UNITED STATES MARINE CORPS

Marine Corps Installations West-Marine Corps Base, Camp Pendleton

RANGE AND TRAINING AREA STANDING OPERATING PROCEDURES (MCIWEST-MCB CAMPENO 3500.1 CH 1)

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MCIWEST-MCB
CAMPENO 3500.1
G-3/5-ROD

NOV 1 2 2013

MCIWEST-MCB CAMPEN ORDER 3500.1

From: Commanding General
To: Distribution List

Subj: MARINE CORPS INSTALLATIONS WEST-MARINE CORPS BASE, CAMP PENDLETON RANGE AND TRAINING AREA STANDING OPERATING PROCEDURES

Ref:
(a) MCO 3570.1C (Range Safety)
(b) Camp Pendleton Military Installation Map, V795S, Edition 4-NGA
(c) BO 5090.2 (National Environmental Policy Act Compliance)
(d) MCB CamPen Aviation Training Facilities Inventory of 24 Feb 2005
(e) MCIWEST-MCB CAMPENO 5000.2 (Base Regulations)
(f) FM 3-23.30 (Grenades and Pyrotechnic Signals)
(g) MCO P8020.10B (Marine Corps Ammunition Management and Explosives Safety Policy Program)
(h) OPNAVINST 5530.13D (Department of the Navy Physical Security Instruction for Sensitive Conventional Arms, Ammunition, and Explosives)
(i) MCO 8025.1E (Class V (W) Malfunction and Defect Reporting)
(j) MCO 5104.1C (Navy Laser Hazards Control Program)
(k) BO 1700.3 (Waiver of the Minimum Drinking Age for Alcohol Consumption)
(l) StaO 3710.1D (Airfield Operations Manual, Marine Corps Air Station Camp Pendleton)
(m) United States Coast Pilot 7 (Pacific Coast: California, Oregon, Washington, Hawaii and Pacific Coast)
(n) MCO 1500.52D (Marine Corps Water Survival Training Program)
(o) MCO P4400.150E w/Erratum CH1-2 (Consumer-Level Supply Policy Manual)
(p) BO P8000.3 (Ammunition and Explosive Safety)
(q) MCO3400.3G (Chemical, Biological, Radiological and Nuclear Defense Training Requirements)
(r) Laser Range Safety Certification Report for Marine Corps Base Camp Pendleton San Diego CA of June 2012
(s) NAVMED P-5010-4 (Manual of Naval Preventive Medicine)

1. Situation. The Commanding General (CG) is republishing information, instructions, and procedures governing the use of ranges, training areas, airspace and sea space operated and controlled by Marine Corps Installations West-Marine Corps Base, Camp Pendleton (MCIWEST-MCB CAMPEN).

2. Cancellation. BO 3500.1N.

3. Mission. To ensure all agencies and units operating within Camp Pendleton ranges, ground and water areas, and airspace under the control of the CG, MCIWEST-MCB CAMPEN adhere to these regulations.

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

4. Execution

a. Commander's Intent and Concept of Operations

(1) Commander's Intent. Final result desired is that personnel operating within Camp Pendleton ranges, ground and water areas, and airspace operate in a safe manner, preserving life, equipment, and natural resources.

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

b. Coordinating Instructions

(1) This Order contains substantial revision and should be completely reviewed.

(2) In the event these instructions conflict with those issued by higher authority, the orders of the higher authority shall take precedence. Notify the CG, MCIWEST-MCB CAMPEN (Attn: Assistant Chief of Staff (AC/S), G-3/5) of any conflict or question of interpretation.

(3) Review of the laser special instructions, aviation special instructions, range special instructions and the aviation facilities study should be accomplished by commanders and all personnel in a supervisory role prior to conducting any training aboard MCIWEST-MCB CAMPEN.

(4) Commanders of organizations utilizing Camp Pendleton ranges are encouraged to submit recommendations concerning improvements or changes to the CG, MCIWEST-MCB CAMPEN (Attn: AC/S, G-3/5).

5. Administration and Logistics. Directives issued by this Command are published and distributed electronically via e-mail. Electronic versions of the MCIWEST-MCB CAMPEN directives can be obtained at: https://www.mciwest.usmc.mil/inst/mciwest/manpower/MCIWMCBADJ/default.aspx

6. Command and Signal

a. Command. This Order is applicable to all commands, organizations, units and activities located aboard Marine Corps Base, Camp Pendleton.

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

D. J. TERANDO
Chief of Staff

DISTRIBUTION: A-3
B
C

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MCIWEST-MCB
CAMPENO 3500.1 Ch 1
G-3/5-ROD

JUL 01 2014

MCIWEST-MCB CAMPEN ORDER 3500.1 Ch 1

From: Commanding General
To: Distribution List

Subj: MARINE CORPS INSTALLATIONS WEST-MARINE CORPS BASE, CAMP PENDLETON RANGE AND TRAINING AREA STANDING OPERATING PROCEDURES

Encl: (1) New page inserts to MCIWEST-MCB CAMPENO 3500.1

1. Situation. To transmit new page inserts to MCIWEST-MCB CAMPENO 3500.1.

2. Mission. This change incorporates new policy regarding impact area access and the establishment of Confined Area Landing (CAL) Site 24 on Marine Corps Installations West-Marine Corps Base, Camp Pendleton.

3. Execution. Remove pages iii, 4-5, 6-9, B-1 through B-5, and F-4 of the basic Order and replace with corresponding pages in the enclosure.

4. Summary of change. The changes to Chapters 4 and 6 and Appendix B of the Order are specific to access to impact areas. The change to Appendix F promulgates the establishment of CAL Site 24.

5. Filing Instructions. File this change transmittal immediately behind the signature page of the basic Order.

J. K. ARRUDA
Chief of Staff

DISTRIBUTION: A-3
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C

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CHAPTER 1

GENERAL

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CHAPTER 1

GENERAL

1000. PURPOSE AND SCOPE

1. General. This Order prescribes the regulations and general precautions to be taken while conducting training activities within the Marine Corps Installations West-Marine Corps Base, Camp Pendleton, (MCIWEST-MCB CAMPEN) California, Range Complex. The Range Complex consists of the land space designated as ranges, aviation and ground training areas, delegated special use airspace, and sea space identified for training within this order.

2. Purpose. In accordance with the Marine Air Ground Task Force (MAGTF) Training Program, the primary purpose of this Order is to establish policy which will guide and support training of operational units in those skills required to conduct integrated MAGTF operations to facilitate the training continuum, and ensure a safe and realistic training environment. Training of Marine Corps units is executed on a continuum, beginning with training of individual Marines in basic and advanced warfighting skills, continuing through training of small units, and culminating in the MAGTF Large Scale Exercise (LSE).

3. Maneuver Corridors. Based on the training continuum, proficiency with the variety of military weapons and hardware used by Marines stationed at Camp Pendleton is crucial to the readiness of the Marine Corps and the military training mission of the Base. A key to developing weapons proficiency is ready access to the Range and Training Areas (RTA) across the Base's interior, particularly those firing positions located around the perimeter of the Zulu, Whiskey and Quebec impact areas located generally in the center of the Base. Additionally, amphibious landing operations, with follow on movement to critical training ranges, is fundamental to the development of core competencies. One of the primary components of accessing interior ranges is the availability of inland transit routes, called maneuver corridors (Diagram 1-1). These maneuver corridors facilitate movement of military personnel, equipment and vehicles to key locations. To support the training continuum, especially the MAGTF LSE, the maneuver corridors must remain relatively unrestricted by man-made constraints and/or rigid environmental regulations.

4. Command and Control. The Range Control Facility for the MCIW-MCB CAMPEN Range Complex is "LONGRIFLE", located aboard Marine Corps Air Station (MCAS) Camp Pendleton in Bldg 2399. "LONGRIFLE" provides command and control of all scheduled operations conducted within the MCIWEST-MCB CAMPEN Range Complex.

5. Warning. Failure to comply with these regulations may result in death or injury to personnel, or damage to equipment. Noncompliance may subject the offender to administrative or disciplinary action.

1001. BATTALION/SQUADRON COMMANDER

1. General. Ensure compliance with this Order, directives in the MCO 3570 series, applicable technical manuals (TM), field manual (FM), and Marine Corps Warfighting Publications (MCWP), applicable Safety Of Use Memorandums (SOUM), installation range guidance, and applicable standard operating

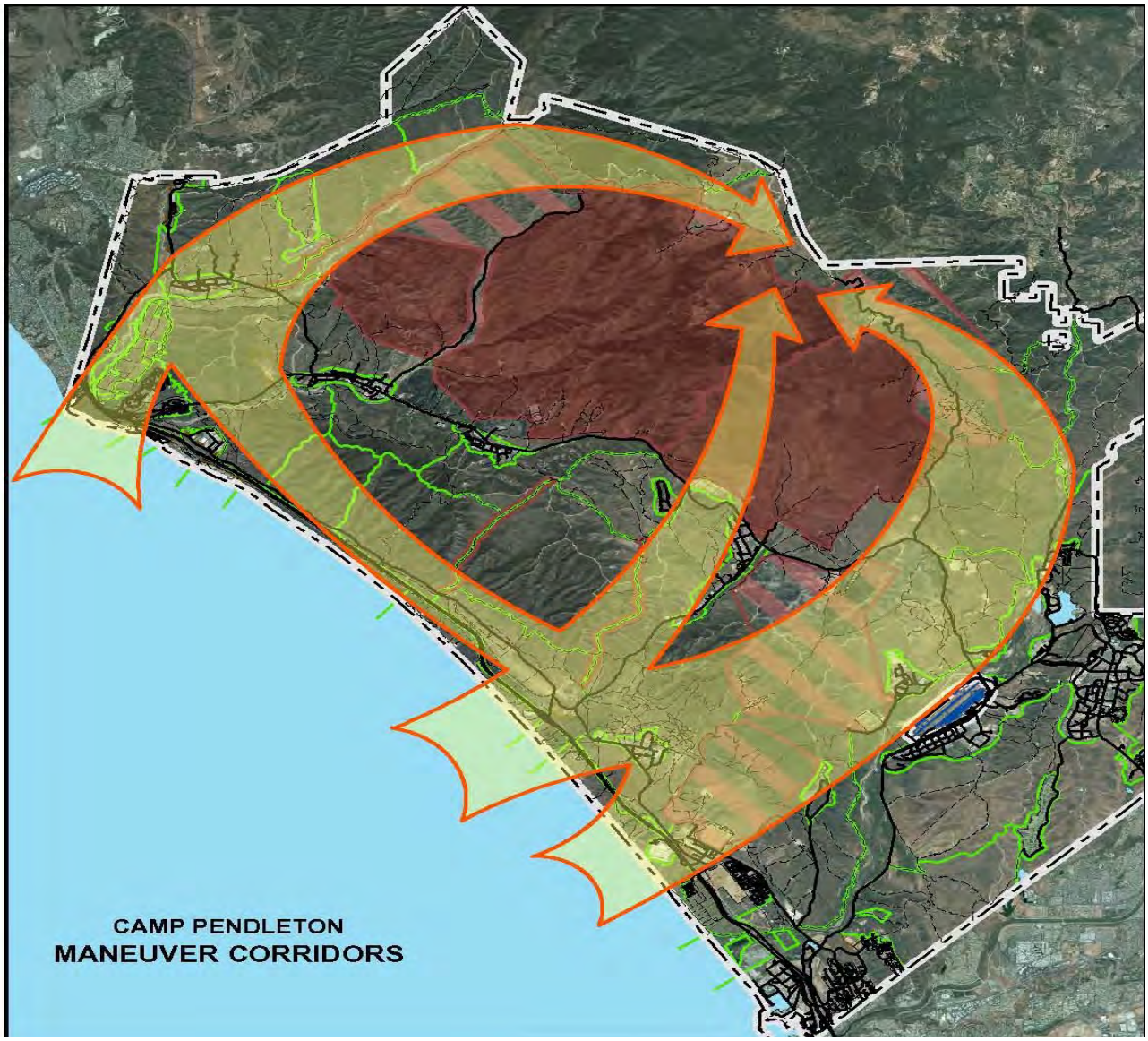

Diagram 1-1

procedures (SOP) for safe training and firing for each weapon system within the command.

a. Designate an Officer in Charge (OIC) and or a Range Safety Officer (RSO) for all training events in accordance with the provisions listed in Figure 1-1, and paragraphs 1002 and 1003 of this Order. At your discretion RSOs for Non-Live Fire training, other than dive or parachute operations, may be designated by company/battery commanders.

b. ORM. Develop Operational Risk Management (ORM) procedures for all phases of training event(s). A type written ORM worksheet signed by the

battalion/squadron commander, designating the OIC and RSO, must be on hand during all training activities.

