "Hot" status has been received from Range Control.

(11) Orders immediate cease-fire when any unsafe condition occurs.

(12) Is physically present at the training site.

(13) Reports all accidents and ammunition malfunctions to the ROIC.

(14) Verifies, upon completion of firing or after a cease-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) ROICs and RSOs are required to check out RTAAs using the RTAA checkout form.

d. RSO Duties Prior to Training/Firing

(1) Receives the Safety Brief from Range Control on RSO duties and specific range regulations.

(2) Conducts a joint inventory of the ammunitions and explosives at the range with personnel delivering the ammunition and explosives.

(3) The RSO will compare their inventory against what is reflected on the Ammunition Supply Point issue document DD1348-1A and verify that the lot number on every container matches the lot number on the issue document.

(4) Opens all containers that are not factory sealed and visually inspects the ammunition and explosives to ensure it corresponds with what is indicated on the issuing document.

(5) Conducts a Range Safety Brief for all personnel present and participating in the training evolution. Range

Control has provided the Range Safety Pocket Guide with a sample Range Safety Brief.

(6) Ensures weapons are properly positioned at authorized firing sites as indicated by the range regulations.

(7) Briefs road guards in their duties and positions, ensure that barriers or gates are properly positioned, and that road guards have communication with the RSO as necessary (radio, land line, etc.).

(8) Always maintains communications with the OIC and road guards.

(9) Ensures that during live-fire events, radio checks are made with road guards every half hour.

(10) Ensures that if communications are lost, the range goes into a check-fire status until communication is reestablished.

(11) Identifies Position Safety Officer(s) (PSO) and ensures they are properly briefed and positioned prior to the commencement of training.

e. RSO Duties During Training/Firing

(1) Ensures only authorized weapons and munitions, as indicated by the range regulations or explicitly approved by Range Control, are employed on the scheduled range.

(2) Verifies that proper safety data is applied to all weapons systems.

(3) Always monitors the Range Safety Net. During live-fire operations, performs half-hour radio checks to Range Control and with road guards.

(4) Orders an immediate cease-fire or check-fire when any unsafe condition is observed, including loss of communication.

(5) Enforces the safety regulations prescribed in this manual.

(6) Ensures the SDZ is clear and that personnel wear appropriate safety equipment and hearing protection.

(7) Ensures all ammunition found on the range is reported to Range Control immediately.

(8) Ensures PSOs are properly positioned during the execution of training.

f. RSO Duties After Training/Firing

(1) Verifies all weapons are safe and cleared.

(2) Assists the OIC in supervising the police call.

(3) Performs a shakedown on all personnel.

(4) Accounts for all saved/expended rounds.

(5) Is the last person to leave the range after all criteria have been met per this manual.

11. Exercise Coordinator (EC). Exercises designated by the Installation Commanding Officer will require the assignment of an EC from the participating force. The primary function of the EC is to handle scheduling requests, scenario refinement from the participating force, and to serve as the single point of contact between the participating force and the MCMWTC staff. The EC will be an individual designated prior to the commencement of an exercise and will manage the staff coordination between the exercise force and the MCMWTC staff.

1004. SAFETY/RISK MANAGEMENT (RM)/HRT

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, but should always include associated activities as well, including convoy movement to and from training, maintenance activities, bivouac operations, etc. All mishaps and incidents shall be reported to Range Control as soon as possible.

a. Any individual who observes an unsafe condition shall take action to stop the unsafe condition, then report it immediately to the chain of command. A training event or any other activity may be halted until the unsafe condition has been corrected. Anyone has the option to call "Cease-Fire" or "Cease-Training" over the Range Safety Net. Although the greatest danger to life and limb is associated with live-fire, MCMWTC has a higher quantity of non-live fire related injuries.

b. Where conflicts occur with safety instructions contained in Field and Technical Orders, the provisions and directives contained in reference (g) will take precedence.

c. No MCMWTC scheduled RTAAs shall be entered by any unit/activity unless explicitly approved by Range Control. All restrictions pertaining to individual RTAA as set forth in this order must be observed. Units operating within the MCMWTC RTAA shall ensure that all ordnance is expended to impact in the designated target areas. All operations, including dry runs, are prohibited when training areas have not been scheduled through Range Scheduling. Periodic closing of RTAA to facilitate maintenance, range sweeps, target inserts, range debris clearance, etc., will occur. Units will comply with Range Control instructions regarding closed RTAAs and restrictions when applicable. RTAA access is granted with expressed permission.

d. General Safety Considerations

(1) Have a minimum of two people in your party. Carry the appropriate gear and equipment for the mission, including pocket items, assault load, or combat load as per the appropriate installation seasonal SOP.

(2) Drive a four-wheel drive or over-the-snow vehicle, as appropriate for the season. Four-wheel drive vehicles can do damage to the environment, so caution is required. All personnel must drive on existing roads.

(3) Have the appropriate supply of food and water for more than the period for which clearance is granted.

(4) Leave an expected time of return with your command.

(5) Unexploded Ordnance (UXO) may be present within the RTAs, resulting in ground access restrictions. For your own safety, keep away from all ordnance. Note or mark the area in which the object is found and report its location to Range Control immediately. Range Control will make the necessary coordination with EOD.

2. Risk Management. Unit commanders shall ensure risk mitigation strategies are included in the planning and execution of all RTAA activities regardless of complexity or familiarity. The OIC shall implement RM during all phases of training events. All units and personnel shall apply the RM process to all aspects of operations and activities. Unit commanders may send RM collaboration or review requests to Range Control via the Joint Risk Assessment Tool (JRAT).

a. Risk Decisions. Unit chain-of-command shall evaluate risk decisions when unable to mitigate identified hazards to an acceptable level. The authority to approve, as acceptable, residual Risk Assessment Codes (RACs) of EH and H (II/B) shall only be extended to O-5 or above level of command. USMC and USA Training Units shall refer to Appendix C for the RM form. Other services may use their service-equivalent form for RM documentation. Except for grade-level approved for HRT determined through residual RACs, the approval authority is determined by the unit's risk management SOP.

b. General Requirements. All units, organizations, sections, and agencies must provide a copy of the approved (signed) RM document to Range Control prior to check out of the RTAA. The RM document determines the type of risk training and allows the installation to perform risk decision processes regarding Emergency Medical Service (EMS) asset allocation/manning. The Range Control will accept JRAT submissions with appropriate authority digital signatures. Range Control will not serve as an approval authority for a RM document.

(1) The OIC will ensure a copy of the approved (signed) RM document is provided to Range Control prior to or during RTAA check out.

(2) The following exceptions apply:

(a) Certain types of air operations.

[1] Overflight/Area Reconnaissance/Airspace Familiarity.

[2] Landing/Drop Zone Familiarity (no parachute operations, equipment insert/drop-off, or personnel inserts: Overflight or landing only).

[3] Mountain Flying Course (manned aircraft).

(b) Any other activity/event explicitly exempted in writing by the Installation Operations Officer.

c. Training Activity

(1) Training unit shall have an approved (signed) RM document on-hand at the training site(s) for all training activities.

(2) Unit commanders are responsible to develop RM procedures/programs as per applicable service-level regulations. Training activity OICs will ensure RM is implemented during all phases of training.

(3) The OIC and RSO must be prepared to discuss onsite Risk Assessments performed prior to commencement of training. Range Safety Personnel (RSP) may request to review training activity RM documents for all training events.

3. HRT. High-Risk Training is defined as training which exposes personnel and trainers to the risk of death, serious injury, or permanent disability despite the presence of proper safety controls. HRT is further defined as any training event that maintains a residual Risk Assessment Level of IA (EH), IB (EH), IIA (EH) or IIB (H) even after safety controls have been implemented. Specifically, hazards have been identified, an initial Risk Assessment Level is assessed, a Risk Mitigation Plan is applied, and the reduced or residual Risk Assessment Level remains as IA, IB, IIA or IIB.

a. The installation determined the following activities, regardless of residual RAC, shall be treated as an HRT activity (Note: The RTAA HRT designation process is under review. HRT designation decisions will be incorporated as part of the RTAA SOP annual review process):

(1) All live-fire and movement training (excluding Blank-Fire) and explosives training.

(2) Helicopter Rope Suspension techniques operations.

(3) Parachute Operations.

(4) One rope-bridge, including gorge crossing.

(5) Rappelling.

(6) Lead climbing to include multi-pitch climbing, military aid climbing and cliff assault.

(7) Ice reconnaissance.

(8) Ice recovery: Ice breaching and cold-water immersion.

(9) Ice climbing.

b. Technical activities (4)-(14) are defined by the installation Academics Section and appropriate SOPs.

c. HRT activities must have an onsite OIC (unless exempted by Service-Level Training Event (SLTE) range safety parameters), onsite RSO, non-training status onsite Corpsman/Medic appropriately medically equipped for activity, dedicated safety vehicle equipped and staged to transport a litter casualty, and the equipment and capability to stabilize a spinal injury (i.e., Backboard with C collar).

d. In the event the last base Emergency Medical Service (EMS) asset departs the installation, Range Control will temporarily cease all HRT.

(1) Range Control will notify the MCMWTC chain-of-command of the cease training status.

(2) The Installation Operations Officer, Executive Officer, or Commanding Officer will determine what activities may resume without EMS assets located on the installation.

(3) Range Control must receive explicit approval from one of the aforementioned billets referenced to lifting cease training restriction.

1005. TRAINING ACCIDENTS AND INCIDENT REPORTING

1. Range Control shall be informed directly and immediately via radio or telephone of any accident (training/vehicle/equipment), incident, or injury, regardless of severity, that occurs within MCMWTC RTAA. The notification will be provided from the site of the accident.

2. Reporting. If additional information or reports are required, the unit will be notified. In the event of serious injury or death, units will preserve the accident scene until released by the CO, MCMWTC Bridgeport.

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 CO, MCMWTC Bridgeport as an information addressee.

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

- a. Aircraft and vehicle accidents.
- b. Unintentional jettison of any material from an aircraft.
- c. MEDEVACs/CASEVACs.
- d. Wildland fires in the MCMWTC RTA.
- e. Any explosive mishap, to include duds, misfires, and hang fires.

- f. Missing, Lost, Stolen, or Recovered (MLSR) munitions.
 - g. Injuries.
 - h. Death.
 - i. Anything that is liable to create interest or inquiries from the local civilian community or media.
 - j. Missing or lost personnel.
 - k. Any incident that causes damage to civilian property.
 - l. Near miss. A near miss is an incident where there were no reportable injuries or damage but could have resulted in injuries or damage if timing or location were slightly changed.
1006. LOST PERSONNEL. The following procedures and reporting requirements are per the installation missing persons/search and rescue (SAR) procedures.
1. Upon the determination of a missing person, the unit OIC or On-scene Commander (OSC) will immediately and directly contact WHITE PEAK so they may be prepared to assist.
 2. The unit will conduct the initial search, ensuring the last known location of the missing person is preserved.
 3. If the unit is unable to locate the missing person within a reasonable amount of time (two hours or sooner if the unit deems appropriate), assistance from MCMWTC via Range Control will be initiated.
 4. Range Control will initiate the MCMWTC SAR SOP notification procedures. Range Control will maintain a "common operating picture" for the SAR mission.
 5. The following information should be reported to Range Control as soon as possible: Unit, Name, Rank, last four of EDIP, time last seen, grid coordinate or Latitude and Longitude of location last seen, equipment carried, and any other pertinent information.

6. For offsite training, the unit will organize, coordinate, and conduct SAR operations for its personnel. The MCMWTC may aid as required. If the unit requests further assistance, Range Control will initial MCMWTC SAR SOP notification procedures. The Installation SAR Coordinator will assist by making initial contact, communication, and coordination with the nearest suitable SAR agency. Range Control will assist the responding agency and asset(s) by establishing direct communications with on-site personnel as soon as possible and then standing by to assist as requested. On-site personnel will dictate coordination efforts to the maximum extent possible.

1007. MISSING, LOST, STOLEN, OR RECOVERED (MLSR) REPORTING

1. Report MLSR government property to Range Control immediately. Property losses frequently occur because regulations relating to proper safeguarding and handling are not followed. Range Control will record the appropriate information and determine if follow-up action is required. Range Control will request the following information:

- a. Location of incident (grid coordinates preferred).
- b. Date and time of incident reported.
- c. Name and contact information of the individual reporting the incident.
- d. Material description to include quantity and types.
- e. Where applicable, national stock number (NSN) and lot number.
- 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.

2. Range Control Response. Range Control will provide information for MLSR to S-4 and/or Marine Corps Police Department (MCPD), if required.

1008. DEVIATIONS

1. Institutional Deviations. Deviations from range standards or procedures contained in reference (g) and DA PAM 385-63_ may be granted based on critical mission requirements. Risk Management shall be integrated into the deviation process.

a. Deviations are limited to:

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

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

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

b. Unit must submit deviation requests as prescribed above, no less than 30 working days prior to the planned event. It is recommended that deviation requests be coordinated with the RCO prior to request submission.

2. Local Deviations. Modifications to provisions contained in this SOP, hereby referred to as a "local deviation," may be granted based on critical mission requirements. Risk Management shall be integrated into the local deviation process.

a. Requires explicit approval by the Installation Commanding Officer.

b. Unit must submit local deviation requests no less than 45 working days prior to the planned event.

(1) Units will submit requests per the process stipulated in DA PAM 385-63_, chapter 1, paragraph 1-4.b.

(2) The Range Development section will perform additional analysis to determine if the local deviation request meets the requirements for an institutional deviation request as prescribed in reference (g).

1009. CASUALTY EVACUATION (CASEVAC)/MEDICAL EVACUATION (MEDEVAC) PROCEDURES

1. Procedures. Refer to MCMWTC CASEVAC SOP.

a. A CASEVAC is the unregulated movement of casualties that can include movement both to and between medical treatment facilities.

b. A MEDEVAC refers to the timely, efficient movement and en route care by medical personnel of the wounded, injured, or ill from the battlefield and/or other locations to and between medical treatment facilities.

2. All units must develop a CASEVAC plan prior to occupying the RTAA. All units must have a CASEVAC capability while performing training within the RTAA.

3. RTAA medical requirements. Refer to MCMWTC CASEVAC SOP (Appendix Q) for further guidance. A qualified medical person shall be present for live fire training. A qualified medical person is a military graduate from the Medical Education and Training Campus at the DoD Healthcare Education Facility, Fort Sam Houston, Texas (e.g., Navy Corpsman or Army Medic), or a civilian possessing a current Emergency Medical Technician or higher certification from an approved U.S. Department of Transportation National Emergency Medical Services Education Standards Curricula recognized by, and up-to-date in, the resident State.

4. Fire and Rescue Service Information. Installation fire and rescue services support all training operations for the MCMWTC. In the event all assets are employed or unavailable, Range Control will initiate a temporary cease-training notice for all HRT. This temporary cease-training notification will only be lifted with approval from the Installation Operations Officer, Executive Officer, or Commanding Officer.

a. It is paramount that units plan for and use organic evacuation assets for minor injuries. The planned use of installation fire and rescue services for routine casualty evacuation may result in cessation of HRT activities or degrade

MCMWTC EMS support to life-threatening injuries due to non-availability of Limited Resources.

b. The MCMWTC Fire Chief or MCFD representative will contact Range Control when the last EMS asset dispatches from the installation, or there are no EMS assets available for emergency response.

1010. WILDLAND FIRE DANGER AND CONDITIONS

1. All wildland fires, regardless of size, will be reported immediately to Range Control.

2. Range Control will notify MCMWTC Dispatch and the Sierra Front Interagency Center. Range Control will ensure the CDO is aware of the reported fire.

3. Range Control may initiate a temporary cease training notification for all RTAA activities. This temporary cease training notification will allow Range Control to determine if adequate emergency services remain available for RTAA training, determine what areas may require evacuation, and facilitate route availability to the fire for emergency response assets.

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

a. The unit will cease fire and curtail training as required by the nature and extent of the fire. Depending on the situation, total evacuation is a plausible course of action via a route upwind from the fire if possible.

b. Report the fire immediately to Range Control, providing the following information: location, size, direction of movement, weather conditions, and source if known. As soon as possible, provide an on-site inventory of available firefighting resources (personnel and equipment).

c. At no time will training personnel or equipment be placed in jeopardy in order to fight a fire. Range Control 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.).

d. Personnel are prohibited from entering an impact area to conduct firefighting operations without approval from Range Control.

e. The MCMWTC Fire Chief, or designated representative, will assume control of all military personnel and equipment upon arrival at the location of the fire. The MCMWTC Fire Chief will coordinate on-site military firefighting efforts with local and federal agencies as appropriate.

f. Only the MCMWTC Fire Chief, or designated representative, will determine if a fire is "controlled" or "out."

g. Range Control will assist local firefighting efforts as appropriate with communication and coordination. Training will resume at the discretion of Range Control.

5. Fire Danger Classification. It is the OIC's responsibility to remain abreast of the Fire Danger Classifications issued by the Sierra Front Interagency Dispatch Center. All personnel training within the RTAA shall adhere to these restrictions.

1011. DESTRUCTIVE WEATHER WARNINGS AND CONDITIONS

1. The OIC and RSO and unit commanders are responsible to remain abreast of local weather conditions and forecasted weather conditions. Range Control will disseminate reports, weather advisories and warnings, and all other pertinent information for appropriate activities. Personnel within the training area will adhere to Range Control advisement and direction. Personnel shall provide updates to WHITE PEAK regarding local conditions observed as required.

2. Destructive weather watches, warnings, advisories, and conditions are set by Marine Corps Air Station (MCAS) Miramar Meteorology and Oceanography (METOC). Relevant inclement weather warnings and associated required actions will be passed over the Range Safety Net as they arise. Examples of weather watches, warnings, advisories, and conditions are as follows:

a. Thunderstorm Advisory. Conditions are favorable for thunderstorm development within 60 nautical miles (NM) of MCMWTC within the next 12 hours. Restrictions are left to the

discretion of the Unit COs based on storm severity, mission scope, and operational necessity.

b. Thunderstorm Condition II. Destructive winds and accompanying thunderstorms are within 25 NM or expected within six hours. Associated lightning/thunder, torrential rain, hail, severe downbursts, and sudden wind shifts are possible. Take precautions that will permit establishment of an appropriate state of readiness on short notice. Restrictions are left to the discretion of the Unit COs based on storm severity, mission scope, and operational necessity.

c. Thunderstorm Condition I. Destructive wind and accompanying thunderstorms are within 10 NM or expected within one hour. Associated lightning/thunder, torrential rain, hail, severe downbursts, and sudden wind shifts are possible. Take immediate safety precautions and shelter.

(1) Per reference (k), "A storm involving potential lightning shall not approach closer than ten miles before an ordnance operation is terminated. All ordnance handling in open/field storage areas shall cease and equipment shall be safely secured. All personnel shall be evacuated to a safe distance based on the Hazard Class/Division being utilized as soon as possible. Internal security watches will remain within sight of Ammunition & Explosives (A&E) stored.

(2) Fueling operations and ordnance operations, to include arming/de-arming, shall be terminated when a thunderstorm or a lightning discharge has occurred within five NM of MCMWTC." Restrictions are left to the discretion of the Unit COs based on storm severity, mission scope, and operational necessity.

d. Severe Thunderstorm Advisory. Conditions are favorable for severe thunderstorm development within 60 NM of MCMWTC within the next 12 hours. Restrictions are left to the discretion of the Unit COs based on storm severity, mission scope, and operational necessity.

e. Severe Thunderstorm Condition II. Severe thunderstorms are defined as having wind speeds of greater than 50 knots, hail with diameter greater than 3/4 in., and/or tornadoes.

Destructive winds accompanying the severe thunderstorms are within 25 NM, or expected within six hours. Associated lightning/thunder, torrential rain, hail, severe downbursts, sudden wind shifts, and tornadic activity are possible. Take precautions that will permit establishment of an appropriate state of readiness on short notice. Additionally, this warning will be set if any portion of MCMWTC is within a National Weather Service Watch Box and the weather is progressing as forecasted. Restrictions are left to the discretion of the Unit COs based on storm severity, mission scope, and operational necessity.

f. Severe Thunderstorm Condition I. Severe thunderstorms are defined as having gusts of wind greater than 50 knots, hail with diameter greater than 3/4 of an in., and/or tornadoes. Destructive winds accompanying the severe thunderstorms are within 10 NM, or expected within one hour. Associated lightning/thunder, torrential rain, hail, severe downbursts, sudden wind shifts, and tornadic activity are possible. Take immediate safety precautions and shelter. Additionally, this warning will be set if any portion of MCMWTC is within a National Weather Service Watch Box (WW) and the weather is progressing as forecasted. Restrictions are left to the discretion of the Unit COs based on storm severity, mission scope, and operational necessity.

g. Lightning Warning. Lightning is imminent or occurring within 10 NM (L10) or five NM (L5) of MCMWTC. When lightning is within 10 NM of MCMWTC, this warning will be transmitted and is primarily used for the safety of ordnance operations. When lightning is within five NM of MCMWTC, this warning will be transmitted and all personnel should remain indoors whenever practical.

(1) If an electrical storm is within three miles of a unit's current position, training will cease. At minimum, personnel will wait 30 minutes from the last observed lightning hazard before recommencing training. Notify Range Control of the lightning hazard and the unit's intention to cease training and go to ground.

(2) Communications equipment shall be secured to reduce electrical shock hazard to personnel.

(3) At the discretion of the OIC and RSO, and as applicable or feasible, unit performs lighting hazard mitigation as per unit safety SOP and MCMWTC PET instruction. Instructors may provide advisement and recommendations regarding unit mitigation procedures.

h. Tornado Watch. Tornadoes are within 25 NM or expected within six hours. Additionally, this warning will be set if any portion of the installation is within a National Weather Service Watch Box (WW) and the weather is progressing as forecasted.

i. Tornado Warning. Tornadoes are within 10 NM or expected within one hour. Additionally, this warning will be set if any portion of MCMWTC is within a National Weather Service Watch Box (WW) and the weather is progressing as forecasted.

j. Local Wind Warning. Sustained winds of 18-33 knots or gusts to 25 knots are forecast.

k. Gale Warning. Sustained winds of 34-47 knots are forecast for harbors, inland waters, ocean areas, and range.

l. Storm Warning. Sustained wind of 48 knots or greater are forecasted for harbors, inland waters, ocean areas, and range.

m. Frost/Freeze Warning. Any time temperatures are forecasted to fall below 32 degrees Fahrenheit (°F).

n. Hard Freeze Warning. Temperatures are forecast to be below 32 °F for more than 24 hours or the temperature is forecast to fall below 20 °F.

o. Light to Moderate Snow Warning. Accumulation of up to two in. of snow in 12 hours or up to four in. in 24 hours.

p. Freezing Precipitation Advisory. Freezing precipitation will result in up to 1/4 in. accumulation.

q. Freezing Precipitation Warning. Freezing precipitation will result in greater than 1/4 in. accumulation.

(4) Air Quality Index. As the AQI changes it has potential to become hazardous to train in. The following conditions are monitored, and notifications will be issued by Range Control.

a. Good (Green Flag) (0-50) Military Mountaineering Action: No effects to training.

b. Moderate (Yellow Flag) (51-150) Military Mountaineering Action: No effects to training.

c. Unhealthy (Red Flag A) (151-200) Military Mountaineering Action: Reduce prolong or heavy physical exertion. Take periodic breaks. Continue training.

d. Very Unhealthy (Red Flag B) (201-300) Military Mountaineering Action: CEASE outdoor training and physical exertion. Remain static and wait for AQI to improve. Consider moving training indoors.

e. Hazardous (Black Flag) (301-500) Military Mountaineering Action: CEASE training outdoors. Move troops indoors until AQI improves.

1012. CONDITIONS OF READINESS. The MCMWTC Range Control does not maintain conditions of readiness for the RTAA. Installation leadership distributes this information via AtHOC. As required or directed, Range Control will issue notices of conditions of readiness to units in the field.

1013. VEHICLE RESTRICTIONS DUE TO WIND AND ICE/SNOW

1. Refer to MCO 5100.29C_, TCO 5100.24_ (Traffic Safety), and unit SOPs to develop unit vehicle, safety equipment, and safety plan. The installation Safety Office manages installation vehicle safety matters to include inclement weather considerations.

2. The types of movement and vehicle operations are restricted or limited during the winter season. "On snow" is defined as any ice or six in. of snow on the road surface. Exercise forces and non-permanent personnel are not authorized to operate wheeled vehicles under these conditions without approval from the MCMWTC Operations Officer, Deputy Operations Officer, or Operations

Chief. Permanent personnel operating wheeled or tracked vehicles on snow do so at their own risk.

3. Tracked On Snow Vehicles. Non-tenant/exercise forces personnel are not authorized to drive off groomed roads. Permanent personnel are authorized off groomed roads as necessary for operations and safety, given adequate snow as required by the Annual Operating Plan. Personnel shall not ford rivers and will use bridges only. Personnel performing on snow travel off of groomed roads are responsible for any damage to the environment. The OIC, RSO, or OSC will notify Range Control of any damage to the environment. Examples of damage to the environment include: crushed sage brush, damaged/rubbed/broken trees/saplings/shrubs, deep ruts/tracks into the ground, etc. Exceptions to tracked on-snow vehicle restriction are:

a. The following activities are authorized for safety and/or training support by tenant personnel: down-range clearance and safety emplacement, snow depth checks and site analysis, and support/safety vehicle staging.

b. Exceptions for non-tenant/exercise force personnel to use tracked on-snow vehicles off groomed roads: CASEVACS (consider vehicle capabilities and site conditions prior to attempting an off groomed route evacuation) and Installation Operations Officer approved (in advance) for a specified training objective.

1014. TROPICAL STORM/TYPHOON/TSUNAMI CONDITIONS OF READINESS. There are no tropical storm, typhoon, or tsunami conditions of readiness associated with MCMWTC.

1015. WET BULB GLOBE TEMPERATURE INDEX

1. Units who train at MCMWTC over the summer months must take potential hot and humid weather conditions into consideration during their planning process and in preparing their personnel to conduct training. Heat casualties, preventive measures, and related issues are covered in detail by the MCMWTC academic SOPs.

2. Range Control does not have the capability to predict, measure, or monitor the Wet Bulb Globe Index. Training site

weather conditions drastically differ from base camp conditions. Training Units shall coordinate with their instructor personnel, the MCMWTC Academics Section, MCMWTC Safety Office, and/or the installation medical clinic for information regarding wet bulb globe index.

1016. AIRSPACE MANAGEMENT DURING EMERGENCY RESPONSE REQUIRING CIVILIAN/MILITARY AIRCRAFT EVACUATION. Range control initiates, coordinates, and manages all RTAA emergency responses to include air medical emergency evacuations.

1017. OBSERVATION OF/PARTICIPATION IN TRAINING BY MILITARY DEPENDENTS OR NON-GOVERNMENT CIVILIANS

1. These procedures apply to activities within the MCMWTC RTA. Activities within the installation base-camp areas will be evaluated by the installation Safety Office. Non-DoD civilians hosted/managed/sponsored by MCWTC are not authorized to be on any range or TA unless approved by Range Control. Requests for military dependents or civilians to participate in or observe training within the RTA on a live-fire range or facility will be submitted via the chain of command to the CO, MCMWTC Bridgeport 30 days in advance of the event. Requests require the following information:

- a. Unit conducting event.
- b. Organization/background of civilian participants.
- c. Event description, including weapons system(s) and ammunition being fired or observed.
- d. Date and time the event will take place.
- e. Location of the event (range, TA, etc.).
- f. Purpose for the event and reason the civilian visitors are participating.
- g. RM Worksheet.

2. Civilian participants must sign a waiver-of-liability before the event. Coordinate with the installation S-1 for a waiver-of-

liability. A copy of the signed waiver-of-liability must be onsite while training is being conducted and kept on file for a minimum of three years by the command/unit. Additionally, if required, all waiver-of-liability forms may be reviewed by the Office of the Staff Judge Advocate to ensure that the Installation is in compliance with all legal requirements.

3. Training authorized for observation/participation is limited and restricted. When incorporating civilians into training, commanders will establish control measures to ensure that civilian activities are conducted safely.

4. Additional guidance and restrictions can be located in Secretary of Defense (SECDEF) memorandum (MEMO) of 22 Feb 01 and Secretary of the Navy (SECNAV) MEMO of 7 MAR 01.

1018. QUIET HOURS. There are no quiet hours associated with the MCMWTC RTAA.

1019. PRIVATELY-OWNED VEHICLES, WEAPONS, ANIMALS, AND ALCOHOL

1. Privately-Owned Vehicles (POV). POVs are prohibited in all RTAAs without written approval from the RCO. See Appendix H for a POV access request. The installation or Marine Corps does not bear responsibility for any damages to POVs within the RTAAs. Range access procedures remain applicable to all personnel and vehicles accessing any of the ground ranges associated with MCMWTC. Rental vehicles procured on official orders are considered government vehicles. All vehicular travel is restricted to established roads and bridges. Carrying military weapons to and from any range in a POVs is not authorized without the Installation Commanding Officer's approval.

a. POVs may be used for transportation on California SR108. POVs may not be used on SR108 to access training sites when the road is closed by the state of California. POVs shall park in parking lots adjacent to training sites along SR108.

b. The Leavitt Training Area (LTA) parking lot for POVs is the area outside of the boulders at the training site.

c. Personnel will not park POVs on the south side of SR108 when accessing training sites within TA-9 during the summer/fall

training cycle. This is due to TA-10 and 11 not being open to training center activities during these training cycles.

d. POVs may also be used for transportation to and from Range 500 and shall be parked outside of the Range 500 gate (whether open or closed).

2. Privately Owned Weapons. Privately owned weapons and ammunition are not authorized in RTAAs without special permission. Submit written requests to the Installation Commanding Officer two weeks in advance.

3. Privately-Owned Animals. Pets are not allowed in RTAAs.

4. Alcohol. Alcohol is not allowed in RTAAs unless specifically approved by the Installation Commanding Officer.

1020. ADDRESS/PHONE NUMBERS/WEBSITE

Address: Marine Corps Mountain Warfare Training Center
ATTN: Range Control Facility HC 83
Bridgeport, CA 93517

Phone Numbers

All phone numbers are DSN 839 or Commercial (760) 932-XXXX:

Range Administration	1436
Range Scheduling	1439
Range Safety and Operations	1628
Fire Desk (recorded)	1435
Range Control Officer	1516

Website: Contact the range safety and operations section for most current website and/or TEAMS channel.

1021. APPLICABLE MAP SHEET. Contact the installation intelligence section for the most current map sheet information.

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CHAPTER 2 ENVIRONMENTAL PROCEDURES

2000. GENERAL

1. This chapter lists the environmental rules and restrictions Training Units will adhere to with no exceptions.

2. Off-Limits Areas. The United States Forest Service (USFS) may designate permanent or temporary off-limit areas including, but not limited to: sensitive areas, historical resources, natural resources, special interest areas, recreation areas, wildlife food plots, pipeline/utility corridors, and critical or unique ecosystems with the potential to be impacted or damaged by military training, as allowed by Federal Law. Training Units must coordinate with Range Control for the most up-to-date listing of Off-limit areas.

3. Sensitive Areas. Environmentally sensitive areas include cultural resource sites, sensitive plant sites, wildlife food plots, and designated regeneration areas determined by the USFS.

4. Recreational Complexes. Formal training is not authorized, unless a case-specific permit or authorization is issued by the USFS, at the following recreational complexes:

- a. Leavitt Meadows Campground.
- b. Leavitt Meadows Pack Station.
- c. Sonora Bridge Campground and Picnic Area.
- d. Obsidian Campground.
- e. Chris Flat Campground.
- f. Bootleg Campground.
- g. Shingle Mill Campground.
- h. Leavitt Falls Vista.
- i. Emma Lake Trailhead.
- j. Hoover Wilderness Trailhead.
- k. Pacific Crest Trail.

5. The following environmental design features are to ensure good stewardship of the land utilized for training by MCMWTC and sponsored units and shall be complied with to the fullest extent possible:

a. The sustained presence of a large number of personnel and equipment may adversely affect environmentally sensitive areas. Reference (r) for the Annual Operating Plan (AOP) definition of events considered large number of personnel and equipment. The following activities are considered a sustained presence of large number of personnel and equipment:

(1) Bivouac and Troop Assembly (Company-size and greater).

(2) Combat Operations Center (COC).

(a) Meets criteria for "Large" per the AOP (reference (r)) or,

(b) Incorporate mobile electric power and/or,

(c) Hot field meals.

(3) Field Meals and Sanitation.

(4) Mobile Electric Power.

b. Leave no trace; what you pack in, you will pack out.

c. An unused Meal Ready-to-Eat (MRE) heater has to be disposed of as hazardous waste via receptacles marked for MRE heater disposal. Coordinate with the environmental section for locations of these receptacles. A used MRE heater can be thrown away in the garbage.

d. No burying, dumping, or otherwise disposing of trash, rubbish, or garbage except at established receptacles.

e. No burying, dumping, or otherwise disposing of any type of explosive material, pyrotechnic, chemical, ammunition, or any type of hazardous waste.

f. The draining, dumping or spilling onto the ground or into bodies of water of oil, fuel, or chemical from any vehicle, machinery, or container is strictly forbidden.

(1) All spills must be reported immediately to Range Control in order to expedite waste clean-up and disposal.

(2) All spills require documentation via an Environmental Spill Report email.

(3) Drip pans and secondary containment are required for all tactical and commercial vehicles, generators, or equipment operating in the training areas. A Spill Response Kit shall be properly maintained and utilized when spills are reported.

g. Removal or destruction of trees, brush, or any other living vegetation is forbidden. Cutting or otherwise removing living tree limbs is also prohibited. Basque Tree Carvings, known as arbor glyphs, shall not be added to or defaced. Do not disturb archeological sites.

(1) Certain types training-related activities are restricted to 100 ft. to 350 ft. from cultural resource boundaries.

(2) Training Units must coordinate with the Range Control Office and/or installation Environmental Section to determine what limitations/restrictions may apply to proposed training activities.

h. No bivouacking within 100 ft. of lake shore and streams.

i. Do not feed, harass, pet, capture, or kill any wildlife within the RTA unless you are participating in authorized survival training or are in possession of the appropriate license during the scheduled season for the applicable species.

j. The following special-status species to include Federal/State Threatened and/or Endangered Species may inhabit the MCMWTC RTA: Northern Goshawk, Bald Eagle, Peregrine Falcon, Great Gray Owl, California Spotted Owl, Flammulated Owl, Fisher, Sierra Nevada Red Tail Fox, Townsend's Big-Eared Bat, Spotted Bat, Lahontan Cutthroat Trout (LCT), Yosemite Toad (YT), and Sierra Nevada Yellow-Legged Frog (SNYLF). These species and their habitat shall be avoided. Contact the Environmental Director for the most current listing of off-limits and

restricted areas. Range Control regularly updates the installation RFMSS database with off limit and restricted areas.

k. The following restrictions/limitations apply regarding specific species that may inhabit the RTA:

(1) Ground disturbing activities are restricted to 100 m from LCT occupied areas. The following are considered LCT occupied areas: Silver Creek, Wolf Creek, and Mill Creek. In addition, the following restrictions also apply to LCT occupied areas:

(a) No stream crossing by motorized vehicles except over authorized bridges/culverts.

(b) No wading or walking up and downstream within the stream channel in LCT occupied streams. Stream crossing are allowed for small groups (<25 people); larger groups should cross at hardened areas that contain naturally occurring boulders or downed logs.

(c) No creation of rock/log dams that could impede fish passage.

(2) No disturbance activities during YT and SNYLF breeding period 1 May - 30 July. Ground disturbing activities are restricted to 100 m from YT and SNLF occupied areas. The following areas are considered occupied by either SNYLF or YT:

(a) Chango Lake: TA-6 (11S KC 7404 5092).

(b) Lower Sardine Meadows pond: TA-10 (11S KC 7196 4394).

(c) Upper Sardine Meadows pond: TA-10 (11SKC7122 4547).

(d) Leavitt Lake Area breeding pond: TA-11 (11S KC 7126 3914).

(e) Koenig Lake: TA-11 (11S KC 7010 4032).

(3) Ground disturbing activities are restricted to 100 ft. from streams and/or wetlands within designated Critical Aquatic Refuges (CAR). The following are identified CARs:

(a) Summit Meadows (5100 acres): Parts of TA-2, TA-4, and TA-6.

(b) Silver Creek (6,000 acres): Parts of TA-4-6.

(c) Wolf Creek (3,200 acres): TA-8.

(d) Mill Canyon (6404 acres): Parts of TA-1-4.

(e) Koenig Lake (1,990 acres): Parts of TA-10-11.

(4) No disturbances will be allowed within 100 m from ACTIVE Goshawk, Great Gray Owl, California Spotted Owl, Flammulated Owl, Migratory Birds, American Marten, Fisher, Sierra Nevada Red Fox, Bald Eagle, Spotted Bat, and Townsend Big-Eared Bat nest/dens/colony/hibernacula during species specific Limited Operating Periods (LOP).

Table 2-1 LIMITED OPERATING PERIODS (LOP)

Species	LOP	Buffer
Bald Eagle Nest	1 FEB - 30 JUNE	100m
Northern Goshawk Nest	15 FEB - 30 SEP	100m
Northern Goshawk Protected Activity Center (PAC)		N/A
Bi-State Sage Grouse LEK	1 MAR - 15 MAY	¼ Mile
Sierra Nevada Red Fox Den	1 MAR - 30 JUNE	100m
Great Gray Owl Nest	1 MAR - 15 AUG	100m
Great Gray Owl PAC		N/A
California Spotted Owl Nest		100m
California Spotted Owl PAC		N/A
Spotted Bat & Townsend's Big Eared Bat Colony	15 APR - 1 SEP	100m
Masonic Mountain Jewel Flower	1 MAY - 31 JUL	30m
Marten Dens	1 MAY - 31 JUL	100m
Flammulated Owl Nest	15 MAY - 31 JUL	100m
Migratory Bird's Nest	15 MAY - 31 JUL	100ft
Mule Deer Habitat Fawning Area	1 JUN - 31 AUG	N/A
Spotted Bat & Townsend's Big Eared Bat Hibernacula	1 NOV - 1 APR	100m
Peregrine Falcon Nest	Year-long	100m
Bodie Hills Draba Plant	Flowering Season	30m
Cuplake Draba Plant		
Skypilot Plant		
Alpine Dusty Maidens Plant		
Botrychium Fern Habitat		

(5) No disturbances will be allowed within 100 m from ACTIVE Peregrine Falcon nests. This restriction remains while the nest is active regardless of the time of year.

(6) No disturbances will be allowed within a 1/4 mile of ACTIVE Bi-State Sage Grouse LEKs from 1 March to 15 May. Activities associated with the Sweetwater Airstrip including runway maintenance, landing of aircraft, and activities consisting of groups larger than 25 individuals will not occur from 1 March to 30 June during the Bi-State Sage Grouse breeding/early brood-rearing season.

(7) Overflights and group sizes larger than 25 personnel are restricted from designated ACTIVE Protected Activity Centers (PAC) during established LOPs per species.