2. Briefing. Ensure all personnel within the command are briefed on installation range procedures and safety requirements including required personal protective equipment.

1002. OIC AND RSO QUALIFICATIONS

1. Unless specifically authorized by the Range Control Officer (RCO) or by this Order, all personnel entering ranges and training areas must be supervised by a MCIWEST-MCB CAMPEN qualified RSO. As discussed below, a RSO for training safety oversight and a RSO supervising administrative activities have different RSO training qualification requirements. In accordance with Figure 1-1, certain training events require supervision by a MCIWEST-MCB CAMPEN qualified OIC.

2. Training OICs and/or RSOs are required for all types of training (maritime activity, Para Ops, convoys, Helicopter Rope Suspension Training (HRST), gas chambers, hikes, etc.) and live fire with munitions involving projectiles or explosives. Personnel in this category include military personnel, law enforcement officers, civilian contractors providing military training and civilian entities conducting live fire under a real estate license. Qualification requirements for a Training OIC and RSO are listed in paragraphs 1003.2 and 1004.2.

3. An administrative RSO is required for supervision of events or activities not related to training. Personnel in this category include civilians providing range and training area services such as construction projects, environmental survey, or facility maintenance. An administrative RSO only requires MCIWEST-MCB CAMPEN specific training to ensure safe transition and operations in line with their activities.

4. Specific information regarding OIC and RSO training and qualification may be obtained from the Range Operations Division (ROD) web site at https://www.mciwest.usmc.mil/inst/mciwest/rpolicy/rod/default.aspx or http://www.pendleton.marines.mil/StaffAgencies/AssistantChiefofStaffG35/RangeOperationsDivision.aspx or call commercial (760) 725-0357.

1003. OIC OF TRAINING

1. General. The OIC shall be of equivalent or senior rank to the RSO. The OIC maintains surveillance of firing and safety within the entire surface and vertical hazard space of the assigned range; he/she shall be physically present at live fire events. The OIC is a supervisory position conducted by a commissioned officer, warrant officer, staff noncommissioned officer, noncommissioned officer or civilian equivalent. Civilian contractors shall not perform as an OIC. The OIC may personally participate in training, as long as the OIC can maintain control of the training event.

2. Training

a. The OIC must complete the Training and Education Command (TECOM) Distance Learning Range Safety Course (DLRS) and the MCIWEST-MCB CAMPEN Range Safety Certification Course (RSCC).

b. Upon successful completion of the RSCC, Range Operations will enter those names into the Range Facility Management Support System (RFMSS) data base.

c. Both DLRS and local certification are valid for three years. DLRS expiration date and local certification expiration date will coincide with each other. Personnel with DLRS that expire within 90 days or less will not be tested for local range safety certification.

3. Responsibilities

a. The OIC shall have a detailed ORM worksheet signed by the unit commander, that covers all phases of training to be conducted, in his/her possession at all times while training. For live fire and maneuver (LFAM) training, an approved concept of operations, scheme of maneuver and RCO Brief Sheet must also be in his/her possession at all times while training.

b. The OIC shall ensure all personnel wear the appropriate personal protective equipment. Helmets and flak jackets shall be worn for any Live event involving movement or maneuver, high explosives or grenades, machinegun, or Close Quarters Battle in shoot houses. For all other training, either the ORM or unit SOP will determine if helmets and flak jackets will be required.

c. The OIC shall be certified on the weapon(s) or weapons system(s) being used and brief the RSO on the duties to be performed in support of the training event, and clearly establish the requirement for the RSO to brief the OIC on the safety of the facility/unit, and the readiness to commence live-fire operations prior to the start of firing.

d. The OIC is responsible for accountability and proper use of ammunition and explosives. OICs will account for all ammunition and explosives on the NAVMC 11381 Expenditure Report. Refer to Chapter 7 of this Order.

e. The OIC will verify that the RSO is qualified with the weapon(s) or weapons system(s) being used.

f. The OIC will ensure that the RSO provides for an emergency vehicle and medical personnel for all training events as prescribed in Figure 1-2.

g. In the event of a medical evacuation (MEDEVAC), the OIC or an appointed representative will suspend all training, and will:

(1) Ensure first aid is rendered.

(2) Ensure LONGRIFLE is contacted and the location, nature of the accident, and assistance required is reported. If radio communication fails, use any means available to contact LONGRIFLE.

(3) Refer to paragraph 1011 for additional MEDEVAC information.

1004. RSO OF TRAINING

1. General. The RSO assists in maintaining surveillance of firing and safety within the entire surface and vertical hazard space of the assigned range; he/she shall be physically present at the training site. The RSO is a

supervisory position conducted by a commissioned officer, warrant officer, staff noncommissioned officer, noncommissioned officer, or civilian equivalent. Civilian contractors may act as RSOs when approved by the Commanding General. The RSO shall not personally participate in training. THE RSO WILL NOT BE ASSIGNED OTHER DUTIES NOR FIRE A WEAPON, and will be the last to leave the range following completion of firing and clean-up, ensuring that the range is clear of all personnel and equipment. The RSO will ensure that all trash and brass are removed from the range after completion of training.

2. Training

a. The RSO must complete the TECOM DLRS and the MCIWEST-MCB CAMPEN RSCC.

b. Upon successful completion of the RSCC, Range Operations Division (ROD) will enter those names into the RFMSS data base.

c. Both DLRS and local certification are valid for three years. DLRS expiration date and local certification expiration date will coincide with each other. Personnel with DLRS that expire within 90 days or less will not be tested for local range safety certification.

3. Responsibilities

a. The RSO is responsible for the enforcement of applicable safety regulations contained in this Order, directives in the Marine Corps Order (MCO) 3570 series, and other applicable field, technical, and ordnance publications. The RSO shall be qualified on the weapon(s) or weapons system(s) being used.

b. The RSO must be able to identify the right and left lateral limits for all live fire ranges, and that each firing position observes the proper left and right limits for each firing lane. The RSO will ensure that no cross firing between firing lanes occurs.

c. The RSO shall maintain communications with LONGRIFLE at all times. When communications are lost, the RSO will cease all training until communications are reestablished.

d. RSO’s shall conduct the check-in/check-out process for all ranges and training areas as outlined in paragraph 6002 of this Order.

e. The RSO for rappelling/HRST training shall be a qualified Rappel/HRST Master and be present at all times during rappel/HRST operations.

f. The RSO for assault climbing training shall be a qualified Assault Climber/Mountain Leader and be present at all times during training.

g. The RSO for hexachloroethan (HC) smoke, terephthalic acid (TA) smoke and Nuclear, Biological, and Chemical (NBC) operations must be a qualified 5711/5702 or designated by the unit level commander.

h. The RSO shall ensure all weapons settings (i.e., headspace, timing, FDC, and safety “T”) are correct.

i. The RSO shall provide for an emergency vehicle and medical personnel for all training events as prescribed in Figure 1-2.

j. The RSO for parachute and airdrop operations shall be current and qualified Jumpmaster performing as the Drop Zone Safety Officer (DZSO); the RSO/DZSO must be at the DZ during parachute/airdrop operations.

1005. SAFETY

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

2. Any individual who observes an unsafe condition shall report the location and condition immediately to LONGRIFLE. A training event or any other activity affected by the unsafe condition shall be halted until the unsafe condition has been corrected.

3. All members associated with the training event have the option to call "cease-fire". The greatest danger to life and limb is associated with live-fire; therefore, range restrictions for various weapons/ammunition are listed in the special instructions for each range.

4. Effects of live fire must be contained within designated impact areas and associated surface danger zones (SDZ)/weapon danger zones (WDZ) for ranges. If the effects of live fire are known or suspected to have been fired outside of the SDZ/WDZ for the range, such an event must be reported to LONGRIFLE immediately.

1006. MEDICAL REQUIREMENTS

1. Live-fire Ranges. Appropriate medical personnel (as per Figure 1-2) with first aid equipment shall be present on all ranges, unless specifically excluded in this Order. He/she shall not be assigned any additional duties when live-firing is in progress. The term "live-firing" includes any caliber of ammunition (including blanks), hand or rifle grenades, demolitions, rockets, or any other ordnance capable of producing an explosion or high rate of burning. Additionally, a wheeled vehicle designated as a safety vehicle shall be located at all ranges during live-firing. Privately owned vehicles (POV) shall not be used as safety vehicles. Whenever possible, this vehicle should be an ambulance. At a minimum, the safety vehicle shall be capable of accepting a litter. During Helicopter Support Team (HST) or HRST operations, the helicopter involved in the training meets the requirements for a safety vehicle.

2. Training Areas. Appropriate medical personnel (as per Figure 1-2) and safety vehicle shall be present during unit training activities conducted within training areas and beaches.

3. Range Series/Complexes. When the 116, 130, 210, 314 range series, Field Medical Service School (FMSS), Infantry Immersion Trainer (IIT), Improvised Explosive Device (IED) lanes and Horno or Wilcox Range complexes are used by the same military organization, use of a single appropriate medical person

(as per Figure 1-2) and safety vehicle with two-way radio communication is authorized.

Officer-in-Charge (OIC)/ Range Safety Officer (RSO) Appointment Requirements						
EVENT	OIC*1/2/5			RSO*2/3/5		
	OFF	WO	NCO	OFF	WO	NCO
HC Smoke/Riot Control Agents (CS) *6	X	X	E-6	X	X	E-5
CBRN Confidence Training (Gas Chamber) *4	X	X	E-6	X	X	E-5
AT-4 9mm Tracer Trainer, 9mm Spotting Rifle Shoulder Launched Multipurpose Assault Weapons (SMAW) Not Rocket, Light Anti-Tank Weapon (LAW) Trainer, Light Armored Vehicle (LAV) Brewster, Practice Hand Grenades, All 40mm TP, Laser Devices, Simulators, Trip Flares, Small Arms, Machine Guns, .50 Cal And Below	X	X	E-6	X	X	E-5
Field Artillery	X	X	E-7	X	X	E-6
LFAMs, Combined Arms Live-Fire Exercises, Aerial Gunnery, Air Defense Weapons	X	X	E-7	X	X	E-6
Aerial Gunnery & Air Defense Weapons; Flame-Throwers; Live Hand Grenades, Grenade Launchers, (All40mm HE); Live Mines, Demolitions; Tank & Fighting Vehicle Cannons; Recoilless Rifles	X	X	E-7	X	X	E-6
Mortars/USMC	X	X	E-6	X	X	E-5
SRC-1 ITEMS: Javelin/AT-4/Dragon/Stinger *RSO REQUIREMENTS NON WAIVERABLE*	X	X	E-7	X	X	E-6
Live-Fire Exercises Using Organic Weapons, Squad Company, Battery, and Troops. Direct Fire NON SRC-1 ITEMS: TOW, SMAW & ROCKET MISSLES	X	X	E-7	X	X	E-6
Parachute Ops/(HST) Ops/ Dive Ops (Qualified Instructor)/Rappelling/HRST	X	X	X	X	X	E-4
Training Area/Bch Operations/Training Facilities (NO Munitions)	X	X	X	X	X	E-4
Training Area/Bch Ops/Training Facilities (With Munitions)	X	X	E-6	X	X	E-5
Mortars U.S. Army	X	X	E-6	X	X	E-6
Special Effects Small Arms Marking System (SESAMS)	X	X	E-7	X	X	E-6
Steel Reactive Targets (SRT)	X	X	E-7	X	X	E-6

*1 - The OIC shall be of equivalent or senior rank to the RSO.
*2 – Marine Corps Community Services (MCCS) activities may be conducted without an OIC, corpsman or safety vehicle as long as a qualified Camp Pendleton RSO is present and observing all activities.
*3 - Civilian contractors may act as RSOs when approved by the Installation Commander.
*4 - OIC and RSO must have been trained in the 2-Chlorobenzylidenemalononitrile (CS) chamber within the past year. An E-4 or above [chemical, biological, radiological, and nuclear (CBRN) MOS 5702/5711] must be present when conducting CBRN training in a gas chamber.
*5 - The OIC shall be a field grade officer and the RSO shall be an E-7 or above for all battalion or larger live fire exercises.
*6 - When CS is used in outdoor confidence courses, the RSO must have been trained in the CS chamber within the past year. The use of a 5702 CBRN Defense Officer and 5711 CBRN Defense Specialist is not required.