(8) Additional limitations/restrictions to training-related activities are contained within the Training Activities Environmental Assessment (EA), MCMWTC AOP, USFS Special Use Permits (SUP), California Department of Fish and Wildlife (CDFW) Permits, and other land-use agreements. Training Units must provide a thorough description of intended training activities to the RCO to ensure compliance with the aforementioned documents.

l. No fishing is authorized unless part of a specific training objective/course authorized by the installation Operations and Training Section. A valid fishing or hunting license/permit must be obtained to fish or hunt in any of the training areas.

m. Ordnance filled with phosphorus or toxic agents are not authorized.

n. No off-road driving is permitted, this includes POVs. Individuals are personally liable for all costs and fines associated with POV recovery or unauthorized vehicle use or damage to equipment, property, habitat or environment. Units must report all off-road driving and/or damage to equipment, property, habitat, or the environment.

o. Over-the-snow travel on approved routes is authorized with two feet of packed snow covering vegetation. Utilize bridges only, no fording.

p. Ember-producing fires/activities (wood, charcoal, etc.) are not authorized unless directly associated with a training objective approved by the installation Operations and Training Section, MCMWTC.

(1) Personnel performing ember-producing fire training must possess a valid USFS/Cal-Fire Fire Permit. It is the responsibility of the permit holder to ensure knowledge and compliance with special limitations and Fire Regulations.

(2) No fires are authorized while in a fire-restricted status regardless of possession of a fire permit. Refer to your Fire Permit for any additional guidance.

q. Stoves are authorized for use within the RTA. Coordinate with Range Control for additional guidance and limitations.

(1) Personnel must possess a valid USFS/Cal-Fire Fire Permit. The permit holder is responsible to ensure knowledge and compliance with special limitations and Fire Regulations.

(2) Coordinate with Range Control for additional guidance regarding fire permit limitations with respect to training unit stove activities.

(3) Certain non-ember producing stoves are authorized during fire restrictions. Coordinate with Range Control for additional guidance.

r. No smoking in the RTAs.

s. No digging is allowed in the RTAs.

t. Human waste will be dealt with in one of three ways:

(1) By portable toilet requested through the S-4, weather dependent.

(2) By wag bag, unit provides their own. Wag bag must be disposed of properly into solid waste.

(3) By "Banta Bucket," five (5) gallon buckets or waste disposal bags issued during inclement weather conditions or when portable toilets are otherwise unavailable.

6. Access to Twin Rivers Preserve Property requires 48 hour notice via the CPLO. The CPLO will grant or deny permission to enter. Prior to authorized access a reply is required from the CPLO to Range Control.

2001. POLICIES AND ACTS

1. In an effort to preserve natural and cultural history, and protect indigenous and endangered plants and wildlife, MCMWTC requires compliance of all users with the regulations listed below:

- a. The National Environmental Policy Act of 1969 (NEPA).
- b. The Clean Air Act (CAA).
- c. The Clean Water Act (CWA).
- d. The Resource Conservation and Recovery Act (RCRA).
- e. The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).
- f. The Endangered Species Act (ESA).
- g. The National Historic Preservation Act (NHPA).
- h. State Historical Preservation Office (SHPO).
- i. The Archeological Resources Protection Act (ARPA).
- j. Antiquities Act of 1906.
- k. The Federal Facilities Compliance Act (FFCA).
- l. The Migratory Bird Treaty Act.
- m. Integrated Natural Resources Management Plan (INRMP).
- n. Native American Graves Protection and Repatriation Act (NAGPRA).
- o. Military Lands Withdrawal Act (MLWA) 1999.
- p. Sikes Act.

- q. Integrated Cultural Resources Management Plan (ICRMP).
- r. Humboldt Toiyabe National Forest (HTNF) Management Plan.
- s. Bureau of Land Management (BLM) Range Management Plan.
- t. Current year USFS Special Use Permit and Annual Operations Plan.

2002. CULTURAL AND HISTORIC RESOURCES. Federal and State historic preservation laws have been developed to protect our cultural heritage and these laws are enforced in the RTAs. Violation of these laws can incur civil and criminal fines and/or incarceration. Any questions concerning cultural sites can be addressed through the MCMWTC Environmental Section (932-1457).

2003. HAZARDOUS WASTE GUIDELINES. All HAZMAT (e.g. paint, petroleum, oil, and lubricants, etc.) used while training shall be stored in approved, closed, leak-proof containers. All HAZMAT shall be clearly marked, identifying the contents of the container.

1. All HAZMAT spills shall be reported immediately to Range Control with the following information:

- a. Location.
- b. Type/Name of HAZMAT.
- c. Size (quantity) of spill.

2. Units shall use required equipment to prevent and contain spills at or near the source of the spill. Hazardous waste shall be removed daily from the RTAs by the using unit.

3. All generators and containers with hazardous materials/liquids (e.g., Petroleum, Oils, and Lubricants, Battery Acid, etc.) must have secondary containment equal to 110 percent of the HAZMAT container capacity (example: a 55-gallon drum must have secondary containment of at least 60.5 gallons).

4. All refueling operations in the training areas must have prior approval from the MCMWTC Environmental Section.

a. All fuel transfer must have secondary containment between the vehicles being refueled equal to 110 percent of the liquid being transferred.

b. There must be a spill kit on hand, as well as a fire extinguisher, that is able to address any potential spill or accident contingencies.

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CHAPTER 3

SCHEDULING PROCEDURES

3000. GENERAL. The objective of Range Scheduling is to properly schedule safe, effective, and efficient use of the finite RTAAs designated for use by MCMWTC, while de-conflicting multiple events. The goal of Range Scheduling is to effectively maximize training events within the limited land resources and time available.

3001. RANGE FACILITY MANAGEMENT SUPPORT SYSTEM (RFMSS). RFMSS is the centerpiece of the Range Management System. It is the approved Marine Corps RTAA scheduling and management tool. This system provides a standard, integrated, web-based program that installation RTAA management personnel use to schedule training support for users and manage Marine Corps RTAA property. RFMSS supports all major range management processes, to include unit/organization RTAA requests, subsequent Range Control approval/disapproval action, and the automation of range firing desk operations.

1. Range Scheduling currently uses RFMSS for ground and air event scheduling.
2. RFMSS provides a means for the RCF to manage the safe operation and control of the MCMWTC RTAAs. RFMSS allows Range Control personnel to approve, process, and monitor RTAA requests, schedule training area maintenance, resolve scheduling, safety, or environmental conflicts, and publish a Range Bulletin that reflects RTAA reservations for a specific period.
3. Users shall ensure necessary ground setup and/or teardown time requirements are reflected in ground and air event requests.
4. RFMSS allows remote users to determine the availability of the MCMWTC RTAA, submit requests for use, and determine the status of previously submitted RTAA requests. Users may submit multiple facility requests or individual event requests as well as weapon, ammunition, vehicle, and target requirements.
5. Figure 3-1 provides basic information for inputting critical information into an RTAA request:

RFMSS REQUEST

Scheduling: Request

Unit* 1ST BN 71
Priority Training
Save as Temp

New: Earliest Activity Start Date [] Apply Group Sch [] Filter by Activities with Validation []

delete selected | 1 new | 3 new | 5 new

Action	Standard	Continuous	Air	Facility/Airspace Subdivision	Event Name	Start Date
<input type="checkbox"/> copy facility details	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TA-2	PATROL EXERCISE	[]
<input type="checkbox"/> copy facility details	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R-600	LIVE FIRE EXERCISE (LFX)	[]

Weapon/Ammo* (1) Communications* (0) Vehicle (0) Restriction* (3) Support (0) User Fields Documents (0) History

delete selected | 1 new | 3 new | 5 new

Memo Text* [] User Name [] Memo Date []

JONATHAN.PARKER 01/03/2021 12:36 L

Callouts:

- Input intended munitions, to include pyro/sims and blanks.** (Points to Weapon/Ammo* (1))
- Read restrictions associated with requested facility, make adjustments to plan based on restrictions.** (Points to Restriction* (3))
- Upload RM document, RTA checkout form and SOM graphics.** (Points to Documents (0))
- Provide description/details of intended activity in communications tab.** (Points to Communications* (0))
- Estimated time for pre & post-inspections.** (Points to Memo Date)

Figure 3-1: RFMSS Request Inputs

3002. GENERAL SCHEDULING INFORMATION

1. Scheduling. Range Control provides a single scheduling authority for all training within the MCMWTC RTAAs. Accurate scheduling coordinates RTAA access and use, de-conflicts units and events, and maintains actual RTAA utilization data. Mountain Training Exercise (MTX) scheduling is to be conducted through the MCMWTC Operations Chief.

2. Scheduling Timetable

a. RTAA reservation requests may be submitted in RFMSS as much as two years in advance. These are requests for RTAA only, not reservations.

b. All RTAA reservation requests, except for manned-aircraft operations, must be submitted a minimum of thirty days prior to the requested date of training. sUAS will be considered a ground activity with respect to RTAA reservation request timetable of thirty days prior. Requests that are submitted less than thirty days prior to the date of training must be approved by the installation Operations Section.

c. To ensure the proper support sections are available, Aircraft Operation reservation requests must be submitted a minimum of **ten business** days prior to the start of the event, provided the event occurs during normal working hours (Monday-Friday: 0730-1600 local). If the event occurs outside of normal working hours, then the request must be submitted a minimum of **Thirty days** beforehand. Both requests must be sponsored/endorsed by MCMWTC Air Section and requested in RFMSS.

d. Air Operations in support of an MTX Force-on-Force Final Exercise (FEX) will be coordinated with the MCMWTC Air Officer and conducted in accordance with the MTX Special Instructions (SPINS). The RCO may disapprove any air operation if deemed as an unsafe activity with unacceptable risk.

e. Reservation requests will not be approved in RFMSS prior to 30 days before the commencement of training.

3. Same-Day Request Procedures. The MCMWTC assumes additional risk of mishap occurrence when requests are processed on the same day of training. Hazard probability may increase due to short-fused safety review of requested activity. Hazard severity may increase due to lack of available emergency/support assets because of previously unscheduled and/or unconfirmed section validation of activities.

a. The unit requesting same day training activity authorization must provide a same-day request form as per Appendix E same-day request form.

b. All safety requirements and documentation, to include co-use authorizations and RM, are still required for same-day requests.

c. Same-day requests will be processed by convenience of Range Control due to ongoing Range Safety and Operations activities. Providing Range Control with a request form does not equal immediate approval of activity.

d. Once Range Control completes and transcribes scheduling and safety review information on the request form, the unit requesting same day training will submit the form to the RCO for approval.

(1) Same-day requests are only approved with explicit authorization from the RCO or higher-level authority in the RCO's absence. The Installation Air Officer is exempt from RCO's signature requirement for same-day requests. However, the Air Officer is still required to submit a same-day request form.

(2) Range Control will only process and reserve the same-day activity once they receive the form with the RCO's signature, or higher-level authority in the RCO's absence.

(3) Training activity OIC and RSO are still required to check out the training area and/or facility.

4. Under certain circumstances (such as an inability to access RFMSS electronically and non-availability of the Operations and Training section RFMSS unit scheduler), a paper request may be accepted in lieu of a RFMSS request. This circumstance requires written justification submitted to the RCO for approval. The request shall still be in accordance with the RFMSS scheduling timeline above. See Appendix E for the appropriate range request form.

5. Offsite Venue. Mountain Exercise sponsored training at an offsite venue (not within TAs 1-16, and CA-1) are required to notify range control of their training activity via a RFMSS request. The range control does not determine what activities meet these criteria.

3003. SCHEDULING PROCESS. It is the unit's responsibility to ensure training activities and appropriate facilities, ranges, or training areas are requested via RFMSS. Contact range scheduling per chapter 1 contact information to request a unit scheduler account.

1. Unit will request a user account with unit scheduler permission.

a. A User Identification (ID) and password are required, which can be obtained through the RFMSS site. The RFMSS site is available via the MCMWTC RCF.

(1) Range Control will not accept "vanity callsign" type ID requests, such as "Swervin" or "Swamdeep".

(2) User Identification requests will consist of Last Name, First Initial, and Middle Initial: For example, SMITHMR.

b. Once an ID and password are obtained, access to RFMSS is located at the RFMSS site.

2. All units' initial planning will be coordinated with Installation Operations and Training Section. Upon MCMWTC support approval confirmation, units shall request RTAA via RFMSS.

a. Range Control personnel will not input unit training requests in RFMSS for the unit.

b. Range Control may assist with requesting facilities, training areas, or ranges in RFMSS.

(1) Process RFMSS User account requests.

(2) Provide RFMSS instruction.

(3) Provide RTAA and facility advisement.

(4) Provide on-hand assistance, pending Range Operations/Safety with the unit scheduler logged into RFMSS.

c. In the event a unit is unable to acquire a RFMSS account, the unit scheduler will coordinate with the Operations and Training Section to input training activities requests in RFMSS.

d. All units participating in the SLTE will conduct scheduling matters with the MCMWTC Operations and Training Section. Once the schedule for the SLTE is approved by the MCMWTC Operations and Training Section, the MCMWTC Operations Chief will update RFMSS for the SLTE.

3. MULTI-UNIT USE OF MCMWTC RTAA. When a training area is scheduled to be used at the same time as a live-fire range event in the same training area, the requesting user must obtain

approval from the previously scheduled user. See Appendix E for the co-use form.

- a. The requesting OIC will complete the co-use form.
- b. "Co-Use" of RTAA may be authorized by the RCO with concurrence from both Training Units if acceptable de-confliction measures can be implemented and safety is not jeopardized.
- c. De-confliction measures will be included in the communication tab within RFMSS from the unit requesting co-use. The requesting unit is responsible for coordination of de-confliction measures.
- d. "Co-Use" agreements will require **BOTH UNIT'S OICs AND RSOs** to come to the RCF in-person to discuss the de-confliction details with the RCO. The RCO will have final approval authority.
- e. Only those OICs and RSOs who have signed the co-use agreement may serve as OIC and RSO for the approved training events.
- f. Prior planning is essential to include all potential training event OICs and RSOs are at the RCF for the in-person de-confliction discussion.
- g. Aviation units scheduling the MCMWTC airspace do not require a co-use agreement. The Installation Air Officer provides SDZs for hot ranges during requested flight times to air crew. Units flying in the training area are required to monitor the Air Safety Net at all times. Range Control will brief the flying unit on the location of other aviation units flying in the RTAA and all "Hot" ranges. It is the Aircraft Commander or Pilot In Command's (PIC) responsibility to fly with a Military Installation Map (MIM).

(1) A Hot Area Brief is also required to brief the disposition of the RTAA. The aviation unit will call the FDO (760-932-1435) during pre-flight planning.

(2) A Hot Area Brief is an added safety back stop. Should initial radio communications fail, the pilot would then

have been made aware of other RTAA activities during their scheduled event times.

3004. NO-SHOWS/LATE ARRIVALS

1. Late Arrivals. Units must notify Range Control in the event they are delayed and will not occupy the reserved facility as soon as possible

2. Cancellations. If RTAA requests are shown as "PEN-RC" (pending Range Control) in RFMSS, the requestor may cancel or modify the RTAA reservation request. RTAA cancellations cannot be processed by a unit-level scheduler in RFMSS once the RTAA request has been reserved (RES). After an RTAA request has been reserved, units may request to cancel or change submitted requests in person or by telephone, at which time a follow up via e-mail or in writing is required.

3. No-Show. Units that do not cancel existing RTAA reservations and do not utilize the RTAA will be logged in RFMSS as a "No-Show." RTAA "No-Show" activities may result in a Range Violation issued by the RCO.

3005. SPECIAL RANGE REQUESTS

1. Foreign Military

a. The International Programs Office (IPO) at Headquarters Marine Corps (HQMC) is the agency responsible for notifying Marine Corps Bases and Air Stations of Foreign Military Sales (FMS) requests. Direct contact with Marine Corps installations is not authorized by foreign military users/requestors until HQMC has given approval and coordination with the respective installation liaison offices has occurred. The process can take six months to complete. Early and proper coordination can prevent delays in processing and confusion with other known FMS requests.

b. Foreign military training in MCMWTC RTAA will comply with the provisions contained in this Order

c. Foreign military training activities will be scheduled in RFMSS by the appropriate liaison as per the procedures prescribed in this order.

2. Civilian Training. Civilian and non-military law enforcement agencies are required to coordinate with the Installation Operations and Training Section when requesting to train on MCMWTC's RTAA. The Installation Operations and Training Section may require an Inter-Service Support Agreement (ISSA) prior to any approved training. A minimum of 60 days is required in order to establish an ISSA.

3. Contractor Training. Contractors wishing to train or conduct operations in MCMWTC RTAA are not authorized to make initial requests for range access or coordination.

a. Military or government civilian personnel are required to request initial coordination on behalf of contracted personnel supporting government projects. It is imperative that authorized personnel properly coordinate with the MCMWTC RCO if they desire to see projects requiring range support accomplished.

b. Typical examples of MCMWTC-sponsored contracted personnel requesting access without proper coordination include aerial mapping agencies, environmental agencies wishing to conduct surveys, etc. These MCMWTC-sponsored agencies must have MCMWTC approval before Range Control can allow access.

4. Non-Department of the Navy Military Training

a. Other services and DoD commands/organizations will not be charged for use of Marine Corps ranges. Non-military organizations desiring to train in MCMWTC RTAA may incur range costs. Range Management shall be reimbursed for providing services including, but not limited to, range cleanup of ordnance debris, range safety training, etc.

b. In cases where ordnance is expended, a complete list of ordnance desiring to be expended in MCMWTC RTAA will be required, at a minimum.

3006. NON-STANDARD TRAINING AREA REQUESTS. Coordinate with the Range Safety and Operations Section for all non-standard training area requests. Be prepared to complete a local deviation request per procedures published in chapter 1 of this order.

3007. SCHEDULING HIKES/CONDITIONING MARCHES

1. Hikes and conditioning marches shall be scheduled in RFMSS as a regular training activity.

2. The exception to this requirement is for permanent personnel performing individual/pair/section physical training (PT) on Mountain Leader (ML) Loop and/or LTA trail.

a. Permanent personnel may perform individual/pair/section PT on ML Loop and/or LTA Trail without check in/out with Range Control.

(1) PT on the LTA trail must be conducted during fair weather and daylight hours. PT on the LTA trail is not authorized for on snow conditions. PT during on snow conditions for the ML Loop must have fair weather, daylight, and meet the requirements of winter Pre-Environmental Training (PET) and in a buddy pair. Under snow conditions, winter-qualified instructors with a radio can PT as an individual around ML Loop; check in with Range Control is not required.

(2) Individual/pair/section PT on ML Loop or LTA are not required to establish/maintain communications with Range Control.

(3) Departure from the ML Loop or LTA trail is not authorized.

b. PT associated/related to a training event and/or formal school such as an assessment/test must be scheduled in RFMSS and meet the training and communication requirements established by this order.

c. Non-tenant/visiting unit may not perform PT (individual/pair/section/unit) outside of the MCMWTC base camp without authorization from the RCO. Depending on the requested activity, Range Control may require the unit to schedule the event and meet the requirements for training/movement within the RTAA or provide a written PT plan.

3008. PRIORITY OF TRAINING

1. RTAA requests submitted via RFMSS are approved according to the following prioritization:

- a. Commandant of the Marine Corps (CMC) directed major training programs/exercises.
 - b. Marine Corps Formal Schools.
 - c. Command exercises (Group, Regiment, MEU, MLG, Wing, Div, MEF).
 - d. Marine Corps Operating Forces (including U.S. Marine Corps Forces Reserve).
 - e. Other Marine Corps organizations, DoD Services, Reserves, National Guard.
 - f. Foreign Military.
 - g. Civilian Law Enforcement.
2. Other activities that may affect scheduling priorities are:
- a. Real-world contingencies.
 - b. Range maintenance.
 - c. Environmental restrictions.
 - d. Natural disasters.
 - e. Other activities directed by the Installation Commanding Officer.

3009. BUMPING PROCEDURES. Range requests are processed on a "first-come first-serve basis." However, as mentioned above, the Installation Operations Officer may prioritize other training activities. Unit schedulers must continuously check the status of their requests as the training commencement date approaches. Previously approved RTAA request statuses may change in RFMSS due to emerging activities designated as priority training events.

3010. NOTICE TO MARINERS. There are no ranges or activities that require at Notice to Mariners at MCMWTC.

3011. NOTICE TO AIRMEN. The range control facility will issue Notice to Airmen (NOTAM) for potentially hazardous activities to the public using the National Airspace System (NAS). Unit schedulers will ensure accurate information is submitted into RFMSS to facilitate action by the Range Control staff. The Range Control staff will only submit NOTAMs for training activities per information contained within a range request in RFMSS. See Appendix J for information requirements to facilitate a Parachute Operations and Training NOTAM.

1. Range Control will issue NOTAMs for the following activities:

- a. Live-fire activities to include demolitions (blasting).
- b. Activate MOA and Avalanche Initiation Temporary Flight Restriction (TFR).
- c. Military Drone NOTAM (DROTAM) activities occurring within the RTAA.
- d. Parachute Operations and Training.

2. Range Control will not issue NOTAMs for the following activities:

- a. Non-military flight/ground activities.
- b. Other installation or offsite flight/ground activities.
- c. Expeditionary Airfield (EAF) status or conditions. Range Control will issue EAF status or condition updates via RFMSS.

3012. ROAD CLOSURES. Range Control will publish a road closure notice via a RFMSS announcement. Unit schedulers are required to provide announcement information to their unit leadership.

3013. CHECK OUT/IN PROCEDURES

1. The OICs and RSOs are required to check out RTAAs at Range Control via the Range Check Out Form contained in Appendix N. The OIC must provide a copy of the event-approved (signed) RM prior to checking out the range. Check outs shall occur between 0815 and 1530, Monday through Friday.

2. The OIC and RSO will not be authorized to check out the range if any safety requirements, qualifications, and/or documentation are missing and/or incomplete.

3. Prior to reporting to Range Control, the OICs and RSOs will become completely familiar with the contents of this manual, review the contents of their RFMSS request, as well as understand restrictions, limitations, and conflicts with the RFMSS request.

a. Only qualified (certified by the RCO) OICs and RSOs may check out a range, facility, or area.

b. Only approved (status "RES") ranges/areas may be checked out. This requirement is due to scheduling procedures, safety evaluation, and environmental compliance review performed by the Range Safety Section and Range Scheduling Section. It is the OIC's responsibility to confirm the request status in RFMSS prior to attempting to check out a range/area.

c. The OIC and RSO must have the specific weapon system for the range listed on their OIC and RSO Designation Letter. The Designation Letter, signed by the Battalion/Squadron Commanding Officer or "By Direction" authority, will be submitted to the RCO for review and is not valid without the RCO's signature.

4. Live-fire ranges may only be checked out from Range Control 24 hours in advance. For live-fire activities commencing on the weekend or during a holiday, the OIC and RSO may perform check out on the last regular workday prior to the weekend/holiday period.

a. Based on the live-fire range, the range schedule, and overlays, the OIC and RSO will notify Range Control prior to commencing training of any special concerns or dangerous situations.

b. The OIC and RSO will check out the pertinent range safety equipment and individual range regulations, along with any updated information, and receive an in-person briefing from Range Control on relevant range information. If gate keys are given to an OIC and RSO to expedite access to a certain area,

any gates opened in transit must either be relocked or controlled with a posted gate guard. The OIC or RSO shall return all range equipment to range control within 24 hours of final range inspection.

c. Prior coordination is paramount with respect to range check out. If range-specific equipment is not available due to other ongoing and/or planned ranges, the training unit will have to come back to pick up the range equipment later.

d. Range Control personnel do not deliver range safety-specific equipment such as range binders, signs, range cans, etc., to the RSO and OIC in the field unless coordinated in advance.

e. Prior to departing Range Control, the OIC and RSO will obtain an OIC and RSO Checklist. Prior to firing at the start of each day, and for multiple day range events, the OIC and RSO will have a face-to-face pre-fire inspection performed by the on-duty RSO. Any information not available prior to the training (such as dud count/ammunition expenditure) will be added to the Range Control Checklist at the end of the training.

f. Signing for a range as OIC and RSO indicates a thorough understanding and responsibility for absolute compliance with all references of this order as they pertain to the evolution being conducted, individual range regulations, and all weapons/munitions to be utilized during the exercise.

g. If multiple firing points are in use, the OIC and RSO must determine via an on-site risk assessment evaluation the number of Assistant RSOs and/or PSOs to safely execute the range.

5. Force-on-Force. Range Control will not perform range check out procedures for the MTX Force-on-Force phase unless all criteria and briefings established in reference (n), the Mountain Exercise Training Center Order, are complete.

6. Offsite Venue

a. Mountain Exercise-sponsored activities will complete an offsite training check out form, provide a copy of the activity

RM, and provide a roster of the individuals performing the offsite activity.

b. Offsite activities associated with formal schools, instructor progression, and tenant unit/section activities not sponsored by a Mountain Exercise will not be coordinated, scheduled, or briefed to the Range Control.

c. An MCMWTC OIC and RSO are required for coordinating offsite training events. MCMWTC OIC and RSO certifications do not qualify those individuals to perform safety duties at an offsite venue. The MCMWTC OIC and RSO requirement for check out is to ensure those individuals know how to report information to WHITE PEAK as part of the Mountain Exercise.

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CHAPTER 4
AIRSPACE, AIRCRAFT, UAS OPERATIONS, AND FACILITIES

4000. GENERAL

1. The airspace surrounding MCMWTC is uncontrolled Class G airspace and operated under the Federal Aviation Administration's and Naval Air Systems Command (NAVAIR) regulations and directives for uncontrolled airspace and airfields. Each aircraft's Pilot-in-Command (PIC) is responsible for safe operation of their aircraft, obstacle clearance, traffic separation, and observance of Visual Flight Rules (VFR).
2. Aviation Operations for MCMWTC are governed by reference (o), the Aviation Operations SOP. The MCMWTC Aviation Section maintains the Aviation Operations SOP.

4001. SPECIAL USE AIRSPACE. Use of the Walker Low and High MOA SUAs are subject to the MCMWTC and Oakland Center Air Route Traffic Control Center (ARTCC) Letter of Agreement (LOA) and scheduled per chapter 3 of this order. See reference (o) for further information regarding MCMWTC SUAs.

4002. GENERAL AIRCRAFT OPERATIONS

1. Aviation units will adhere to reference (o) for aviation operations requirements. All aviation units must receive a Range Safety pre-operational brief provided by the MCMWTC Air Officer or RCO prior to Aviation Operations.
2. All aviation operations will be scheduled in RFMSS as per chapter 3 of this order.
3. Aircraft Commander or PIC may serve as the training OIC for Aviation, Landing Zone (LZ), and Drop Zone (DZ) operations once they have received the Range Safety pre-operational brief.
 - a. Aviation Operations not involving drop-off or pickup of personnel or equipment do not require an RSO. These operations will be treated as a "transit."
 - b. Air Assault Operations involving drop-off or pickup of personnel require an OIC and RSO. An RSO may transit with the assault force and is not required to be onsite prior to the

first landing of aircraft. The OIC and RSO for the assault force must "occupy" the RTA once the aircraft has delivered the assault force to their destination.

c. Aviation operations involving drop-off or pickup of equipment requires an onsite RSO. Examples of these types of operations are: parachute operations, Simulated Air Training Bundle (SATB) delivery, heavy equipment delivery, Container Delivery System (CDS), "Speed Ball" delivery (small, resupply packages that are dropped off by helicopter), etc.

4003. COORDINATION AND CONTROL

1. See reference (o), the Aviation Operations SOP, for information regarding coordination and control for the MCMWTC Air Operations activities.

2. There is no radar at MCMWTC and pilots shall monitor the MCMWTC Air Safety Net (120.725) at all times, keeping Range Control and other aircraft aware of their location by transmitting their position when entering, departing and/or transiting the TAs, and landing/departing LZs. Transmit in the blind if necessary. Report to "WHITE PEAK" the number of personnel picked up and dropped off at each location during transit calls to reduce length of the check-out report.

4004. AIRCRAFT MISHAPS

1. As per reference (o), all aviation-related mishaps shall be immediately reported to the MCMWTC Commanding Officer via the incident chain-of-command to the Range Control Facility and the MCMWTC Air Officer.

2. All aviation detachments using the installation EAF as a base of operations shall prepare an MCMWTC specific pre-Mishap Plan and provide a "crash kit," which will be used in the event of an aviation incident or mishap.

a. Requirements for the pre-Mishap Plan and crash kit shall be per applicable service directive.

b. Squadron/Unit Aviation Safety Officers shall provide a copy of the Mishap Plan to the MCMWTC Air Officer and Range Control NLT 7 days prior to arrival.

3. If an aviation mishap occurs at the MCMWTC, the incident aircraft's parent command shall be responsible for any investigation, salvage, or restoration. The MCMWTC shall provide requested assistance as available.

4005. HELICOPTER AND TILTROTOR OPERATIONS. See reference (o) for information on helicopter and tiltrotor operations at MCMWTC.

4006. HELICOPTER AND TILTROTOR LANDING ZONES

1. Aviation units must coordinate with the installation Air Officer for the most up to date information regarding LZs and DZs. Authorized activities, requirements for use, and limited operating periods are based on various agreements, permits, or policies required for training within the United States Forest USFS National Forest.

2. Aviation units must schedule specific LZs in RFMSS per chapter 3 of this order. Contact Installation Air Officer for the updated list of approved training LZs.

3. If an aviation unit has scheduled an LZ within a particular training area, ground units conducting training within that area shall avoid the scheduled LZ. De-confliction in RFMSS by time and space may be required.

a. If aviation assets arrive in the training area without pre-scheduling, ground units shall notify Range Control immediately for de-confliction assistance.

b. It is incumbent on the unit not scheduled for LZ usage to avoid interference with the scheduled unit's operations.

4. All aircraft will conduct an aerial reconnaissance prior to landing in any LZ to ensure no troops or other non-participants are present. Aviation units are responsible for knowledge of all MCMWTC LZs' status (authorized for landing, authorized for hover only, snowpack required, etc.) and the effects of their aircraft on the wildlife and the environment within the MCMWTC RTAA.

4007. PARACHUTE OPERATIONS AND DROP ZONES

1. Units desiring to perform parachute operations and training must reference applicable Marine Corps regulations and survey documents. Units will reference (o), the Aviation Operations SOP, for DZ Operations requirements for training at MCMWTC.

2. Key Terms

a. Marine Corps Personnel. Refers to all active, reserve, and civilian-employed Marine Corps personnel, Marine Corps contractors, and DoD uniformed military personnel or foreign military personnel assigned to Marine Corps units.

b. Parachute Operations and Training. Refers to parachute or aerial delivery of cargo operations and training conducted under cognizance of a Marine Corps Commander or OIC of a Marine Corps unit or activity.

c. Jump. Refers to the physical action of personnel exiting an aircraft in flight as a function of parachute operations and training.

d. Drop Zones (DZs). All DZs used by Marine Corps personnel will be surveyed and established as required in the most current and applicable Marine Corps regulation for Parachute Operations and Training.

3. Copies of current/past DZ Certification Survey documents are maintained by the Air Section and Range Control.

4008. WATER DROP ZONES. There are no Water Drop Zones located within the MCMWTC RTA.

4009. DROP ZONE CONTROL

1. For Personnel Operations, units must have AT MINIMUM: an OIC, RSO, and qualified (current) Drop Zone Safety Officer (DZSO) with team and equipment per most current and applicable Marine Corps regulation for Parachute Operations and Training. The DZSO qualifications for type of personnel parachute operations is per Marine Corps regulation.

2. For Cargo Operations, units must have AT MINIMUM: an OIC, RSO, and qualified (Current) Drop Zone Support Team Leader (DZSTL)with team and equipment per most current and applicable Marine Corps regulation for Parachute Operations and Training. Drop Zone Support Team Leader qualifications for type of aerial delivery of cargo is per Marine Corps regulation.

3. The ROIC may be the Aircraft Commander or PIC who has received an Installation Air Safety Brief from the Air Officer or RCO.

4. The RSO may also serve as the DZSO or DZSTL.

5. Medical support personnel for Marine Corps parachute operations and training will be assigned no other duties for the operation which they support. In the event that assigned medical support personnel are required to leave the Dz, parachute operations and training will cease until medical support requirements are satisfied.

a. Naval Personnel. Military medical support for Marine Corps parachute operations and training may consist of U.S. Navy personnel from NEC 8403/04/25/27/91/92/93, as well as medical officers.

b. Other Services' Personnel. Military medical support for Marine Corps parachute operations and training may consist of uniformed personnel from other services with trauma training equivalent to that of an Emergency Medical Technician (EMT).

c. Civilian Personnel. Civilian medical support for Marine Corps parachute operations and training must consist of personnel licensed as EMTs or higher. Civilian medical support may be used when military medical support is not available (e.g. Marine Corps Base Fire Departments/EMT units). **The use of civilian personnel to serve as medical support for parachute operations and training requires explicit approval from the Installation CO.**

6. DZs located at MCMWTC may have additional requirements or conditions of use based on the DZ certification surveys and follow-on onsite surveys performed by the parachute operations and training DZSO and DZSTL. The OIC, RSO, and DZSO/DZSTL shall

be familiar with the requirements/conditions-of-use as per the certification survey documents.

7. Every effort should be made once the operation is over to submit a formal Drop Zone Survey to be added for future approved DZ surveys in the Zone Availability Report (ZAR).

8. Exceptions to Policy. The installation does not have authority to grant exceptions, waivers, or deviations to the Marine Corps Parachuting Policy and Program Administration.

4010. UNMANNED AIRCRAFT SYSTEM OPERATIONS.

1. As there is no restricted area, the exercise training unit is required to obtain a Certificate of Waiver or Authorization (COA) from the FAA in order to (IOT) fly Group 1 or 2 UAS systems in non-restricted airspace. AVOs operate using VFR, not IFR. Observers must be posted when the AVO loses sight of the sUAS.

2. A Class G/E COA is required. Class G airspace extends from the surface to 1,199 ft. AGL. Class E airspace extends from 1,200 ft. AGL to 17,999 ft. AGL.

a. Edit and submit a copy of the enclosed COA application questionnaire.

b. Attach a current Interim Flight Clearance (IFC) or Air Worthiness Report for each UAS platform

c. Attach Commercial Off The Shelf (COTS) Waiver if applicable

d. Edit and attach MCMWTC Map of Operations

e. Attach Designated Approval Authority (DAA) and Aircraft Reporting Custodian (ARC) letter per reference (c).

(1) All units shall submit their fleet DAA and ARC letters. These letters are housed at the MEF level. The DAA is typically the MEF CG, and provides proof of their approval authority. The ARC is a letter containing a list of the CG's approved designees for aircraft reporting. ARC's are generally

Commanding Officers at the O-5 level or above. Keep in mind reference (c) is applicable to flights within restricted areas as well.

(2) When falling under the MCMWTC DAA and ARC, proof to MCMWTC of operator completion of applicable training for each TMS of UAS is required.

f. Submit package via email to MCMWTC Deputy Air Officer and MCMWTC Air Officer 90 days prior to event date.

3. Prior to commencing flight operations with Group 1 and 2 UAS, ensure the below has been delivered to MCMWTC:

a. A letter with the following:

(1) Type Model Series (T/M/S) of UAS

(2) System Flight Characteristics

(3) Dates/Times of operations

(4) Uplink/Downlink frequencies (Must be approved by MCMWTC Spectrum Manager [760-932-1656])

(5) Concept of Operations/Risk Management

(6) Lost link procedures per T/M/S

b. RCO/OIC Designation Letter

c. Material Safety Data Sheet (HAZMAT)

4. Scheduling Group 1 and 2 UAS Operations (outside of Force-On-Force window):

a. Restricted Operating Zones (ROZs) must be scheduled in Range Facility Management Support System (RFMSS) 72 hours prior to UAS operations.

b. Schedule all anticipated windows in RFMSS in order to better coordinate with other aircraft utilizing the MCMWTC RTAs.

c. A ROZ will not be activated if helicopter or tilt-rotor operations have been scheduled to an LZ inside the requested ROZ. During MTX, any schedule changes must be submitted via the MCMWTC S-3 ICW with the MCMWTC Air Officer. Scheduling of Group 1/2 UAS operations during the Force-on-Force (FoF) portion of the exercise is handled differently and covered in a separate section of this SOP.

Table 4-1: MWTC ROZ Descriptions

<u>ROZ Name:</u>	<u>Location (11S KC) / Size (km) :</u>	<u>Remarks:</u>
ROZ Blackbird	735 465 / 3x3	
ROZ Brownie	760 455 / 2x3	Not authorized during scheduled or expected RW/TR transit to/from the west (Checkpoint Winnipeg).
ROZ Cannon	795 585 / 3 x 5	
ROZ Cloudburst	760 480 / 2x2	
ROZ Dogbone	765 500 / 3x2	
ROZ Dove	800 500/ 4x2	
ROZ Grackle	835 500 / 3x2	Excluding that airspace above and south of highway 108. Not authorized during scheduled or expected RW/TR transit to/from the east (Checkpoint Edmonton).
ROZ Hawk	805 550 / 3x2	
ROZ Mill Creek	830 605/ 4x3	
ROZ Oriole	830 530 / 2x2	
ROZ Pickel	795 475 / Non-standard	Area south of highway 108, bounded by walker river and extended main gate entrance. Not authorized when air operations are scheduled for the EAF.
ROZ Sardine	735 440 / 3x2	Excluding that airspace above and south of highway 108. Not authorized during scheduled or expected RW/TR transit to/from the west (Checkpoint Winnipeg).

ROZ Sonora	835 485 / 3x3	Excluding that airspace above or north of highway 108 and above Sonora Bridge Campgrounds. Not authorized during scheduled or expected RW/TR transit to/from the east (Checkpoint Edmonton).
ROZ Terry Canyon	830 580/ 4x2	
ROZ Woody	785 525/ 3x3	

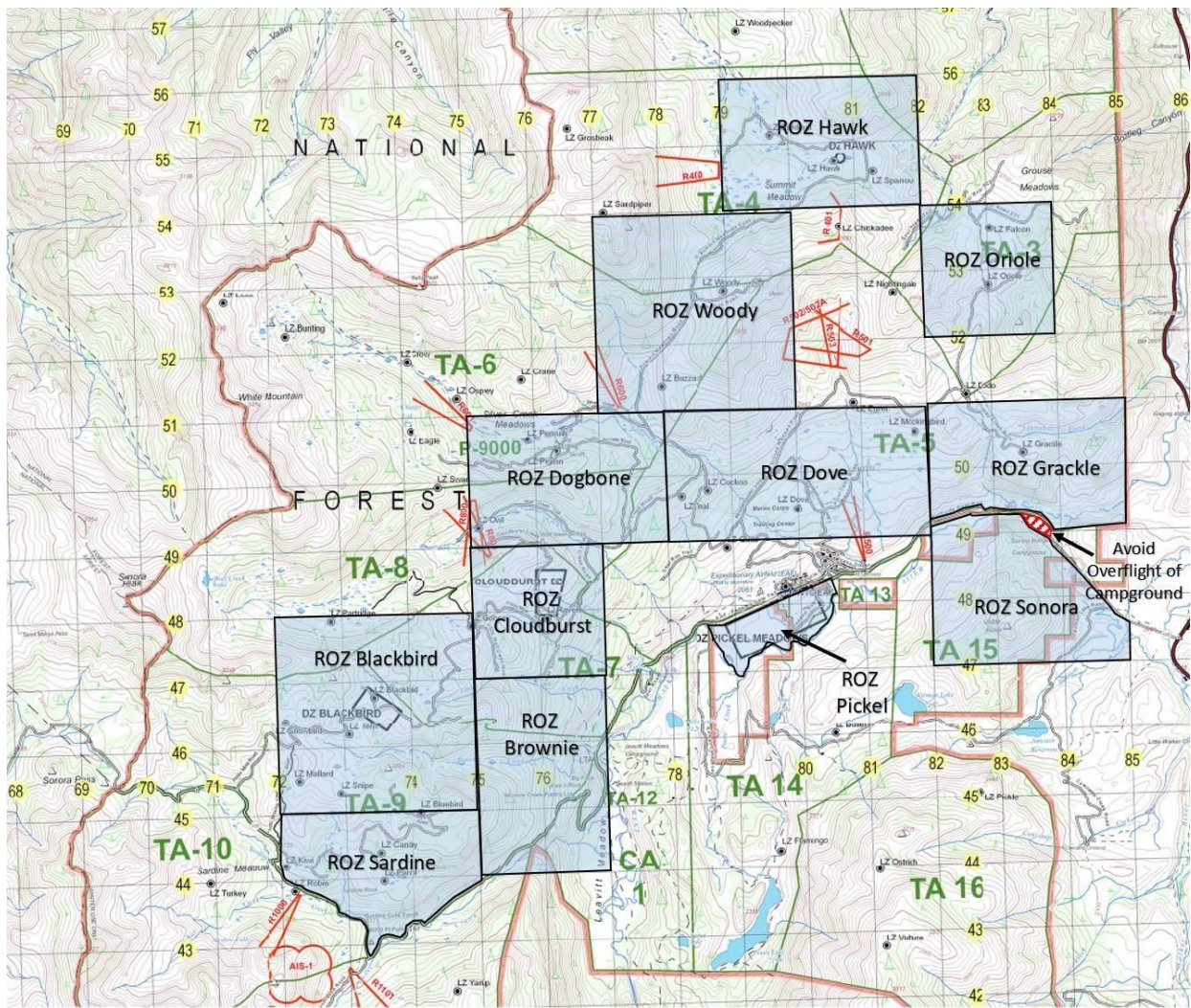
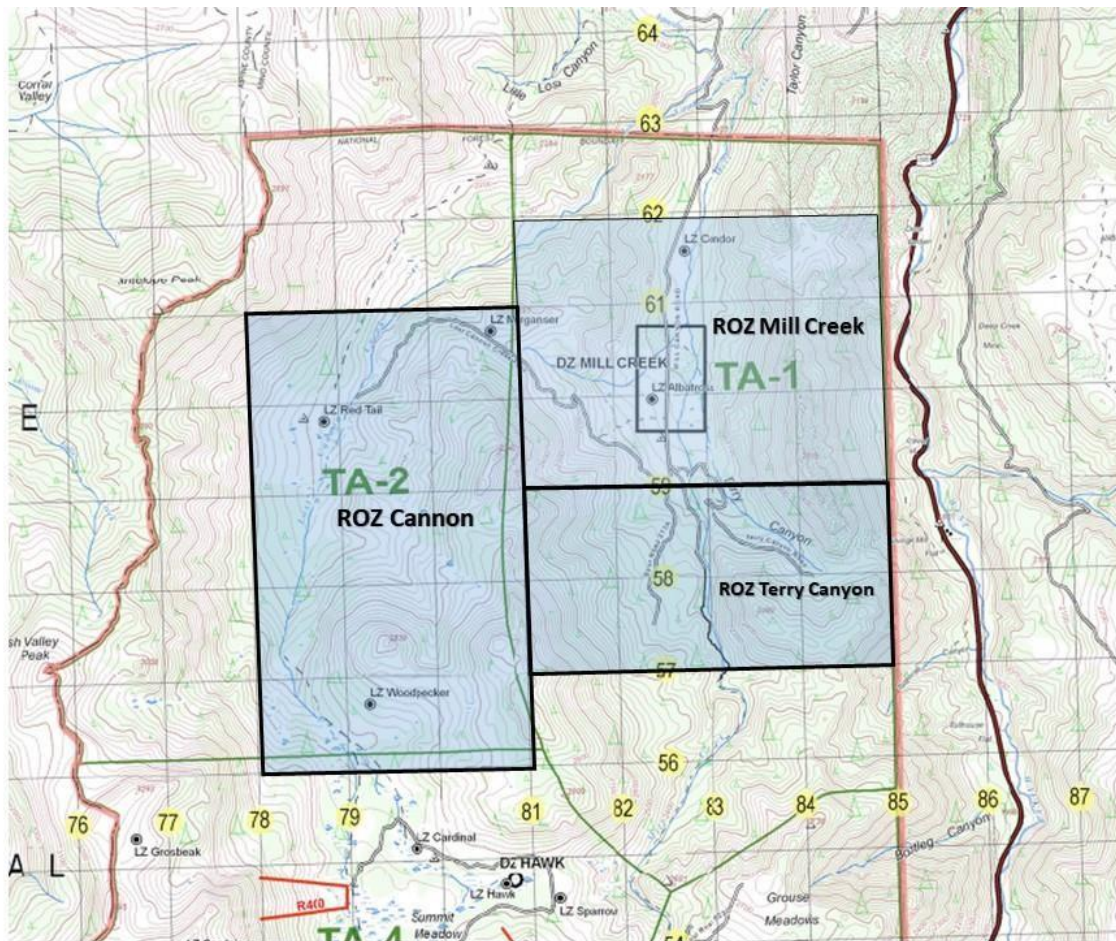
Figure 4-1: MWTC Southern ROZs

Figure 4-2: MWTC Northern ROZs

5. Operating Group 1 and 2 UAS at MCMWTC:

a. The operating unit must provide an OIC and RSO that meet all current RSO/OIC requirements, has attended a MCMWTC RSO/OIC sUAS brief, and designated on a command letter.

(1) RSO and OIC must meet rank requirements per SOUM 02-24 and as outlined in the TCO 3550.1H.

(2) The OIC may be the OIC for the overall event provided they meet the requirement in paragraph (1) above.

(3) RSO must have completed a UAS or sUAS operator initial qualification training in at least one type of USMC program of record UAS or sUAS.

(4) All RSO's and OIC's must Successfully complete the USMC Range Safety Officer course(RTAMRSOCAA)and the MCMWTC RSO/OIC certification course on MarineNet.

b. RSO must be on site and in a position to affect the UAS operator. The RSO may observe multiple UAS operations provided they can affect each operator.

c. During FoF training, the Air Officer or S-2 in the COC may act as the OIC provided they are OIC qualified. You only need a qualified RSO and Operator (Observers if applicable) on site during the FoF training.

d. Utilize callsigns in the following format: Unit + Airframe. Use unit level the asset is assigned (i.e. Kilo 3 Quad, India Raven, 1/7 Puma).

e. All flight operations shall not commence until approval is given by Range Control.

(1) Frequencies:

(a) Primary Range Safety (Ground): 41.100 SC/PT FM

(b) Alternate Range Safety (Ground): 46.900 SC/PT FM

(2) Operators shall maintain two way communications with Range Control via the Primary or Alternate frequency during all flight operations.

f. Operator must maintain visual line of sight (VLOS) with the aircraft. When executing a hand off, the operator must maintain VLOS until control has been handed off. The receiving operator shall not take control until VLOS is properly established.

g. If at any time another aircraft is seen or heard in the vicinity of the UAS or UAS operator, or when directed by Range Control or MCMWTC Air Officer, immediately ground the UAS. In the event of an urgent CASEVAC, all UAS must "crumble."

h. All efforts shall be made to utilize the MCMWTC established ROZs. Non-standard ROZs may be authorized, but only one at a time during non-FoF operations. Nonstandard ROZs shall be requested by passing a center grid with radius (11S KC 745 500, 2 km radius) or center grid followed by width then height (11S KC 835 550, 3x2 = a 3km wide and 2km tall ROZ centered at

the given grid). Any other format will be denied. During non-FoF operations, non-standard ROZ information must still be submitted 72 hours in advance to MCMWTC Range Control via RFMSS utilizing AIRMWTC. Contact MCMWTC Range Control for further information.

i. When activating ROZs, whether established or hasty, the operator shall activate it with a stated ceiling. The ceiling of the ROZ shall be the lowest possible to still safely achieve the mission. The ceiling shall be in accordance with the approved FAA COA.

j. Night time operations of UAS must be approved in your COA and adhere to 14 CFR 91.209 Aircraft Lights which states the following:

(1) During the period from sunset to sunrise the unit must:

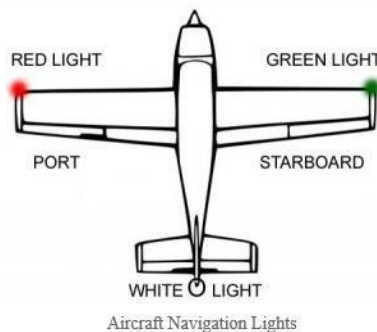


Figure 4-3: Aircraft Position Lights

(2) Operate the aircraft with lighted position lights (Red/Green/White).

k. The flying unit is responsible for recovering any downed or lost UAS. Units must record a "Shipwreck Report" for downed/lost UAS

(1) SHIPWRECK REPORT:

(a) Time of loss/crash

(b) Last known coordinate (and heading if lost link)

(c) Last known altitude

(d) Remaining battery life in minutes

(2) Pass "Shipwreck Report" to "WHITE PEAK" if flying unit is unable to locate lost/downed UAS within 2 hours of loss, upon recovery, or before departing the training area, whichever comes first.

1. Any UAS or UAS battery that catches fire or creates smoke must immediately be grounded. If smoke or fire is involved the Shipwreck report must be immediately delivered to Range Control and fire department will be dispatched to ensure there is no fire danger.

m. No Overflight Areas:

(1) Nonparticipating personnel, vehicles, campsites, or livestock.

(2) No flight over Highway 108.

(3) No flight over the Expeditionary Airfield.

o. Launch Procedures

(1) Non-FoF Training Operations:

(a) Provide UAS 8-Line in conjunction with radio check with "WHITE PEAK" over primary or secondary net.

(b) "WHITE PEAK" will respond with "UAS Operations in ROZ _____ approved."

(c) UAS operators shall not launch without two-way communication with "WHITE PEAK."

(2) Force-on-Force operations:

(a) Locational data being passed over shared nets should be avoided as long as safety of flight is not in question.

(b) ACAs/ROZs used during FoF can be preplanned (information must be passed to EXCON or hasty. Hasty ACAs/ROZs size/shape shall be requested by passing a center grid with radius (11S KC 745 500, 2 km radius) or center grid followed by width (E-W), height (N-S), and altitude (11S KC 835 550, 3x2, 1,200 ft AGL = a 3km wide and 2km tall ROZ centered at the given grid up to 1,200 ft AGL). No other hasty formats will be approved.

(c) During the FoF, UAS 8-Lines shall be passed over tactical nets to the highest level COC (Both blue force and adversary force) and relayed to EXCON. EXCON will phone the information in to "WHITE PEAK" if approved by EXCON/MCMWTC Air Officer.

(d) UAS operators shall conduct a radio check with "WHITE PEAK" using the callsign associated to the UAS 8-Line over primary or alternate net. "WHITE PEAK" will respond with:

i. "ROZ 8-Line received, UAS operations approved."

ii. "Loud and Clear, no ROZ information on file for this callsign. Try again in 5 minutes." Note: If this is the case, likely airspace issues are being worked at another level.

(e) UAS operators shall receive the "UAS operations approved in ROZ/ACA _____" from their COC and receive the radio check from "WHITE PEAK" prior to launching during FoF training.

(f) UAS operators to advise COC, EXCON, and "WHITE PEAK" once complete with operations.

p. UAS 8-Line:

(1) Unit/Callsign (Example: V23 Puma)

(2) ROZ/ACA (Examples: ROZ Cannon or KC 78 55, 2x2)

iii. Altitude (Examples: 1,200 ft AGL or 13,000 ft MSL)

(3) Additional locational data as required, such as Launch site (if outside of ROZ/ACA) and additional observer locations (if required)

(4) OIC's name

(5) RSO's name (per site as applicable)

(6) Operator's name (per site as applicable)

(7) Estimated duration of operations

(8) Example UAS 8-Line:

(a) V23 Puma

(b) ROZ Cannon

(c) 1,200 ft. AGL

(d) A: 11S KC 805 548 B: None

(e) Smith

(f) Davis

(g) Jones

(h) 0+25

6. The following brevity words shall be understood and used by all aviators and UAS operators:

a. SLINGSHOT: A call to advise that a UAS has been launched. Example: "A/2/1 Quad: Slingshot x 2 time 47."

b. GATHER/GATHERED: A call to direct the landing of UAS when able or to advise the landing of UAS is complete. Example: "2/1 Puma: Gather time 27." UAS operator should respond when complete "2/1 Puma is gathered."

c. CRUMBLE: A call to direct the landing of a UAS immediately. Example: "B/2/1 Raven: Crumble" or "All aircraft

in ACA Dove: Crumble." UAS operators should respond when complete with "B/2/1 Raven: Gathered."

d. BINGE: A call to authorize relaunching of UAS if Crumble was called for multiple aircraft. Similar to saying "Authorized slingshot." Example: "Units in ACA Dove: Binge."

e. ROAMING: A call to notify others the UAS is lost-link. Example: "2/1 Puma is Roaming, time 18, KC 615 745."

f. SHIPWRECK: A call to notify others the UAS has crashed. Example: "A/2/1 Raven, Shipwrecked, time 22, KC 715 544."

7. Any questions or concerns regarding Group 1/2 UAS Operations aboard MCMWTC can be directed to MCMWTC Air Officer, MCMWTC Deputy Air Officer, or to MCMWTC Range Control Facility at MCMWTCRC@usmc.mil.

4011. CHAFF AND FLARE TRAINING. Not authorized. Coordinate with the MCMWTC Aviation Section for additional information.

4012. LANDING HELICOPTER DECK. Refer to reference (o) for information regarding the installation EAF.

4013. PERSONAL AND PROFESSIONAL DRONE OPERATIONS

1. The use of personal drones in the performance of one's duties is prohibited.

2. All commercial drone operations must be done under FAR PART 107_.

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CHAPTER 5 RANGE POLICIES

5000. GENERAL. Safety regulations governing the firing of live ordnance within the boundaries of MCMWTC are contained in reference (g). All training involving the use of live ammunition will be executed per reference (g), applicable Marine Corps doctrinal publications and Marine Corps reference publications, unit or Command Safety Standard Operating Procedures, and this manual.

1. The purpose of this chapter is to provide policies governing the use of the U.S. Forest Service permitted RTAs. The ranges aboard the MCMWTC provide the facilities to conduct realistic, beneficial training within the parameters of common sense and pertinent safety measures.

2. To promote the maximum possible use of ranges and related training facilities, the following criteria must be strictly complied with:

a. All live-fire evolutions must be conducted per this Order and reference (g).

b. All live-fire must be conducted safely, observing all range control measures (i.e., limit markers, limits of advance, azimuths of fire, charges, surveyed firing positions, etc.) as delineated in this manual.

c. Simulators/pyrotechnic/blanks are considered live-fire with respect to OIC and RSO qualifications, as well as scheduling procedures per chapter 3 of this order.

5001. ESTABLISHMENT OF RANGES, TRAINING FACILITIES. Once check-out procedures are complete per chapter 3, the activity OIC and RSO may proceed with occupying the range, training area, or facility as per their check-out sheet. The OIC and RSO shall perform their duties and responsibilities delineated in the chapter 1 of this order. The unit must receive explicit approval to enter the RTA from base camp from the Range Control via radio communications.

1. Training Units must positively identify OIC and RSO to Range Control during 0600 daily communications check in, upon change of

OIC and RSO, or at any time upon requested via radio or in person by Range Control.

2. For MCMWTC Formal Schools, the OIC and RSO will not be class participants/students.

5002. MODIFICATION TO RANGES. Units shall not modify the ranges without prior approval from the Range Operations and Safety Section.

5003. MAINTENANCE AND OPERATION OF RANGES.

1. MCMWTC may perform limited maintenance activity within the RTAAs as per the AOP. Submit maintenance requests to the range control for processing and coordination.

2. Operation of Ranges. All ranges, excluding the pistol range (R-500), are considered austere environment ranges per TC 25-8_ definition. Range Control maintains a limited inventory of target support equipment to include steel targets, relocatable housing units, automated targets, and target stands. Submit training device support requests to Range Control via RFMSS in the training support tab.

5004. AUTHORIZATION TO FIRE

1. All ranges are located on public land (National Forest). The OIC and RSO will ensure that a visual and physical (walk the SDZ) sweep of the down-range area is conducted prior to the range going "Hot."

2. The OIC shall ensure warning signs and temporary live-fire perimeter signs are placed per information contained in Appendix P. Temporary live-fire perimeter signs shall be placed along the exterior boundary of the range SDZ along likely avenues of approach in to the danger area. The OIC will ensure these signs are visible to the public. The Range Safety Inspector will inspect these signs.

3. A range flag must be posted in a prominent location on or near the firing line. A red flashing light will be used in place of the range flag during night operations.

4. Eye and hearing protection is required while firing is in progress.
5. The use of a megaphone or PSO is required.
6. A non-training Corpsman/Medic, provided by the training unit, shall be on the range with the training unit during all live fire. A dedicated safety vehicle with a dedicated driver and dedicated communication assets programmed to Range Control frequencies will be on the range prior to and during live-fire training. The safety vehicle must be equipped and/or capable of transporting a litter patient. The vehicle will be staged and prepared to immediately receive and transport a patient.
7. Two forms of communication with Range Control and safety vehicle are required. A cellphone is not authorized as the second form of communication.
8. Prior to firing at the start of each day, and for multiple day range events, the OIC and RSO will have a face-to-face pre-fire inspection performed by the on-duty Range Safety Specialist/Inspector. Any information not available prior to completion of training (such as dud count/ammunition expenditure) will be added to the Range Control Checklist at the end of the training.
 - a. The on-duty Range Safety Specialist/Inspector will complete all items on the pre-fire checklist with the OIC and RSO.
 - b. The on-duty Range Safety Specialist/Inspector will verify communications, targets, scheme-of-maneuver, road guard positions, observer positions, down range clearance, and perimeter and warning signs.
 - c. The on-duty Range Safety Specialist/Inspector will perform an onsite risk assessment and may require adjustments to the safety stance/setup of the range based on the onsite risk assessment. If there is a conflict, the installation RCO will be informed by the Range Safety Specialist/Inspector.
 - d. The on-duty Range Safety Specialist/Inspector will notify the fire desk once the pre-inspection is complete.
9. Contact Range Control to request permission to go "Hot."

5005. RESTRICTIONS

1. General. Personnel that are not specifically scheduled to be in a RTAA are not authorized.

2. Fire Hazard.

a. Prohibited activities:

(1) Smoking

(2) Vaping/E-Cigarettes

(3) Ember-producing fires. Coordinate with the Environmental Director for exemptions to policy.

b. Gas stoves are prohibited unless permitted by the USFS via a current fire permit. Coordinate with the Environmental Director for information regarding gas stoves and fire permits.

c. Other activities may be prohibited based on USFS fire restrictions. Unit commanders shall coordinate with the Environmental Director to verify activities comply with the USFS issued fire restrictions.

3. Movement in the RTAAs. Movements to, within, and from training areas and ranges must be scheduled in RFMSS. Transit requests will not be approved unless scheduled in RFMSS or coordinated with the RCO/Range Safety. Buddy-pair movement is recommended above and below the on-snow conditions. However, individual movement is authorized below the on-snow conditions. When an RSO is present at a training site, all transiting personnel must check-in and out with the on-site RSO for accountability.

a. Any individual or unit that plans to train/move within the MCMWTC training areas must receive the PET by a certified (seasonally qualified) Mountain Leader. PET will be performed as per published Period-of-Instruction (POI).

b. Any individual or unit that plans to enter the training areas must have an ROIC and/or RSO with the movement or attend a Range Control transit brief.

c. All personnel moving in the training areas must have with them the Seven (7) Pocket Items, Survival Kit, and Assault Load per the Mountain Warfighting Loads requirements. Navigation Equipment (part of Assault Load) will consist of a map and compass/Global Positioning System (GPS) device. Unit leaders should not hesitate to modify these loads based on Mission, Enemy, Terrain and Weather, Troops and Fire Support Available, Time Available, Space, Logistics (METT-TSL), and common sense.

4. On-snow movement in the RTAA.

a. Personnel moving through the training areas will travel in pairs during on snow conditions. The following personnel are authorized to move during on snow conditions as individuals:

- (1) Current qualified winter mountain leaders.
- (2) Range Control personnel
- (3) SWRFT Grooming Personnel

b. Other personnel requiring authorization to move on snow as individuals will submit a request to the installation Operations Officer. See Appendix H for on snow authorization letter template from the installation Operations Officer. Personnel authorized by the Operation Officer must meet the requirements for individual movement during on snow conditions as mentioned in subparagraph d below.

c. Requirements for individual movement during on snow conditions. Personnel authorized to move as individuals on snow should consider buddy-pair movements when moving off groomed roads. Range Control personnel are authorized to perform individual movement off the groomed roads in the conduct of duties specific to range safety/operations.

(1) Weather and avalanche conditions must be conducive to individual movement at the discretion of installation leadership. Range Control will issue weather advisory/warnings as per National Weather Service.

(2) All movements will always maintain continuous two-way communications with Range Control.

(3) All personnel moving in the training areas must have with them the Seven (7) Pocket Items, Survival Kit, and Combat Load for individual movement over the snow. Navigation Equipment (part of Assault Load) will consist of a map and compass/GPS device. Personnel will also carry the following equipment: Avalanche transceiver, snow shovel, probe pole, and skis or snowshoes.

(4) Individuals approved by the Operations Officer must meet the following criteria annually:

- (a) Winter PET.
- (b) Avalanche refresher training.
- (c) Range Control transit brief.

Note: The training can be accomplished during the annual Winter Red Hat Refresher/Instructor Preparation Course or through coordination with the S-3.

d. Requirements for two or more-person movement during on snow conditions. All movements will always maintain two-way communications with Range Control. All personnel moving in the training areas must have with them the Seven (7) Pocket Items, Survival Kit, and Assault Load. Navigation Equipment (part of Assault Load) will consist of a map and compass/GPS device. Each group will also carry the following equipment: Avalanche transceiver, snow shovel, probe pole, and skis or snowshoes. Groups that are conducting foot, snowshoe, or ski movement are required to carry at least one combat load as per load requirements.

4. Weapons. Further restrictions and conditions may be added at the discretion of the RCO. These restrictions are for the purpose of safety and control of MCMWTC RTAAs and will be disseminated at Range Control.

5. Annual Operating Plan (AOP). Additional restrictions per type of activity are contained within the AOP and SUP. The AOP is published each year and the SUP is published every two- years.

a. Coordinate with the Environmental Director for the most current AOP and SUP restrictions.

b. Range Control regularly updates RFMSS with restriction information based on the AOP and SUP.

6. During all live-fire training, the SDZs, as shown on the range overlays, will become a controlled access area.

5006. OFF-LIMITS/RESTRICTED AREAS. The AOP lists the off-limits and restricted areas for the MCMWTC RTAA. Contact the Environmental Director for the most current listing of off-limits and restricted areas. The Range Control regularly updates the installation RFMSS database with off limit and restricted areas.

1. Off-Limits Areas. The USFS may designate permanent or temporary off-limit areas including, but not limited to, sensitive areas, special interest areas, recreation areas, wildlife food plots, pipeline/utility corridors, and critical or unique ecosystems with the potential to be impacted or damaged by military training, as allowed by Federal Law.

2. Sensitive Areas (Restricted). Environmentally sensitive areas including cultural resource sites, sensitive plant sites, wildlife food plots, and designated regeneration areas will be determined by the USFS and jointly marked with the MCMWTC using a system identifiable to trainees in the field during day light and low-light conditions.

3. Recreation Complexes. No training will be conducted within the Leavitt Meadows Campground, Leavitt Meadows Pack Station, Sonora Bridge Campground and Picnic Area, Obsidian Campground, Chris Flat Campground, Bootleg Campground, Shingle Mill Campground, Levitt Falls Overlook, Emma Lake Trailhead, Hoover Wilderness Trailhead, or the Pacific Crest Trail (PCT), unless by case-specific permit or authorization or accompanied by a USFS representative as part of an interpretive education series or other mutually agreed activity directed at a civilian audience. Safety vehicles only are allowed in the Sonora Bridge picnic area to support River Crossing training at this location.

4. Recreation Trails. No driving of vehicles will be conducted on the USFS's designated non-motorized trails (i.e. Lost Cannon

Cr Trail, Mill Cr Trail). No military training will occur on the Pacific Crest Trail.

5. Bridgeport Winter Recreation Area (BWRA). The BWRA is associated with Training Areas 10 and 11. Access, limitations, and restrictions is per the AOP, the MCMWTC Environmental Assessment, and RFMSS restrictions.

5007. RANGES AND FIRING POSITIONS. Ranges and firing positions within the MCMWTC meet the criteria of austere environment as per TC 25-8_. There are no formal marking or constructed positions delineating ranges and firing positions. See Appendix P for the current listing of authorized Range Cards for MCMWTC.

1. Non-Participants within Scheduled Range and Training Areas and Airspace. Non-participating personnel, vehicles, and aircraft routinely access the RTAAs when training is in progress. In order for Range Control to determine the magnitude of potential conflicts and apply appropriate corrective measures, documentation is necessary.

a. Any mission interrupted or aborted due to non-participating personnel shall be immediately reported to Range Control.

b. Since not all scenarios can be planned or foreseen, any unit may contact Range Control, when in their minds, an unsafe condition to personnel (authorized or non-participating) exists. Training may be ceased until Range Control can determine that the hazard no longer exists.

2. The public (civilians) will be in the training areas and airspace. The OIC and RSO must account for public activities when assessing risk. At no time will the OIC and RSO conduct live-fire training if the public is within any portion of a range's danger area. Range DZs reduced through deterministic analysis shall not be considered a risk analysis for accounting for the public. Range DZs reduced through probabilistic analysis may be considered a risk analysis for accounting for the public.

3. Surface Danger Zones (SDZs). The SDZ is a 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 weapon systems to include explosives and demolitions. The SDZ of many ranges overlap, creating a common temporary impact area. Caution must be exercised, particularly when other ranges are being used, to ensure that the area is safe before firing or moving down range. Additionally, some roads are closed when live-fire is conducted; those with gates may be locked during that period. Do not bypass locked gates. If given a key to access a certain range or area, ensure that all gates are left in the way the gates are found or leave a gate guard if leaving a previously locked gate unlocked. The OIC must train the gate guard in his/her duties and inspect the gate guard for appropriate equipment and communication asset. The OIC shall not leave an unequipped individual in the RTAA.

4. The OIC and RSO shall perform a visual downrange clearance of the Range SDZ prior to requesting authorization to conduct live-fire. If at any time non-participating personnel are located within the SDZ, the OIC will not authorize live-fire activities. If the public is located in the SDZ, the range activity will not commence. The OIC shall not attempt to move or direct the public to move outside of the SDZ.

5. All headings and directions provided in this Order are degrees grid.

6. Coordinate information in this order are in the Military Grid Reference System (MGRS) format.

5008. RANGE SIGNS AND MARKERS. Range signs are placed on all ranges to indicate lateral limits, range numbers, and other information to the maximum extent allowed by the USFS. Various RTAA signage and markers are described below and may be incorporated at MCMWTC. Temporary signage is acceptable and will comply with the intent of all applicable instructions to the maximum extent allowable. ROICs may place signs 24 hours prior to execution of a live-fire activity. The OIC shall still clear the SDZ the day off the activity even if the signs were placed the day prior.

1. Lateral Limit Signs

a. Left. 4' x 4' white and black checkerboard, square wood sign (Range 500 only).

b. Right. 4' x 4' orange and black checkerboard, square wood sign (Range 500 only).

2. Hazard Signs. Warn users of LASER operations and hazards.

3. Off-Limits Signs. Warn users that the area is off-limits by order of the Installation CO unless scheduled through the Range Control Office.

4. Additional Signs. These signs are self-explanatory in nature, announcing specific instructions or precautionary measures, and will be posted on certain ranges as deemed necessary by the RCO.

5009. COMMUNICATIONS

1. General Information

a. Units will establish radio communications with Range Control prior to and during all training and movements in the RTAA. If at any time the unit loses communication with Range Control, the unit shall cease training and re-establish communications. The unit shall not assume a bivouac or "go to ground" stance without resolving the loss of communications.

b. The MCMWTC Range Control call sign is "WHITE PEAK." Units will maintain direct continuous two-way communications with WHITE PEAK on the prescribed range safety frequencies. The Range Safety Net is only for safety-related communications with Range Control. All non-safety related communications shall be conducted on alternate frequencies.

c. Units will not use tactical call signs on the Range Safety Net. Units call signs will consist of range numbers (i.e. "this is Range 400") or unit designation (i.e. "this is Echo Company 2/8").

d. Units and ranges will have two forms of communication when operating within the RTAA. A Very High Frequency (VHF) radio will be the primary means of communication. A satellite

telephone, a second VHF radio, or any other reliable means of two-way communications approved by the RCO may be the second means of communication. Cellular communication devices are not considered a reliable second form of communication.

e. The training unit (OIC, RSO, and leaders) is responsible for establishing and maintaining proper communication with Range Control.

f. The OIC will train radio operators, vehicle commanders and drivers, and medical personnel in RTAA communication procedures.

2. Frequencies

a. All tactical radios will be programmed with the following three frequencies:

(1) Primary Range Safety (Ground): 41.100 SC/PT FM

(2) Alternate Range Safety (Ground): 46.900 SC/PT FM

(3) California Mutual Aid (CALCORD): 156.075 Tone
(CTCSS) RX/TX 156.7

b. Installation Digital Radios (Black Gear) Range Safety Network identifications:

(1) Primary Range Safety (Ground): RC PRI

(2) Alternate Range Safety (Ground): RC 2

(3) California Mutual Aid (CALCORD): CALCORD

c. Airspace Frequencies:

(1) Primary Air Safety (MOA): 120.725 SC/PT AM

(2) Alternate Air Safety: 363.650 SC/PT AM

3. Communication Procedures

a. No military, DoD, or contractor personnel shall depart from the base camp and enter into the RTAA without verbal

approval from Range Control. Points of entry are called Training Area Entry Points (TAEPs). The TAEPs are located at:

(1) TAEP 1: located behind the Command Post adjacent to the Ammunition Supply Point at a sign stating "Stop do not proceed without contacting WHITE PEAK." The grid location is 11S KC 8056 4879.

(2) TAEP 2: located on Silver Creek Road near the Waste Water Treatment plant at lower base camp adjacent to the large red sign reading "Stop do not proceed without contacting WHITE PEAK." The grid location is 11S KC 8029 4853.

(3) TAEP 3: located at Peoples Gate, SR108, adjacent to the large red sign reading "Stop do not proceed without contacting WHITE PEAK." The grid location is 11SKC7867/4775.

(4) TAEP 4: located at Route 108 and Kirman Road entrance into the RTAA. The grid location is 11S KC 8465 4781.

(5) TAEP 5: located at the entrance to Training Area One on Mill Canyon Road off U.S. 395. The grid location is 11S KC 8318 6288.

b. Units will transmit a "Transit Report" when departing base camp to enter the RTA, when relocating from a previously reported location, and when arriving at their destination. A Transit Report consists of the following information: Total number of personnel and vehicles, current location and destination, and the activity to be conducted. All transmissions must be over the Range Safety Net. An example unit transmission: "White peak this is (Callsign) with Vic, Pax, departing from (Location) enroute to (Destination)."

Report	Description	Report Elements
Transit	Unit report for RTA entry; exit; any movement within the training area; and arrival at destination.	1. Departure point, 2. # of personnel & # of Vehicles, 3. Destination
<u>Example of Transit Report Entry Into RTA</u> White Peak this is A/1/7 Mobile, request to depart base camp with 2 vehicles 5 pax to LZ Owl		
<u>Example of Transit Report Arrival at Destination</u> "White Peak this is A/1/7 Mobile, we arrived at LZ Owl with 2 vehicles and 5 pax		
<u>Example of Transit Report for movement within RTA</u> "White Peak this is A/1/7 Mobile, request departure from LZ Owl, 5 pax foot mobile to 11S KC 713 482.		
Reference RTA SOP Chapter 5 for Mountain Exercise Force-on-Force (FoF) transit report requirements and procedures.		

FIGURE 5-1: TRANSIT REPORTc. Radio Communication Checks

(1) Non-Live Fire. Communication checks must occur at a minimum of every hour while conducting non-live fire training. Radio checks shall be conducted at the top of the hour.

(2) Live-Fire. While in a "Hot" status, communication checks must occur at a minimum of every 30 minutes. Radio checks shall be conducted at the top and bottom of each hour.

(a) The OIC must request to go "Hot" or "Cold" via fire authorization procedures.

(b) The OIC will conduct radio checks with road guards every 30 minutes. The unit will provide their own frequency for road guard communications. The unit will not use the Range Safety nets for road guard communications. If at any time a unit loses communication with Range Control or its road guards, that unit will immediately put itself in a check-fire status until communications are re-established.

(3) Aviation. Communication checks are per reference (o), the Group 1 and 2 sUAS SOP, and exercise SPINS. A Hot Area Brief is required during pre-flight planning. The aviation unit will call the FDO (760-932-1435) for the Hot Area Brief. A Hot Area Brief is an added safety backstop: should initial radio

communications fail, the pilot will then have been made aware of any potential conflicts.

(a) Aviation Training Units will request authorization to enter or depart the RTAA from Range Control via the Air Safety Net. Upon initial check in with WHITE PEAK, the PIC will provide the following information: Aircraft number and type, number of personnel onboard, location, altitude, intentions, and fuel onboard in flight hours.

(b) Radar traffic data is not available for the MCMWTC RTAA. The Aircraft Commander or PIC is responsible for de-confliction within the MCMWTC RTAA and for the safe execution of their own operations at all times.

(c) Pilots shall monitor the Air Safety Net and appropriate Guard channel and keep Range Control and other aircraft aware of their location by transmitting their position, altitude, and intentions while transiting. Transmit in the blind if necessary.

(d) Range Control will provide aviation units with range safety update information. Aviation units must provide Range Control with up-to-date mission information when training is commencing and completed.

(e) Non-SLTE Training: Requires positive two-way communication between the Aircraft Commander or PIC and Range Control. Radio checks will be conducted every 30 minutes. It is the Aircraft Commander or PIC's responsibility to give an "Ops Normal" call to Range Control if no other communication is made.

(f) SLTE: When operating under tactical direction during training exercises, the unit will reference the SLTE SPINS.

(4) Communication Check Format and Examples:

Report	Description	Requirement
Comm Check	Units confirm communication & update position information.	1. Non-live Fire/Blanks: Top of Even Hour @ 2 hour. 2. Live-Fire / LASER (hot): Top & Bottom Hour @ 30 minutes. 3. sUAS (Flight Operations): Every hour @ top hour.
<u>Example of Occupied/Active Training Event</u>		
"White Peak this is A/1/7, Radio Check".		
"White Peak this is A/1/7, Unit position remains the same"		
<u>Example of Transit Unit</u>		
"White Peak this is A/1/7 Mobile, Radio Check".		
"White Peak this is A/1/7 Mobile, we are continuing transit to owl and are in the vicinity of Silver creek Road and Wolf Creek Road intersection"		
<u>Example of Live-Fire Range</u>		
"White Peak this is Range 503, Radio Check"		
"White Peak this is Range 503, We are still HOT at Range 503"		

FIGURE 5-2: COMMUNICATION CHECK REPORT

d. Emergency Response Operations. During emergency situations, all units will continue to monitor the Range Safety Net for situational awareness. Training may continue unless a general check-fire or cease-training is put into effect by Range Control.

(1) Red Blanket: A unit may declare an emergency by transmitting "Red Blanket" over the Range Safety Net. A Red Blanket transmission transfers net priority to the transmitting unit and the Range Control. All other units shall clear the net of transmissions and monitor the situation.

(2) RTAA procedures when Red Blanket is declared. All RTAA units will cease training, stay off the Range Safety Net, account for their personnel, and prepare for MCMWTC tasking.

e. Offsite Venue. Mountain Exercise sponsored offsite training activities are required to check in with Range Control prior to departure from base and upon arrival at destination. Upon completion of offsite training, units will check in with Range Control prior to departure and upon arrival at MCMWTC.

(1) The offsite unit will inform Range Control of commencement and completion of training each day. These

notifications usually occur at 0600 and 1800 unless otherwise specified in the offsite check out form.

(2) The training unit must provide Range Control with personnel count during the commencement and completion notifications.

(3) Personnel transiting to/from the offsite venue must notify range control via a transit report.

f. Units will immediately report any Petroleum, Oil, and Lubricants (POL) spillage or other HAZMAT spillage to Range Control to initiate proper hazardous waste removal procedures. The reporting unit is required to report to Range Control to fill out a Hazardous Substance Release/Spill Report. Hazardous Substance Release/Spill Reports are available via the MCMWTC Environmental Section.

5010. SAFETY EQUIPMENT

1. Live-fire Personal Protective Equipment (PPE) requirements: Training casualties on operational ranges must be minimized using appropriate PPE. The Range OIC, and RSO must review DA PAM 385-63_, appropriate operator and technical manuals, and other applicable regulations for determining the required level of PPE to be used with specific weapon system or event. Ultimately, the commander must decide the appropriate level of PPE based on a thorough risk assessment. The following are the minimum live-fire PPE requirements for MCMWTC:

a. Static Fire: Eye protection and hearing protection (PPE 0).

b. Fire and Movement: Eye protection, and hearing protection (PPE 0).

c. Demolition Training: Helmet, body armor, eye protection, and hearing protection (PPE 1).

2. Red flags must be displayed at the entrance or firing line of the range. The flag shall be displayed where visible (360°) before and during all live firing. Red blinking lights will be

utilized at ranges during night firing. Both flags and lights are provided by Range Control.

3. Medical requirements are covered in the MCMWTC CASEVAC SOP (Appendix Q). Adequate medical support is a necessity for all training events and is the responsibility of the OIC.

4. Units will use a Government-Owned Vehicle (GOV) as a safety vehicle for all training events. The safety vehicle shall have a dedicated radio asset with all Range Control frequencies programmed, a dedicated licensed driver, and be staged and equipped to immediately evacuate a litter patient.

a. The safety vehicle shall not be tasked as a logistics vehicle or used for routine driving activities.

b. The unit will not cease training and attempt to use the safety vehicle for logistics runs leaving the activity without a casualty evacuation or emergency response vehicle.

5. Other PPE:

a. Snowmobiles. A Department of Transportation (DOT) approved snowmobile or motorcycle type helmet is required for operation of all snowmobiles.

b. Utility Terrain Vehicle (UTV) and Recreational Off-Highway Vehicle (ROHV). A Kevlar helmet with eye protection or a DOT approved helmet is required for operation of UTV and ROHV.

c. Skijoring. Ski helmet or Kevlar is required for skijoring.

5011. FACE-TO-FACE BRIEFS. As appropriate, the RCO shall conduct briefs for RTAA evolutions with ROICs, RSOs, tactical air control agencies, unit air officers, and command representatives.

1. All RTA, OICs, and RSOs requesting authorization to co-use a facility/area shall have a face-to-face brief with the installation RSO and RCO.

2. Any member requiring access to the RTAA that are not a certified RSO or OIC shall receive a face-to-face transit brief at Range Control.