Figure 1-1

Medical Support Requirements for Live Fire and Training Areas			
Category	**Description**	**Minimum Capabilities**	**Allowed Training Coverage**
1	Combat Life Saver	• Patient assessment • Basic First Aid • Basic Airway Management • Cardiopulmonary resuscitation	Any training not involving live fire. Exceptions: Dive Ops, Para Ops, HRST Ops
2	Emergency Medical Technician (EMT)-I All Corpsmen or Medics	• Patient assessment • Advanced first aid • Use of adjunctive breathing aid & administration of oxygen • Resuscitation • Transportation of ill & injured persons • Manual Defibrillation • Endotracheal intubation (ET) • Esophageal-trachea airway device (combitube) • ET	Cat-1 Coverage Dive Ops, Para Ops, HRST Ops Static Fire of Small Arms (.50 caliber & below)
3	EMT-II All Corpsmen or Medics	• All EMT-I skills • Electrocardiogram (EKG) monitoring • Defibrillation & Cardioversion • Antishock trousers • Intravenous infusion • Esophageal airway • Obtain venous blood • 9 medications • Laryngoscope • Gastric suction	Cat-2 Coverage Any High Explosives or Demolitions Any Fire & Movement/Maneuver Any Closed Quarters Battle (CQB)/ Infantry Training Battalion Training
	Paramedic Special Ops Corpsmen Medics Independent Duty Technician	• All EMT-I and IIs skills and medications • Laryngoscope • ET (adults, oral) • Glucose measuring • Valsalva's Maneuver • Needle thoracostomy and cricothyroidotomy • Nasogastric intubation (adult) • 21 medications	

Figure 1-2

1007. POSITION SAFETY OFFICER (PSO). In addition to OIC and RSO requirements, weapons qualified PSOs shall be assigned for all static live fire, live fire and movement, and live fire and maneuver training as follows:

1. Vehicle weapons system. One PSO for each vehicle.

2. Crew served weapons on static range. One PSO for every two weapons.

3. Crew served weapons in a Support by Fire Position. One PSO for each weapon.

4. Dismounted personnel on static range. One PSO for every four shooters.

5. Dismounted personnel conducting LFAMs or Live Fire and Movement. One PSO for every four shooters during day time and one PSO for every two shooters during night time.

6. CQB. One PSO for each active team in a shoot house.

1008. RANGE RESTRICTIONS

1. General

a. Firing or bombing will be conducted on authorized ranges and LFAM areas only. This does not prohibit the controlled use of blank ammunition or noisemakers [small, controlled demolition charges of .25 pound of Trinitrotoluene (TNT) or equivalent] in accordance with this Order.

b. The use of chemical ammunition will be in strict compliance with technical manuals and directives. The use of riot agents (CS) and other obscuration materials shall be in strict compliance with Chapter 7 of this order.

c. Personnel not specifically scheduled to be on ranges or within training areas are not authorized. In addition, recreational activity such as biking, hiking or running are strictly prohibited.

2. Privately Owned Vehicles (POVs) and Privately Owned Weapons

a. POVs are prohibited on all live-fire ranges, Artillery Firing Areas (AFAs), Mortar Firing Areas (MFAs), training areas and access roads to those areas, unless authorized per range special instructions or approved by the RCO. All authorized POVs shall display an issued POV Pass. Prior to being issued a POV pass, personnel shall submit a command letter (Battalion-Level) to the RCO justifying the need to utilize a POV in support of training. During authorized hunting and fishing periods, the RCO may authorize hunter POV parking along main roads in training areas. Privately owned motorcycles are not authorized at any time.

b. Privately owned weapons are only authorized on MCCS designated recreational ranges or during authorized hunting activities.

c. Carrying military weapons to and from any range in POVs is not authorized without organizational commander’s approval.

d. Off road activity by POVs is strictly prohibited.

e. The use of unit All Terrain Vehicles (ATVs) must be approved by the RCO (seven days prior to the event).

(1) All operators shall be required to have a current Base ATV Safety Card, and all ATVs must be fitted with a spark arrestor.

(2) Other than approved ATV convoy training, all ATVs must be trailered to the training area that they are to be utilized. To be considered for approved ATV convoy training, the unit shall submit an ATV convoy overlay to the RCO (seven days prior to the event).

(3) ATVs are prohibited from traveling on hard surfaced roads.

f. Violations of any vehicle provisions may result in the issuance of a traffic violation and appearance before the MCIWEST-MCB CAMPEN Magistrate and or administrative action or disciplinary action under the Uniform Code of Military Justice.

3. Civilians

a. Unit sponsored functions which include civilian participation or observation requires RCO approval.

b. Department of Defense (DOD) Employees or Government Contractors operating with-in the scope of their employment or contract are not subject to this provision.

c. All media observation/filming requests shall come from MCIWEST-MCB CAMPEN Public Affairs Office (PAO).

(1) PAO shall notify the Range Scheduling no later than 48 hours from the event.

(2) All civilian media personnel shall be accompanied by PAO personnel.

(3) All media and PAO personnel shall only observe from the unit OIC and RSO designated viewing area.

(4) All protective equipment must be provided by the requesting unit.

d. All civilian activities requested shall be in accordance with reference(a) and local restrictions imposed by the RCO.

4. Physical Training (PT). Unit PT in training areas shall be scheduled via the Range Scheduling Office. This includes individual PT.

5. Alcohol. Alcohol is not allowed on ranges or in training areas unless a waiver has been granted. In accordance with reference (k), specific waiver requests for underage drinking must be submitted directly to the Commanding General (CG), MCIWEST-MCB CAMPEN.

6. Camp Fires. Camp fires will not be started on any range or in any training area except when authorized by the Assistant Chief of Staff (AC/S), G-3/5. Cutting of trees and brush for such fires is prohibited. Fires will be carefully extinguished prior to leaving the area. CAMP FIRES WILL NOT BE PERMITTED WHEN THE FIRE DANGER RATING IS **VERY HIGH** OR **EXTREME.**

1009. WAIVERS TO REGULATIONS. Requests for waivers to the provisions contained in this Order will be addressed to AC/S, G-3/5 and submitted no less than 30 days prior to the planned event; waivers must include all

required endorsements. It is recommended that waiver requests be coordinated with the RCO prior to submission.

1010. MISHAP REPORTING. When a training mishap occurs on a range or in a training area (i.e. vehicle roll over), the RSO shall immediately notify LONGRIFLE by radio or telephone, to include number of personnel and equipment involved. In addition, the Unit Commander will immediately notify the appropriate chain of command. When ordnance material is involved, the mishap will also be reported to the Base Explosive Safety Officer and an ordnance malfunction report shall be filed if required.

1011. MEDEVAC PROCEDURES

1. General. LONGRIFLE must be notified of all medical emergencies occurring within MCIWEST-MCB CAMPEN ranges, training facilities, and offshore operating areas. If a radio is not available, contact LONGRIFLE at (760) 725-3974. Designated medical personnel or the senior Marine on location shall determine the extent of a medical emergency. Sound judgment will always be paramount in any successful responses to an emergency. The MEDEVAC category shall be relayed to LONGRIFLE. The categories or classifications are as follows:

a. Emergency/Urgent. Requires immediate response. This category includes any injury considered to be life threatening or involving loss of limb or eye sight if not transported in a timely manner. Evacuation method will be determined by Emergency Medical Services (EMS). All MEDEVACs involving maritime operations will be classified emergency/urgent.

b. Priority. Requires timely response. This category includes any serious injury not considered to be life threatening or loss of limb or eye sight. Evacuation method determined by EMS.

c. Routine. May or may not require transport. This category includes minor injuries, (cuts, bruises, sprains not involving head or spinal cord injury). MEDEVAC, if required, is accomplished via organic unit assets.

2. Coordination. LONGRIFLE will initiate emergency and priority MEDEVAC requests with MCIWEST-MCB CAMPEN EMS, and remain the principal coordination agency with Camp Pendleton EMS during the MEDEVAC. In order to facilitate a timely response to training mishaps, incident details such as number of personnel injured, extent of injuries, and vital signs should be relayed to LONGRIFLE. The following information pertains to MEDEVAC responses.

a. EMS will determine the most effective means of evacuation.

b. Naval Hospital, Camp Pendleton is not trauma-capable. Figure 1-3 is provided for planning purposes.

c. Camp Pendleton does not have a military MEDEVAC aircraft on standby. In the event EMS determines an air ambulance is required, civilian services will be utilized.

d. The Camp Pendleton Fire Department must be on-scene for the arrival of any civilian air ambulance to ensure the victim is prepared for transport and the landing zone is identified and marked in accordance with civilian air ambulance requirements.

e. Victim(s) should not be transported via military aircraft.

f. DURING A MEDEVAC, ALL UNITS ON BASE RANGE CONTROL SAFETY NETS SHALL CONTINUE TO MONITOR THE NETS BUT SHALL NOT TRANSMIT UNLESS THEY REQUIRE ADDITIONAL MEDEVAC SUPPORT.

MEDEVAC Planning Information								
Name	Address	Travel Time		Phone	Helipad		Burn/Trauma	
		Air	Grd		Yes	No	Yes	No
U.S. Navy Hospital - NHCP	**Bldg H-100 CAMPEN**	**3**	**10**	**760-725-1611**	**X**			**X**
Tri-City Medical Center	**4002 Vista Way, Oceanside**	**8**	**20**	**760-940-3507**	**X**			**X**
Mission Viejo Medical Center	**27700 Medical Center Rd, Mission Viejo.**	**10**	**30**	**949-364-1181**	**X**		**X**	
Scripps Memorial Hospital, La Jolla	**9888 Genesee Avenue, La Jolla**	**10**	**40**	**858-626-6151**	**X**		**X**	
Palomar Medical Center	**2185 W. Citracado Pkwy Escondido.**	**10**	**40**	**442-281-5000**	**X**		**X**	
UCSD Medical Center	**200 W. Arbor Drive, San Diego**	**20**	**60**	**619-543-2154**	**X**		**X**	

Figure 1-3

1012. FIRE DANGER RATING (FDR)

1. General. FDRs and associated control measures are promulgated to reduce the danger from wildland fires. FDRs are applicable to all organizations and individuals at Camp Pendleton at all times. The FDRs are determined by the Base Fire Department; restrictions are determined by the AC/S, G-3/5.

2. FDRs. FDRs and commonly employed restrictions are contained in Figure 1-4 of this order.

3. Dissemination

a. MCIWEST-MCB CAMPEN Fire Department is responsible for dissemination of the FDR.

b. A notice reinforcing or adding additional restrictions based on the FDR will be available on the ROD SharePoint site https://www.mciwest.usmc.mil/inst/mciwest/rpolicy/rod/default.aspx and will be promulgated via OPSGRAM.