3. All Mountain Exercise units shall receive a face-to-face/virtual brief from Range Control per reference (n) and during the RSO&I phase of the exercise.

4. Pre- and post-inspection of live-fire ranges will consist of a face-to-face brief with the RSO, OIC, and Range Safety Specialist/Inspector.

5. Random onsite inspections for safety and environmental compliance and risk assessment will be performed face-to-face with the appropriate unit representative.

5012. UTILIZATION REPORTING. Range control must maintain RTAA use information to support funding and risk analysis information. Transit reports, unit activity updates, communication checks, inspection reports, RTAA occupation or check-in procedures, and incident logs support utilization management. Pre- and post-inspection checklist items and ordnance use by type and amount support utilization reporting.

5013. BARRICADES, ROAD GUARDS, AND TOWER GUARDS

1. Barricades. The only range barricade used at MCMWTC is the access gate to Range 500 on DoD property. There are currently no barricades authorized for use for range activities within the RTAA. This is due to the land-use agreement with the USFS for public activities and military training activities. Units shall not barricade or block public access within the RTAA. All military activities shall cease or be canceled if a safety conflict is identified with public activities.

2. Road Guards. Ranges and certain training activities require road guards and observers to serve as a safety mitigation tool for non-participating personnel encroachment. Road guard positions per range is in the individual Range Cards located in Appendix P of this order. Range control may add and/or reduce road guard requirements per activity based on a local condition.

a. Unit OICs shall establish reliable continuous two-way communications with roads guards. The unit will provide their own communication frequency and will not use the installation Range Safety nets for road guard control.

b. Radio checks will occur every 30 minutes with road guards or observers. The OIC will cease training if communication is lost between roads guards and the activity.

c. Range Safety Specialists will inspect road guard and observer communications and positions as part of their inspection duties. Range Safety Specialists will not authorize an activity until the road guards are in position, briefed, and appropriately equipped for their duties.

d. The OIC shall consider weather conditions and activities to appropriately assigned the correct personnel with the correct equipment to assume road guard duties. The OIC must account for road guard accountability and positioning as part of their risk assessment.

3. Tower Guards. There are no tower guards at MCMWTC. Some ranges and activities require positioning of observers to maintain observation of key mobility corridors and down range access points. These positions shall be treated the same as a road guard.

5014. VEHICLES. The installation Safety Office determines vehicle operation and restriction information for the MCMWTC installation and RTAAs. In addition, the following RTAA-specific vehicle restrictions apply.

1. RTA Speed Limit. The speed limit for all vehicle traffic in the RTAAs is 15 MPH and 5 MPH around dismounted troops. Snowmobiles are authorized 25 MPH.

2. Light Utility Vehicles (LUVs)

a. LUVs are not authorized on California SR108 except on those portions seasonally closed by the state of California. Examples of LUV(s) are: Recreational Off-Highway Vehicles (ROV), Utility Vehicles (UTV), Polaris Rangers, and Polaris RZR's.

b. LUVs are not authorized on SR108 from the installation front gate to the TAEP by the "Peoples Gate" when accessing the closed SR108. Personnel will access SR108 with LUVs via the access road (dirt) starting west of the air field.

c. LUVs are not authorized on any other state or public highway.

3. Safety Equipment. See section 5010 for vehicle-specific safety equipment. Unit commanders will refer to MCO 5100.29C_, TCO 5100.24_ (Traffic Safety), and unit SOPs to develop activity vehicle, safety equipment, and safety plan.

4. Off Road Driving. Off road driving is prohibited at MCMWTC. All wheeled vehicle traffic will remain on the maintained dirt roads per the Environmental Section SOP and/or the AOP. On snow and over-the-snow driving considerations are covered in chapter 1 of this order.

5015. HIKES. All hikes within the RTAAs shall be treated and scheduled as a regular training activity unless excluded per section 3007 of this Order. All hikes will require a risk management document and check-out per chapter 3 of this order.

1. If a unit/activity is using a hike as a means to occupy a training area or site, there must be assigned RSO and OIC to the activity. In advance, the OIC shall coordinate with Range Control to determine number of safety personnel required for hike movements throughout the training area.

2. The size, distance, location, safety personnel and vehicle planning, and communication plan will factor into safety personnel requirement determination.

5016. POLICE OF RANGES, TRAINING AREAS, TRAINING FACILITIES. All sites within the MCMWTC RTAAs used for activities beyond transits and leaders' recons will be inspected by MCMWTC instructors, Range Control, or environmental personnel prior to the using unit's departure from the training site.

1. Policing of the MCMWTC RTAA, which reside within USFS lands, is solely the responsibility of the using unit. Units which do not exercise the appropriate level of respect, due diligence, and "leave no trace" philosophy will be held accountable.

2. Before securing from the RTAA, each unit will conduct a thorough police call and remove all trash and all other items not

in the location prior to arrival to the proper receptacles or locations at base camp. Trash (to include ammo crates) will not be burned or buried beneath dirt or snow.

3. Ordnance items (ammo boxes, spent brass, etc.) will be returned to the Ammunition Supply Point (ASP). The collection of spent brass is required in all circumstances. In all but a few rare circumstances, spent brass will be collected by the using unit. Accompanying MCMWTC instructors (or Range Control personnel in their absence) will ensure that no spent brass remains in the RTAAs. Spent brass will be returned to S-4 for collection. RSO's will submit an expenditure report to range control FDO via radio comms with "WHITE PEAK". MTX force on force RSO's for both EXFOR and ADFOR will submit written expenditure reports directly to range control once all units are back at base camp and ammunition accountability and turnin has been conducted.

4. Units with MCMWTC instructor support will have the senior ranking instructor perform an area inspection prior to departing the area.

a. The instructor to the using unit will report discrepancies and required actions to resolve those discrepancies to the unit OIC and RSO. The instructor will also report the information to Range Control as soon as identified for verification at a later date. Range Control will open an incident report in RFMSS to track progress and validate area police.

b. The ROIC must report the name of the MCMWTC instructor who performed the inspection prior to departing the RTAA. Range Control will log the instructor's name into RFMSS within the appropriate facility status communication tab and/or inspector report.

5. Units without instructor support will be inspected by Range Control during daylight hours. Units are required to notify Range Control of intent to depart the area a minimum of one hour prior to departure and will have contact with RSP prior to departing the local area at the conclusion of training.

6. All live-fire ranges shall be post-inspected by a member of the Range Control. Instructor personnel are not authorized to perform a live-fire range post-inspection.

7. Trash and Cache Sites. Units will not depart an area with staged trash/waste and/or food/material cache sites without leaving personnel with appropriate equipment and communication gear to guard the site and confirm the removal of the trash/waste. Trash is only authorized to be staged when necessary due to weather. Coordinate with the Environmental Section to review additional marking and staging requirements per the AOP.

5017. FOULED RANGES. Any range deemed unserviceable and/or fouled will be placed in a dormant status in RFMSS with an announcement issued to all RFMSS users. Unit commanders will ensure unit schedulers are trained to notify their commands regarding fouled ranges.

5018. RANGE VIOLATIONS. Violations of this Order or other governing directives may result in the issuance of a range violation by the RCO. In the event of a violation, all training will be halted until corrective action has been taken. The offending unit may be required to displace from the RTAA until corrective action is complete. ROIC and RSO privileges may be revoked by the RCO based on the severity of the infraction(s). Qualifying infractions include, but are not limited to: accessing MCMWTC RTAA without Range Control approval, conducting live-fire operations without Range Control approval, and deviating from RTAA SOPs without written approval.

5019. RANGES. See Appendix P for Range Cards associated with the MCMWTC Ranges.

1. During all live-fire training, the SDZs, as shown on the range overlays, will become a controlled access area. An updated schedule will be posted within the range bulletin folder by Range Control for any last-minute changes.

a. This schedule is final approval for all requests. Deviations from this schedule are strictly prohibited unless requested and approved via same day request form.

b. All using units with approved same-day requests must review the schedule to ensure their requirements are accurately reflected prior to executing.

c. It is incumbent upon the unit requesting the same-day request to ensure the appropriate activity has been scheduled and properly de-conflicted.

2. RTAAs may not be modified or altered without written approval from the Installation CO.

3. Demolition (Explosive) Activities. Demolition activities within the RTAAs shall be managed and performed per the stipulations within the AOP. Range Control requires a minimum of 30 days' notice to analyze and coordinate approval for demolition activities outside of the approved Avalanche Initiation Sites (AIS) and demolition sites per the MCMWTC Environmental Assessment (EA) and AOP. These activities may be approved on a case-by-case basis by the RCO via the range certification process.

4. Certified Ranges. The first letter of the range equates to the training area the range is located in. All ranges are considered austere environment per TC 25-8_ with no dedicated support facilities and permanent target or sensor system support. Units must construct each range per the range card information. Upon completion of training, all materials and equipment will be removed, and the area will be returned to original state per section 5016 of this Order and stipulations in the AOP.

5. Rounds Fired Off-Range. Rounds fired off-range shall be immediately reported to Range Control. This requirement complies with the 1997 Military Munitions Rule Amendments to the Resource Conservation Recovery Act (RCRA). If a munition lands off-range and is not promptly rendered safe or retrieved, the munition becomes a solid and hazardous waste. Solid and hazardous waste deemed as an imminent and/or substantial threat shall be addressed. 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 munition type (DODIC and nomenclature) and location (to the extent the location is known).

5020. PISTOL RANGES. All ranges certified for the appropriate pistol ammunition and have the required area to conduct pistol training may be used for a pistol range. R500 (see Appendix P) is the only dedicated facility for pistol training at MCMWTC. Coordinate with Range Safety Section for steel reactive target training, certification, and discussion.

5021. IMPACT AREAS. MCMWTC RTAA consists of temporary non-dud producing impact areas. There are no fencing and/or dedicated barricades, markings, or full access control measures associated with range impact areas. During all live-fire training, the SDZs, as shown on the range overlays, will become a controlled access area and managed by the ROIC and RSO per the conditions contained in the Range Cards located in Appendix P. See chapter 3 of this Order for co-use requirements when training activities conflict with range SDZs.

5022. TRAINING AREAS. MCMWTC Training Areas are per the Military Installation Map, RFMSS, and the AOP. Training area specific information, environmental and safety restrictions/limitations, and use requirements are per RFMSS and the Environmental Section.

1. Engineer Training. The use of engineer assets will be included in RTAA RFMSS requests and will describe the type of training (e.g. obstacles, emplacements, water purification, log cribs, wire barriers, materials to be used, etc). All engineer training will be performed with the understanding that areas must be returned to their original state. Additional guidance from Range Control may be obtained by advance coordination. Any engineer training of this nature will require the appropriate requests through the Installation Environmental Director via a Request for Environment Impact Review (REIR). In addition to all other requirements in the Order, the following restrictions apply:

a. All environmental restrictions will be adhered to. There will be no heavy equipment or obstacles placed in environmentally sensitive areas, on hard surface roads, gravel roads, or within 50 feet of a culvert.

b. All affected areas shall be policed by the using unit within 24 hours after the exercise is completed.

c. Any tactical roadblocks such as practice mines, trees, concertina wire, etc., must allow for non-training or tactical vehicles to freely access RTAAs without delay. Units will provide sufficient road guards to remove any obstacles from roads immediately upon the arrival of non-participating vehicles. Units may replace obstacles after vehicles pass.

2. Bulk Water Purification. Requires a permit or formal land use agreement for the specific time period issued by the appropriate agency for the requested area.

a. Requires a REIR submitted to the Installation Environment Director via the Installation Operations and Training Section.

b. Requires a minimum of 90 days for evaluation by the Environmental Director and other appropriate agencies.

3. Training Areas 14, 15, and 16. Coordinate with the Environmental Director and the Community Planning and Liaison Officer for access timelines or requirements for using the Kirman Lake Road for Training Areas 14, 15, and 16.

4. Coordinate with the environmental section for additional training sites permitted outside of the RTAA. Only those activities deemed as a Mountain Exercise-sponsored event will be coordinated per chapter 3 of this order.

5023. OBSERVATION POSTS (OPs). There are no formal/constructed OPs at MCMWTC.

5024. RECREATIONAL USE OF RANGES, TRAINING AREAS, AND FACILITIES

1. Personnel assigned to MCMWTC will coordinate with their chain-of-command and Range Control prior to entering the MCMWTC RTAAs for unit/section recreation activities. Military personnel will coordinate with the unit leadership for off-duty individual recreation activities. Permanent personnel may perform recreational activities within the training areas in accordance with applicable regulations and laws.

2. Students attending a formal school and/or MCMWTC course are not authorized to perform recreational access/activities in the RTAA without explicit approval from the Installation RCO.

Students may not access the LTA or other training areas during liberty/holiday periods for "extra" training without instructor oversight on a Range Control-approved and scheduled facility.

3. Non-tenant/visiting Training Units may not access the training areas for recreational activities.

5025. FIRE AND MANEUVER. Fire and Maneuver is not authorized aboard MCMWTC.

5026. ROAD CROSSING PROCEDURES. Unit commanders, activity OICs, and RSOs will determine road crossing procedures per risk management. The OIC as appropriate (presence of road) will incorporate a road hazard briefing in the activity safety brief. The OIC will discuss road crossing procedures with all members performing the training activity. The OIC shall not purposely block public access roads or highways.

5027. VEHICLE TRAINING PROCEDURES. All unit vehicle operators must complete the Mountain Drivers Course hosted by the installation Motor Transport Section. Coordinate with the installation S-4 to schedule the appropriate platform/activity Mountain Drivers Course. Vehicle training safety measures are per the installation S-4 and the installation Safety Office. Vehicle training activities and movement activities on Highway 108 and 395 are managed by the installation safety office.

1. The maximum speed limit for vehicular movement in the RTAAs is 15 MPH, 25 MPH for snowmobiles, and 5 MPH in the vicinity of dismounted troops. Slower speeds may be required due to environmental or road conditions in addition to towing operations.

2. Blackout driving is not authorized unless explicitly approved by the Installation Operations and Training Section.

a. Blackout driving requires scheme-of-maneuver, risk assessment, and confirmation brief with the Installation Operations Officer and RCO.

b. Coordinate with the installation S-4, installation Safety Office and Range Control prior to submitting a blackout driving request to the Installation Operations Officer.

5028. BEACH BRIDGE CROSSING PROCEDURES. There are no beach bridges at MCMWTC.

5029. PUBLIC AFFAIRS AND RANGE OPERATIONS. MCMWTC does not have a Public Affairs Office or officer. All public affairs questions or inquiries will be directed to the installation S-1 and the Community Planning and Liaison Officer.

5030. BIVOUAC ON A RANGE OR TA. Upon conclusion of training and entering a bivouac routine, Training Units shall contact Range Control with the following information: Grid location, total number of personnel, and total number of vehicles.

1. Once Range Control approves the unit to assume a bivouac status, the unit is no longer required to perform radio communication checks with Range Control. The unit will still maintain continuous two-way communication (monitor) with Range Control on the Range Safety Net.

2. The unit OIC will ensure a 0600 radio communication check is performed each morning regardless of when training is scheduled to begin. If the unit intends to begin training prior to 0600, they will notify Range Control of their intentions to resume training.

3. Bivouac status does not change OIC, RSO, medical personnel and equipment, communication equipment, and vehicle requirements.

4. Unit may not perform training or mobility activities while in a bivouac status. Examples are sustained logistics activities/operations and/or localized patrolling and defensive posturing.

Report	Description	Report Elements
Bivouac Request	Unit completes all training, remains in the training area overnight, and commences chow/sleep activities.	1. Center 8-Digit grid location for unit. 2. # of personnel and # vehicles.
Example of Bivouac Request "White Peak this is F/2/8, request to assume Bivouac Status" "White Peak this is F/2/8, Location 11S KC 8079 9860 with 15 Pax and 1 Vic."		
*Bivouac Status means: 1. Units are no longer required to perform radio checks. 2. Units will continue to monitor range safety net for hazardous condition updates. 3. Units will perform next radio check at 0600 or when training commences whichever happens soonest. *		

FIGURE 5-3 BIVOUAC REQUEST

5031. SERVICE LEVEL TRAINING EVENT (SLTE). Reference TCO 3500.16_ for SLTE range operations and safety planning.

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CHAPTER 6

AMMUNITION AND EXPLOSIVES

6000. GENERAL. This chapter establishes requirements and procedures for ammunition and explosive activities within the RTAA. The RTAA requirements and procedures are based on appropriate service regulations, land-use agreement with the USFS, the EA for training activities per National Environmental Policy Act (NEPA), and the USFS Special Use Permit and associated AOP. The installation Safety Office performs the duties and role of the Explosive Safety Officer (ESO) for MCMWTC.

6001. TRANSPORTATION, HANDLING, AND STORAGE OF AMMUNITION AND EXPLOSIVES

1. General. Reference (k) governs policies and procedures associated with the use, storage, and accountability of Class V "A" ammunition and explosives. Marine Corps Ammunition Management and Explosive Safety Program governs policies and procedures associated with the use, storage, and accountability of Class V "W" ammunition and explosives. NAVSEA SW020-AG-SAF-010, Transportation Safety Handbook for Ammunition Explosives and Related Hazardous Material [reference (l)], governs transportation of ammunition, explosives, and related hazardous material.

2. Ammunition Handling. The Installation Ordnance Section is located at Bldg 4048 and the ASP is located at Bldg 2015 MCMWTC. The point of contact is the S-4 Officer at (760) 932-1480.

a. Qualified Drivers. Drivers of any vehicle transporting ammunition or explosives aboard MCMWTC and the RTAAs shall meet specific administrative and medical criteria, per 49 CFR 391.41-391.49_, and reference (l). Any drivers that do not have the "Explosive Driver" certification on their license will be turned away. All drivers must hold a current Medical Certificate stamped on their license and have it in their possession. The driver can obtain an Explosive Driver stamp by attending a 12-hour Explosives Driver Course.

b. Privately-Owned Vehicles (POVs). Using POVs aboard MCMWTC RTAAs to load, store, or transport ammunition, pyrotechnics, or explosives of any kind for military training is prohibited. On a case-by-case basis, the Installation CO may

authorize the transport of limited quantities of small arms ammunition C/D 1.4S, except .50 caliber, using privately owned vehicles (POV) or government vehicles as detailed in NAVSEA SWO20-AF-HBK-010_, paragraph 2-7.4.1.

c. Unit personnel are authorized to transport limited quantities of C/D 1.4S, except .50 caliber, with a snowmobile with sled as long as the gross weight of the ammunition does not exceed 300 lbs. and 20,000 rounds. Under these particular circumstances, the explosives driver training criteria presented in NAVSEA SWO20-AF-HBK-010_ chapter 2 are not applicable.

6002. EXPLOSIVE ORDNANCE DISPOSAL (EOD). The mission of EOD is to locate, identify, and neutralize explosive ordnance hazards posing a threat to personnel, equipment, material, and the installation, which are beyond the capability of other Military Occupational Specialties in the Marine Corps. EOD is not required to escort personnel into the MCMWTC temporary non-dud producing impact areas at any time. If personnel are available, and when requested, EOD will provide appropriate technical assistance to units. EOD is not available nor responsible for the routine transportation of ammunition and explosives. EOD assistance is normally available on a 24-hour basis; however, if DoD EOD personnel cannot support requests for assistance, contracted civilian UXO personnel can be utilized if they meet the requirements of DoD Explosives Safety Board Technical Paper 18 (Minimum Qualifications for UXO Technicians and Personnel (TP)). Contact EOD offices at NASF, NV or MAGTFTC.

6003. HAZARDS OF ELECTROMAGNETIC RADIATION TO ORDNANCE (HERO). Contact the installation ordnance section and installation Explosive Safety Officer for inquiries regarding HERO. All communication frequencies must be validated and approved by the installation spectrum manager; this includes uplink/downlink frequencies for UAS.

6004. AMMUNITION

1. Alteration of Ammunition. The alteration of Class V supplies is not authorized under any circumstances. This includes delinking ammunition for the purpose of use in a single fire or magazine-fed weapon system as well as removing tracers due to fire restrictions.

2. Blank Ammunition. Utilization of blank ammunition will be at the direction of the RCO as determined (i.e. current Fire Restriction). Personnel will be instructed by unit OICs and RSOs on the safety precautions for firing blank ammunition prior to training.

a. Blanks will be visually inspected prior to use, to ensure safe conditions. Care will be taken to ensure that blank ammunition and live ammunition are **NEVER MIXED**.

b. Blank and live ammunition will **NEVER BE** used, issued, transported, or stored at the same location at the same time.

c. The same OIC and RSO may not manage blank and live-fire ammunition at the same activity/site.

d. The OIC and RSO will incorporate the blank ammunition SDZ per DA PAM 385-63_ into the activity RM and pre-safety briefing.

e. The Blank Firing Adapter (BFA) is a necessary component for operational safety. Weapon systems for which approved BFAs are manufactured will not be fired without the proper BFA. The distance at which weapons can be safely fired at unprotected troops without causing injury is somewhat reduced with the BFA. At minimum, a five (5)-meter safe separation distance will not be reduced. This distance, with a dispersion angle of 10 degrees left and right of the GTL, does not exclude possible injury to the unprotected eye.

f. Hearing protection (ear plugs) shall be worn while firing blank ammunition. Army combat uniform and Marine Corps combat utility uniforms offer skin protection and should be worn at all times. For the Army, eye protection will be used. For the Marine Corps, eye protection should be used.

g. A violation of the safe separation distance could result in serious injury, and within one (1) meter may cause fatal injuries.

3. Field Ammunition Supply Point (FASP). Field staging is **NOT** authorized at the MCMWTC.

4. Ammunition Malfunctions. Ammunition that fails to perform as expected can normally be attributed to a malfunction, human error, or weapon/equipment deficiency.

a. In every incident, it is imperative that certain facts surrounding the matter be immediately noted and appropriately reported so that immediate action can be initiated to preclude reoccurrence.

b. When a malfunction occurs, take appropriate immediate action to eliminate hazards, suspend further firing as necessary, and call Range Control if needed.

c. Using units are responsible for malfunction reports, which shall be reported through the unit's logistics personnel. Refer to reference (1) and Ammunition Malfunction Data Collection Guide 8025 (NAVMC 10155_) for further guidance.

d. Unserviceable Ammunition. Unused or unserviceable ordnance will not be reported as duds, but will be marked "Unused" or "Unserviceable" and returned to the ASP by the using unit. Misfires and hang fires will be cleared by the using unit. Any person having knowledge of the whereabouts of ammunition of any type, pyrotechnics, or other potentially hazardous ammunition shall report such information to Range Control.

e. Duds. 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 (with the exception of hand grenade ranges) occurring within a dedicated impact area do not normally require an EOD response, but shall be reported to Range Control immediately with the approximate location. Exceptions to this are short rounds, which place the firing unit within the fragmentation range of the fired munitions. Duds found outside an impact area, or in a training area, shall be reported to MCMWTC Range Control immediately. An exact, clearly marked location of the dud is required, a guide made available, and all personnel cleared of the immediate area. Do not disturb a dud in any manner.

f. Misfires. A misfire is the failure of a primer or the projectile propelling charge to function, or a line charge or

demolition material which fails to function. In the interest of safety, all misfire procedures shall be completed on the range.

6005. CHEMICAL AMMUNITION AND SMOKE

1. Chemical Ammunition. Chemical munitions are defined as agents or munitions, which, through their chemical properties, produce lethal or other damaging effects on human beings. The term does not include riot agents, chemical herbicides, smoke, and other obscuration materials. Chemical munitions are not authorized aboard the MCMWTC.

2. Riot Agents, Smoke, and Other Obscuration Materials. Riot agents, smoke, and other obscuration materials shall be used only during scheduled training, per the provisions in applicable technical manuals and directives, as improper use may result in injury.

a. Approval. Riot agents, smoke, and other obscuration materials are approved for use in compliance with the requirements and limitations stated in MCO 3570 and applicable MCMWTC regulations.

b. 2-chlorobenzalmalononitrile (CS) or Other Agents. When CS or other agents are 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 training areas, or outside an approved facility within the boundaries of MCMWTC. The intent to use CS or other agents shall be specified when scheduling maneuver areas. ROICs and RSOs must be Nuclear, Biological, and Chemical (NBC) qualified when conducting NBC or smoke training.

6006. SIMUNITIONS, SPECIAL EFFECTS SMALL ARMS SYSTEM, CLOSE COMBAT MISSION CAPABILITY KIT, AND ULTIMATE TRAINING MUNITIONS, AND MILES/ITESS GEAR/EQUIPMENT. These training activities shall be performed in accordance with MCO 3570.1C_ and DA PAM 385-63_. Coordinate these activities per chapter 3 of this order.

6007. SMALL ARMS

1. All weapons shall remain in Condition Four while in a "Cold" status.

2. After completion of each evolution of fire, the RSO shall ensure all weapons are clear and in a Condition Four status.
3. The RSO shall ensure proper settings of headspace and timing on all applicable weapons prior to shooting.
4. No one is allowed forward of any gun emplacement, for any purpose, until authorized by the RSO.
5. During mountain mobility, all weapons will remain in Condition Four status.

6008. MORTARS. Live-fire activities with mortars are prohibited at MCMWTC.

6009. HAND GRENADES. Hand grenades are prohibited at MCMWTC.

6010. 40MM GRENADE LAUNCHERS. Dud-producing HE ordnance activities with 40mm Grenade Launchers is prohibited at MCMWTC. Use of non-dud producing ordnance at MCMWTC must be approved on a case-by-case basis by Range Control.

6011. GUIDED MISSILES AND ROCKETS (GROUND SYSTEMS ONLY). Guided missiles and rockets are prohibited at MCMWTC.

6012. ARTILLERY TANKS, ASSAULT AMPHIBIAN VEHICLES, AND LIGHT ARMORED VEHICLES. Live-fire with these platforms are prohibited at MCMWTC. Coordinate with the Environmental Director for approval to use these platforms for non-live-fire training activities within the RTAA.

6013. AERIAL GUNNERY. Aerial gunnery is prohibited at MCMWTC.

6014. AIR DEFENSE WEAPONS. Air defense weapons are prohibited at MCMWTC. Coordinate with the Range Control facility and environmental director for "Smoky Sams" type activities.

6015. DEMOLITIONS. Safety precautions shall be strictly adhered to as prescribed in appropriate field and training manuals, directives in the MCO 3570_ series, and this Order.

1. All personnel engaged in demolitions training are required to wear helmets, flak jackets, hearing protection, and eye protection at all times. Engineer units are authorized to use

demolition charges during the performance of engineering work. The size and type of charge shall be dictated by engineering safety requirements, provisions delineated in this Order, and directives.

2. The OIC shall ensure demolition charges will not exceed 20 lbs. Net Explosive Weight (NEW). The OIC shall ensure all public and non-participating personnel remain outside of the noise-hazard contour associated with the demolition activity.

3. The MCMWTC does not authorize the use of explosive charges (TNT blocks or composition C4) to simulate detonation of mines or incoming projectiles, mortars, and bombs.

6016. MINES, BOOBY TRAPS, AND PYROTECHNICS

1. The use of approved explosive devices will be confined to designated RTAAs for the specific explosive in question.

2. PPE must be worn as per applicable regulations or manuals. All personnel shall be clear of the SDZ and will be located in a safe area during detonation of all explosives.

3. Practice mines and practice booby traps may be used within the RTAAs and on all demolition ranges. Their use shall be approved by the MCMWTC Environmental Director and coordinated through Range Control. No practice mines or practice booby trap devices shall be left on any range or in any maneuver area. All devices, parts of devices, and other material shall be policed after use.

4. Units must get approval for the use of pyrotechnics to include 40mm marking and smoke rounds within the MCMWTC RTAA. Pyrotechnic use shall be coordinated and approved via Range Control.

a. Be prepared to employ mitigations as per the Environment Director's direction and stipulations in the AOP, SUP, and EA.

b. Summer usage will depend upon local fire restrictions.

c. The ROIC will ensure pyrotechnic use will be requested in RFMSS. The ROIC will ensure a list of pyrotechnics will be included in the RTAA check out form.

d. Pyrotechnics shall be stored in small amounts, away from any firing points, either right or left of, but not directly behind, the firing point. They shall be placed to minimize the possibility of ignition or explosion in case of an accident during firing.

e. Use extreme care when handling pyrotechnics so they do not fall onto shooters or other personnel or into boxes of pyrotechnics or other ammunition.

5. ROICs will ensure pyrotechnics and explosives are not used with non-pyrotechnic Improvised Explosive Device (IED) simulators.

6017. NON-LETHAL WEAPONS. Non-lethal weapons shall be employed per MCO 3570.1C_ and the DA PAM 385-63_. Coordinate with Range Control for use of non-lethal weapons within the RTAAs.

6018. NON-STANDARD WEAPONS AND AMMUNITION. Use of non-standard ammunition and explosive items is prohibited in the RTAAs without explicit approval of the CG, MCCDC (C465). The CG, MCCDC (C465) will request and consider a technical review of non-standard ammunition and explosive items from CG, MARCORSYSCOM as required. Once the use of non-standard ammunition and explosives has been authorized by CG, MCCDC (C465), the installation commander has final approval authority for their use within the RTAAs. Authorization to store nonstandard ammunition must be requested from Naval Ordnance Safety and Security Activity via CG, MARCORSYSCOM in accordance with MCO P8020.10B_.

6019. RESEARCH, DEVELOPMENT, TESTING AND EVALUATION (RDT&E). Coordinate with the Range Control for any requests for RDT&E.

6020. COUNTER IMPROVISED EXPLOSIVE DEVICE (C-IED) HOME STATION LANE TRAINING COMPLEX. MCMWTC does not have a C-IED home station lane training complex. Coordinate with the Range Control facility for performing this training activity within the RTAAs.

1. ROICs will ensure non-pyrotechnic IED simulators are not used with pyrotechnics and explosives.

2. ROICs will ensure all personnel using non-pyrotechnic IED simulators have received training prior to drawing the equipment from an issue site. ROICs will ensure this training requirement is accounted for in the unit activity risk management document filed with the Range Control Facility.

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CHAPTER 7

LASER OPERATIONS

7000. GENERAL. The MCMWTC RTAA is located on public land frequently used by the public for recreational activities. Moreover, treatment options are limited for individuals with LASER injuries. Therefore, prevention is paramount. The underlying concept of LASER safety is to prevent intra-beam viewing by unprotected personnel, both military and civilian. Subsequently, this Order prescribes the operating procedures and precautions to prevent injury to the public, military personnel, and material damage from exposure to LASER radiation.

7001. UNIT LASER SAFETY PROGRAM

1. Department of Navy Activities. Pursuant to reference (MCO 5104.1C_/OPNAVINST 5100.28B_, Enclosure 12), all Training Units possessing LASERs used in combat, combat training, and classified in the interest of National Security are required to assign and train a LASER Systems Safety Officer (LSSO), who must be minimally certified by an Administrative Lead Agent (ALA) approved Administrative LASER Safety Officer (ALSO) Course and current within four (4) years of last certification date. The LSSO must establish LASER safety programs for the training unit, which include at a minimum the following elements:

- a. Unit LASER safety regulations.
- b. Unit LASER safety training program.
- c. Unit LASER protective goggles and equipment program.
- d. Unit Medical Surveillance Program for the use of Class IIIB and IV LASER systems per reference BUMED INST 6470.23_ and references MCO 5104.1C_/OPNAVINST 5100.28B_.

2. Other Service/Organization Activities. The training unit must identify an LSSO-equivalent position's level of training to the LASER Range Safety Section. Only those individuals with training equivalent to the ALA approved ALSO Course may serve as an LSSO.

a. The training unit must establish a LASER safety program and scheme-of-maneuver, which at a minimum have the following elements:

(1) Unit LASER safety regulations per the service-specific institutional authority for LASER range activities.

(a) Per DA PAM 385-63_, Chapter 16, Paragraph 16-2.a.(1), the United States Army institutional LASER range authority is the Commanding General, US Army Public Health Command Nonionizing Radiation Program (MCHB-IP-ONR).

(b) Per DA PAM 385-63_, Chapter 16, Paragraph 16-2.b, US Army units will reference technical information provided in MIL-HDBK-828 series to establish procedures for safe LASER operations.

(2) A LASER Training Plan, as per DA PAM 385-63_, Chapter 16, Paragraph 16-2.c.

(3) A Protective goggles and equipment program.

3. A training unit LSSO need not be present during training as long as there are qualified LASER Range Safety Officers (LRSO) to perform installation LASER safety duties.

7002. LASER RANGE SAFETY OFFICER

1. All units conducting LASER operations must have an LRSO assigned for any class LASER.

2. The LRSO may concurrently serve as the RSO, IAW MCO 3570.1C_.

3. The LRSO is responsible for ensuring all range regulations contained herein and other applicable USMC LASER range policies are adhered to and enforced.

4. The LRSO responsibilities shall not be delegated and the LRSO may have no other duties except to be appointed as a dual LRSO/RSO for the training activity.

5. The LRSO must receive a LASER Range Safety Brief by the Range Control Office prior to conducting LASER operations.

7003. RANGE CONTROL LASER PROCEDURES

1. Special consideration for LASER operations must be made due to operations occurring within public-use land. The following General Rules apply to all LASER range operations:

a. Only those systems approved by the Navy LASER Safety Review Board (LSRB) are authorized for use at MCMWTC. Units are responsible to ensure the system(s) to be used meet the allowable platform, maximum allowable buffer, and/or maximum allowable NOHD authorized for a selected LASER range.

b. All class lasing devices shall be treated like direct-fire weapons.

c. Range and Training Area LASER Authorization.

(1) Transporting LASER systems into the MCMWTC RTAA must be approved by the RCF.

(a) Units must identify what LASER systems will be in their possession within the RTAA, even if they do not intend to employ those systems as part of their training activity, and must comply with RCF safety directives.

(b) Units will identify and coordinate with Range Control their intent to transport and/or use LASER systems within the MCMWTC RTAA during initial planning of training activities. Early identification will allow the LASER Range Safety Section to assist with developing adequate mitigating controls to facilitate the use and/or transport of LASER systems within the MCMWTC RTAA.

(2) Force-on-Force LASER operations are approved on a case-by-case basis, dependent on the scheme-of-maneuver and RM submitted by the using unit. Tactical exercises involving Force-on-Force units using LASER systems other than Multiple Integrated LASER Engagement System (MILES) or Instrumented Tactical Engagement Simulation System (ITESS) will require approval by the MCMWTC Installation Commanding Officer or delegated authority.

d. All LASER operations must be scheduled. When scheduling LASER operations, the training area must be scheduled and

approved through RFMSS. Scheduling requests shall list types of LASERS to be used.

e. Prior to conducting LASER operations at the scheduled RTAA and/or designated LASER range(s), the LRSO will ensure no specular hazards exist in the training area.

f. Only personnel authorized by the unit LRSO shall operate LASERS. All operators shall receive training prior to operating any LASER on the following aspects of operations:

(1) Operation of the LASER system.

(2) Hazards and safety precautions relative to LASER operations in general.

(3) All provisions of this chapter.

g. There shall be no LASER firing during rain, fog, or any other inclement conditions.

h. Cease lasing immediately if unidentified personnel/ aircraft enter the LASER danger zone.

i. When lasing, the LASER must always be pointed down range or towards the target/impact area.

j. No LASERS shall be directed above the horizon.

k. Aircraft must never be lased.

l. No LASERS shall be activated until the target has been positively identified by the operator.

m. Class IIIb and IV LASER: Unit LASER firing logs will be maintained by RFMSS. Ensure that the expenditure report lists the LASERS that were utilized during the training event.

n. The LASER exit port (aperture) must be covered or the batteries removed whenever the LASER is not engaged in operations.

o. The LASER exit port (aperture) shall be covered and the batteries shall be removed from the LASER at the completion of

each day's use and whenever the LASER is located outside the designated LASER range.

p. A multi-power LASER will always have its safety block, safety screw, or any other type of safety device engaged. In accordance with DA PAM 385-63_, Chapter 16, Section 16-1, Paragraph d, all unfiltered Class IIb, IV, or DoD-exempt LASERs will be used only on certified LASER ranges approved for LASER use.

q. For all LASER operations, including MILES/ITESS Training, warning signs and road guards with radios must be posted.

r. Lasing shall cease if communication is lost with road guards and any of the personnel participating in the LASER training. Units conducting LASER operations must maintain constant communications with Range Control and shall cease LASER operations if both forms of communications are lost. Lasing is not to resume until communication with Range Control has been reestablished.

s. LASER Eye Protection (LEP) suitable to the wavelength and Optical Density (OD) requirement for the LASER used shall be worn when/where appropriate.

t. All targets must be placed so all LASER beams are contained by a natural backstop in order for the NOHD to be contained within the installation boundary.

u. All targets must be placed to allow for angular deflection to preclude significant overspill/underspill of LASER energy.

v. When applicable, all LASER system NOHDs must remain within the dimensions of the weapon's danger zones.

2. The MCMWTC is in the NAS, not restricted airspace. Therefore, the MCMWTC cannot support LASER airborne operations.

7004. LASER INCIDENTS/ACCIDENTS

1. Ensure that the power is secured to the LASER system, all safeties are engaged, and the aperture cover is applied.

2. Provide initial first aid to injured personnel. If there is leakage of fluid from the eye, cover both eyes with a sterile dressing. If injured personnel show any signs or symptoms of shock, treat appropriately.

3. Anyone who is suspected of having a LASER-related eye injury is to be immediately evacuated as an "Urgent" casualty in accordance with MCMWTC CASEVAC SOP (Appendix Q). Line "4" of the MCMWTC CASREP, special equipment required, will state the requirement for an Ophthalmologist Examination. This requirement will facilitate the expeditious examination and immediate follow-on treatment for a LASER eye exposure.

4. All LASER-related skin burns should be treated as any other skin burn. Cold water should be applied immediately to the burn area for first and second degree burns (reddened skin or blistering skin). Third degree burns (open wound) should be covered with a sterile dressing and the person taken to a medical facility in accordance with MCMWTC CASEVAC SOP (Appendix Q). Never put ointments, creams, or butter on burns.

5. All LASER mishaps shall be reported to Range Control. Range Control shall immediately notify the chain-of-command, Installation Safety Office, Tactical Safety Specialist (TSS), and the Training and Education Command (TECOM) Range LASER Safety Specialist (RLSS).

6. The installation TSS shall ensure the following procedures are completed:

a. Ensure all required reports are submitted via the chain of command.

b. An initial notification report shall be released within four hours of the incident to the Tri-Service LASER Injury Hotline (1-800-473-3549) and BUMED (DSN 762-3448) containing the following information:

(1) Name, Rank, SSN, Unit of injured personnel.

(2) System used.

(3) Wavelength, power output, and operation mode.

(4) Eye protection (LEP) used.

(5) Length of time exposed to LASER energy in relation to the MPE.

(6) Distance personnel were from the aperture of the LASER.

(7) Injuries or medical conditions determined by medical evaluation.

(8) Summary of the incident events.

(9) Safety procedures that were in effect.

(10) Medical points of contact.

c. Shall ensure the Naval Message to BUMED containing the final mishap investigation report on the incident is released within 30 days of the incident and contain the following information that was not addressed in the initial mishap report:

(1) Include a privileged information summary of events that will include photographs of the equipment used, settings, written statements, and details regarding the safety procedures and PPE used.

(2) Medical exam time table.

(3) Recommend corrective actions taken.

(4) Copies of all medical documents and photos from the incident.

(5) Lessons learned.

d. Hard copy shall be mailed to BUMED.

e. Follow all additional reporting requirements contained in OPNAVINST 3750.6_, OPNAVINST 5100.23_, or OPNAVINST 5100.1_.

f. If additional time is required to complete the investigation, an extension shall be requested from BUMED.

g. In the event additional information or medical changes occur, a supplemental letter must be sent to BUMED.

7005. SUPPLEMENTAL LASER INFORMATION. LSSOs and LRSOs are expected to know terms and definitions deemed appropriate through distance learning programs and unit training.

7006. USING UNIT

1. Prior to scheduling and conducting operations with LASERs, the training unit:

a. LSSO must complete the LASER Request Form/Range Use Operations Plan and submit it to the MCMWTC LASER Safety Section for evaluation. See Appendix E for this request form.

b. The LSSO must provide a list of personnel appointed as training unit LRSOs and the LASER systems they're qualified to supervise.

c. The LRSO may only serve as the LRSO after successful completion of the MarineNet Range LASER Safety Course and the MCMWTC LASER Range Safety Course.

d. The LRSO must have completed the MCMWTC RSO/OIC certification in order to attend the MCMWTC LRSO Course.

e. LSSO/LRSO must provide Range Control with a deliberate risk assessment in accordance with reference MCO 5100.29C_, Volume 2 identifying and mitigating the potential of accidental LASER exposure to personnel within public-land.

7007. LASER RANGE

1. The following range is certified as a LASER range:
Range 401:

PROPERTIES	NAME	TYPE	OFF SET	MGRS
Buffer Angle: 15 mils	Left Start	Firing	2m	11SKC80695/53522
NOHD: 123,456m	Right Start	Firing	2m	11SKC80772/53976
Weapon Platform: N/A	Left Cease	Firing	2m	11SKC80095/53740
Direction of Fire: 293 Grid	Right Cease	Firing	2m	11SKC80418/54156
L Lateral Limit: 290 Grid	Left Tgt	Target	3m	11SKC78805/54210
R Lateral Limit: 297 Grid	Right Tgt	Target	3m	11SKC78980/54889

2. If the SDZ of a specific weapon/munition combination is greater than the LSDZ of the mounted LASER, then a LSDZ is not required on the range.

a. The range must still be certified per reference MCO 3550.9A_.

b. LASERs will not be used independently on any range listed in Appendix P.

c. The safety requirements in chapter 16 of reference MCO 3570.1C_ pertaining to LASER usage on ranges must still be met.

3. Class I through IIIr LASERs are authorized for use in all training areas on a case-by-case basis dependent on using unit's LASER Request/Range Use Operations Plan and RM.

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APPENDIX A
ACRONYMS/ABBREVIATIONS/DEFINITIONS

ACRONYMS/ABBREVIATIONS

AD.....	Aerial Delivery
AGL.....	Above Ground Level
ALA.....	Administrative Lead Agent
ALSO.....	Administrative LASER System Safety Officer
ALT.....	Altitude
ASP.....	Ammunition Supply Point
BLDG.....	Building
CASEVAC.....	Casualty Evacuation
CDS.....	Container Delivery System
CO.....	Commanding Officer
COC.....	Combat Operations Center
CPLO.....	Community Plans and Liaison Office
DoD.....	Department of Defense
DODIC.....	Department of Defense Identification Code
DON.....	Department of Navy
DZ.....	Drop Zone
DZC.....	Drop Zone Controller
DZSO.....	Drop Zone Safety Officer
DZSTL.....	Drop Zone Support Team Leader
EA.....	Environmental Assessment
EC.....	Exercise Coordinator
EOD.....	Explosive Ordnance Disposal
ESQD.....	Explosive Safety Quantity Distance
ESO.....	Explosive Safety Officer
FAA.....	Federal Aviation Administration
FASP.....	Field Ammunition Supply Point
FM.....	Field Manual
FoF.....	Force on Force
Ft.....	Feet
GPS.....	Global Positioning System
HE.....	High Explosive
HLZ.....	Helicopter Landing Zone
HRT.....	High-Risk Training
IAW.....	In Accordance With
ID.....	Identification
IFR.....	Instrument Flight Rules
JRAT.....	Joint Risk Assessment Tool
LASER....	Light Amplification by Stimulated Emission of Radiation
LRSO.....	LASER Range Safety Officer

LSSO.....LASER Systems Safety Officer
 LTA.....Leavitt Training Area
 LUV.....Light Utility Vehicle
 LZ.....Landing Zone
 MAGTF.....Marine Air Ground Task Force
 MEF.....Marine Expeditionary Force
 MCAS.....Marine Corps Air Station
 MCO.....Marine Corps Order
 MCMWTC.....Marine Corps Mountain Warfare Training Center
 MEDEVAC.....Medical Evacuation
 MGRS.....Military Grid Reference System
 MLC.....Mountain Leaders Course
 MOA.....Military Operations Area
 MPH.....Miles per Hour
 MRE.....Meals Ready to Eat
 NBC.....Nuclear, Biological, and Chemical
 NEPA.....National Environmental Policy Act
 NM.....Nautical Mile
 NOTAM.....Notice to Airmen
 OIC.....Officer in Charge
 OP.....Observation Post
 PIC.....Pilot in Command
 POL.....Petroleum, Oil, and Lubricants
 POV.....Privately Owned Vehicle
 RCF.....Range Control Facility
 RDT&E.....Research, Development, Testing, and Evaluation
 RM.....Risk Management
 ROHV.....Recreational Off-Highway Vehicle
 ROM.....Range Operations Manager
 RSO.....Range Safety Officer
 RSP.....Range Safety Personnel
 RTAA.....Ranges, Training Areas, and Airspace
 SAR.....Search and Rescue
 SATB.....Simulated Air Training Bundle
 SDZ.....Surface Danger Zone
 SESAMS.....Special Effects Small Arms Marking System
 SLTE.....Surface Level Training Event
 SOP.....Standard Operating Procedure
 SOUM.....Safety of Use Memorandum
 SPINS.....Special Instructions
 SRR.....Special Range Request
 SRT.....Steel Reactive Target
 SSN.....Social Security Number

SRTRSO.....Steel Reactive Target Range Safety Officer
 SUA.....Special Use Airspace
 SUP.....Special Use Permit
 SUSV.....Small Unit Support Vehicle
 SR.....State Route
 TAEP.....Training Area Entry Point
 TCO.....Training Center Order
 TECOM.....Training and Education Command
 TM.....Technical Manual
 TP.....Technicians and Personnel
 T-RATS.....Tray Rations
 TSS.....Tactical Safety Specialist
 UXO.....Unexploded Ordnance
 VFR.....Visual Flight Rules
 VHF.....Very High Frequency
 ZAR.....Zone Availability Report

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 RTAAs, to include both live-fire and non-live-fire events. Services can include SUA surveillance. Ground functions for this facility encompass land RTAA. RANGE CONTROL is this type of facility.

Battlefield Simulations: Simulation of artillery, use of smoke for screening/obscuring maneuver forces, use of flares and simulated engagements between small units during Force-on-Force maneuver training exercises. All battlefield simulations will be conducted in accordance with MCMWTC Range Regulations. Use of pyrotechnics may be limited depending on fire restrictions.

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 and Troop Assembly: Establishment of an area where troops eat, rest overnight, and perform minor equipment and vehicle maintenance. This may involve day and night movement of vehicles to and from the site and tents, supplies, equipment, wheeled and tracked vehicles. Food will consist of a

combination of Tray Rations (T-Rats) and MREs. Field sanitation will consist of port-a-johns, use of banta buckets, or wag-bags in accordance with MCMWTC Environmental Policy.

Casualty Evacuation (CASEVAC): The unregulated movement of casualties that can include movement both to and between medical treatment facilities.

Combat Operations Center (COC): Headquarters or command post for a given unit. They are scalable in size, depending on the requirements. The largest COC (LARGE COC) will not usually exceed five large tents, 10 vehicles, three generators, and 100 personnel. May utilize barbed-wire or concertina wire to surround tent areas. The smallest COC may simply consist of a few four-man tents and man-portable radios. Large COCs will only be placed on existing disturbed ground such as established parking areas or LZs/DZs. Large COCs may be placed on snow, but only with adequate snowpack (two feet).

Communications and Surveillance Operations Training:

Establishment of sites for communications and/or to conduct surveillance of enemy forces, utilizing communications equipment, radio antennas, generators, tents, optics, camouflage nets, wheeled vehicles, and individual combat equipment as appropriate.

Deviation: A departure from the requirements and/or procedures of this regulation.

Drop Zone (DZ): A tactical or surveyed zone/area in which personnel or cargo parachute drops 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.

Fire and Movement/Maneuver Range: Range on which troop movement and live-firing may be conducted simultaneously.

Field Meals and Sanitation: Units training at the MCMWTC subsist on field rations and tray rations. T-Rats are self-contained systems that utilize hot water to heat food through which no gray or greasy water is generated. Human waste generated in areas not

near a Porta-a-John will be packed out using the banta bucket system or wag bags.

Firing Line or Point: The location from which a weapon is fired at a target or into an impact area.

Fouled Range: The result of any event that precludes the expenditure of ordnance or munitions.

Grey Water: Wastewater produced from field baths and showers.

Grooming: Use of a snow grooming vehicle to groom approved routes and areas to facilitate training. A minimum of two feet of snow will be maintained.

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.

HE Inert Line: A line defined within the R2507 North where no high explosive (HE) ordnance is authorized South and West of that line.

Impact Area: The area into which the fire of weapons is directed. It usually extends from the far boundary of the target line area to the maximum range of the weapon and ammunition fired. It is bounded on the flanks by the right and left limits of fire established in the surface danger area diagram for each type of weapon.

Jump: This term refers to the physical action of personnel exiting an aircraft in flight as a function of parachute operations or training.

LASER: A device emitting a focused beam of light.

Landing Zone (LZ): A pre-designated, numbered or named helicopter landing zone (HLZ), which provides major commands ready access to air transportation and medical evacuation.

Live-Fire Range: A range on which live-fire exercises, including the use of some types of practice ammunition, may be conducted.

Maneuver Area: Two or more contiguous training areas designated and scheduled by a using unit for tactical exercises of battalion level or higher.

Medical Evacuation (MEDEVAC): Is the timely, efficient movement and enroute care by medical personnel of the wounded, injured, or ill from the battlefield and/or other locations to and between medical treatment facilities. MEDEVAC is conducted with dedicated ground and air ambulances, properly marked and employed in accordance with the Geneva Conventions and the law of war. MEDEVAC involves the movement of both unregulated and regulated patients.

Military Operations Area (MOA): An airspace assignment established to separate or segregate certain military aircraft activities from Instrument Flight Rules (IFR) traffic and to identify for VFR traffic where these activities are occurring.

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 Explosive Safety Quantity Distance (ESQD) arcs.

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, parachute operations and training, or air exercises.

On Snow: On snow at MCMWTC is defined as any ice or six inches of snow on the road surface. Certain restrictions may apply for personnel operating above or below the on-snow conditions.

Parachute Operations and Training (Marine Corps): This phrase refers to parachute or aerial delivery of cargo operations and training conducted under cognizance of a Marine Corps Commander or OIC of a Marine Corps unit or activity.

Pyrotechnics: Non-injury causing 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 Control: Range Operations Control Center telephone (760) 932-1435/1436/1439 in BLDG 4048. Radio call sign is "WHITE PEAK".

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.

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.

Range Safety Officer (RSO): A designated individual who has attended the MCMWTC Range Safety Officer Course and completed the Range Safety Distance Learning Course.

Simulated Explosive Devices: Simulation of breaching and removal of obstacles and mines as well as training reaction drills to discovered/exploded explosive devices. Training will include concealment of simulated explosive devices along unpaved roads (under controller observation). Simulated explosive devices will utilize biologically safe materials, such as baby powder, and thorough clean-up will be conducted following exercises.

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.

Small Unit Support Vehicle (SUSV): All over-the-snow tracked vehicles except snowmobiles which are like, but not limited to, the Tucker and Tucker lite Sno-Cat.

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.

Tactical Convoy Operations: Convoy operations consisting of up to 20 military vehicles on existing roads within the training area. Training will include use of simulated explosive devices to initiate reaction drills, temporary halting, dismounted operations, casualty treatment and evacuation, and usually be conducted in conjunction with use of battlefield simulations.

Vehicle Operations: Movement of wheeled and tracked vehicles along designated approved roads. Driver training and other road bound operations may employ road guards for safety. Wheeled and tracked tactical vehicles will be employed to move troops and equipment to points in the training area. Off-road use is not authorized anywhere in the training area, including tracked vehicles, aside from over-the-snow operations. Snowmobiles or specially tracked and low-impact vehicles are allowed off-road on adequate snow levels of two 2 feet.

Visual Flight Rules (VFR): Aircraft operations conducted under visual flight rules.

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APPENDIX B
IMPACT AREAS

1. MCMWTC Bridgeport has only temporary non-duded impact areas.
2. Units are not required to be escorted by EOD when accessing the temporary non-duded impact areas.

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APPENDIX C
RISK MANAGEMENT

1. Description. All training and operations activities within the RTAA require RM documentation. RM documentation for USMC units will be submitted via the Joint Risk Assessment Tool (JRAT) or an RM form per MCO 5100.29C_ Volume 2.
2. Other services may submit their service equivalent RM form to range control.
3. See the next page for a sample RM Form for USMC units.

RISK ASSESSMENT MATRIX		Probability (Expected frequency)				
		Frequent: Continuous, regular, or inevitable occurrences	Likely: Several or numerous occurrences	Occasional: Sporadic or intermittent occurrences	Seldom: Infrequent occurrences	Unlikely: Possible occurrences but improbable
Severity (expected consequence)		A	B	C	D	E
Catastrophic: Mission failure, unit readiness eliminated; death, unacceptable loss or damage	I	EH	EH	H	H	M
Critical: Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage	II	EH	H	H	M	L
Moderate: Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage	III	H	M	M	L	L
Negligible: Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage	IV	M	L	L	L	L
LEGEND: EH - Extremely High Risk H - High Risk M - Medium Risk L - Low Risk						
13. RISK ASSESSMENT REVIEW (Required when assessment applies to ongoing operations or activities)						
a. DATE	b. LAST NAME	c. RANK/GRADE	d. DUTY TITLE/POSITION	e. SIGNATURE OF REVIEWER		
				SIGNATURE		
				SIGNATURE		
				SIGNATURE		
14. FEEDBACK AND LESSONS LEARNED						
15. ADDITIONAL COMMENTS OR REMARKS						

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"	
<p>1. Mission/Task Description and Execution Date(s): Briefly describe the overall Mission or Task and execution date(s) for which the deliberate risk assessment is being conducted.</p> <p>2. Date Prepared: Enter date form was prepared.</p> <p>3. Prepared By: Information provided by the individual conducting the deliberate risk assessment for the operation or training. Legend: UIC = Unit Identification Code; CIN = Course ID Number; OPORD = operation order; DSN = defense switched network; COMM = commercial</p> <p>4. Subtask/SubStep of Mission/Task: Briefly describe all subtasks or substeps that warrant risk management.</p> <p>5. Hazard: Specify hazards related to the subtask in block 4.</p> <p>6. Initial Risk Level: Determine initial risk level. Using the risk assessment matrix (preceding block 13), determine level of risk for each hazard specified. Use probability and severity to determine risk level; enter risk level into column.</p> <p>7. Control: Enter risk mitigation resources/controls identified to abate or reduce risk relevant to the hazard identified in block 5.</p> <p>8. How to Implement / Who Will Implement: Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual, unit or office that has primary responsibility for control implementation.</p> <p>9. Residual Risk Level: After controls are implemented, determine resulting probability, severity, and residual risk level.</p> <p>10. Overall Risk After Controls are Implemented: Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).</p>	<p>11. Supervision Plan and Recommended Course of Action: Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment.</p> <p>12. Approval/Disapproval of Mission/Task: Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan.</p> <p>13. Risk Assessment Review: Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations.</p> <p>14. Feedback and Lessons Learned: Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected.</p> <p>15. Additional Comments or Remarks: Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management.</p> <p>Additional Guidance: Blocks 4-9 may be reproduced as necessary for processing of all subtasks/substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.</p>

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APPENDIX D
TRAINING COMPLEX

1. Located in the Sierra Nevada Mountains on land used by the Marine Corps under SUP with the U.S. Forest Service, the MCMWTC conducts individual, small unit, and special purpose Marine Air Ground Task Force (MAGTF) level training. The training emphasizes individual and collective mountain skills that enhance overall combat capability. Summer mountain operations include, but are not limited to, mountain safety, military rock climbing, fixed rope installations, mountain navigation, rappelling, stream crossing, and planning/coordinating unit movements in complex, compartmentalized terrain. Winter mountain operations include, but are not limited to, cold weather safety, individual survival, cold weather bivouacs, route selection, over-the-snow mobility techniques, and avalanche safety. The Installation Commanding Officer, Bridgeport, California, is charged with the safety of all air and ground operations in the RTAA. Notify the Installation Commanding Officer via the RCO of any conflict or question of interpretation.

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APPENDIX E

SPECIAL RANGE REQUEST (SRR) FORMAT

RANGE AND TRAINING AREA LASER REQUEST FORM				MCMWTC, BRIDGEPORT, CA																		
Scheduling Organization		Laser System Safety Officer		E-Mail		Date Submitted																
Training Unit(s)		POC		E-mail		Phone																
RANGE-USE OPERATIONS PLAN																						
LSSO Certification Information		Course Name:		Certification Date:																		
Range/Training Area/Firing Area Request																						
Provide Scheme-of-Maneuver Description [Include Target Information & Tactics]																						
				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Addendum Attached</td> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td># of Pages</td> <td>___</td> </tr> <tr> <td>RM Attached</td> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td># of Pages</td> <td>___</td> </tr> <tr> <td>Force-on-Force</td> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td colspan="2" style="color: red;">CO Approval</td> </tr> </table>				Addendum Attached	<input type="checkbox"/> YES	<input type="checkbox"/> NO	# of Pages	___	RM Attached	<input type="checkbox"/> YES	<input type="checkbox"/> NO	# of Pages	___	Force-on-Force	<input type="checkbox"/> YES	<input type="checkbox"/> NO	CO Approval	
Addendum Attached	<input type="checkbox"/> YES	<input type="checkbox"/> NO	# of Pages	___																		
RM Attached	<input type="checkbox"/> YES	<input type="checkbox"/> NO	# of Pages	___																		
Force-on-Force	<input type="checkbox"/> YES	<input type="checkbox"/> NO	CO Approval																			
Laser Device Plan																						
LASER DEVICE		SETTING MODE		Wavelength		NOHD																
				Power Output		(UN, 5, 8, 12-CM)																
LASER DEVICE		SETTING MODE		Wavelength		NOHD																
				Power Output		(UN, 5, 8, 12-CM)																
LASER DEVICE		SETTING MODE		Wavelength		NOHD																
				Power Output		(UN, 5, 8, 12-CM)																
LASER DEVICE		SETTING MODE		Wavelength		NOHD																
				Power Output		(UN, 5, 8, 12-CM)																
LASER DEVICE		SETTING MODE		Wavelength		NOHD																
				Power Output		(UN, 5, 8, 12-CM)																
LASER DEVICE		SETTING MODE		Wavelength		NOHD																
				Power Output		(UN, 5, 8, 12-CM)																
Residual NOHD for Exercise				Addendum Attach		<input type="checkbox"/> YES	<input type="checkbox"/> NO															
				# of Pages ___																		
LEP		<input type="checkbox"/> YES <input type="checkbox"/> NO		Road Guard/Observer/Warning Sign Plan																		
LEP Wavelength																						
LEP Optical Density																						
LSSO Sign / Date																						
RANGE CONTROL																						
Range Laser Safety Officer Review and Remarks				LSRB		<input type="checkbox"/> YES	<input type="checkbox"/> NO															
				RM		<input type="checkbox"/> YES	<input type="checkbox"/> NO															
				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Approve</td> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> </table>				Approve	<input type="checkbox"/> YES	<input type="checkbox"/> NO												
Approve	<input type="checkbox"/> YES	<input type="checkbox"/> NO																				
Range Laser Safety Officer Sign/Date																						

Note: Force-on-Force with laser(s) other than MILES/ITESS requires CO Approval

RANGE AND TRAINING AREA REQUEST FORM				MCMWTC, BRIDGEPORT, CA			
Scheduling Organization		Senior Member & Local POC		E-Mail		Date Submitted	
Training Unit(s)		POC		E-mail		Phone	
RANGE/TRAINING AREA/FACILITY INFORMATION							
Date Requested		Time Requested		Number of Personnel		Bivouac Site(s)	
From		Start					
To		Stop					
Continuous		<input type="checkbox"/> YES <input type="checkbox"/> NO					
Range/Area/Facility Requested				Weapons/Lasers and DODICs to be fired			
Provide brief description of training activities and scheme-of-maneuver [Attach addendum as needed]							
<div style="text-align: right;"> O&T Approved <input type="checkbox"/> YES <input type="checkbox"/> NO INT: _____ Addendum Attached <input type="checkbox"/> YES <input type="checkbox"/> NO # of Pages _____ </div>							
Vehicles		Aircraft		LASER		<input type="checkbox"/> YES <input type="checkbox"/> NO	
				Nomenclature			
				Type			
Range Support		<input type="checkbox"/> YES <input type="checkbox"/> NO		Is unit providing Medical Support		Communications	
RHU Quantity				Corpsman?		<input type="checkbox"/> YES <input type="checkbox"/> NO	
Target Type w/ Qty				Safety Vehicle?		<input type="checkbox"/> YES <input type="checkbox"/> NO	
Remarks:				Requestor Name/Sign/Date			
RANGE CONTROL							
Range Scheduling Only				Range Safety Review			
RFMSS INPUT		<input type="checkbox"/> YES <input type="checkbox"/> NO		RCNI:		Co-Use Required	
TA/Ranges/Air/LZ						<input type="checkbox"/> YES <input type="checkbox"/> NO	
						Co-Use Approved	
						<input type="checkbox"/> YES <input type="checkbox"/> NO	
						Waiver/Deviation Required	
						<input type="checkbox"/> YES <input type="checkbox"/> NO	
						Waiver/Deviation Approved	
						<input type="checkbox"/> YES <input type="checkbox"/> NO	
						Environmental Restrictions	
						<input type="checkbox"/> YES <input type="checkbox"/> NO	
Conflicts		<input type="checkbox"/> YES <input type="checkbox"/> NO		RCNI(s)		Environmental Approved	
						<input type="checkbox"/> YES <input type="checkbox"/> NO	
Safety Review		<input type="checkbox"/> YES <input type="checkbox"/> NO		Date Assigned:		Range Safety Complete/Approve	
						<input type="checkbox"/> YES <input type="checkbox"/> NO	
< 14 Days		<input type="checkbox"/> YES <input type="checkbox"/> NO		Exempt		<input type="checkbox"/> YES <input type="checkbox"/> NO	
						Remarks	
Reserved		<input type="checkbox"/> YES <input type="checkbox"/> NO		Date:			
Range Scheduler Sign/Date				Safety Review Sign/Date			
Range Control Officer Sign/Date							

Note: Complete the form as required. All requests require at least 7-days to process. Confirm Ranges by phone 24 hours prior to event (760) 932-1436.

SPECIAL REQUEST ADDENDUM SHEET		MCMWTC, BRIDGEPORT, CA	
Addendum Sheet For: <input type="checkbox"/> RTA / LASER Request		<input type="checkbox"/> Same-Day	<input type="checkbox"/> Co-Use
Request			
Continuation [Provide Event Name] _____			
INT ____ Date _____		Page ____ of ____	

SAME DAY REQUEST FORM**REQUIRES INSTALLATION RANGE CONTROL OFFICER'S APPROVAL
ON SAME DAY OF REQUEST****MCMWTC, BRIDGEPORT, CA**

Scheduling Organization	Senior Member & Local POC	E-Mail	Date Submitted
Training Unit(s)	POC	E-mail	Phone
RANGE/TRAINING AREA/FACILITY INFORMATION			
Date of Request	Time of Request	Number of Personnel	RM COMP <input type="checkbox"/> YES <input type="checkbox"/> NO RM ATT'D <input type="checkbox"/> YES <input type="checkbox"/> NO
Training Area(s), Facilities, Landing Zones Requested <u>[List all Landing Zones by Name]</u>			
Vehicles & Heavy Equipment		Aircraft	
Provide brief description of training activities and scheme-of-maneuver [Attach addendum as needed] Provide explanation for not requesting activity as per RTA SOP Chapter 3.			
Requestor Name/Sign/Date			
O&T Approved <input type="checkbox"/> YES <input type="checkbox"/> NO	INT: <input type="checkbox"/>	Addendum Attached <input type="checkbox"/> YES <input type="checkbox"/> NO	# of Pages <input type="text"/>
Range OIC (Print Name)	Local POC Info	E-Mail	Signature
Range RSO (Print Name)	Local POC Info	E-Mail	Signature
RANGE CONTROL			
Received By: Print Name/Time/Date	Safety Conflicts <input type="checkbox"/> YES <input type="checkbox"/> NO	Co-Use Required <input type="checkbox"/> YES <input type="checkbox"/> NO	
Remark & Recommendation	Co-Use Signed <input type="checkbox"/> YES <input type="checkbox"/> NO		
Operations Officer Recommendation <input type="checkbox"/> YES <input type="checkbox"/> NO	Signature/Date		
Range Control Officer Approval <input type="checkbox"/> YES <input type="checkbox"/> NO	Signature/Date		

Same-day request will be processed at convenience due to ongoing Range Safety and Range Operations activities.

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APPENDIX F
ELECTRONIC WARFARE/DEFENSIVE MEASURES

1. There are currently no approved electronic warfare facilities at MCMWTC Bridgeport. Contact Range Control for further coordination.

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APPENDIX G
RANGE CONTROL PHONE NUMBERS

Points of Contact. All phone numbers are DSN 839 or Commercial (760) 932-XXXX. The following telephone numbers are provided for reference:

1. RCO.....1516
2. Fire Desk Operator.....1435
3. RFMSS Functional Administrator/Range Scheduling.....1439
4. Range Safety.....1427
5. Range Development Safety Specialist.....1628
6. Air Officer.....1452
7. Expeditionary Airfield.....1463
8. SNCOIC.....1505
9. Environmental Director.....1457
10. Community Planning & Liaison Officer.....1661
11. Tactical Safety Specialist, Explosives Safety Officer...1539

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APPENDIX H
WAIVER OF LIABILITY AND ASSUMPTION OF RISK

UNITED STATES MARINE CORPS
MARINE CORPS MOUNTAIN WARFARE TRAINING CENTER
BRIDGEPORT, CA 93517-9802

3550

RCF

DD/MM/YYYY

From: Range Control Officer, Marine Corps Mountain Warfare
Training Center

To: INPUT YOUR INFORMATION HERE

SUBJ: DRIVING PRIVATELY OWNED VEHICLE IN THE RANGE AND
TRAINING AREA

Ref: (a) TCO 3550.1H

1. Per the reference, the below named personnel has opted to drive their privately owned vehicle (POV) in the Range and Training Area (RTA). By exercising this option, the said named personnel hereby assumes all responsibility and liability for any damage incurred to personal property while in the RTA to include, but not limited to: the cost for towing if the vehicle breaks down and being held responsible and liable for any environmental damage caused by the owner/operator of the vehicle.

2. All rules and regulations governing tactical and government vehicles in the RTA also applies to the POV utilized while in the RTA.

3. The vehicles being utilized must have current base and state registration, insurance requirements and must meet all California State Laws for safe operational use. Personally owned Off Highway use vehicles (OHV) (i.e. four-wheelers, dirt bikes and snow mobiles) are not authorized.

4. Authorized Vehicle Information:

NAME: _____

Make:	Model:	Year:
Color:	State:	Plate#:

5. Requestor: _____
Rank/First/Last Name Signature/Date

6. Range Control Officer (RCO): Approved _____ Disapproved _____

B.P. CALLAWAY

UNITED STATES MARINE CORPS
 MARINE CORPS MOUNTAIN WARFARE TRAINING CENTER
 BRIDGEPORT, CA 93517-9802

3550
 RCF
 DD/MM/YYYY

From: Operations Officer, Marine Corps Mountain Warfare
 Training Center
 To: Range Control Officer, Marine Corps Mountain Warfare
 Training Center

SUBJ: INDIVIDUALS AUTHORIZED TO MOVE ON-THE-SNOW

Ref: (a) TCO 3550.1H

1. Per the reference, the Operations Officer performed a Risk Assessment evaluation with the appropriate personnel section leadership and determined the following individuals are qualified to perform individual movement on-the-snow.
2. Each person listed below are authorized to perform individual movement on-the-snow per the conditions stipulated in the reference.
3. The vehicles being utilized must have current base and state registration, insurance requirements and must meet all California State Laws for safe operational use. Personally owned Off Highway use vehicles (OHV) (i.e. four-wheelers, dirt bikes and snow mobiles) are not authorized.

<u>NAME</u>	<u>RANK</u>	<u>SECTION</u>	<u>BILLET</u>
(Last Name, First Name)			

4. Section point-of-contact for this matter is _____
 and can be reached at _____.

X.X. XXXXXXXX

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APPENDIX I
ROIC/RSO APPOINTMENT REQUIREMENTS

Weapon system	OIC¹ OFF	WO	NCO	RSO¹ OFF	WO	NC O
Practice hand grenades; sub-caliber training devices; LASER devices; firing devices; simulators & trip flares; pyrotechnics and blanks; small arms and machineguns.	X	X	E-6	X	X	E-5
Chemical agents and smokes. ²	X	X	E-6	X	X	E-5
Aerial gunnery & air defense weapons; flamethrowers; live grenades, grenade launchers, and grenade machineguns; live mines & demolitions; tank & fighting vehicle cannons; recoilless rifles.	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
ADA rockets and guided missiles.		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
Combined arms live-fire exercises using outside fire support, troop, battery, squad, platoon, company; or battalion and larger. ⁶	X	X	E-7	X	X	E-6
Drop Zone Operation ⁸	X	X	E-6	X	X	E-5
High Risk Training	X	X	E-6	X	X	E-5
Non-live-fire (no munitions) and non-High Risk Training.	X	X	E-6 ⁸	X	X	E-5
Steel Reactive Target Training ¹⁰	X	X	X	X	X	E-6
SUAS Groups 1 and 2 (non-live fire)	X	X	E-5 ¹¹	X	X	E-4 ¹¹

Notes:

1. Civilians in the grade of GS-07 or above may act as OIC, and GS-05 or above or equivalent as Range Safety Officer (RSO). Civilian contractors may act as RSO when approved by the Installation Commanding Officer and in accordance with Contract Statement of Work (SOW).

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 Installation Commanding Officer. Duties of the RSO are normally performed by either the battery executive officer or platoon leader.

4. The RSO for Marine Corps can be E-5 for mortar training activities.

5. The SRSO will be a field grade officer, CW-4 or CW-5 (Army), or civilian in the grade of GS-12 or above.

6. For battalion or larger CALFEX/CAX, OIC will be a field grade commissioned officer, exercise RSO will be E-7 or above.

7. Force on Force Exercise (FoF) RSO and OIC Requirements: The Force on Force Exercise is a Battalion level live fire event with blanks and pyrotechnics. Per the MCO 3570.1C the minimum RSO and OIC requirements for Battalion Level Exercise will be a field grade commissioned officer, and the exercise RSO will be E-7 or above.

8. Must have qualified DZSO and/or Drop Zone Controller (DZC)/Support Team onsite. The DZSO may also serve as RSO.

9. PERMANENT PERSONNEL ONLY: An E-5 seasonally qualified M7A/M7B (or service/country equivalent) may serve as the OIC for non-live-fire, non-HRT events/activities.

10. Steel Reactive Target Training within 50 yards of target as per TECOM SOUM 2-02, Steel Reactive Targets (SRTs).

11. SUAS training per TECOM SOUM 02-24, OffinCharge and Range Safety Officers rank requirements for unmanned aerial systems within range and training areas.

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APPENDIX J
NOTAM PARADROP WORKSHEET

NOTAM PARADROP WORKSHEET**MCMWTC, BRIDGEPORT, CA**

All RFMSS requests for parachute operations and training requests shall include the following information in the communications tab or upload this worksheet into the RFMSS request document tab.

PARACHUTE OPERATIONS & TRAINING NOTAM INFORMATION	
Date(s) and Time(s) of Drop Activity (Time On Target)	
Activity Description and Type of Parachute Delivery	
Type & # Aircraft & Number of Sorties	
Aircraft Unit Information	
Radius from DZ center point for release/glide	
Altitude of Release in Ft MSL	

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APPENDIX K
ROIC AND RSO DESIGNATION LETTER

UNITED STATES MARINE CORPS
MARINE CORPS MOUNTAIN WARFARE TRAINING CENTER
BRIDGEPORT, CA 93517-9802

3550

RCF

DD/MM/YYYY

From: Commanding Officer OR By Direction Authority
To: Range Control Officer, Marine Corps Mountain Warfare
Training Center

Subj: MARINE CORPS MOUNTAIN WARFARE TRAINING CENTER RANGE
OFFICER IN CHARGE AND RANGE SAFETY OFFICER APPOINTMENT
LETTER

1. In accordance with references, the following personnel are qualified with the weapons systems for which they will be responsible.

2. The following personnel as designated are appointed as Range Officer in Charge (OIC), Range Safety Officer (RSO), LASER Range Safety Officer (LRSO), and/or Steel Reactive Target Range Safety Officer (SRTRSO).

3. Each OIC/RSO appointee has completed the Range Safety course (RTAMRSOCAA) provided through the Marine Corps Distance Learning Network (MarineNet), MCMWTCRS1A, and their certificates are current (within 3 years of date on certificate). Each LRSO has completed the Range Safety Courses (RTAMRSOCAA and RTAMLRSOAA) and their certificates are current (within 3 years of date on certificate).

<u>NAME</u>	<u>DODID</u>	<u>GRADE</u>	<u>WEAPONS/LASER SYSTEM/EVENT</u>
I.A. Marine	0000	E-6	NON LIVE-FIRE TRAINING ONLY
I.A. GySgt	0001	E-7	M9,M27, M16A4, M240B
I.A. Soldier	0001	E-5	Steel Reactive Targets, M9

(Cont'd on next page)

4. Point of Contact regarding this matter is RANK AND NAME at
(XXX) XXX-XXXX.

X.X. XXXXXX

Each OIC and RSO appointee listed has been provided the Marine
Corps Mountain Warfare Training Center (MCMWTC) Range Officer-
In-Charge (OIC) and Range Safety Officer (RSO) Certification
class to meet the requirements for which they'll be responsible.

RCO SIGNATURE LINE



UNITED STATES MARINE CORPS
 MARINE CORPS MOUNTAIN WARFARE TRAINING CENTER
 BRIDGEPORT, CA 93517-9802

3550
 RCF
 DD/MM/YYYY

FROM: Commanding Officer OR By Direction Authority
 To: Range Control Officer, Marine Corps Mountain Warfare
 Training Center

Subj: MARINE CORPS MOUNTAIN WARFARE TRAINING CENTER RANGE SAFETY
 CERTIFICATION AND DESIGNATION LETTER FOR SMALL UNMANNED
 AIRCRAFT SYSTEM OFFICERS IN CHARGE, RANGE SAFETY OFFICERS,
 AND CREWMEMBERS

Ref: (a) MCO 3570.1C
 (b) TCO 3550.1H
 (c) DA PAM 385-63
 (d) TECOM SOUM 8-16
 (e) CNAF M-3710.3

1. In accordance with references (a-c), the following personnel are knowledgeable and qualified to assume Range Officer in Charge (OIC) and/or Range Safety Officer (RSO) responsibilities as the air mission commanders for Small Unmanned Aircraft Systems (sUAS) in Class G and E Airspace.

2. The following personnel are appointed as Range Safety Officer (RSO) and/or Officer-in-Charge (OIC) and will ensure compliance with reference (c).

<u>NAME</u>	<u>DODID</u>	<u>GRADE</u>	<u>SUAS PLATFORM</u>
I.A. Marine	0000	O-3	RQ-11B/20A/12
I.A. GySgt	0001	O-3	RQ-11B/20A/12
I.A. Soldier	0001	O-3	RQ-11B/20A/12

(Cont'd on next page)

1. The following sUAS Crewmembers (UASC) are qualified and designated per reference (c) and (d) to operate/employ specific sUAS platform/systems. The following UASC are current qualified per reference (e) proficiency sustainment standards to perform sUAS operations during the requested activity dates at MCMWTC.

<u>NAME</u>	<u>DODIC</u>	<u>GRADE</u>	<u>UASC DESIGNATION</u>	<u>SUAS PLATFORM</u>
Last, First, MI	0000	O-3	UMC/UAC/AVO/MPO	RQ-11B/20A/12
I.M. Soldier	0001	O-3	UMC/UAC	RQ-11B

4. Point of Contact regarding this matter is RANK AND NAME at (XXX) XXX-XXXX.

X. X. XXXXX

Each OIC and RSO appointee listed has been provided the Marine Corps Mountain Warfare Training Center (MCMWTC) Range Officer in Charge (OIC) and Range Safety Officer (RSO) Certification class to meet the requirements for which they'll be responsible.