4. Action

a. OICs/RSOs are responsible for ensuring the FDR restrictions are adhered to.

b. LONGRIFLE shall notify OICs/RSOs of FDR changes as they occur.

c. In the event of a wildland fire on any range, impact, or training area, the RSO will immediately account for personnel and relocate as required. Notify LONGRIFLE, as soon as possible, stating the exact location and extent of the fire, and its proximity to any personnel, equipment or

property (to include targetry/equipment/signage) that may be in danger. LONGRIFLE will then instruct the RSO as to what action to take prior to the arrival of the Base Fire Department. The RSO shall follow the directions of LONGRIFLE and or the Base Fire Department to ensure the safety of personnel and equipment. UNDER NO CIRCUMSTANCES WILL ANYONE ENTER AN IMPACT AREA TO FIGHT FIRES.

d. The RCO will monitor all range and training area fires as they occur, and is authorized to assist the Base Fire Chief to safeguard government property and personnel. This will include the control of firing and the removal of units from training areas threatened by fire. Maximum effort will be made not to interfere with scheduled training. However, safety considerations shall take precedence.

e. Approval for using munitions not authorized during certain FDR conditions shall be submitted to the RCO 30 days in advance.

FIRE DANGER RATINGS		
FIRE DANGER RATING (HAZARD)	**CAUTION TO BE EXERCISED**	**NECESSARY PRECAUTIONS**
0 - 30 (LOW)	Use normal caution.	**Units SHALL adhere to restrictions promulgated by RCO.**
31 - 40 (MODERATE)	Use normal caution. Fires will start easily.	**Units SHALL adhere to restrictions promulgated by RCO.**
41 - 60 (HIGH)	Use extra caution. Fires will start very easily.	The use of tracers may be temporarily suspended. Handheld or grenade launched airborne pyrotechnics ARE NOT authorized. For interior Training Areas - blanks & smoke (used in an ammo can) are authorized in cleared areas. For perimeter Training Areas (Bravo I, Bravo II, Charlie, Delta, Echo, Foxtrot, Golf, Hotel, India, Juliet, Lima, November and Sierra) ordnance or flame producing devices (including smoking) ARE NOT authorized. Smoking is permitted only in cleared areas or on fire breaks of interior training areas. **Units SHALL adhere to any additional restrictions promulgated by RCO.**
61 - 80 (VERY HIGH)	Use extreme caution. Fires are very hard to control.	All previous restrictions apply. Authorized areas for increment burning will be identified by the RCO. Smoking is permitted only in cleared areas or on fire breaks of interior training areas. **Units SHALL adhere to any additional restrictions promulgated by RCO.**
81 & Higher (EXTREME)	Flash condition. This is the highest class of fire danger. Fires started are practically impossible to extinguish and usually continue until danger rating conditions improve or burn themselves out. The utmost caution with fire-producing agents and devices must be exercised at all times.	The firing of high explosives, pyrotechnics, incendiaries, or other ammunition likely to cause fires is prohibited unless specifically authorized by RCO. The use of any type of training/live ordnance (to include blanks), heat or flame-producing devices (heaters, welders, stoves, or open fires) in training areas is strictly prohibited unless authorized by RCO. No off-road activities by vehicles (HMMWVs, etc.) are permitted without authorization from RCO. Firing units will exercise maximum precautions to prevent fires from starting. Smoking shall not be permitted under any circumstances. **Units SHALL adhere to any additional restrictions promulgated by RCO.**
****The RCO will publish additional restrictions via the Range Control web site and OPSGRAM. Units should refer to this guidance prior to conducting training.**** **Note:** Fire breaks are to remain clear to allow transition or access by CPFD personnel when responding to fire emergencies.		

Figure 1-4

1013. CONTROLLED BURNS. The Base Fire Chief will conduct controlled burning. Requests for controlled burning on ranges and in training areas will be submitted to the RCO who will coordinate the request with the Fire Chief and AC/S, G-3/5. The Fire Chief will coordinate with Environmental Security.

1014. PERMITTED FIRING TIMES

1. Normal live fire times for all ranges are 0600 to 2359 daily.

2. To request extended live fire times, submit a request via RFMSS or e-mail to the Range Scheduling Office at least five working days in advance.

1015. CAMP PENDLETON MILITARY INSTALLATION MAP. The current Camp Pendleton 1:50,000 Military Installation Map, reference (b), may be ordered directly from National Geospatial-Intelligence Agency (NGA).

1. Unless otherwise described, all grid coordinates used in this Order correspond to the Camp Pendleton Military Installation Map. Note: the Grid Zone Identification and 100,000 Meter Square Identification are not listed in grid coordinates discussed in this Order. Personnel should use the Camp Pendleton Military Installation Map in conjunction with this Order for pre-mission planning to confirm locations of intended operating areas.

2. Unless otherwise stated, all headings/directions used in this Order are magnetic.

3. For access into any range or training area, a Camp Pendleton Military Installation Map must be on hand.

1016. HEAT CONDITIONS. Atmospheric (weather) conditions should always be a consideration during the planning and ORM phase of a training event. The following information specific to factors associated with heat stress is provided in support of training aboard the MCIWEST-MCB CAMPEN RTA complex.

1. Heat stress conditions specific to the RTA complex are established at the unit level using the Wet Bulb Globe Temperature (WBGT) Index. This index combines shade, air temperature, radiation, humidity and wind into a single value to be used as a guide for outdoor activity. The WBGT Index should be considered and measured when the ambient temperature for a geographic area is forecasted to be above 80 degrees Fahrenheit (F).

2. The WBGT Index should be measured periodically and serve as an on-site, general guideline to the unit OIC and RSO throughout the training event. When a hazardous heat stress condition exists, every precaution should be taken by the OIC and RSO to mitigate the hazard, to include but not limited to: seeking shade, increased water breaks/rest periods, reduction or cessation of activity, etc.

3. Contact LONGRIFLE immediately when an individual heat casualty is suspected or confirmed. Any and all heat related casualties will be considered medical emergencies, and LONGRIFLE will initiate MEDEVAC coordination immediately upon notification.

1017. WEATHER WARNINGS

1. FLOOD ALERT

a. Due to significant amounts of precipitation in the mountains around Camp Pendleton, possible flash flooding may occur. Range Control will monitor flood conditions set by the AC/S, G-3/5. The following Alert Conditions apply:

(1) Alert Condition III. Rainfall is reported in Riverside or San Diego Counties of one to two inches on wet or saturated ground; four inches on dry ground; or local flash flood conditions.

(2) Alert Condition II. Rainfall exceeds previous condition and visible flooding is detected upstream; or weather services forecast heavy thunderstorms, flash flood watches, or flash flood warnings.

(3) Alert Condition I. Rainfall exceeds previous condition with bridges, roads, or culverts overflowing with water. Upstream fire departments are reporting local flooding.

b. Unless otherwise directed by the AC/S, G-3/5, ranges and training areas shall be secured upon reaching Alert Condition II.

2. Thunder Storms. Range Control will monitor location of thunder storms based on proximity to MCAS Camp Pendleton. Units should take precautionary measures based on the following criteria.

a. THUNDERSTORM ADVISORY – Thunderstorms with the potential for lightening are occurring or are forecasted to occur within 50 nautical mile (NM) of MCAS Camp Pendleton.

b. THUNDERSTORM CONDITION II - Thunderstorms with the potential for lightening are occurring or are imminent within 25 NM of MCAS Camp Pendleton.

c. THUNDERSTORM CONDITION I - Thunderstorms with the potential for lightening are occurring or are imminent within 10 NM of MCAS Camp Pendleton.

CHAPTER 2

ENVIRONMENTAL

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CHAPTER 2

ENVIRONMENTAL PROCEDURES

2000. GENERAL. The ranges and training areas of MCIWEST-MCB CAMPEN are heavily used. MCIWEST-MCB CAMPEN is also the home of many endangered species, wetlands, sensitive habitats and cultural resource sites, which are protected by federal laws strictly enforced by local regulatory agencies. To successfully achieve all training objectives while complying with environmental laws and regulations, it is essential to consider environmental concerns while planning training operations and exercises. Proper planning will preserve all training facilities for future generations of Marines; therefore, it is essential that training units adhere to the provisions in this Chapter. All users of ranges and training areas are responsible for knowing and adhering to applicable environmental laws and regulations, including, but not limited to, the current FDR and restrictions associated with the environmentally sensitive areas identified on both the Camp Pendleton Military Installation Map and the most current Base Environmental Operations Map. The Base Environmental Operations Map is a Geospatial Information System (GIS) Map, and may be obtained through Environmental Security (ES). Questions concerning applicable environmental regulations may also be referred to ES [National Environmental Protection Act Branch (NEPA Branch] at (760) 725-9759/9763.

2001. ENVIRONMENTAL CONSTRAINTS APPLICABLE TO ALL TRAINING ACTIVITIES

1. Prohibited Activities. The following activities are prohibited on all ranges and training areas aboard MCIWEST-MCB CAMPEN:

a. Burying, dumping abandoning, or disposing of solid waste (e.g., trash, rubbish, or garbage), except in approved containers (i.e., dumpsters) or at established landfills.

b. Burying, dumping, abandoning, or disposing of any type of military munitions.

c. Unlawfully disposing hazardous waste, including unlawfully releasing (e.g., venting, draining, or spilling) oil, fuel, and all other hazardous substances from vehicles, equipment, storage tanks, or containers into the air, ground, or water.

d. Removing or intentionally destroying threatened or endangered plants, trees, brush, cactus, or any other vegetation (refer to the Base Environmental Operations Map). Cutting or removing tree limbs or large portions of any other plant is also prohibited. Limit camouflage material to previously felled vegetation.

e. Contact ES prior to conducting activities involving cutting/removing/trimming of brush, trees, cactus, or any other type of vegetation that may be considered threatened or endangered as indicated by the Base Environmental Operations Map; and prior to any activity involving soil excavation, grading, filling, or digging fighting positions in or adjacent to protected habitat areas as indicated by the Base Environmental Operations Map.

f. Killing, injuring, or harassing wildlife and livestock. Killing poisonous snakes and other wildlife in self-defense is not prohibited. Most snakebites on the Base have resulted from untrained individuals trying to handle snakes. Contact LONGRIFLE for snake removal.

g. Removing (i.e., stealing), intentionally destroying, or intentionally disturbing archaeological, Native American, and/or historical materials, artifacts, buildings, and/or sites.

2. Earthwork. Impact berms contain lead, a toxic metal and potential hazardous waste. Consult with ES, before beginning earthwork on or near impact berms.

3. Violations. Violations of these provisions may result in disciplinary action under the Uniform Code of Military Justice, or prosecution in state or federal court. Violations of these provisions may also result in potential adverse impacts to future training opportunities aboard the Base.

2002. AREAS PROHIBITED TO TRAINING FOR ENVIORNMENTAL REASONS

1. Prohibited Areas.

a. Designated historical/archeological sites.

b. Landfills.

c. Installation Restoration and National Priority List (NPL) environmental clean-up areas.

d. Any area where training land restoration and erosion control work is ongoing (usually, but not exclusively, coastal bluffs and terraces). These areas will be marked with appropriate warning signs and fences.

e. Training in the vicinity of rivers, creeks, and natural drainage areas may require special consideration; therefore, it is subject to the provisions of paragraph 2007 in this Chapter. Provisions contained in the most current Base Environmental Operations Map may also apply.

f. Avoid, to the maximum extent possible, parking vehicles or heavy equipment under the canopies of trees. Do not dig fighting holes under the canopies of trees. These activities damage the root systems, eventually killing the trees.

g. Off-road vehicular traffic during periods of peak soil moisture conditions frequently results in severe gullying and training land degradation. This leads to decreased training opportunities and hazardous conditions that create safety concerns. Whenever possible, vehicular traffic shall remain on designated roads following significant rainfall.

h. The Cocklebur Sensitive Area, consisting of non-beach lands west of the Interstate Five (I-5) Freeway from the beach access road immediately north of Marine Corps Tactical Systems Support Activity (MCTSSA) to French Creek Lagoon, excluding the Landing Craft Air Cushion (LCAC) Facility (598 790 to 605 795 to 595 808 to 595 805 to beginning) is off-limits.

i. Areas marked with orange carsonite markers or signs, which say, "Off Limits for Environmental Reasons," "California Least Tern Nesting Site," or "Wetlands" are off-limits to training units.