RCO SIGNATURE LINE

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APPENDIX L
AUTHORIZED AMMUNITION

1. Authorized ammunition is per RFMSS and Appendix P Range Cards.

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COMMAND	
RANGE	
DATE	
SYSTEM	
USER	
MISSION COMMANDER	

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APPENDIX N **ROIC AND RSO CHECKLIST FORMS**

RANGE AND TRAINING AREA CHECK-OUT FORM				MCMWTC, BRIDGEPORT, CA				
Organization & Address		Senior Member & Local POC		E-mail		Date		
Training Unit(s)		POC		E-mail		Phone		
Date Requested		Time Requested		Co-Use (Complete		Number of Personnel		
From:		Start:		Yes:				
To:		Stop:		No:				
Range/Area Requested								
				RM Complete & Attached		RAC		
				<input type="checkbox"/> YES <input type="checkbox"/> NO		High Risk Training		
						<input type="checkbox"/> YES <input type="checkbox"/> NO		
Type of Training				Weapons, Type, and Amount of Ordnance				
Vehicles				Aircraft				
Laser Use (Check Box)		Date Using		Time Using		LASER Type		
Yes <input type="checkbox"/>		From		Start				
No <input type="checkbox"/>		To		Stop				
LRSO (Print Name)		POC/Email Address		Phone (Local) & E-Mail		Signature		
<p>Class IIIB and IV LASERs will be used only on certified LASER Ranges as per Chapter 7, TCO 3550.1. LRSO must provide appointment letter to the Range Control Facility prior to range and training area checkout. If no LASER use, check "No". If "No", by signing, RSO acknowledges that the unit will not perform LASER Operations use while occupying MCMWTC RTAs.</p>								
USFS Permit Req (Check)		Permit Obtained (Check Box)		In RFMSS (Check Box)		RFMSS Number (s)		
Yes <input type="checkbox"/>		Yes <input type="checkbox"/>		Yes <input type="checkbox"/>				
No <input type="checkbox"/>		No <input type="checkbox"/>		No <input type="checkbox"/>				
<p>Acknowledgement By signing this document, I affirm as the OIC and RSO for the above listed dates and training events, I have read and understand the requirements set forth in MCO 3570.1C, MWTC TCO 3550.1 and all other governing regulations. I further affirm that I will execute all the duties and abide by the requirements set forth therein. I will ensure that all personnel under my authority will abide by the applicable governing regulations.</p>								
Range OIC (Print Name)		Local POC Info		E-Mail		Signature		
Range RSO (Print Name)		Local POC Info		E-Mail		Signature		
<p align="center">RANGE CONTROL STAFF</p>								
REMARKS				SAFETY/OPERATIONS CHECKLIST				
				RM		<input type="checkbox"/> N/R	<input type="checkbox"/> YES	<input type="checkbox"/> NO
				High Risk Determination		<input type="checkbox"/> YES	<input type="checkbox"/> NO	
				CO-USE Review		<input type="checkbox"/> N/R	<input type="checkbox"/> YES	<input type="checkbox"/> NO
				NOTAM		<input type="checkbox"/> N/R	<input type="checkbox"/> YES	<input type="checkbox"/> NO
RTA(S)/LZ(S)/FACILITY Assigned								
Range Control Print/Sign/Date								

OFFSITE TRAINING CHECKOUT FORM (MTX SPONSERED ONLY)**MCMWTC, BRIDGEPORT, CA**

Organization & Address	Senior Member & Local POC	E-Mail	Date
TRAINING EVENT DESCRIPTION			
Type of Training			Offsite Event Checklist Roster Submitted <input type="checkbox"/> YES <input type="checkbox"/> NO O&T Approved <input type="checkbox"/> YES <input type="checkbox"/> NO RM Comp & Att'd <input type="checkbox"/> YES <input type="checkbox"/> NO High Risk <input type="checkbox"/> YES <input type="checkbox"/> NO
Event Information and Transportation Plan			
Departure Date & Time:		RCNI	
Return Date & Time:		Number of Personnel	
Unit		Number & Type of Vehicles	
Location			
OIC Information		RSO Information	
Rank, First & Last Name		Rank, First & Last Name	
Cellular Phone Number		Cellular Phone Number	
Iridium Phone #		Iridium Phone #	
Billeting Phone #		Billeting Phone #	
COMMUNICATION PLAN			
*Coordinate with MCMWTC Communication Section to confirm handheld radios have proper frequencies loaded per venue			
Primary and Alternate Communication		Communication Windows	
		Beginning of Training per Day	
		Completion of Training per Day	
Information Requirements (Provided during communication windows)			
1. Personnel Count (Provide Name & Rank of New Personnel)			
2. Status of Personnel and Equipment			
3. Change in OIC/SNCOIC/RSO			
CASEVAC PLAN			
Detail any expectation of support from RCF. Attach addendum as needed			
		Addendum Attached	<input type="checkbox"/> YES <input type="checkbox"/> NO # of Pages__
TRAINING EVENT POINT OF CONTACT INFORMATION			
PRIMARY		SECONDARY	
Rank, First & Last Name		Rank, First & Last Name	
Cellular Phone Number		Cellular Phone Number	
E-Mail		E-Mail	
Range OIC (Print Name)	Local POC Info	E-Mail	Signature
RSO (Print Name)	Local POC Info	E-Mail	Signature
RANGE CONTROL FACILITY			
Remarks/Instructions			
		Reviewed By:	
		Date:	

CHECKOUT ADDENDUM SHEET

MCMWTC, BRIDGEPORT, CA

Addendum Sheet For: ☐ MTX-Sponsored Off Site ☐ RTA Checkout ☐ Other Request

Continuation [Provide Event Name] _____

INT____ Date_____

Page ____ of ____

MCMWTC CASUALTY REPORT SCRIPT

OSC: "White Peak this is (Call Sign). Standby for (Urgent/Priority/Routine) CASREP."		
LINE	ITEM	EXPLANATION
1	PRECEDENCE	URGENT/PRIORITY/ROUTINE
2	IDENTIFICATION	UNIT, LAST NAME , RANK
3	DOD ID	LAST 4 DOD ID
4	UNIT	UNIT OF INDIVIDUAL
5	TYPE OF INJURY AND EVACUATION PLAN/STATUS	DISCRIPTION OF INJURY AND PLANNED CASEVAC DESTINATION
6	WEIGHT (LBS) AGE(YRS) HEIGHT (FT) GENDER (M / F) CORE TEMP (°F) IF APPROPRIATE	WEIGHT AND AGE INFORMATION IS CRITICAL FOR AIR EVACUATION SUPPORT PLANNING AS WELL AS FACILITY/EQUIPMENT PLANNING. ALL TEMPERATURES ARE PROVIDED WITHOUT DECIMAL PLACES (100 F not 100.6 F)
7	LOCATION & ACTIVITY OF INCIDENT	PROVIDE 8 DIGIT MGRS GRID LOCATION AND ACTIVITY OF INJURY
8	WEATHER CONDITION TEMPERATURE (°F)	PROVIDE DESCRIPTION OF WEATHER AND AMBIENT TEMPERATURE WHEN THE INJURY OCCURRED. [I.E. LIGHT RAIN AND WIND AT !2°F]
OSC: "CASREP Complete. Standing by to provide additional information as requested. Over."		

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APPENDIX O
HAZARDOUS SUBSTANCE RELEASE/SPILL REPORT
(FORM SRF-1)

Date:	Time:	Report#:	Area:
--------------	--------------	-----------------	--------------

POC:	Phone #:	Rank:
Material Spilled:	Bldg. #:	Unit:
Source:	Amount:	Grid:

Spill Cause:

Areas threatened or Damaged	Potential Dangers:
a. Beach []	a. Fire []
b. Water Supply []	b. Toxic []
c. River []	c. Explosion []
d. Vegetation []	d. Other _____
e. Other _____	

Responders:	Responder Action:
--------------------	--------------------------

Weather Conditions:	Samples Taken?	Casualties?
	Y/N	Y/N

(cont'd on next page)

Brief Description of Spill:

Notifications:

- a. Notifications must be made to Base Dispatch immediately (911).
- b. Chain of Command: As Directed

Reports:

A complete After Action Report

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APPENDIX P
RANGE CARDS

1. These Range Cards are based on MCMWTC range certification process in accordance with MCO 3550.9_. The RCO has the authority to modify these Range Cards to account for emerging requirements. The range card modification will be validated through range certification protocols.
2. Updates to Appendix P does not require a deviation or approval from the installation commanding officer if the modification does not arise to MCO 3570.1_ criteria for deviations for range safety.
3. The Range Cards are based on training utilization information and validated training requirements for mountain exercises and formal schools. Units may request evaluation of specific weapon systems and munitions to meet organization training requirements associated with mountain warfare operations.
4. Range Control issues a range binder during RTA checkout procedures. The range binder will include the most current range card.
5. All azimuths, lateral limits, and directions of fire are in degrees grid. Ranges are not designed for crossfire engagements unless specifically stated on the specific DODIC SDZ document.

(Cont'd on next page)

Table P-1: Road Guard Master Table

Road Guard	Location	Description	Range Assignment
RG-3A	11SKC8272654028	Spur Road NW LZ Falcon IVO Terry Canyon Trail	R-502
RG-4A	11SKC7950255454	Summit Meadow Road NW Cardinal	R-503; R-400
RG-4B	11SKC8130854220	SE trail off of Summit Meadow Road S Sparrow	R-502; R-503
RG-5A	11SKC8086251178	Grouse Meadow Road IVO Egret	R-500A
RG-5B	11SKC7960149996	ML Loop & Grouse Meadow Road Intersection	R-500A; R-502
RG-5C	11SKC8026849421	ML Loop & POW Camp Road Intersection	R-500; R-502(AA11/AB39); R-500A
RG-6A	11SKC7844352588	Summit Meadow Road & Mean Peak Road Intersection	R-600; R-503
RG-6B	11SKC7666051040	Silver Creek Road & Ski Lift Road Intersection	R-600
RG-6C	11SKC7771050784	Silver Creek Road & Summit Meadow Road Intersection	R-600
RG-6D	11SKC7593150337	Chango Lake Access Road IVO Pigeon/Ski Lift	R-801
RG-8A	11SKC7679849089	Wolf Creek Road & Finley Mine Road Intersection	R-800; R-801
RG-8B	11SKC7563749145	Cloudburst Creek Road IVO R-801	R-801
RG-9A	11SKC7290146244	Finley Mine Road IVO LZ Tern	R-800
RG-9B	11SKC7391244804	9494 Access Road between Bluebird and Canary	R-800
RG-10A	11SKC7183644346	Sardine Meadow Area NW Kiwi IVO Hwy 108	R-1000
RG-11A	11SKC7322542803	TA-11 Entrance on Leavitt Lake Road	R-1101; R-1000; DEMO-1; DEMO-2
RG-11B	11SKC7225841736	First Stream Crossing Area on Leavitt Lake Road	R-1101; DEMO-1
RG-11C	11SKC7111040810	Prominent terrain feature on Koenig Lake Road	R-1100; DEMO-2 and 3; LVT LK
RG-11D	11SKC7160540663	Second Stream Crossing Area on Leavitt Lake Road	R-1100; DEMO-2
RG-11E	11SKC7145740234	Leavitt Lake Drainage Area on Leavitt Lake Road	DEMO-3; LVT LK

* Road Guard / Observer positions are subject to seasonal review based on realistic accessibility and safety considerations.

Common Instructions for All Ground Ranges

1. This range is on public land (National Forest). The RSO will ensure the range danger zone is clear of all unauthorized personnel. This shall be achieved via a physical and visual sweep of the range SDZ. The RSO will ensure the entire range is clear of unauthorized personnel and equipment prior to firing and during the entire firing sequence.
2. Warning signs shall be placed along avenues of approach per the individual range card. The OIC, RSO, and Range Safety Specialist/Inspector shall perform a time-critical risk management assessment of current conditions and activities for each day of firing to determine if additional or less signs, observers, road guards, and encroachment control measures are required.
3. Training unit is responsible for the emplacement of targets

and target stands within the designated target area. All target materials must be removed at the completion of training.

4. A unit-provided, non-training Corpsman/Medic and safety vehicle with driver and radio equipment programmed to communicate with range control shall be on the range with the training unit during all live-fire.

5. The OIC will maintain two forms of communication with range control. All road guards and observers must communicate directly with the OIC and RSO via continuous two-way communication via radio. Units shall provide frequencies to support road guard communication.

6. Prior to requesting "Hot" status, the OIC and RSO shall be pre-fire inspected by a range control range safety specialist/inspector.

7. Contact Range Control to request permission to go "Hot." Once authorized to go "Hot," the range will conduct radio checks every 30 minutes on the top and bottom of each hour. The OIC will notify Range Control when assuming a cease fire status or when transitioning too "Cold."

8. The RSO ensures appropriate eye and hearing protection is used while firing is in progress. The RSO will ensure any additional required PPE is used for type of range activity as per applicable field manuals, regulations, and unit risk management plan.

9. During live-fire activities, a range flag (issued by range control) shall be hoisted/posted in a prominent location in proximity to the firing line. During low visibility/night live-fire training, a red flashing light/strobe (issued by Range Control) shall be hoisted/posted in a prominent location in proximity to the firing line. The range flag and red flashing light/strobe shall be visible from 360 degrees.

10. All shooters will have Condition Four weapons until they reach the firing area. Range Control may approve weapon condition modifications via the risk management process.

11. The RSO will verify, upon completion of firing or firing order, to the OIC that all weapons and weapon systems are clear and safe before allowing the removal of weapons from the firing area.

12. The OIC will ensure police of the range upon completion of training. The training unit shall remove all materials brought to the range. All ranges shall be post-inspected by a range control Range Safety Specialist/Inspector.

(Range Cards begin on next page)

Range 400

Non-Standard Small Arms Range

Location: TA-4: 11S KC 7891854729

Weapon Systems: Service Pistols
Service Shotguns
Service Rifles

DODICs: A011; A023; A363; A475; AA40; AB67

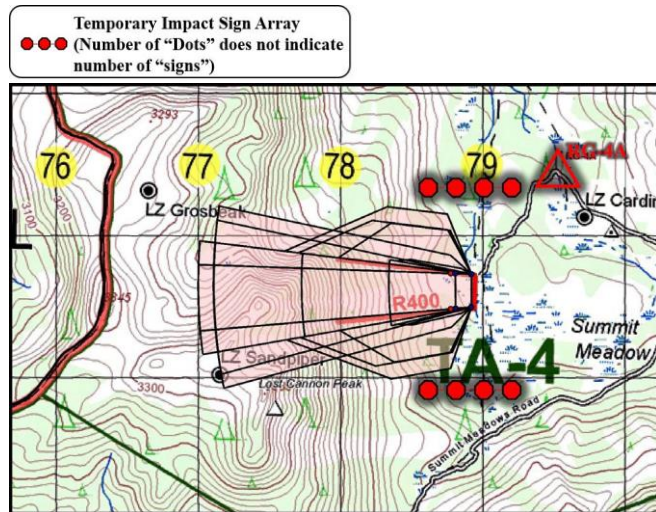
Direction of Fire: 268°

Left Lateral Limit: 265°

Right Lateral Limit: 272°

Firing Area: 11S KC 7891854496
11S KC 7891854729
11S KC 7880754487
11S KC 7880454733

Target Area 11S KC 7891454496
11S KC 7891454729
11S KC 7877354484
11S KC 7877254734



Minimum Range: 4 meters

Maximum Range: 146 meters

Range Facilities: None

Targets: Automated Targets and Steel Targets (RFMSS Request Required)

Conflicts: TA-4; DZ Hawk & Cardinal; LZ Sandpiper & Grosbeak

Road Guard	Duty
RG-4A	With sandwich board sign. Performs road guard function on summit road
Controls	Description
Temp Impact	Sign array N or R400 across trails IVO 11S KC 789552
Temp Impact	Sign array S or R400 across meadow/trail IVO 11S KC 789539

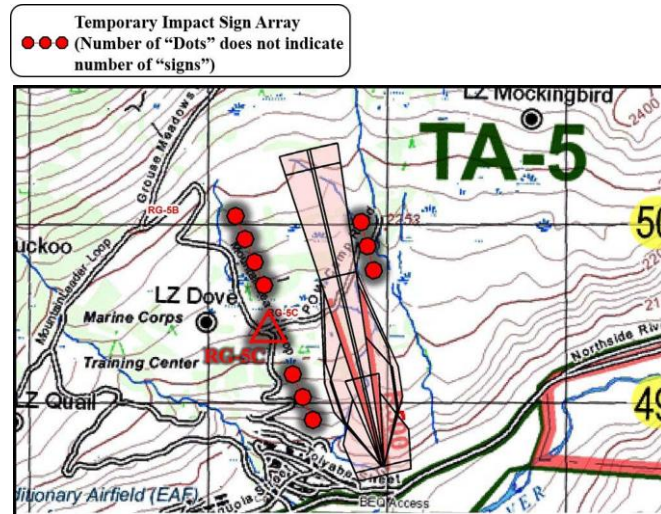
Special Instructions: If employing steel targets, Steel Target RSO must validate minimum engagement distances per DODIC from end of barrel to steel plate.

Non-Standard Small Arms Range/Sniper Field Fire Range

Weapon Systems: Service Pistols
 Service Shotguns

Direction of Fire: 347°
Left Lateral Limit: 347°
Right Lateral Limit: 347°

Target Area:1 11S KC 8096348667
 11S KC 8097448670
 11S KC 8096248671
 11S KC 8097348674



Range Facilities:	Covered 25 Yard Line; 15 Yard Line; 7 Yard Line; lighting; 10 Lanes
Targets:	10 mechanically operated target carriages (RFMSS Request)
Conflicts:	TA-5; LZ Dove

Road Guard	Duty
RG-5C	With sandwich board sign. Performs road guard function on POW Camp Road
Entrance	Road at entrance when firing AA51
Controls	Description
Temp Impact	Sign arrays E of ML Loop IVO 11S KC 805490 & 11S KC 802495
Temp Impact	Sign arrays E of SDZ across POW Camp Road IVO 11S KC 80854985
Warn Sign	[Verify the permanent impact sign is affixed to gate] At entrance of Range 500

Special Instructions: Steel Targets are prohibited on R-500.

¹AA51 minimum engagement distance is 10m

Basic 10M-25M Firing Range (Zero)

Weapon Systems: Service Rifle
DODICs: A059

Temporary Impact Sign Array
 ●●● (Number of "Dots" does not indicate number of "signs")

Firing Line (Zero) 11S KC 8098448638
11S KC 8098648671

Minimum Range: 3 yards
Maximum Range: 25 yards
Zero Range: 36 yards

Range Facilities:	Covered 25 Yard Line; 15 Yard Line; 7 Yard Line; lighting; 10 Lanes
Targets:	10 mechanically operated target carriages (RFMSS Request)
Conflicts:	TA-5; R-502; R-503; LZ Dove and Egret

Road Guard	Duty (RG-5A & 5B)
RG-5A	With sandwich board sign. Performs road guard function on Grouse Meadow (Mdw) Road. Shall observed danger area from POW Camp to Aspen Bowl.
RG-5B	
RG-5C	With sandwich board sign. Performs road guard function on POW Camp Road
Controls	Description
Temp Impact	Sign arrays E of ML Loop IVO 11S KC 805490 & 11S KC 802495
Temp Impact	Sign arrays in Aspen Bowl IVO 11S KC 8060 5233 (N of turnaround point)
Temp Impact	Sign arrays E of POW Camp and S of Grouse Mdw Road IVO 11S KC 811500
Warn Sign	Verify the permanent impact sign is affixed to gate at entrance of Range 500

Special Instructions: Steel Targets are prohibited on R-500.

Range 502

Non-Standard Small Arms Range/Sniper Field Fire Range Firing Area 1

Location: TA-5: 11S KC 7912552059

Weapon Systems: Service & Sniper Rifle
Machine GunDODICs: A059; A062; A063; A064: AB57; AB73; A131; A143; AA11;
AB39; AB82

Direction of Fire: 094°

Left Lateral Limit: 087°

Right Lateral Limit: 100°

Firing Area: 11S KC 7900052200
11S KC 7900051950
11S KC 7925052213
11S KC 7924651904Target Area: 11S KC 7944952224
11S KC 7944251868
11S KC 8019852263
11S KC 8018751729

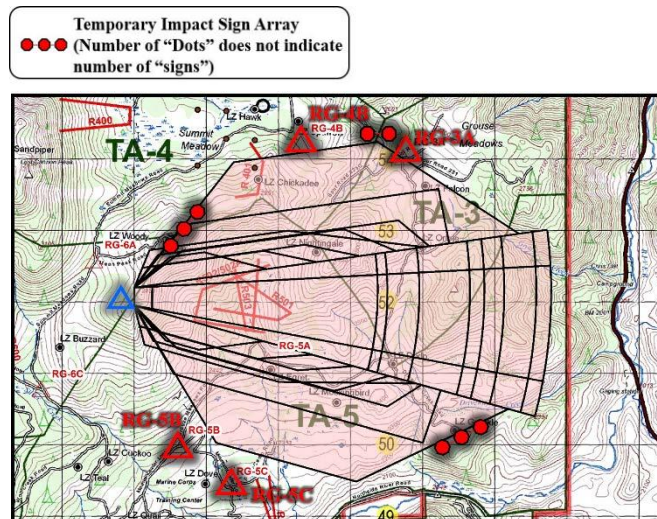
Minimum Range: 200 meters

Maximum Range: 1200 meters

Range Facilities: None

Targets: Automated Targets and Steel Targets (RFMSS Request Required)

Conflicts: TA-3; TA-4; TA-5; R-503; R-502; LZs Egret, Mockingbird, Nightingale, Falcon, Oriole, Dodo, Grackle, and Chickadee



Road Guard	Duty
RG-3A	With sandwich board sign. Observer of Grouse Meadow & Terry Canyon
RG-4B	With sandwich board sign. Performs road guard function on Spur Road
RG-5B	With sandwich board sign. Performs road guard function on Grouse Road
RG-5C	For AA11 or AB39 Only. With sandwich board sign. Performs road guard function on POW Camp Road
Controls	Description
Temp Impact	Sign arrays at eastern edge of LZ Grackle meadow IVO 11S KC 835502
Temp Impact	Sign array across Terry Canyon trail IVO 11S KC 825542
Temp Impact	Sign array on eastern and northern side of Mean Peak Repeater
Temp Impact	Sign arrays IVO POW Camp IVO 11S KC 809 499 (N/R for AA11 or AB39)
Observer	Range OIC shall designate an observer at the firing area to maintain visual of downrange area paying particular attention to mean peak, mean peak repeater site, grouse meadow road, POW camp and Aspen Bowl Entrance.

Special Instructions: None

Range 502

Non-Standard Small Arms Range/Sniper Field Fire Range Firing Area 2

Location: TA-5: 11S KC 7912552059

Weapon Systems: Service & Sniper Rifle
Machine Gun

DODICs: A059; A062; A063 A064: AB57; AB73; A143

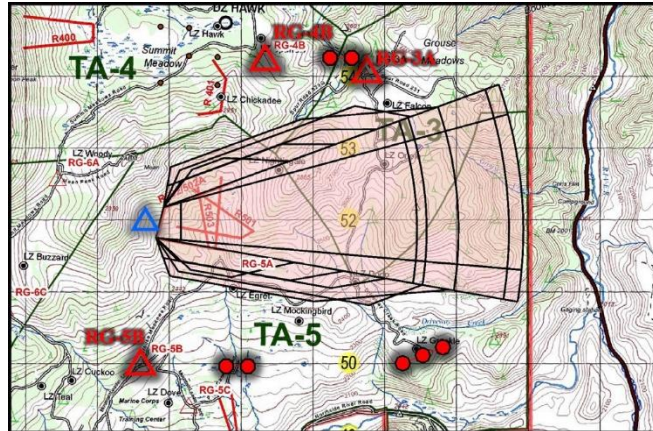
Direction of Fire: 085°

Left Lateral Limit: 075°

Right Lateral Limit: 095°

Firing Area: 11S KC 7992052178
11S KC 7981351752
11S KC 8016152243
11S KC 8016151722Target Area: 11S KC 8006552217
11S KC 7996251739
11S KC 8070252388
11S KC 8062051681

Temporary Impact Sign Array
●●● (Number of "Dots" does not indicate
number of "signs")



Minimum Range: 100 meters

Maximum Range: 810 meters

Range Facilities: None

Targets: Automated Targets and Steel Targets (RFMSS Request Required)

Conflicts: TA-3; TA-5; R-503; R-502; LZs Egret, Mockingbird, Nightingale, Falcon, Oriole, Dodo, Grackle, and Chickadee

Road Guard	Duty
RG-3A	With sandwich board sign. Observer of Grouse Meadow & Terry Canyon
RG-4B	With sandwich board sign. Performs road guard function on Spur Road
RG-5B	With sandwich board sign. Performs road guard function on Grouse Road
Controls	Description
Temp Impact	Sign arrays at eastern edge of LZ Grackle meadow IVO 11S KC 835502
Temp Impact	Sign array across Terry Canyon trail IVO 11S KC 825542
Temp Impact	Sign array on eastern and northern side of Mean Peak Repeater
Temp Impact	Sign arrays IVO POW Camp IVO 11S KC 809 499
Observer	Range OIC shall designate an observer at the firing area to maintain visual of downrange area paying particular attention to grouse meadow road, POW camp and Aspen Bowl Entrance.

Special Instructions: If employing steel targets, Steel Target RSO must validate 100m minimum engagement distance from end of barrel to steel plate (Area A factor).

Range 503

Non-Standard Small Arms Range

Location: TA-5: 11S KC 8057951610

Weapon Systems: Service Pistol
Service Shotgun
Service & Sniper Rifle
Machine Gun

DODICs: A011; A023; A363; A475; A059; A062; A063; A064: AB57; AB73;
A131; A143; AA11; AB39

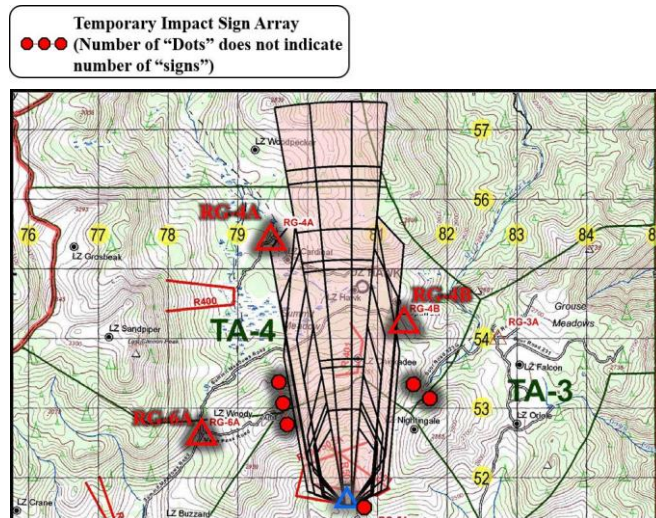
Direction of Fire: 357°
Left Lateral Limit: 355°
Right Lateral Limit: 360°

Firing Area: 11S KC 8052851612
11S KC 8063051609
11S KC 8050351896
11S KC 8063051894

Target Area: 11S KC 8052851615
11S KC 8063051612
11S KC 8049751961
11S KC 8063051959

Minimum Range: 3 meters
Maximum Range: 350 meters

Range Facilities: None
Targets: Automated Targets and Steel Targets (RFMSS Request Required)
Conflicts: TA-4; TA-5; R-502; DZ Hawk, Cardinal, Woody; LZ Sparrow, Hawk,
Cardinal, Chickadee, Nightingale



Road Guard	Duty
RG-4A	With sandwich board sign. Performs road guard function on Summit Road
RG-4B	With sandwich board sign. Performs road guard function on Spur Road
RG-6A	With sandwich board sign. Performs road guard function on Summit Road
Controls	Description
Warn Sign	Sandwich Board at Aspen Bowl Entrance
Temp Impact	Sign array across end-of spur road IVO 11S KC 8169 5333
Temp Impact	Sign array on eastern and northern side of Mean Peak Repeater
Observer	Range OIC shall designate an observer at the firing area to maintain visual of Nightingale saddle and eastern rear access point

Special Instructions: If employing steel targets, Steel Target RSO must validate minimum engagement distances per DODIC from end of barrel to steel plate.

Range 600

Non-Standard Small Arms Range

Location: TA-6: 11S KC 7731750996

Weapon Systems: Service Pistol
Service Rifle
Machine Gun

DODICs: A363; A059; A062; A063; A064: AB57; AB73; A131; A143

Direction of Fire: 358°

Left Lateral Limit: 356°

Right Lateral Limit: 360°

Firing Area: 11S KC 7730550996

11S KC 7733050996

11S KC 7729851096

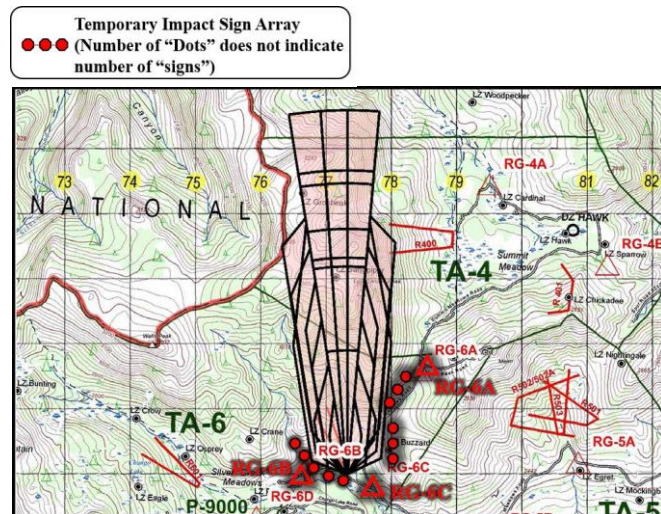
11S KC 7733051096

Target Area: 11S KC 7730351021

11S KC 7733051021

11S KC 7728651270

11S KC 7733051271



Minimum Range: 25 meters

Maximum Range: 275 meters

Range Facilities: None

Targets: Automated Targets and Steel Targets (RFMSS Request Required)

Conflicts: TA-2; TA-4; TA-6; R-502; DZ Woody; LZ Grosbeak, Sandpiper, Buzzard

Road Guard	Duty
RG-6A	With sandwich board sign. Performs road guard function on Summit Road
RG-6B	With sandwich board sign. Performs road guard function on Silver Creek Road
RG-6C	With sandwich board sign. Performs road guard function on Silver Creek & Summit Meadow Road
Controls	Description
Temp Impact	Sign array Southside of Silver Creek Road SW of Range
Temp Impact	Sign array E of N-S draw IVO 11S KC 7666 5131
Temp Impact	Sign array E of Summit Meadow Road IVO LZ Buzzard
Temp Impact	Sign array W of Summit Meadow Road IVO 11S KC 780 520

Special Instructions: As needed, Range Control may develop a crossfire SDZ for this range.

If employing steel targets, Steel Target RSO must validate minimum engagement distances per DODIC from end of barrel to steel plate.

Range 800**Non-Standard Small Arms Range/Sniper Field Fire Range**

Location: TA-8: 11S KC 7502449728

Weapon Systems: Service & Sniper Rifle
Machine Gun

DODICs: A059; A062; A063; A064: AB57; AB73; A143; AA11; AB39;
AB82; AB86

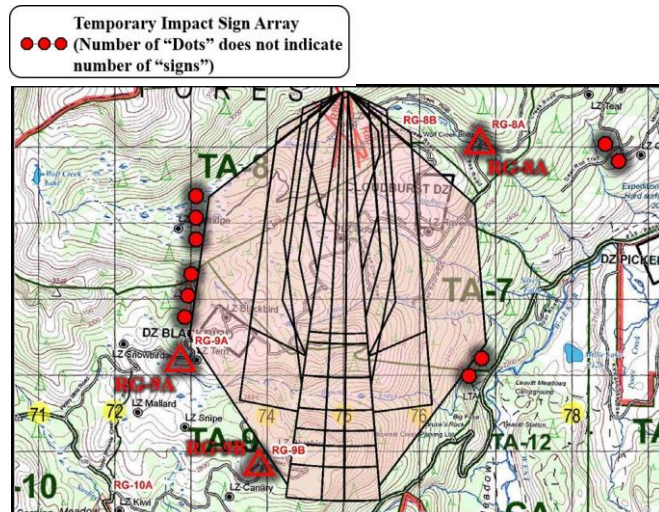
Direction of Fire: 181°

Left Lateral Limit: 181°

Right Lateral Limit: 182°

Firing Area: 11S KC 7505749730
11S KC 7499049726
11S KC 7505649660
11S KC 7498649644

Target Area: 11S KC 7505449375
11S KC 7497149359
11S KC 7505249230
11S KC 7496449227



Minimum Range: 285 meter

Maximum Range: 500 meters

Range Facilities: None

Targets: Automated Targets and Steel Targets (RFMSS Request Required)

Conflicts: TA-7; TA-8; TA-9; R-801; DZ Raven, Blackbird; LZ Owl, Raven, Goose, Blackbird, Partridge, Tern, Bluebird

Road Guard	Duty
RG-8A	With sandwich board sign. Performs road guard function on Wolf Creek and Finley Mine Road
RG-9A	With sandwich board sign. Performs road guard function on Finley Mine Road
RG-9B	With sandwich board sign. Performs road guard function on 9494 Road
Controls	Description
Temp Impact	Sign array E of LZ Partridge IVO 11S KC 730 480
Temp Impact	Sign array NW of Blackbird IVO 11S KC 730 470
Temp Impact	Sign array Deer Run Trail Entrance in TA-5 and TA-9/LTA

Special Instructions: None

Range 801**Non-Standard Small Arms Range/Sniper Field Fire Range**

Location: TA-8: 11S KC 7532548860

Weapon Systems: Service & Sniper Rifle
Machine Gun

DODICs: A059; A062; A063; A064; AB57; AB73; A143; AA11; AB39;
AB82, AB86

Direction of Fire: 323°

Left Lateral Limit: 323°

Right Lateral Limit: 323°

Firing Area: 11S KC 7521348788

11S KC 7543648932

11S KC 7516648850

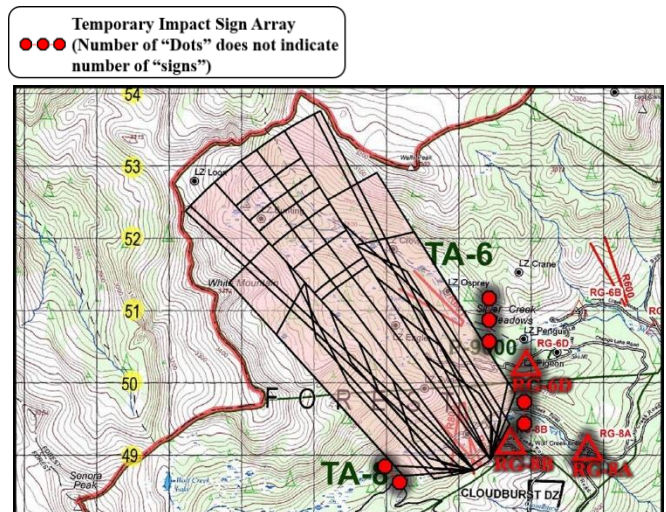
11S KC 7538549000

Target Area: 11S KC 7493249161

11S KC 7515049312

11S KC 7485249267

11S KC 7507549412



Minimum Range: 390 meters

Maximum Range: 600 meters

Range Facilities: None

Targets: Automated Targets and Steel Targets (RFMSS Request Required)

Conflicts: TA-6; TA-8; Range 800; LZs Owl, Osprey, Crow, Bunting, Loon, and Eagle; Wolf Creek Road

Road Guard	Duty
RG-6D	With sandwich board sign. Performs road guard function on Chango Lake Rd.
RG-8A	With sandwich board sign. Performs road guard function on Wolf Creek Road.
RG-8B	LZ Raven access road. Safety vehicle staged across the road with sandwich board sign preventing further access down the road, into the SDZ.
Controls	Description
Temp Impact	Sign array E of LZ Partridge access road IVO 11S KC 7415 4870
Temp Impact	Sign array W of LZ Penguin across trail system IVO 11S KC 7520 5085
Temp Impact	Sign array across Wolf Creek Road & Wolf Creek Meadow IVO 11S KC 758 496

Special Instructions: If vehicles are parked IVO 11SKC 74804913 (Wolf Creek Road turnaround), range will not be authorized to commence live-fire training. Range OIC must ensure the Wolf Creek Road, Wolf Creek Meadow, Silver Creek trail system (trail to Crow- Osprey) and Wolf Creek (North and Southside) are clear of personnel.

Range 1000

Non-Standard Small Arms Range

Location: TA-10: 11S KC 7222943793

Weapon Systems: Service Pistol
Service Rifle

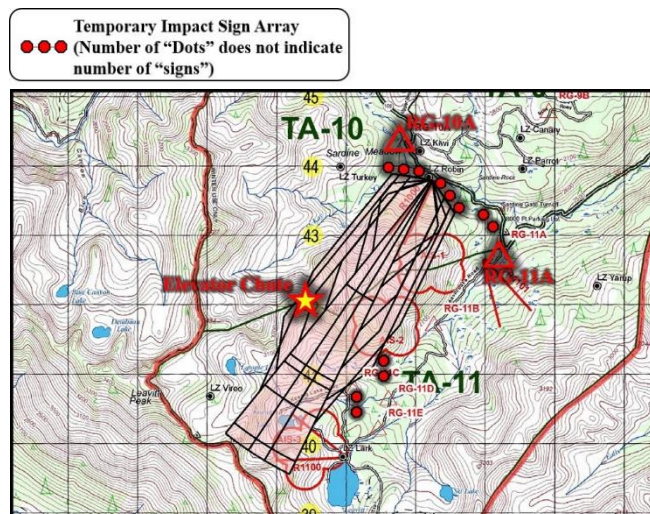
Machine Gun

DODICs: A363; A059; A062; A063; A064: AB57; AB73; A143

Direction of Fire: 212°

Left Lateral Limit: 211°

Right Lateral Limit: 214°

Firing Area: 11S KC 7224143788
11S KC 7221743798
11S KC 7218743699
11S KC 7214843696Target Area: 11S KC 7223943785
11S KC 7221543796
11S KC 7212343591
11S KC 7208843607

Minimum Range: 3 meters

Maximum Range: 230 meters

Range Facilities: None

Targets: Automated Targets and Steel Targets (RFMSS Request Required)

Conflicts: TA-10; TA-11; Demo-1; Demo-2; Demo-3

Road Guard	Duty
RG-10A	With sandwich board sign. Observes Sardine Falls, McKay Creek, and Elevator Chute access point.
RG-11A	With sandwich board sign. Provides notice to public regarding R1000 SDZ Area (Notify traffic along 108 is authorized)
Controls	Description
Temp Impact	Sign array E & W of range along outer extent of SDZ lower Sardine Meadow
Temp Impact	Sign array E of R-1000 & S of Hwy 108 IVO 11S KC 731430
Temp Impact	Sign arrays across first and second stream access points IVO 11S KC 712411 and 11S KC 71104055

Special Instructions: Range OIC shall consider BWRA recreationist activities when scheduling and planning live-fire activities. The BWRA is most active during weekends and holidays. Range OIC must assess avalanche hazards when placing signs and personnel for the range. If employing steel targets, Steel Target RSO must validate minimum engagement distances per DODIC from end of barrel to steel plate.

Range 1100 Non-Standard Small Arms Range

Location: TA-11: 11SKC7092539784

Weapon Systems: Service Rifle
Machine Gun

DODICs: A059; A062; A063; A064

Direction of Fire: 333°

Left Lateral Limit: 333°

Right Lateral Limit: 333°

Firing Line: 11S KC 7090439773
11S KC 7094639795

Target Area: 11S KC 7085839863
11S KC 7090139884

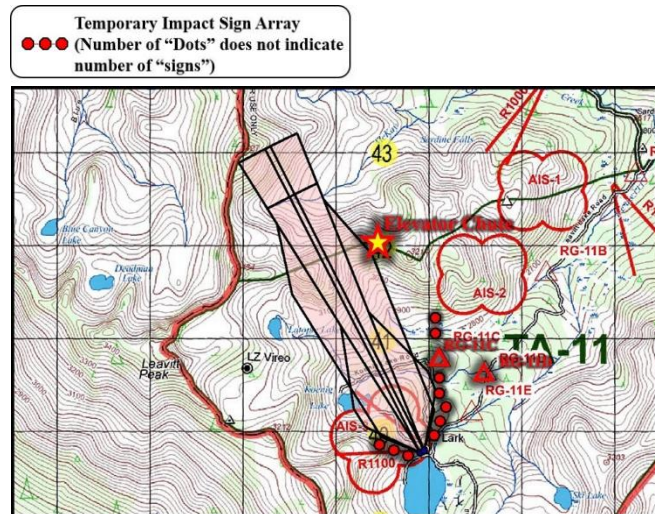
Minimum Range: 100 meters

Maximum Range: 101 meters

Range Facilities: None

Targets: Automated Targets and Steel Targets (RFMSS Request Required)

Conflicts: TA-10; TA-11; Demo-3, Leavitt Lake Explosive Ice Breach Range, LZ Lark



Road Guard	Duty
RG-11C	Observes elevator chute; Latopie & Koenig Lake areas. Monitors first and second stream mobility corridors into Latopie & Koenig Lake areas.
RG-11D	With sandwich board sign. Performs road guard function on Leavitt Lake Road. Provides notice to the public / military of live-fire activities on the Northside of Leavitt Lake.
Controls	Description
Temp Impact	Sign array W of R1101 across SDZ access point IVO 11SKC708539750
Temp Impact	Sign arrays N and S of RG-11C across first and second stream access points IVO 11SKC 71104107 and 11SKC71104055
Temp Impact	Sign array E of R1101 across SDZ access point IVO 11SKC711401

Special Instructions: Range OIC shall consider BWRA recreationist activities when scheduling and planning live-fire activities. The BWRA is most active during weekends and holidays. Range OIC must assess avalanche hazards when placing signs and personnel for the range.

If employing steel targets, Steel Target RSO must validate 100m minimum engagement distance from end of barrel to steel plate (Area A factor).

Range 1101 Non-Standard Small Arms Range
Probabilistic Surface Danger Zone

Location: TA-11: 11S KC 7295942656

Weapon Systems: Service Rifle
Machine Gun

DODIC: A059; A062

Direction of Fire: 153°
Left Lateral Limit: 145°
Right Lateral Limit: 161°

Firing Line: 11S KC 7297042671
11S KC 7294742642

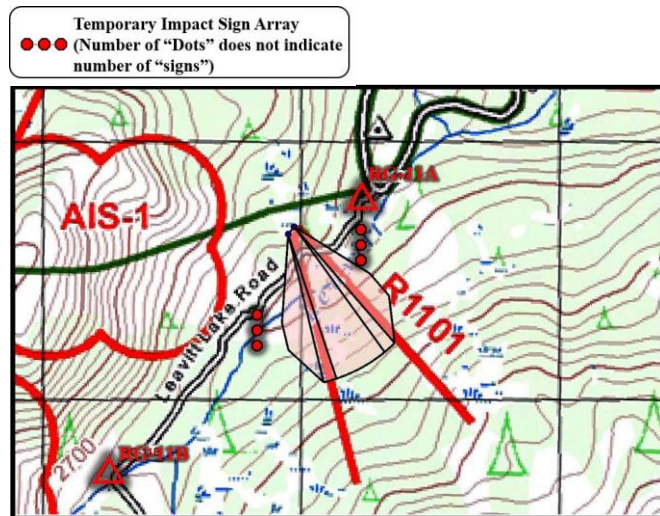
Target Line: 11S KC 7304042574
11S KC 7297442561

Range: 85-120 meters

Range Facilities: None

Targets: Automated Targets and TMITs (RFMSS)

Conflicts: TA-11; Demo-1; LZ Yarup



Road Guard	Duty
RG-11A	With sandwich board sign. Performs road guard function on Leavitt Lake Road.
RG-11B	With sandwich board sign. Performs road guard function on Leavitt Lake Road.
Controls	Description
Temp Impact	Sign array E R1101 PSDZ across SDZ access corridor IVO 11S KC 73254265
Temp Impact	Sign array W R1101 PSDZ across SDZ access corridor IVO 11S KC 727421

Special Instructions: Trackless Mobile Infantry Targets (TMITs) are authorized for R1101. Pre-fire and firing conditions for TMITs are as follows: 1) Range OIC will incorporate TMIT hazards and controls into the range risk management assessment per TECOM SOUM 8-20; 2) Range OIC shall perform a pre-fire range rehearsal of TMITs with RSO and TMIT Operator to validate target maneuver box/line; communications; and associated engagement measures (e.g. lateral limits, minimum engagement distances, and firing point/line); 3) TMIT operator will have positive control of all TMITs throughout training event and will maintain communication (verbal/radio) with the RSO [Cease target/live-fire if communications are lost]; and 4) RSO and (as required) ARSOs will monitor gun target lines and impacts, and will order immediate cease fire in case of unsafe conditions.

(cont'd on next page)

Range 1101

Non-Standard Small Arms Range
Probabilistic Surface Danger Zone

Range OIC shall consider BWRA recreationist activities when scheduling and planning live-fire activities. The BWRA is most active during weekends and holidays. Range OIC must assess avalanche hazards when placing signs and personnel for the range.

Additional Instructions for All Demolition Ranges

1. The OIC shall ensure demolition charges will not exceed 20lbs NEW. The OIC shall ensure all public and non-participating personnel remain outside of the noise hazard contour.
2. Live and inert munitions/demolitions will not be mixed. Demolition effects simulators which contain live explosives, as well as other simulators, are considered live munitions.
3. Commercial dynamite stored below 32° F is sensitive to shock. Dynamite will not be moved/transported if there is evidence of exudation or if it has been frozen; the dynamite is unserviceable and will be disposed of by EOD personnel. Avoid the use of commercial dynamite due to storage requirements and sensitivity to moving.
4. Gases released by explosive detonations are toxic. Avoid exposure by positioning personnel upwind of range and wait for fumes and smoke to disperse before proceeding down range.
5. All demolition training operations will cease for approaching electric or severe dust/snowstorm.
6. Single charges placed against wood or other solid material will be emplaced on the side nearest observers so that major fragments are propelled away from the observers.
7. Detonation circuits will not be connected/armed on any munition unless the intent is to detonate the munition. When munitions are to be detonated, the area will be cleared of all non-mission-essential personnel with a minimum crew remaining to connect the detonation circuit. Live blasting caps/live detonators will not be located at training sites if munitions are not to be detonated. Dual initiate all demolitions, regardless of whether they are single- or dual-primed.
8. All personnel within the SDZ will wear Level 1 PPE. Only mission-essential personnel (Army)/ participating personnel (Marine Corps) will be allowed in SDZs during firing.
9. Hearing protection is required for any exposure to noise greater than 140dBp. Follow the hearing protection recommendations listed in technical manuals for the explosive devices used. If the hearing protection recommendations are not listed in the manuals, compute the 140dBp contour distances. Road guard and sign positions are based on the noise hazard contours.

Noise Hazard Contour Distance Guide					
Weight of Explosive		140dBp Contour	Weight of Explosive		140dBp Contour
Kilograms	Pounds	Meters	Kilograms	Pounds	Meters
2.27	5.00	394	6.82	15.00	569
4.55	10.00	497	9.10	20.00	626
Formula: $D = 300 \times W^{1/3}$ W (Weight in Kilograms) D(Distance in Meters)					

10. A Temporary Flight Restriction (TFR) must be scheduled and activate for demolitions. Range OIC will ensure last detonation will be one-hour prior to expiration time of TFR.

Additional Instructions for All Demolition Ranges

11. Range OIC will account for all personnel (military and public) and equipment and will give warning before detonation; give the warning “Fire in the hole!” three times. Road guard duties include halting traffic and observing and reporting non-participating personnel in surrounding area when munitions are primed, detonated or during misfired procedures.

Demolition 1

Light Demolition Range

Location: TA-10, TA-11: 11S KC 7220042600

Weapon Systems: Explosive/Demolition

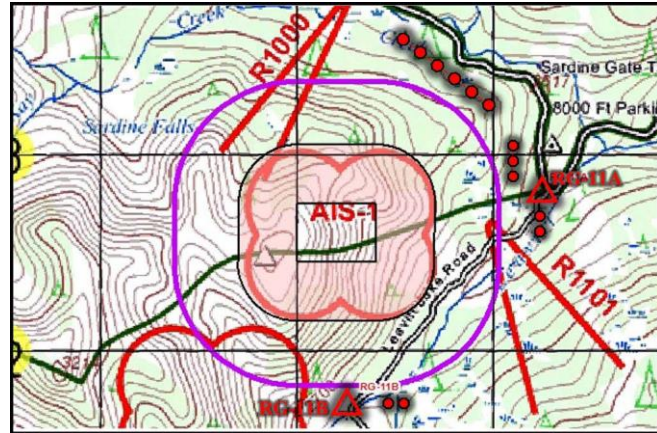
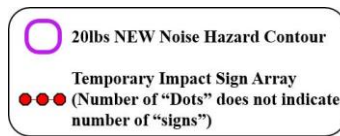
Munitions: C-4; TNT; Dynamite

Demolition Area: 11S KC 7200042750
11S KC 7200042450
11S KC 7240042450
11S KC 7240042750

Range Facilities: None

Targets: None

Conflicts: TA-10; TA-11;
R-1101; R-1000



Road Guard	Duty
RG-11A	With sandwich board sign. Performs road guard function on Leavitt Lake Road.
RG-11B	With sandwich board sign. Performs road guard function on Leavitt Lake Road.
Controls	Description
Temp Impact	Sign array S of RG-11A across SDZ access corridor IVO 11SKC73254265
Temp Impact	Sign array E of RG-11B across SDZ access corridor IVO 11SKC725417
Temp Impact	Sign array NW of RG-11A & S of Hwy 108 IVO 11SK731430
Temp Impact	Sign array S of Hwy 108 SE of LZ Robin IVO 11SKC725436

Special Instructions: Range OIC shall consider BWRA recreationist activities when scheduling and planning live-fire activities. The BWRA is most active during weekends and holidays.

The senior avalanche certified MCMWTC Instructor will evaluate slopes in the immediate area and advise the OIC and RSO of the potential avalanche hazards.

Range OIC must assess avalanche conditions when placing signs, road guards, and observers for the range. Range OIC will ensure all personnel remain outside of potential starting zones, tracks, and run out zones.

Range OIC will ensure personnel are organized, trained, and equipped for avalanche search and rescue prior to initiating an avalanche with explosives.

Demolition 2

Light Demolition Range

Location: TA-10, TA-11: 11S KC 7155041700

Weapon Systems: Explosive/Demolition

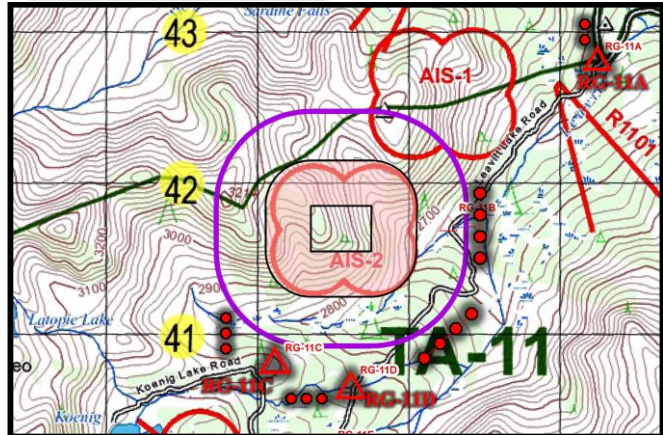
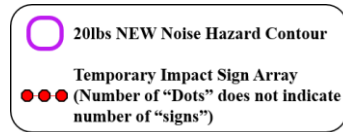
Munitions: C-4; TNT; Dynamite

Demolition Area: 11S KC 7175041850
11S KC 7175041550
11S KC 7135041550
11S KC 7135041850

Range Facilities: None

Targets: None

Conflicts: TA-10; TA-11;
R-1101; R-1000



Road Guard	Duty
RG-11A	With sandwich board sign. Performs road guard function on Leavitt Lake Road.
RG-11C	Monitors first and second stream mobility corridors into DEMO hazard area.
RG-11D	With sandwich board sign. Performs road guard function on Leavitt Lake Road.
Controls	Description
Temp Impact	Sign array across first stream IVO 11S KC 708410
Temp Impact	Sign array S of second stream IVO 11S KC 714406
Temp Impact	Sign array SW of Leavitt Lake Road IVO 11S KC 722410
Temp Impact	Sign array across and E of Leavitt Lake Road IVO 11S KC 725420
Temp Impact	Sign array NW of RG-11A & W of Hwy 108 IVO 11S KC 732429

Special Instructions: Range OIC shall consider BWRA recreationist activities when scheduling and planning live-fire activities. The BWRA is most active during weekends and holidays.

The senior avalanche certified MCMWTC Instructor will evaluate slopes in the immediate area and advise the OIC and RSO of the potential avalanche hazards.

Range OIC must assess avalanche conditions when placing signs, road guards, and observers for the range. Range OIC will ensure all personnel remain outside of potential starting zones, tracks, and run out zones.

Demolition 2

Light Demolition Range

Range OIC will ensure personnel are organized, trained, and equipped for avalanche search and rescue prior to initiating an avalanche with explosives.

Demolition 3

Light Demolition Range

Location: TA-11: 11S KC 7045939923

Weapon Systems: Explosive/Demolition

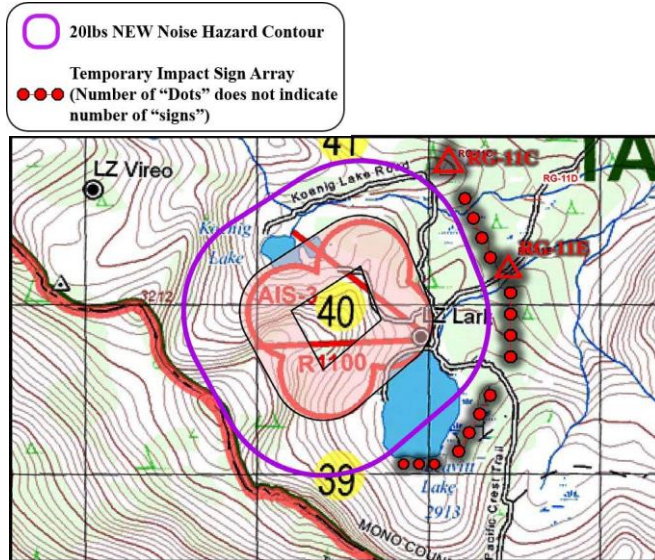
Munitions: C-4; TNT; Dynamite

Demolition Area: 11S KC 7059940229
 11S KC 7072039912
 11S KC 7019539966
 11S KC 7038339619

Range Facilities: None

Targets: None

Conflicts: TA-10; TA-11;
 R-1101; R-1000;
 R-1100



Road Guard	Duty
RG-11C	Observes elevator chute; Latopie & Koenig Lake areas. Monitors first and second stream mobility corridors into DEMO hazard area
RG-11E	With sandwich board sign. Performs road guard function on Leavitt Lake Road.
Controls	Description
Temp Impact	Sign array between RG-11C and RG-11E IVO 11S KC 713405
Temp Impact	Sign array S of RG-11E IVO 11S KC 715398
Temp Impact	Sign array SW of Leavitt Lake IVO 11S KC 711392 (Avoid SNLF/YT habitat per AOP)
Temp Impact	Sign array S of Leavitt Lake IVO 11S KC 709390
Temp Impact	If able (conditions based) sign array north of Koenig Lake.

Special Instructions: Range OIC shall consider BWRA recreationist activities when scheduling and planning live-fire activities. The BWRA is most active during weekends and holidays.

The senior avalanche certified MCMWTC Instructor will evaluate slopes in the immediate area and advise the OIC and RSO of the potential avalanche hazards.

Range OIC must assess avalanche conditions when placing signs, road guards, and observers for the range. Range OIC will ensure all personnel remain outside of potential starting zones, tracks, and run out zones.

Range OIC will ensure personnel are organized, trained, and equipped for avalanche search and rescue prior to initiating an avalanche with explosives.

Leavitt Lake Demolition

Explosive Ice Breach Range

Location: TA-11: 11S KC 710039751

Weapon Systems: Explosive/Demolition

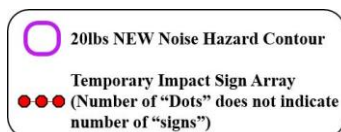
Munitions: C-4; TNT; Dynamite

Demolition Area: Leavitt Lake

Range Facilities: None

Targets: None

Conflicts: TA-11; R-1101;
R-1100; Demo-3;
Demo-2; Demo-1



Road Guard	Duty
RG-11C	Observes elevator chute; Latopie & Koenig Lake areas. Monitors N & NW mobility corridors into DEMO hazard area
RG-11E	With sandwich board sign. Performs road guard function on Leavitt Lake Road.
Controls	Description
Temp Impact	Sign array S of RG 11C IVO 11SKC 11S KC 710404
Temp Impact	Sign array SE of RG-11E IVO 11S KC 717399
Temp Impact	Sign array SE of Leavitt Lake IVO 11S KC 717389

Special Instructions: Range OIC shall consider BWRA recreationist activities when scheduling and planning live-fire activities. The BWRA is most active during weekends and holidays.

The senior avalanche certified MCMWTC Instructor will evaluate slopes in the immediate area and advise the OIC and RSO of the potential avalanche hazards.

Range OIC must assess avalanche conditions when placing signs, road guards, and observers for the range. Range OIC will ensure all personnel remain outside of potential starting zones, tracks, and run out zones.

Range OIC will ensure personnel are organized, trained, and equipped for avalanche search and rescue prior to initiating an avalanche with explosives.

Ice Breach site must be visibly marked as a hazard to mitigate risk of non-participant personnel breaching the lake. Breach site shall remain marked until unit confirms the hazard area is frozen.

Additional safety and medical personnel and equipment for cold water immersion per CASEVAC SOP and Academic SOP.

¹Location is North of lake shoreline

Summit Demolition

Light Demolition Range

Location: TA-11: 11S KC 80145407

Weapon Systems: Explosive/Demolition

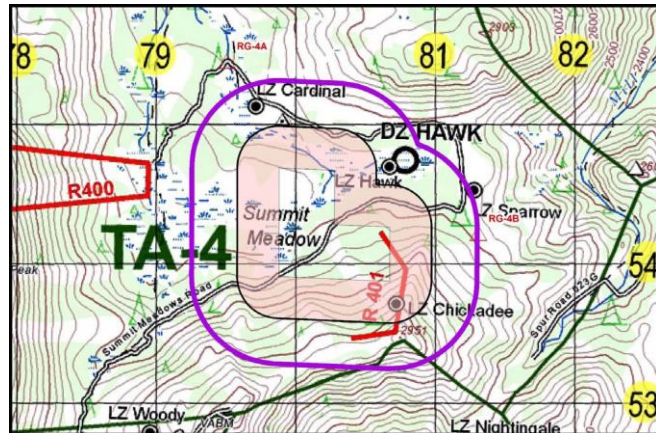
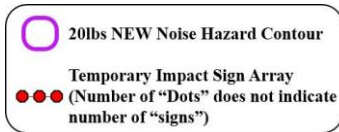
Munitions: C-4; TNT; Dynamite

Demolition Area: 11S KC 7987954690
11S KC 8027654671
11S KC 8027554282
11S KC 8067354265
11S KC 8067253875
11S KC 7987753910

Range Facilities: None

Targets: None

Conflicts: TA-4; LZ/DZ Hawk, Cardinal, Chickadee, Sparrow, R-400



Road Guard	Duty
TBD	Road Guard and Observer positions are developed per authorized demolition activity based on specific demolition points authorized by the Environmental Section.
Controls	Description
Temp Impact	Sign array locations are developed per authorized demolition activity based on specific demolition points authorized by the Environmental Section

Special Instructions: Safety Vehicle shall be positioned on the western portion of the range along summit meadow road to facilitate casualty evacuation activities even during misfire procedures.

Range OIC must coordinate with MCMWTC Environmental Manager for each demolition activity. The Environmental Manager must approve each requested tree or area within the demolition area boundary.

NLT 14 days from day of execution, Range OIC will provide range control the grid coordinates approved by the Environmental Manager for demolition activities. The range safety office will construct the activity explosive danger zone and develop specific control measures for time of year and type of training.

Abatis Training. Unit will disassemble any structures within five-days of the end of the exercise. Unit will ensure stumps are cut to the ground, no higher than six inches in height. Unit will perform the following actions with downed trees: 1) delimb and place branches in slash piles and 2) downed trees will be cut into six-to-eight-foot section so that they are easily removed by wood gathers.

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**APPENDIX Q
CASEVAC SOP**

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MOUNTAIN EXERCISE CASUALTY EVACUATION SOP

CASUALTY EVACUATION PLANNING AND REQUIREMENTS

1000. **KEY TERMS AND DEFINITIONS**

1. **Range Control (Call Sign "WHITE PEAK")**: Range Control is the authority responsible for the coordination of all unit movements within the Range Training Areas and Airspace (RTAA). During casualty evacuations within the RTAA, Range Control is responsible for tracking the casualty movement as well as the dispatch of all necessary or requested medical support assets to include Base Emergency Medical Services (EMS) and Civilian/Military Air Assets.

2. **Range Training Area and Airspace (RTAA)**: Training Areas 1-16 located within the Toiyabe National Forest. All units entering the RTAA are required to establish and maintain radio contact

with Range Control. The RTAA excludes upper and lower base (hereafter referred to as "base"); base is defined as the footprint of paved roads, the gravel logistical support area (LSA), and the buildings within those areas. All airspace is managed by Range Control.

3. Mountain Exercise (MTX) Units: Any military individual or group operating within the RTAA in conjunction with the Service Level Training Exercise at the MCMWTC.

4. Triage Categories: The evaluation and classification of casualties for purposes of prioritizing treatment and evacuation to ensure medical care of the greatest benefit to the largest number.

a. Urgent: Patients requiring emergency, short notice evacuation (within maximum of one hour for evacuation to higher level care) to save life, limb, or eyesight or to prevent serious complications of the injury, serious illness, or permanent disability.

b. Priority: Patients requiring prompt evacuation (within a maximum of four hours for evacuation) to prevent the medical condition from deteriorating to an urgent precedence or to prevent unnecessary pain or disability.

c. Routine: Patients who do not require immediate medical attention and whose condition is not expected to deteriorate significantly. They should be evacuated to higher medical care within 24 hours.

5. On-Scene Commander (OSC): The OSC is the authority responsible for the triage of the patient, communication with Range Control, and coordination and execution of the casualty evacuation. The OSC will be the senior active-duty service member from the MTX unit present on-scene and available to coordinate the evacuation. The OSC will clearly identify themselves as such to Range Control at the initiation of any CASEVAC.

a. When triaging casualties and requesting medical assets, the OSC will seek the advice of the highest competent medical authority on site or within radio contact, but the OSC maintains ultimate authority over all decision-making.

b. When planning and executing the casualty evacuation, the OSC will take into account the advice and experience of the MCMWTC instructor cadre, but the OSC again maintains authority.

6. High-Risk Training (HRT)

a. HRT is defined as training which exposes personnel and trainers to the risk of death, serious injury, or permanent disability despite the presence of proper safety controls.

b. HRT is further defined as any training event that maintains a residual Risk Assessment Level of IA, IB, IIA, or IIB even after safety controls have been implemented.

7. Casualty Evacuation (CASEVAC): The unregulated movement of casualties that can include movement both to and between medical treatment facilities.

8. Medical Evacuation (MEDEVAC): The use of dedicated ground and air ambulances to transport and provide enroute care by medical personnel to the wounded, injured, or ill from the battlefield and/or other locations to and between medical treatment facilities.

1001. CASEVAC PLANNING. MTX units will ensure all casualties are extracted from the point of injury to appropriate medical care. MTX units will develop a casualty evacuation plan that incorporates the CASEVAC material requirements, mobility considerations, MCMWTC ground and air CASEVAC/MEDEVAC assets, and the available civilian medical treatment facilities as described below. A senior medical provider from each MTX unit will brief the MCMWTC Executive Officer on their CASEVAC plan by COB MTX Training Day 03 (details below).

1. CASEVAC Brief. Each MTX unit will brief their MTX CASEVAC plan to the MCMWTC Command by COB Training Day 03.

a. Present from the MTX unit will be the senior medical provider from each unit as well as representatives from each unit's S-3 and S-4.

b. Present from the MCMWTC staff will be the MCMWTC Executive Officer or his/her designee and representatives from the MCMWTC S-3, S-4, Medical Clinic, Base EMS, and Range Control. This brief will serve to confirm MTX units' understanding of the CASEVAC SOP as well as an opportunity to answer any remaining questions regarding CASEVAC procedure.

2. CASEVAC Material Requirements. Material requirements for a Battalion Aid Station (BAS), safety vehicle, HRT, and foot mobile units are detailed below.

a. BAS. Each BAS will establish and maintain VHF Radio Communication with Range Control and monitor all CASEVAC reports. Additionally, any BAS located at the LSA will have at least one landline phone with which to contact MCMWTC dispatch.

b. Safety Vehicle. Every mobile unit will have a designated safety vehicle that will:

(1) Have the capacity to transport a litter casualty from point-of-injury (POI), or nearest point accessible by vehicle, to the unit's BAS or other higher medical care.

(2) Have two forms of communication with which to remain in contact with Range Control and unit HQ during movements.

(3) Remain within a reasonable walking distance from the supported unit to allow for foot mobile evacuation to the safety vehicle.

c. HRT. Appropriate medical coverage for HRT includes a safety vehicle and a designated safety corpsman/medic with medical supplies appropriate to the high-risk event. The safety corpsman/medic will be assigned no other duties besides safety coverage. At a minimum, a corpsman will carry a standard medic bag. CASEVAC planning should identify any additional specialized supplies needed (i.e. ropes for high-angle rescue, spine board for activities at risk for spinal fractures, etc.).

d. Foot Mobile Units. All foot mobile units will possess at least one SKEDCO litter or equivalent litter system per platoon-sized element.

e. Administrative Vehicle for Casualty Transportation to Civilian Medical Centers. The unit will provide, at minimum, one vehicle to support the movement to civilian medical centers of routine casualties or priority casualties not requiring EMS support (see 3001.1) requiring transport to outside facilities (e.g. stable casualties requiring imaging).

3. CASEVAC Mobility Consideration: CASEVAC planning should take into consideration the prolonged casualty evacuation times experienced in the mountains due to rough terrain, poor roads, and adverse weather conditions.

a. Foot Mobile. A full physically fit foot mobile platoon typically carries a single litter casualty through a mountainous environment at an average rate of two kilometers per hour.

b. Vehicle. Vehicular travel speeds are significantly restricted by the narrow unpaved roads within the RTA. Over-the-snow vehicles are restricted to speeds less than fifteen miles per hour.

c. Air. Weather and altitude both restrict air CASEVAC/MEDEVAC capabilities.

4. Evacuation Assets:

a. Ground CASEVAC/MEDEVAC Assets. In addition to the safety vehicle, the Ground CASEVAC assets available to the MTX Unit include Base EMS. Training units must plan for and prioritize the use of organic assets for CASEVAC, and Base EMS should only be utilized if medically indicated. Training unit CASEVAC (see 3000) and Base EMS request and dispatch (see 3001) are discussed below.

b. Air CASEVAC/MEDEVAC Assets. The base employs both civilian MEDEVAC and, as available, on-station air MEDEVAC and CASEVAC assets for the transport of casualties. When

available, on-station military air assets may be utilized as a primary means of casualty evacuation regardless of precedence. Civilian air assets will be requested and deployed only for Urgent casualties. Reference 3002 for air CASEVAC/MEDEVAC assets and procedures.

5. Medical Treatment Facilities. MTX units should evacuate to their BAS unless evacuation directly to higher echelon care is medically indicated as determined by the OSC under the direction of the most competent medical authority on scene. Available civilian medical facilities are outlined in 3003. All suspected Covid-19 cases will be evacuated to the DeWert Branch Health Clinic for testing, treatment, and isolation.

6. Environmental Concerns. Environmental restrictions on landing zones and vehicular travel DO NOT APPLY during a casualty evacuation. OSCs should balance the casualty severity and environmental impacts of patient movements, but priority will always remain on the safe and rapid evacuation of casualties to higher medical care. Should environmental damage occur during a casualty evacuation, the OSC will report the damage to Range Control.

1002. CASEVAC COMMUNICATION PLANNING. All MTX units must have two forms of communication prior to entering/accessing/occupying a site/location/facility in the RTAA:

Note: Do not call 911 from the training areas.

1. Radio Communication. Primary means for communication within the RTAA will be the MCMWTC radio communication frequencies. See Range Frequency Card (Q-23) for frequency information.

a. Coordinate with the MCMWTC communication section (S-6) regarding radio equipment requirements and programming considerations for Very High Frequency (VHF) operations on the repeated network. Communication checks on all designated frequencies should occur with the S-6 or Range Control prior to entering the RTAA.

b. Ensure all radio equipment has the California Mutual Aid Agreement (CALCORD) frequency programmed per Range Frequency Card. This frequency is the line-of-sight Air

Medical Evacuation frequency for communicating with civilian air assets for terminal landing zone guidance and patient updates.

c. Ensure all unit BASs establish radio communication with Range Control.

d. Ensure safety vehicles have designated and programmed radio communication equipment.

2. Landline Phones. Any BAS within Lower Base Camp will establish and maintain landline telephones. A landline connection is necessary to contact MCMWTC Dispatch Center to request Base EMS for MEDEVAC from the Lower Base BAS to outside medical facilities. The MCMWTC Dispatch phone number is 911 from any landline or, from any phone, (760) 932-1466.

3. Cellular/Satellite Phones. There is limited cellular communication coverage within the RTAA, and cellular phones are not authorized as alternate communication devices and should not be relied upon as an alternate communication method for units in the RTAA. However, Range Control can be contacted from any phone at (760) 932-1435.

CASUALTY AND CASEVAC/MEDEVAC REPORTING

2000. GENERAL. Range Control (WHITE PEAK) shall be the first point of contact external to the unit's immediate location notified of any casualties within the RTAA and will remain the single point of communication, coordination, and de-confliction for all CASEVAC/MEDEVACs within the RTAA. MTX OSCs are responsible for contacting Range Control and reporting all casualties sustained within the RTAA via a MCMWTC Casualty Report (MCMWTC CASREP) (Figure 2-2). For any casualty requiring EMS or Air MEDEVAC, A (MCMWTC CASREP) will be transmitted to Range Control. For any casualty on base, see procedures outlined in paragraph 2003.2. For casualties during FoF training, see 2003 for exceptions to Routine and Priority casualty reporting and coordination.

2001. TRIAGE AND RESPONSE

1. Triaging Casualties. Once a casualty is identified, the casualty will be triaged by the most competent medical

authority on scene. Accurate CASEVAC/MEDEVAC precedence category reporting is critical to properly task and prioritize limited medical and transportation assets. Casualties are triaged into Urgent, Priority, or Routine categories (see 1000.4 for definitions).

a. The initial reported precedence category may be upgraded/downgraded at any time upon further assessment by a higher medical authority or change in patient status.

b. Range Control shall be notified immediately of a change in precedence category and will provide additional resource support as requested or required.

Note: In the event of a mass casualty, the OSC will designate a triage authority who will be responsible for triaging casualties to utilize limited resources in the most efficient manner.

2. Triage Precedence and Response

a. URGENT Casualties. Air and Ground EMS assets will immediately and automatically be dispatched by Range Control and directed to the casualty or to the nearest suitable location.

b. PRIORITY Casualties. MTX units may request Ground/Air EMS MEDEVAC for Priority casualties if medically indicated (see 3001.1) with exceptions as determined by the unit senior medical provider. Ground/Air EMS will not be dispatched by Range Control for Priority casualties unless explicitly requested.

c. ROUTINE Casualties. Training units are responsible for transporting Routine casualties to their BAS utilizing organic assets. For Routine suspected Covid patients, follow instructions outlined on page Q-25.

2002. CASUALTY REPORTING OUTSIDE OF FORCE-ON-FORCE TRAINING. After identifying a casualty, providing necessary emergency aid, and triaging the casualty, the OSC will immediately establish two-way communications with Range Control and transmit a MCMWTC CASREP for all casualties. (Figure 2-2).

1. The OSC will contact Range Control on the primary Range Control frequency, telephone number (760) 932-1435 (secondary xl436, tertiary xl439), or via other two-way communication.
2. Once radio contact has been established, the OSC will transmit a MCMWTC CASREP for all casualties.
3. During all casualty transmissions, all other units will cease radio traffic on the Range Control frequency until completion of MCMWTC CASREP.
4. Any units along the planned CASEVAC route will yield to EMS or CASEVAC vehicles.

2003. CASUALTY REPORTING DURING FORCE-ON-FORCE TRAINING. FoF Training requires balancing the reporting of casualties with maintaining a tactical training environment that closely replicates the battlefield. During FoF Training, the following changes to the casualty reporting procedure will be in effect:

1. All Routine and Priority CASEVACs NOT Requiring External CASEVAC Assets.

- a. OSC will report CASEVAC to COC using a format previously designated by the COC. COC will coordinate CASEVAC utilizing organic unit assets.

- b. Unit COC will report the CASEVAC to Exercise Control (EXCON).

2. Urgent CASEVACs or any CASEVACs Requiring External CASEVAC Assets. CASEVAC reporting and requests for external assistance will follow SOP outlined for non-FoF training.

2004. REQUESTING MEDEVAC FROM BAS TO OUTSIDE FACILITIES

1. Requesting MEDEVAC from BAS within the RTAA. All MEDEVAC requests from any unit or BAS within the RTAA will follow the procedures outlined above, utilizing communication with Range Control to dispatch requested support.

2. Requesting MEDEVAC from Base. If a casualty on Base or at the LSA BAS requires MEDEVAC, BAS personnel will contact MCMWTC Dispatch Center (Landline: 911; Any phone: (760) 932

1466) and provide Dispatch with the information outlined in Figure 2-3.

Figure 2-2 MCMWTC Casualty Report (MCMWTC CASREP) Script

OSC: "WHITE PEAK this is (Call Sign). Standby for (Urgent/Priority/Routine) CASREP."

1. Precedence (Urgent/Priority/Routine) _____

2. Rank and Name _____

3. Last 4 of DoD ID# _____

4. Unit of Individual _____

5. Type of Injury and Evac. Plan/Status _____

6. Weight, Age, Height, Gender, Core Temp _____

7. Location of Incident and Activity when Injured _____

8. Weather Conditions/Temp _____

Remarks. Terrain, Obstacles, Slope, Special Equipment(hoist, spinebaord)

Figure 2-3 MCMWTC Dispatch Request

ITEM	EXPLANATION
LOCATION OF CASUALTY/IES	BAS OR LOCATION ON BASE
NUMBER OF CASUALTIES	NUMBER OF CASUALTIES
INJURIES SUSTAINED	INJURIES SUSTAINED BY EACH CASUALTY
ASSETS REQUIRED	BASE EMS AND/OR AIR EMS

CASEVAC ASSETS AND PROCEDURES

3000. UNIT GROUND CASEVAC. MTX units are expected to execute their own CASEVACs utilizing organic assets unless Base EMS support is medically indicated (see 3001.1).

1. For CASEVACs executed by the unit, utilizing medical and transportation resources inherent to the unit and requiring no external medical assistance from the MCMWTC, the OSC shall:

a. Immediately notify Range Control (outside of FoF) or COC (during FoF) of the casualty via the MCMWTC CASREP (outside of FoF) (ref Figure 2-2) or predetermined report format (2003.1.a).

b. Maintain radio contact with Range Control (outside FoF) or COC (during FoF) at all times and update Range Control or COC regarding all transits and handovers of care during the CASEVAC.

c. Notify the MCMWTC CDO of any CASEVAC to off-base civilian medical facilities and will report departure, arrival, and the facility to which they transported the casualty.

d. Ensure all patients evacuated to off-site medical facilities are retrieved using vehicles and personnel organic to the unit and at the earliest possible time following discharge. The CDO will be notified upon the casualty's return to base.

2. If the unit employs their medical personnel and dedicated safety vehicle for a CASEVAC, the unit will cease all training and remain in a non-training status until replacement of the dedicated safety vehicle and appropriate medical personnel.

3001. BASE EMS MEDEVAC. The base employs Marine Corps Fire Department (MCFD) Paramedic and EMT units for ground medical evacuation support, referred to as Base EMS.

1. Base EMS Capabilities and Limitations. Base EMS deploys Advanced Life Support (ALS) capabilities and providers. ALS includes advanced cardiac monitoring, cardiac defibrillation, airway support, and intravenous fluids and medications to include opioid analgesia. Casualties not requiring ALS,

intravenous analgesia, or close monitoring enroute to definitive care should not be transported by Base EMS unless otherwise determined by unit senior medical providers.

a. When dispatched to a casualty by Range Control, Base EMS will automatically dispatch an ALS-capable vehicle with an ALS provider as available.

b. Once Base EMS arrives on scene, they assume COMPLETE control of the casualty.

(1) If Base EMS begins providing medical care to the patient, Base EMS is legally obligated to transport the patient to a civilian higher echelon care facility.

(2) If upon arrival, and prior to initiation of any medical care, Base EMS determines that the care of the patient is within the capabilities of the organic unit assets, Base EMS may elect to turn over care of the casualty to an appropriate civilian-licensed medical provider (i.e. Medical Officer, Nurse Corps Officer, EMT-qualified corpsman or Marine, etc.). Turnover of care will be reported to Range Control.

2. Base EMS Request and Dispatch Procedure. MTX units request Base EMS support via Range Control (see procedures outlined in 2002) through the MCMWTC CASREP (Figure 2-2 of this Appendix).

a. The OSC will establish radio contact with Range Control and transmit a MCMWTC CASREP. The OSC will maintain radio contact with Range Control throughout the CASEVAC.

b. Once Base EMS is requested via Range Control, the OSC will inform Range Control of the intended casualty transfer point with Base EMS and provide an estimated time of arrival (ETA) for the training unit personnel at the provided meet-up location.

3. Turnover of Care and Transport Procedures. All transfers of patient control within the RTAA will be reported to Range Control by the transferring unit.

4. Cessation of HRT. Base EMS assets support all training operations and installation operations for the MCMWTC. In the

event all Base EMS ALS assets are employed and/or unavailable, the MCMWTC will cease all HRT until further notice from WHITE PEAK. This temporary training cessation can only be lifted by the MCMWTC Operations Officer, Executive Officer, or Commanding Officer, or by the return of appropriate EMS assets.

a. In the event the last Base EMS asset departs the installation, the Base EMS will notify the MCMWTC Dispatch Center who in turn will be responsible for notifying Range Control.

b. All training units will be informed by Range Control of the temporary departure/non-availability of dedicated Base EMS assets and any requirements to cease training. If cessation of HRT is required:

(1) Range OICs and RSOs must cease HRT, perform onsite risk evaluation, and adjust unit CASEVAC plans accordingly.

(2) Upon the return of Base EMS assets, MCMWTC Dispatch will inform Range Control of their return and Range Control will notify training units to return to HRT status.

3002. Air Evacuation Assets. The base does not have a dedicated Air MEDEVAC asset for training conducted at the MCMWTC. For certain exercises, military aircraft may be available for CASEVAC or MEDEVAC of unit casualties (see 3002.2), but the MCMWTC primarily requests Air MEDEVAC support from civilian aviation assets (see Table 3-1).

1. Air CASEVAC and MEDEVAC Capabilities and Limitations.

a. CASEVAC platforms are any non-medical air assets capable of extracting a casualty from the RTAA and transporting the casualty to the EAF. These air assets do not have medical capabilities and therefore do not constitute a higher level of medical care (see 3002.4).

b. MEDEVAC platforms are dedicated air ambulances. To operate as MEDEVAC platforms, air ambulances must have ALS capabilities and providers and may therefore be utilized to transport Urgent/Priority casualties directly to higher level medical facilities if necessary.

c. Hoist Requests. If a casualty requiring air evacuation cannot be safely transported to a site suitable for an LZ and therefore requires a hoist extraction, the OSC will specifically request a Hoist-Capable Aircraft during Line 4 of the MCMWTC CASREP. NAS Fallon SAR is the closest military aviation asset permanently available with special extraction capability, such as hoist and penetrator capabilities. Their ETA (approximately 90-120 minutes) must be taken into consideration when requesting hoist capability.