2. Other restrictions. Specific operational restrictions for sensitive areas are delineated in paragraph 2007 in this Chapter.

2003. POLICE OF RANGES AND TRAINING AREAS

1. General. Police of ranges and training areas is the responsibility of the using unit. It is the responsibility of the OIC/RSO to ensure ranges, training facilities, and training areas used by their units have been properly policed. All solid waste brought to ranges, training facilities, and training areas; including cardboard, wrapping materials, food waste, communication wire, expended brass, and ammunition containers, shall be removed from those areas and recycled or disposed of in approved containers (i.e., dumpsters) or established landfills. No unit will depart their training location until that area is in a proper state of police. An inspection by a Camp Pendleton Range Safety Specialist may be required prior to departure.

2. Dumpsters. Dumpsters are not provided and are not authorized at ranges or training areas.

3. Hazardous Material. Hazardous materials (e.g., weapons cleaning gear, paint, petroleum/oil/lubricants (POLs), etc.) used while training shall be stored in approved, closed, leak-proof containers. All hazardous materials shall be clearly marked, identifying the contents of the container. All hazardous materials spills shall be reported immediately to LONGRIFLE, who will notify the Fire Department and ES (HAZMAT). Units shall use available resources to prevent and contain spills, at or near the source of the spill, and submit required formal spill reports to ES.

2004. FIELD HEADS, URINALS, AND WASTEWATER

1. General. Any organization assigned to a range and/or training area shall properly police heads in their assigned area. Trash will not be disposed of in any head, urinal, or chemical toilet.

2. Chemical Heads. Platoon size or larger units, and stationary units, shall use chemical heads. Chemical heads may be coordinated through Base Property (760) 725-4532. Users shall also coordinate the planned location of heads via the Range Scheduling Office prior to placement. This ensures chemical heads will be clear of surface danger zones. As a last resort, squad size or smaller units maneuvering alone may use properly constructed straddle-trenches or cat holes to dispose of solid human waste. However, they shall not be constructed/dug in or adjacent to watercourses. For safety reasons, before using urinals and/or chemical heads, check them for poisonous insects and other hazards.

3. Wastewater from temporary showers (greywater) may be discharged to land if a local permit is obtained through ES. Provisions shall be made to ensure that all discharged greywater percolates at the discharge site; and does not flow to surface waters or dry watercourses. All greywater disposal shall comply with Preventative Medicine Regulations and Standards for military field operations.

2005. FIELD DRINKING WATER SUPPLY

1. General. All connections to the water system shall be attached in such a manner as to prevent cross-connections and back siphoning from a contaminated source to the potable distribution system. Prevent water hoses at vehicle filling sites from contacting any source of contamination, including the vehicle, ground, tools, and equipment.

2. Pumping. Units shall obtain approval from the AC/S, G-F to pump water from any lake, pond, stream, river, well, storage area, sitting irrigation pumps, and well drilling equipment. Water drawn from the Base distribution system for further transport and uses as potable water shall be protected from accidental contamination. All hoses or valves marked "potable" shall be kept scrupulously clean at all times.

3. Reports. Report all instances of water pipe breaks, valve and pipe leaks, and other system failures to the AC/S, G-F (Emergency Maintenance Branch) at (760)725-4683/4368.

2006. OPERATION OF VEHICLES. Whenever possible, vehicles will use secondary [dirt or decomposed granite (DG)] roads within training areas. The speed limit is 25 miles per hour (mph) for all areas, unless otherwise posted.

1. To the maximum extent possible, administrative vehicle traffic shall use existing roads and paths to or within the established camp, command post, or bivouac site.

2. Vehicles operating tactically, in support of a training objective, may transit terrain as dictated by the scenario, providing they do not damage threatened or endangered species habitat, or archaeological sites. Vehicles operating in the vicinity of creeks or rivers shall use existing roads, trails, and stream crossings. Traffic is not permitted in creek or river beds except at established crossings. Refer to paragraph 2007 in this Chapter for specific environmental restrictions in these areas.

3. Unit commanders are requested to use prudent judgment in the scheduling and conduct of training and exercises that might result in heavy vehicular traffic over recently burned terrain.

4. No off-road activities by vehicles (HMMWVs, etc.) will be permitted when the FDR is EXTREME, without permission from LONGRIFLE prior to entering the training area or range.

2007. TRAINING AREA REFEULING, SPILL PREVENTION AND RESPONSE. If any POL will be stored or handled (to include six-con fuel pods, tanker trucks, drums, and five gallon containers) 40 CFR 112.7 and the Camp Pendleton Spill Prevention, Control, and Countermeasures (SPCC) Plan require secondary containment. This can be met by using a POL impervious bermed liner capable of containing the single largest container. Training units are responsible for spill prevention and proper hazardous material storage and handling (secondary containment), and must comply with the SPCC Plan. Units must complete a site specific SPCC Plan and submit to ES for approval prior to start of exercise, describing the refueling locations, methods and responsibilities. If a hazardous material spill occurs, units will be responsible for initial response and cleanup of the incident in accordance with Federal, State, Base and local laws and regulations. Any spill in a

training area must be immediately reported Range Control LONG RIFLE. Range Control will then notify ES Spill Prevention Branch, and only this Branch will make the appropriate regulatory reporting notifications for spill incidents. Refueling is not authorized on any beach area. Current preapproved refueling sites, which apply to both aviation and ground training activity, are listed in Appendix F.

2008. ENVIRONMENTAL CONSIDERATIONS AND RESTRICTIONS

1. General. To comply with federal, state, and local laws for the protection of the environment, special care must be taken when conducting training in sensitive environmental areas. When planning training events, consult reference (c), the Camp Pendleton Military Installation Map and the most current Base Environmental Operations Map to determine locations of sensitive areas, and use the guidance found in this Chapter to determine applicable restrictions in those areas. For training events larger than a Marine Expeditionary Unit (MEU) in size, or when operational requirements conflict with the following guidance, exercise commanders must obtain approval from ES.

2. Environmental Training. Training for unit S-3 and S-4 officers/staff noncommissioned officers (SNCO) interested in specific environmental training focused on operational planning and execution (i.e., Base Environmental Operations Map) is provided by ES. Additional information and course schedule are provided in reference (c), or by contacting the Environmental Training Branch at (760) 725-7308/7309.

3. Environmental Documentation. Provided MEU and smaller size units use the training areas and ranges for the purposes specifically outlined in this Order, and strictly adhere to the environmental restrictions associated with each range, submission of environmental documentation is not required. Exercise commanders shall coordinate with ES to determine the level of environmental documentation required for exercises larger than a MEU in size, and when environmental restrictions in this Manual conflict with training requirements. The following is the coordination lead time recommended for those actions requiring formal environmental documentation from ES:

a.	Company size	60 days
b.	Battalion size	90 days
c.	Regiment size	120 days
d.	Larger than regiment	150 days

4. Wetlands. Wetlands are found throughout Camp Pendleton, typically in valley bottoms, and are characterized by soil types, hydrology, and specific vegetation. Their distribution is not limited to “wet” areas. Activities in wetlands involving soil disturbance and/or fill may require a permit, and impacts to wetlands supporting threatened or endangered species will require special consultation and approval. Vehicles operating in the vicinity of wetlands are authorized year round and shall remain on existing roads and creek crossings. Troop movement on foot is authorized year round on existing roads, trails and crossings. Off-road vehicular or foot traffic, excavations, and/or fill occurring in wetlands must be reviewed by ES, and receive appropriate permits prior to conducting the action.

5. Vernal Pools. Vernal pools are wetlands, usually holding water for only one to four months during late winter and spring, and are known to occur in several training areas on Camp Pendleton. The highest densities of vernal pools are found in the Bravo Two, Oscar One, Oscar Two, Tango, Uniform, and Victor Training Areas; and White Beach. Many of these pools contain rare and federally endangered plant and animal species. When operating within the vicinity of vernal pools:

a. Foot traffic is authorized year round. Digging, including construction of fighting positions is prohibited in vernal pools.

b. Vehicle/equipment operations near known vernal pool areas shall be kept on existing roads, year round. Contact ES prior to conducting activities involving soil excavation, filling, or grading.

c. Bivouac/Command Post/Field support (e.g., showers, messing, fueling, water purification, etc.) activities shall be kept to at least 50 meters from identified vernal pools.

6. Coastal Marshes and Lagoons

a. Vehicles must stay on existing roads and trails in the vicinity of coastal marshes and lagoons from 1 March to 15 September. Foot traffic is prohibited in all coastal marshes from 1 March to 15 September, and prohibited all year in the Santa Margarita Estuary (portions of Beach Section G or Blue Beach) and the mouth of Cocklebur Canyon (Beach Section F).

b. Vehicle operations and foot traffic in the vicinity of coastal marshes, estuaries, and lagoons are authorized year round on existing roads, trails and established crossings. Off-road vehicular traffic or foot traffic, excavations, and/or fill activities needing to occur in coastal marshes, estuaries, and lagoons must be reviewed by ES, and receive appropriate permits and approvals prior to conducting the action.

7. Endangered Species

a. The endangered California Least Tern nests on most base beaches between 1 March and 15 September. This bird uses coastal lagoons, mud/salt flats, beaches, dunes, ocean, and tide line for nesting, foraging, and resting. Training activities can disrupt nesting, frighten adult birds, cause nest abandonment, and separate chicks from their parents.

b. The threatened Western Snowy Plover nests on most base beaches between 1 March and 15 September. They may be present on any Camp Pendleton beach throughout the year. This bird uses coastal lagoons, mud/salt flats, beaches, dunes, ocean, and tide line for nesting, foraging, and resting. Training activities can disrupt nesting, frighten adult birds, cause nest abandonment, and separate chicks from their parents.

c. The Light-footed Clapper Rail is a secretive marsh bird. This bird was last documented nesting at the Santa Margarita Estuary in 2003, but some are still occasionally found using the coastal marshes of the Base.

d. The endangered Tidewater Goby is a small fish living in the shallow water of coastal lagoons and estuaries on Camp Pendleton. These small fish are most abundant in lagoons where fresh water flowing downstream meets the

salt water from the Pacific Ocean. All coastal estuaries and lagoons aboard Camp Pendleton provide habitat for this species, including those on Red, Blue, and Green Beaches; and Beach Sections D and F. Activities disturbing the waters and vegetation of coastal lagoons/estuaries, or causing sediment to be transported into these lagoons will affect the Tidewater Goby. Any vehicular traffic within or across a lagoon/estuary can be harmful due to the very limited area of suitable Goby habitat within most lagoons and estuaries. Even small POL leaks from vehicles can contaminate water enough to adversely impact the Gobies.

e. The endangered Southern Steelhead Trout is an extremely rare fish found in San Mateo Creek. Ocean-going steelhead can grow to 24 inches before returning upstream to spawn during the winter rainy periods. Spawning and rearing occurs in stream pools in the Delta Training Area and further upstream (off the Base). Southern Steelhead Trout may be affected during critical times in its lifecycle by activities adversely altering the estuary, rearing pools, or flowing stream waters of San Mateo Creek.

8. Estuarine/Beach Endangered Species Management Zones. To protect the California Least Tern, Western Snowy Plover, Light-footed Clapper Rail and Tidewater Goby, the restrictions listed below apply when operating within the following areas; all coastal lagoons and estuaries; marshes and salt flats associated with San Mateo Creek, San Onofre Creek, Las Flores Creek, "Hidden Creek" Grid Coordinates 580818, Aliso Creek, French Creek, and Cocklerburr Creek watersheds; and the Santa Margarita Endangered Species Management Zone, defined as the beach area extending from the south end of White Beach (594 797) to the southern end of the Santa Margarita River Estuary, delineated by the dirt access road running seaward at the southern edge of the estuary (620 760), encompassing the Cocklebur Canyon outlet and the Santa Margarita River Estuary, extending inland to Stuart Mesa Bridge.

a. Obtain authorization from ES before entering any lagoon or estuary, marsh, mud/salt flat, or posted nesting area. Bivouacking and digging of fighting positions are prohibited in the vicinity of the Estuarine/Beach Endangered Species Management Zones during the period of 1 March to 15 September.

b. Between 1 March and 15 September, all activities involving smoke, pyrotechnics, loud noises, blowing sand, and large groupings of personnel (14 or more) shall remain at least 300 meters away from fenced or posted nesting areas. All other activities shall be kept at least five meters from these areas

c. Foot traffic involving less than 14 personnel shall be kept as far away as possible, and approach no closer than five meters to posted nesting areas between 1 March and 15 September. Unit hikes shall remain on the hard packed sand, as close to the ocean water edge as possible. When passing posted nesting areas, minimize all noise.

d. Vehicle and equipment operations in the management zones shall be kept to a minimum between 1 March and 15 September. All vehicles shall travel on hard packed sand and shall not approach posted nesting areas or lagoons closer than five meters. Speeds shall not exceed 25 mph. Tracked vehicles shall travel as close to the water (upper few inches of waves) as possible, year round, in the Santa Margarita Endangered Species Management Zone. Vehicle operations, inside fenced areas on the edge of the bluff

between Aliso and French Creeks (White Beach), are not authorized between 1 March and 15 September.

e. Engineering operations, outside of approved landing exercise support, shall be coordinated with ES prior to the initiation of activities. Generally, earth-moving activity at beaches is authorized only for areas of invigorated sand at least 300 meters from posted nesting areas, unless specifically requested and approved by ES.

f. Boat operations are not authorized in lagoons and estuaries. LCACs shall not enter the management zones between 1 March and 15 September, except when entering or exiting seaward; and on return, shall exit the ocean heading directly up to the facility access ramp. Small boats may be permitted in the Santa Margarita Estuary between 16 September and 1 March, with prior approval from ES.

g. To the maximum extent possible, vehicles and troops accessing the beach at White Beach during the period of 1 March and 15 September shall follow a route along the base of the northerly bluff to maintain the maximum distance from the tern colony.

9. Other Endangered Species

a. The Least Bell's Vireo is a small, inconspicuous endangered bird living in low, dense growths of willows, brush, and weeds along the drainages on Camp Pendleton between March and September. The Vireo is known to nest in the vicinity of the Santa Margarita river and in creek/river bottom areas in the following training areas: Alpha Two, Alpha Three, Bravo Three, Golf, Hotel, India, Juliett, Lima, November, Oscar One, and Oscar Two, and the Santa Margarita River basin.

b. The Southwestern Willow Flycatcher is a small, inconspicuous endangered bird living in taller trees, willows, brush, and weeds along the drainage's on Camp Pendleton between March and September. The Flycatcher is known to nest in creek/river bottoms areas in the following training areas: Alpha Two, Alpha Three, Bravo Three, Golf, Hotel, India, Juliett, Lima, November, Oscar One, and Oscar Two, and the Santa Margarita River basin.

c. The endangered Arroyo Southwestern Toad is found in and around stream and river bottoms. This toad has been found along the Santa Margarita River; the DeLuz Roblar, San Onofre, San Mateo, Cristianitos, and Talega Creeks; and within the Alpha One, Alpha Two, Alpha Three, Bravo One, Bravo Two, Bravo Three, Charlie, Delta, Golf, Foxtrot, Hotel, India, Kilo Two, Oscar One, Yankee Training Areas; and the Quebec and Whiskey Impact Areas. The adults breed and deposit their eggs in shallow pools adjacent to streams or in slow moving portions of the streams between February and June. Adult toads have been found up to one kilometer from streams in many different habitats. Toads are active at night on roads and trails near streams, especially during wet weather in late winter and early spring.

d. For the conservation of the Least Bell's Vireo, Southwestern Willow Flycatcher, and the Arroyo Southwestern Toad, the following measures shall be taken for training activities in creek/river bottom (riparian) habitat areas.

(1) Extreme caution beyond that required by the FDR is necessary when using pyrotechnics; and when conducting other activities likely to cause a fire.

(2) Foot traffic is authorized year round on existing roads, trails, and creek crossings. Consult with ES prior to cutting/removing vegetation.

(3) Vehicles operating in the vicinity of creeks, rivers, or drainages shall use existing roads, trails, and established creek/river crossings. Vehicle traffic on roads in arroyo toad habitat between 15 March and 31 August shall be minimized to the maximum extent practical.

(4) Consult with ES prior to bivouacking, cutting/removing vegetation, trenching, grading, filling, or conducting engineering operations in or adjacent to creek/river bottom areas.

(5) Dust produced in or adjacent to creeks and rivers shall be minimized to the maximum extent practical.

e. Threatened California Gnatcatchers live in open to dense coastal sage brush areas. These small songbirds are year round residents of Camp Pendleton. They are known to inhabit the Alpha Two, Bravo Two, Bravo Three, India, Juliett, Kilo Two, Lima, Mike, November, Oscar One, Oscar Two, Papa One, Papa Two, Romeo Two, Romeo Three, Tango, and Uniform Training Areas. Fires and other activities such as crushing or removing brush negatively affect these birds and their habitat. Activities involving loud noises, smoke, and concentrations of personnel disrupt their behavior, particularly during the breeding season between 1 February and 15 August. For the conservation of this threatened species, the following measures shall be followed for training activities in identified occupied coastal sage brush areas:

(1) Extreme caution beyond that required by the FDR is necessary when using pyrotechnics and when conducting other activities likely to cause a fire.

(2) Foot traffic between 1 February and 15 August shall be kept to existing roads, trails, and established training facilities to the maximum extent practical. Foot traffic may be authorized in California Gnatcatcher habitat areas between 16 August and 31 January; however, care must be exercised to avoid crushing or otherwise destroying brush vegetation.

(3) Vehicles may leave existing roads between 1 August and 31 January, FDR permitting, and provided brush vegetation is not crushed or removed.

(4) Bivouac/command and post/field support activities (e.g., showers, messing, fueling, water purification, etc.) shall be kept at least 50 meters from California Gnatcatcher habitat areas, year round.

f. Endangered Pacific Pocket Mice live in very open to relatively dense brush areas within three miles of the coast. They have been found in the Oscar One Training Area, immediately east of the San Onofre II Housing Area, and State Park leased lands north of Cristianitos Road. These rodents spend the day in burrows and come out at night to feed on seeds. Nighttime aerial illumination can increase their susceptibility to predators between 15 March

and 15 September, when they are most active above ground. Activities that could crush the rodents in their burrows, dig them up, or bury them shall not be permitted at sites they occupy. Soil compaction caused by vehicle operations off existing roads and trails degrade their habitat by preventing them from digging their burrows. Soil compaction occurs most easily between December and June, when soil is moist. For the conservation of this endangered rodent, units training in habitat areas shall follow the following measures:

(1) Foot traffic is authorized, year round; however, digging, including construction of fighting positions, shall be avoided.

(2) Vehicle/equipment operations near known habitat shall be kept on existing roads, year round. Contact ES prior to conducting activities involving soil excavation, filling, or grading.

(3) Bivouac/command and post/field support activities (e.g., showers, messing, fueling, water purification, etc.) shall be kept at least 50 meters from Pacific Pocket Mouse habitat areas, year round.

g. The endangered Stephens' Kangaroo Rat lives in relatively open (non-brush), weedy areas. They live in areas that frequently burn. This rodent is known to inhabit the Bravo One, Golf, India, Juliett, Kilo Two Training Areas; and the X-Ray, Whiskey, and Zulu Impact Areas. These rodents spend the day in shallow burrows and come out at night to feed on weed seeds. Activities that could crush the rodents in their burrows, dig them up, or bury them, shall not be permitted at occupied sites. Soil compaction caused by vehicle operations off existing roads and trails degrades their habitat by preventing them from digging their burrows. Soil compaction occurs most easily between December and June, when soil is moist. For the conservation of this endangered rat, the following measures shall be followed by units training in habitat areas.

(1) Foot traffic is authorized year round; however, digging, including construction of fighting positions, shall be minimized.

(2) Vehicle/equipment operations near known habitat shall be kept on existing roads, year round. Contact ES prior to conducting activities involving soil excavation, filling, or grading.

(3) Bivouac/command and post/field support activities (e.g., showers, messing, fueling, water purification, etc.) shall be kept at least 50 meters from the Stephens' Kangaroo Rate habitat areas, year round.

10. Rare Plant Species. Rare and federally listed plant sites are found throughout Camp Pendleton, and are carefully noted on the Base Environmental Operations Map. For the protection of identified sites, the measures listed below shall be followed by units training in the areas.

a. Foot traffic is authorized, year round; however, digging, including Construction of fighting positions, shall be avoided at locations of rare plants.

b. Vehicle/equipment operations near known habitat shall be kept on existing roads, year round. Contact ES prior to conducting activities

involving soil excavation, filling, grading, off-road vehicular operations, or vegetation cutting/removal.

c. Bivouac/command and post/field support activities (e.g., showers, messing, fueling, water purification, etc.) shall be kept at least 50 meters from identified rare plant sites. No cutting or trimming of rare plants is allowed without consultation with ES.

11. Archaeological and Cultural Resources. Archaeological sites are located throughout Camp Pendleton. Archaeological sites are the physical remains of the lives and activities of the people who lived in the prehistoric or historic past, and may include artifacts such as stone (arrowheads, projectile points), human bone materials, pottery, and other physical remains of life. Some sites are visible on the soil surface; others are visible only after some level of ground disturbance has occurred. Since all sites and their contents are protected under law, approval must be obtained from Environmental Security prior to any activity adversely impacting archaeological sites. The Base has surveyed and documented the locations of all visible archaeological sites. For the protection of known and unknown archaeological sites, the following measures should be taken:

a. Foot traffic is authorized, year round. Digging, including construction of fighting positions is prohibited at known archaeological sites.

b. Vehicle/equipment operations shall be kept on existing roads through known archaeological sites, year round. Contact ES prior to conducting activities involving mechanical soil excavation, filling, or grading in the vicinity of known archaeological sites.

c. Bivouac/command and post/field support activities (e.g., showers, messing, fueling, water purification, etc.) shall be kept at least 50 meters from identified archaeological sites.

d. When conducting operations, if archaeological materials are discovered on the ground or below soil surfaces:

(1) Avoid disturbing any archaeological materials.

(2) Notify ES as soon as possible (with the exact grid coordinates, if possible, and site description).

(3) Do not remove materials shall from the area.

e. If human bone material (to include fragments) is discovered during any operation, the area must immediately be evacuated, leaving the remains intact. Notify LONGRIFLE as soon as possible.