2. On-Station Military Air Assets. Aviation units training at the MCMWTC may include non-medical assets, (CASEVAC) assets, and/or dedicated air ambulances (MEDEVAC) assets. Regardless of capability, all military aviation units operating at the MCMWTC capable of transporting casualties will develop a plan to assist MTX units with casualty transport in the event of a mass casualty and deliver this plan to the MCMWTC Air Officer and Range Control prior to arrival.

a. Military CASEVAC Assets:

(1) If on-station aviation units plan to execute Air CASEVACs as part of their training evolutions, the unit will provide their daily flight schedule and duty phone number to the MCMWTC Air Officer, Range Control, and the MTX Unit headquarters.

(2) These units may be utilized to extract casualties regardless of precedence and will be requested through and dispatched by Range Control as outlined in 3002.5.

b. Military MEDEVAC Assets:

(1) All on-station Air MEDEVAC units will deliver a brief of capabilities to the MCMWTC Operations Officer, Air Officer, and Range Control Officer prior to arrival. They will be placed into the MEDEVAC priority list by Range Control appropriately per their capabilities.

(2) On-station MEDEVAC assets will distribute their duty phone number and daily flight schedule to include alert times to the MCMWTC Air Officer and Range Control.

(3) Military Air MEDEVAC assets on-station to train in casualty extraction may be utilized to extract casualties regardless of triage precedence. For all Urgent Casualties, Air MEDEVAC will be requested as outlined in 3002.2. For all Priority/Routine Casualties, Air MEDEVAC will be requested utilizing the procedures outlined in 3002.5. Regardless of precedence, the MEDEVAC personnel will take control of the patient upon their arrival and determine whether to transport the casualty to a higher echelon of care or to the EAF for transfer to the BAS.

(4) If Military MEDEVAC assets on-station for the exercise have hoist or penetrator capabilities, Range Control will preferentially dispatch the on-station asset in response to calls for hoist extraction.

3. Air MEDEVAC Request and Dispatch for Urgent Casualties.

Due to the limited air assets available throughout Nevada, it is of paramount importance that Air MEDEVAC assets be employed judiciously only for Urgent Casualties with rare exceptions.

a. OSC Responsibilities:

(1) The OSC will request air MEDEVAC via Range Control utilizing the MCMWTC CASREP (Figure 2-2) for all medically indicated casualties.

(2) The OSC must take into consideration the weather situation prior to requesting aircraft support. Air EMS may not be a viable EMS asset consideration if foul weather (including high winds) is present or forecasted. Valuable time may be wasted waiting on a helicopter that may not reach the casualty location due to inclement weather.

(3) The training unit is responsible for identifying and establishing an appropriate LZ for any requested Air MEDEVAC.

b. Range Control Responsibilities:

(1) Upon receipt of an Air MEDEVAC request or MCMWTC CASREP, Range Control will request Air MEDEVAC support. On-station military air assets will be requested via duty phone or the Air Safety Net. Civilian air assets and NAS Fallon

SAR will be requested directly. All local air assets and their capabilities are detailed in Table 3-1.

(2) Range Control will inform the unit of estimated time of arrival, aircraft call sign, and contact frequency information.

(3) If Air EMS support is requested by any authority other than the OSC (namely Base EMS or Chain of Command), Range Control will ensure that the OSC is made aware of the request.

c. LZs. A list of MCMWTC Landing Zones can be found on page Q-24.

(1) ENVIRONMENTAL RESTRICTIONS DO NOT APPLY during an Urgent/Priority CASEVAC/MEDEVAC situation. Any open area of appropriate dimensions may be utilized as an emergency LZ. If environmental damage is suspected at the emergency LZ, the OSC will notify Range Control at the conclusion of the air evacuation.

(2) LZs will be marked in accordance with applicable directives and in a manner to most clearly identify a safe landing area for the aircraft.

(3) Range Control may vector civilian Air EMS to the Expeditionary Airfield (EAF) until a suitable LZ is made available for the evacuation of the patient.

d. Communication with Air MEDEVAC Assets:

(1) Range Control will coordinate the flight until the OSC informs Range Control they have established visual contact with the aircraft. Range Control will then coordinate a roll from the Range Control net to the CALCORD net in order for the OSC to contact the CASEVAC/MEDEVAC aircraft for LZ control.

(2) CALCORD is a line-of-sight frequency. The OSC will contact the aircraft on the CALCORD frequency for terminal guidance and casualty updates. It is imperative that units program CALCORD and check all radios with an installation asset (S-6) on CALCORD prior to commencing training activities in the RTAA. Due to mountainous terrain, Range Control may not be able to perform a communication

check with the unit on CALCORD due to line-of-sight considerations.

(3) When the aircraft has departed with the patient onboard, the OSC will roll back to Range Control on the Range Control net and reestablish contact. Post CASEVAC/MEDEVAC information will be exchanged at that time.

4. Air CASEVAC Request and Dispatch. Military air assets capable of carrying a casualty may be utilized by the unit to CASEVAC casualties from the RTAA to the EAF for handover to a higher level of care, specifically the Unit BAS personnel or directly to Base EMS as determined by unit senior medical providers. OSC and Range Control procedures for CASEVAC requests will follow the procedures for MEDEVAC requests (see 3002.3).

a. The OSC may request Air CASEVAC of casualties of any precedence via MCMWTC CASREP to Range Control. Line 4 will clearly state that this is an AIR CASEVAC request.

b. Air CASEVAC assets will only be utilized to transport the casualty to the EAF, with rare exceptions (3002.4.c)

(1) All Urgent patients extracted via CASEVAC platforms to the EAF will be met by Base EMS and Civilian Air EMS if available.

(2) Priority patients will be met at the EAF by Base EMS only if requested through Range Control. The OSC will inform Range Control if Base EMS should be dispatched to the EAF for handover of care.

(3) For any casualty extracted to the EAF for transfer to BAS, the BAS is responsible for providing a team to meet the aircraft at the EAF and transport the casualty to the BAS.

c. CASEVAC platforms may be utilized to transfer a casualty directly from the extraction point to higher level care if:

(1) The patient is stable enough to endure the flight time to higher echelon of care without ALS interventions that could be provided by Ground EMS, or

(2) The need to rapidly evacuate the casualty to a higher echelon of care exceeds the need for in-transit ALS care provided by Air MEDEVAC or Base EMS assets.

3003. AREA EMS ASSETS/FACILITIES

Table 3-1 Aviation Emergency Medical Support Assets

	CAREFLIGHT	CALSTAR	REACHAIR	FALLON SAR (HOIST)
CONTACT	(800) 648-4888 (775) 865-9111	(800) 252-5050 (916) 565-7720	(800) 338-4045	(775) 209-4004 (775) 848-5731 <u>Base Ops</u> (775) 426-2318 (755) 426-2319 <u>CDO</u> (775) 848-5731
LOCATIONS	<u>Careflight 1</u> Fallon, NV <u>Careflight 2</u> Gardnerville, NV <u>Careflight 3</u> Truckee, CA <u>Careflight 4</u> Beckwourth, CA	<u>CalStar 3</u> Auburn/CA <u>CalStar 6</u> SLT, CA <u>CalStar 10</u> Placerville, CA	<u>Reach 2</u> Stockton, CA	Fallon, NV
AVAILABILITY	24 hours			
TYPE	Astar-B3	MD-902	Bell 407	SH-60
ALS	Yes: Nurse/Paramedic	Yes: Nurse/Paramedic	Yes: Nurse/Paramedic	Yes
# OF PATIENTS	1	2	1	2
ETA	45-90 minutes	45-90 minutes	45-90 minutes	45-120 minutes
LANDINRTA	Yes			
LZ COORDINATES	Lat/Long			
MINLZSIZE	30m x 30m	20m x 20m	30m x 30m	30m x 30m

NIGHT VISION	Yes			
HOIST	No	No	No	Yes
FREQUENCIES	Any CALCORD. Switches to CALCORD within line-of-sight of LZ.			

Primary Local Medical Facility Information

MCMWTC Branch Medical Clinic

(760) 932-1616/1617

Carson Valley Hospital (Closest Civilian Facility)

1107 Highway 395

Gardnerville, NV 89410

(775) 782-1500

Carson Tahoe Regional Medical Center

1600 Medical Parkway

Carson City, Nevada (775) 445-8000

Renown Regional Medical Center (Level II Trauma Center)

1155 Mill Street

Reno, NV 89502

(775) 982-4100

Banner Churchill Hospital (HW AD/Fallon)

801 E Williams Ave

Fallon, NV 89406

(775) 423-3151

Mount Grant General Hospital

200 A St

Hawthorne, NV 89415

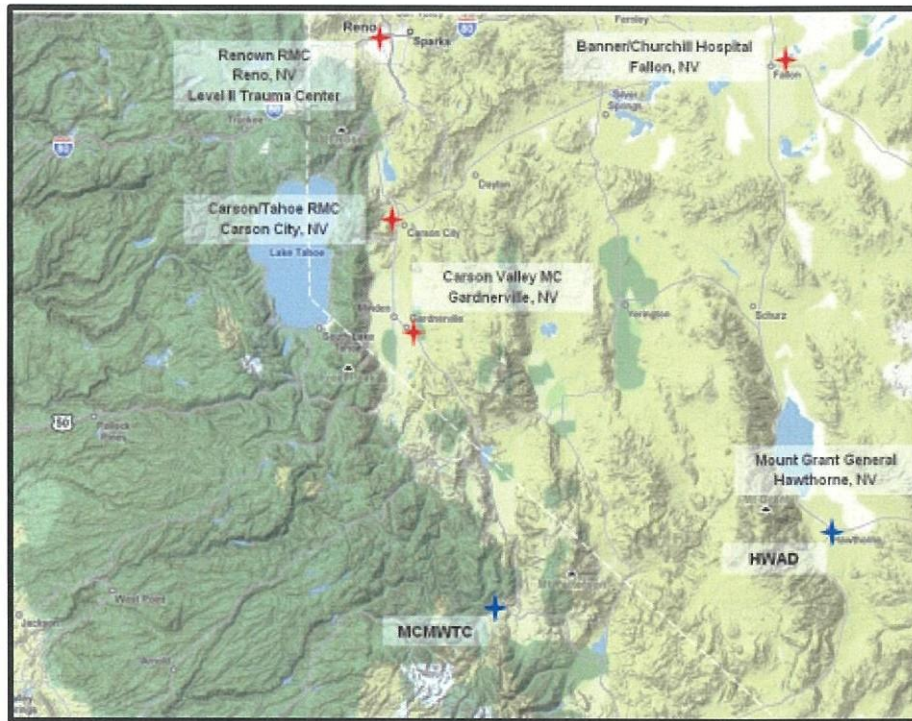
(775) 945-2461

Mammoth General Hospital

85 Sierra Park Rd

Mammoth Lakes, CA 93546

(760) 934-3311

Figure 3-2 Medical Facility Locations**OFF-SITE TRAINING VENUES**

4000. GENERAL INFORMATION. The MCMWTC uses multiple off-site installations and venues for conducting both unit and Mountain Warfare Formal Schools (MWFS) training. Sites may include DoD and non-DoD managed/owned sites as well as combinations of the two (i.e. Lucky Boy Pass and Ryan Canyon convoy route).

1. The training unit is responsible for developing, coordinating, and briefing installation leadership on their off-site training CASEVAC plan.
2. If the training unit plans on employing Range Control as part of their CASEVAC plan, they must provide a copy of their plan to Range Control. This allows Range Control to:
 - a. Develop training activity emergency support special instructions for the Range Operations Section.
 - b. Facilitate communication rehearsal and evacuation drill.

3. Off-site training unit CASEVAC plans including Range Control support must be provided at least 14 days in advance to the commencement of training. This aligns with Range Control procedures and policy for scheduling per chapter 3 of the RTAA SOP.

4001. NON-DOD INSTALLATIONS. If training at sites such as Mt. Shasta, Palisades, Mt. Whitney, Mammoth, Berlin, Mt. McKinley, and etc., the local EMS system via 911 should be utilized.

1. Prior coordination with off-site training location managing authority must be conducted (i.e. USFS, BLM, NPS, etc.) as required.

2. The specific CASEVAC/MEDEVAC plan will be detailed per venue and training event and approved by the Operations Officer prior to departure to the off-site training venue.

4002. DEPARTMENT OF DEFENSE INSTALLATIONS. The MCMWTC utilizes multiple regional DOD installations, such as NAS Fallon and HWAD.

1. Unit will use installation-specific range regulations and SOPs for CASEVAC planning.

2. The specific CASEVAC/MEDEVAC plan will be detailed per venue and training event and approved by the Operations Officer prior to departure to the off-site training venue.

4003. NOTIFICATIONS. Range Control will be notified at (760) 932-1435 of any off-site CASEVAC/MEDEVAC operations and will assist as requested. Range Control will notify the chain-of-command as per the MCMWTC notification procedures.

Range Frequency Card

STATION	TYPE	FREQ TX	FREQ RX	SIDETONE
WHITE PEAK: RANGE SAFETY PRIMARY	VHF	41.100	41.000	NIA
RAWHIDE REPEATER: RANGE SAFETY ALTERNATE	VHF	46.900	46.900	NIA
WHITE PEAK AIR RTX: AIR SAFETY PRIMARY (NC)	VHF	120.7250	120.7250	NIA
WHITE PEAK AIR LOS: AIR SAFETY ALTERNATE (NC)	UHF	363.6500	363.6500	NIA
PICKEL COMMON (EAF OPERATIONS) : COMMON TRAFFIC ADVISORY FREQUENCY	VHF	122.900	122.900	NIA
WHITE PEAK: SECONDARY GROUND SAFETY NET	DTCS	NIA	NIA	NIA
CALCORD: AIR MEDICAL EVACUATION NET	VHF	156.0750	156.0750	CTCSS: 156.7 (RX & TX)
WEATHER WNG959: MONO COUNTY	VHF	NIA	162.5250	NIA

MCMWTC Established Landing Zones

LANDING ZONES				
#	LZ Name	Location		FTMSL
1	Goose	N38 21.011 W119 34.526	11S KC 74946 47809	9127
2	Red Tail	N38 27.561 W119 32.098	11S KC 78816 59827	7460
3	Penguin	N38 22.543 W119 33.943	11S KC 75874 50619	8684
4	Canary	N38 19.155 W119 35.464	11S KC 73483 44414	9094
5	Woody	N38 23.765 W119 31.883	11S KC 78935 52797	9616
6	Raven	N38 21.077 W119 33.740	11S KC 76094 47900	8664
7	Snipe	N38 19.640 W119 35.881	11S KC 72901 45329	9402
8	Crow	N38 23.184 W119 35.205	11S KC 74069 51856	8996
9	Albatross	N38 27.690 W119 29.633	11S KC 82407 59968	6666
10	Blackbird	N38 20.426 W119 35.538	11S KC 73441 46768	9622
11	Hawk	N38 24.823 W119 30.742	11S KC 80650 54709	8746
12	Falcon	N38 24.277 W119 29.096	11S KC 83018 53634	8543
13	Owl	N38 21.816 W119 34.450	11S KC 75098 49295	8608
14	Dodo	N38 22.923 W119 29.356	11S KC 82572 51139	7910
15	Mallard	N38 19.736 W119 36.308	11S KC 72283 45524	9520
16	Teal	N38 22.083 W119 32.333	11S KC 78194 49704	7600
17	Osprey	N38 22.882 W119 34.674	11S KC 74827 51276	8854
18	Condor	N38 28.577 W119 29.395	11S KC 82798 61599	6361
19	Cardinal	N38 25.042 W119 31.408	11S KC 79692 55140	8710
20	Dove	N38 21.980 W119 31.111	11S KC 79969 49464	7312
21	Oriole	N38 23.820 W119 29.107	11S KC 82979 52789	8579
22	Sparrow	N38 24.739 W119 30.323	11S KC 81255 54537	8812
23	Parrot	N38 18.913 W119 35.432	11S KC 73517 43965	8868
24	Egret	N38 22.854 W119 30.522	11S KC 80871 51058	7985
25	Bluebird	N38 19.480 W119 35.036	11S KC 74124 44998	9376
26	Sandpiper	N38 24.405 W119 33.147	11S KC 77129 54031	10987
27	Merganser	N38 28.094 W119 30.858	11S KC 80646 60764	7664
28	Eagle	N38 22.617 W119 35.160	11S KC 74105 50806	9425
29	Kiwi	N38 19.030 W119 36.448	11S KC 72043 44224	8917
30	Robin	N38 18.828 W119 36.355	11S KC 72167 43846	8736
31	Lark	N38 16.636 W119 37.124	11S KC 70932 39823	9589
32	MWTCEAF	N38 21.210 W119 31.120	11S KC 79917 48040	6774
33	Sweetwater	N38 30.618 W119 13.010	11S LC 06714 64764	6837
34	Woodpecker	N38 25.888 W119 31.759	11S KC 79223 56719	8736
35	Crane	N38 23.038 W119 34.007	11S KC 75806 51537	9399
36	Pigeon	N38 22.449 W119 33.623	11S KC 76335 50432	8713
37	Swan	N38 22.152 W119 34.869	11S KC74505 49934	9639

38	Loon	N38 23.654 W119 37.105	11S KC 71328 52804	10606
39	Bunting	N38 23.385 W119 36.461	11S KC 72251 52280	9904
40	Buzzard	N38 22.982 W119 32.532	11S KC 77951 51374	8969
41	Chickadee	N38 24.292 W119 30.688	11S KC 80701 53724	9448
42	Cuckoo	N38 22.129 W119 32.043	11S KC 78620 49777	7923
43	Grackle	N38 22.435 W119 28.756	11S KC 83422 50214	7539
44	Grosbeak	N38 25.097 W119 33.514	11S KC 76629 55326	10636
45	Mockingbird	N38 22.621 W119 29.884	11S KC 81788 50602	7765
46	Nightingale	N38 23.753 W119 30.116	11S KC 81507 52705	9068
47	Partridge	N38 21.049 W119 35.989	11S KC 72817 47939	9379
48	Snowbird	N38 20.217 W119 36.455	11S KC 72094 46420	9225
49	Tern	N38 20.119 W119 35.792	11S KC 73055 46211	9511
50	Turkey	N38 18.890 W119 37.229	11S KC 70898 43997	9393
51	Yarup	N38 18.020 W119 34.666	11S KC 74597 42283	9229
52	Vireo	N38 17.076 W119 38.450	11S KC 69022 40692	10695
53	EAF Alternate	N38 21.471 W119 30.349	11 S KC 81053 48493	6760
54	CALTRANS Lot	N38 35.113 W119 44.973	11S KC 85934 47616	6822

NON-MOUNTAIN EXERCISE CASUALTY EVACUATION SOP

CASUALTY EVACUATION PLANNING AND REQUIREMENTS

1000. KEY TERMS AND DEFINITIONS. This SOP is designed to be utilized for any training at the MCMWTC which does not include endogenous Battalion Aid Station or equivalent Role 1 medical support. This includes Formal Schools, internal cadre training, small unit training including outside units training at MCMWTC, instructor progressions, as well as any other training unsupported by Role 1 capabilities.

1. Range Control (Call Sign "WHITE PEAK"): Range Control is the authority responsible for the coordination of all unit movements within the RTAA. During casualty evacuations within the RTAA, Range Control is responsible for the tracking the casualty movement as well as the dispatch of all necessary or requested medical support assets to include Base EMS and Civilian/Military Air Assets. All casualties are required to have a MCMWTC CASREP (Paragraph 2002) called into Range Control as soon as feasible without delaying the care of the casualty.

2. Range Training Area and Airspace (RTAA): Training Areas 1-16 located within the Toiyabe National Forest. All units entering the RTAA are required to establish and maintain radio contact with Range Control. The RTAA excludes upper and lower base (hereafter referred to as "base"); base is defined as the footprint of paved roads, the gravel LSA and the buildings within those areas. All airspace is managed by Range Control.

3. Training Unit: Any military individual or group operating within the MCMWTC RTAA.

4. Triage Categories: The evaluation and classification of casualties for purposes of prioritizing treatment and evacuation to ensure medical care of the greatest benefit to the largest number.

a. Urgent: Patients requiring emergency, short notice evacuation (within maximum of one hour for evacuation to higher level care) to save life, limb, or eyesight and to prevent serious complications of the injury, serious illness, or permanent disability.

b. Priority: Patients requiring prompt evacuation (within a maximum of four hours for evacuation) to prevent the medical condition from deteriorating to an urgent precedence or to prevent unnecessary pain or disability.

c. Routine: Patients who do not require immediate medical attention and whose condition is not expected to deteriorate significantly. They should be evacuated to higher medical care within 24 hours.

5. On-Scene Commander (OSC): The OSC is the authority responsible for the triage of the patient, communication with Range Control, and coordination and execution of the casualty evacuation. For all Formal Schools, the OSC is the senior instructor on scene. The OSC will clearly identify themselves as such to Range Control at the initiation of any CASEVAC. When triaging casualties and requesting medical assets, the OSC will seek the advice of the highest competent medical authority on site or within radio contact, but the OSC maintains ultimate authority over all decision-making.

6. High-Risk Training (HRT):

a. HRT is defined as training which exposes personnel and trainers to the risk of death, serious injury, or permanent disability despite the presence of proper safety controls.

b. HRT is further defined as any training event that maintains a residual Risk Assessment Level of IA, IB, IIA, or IIB even after safety controls have been implemented.

7. Casualty Evacuation (CASEVAC): The unregulated movement of casualties that can include movement both to and between medical treatment facilities.

8. Medical Evacuation (MEDEVAC): The use of dedicated ground and air ambulances to transport and provide enroute care by medical personnel to the wounded, injured, or ill from the battlefield and/or other locations to and between medical treatment facilities.

1001. CASUALTY EVACUATION PLANNING. Formal School Instructors will ensure all casualties are extracted from the point of injury to appropriate medical care. Each Formal School will have a casualty evacuation plan specific to their training that incorporates the CASEVAC material requirements, mobility considerations, MCMWTC ground and air CASEVAC/MEDEVAC assets, and the available civilian medical treatment facilities as described below.

1. CASEVAC Brief. Each Formal School will include their CASEVAC plan in their Confirmation Brief to the Commanding Officer or his/her designee and the MCMWTC S-3.

2. CASEVAC Material Requirements. Each Formal School will maintain a safety vehicle for all training within the RTAA. If a safety vehicle is not capable of transport to the nearest hospital via public roads (ATVs, Tuckers, etc), an additional administrative vehicle is required. All HRT requires an on-scene corpsman. Non-HRT does not require a covering corpsman unless specified by their operational risk management controls.

a. Safety Vehicle. Formal School training evolutions will have a designated government issued transport platform or rental vehicle that will:

(1) Have the capacity to transport a litter casualty from point-of-injury (POI), or nearest point accessible by vehicle, to base.

(2) Have two forms of communication with which to remain in contact with Range Control and unit HQ during movements.

(3) Remain within a reasonably walkable distance from the supported unit to allow for foot mobile evacuation to the safety vehicle.

b. Administrative Vehicle for Casualty Transportation to Civilian Medical Centers. The training unit will provide, at minimum, one vehicle to support the movement to civilian medical centers of routine casualties or priority casualties not requiring EMS support (see paragraph 3001.1) requiring transport to outside facilities (e.g. stable casualties requiring imaging). This permits the training unit to conduct their own non-EMS evacuations as well as allows for the casualty to be returned to base following discharge. This vehicle can be the same as the safety vehicle, but the training unit must understand that training cannot occur until this vehicle returns to the training site, which may be hours if tasked with transport to civilian medical centers.

c. HRT. Appropriate medical coverage for HRT includes a safety vehicle and a designated safety corpsman with medical supplies appropriate to the high-risk event. The safety corpsman will be assigned no other duties besides safety coverage. At a minimum, a corpsman will carry a standard medical bag; CASEVAC planning by the OIC and RSO should identify any additional specialized supplies needed (i.e. ropes for high-angle rescue, spine board for activities at risk for spinal fractures, stokes litter for all climbing events, etc.), and the OIC and RSO remain responsible for ensuring the appropriate gear is present.

d. Foot Mobile Units. For any training involving foot mobile movements in the RTAA, the unit must possess at least one SKEDCO litter or equivalent litter system per platoon-sized element or smaller. All instructors accompanying these movements will be trained in the proper use of the SKEDCO litter system.

2. CASEVAC Mobility Consideration. CASEVAC planning should take into consideration the prolonged casualty evacuation times experienced in the mountains due to rough terrain, poor roads, and adverse weather conditions.

a. Foot Mobile. A full physically fit foot mobile platoon typically carries a single litter casualty through a mountainous environment at an average rate of two kilometers per hour.

b. Vehicle. Vehicular travel speeds are significantly restricted by the narrow unpaved roads within the RTA. Over-the-snow vehicles are restricted to speeds less than fifteen miles per hour.

c. Air. Weather and altitude both restrict air CASEVAC/MEDEVAC capabilities.

3. Evacuation Assets:

a. Ground CASEVAC/MEDEVAC Assets available to Formal Schools include the designated safety vehicle and Base EMS. Training unit CASEVAC (see 3000) and Base EMS request and dispatch (see 3001) are discussed below.

b. Air CASEVAC/MEDEVAC Assets: The base employs both civilian MEDEVAC and, as available, on-station air MEDEVAC and CASEVAC assets for the transport of casualties. Civilian air assets will be requested and deployed only for Urgent casualties. Reference 3002 for Air CASEVAC/MEDEVAC assets and procedures.

4. Medical Treatment Facilities. Routine casualties will be evacuated to the DeWert Branch Health Clinic whenever possible. Priority Casualties will be evacuated to either the DeWert Branch Health Clinic or civilian medical treatment facilities as determined by the highest competent medical authority. Available civilian medical facilities are outlined in 3003.3.

5. Environmental Concerns. Environmental Restrictions on LZs and vehicular travel DO NOT APPLY during a casualty evacuation. OSCs should balance the casualty severity and environmental impacts of patient movements, but priority will always remain on the safe and rapid evacuation of casualties to higher medical care. Should environmental damage occur during a casualty

evacuation, the OSC will report the damage to Range Control and follow all relevant Range Control policies.

1002. CASEVAC COMMUNICATION PLANNING. All units within the RTAA will have two forms of communication whenever entering/accessing/occupying the RTAA.

1. Radio Communication. Primary means for communication within the RTAA will be the MCMWTC radio communication frequencies. See Appendix A for range communication frequency information.

a. Coordinate with the MCMWTC communication section (S-6) regarding radio equipment requirements and programming considerations for Very High Frequency (VHF) operations on the repeated network. Communication checks on all designated frequencies should occur with the S-6 or Range Control prior to entering the RTAA.

Ensure all radio equipment has the California Mutual Aid Agreement (CALCORD) frequency programmed per the Range Frequency Card on page Q-23 This frequency is the line-of-sight Air Medical Evacuation frequency for communicating with civilian air assets for terminal landing zone guidance and patient updates.

c. Ensure safety vehicles have designated and programmed radio communication equipment.

2. Cellular/Satellite Phones. There is limited cellular communication coverage within the RTAA. Cellular phones are NOT authorized as alternate communication devices and should not be relied upon as an alternate communication method for units in the RTAA. However, Range Control can be contacted from any phone at (760) 932-1435.

CASUALTY AND CASEVAC/MEDEVAC REPORTING

2000. GENERAL. Range Control (WHITE PEAK) shall be the first point of contact external to the unit's immediate location notified of any casualties within the RTAA and will remain the single point of communication, coordination, and de-confliction for all CASEVACs/MEDEVACs within the RTAA. Formal School Instructors are responsible for contacting Range Control and reporting all casualties sustained within the RTAA via a MCMWTC

CASREP (Figure 2-1). For any casualty sustained on base, see procedures outlined in 2003.2.

2001: TRIAGE AND RESPONSE

1. Triaging Casualties. Once a casualty is identified, the casualty will be triaged by the most competent medical authority on scene. Accurate CASEVAC/MEDEVAC precedence category reporting is critical to properly task and prioritize limited medical and transportation assets. Casualties are triaged into Urgent, Priority, or Routine categories (see 1000.4 for definitions).

a. The initial reported precedence category may be upgraded/downgraded at any time upon further assessment by a higher medical authority or change in patient status.

b. Range Control shall be notified immediately of a change in precedence category and will provide additional resource support as requested or required.

Note: In the event of a mass casualty, the OSC will designate a triage authority who will be responsible for triaging casualties to utilize limited resources in the most efficient manner.

2. Triage Precedence and Response:

a. URGENT Casualties: Air and Ground EMS assets will immediately and automatically be dispatched by Range Control and directed to the casualty or to the nearest suitable location.

b. PRIORITY Casualties: For any Priority Casualties sustained during Formal Schools, Range Control will automatically dispatch Base EMS to the nearest suitable transfer location.

c. ROUTINE Casualties: Formal School instructors are responsible for transporting Routine Casualties to the DeWert Branch Health Clinic or civilian medical centers utilizing designated safety vehicles or administrative vehicles as appropriate.

2002. CASUALTY REPORTING. After identifying a casualty, providing necessary emergency aid, and triaging the casualty, the OSC will immediately establish two-way communications with

Range Control and transmit a MCMWTC CASREP(Figure 2-2) for all casualties.

1. The OSC will contact Range Control on the primary Range Control frequency, telephone number (760) 932-1435 (secondary x1436, tertiary x1439), or via other two-way communication.
2. During all casualty transmissions, all other units will cease radio traffic on the Range Control frequency until completion of the MCMWTC CASREP.
3. Any units along the planned CASEVAC route will yield to EMS or CASEVAC vehicles.

2003. REQUESTING MEDEVAC FROM BASE. If a casualty occurs on base and requires MEDEVAC, Instructors will contact MCMWTC Dispatch Center (Landline: 911. Any phone: 760 932 1466) and provide Dispatch with the information outlined in Figure 2-2.

CASEVAC ASSETS AND PROCEDURES

3000. UNIT GROUND CASEVAC. Formal Schools will execute their own Routine Casualty evacuations via safety vehicles unless Base EMS support is medically indicated (see 3001.1).

1. For Routine CASEVACs executed by the instructors and requiring no external medical assistance from the MCMWTC, the OSC shall:
 - a. Immediately notify Range Control of the casualty via the MCMWTC CASREP (ref Figure 2-1).
 - b. Maintain radio contact with Range Control at all times and update Range Control regarding all transits and handovers of care during the CASEVAC.
 - c. Notify the MCMWTC CDO of any CASEVAC to off-base civilian medical facilities and will report departure, arrival, and the facility to which they transported the casualty.
 - d. Ensure all patients evacuated to off-site medical facilities are at the earliest possible time following discharge. The CDO will be notified upon the casualty's return to base.

2. If the Formal School employs their safety vehicle for a CASEVAC, all training will cease and the students will remain in a non-training status until replacement of the safety vehicle and appropriate medical personnel.

3001. BASE EMS MEDEVAC. The base employs Marine Corps Fire Department (MCFD) Paramedic and EMT units for ground medical evacuation support, referred to as Base EMS.

1. Base EMS Capabilities and Limitations. Base EMS deploys ALS capabilities and providers. ALS includes advanced cardiac monitoring, cardiac defibrillation, airway support, and intravenous fluids and medications to include opioid analgesia. Routine casualties not requiring ALS, intravenous analgesia, or close monitoring enroute to definitive care should not be transported by Base EMS; all Priority Casualties will be transported by Base EMS.

a. When dispatched to a casualty by Range Control, Base EMS will automatically dispatch an ALS-capable vehicle with an ALS provider as available.

b. Once Base EMS arrives on scene, they assume COMPLETE control of the casualty.

(1) If Base EMS begins providing medical care to the patient, Base EMS is legally obligated to transport the patient to a civilian higher echelon care facility.

(2) If upon arrival and prior to initiation of any medical care Base EMS determines that the care of the patient is within the capabilities of the DeWert Branch Health Clinic, Base EMS may elect to transfer the casualty to the clinic. Turnover of care will be reported to Range Control.

2. Base EMS Request and Dispatch Procedure. Formal Schools request Base EMS support via Range Control (see procedures outlined in 2002) through the MCMWTC CASREP (Figure 2-2).

a. The OSC will establish radio contact with Range Control and transmit the MCMWTC CASREP. The OSC will maintain radio contact with Range Control throughout the CASEVAC.

b. Once Base EMS is requested via Range Control, the OSC will inform Range Control of the intended casualty transfer point with Base EMS and provide an ETA for the training unit personnel at the provided meet-up location.

c. The OSC will notify Range Control of the type and number of MEDEVAC assets when they arrive at the casualty's location.

3. Turnover of Care and Transport Procedures. All transfers of patient control from instructors to medical providers within the RTAA will be reported to Range Control by the transferring unit.

4. Cessation of HRT. Base EMS assets support all training operations and installation operations for the MCMWTC. In the event all Base EMS ALS assets are employed and/or unavailable, the MCMWTC will cease all HRT until further notice from White Peak. This temporary training cessation can only be lifted by the MCMWTC Operations Officer, Executive Officer, or Commanding Officer, or by the return of appropriate EMS assets.

a. In the event the last Base EMS asset departs the installation, the Base EMS will notify the MCMWTC Dispatch Center who in turn will be responsible for notifying Range Control.

b. All training units will be informed by Range Control of the temporary departure/non-availability of dedicated Base EMS assets and will cease training. If cessation of HRT is required:

(1) Range OICs and RSOs must cease HRT, perform on site risk evaluation, and adjust unit CASEVAC plans accordingly.

(2) Upon the return of Base EMS assets, MCMWTC Dispatch will inform Range Control of their return, and Range Control will notify training units to return to HRT status.

3002. AIR EVACUATION ASSETS. For all Urgent Casualties, the MCMWTC primarily requests Air MEDEVAC support from civilian aviation assets (see Table 3-1).

1. Air CASEVAC and MEDEVAC Capabilities and Limitations.

a. CASEVAC platforms are any non-medical air asset capable of extracting a casualty from the RTAA and transporting the casualty to the EAF. These air assets do not have medical capabilities and therefore do not constitute a higher level of medical care (see 3002.4).

b. MEDEVAC platforms are dedicated air ambulances. To operate as MEDEVAC platforms, air ambulances must have ALS capabilities and providers, and may therefore be utilized to transport Urgent/Priority casualties directly to higher level medical facilities if necessary.

c. Hoist Requests. If a casualty requiring air evacuation cannot be safely transported to a site suitable for an LZ and therefore requires a hoist extraction, the OSC will specifically request a Hoist-Capable Aircraft during Line 4 of the MCMWTC CASREP. NAS Fallon SAR is the closest military aviation asset permanently available with special extraction capability, such as hoist and penetrator capabilities. Their ETA (approximately 90-120 minutes) must be taken into consideration when requesting hoist capability.

2. On-Station Military Air Assets. Aviation units training at the MCMWTC may include non-medical (CASEVAC) assets and/or dedicated air ambulances (MEDEVAC) assets. Regardless of capability, all military aviation units operating at the MCMWTC capable of transporting casualties will develop a plan to assist the MCMWTC with casualty transport in the event of a mass casualty and deliver this plan to the MCMWTC Air Officer and Range Control prior to arrival.

3. Air MEDEVAC Request and Dispatch for Urgent Casualties. Due to the limited air assets available throughout Nevada, it is of paramount importance that Air MEDEVAC assets be employed judiciously only for Urgent Casualties with rare exceptions.

a. OSC Responsibilities:

(1) The OSC will request air MEDEVAC via Range Control utilizing the MCMWTC CASREP (Figure 2-2) for all medically indicated casualties.

(2) The OSC must take into consideration the weather situation prior to requesting aircraft support. Air EMS may not be a viable EMS asset consideration if foul weather (including

high winds) is present or forecasted. Valuable time may be wasted waiting on a helicopter that may not reach the casualty location due to inclement weather.

(3) The instructors are responsible for identifying and establishing an appropriate LZ for any requested Air MEDEVAC.

b. Range Control Responsibilities:

(1) Upon receipt of an Air MEDEVAC request, Range Control will request Air MEDEVAC support. Local air assets and capabilities are detailed in Table 3-1.

(2) Range Control will inform the unit of estimated time of arrival, aircraft call sign, and contact frequency information.

(3) If Air EMS support is requested by any authority other than the OSC (namely Base EMS), Range Control will ensure that the OSC is made aware of the request.

b. LZs. A list of MCMWTC LZs can be found on page Q-24.

(1) ENVIRONMENTAL RESTRICTIONS DO NOT APPLY during an Urgent/Priority CASEVAC/MEDEVAC situation. Any open area of appropriate dimensions may be utilized as an emergency LZ. If environmental damage is suspected at the emergency LZ, the OSC will notify Range Control at the conclusion of the air evacuation.

(2) LZs will be marked in accordance with applicable directives and in a manner to most clearly identify a safe landing area for the aircraft.

(3) Range Control may vector civilian Air EMS to the Expeditionary Airfield (EAF) until a suitable LZ is made available for the evacuation of the patient.

d. Communication with Air MEDEVAC Assets:

(1) Range Control will coordinate the flight until the OSC informs Range Control they have established visual contact with the aircraft. Range Control will then coordinate a roll from the Range Control net to the CALCORD net in order for the

OSC to contact the CASEVAC/MEDEVAC aircraft for Landing Zone (LZ) control.

(2) CALCORD is a line-of-sight frequency. The OSC will contact the aircraft on the CALCORD frequency for terminal guidance and casualty updates. Due to mountainous terrain, Range Control may not be able to perform a communication check with the unit on CALCORD due to line-of-sight considerations.

(3) When the aircraft has departed with the patient onboard, the OSC will roll back to Range Control on the Range Control net and reestablish contact. Post CASEVAC/MEDEVAC information will be exchanged at that time.

OFF-SITE TRAINING VENUES

4000. GENERAL INFORMATION. The MCMWTC uses multiple off-site installations and venues for conducting both unit and MWFS training. Sites may include DoD and non-DoD managed/owned sites as well as combinations of the two (i.e. Lucky Boy Pass and Ryan Canyon convoy route).

1. Formal Schools are responsible for developing, coordinating, and briefing installation leadership on their off-site training CASEVAC plan.

2. If the training unit plans on employing Range Control as part of their CASEVAC plan, they must provide a copy of their plan to Range Control. This allows Range Control to:

a. Develop training activity emergency support special instructions for the Range Operations Section.

b. Facilitate communication rehearsal and evacuation drill.

3. Off-site training unit CASEVAC plans including Range Control support must be provided at least fourteen days in advance to the commencement of training.

4001. NON-DOD INSTALLATIONS. If training at sites such as Mt. Shasta, Palisades, Mt. Whitney, Mammoth, Berlin, Mt. McKinley, and etc., the local EMS system via 911 should be utilized.

1. Prior coordination with off-site training location managing authority must be conducted (i.e. USFS, BLM, NPS, etc.) as required.

2. The specific CASEVAC/MEDEVAC plan will be detailed per venue and training event and approved by the Operations Officer prior to departure to the off-site training venue.

4002. DOD INSTALLATIONS. The MCMWTC utilizes multiple regional DOD installations, such as NAS Fallon and HWAD.

1. Unit will use installation-specific range regulations and SOPs for CASEVAC planning.

2. The specific CASEVAC/MEDEVAC plan will be detailed per venue and training event and approved by the Operations Officer prior to departure to the off-site training venue.

4003. NOTIFICATIONS. Range Control will be notified at (760) 932-1435 of any off-site CASEVAC/MEDEVAC operations and will assist as requested. Range Control will notify the chain-of-command as per the MCMWTC notification procedures.

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