Sensitive Environmental and Natural Resources in Training Areas										
Beaches and Training Areas	**Least Bell's Vireo**	**Arroyo Southwestern Toad**	**Stephens' Kangaroo Rat**	**California Gnatcatcher**	**Least Tern/ Western Snowy Plover**	**Pacific Pocket Mouse**	**Rare Plant Sites**	**Light-footed Clapper Rail**	**Vernal Pools**	**Southwestern Willow Flycatcher**
Sect. A	X						X		X	
Sect. B							X		X	
Sect. C	X						X		X	
Sect. D							X		X	
Sect. E					X		X		X	
Sect. F				X	X			X	X	
Sect. G					X		X			
Sect. H					X					
Alpha 1	X	X								
Alpha 2	X	X		X			X			X
Alpha 3	X	X								X
Bravo 1		X		X			X		X	
Bravo 2		X		X			X		X	
Bravo 3	X	X		X						
Charlie		X					X			
Delta		X							X	
Echo							X			
Foxtrot							X			
India	X	X	X				X			X
Golf	X	X	X				X			
Kilo 1			X				X		X	
Kilo 2		X	X	X			X		X	
Juliett	X		X	X			X			
Lima	X			X			X			X
Mike	X			X			X			
November	X			X			X		X	
Oscar 1	X	X		X		X	X		X	
Oscar 2	X			X			X		X	X
Papa 1	X			X			X			
Papa 2				X			X			
Papa 3							X			
Romeo 1										
Romeo 2				X			X			
Romeo 3				X			X			
Tango				X						
SEE BASE ENVIRONMENTAL OPERATIONS MAP FOR SPECIFIC LOCATIONS										

Figure 2-1

CHAPTER 3

SCHEDULING PROCEDURES

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CHAPTER 3

SCHEDULING PROCEDURES

3000. GENERAL

1. Scheduling. The Range Scheduling Office is located aboard MCAS Camp Pendleton in Bldg 2399, and serves as the sole scheduling agency for the MCIWEST-MCB CAMPEN Range Complex. RFMSS is the approved Marine Corps RTA scheduling and management tool.

a. To schedule a range, training area, or maritime operating area the Range Control Scheduling Office must receive a RFMSS data entry in accordance with the applicable scheduling precedence as outlined in Figure 3-1.

b. The latest a scheduling request can be submitted is 1200 noon the day prior to the event.

c. If there is a technical reason for not being able to access RFMSS, a Training Area Request (TAR) may be submitted to the Range Scheduling Office using the following methods; as an e-mail attachment to pndl_otrangescheduling@usmc.mil;, or hand delivered to the Range Scheduling Office. The Camp Pendleton TAR is provided on the Camp Pendleton web site and on the ROD SharePoint site at https://pendleton.mciwest.nmci.usmc.mil/ot/rod/default.aspx.

d. RFMSS accounts can be established by contacting the RFMSS administrator at (760) 725-0359.

2. Canceling. Once ground ranges, training facilities, airspace, and/or sea space have been scheduled, it is the responsibility of the unit scheduled to use the facility to conduct its training during the allotted time period. Should there be a requirement to modify a scheduled range time, the unit shall notify the Range Scheduling Office via e-mail or fax. Cancellation of scheduled events should be executed through RFMSS.

3001. SCHEDULING PRIORITY

1. Range and training facilities scheduling requests may be submitted by requesting units as outlined in Figure 3-1.

2. Scheduling precedence is based on the priority level of each unit and the subsequent training request submission date allowed. Priority one units may submit a training request up to 180 days prior to the event. At 120 days prior, Priority one and two units have equal precedence, and both units may submit training requests; this pattern continues until 30 days prior when all units have equal precedence. Units submitting requests prior to their authorized training request submission date will be disapproved. In cases of equal precedence, first come-first served applies.

3. "Priority Use" for Zulu Impact Area. To increase training efficiency, "Priority Use" for the Zulu Impact Area will be implemented for range and airspace utilization as follows:

SCHEDULING PRECEDENCE			
PRIORITY	UNIT	REMARKS	SUBMISSION DATE
1	United States Marine Corps (USMC) Formal Schools	School of Infantry, Marine Corps Recruit Depot, Weapons Field Training Battalion, Marine Light Attack Helicopter Squadron 303, FMSS, and Assault Amphibian School Battalion	Up to 180 Days Prior
2	Marine Expeditionary Unit (MEU) or Large Scale Exercises/ Division Schools/Intelligence Battalion/Advisor Training Group/High Mobility Artillery Rocket System	Administrative control/operational control units will schedule via higher headquarters, for submission to Range Scheduling	Up to 120 Days Prior
3	USMC Active and Reserve/ Active United States Navy (USN)	Conducting Military Training	Up to 90 Days Prior
4	USN Reserve/United States Army Active and Reserves/United States Air Force Active and Reserve/ National Guard/Coast Guard	Conducting Military Training	Up to 60 Days Prior
5	Base Civilian Agencies/Civilian Law Enforcement/Recreation	Non-Military Training	Up to 30 Days Prior

Figure 3-1

a. Air Priority Use (R440). Aviation operations have priority use of the Zulu Impact Area on the first three Wednesdays and Thursdays of each month. Ground units desiring to conduct Tactical Air Control Party (TACP) or Joint Terminal Attack Controller (JTAC) operations shall schedule the event on air priority days. Parachute operations will not be afforded priority on air priority days. Air priority will not be granted for requests received less than seven days prior.

b. Ground Priority Use. Ground operations have "Priority Use" of the Zulu Impact Area on Monday, Tuesday, Friday, Saturday, and Sunday during the first three weeks of the month. During the last week of the month, ground operations have priority during the entire week. Ground priority will not be granted for requests received less than seven days prior.

4. "Priority Use" for Whiskey Impact Area. To increase training efficiency, "Priority Use" for the Whiskey Impact Area will be implemented for range and airspace utilization as follows:

a. Air Priority Use (R220). Monday through Friday, 1400 – 1700 and 2000 – 2300.

b. Ground Priority Use. Monday through Friday, 0600 – 1400, 1700 – 2000, 2300 – 2400; and all day on Saturday and Sunday.

5. Non-Priority Use. "Priority Use" of the Zulu and Whiskey Impact Areas expires seven days prior to a planned training event. Requests for non-priority use of the Zulu or Whiskey Impact Areas may be submitted prior to the event, but will not be approved until seven days prior to the event.

6. Exceptions to "Priority Use". For key events (e.g., Marine Corps Combat Readiness Evaluation, Very Important Person (VIP) Demos, FIREXs, Marine Reserve Aviation) not accommodated by "Priority Use," units should coordinate with the RCO as soon as possible in advance to request exemption to the "Priority Use" policy.

3002. RANGE AND TRAINING AREA CONSIDERATIONS

1. Scheduling

a. Individual training facilities (i,e, Artillery Firing Areas (AFAs), combat towns, confined area landing (CAL) Sites, and DZs) are not inclusive of the training areas and must be scheduled separately.

b. Range and Training Area Capacity

(1) A maximum of five military plus three non-military units may be scheduled in a training area, ORM dependant. Non-military units shall not be scheduled concurrently with mechanized units or with live fire activity.

(2) Canyons (i.e. Horno, Piedra de Lumbre, San Mateo and Pulgas). Only one military convoy and up to three non-military units may be scheduled.

(3) A maximum of three units may be scheduled on training beaches.

(4) Only one unit will be scheduled on live-fire ranges, LFAMs, Rappel Towers, combat towns (except Kilo Two), or gas chambers with only a single chamber.

c. Exceptions to the above capacity restrictions may be considered on a case by case basis. Units requesting consideration must submit a detailed plan including an overlay and ORM for consideration.

d. Units desiring co-use of a single unit capacity training facility must receive approval by the RCO.

(1) Both units must submit a request, via email, to the RCO that details how both units can accomplish their training safely. Both requests must be submitted seven days prior to the start of the event; if the request is not received prior to the deadline, co-use will automatically be denied. Only the RCO can approve co-use.

(2) Co-use by military and civilian units/organizations shall not be approved.

e. Civilian organizations authorized to operate on Camp Pendleton in accordance with a real estate license must submit all their requests through the Operations Division, AC/S, G-3/5.

2. Hikes, PT Routes and Convoys. Units requesting training areas for hikes, PT or convoys shall submit an overlay of the proposed route to the Range Scheduling Office at least seven days prior to the event unless the overlay is on file with the RCO. The format for overlays can be obtained by calling the Range Scheduling Office at (760) 725-3510 or (760) 725-4219.

3. Environmental. For environmental considerations and requirements associated with training evolutions, units must submit a Preliminary Environmental Document (PED) to Range Training Area Management Division (RTAMD) at (760) 725-6010 prior to scheduling.

4. Prior Coordination Requirements. The following facilities/areas require units to make prior coordination before submitting request in RFMSS.

a. Recreational Beaches. Requests for use of Del Mar or Green Beach, will be submitted in the same manner described above, 30 days prior to the planned event. Approval will be on a case-by-case basis. Units must receive approval from the AC/S, MCCS for the use of these beaches prior to submitting a request to the Range Scheduling Office. You may contact the San Onofre Recreation Beach Office at (760) 725-7313 or the Del Mar Recreation Beach Office at (760) 725-2134/2313.

b. State Park Lease Areas. San Onofre State Beach and San Onofre State Park are long-term lease areas. They are available for military training and its use is encouraged. Requests for the use of state park lease areas shall be made at least 30 days in advance to ensure mandatory coordination with state park officials is conducted.

c. Field Medical Training Battalion (FMTB) Training Facility. The FMTB Field Training Complex (to include Military Operations on Urban Terrain (MOUT) Facility) designated for training USN medical personnel and students is located at grid 651 782. Prior to submitting request in RFMSS, contact the Commanding Officer (CO), FMTB at (760) 725-2559 to receive approval.

d. Cantonment/Built-up Areas. Use of munitions (e.g., blanks, pyro, smoke, etc.) in cantonment areas must be approved by AC/S, G-3/5, as well as the appropriate Area Commander.

e. Administrative Landing Zones (LZs). Prior to submitting request in RFMSS for the use of administrative LZs, the unit shall be approved by the appropriate Area Commander.

f. 53 and 62 Regimental Urban Facilities (RUF). Prior to submitting request in RFMSS for the use of these facilities, the unit shall be approved by the 5th Marine Regiment Commander or 1st Marine Regiment Commander as applicable.

g. Infantry Immersion Trainer (IIT). Prior to submitting request in RFMSS for the use of IIT, the unit shall be approved by Training Support Division (TSD).

h. Home Station Training Lanes (HSTL). Prior to submitting request in RFMSS for the use of HSTL for IED training, the unit shall be approved by Marine Corps Engineer Services (MCES) at (760) 763-3634.

i. Tactical Site Exploitation (TSE). Prior to submitting request in RFMSS for the use of TSE, the unit shall be approved by AT-Solutions at (909) 289-1517.

j. Mobile Counter IED Trainer (MCIT). Prior to submitting request in RFMSS for the use of MCIT, the unit shall be approved by AT-Solutions at (909) 327-6431.

k. R303. Prior to submitting request in RFMSS for the use of R303, the unit shall be approved by Naval Expeditionary Medical Training Institute (NEMTI) at (760) 725-7121.

l. R116 Complex. Prior to submitting request in RFMSS for the use of R116 Complex, the unit shall be approved by Naval Special Warfare Center (NSWC) at (619) 537-3458.

m. R112A. Prior to submitting request in RFMSS for the use of R112A the unit shall be approved by the Supervisor of Security Operations for San Onofre Nuclear Generating Station (SONGS) at (949) 368-2839 or (949) 368-2207.

n. Airspace and Aviation Ranges/Facilities. Specifics concerning Camp Pendleton Special Use Airspace (SUA) and aviation training activities, ranges, and facilities are provided in Chapter 4 of this Order. It is recommended that units schedule aviation ranges/facilities prior to requesting aviation support.

5. Specific Training Event Requirements and Timelines. In order to safely de-conflict activities, the following specific events require informational products and/or additional coordination that must be received by Range Scheduling in accordance with (IAW) the figure below. All required ranges, training areas, airspace or facilities required for the training event must be scheduled prior to submission.

Event	**Coordination Products and Time Lines**	
Non-standard LFAMs	Not in Dedicated Impact Area - 60 working days prior to training evolution, submit all SDZs, Concept of Operations & signed ORM.	
	In Dedicated Impact Area - 14 working days prior to training evolution, submit all SDZs, Concept of Operations & signed ORM.	
Unmanned Aircraft Systems (UAS)	Standard UAS training – Seven working days prior to event, submit UAS brief sheet. Launch/Recovery Site needs to be scheduled separately from the Airspace Coordination Areas (ACA).	
	Non-Standard UAS training – 14 working days prior to event, submit UAS brief sheet and overlay. Launch/Recovery Site needs to be scheduled separately from the ACA.	
TACP	Standard events - 14 working days prior to event, Forward Air Controller (FAC)/JTAC will submit brief sheet. A Range Safety Specialist SHALL conduct a FACE-FACE brief with FAC/JTAC on first day of TACP.	
	Non-standard events - 14 working days prior to event, FAC/JTAC will submit brief sheet and overlay. A Range Safety Specialist SHALL conduct a FACE-FACE brief with FAC/JTAC on first day of TACP.	
Simulated Close Air Support (SIMCAS)	14 working days prior to event, FAC/JTAC will submit brief sheet and overlay.	
Ground Overlays	Seven working days prior to event, submit overlays for all IED Penalty Training, Non-Standard Hike, Unit PT, Non-Standard Convoys, Environmental Surveys and access to the Impact Areas.	
Airspace requests	R2503A/B	Five working days prior to event, submit request for activation of airspace between the hours of 0000 and 0559
	R2503C	20 working days prior to event, submit request for activation of airspace.
	R2503D	35 working days prior to event, submit request for activation of airspace.

Figure 3-2

3003. CONTRACTOR SUPPORTED RANGES & FACILITIES

1. Units desiring to train on contractor supported ranges must include contractor times or specifically state that "no contractors" are needed in the RFMSS request. Requests that do not include contractor times or state "no contractors" will be disapproved. Once a request is approved, the unit shall contact the Training Support Center (TSC) at (760) 763-8244 AT LEAST 14 WORKING DAYS PRIOR to the planned training to confirm support and program targets. The RCO is the final approval authority on all Contract Operations and Maintenance Training Systems (COMTS) range training scenarios, not the contractor. TSC will reconfirm support requirements with the unit a minimum of two working days prior to the unit actually using the range.

2. Questions and comments related to COMTS contractor ranges shall be referred to the TSC at (760) 763-8244.

3004. CONTROLLED SIMULATORS AND TRAINING DEVICES. Requests for the following controlled simulator or training devices can be coordinated directly with TSD at (760) 725-4444.

1. Combat Convoy Simulator (CCS)

2. Ground Based Observation & Surveillance System (G-BOSS)

3. HUMVEE Egress Assistant Trainer (HEAT)

4. Base Training Center (Theatre)

5. MAGTF Integrated Staff Training Center (MISTC)

6. Operational Driver Simulator (ODS)

7. Supporting Arms Virtual Trainer (SAVT)

8. MRAP Egress Trainer (MET)

9. Modular Amphibious Egress Trainer (MAET)

3005. FIELD MESS NIGHTS (WARRIOR NIGHTS). Warriors Cove on Gold Beach, Deer Park near Camp Horno and Red Beach are designated areas to conduct Field Mess/Warrior Nights. Consumption of alcohol, use of gas grills, use of fire pits and civilian guests are authorized with the following provisions:

1. In accordance with reference (k), request to waive the minimum age requirement for the consumption of alcohol aboard the installation must be made via separate correspondence.

2. Personnel Capacity

   a. Warriors Cove - Company

   b. Deer Park - Company

   c. Red Beach - Battalion (unit must have exclusive use of Red Beach)

3. Non-participating vehicle transition via beaches is allowed 0900 to 1800.

4. Fires (FDR dependant). Fire extinguishers and shovel must be posted for fire safety measures.

a. Warriors Cove and Red Beach. Open camp fire (at or below four feet) and grills are authorized.

b. Deer Park. Only gas grills are authorized.

5. Unit must call for and receive an inspection from Range Operations prior to being released from the training site.

6. POV parking is authorized (in the designated parking area) as long as POL spill requirements are adhered to.

7. Hold Harmless Agreements must be signed by all civilian participants and retained by the host unit.

8. Swimming is not allowed at Gold Beach or Red Beach.

9. Unit must contact RCO for the beach access.

CHAPTER 4

AIRSPACE AND AVIATION OPERATIONS

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CHAPTER 4

AIRSPACE AND AVIATION OPERATIONS

4000. GENERAL

1. This Chapter describes airspace, aviation facilities, and aviation operations within MCIWEST-MCB CAMPEN Range Complex. Detailed procedures and a graphic depiction of specific areas designated for aviation use can be found in the Aviation Special Instructions on the ROD SharePoint site https://pendleton.mciwest.nmci.usmc.mil/ot/rod/default.aspx. The instructions in this Chapter are based upon current DOD, Department of the Navy (DON), and Federal Aviation Administration (FAA) policies and regulations. Nothing in these instructions shall prevent the exercise of sound judgment to preserve lives and property, or to ensure the safety of personnel.

2. Range Complex Air Operations. All aircraft operating within the MCIWEST-MCB CAMPEN Range Complex airspace shall do so concurrently with other aircraft under the provisions of "see and avoid." LONGRIFLE will provide procedural flight following and safety alerts to participating aircraft relative to live fire or hazardous range activity, to the maximum extent possible. However, range and training area familiarity, a review of the daily training schedule, and enhanced aircrew vigilance are critical to flight safety and success while operating within the complex. Although the requirement to "see and avoid" other aircraft rests solely with the pilot, LONGRIFLE will provide advisories in relation to the proximity of other observed aircraft, workload permitting. In addition, and by virtue of MCIWEST-MCB CAMPEN's geographic location and proximity to civilian airports and the coastline, airspace incursions by unauthorized civilian aircraft are not uncommon. In the case of an observed airspace incursion, LONGRIFLE will check fire those live fire ranges that may be affected, and provide advisories to participating aircraft, as required.

4001. SUA

1. General. Restricted Area R-2503 has been established and delegated by the FAA to support hazardous training activities at MCIWEST-MCB CAMPEN. MCIWEST-MCB CAMPEN has been designated as the using agency for this restricted area. Camp Pendleton maintains sole approval and scheduling authority for all users and activities to include ground, sea, and aviation operations taking place within this airspace.

2. The R-2503 SUA is subdivided into R-2503A, R-2503B, R-2503C and R2503D. R-2503A overlies Camp Pendleton’s coastal area and extends offshore one nautical mile, surface to 2,000’ mean sea level (MSL). Its eastern boundary coincides with the western boundary of R-2503B. R-2503B is the airspace from the surface to 15,000’ MSL overlying Camp Pendleton’s impact areas. R-2503C overlies the northern two-thirds of R-2503B from 15,000’ MSL to 27,000’ MSL. R-2503C is for use by artillery units only to facilitate high angle, high altitude firing. R-2503D overlies R-2503A from 2,000 to, but not including, 11,000’ MSL. Camp Pendleton SUA is depicted in Figure 4-1.

3. The published hours of operation for R-2503A and R-2503B are 0600 to 2359 (local) daily, and other times by NOTAM (Notice to Airmen). Units desiring

to conduct hazardous training activities from 0000 to 0559 must notify the Camp Pendleton Range Scheduling Office at least five working days in advance to extend training operations past 2359 (local time). R-2503C is an "on-call" portion of R-2503 available 40 hours each year when activated via NOTAM. In order to activate R-2503C, requests must be submitted to the Range Scheduling Office at least 20 working days in advance. Designated use of R-2503D in support of military training is limited to 20 days per year between the hours of 0600 to 2359 hours local time, and no more than 90 days per year between 0001 and 0559 local time. Exercise planners shall notify the Range Scheduling Office 35 days in advance of R-2503D activation dates. Priority use of R-2503D is for artillery firing. Non-artillery requests will be taken on a case by case basis.

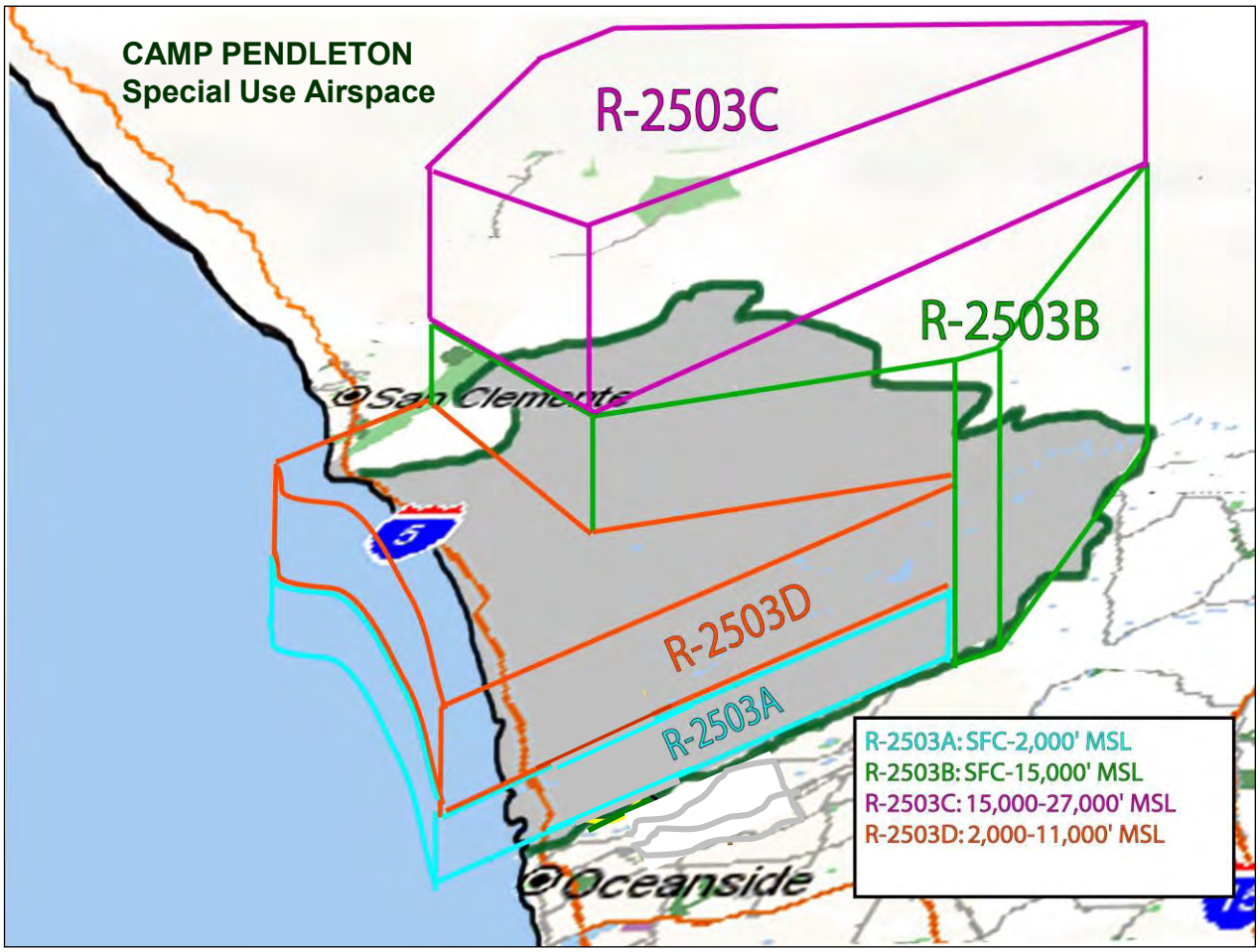

Figure 4-1

4. Air Range Safety Certification

a. Pilots must receive an air range safety certification prior to routine operations within MCIWEST-MCB CAMPEN SUA. Certification may be accomplished as a squadron or on an individual basis. All pilots must be certified annually or upon return from deployment. The certification process will be implemented and tracked by ROD. Aircrews not in compliance with this

policy must individually coordinate a one-time event brief. The one-time event brief must be coordinated with the Range Operations Officer DSN 365-4277 or commercial (760) 725-4277.

b. Prior to entering the MCIWEST-MCB CAMPEN SUA, aircrew will be required to check-in with LONGRIFLE. Aircrew not listed as certified, or having received an event brief, will be limited to transition only, and operations within the SUA will not be authorized.

4002. FEDERAL AIRWAY STRUCTURE. Camp Pendleton's restricted airspace and training ranges are surrounded by highly congested airspace recognized by the FAA as the busiest and most complex in the country. Numerous Federal Airways surround Camp Pendleton, but are most predominant on the Western border of the SUA (refer to Flight Information Program (FLIP)/L-3). Military users of Camp Pendleton SUA should be extremely cautious and vigilant when operating in the vicinity of the federal airway structures surrounding the Base. Unintentional intrusions by civil aircraft into Camp Pendleton SUA take place routinely. Due to these intrusions, and the high volume of traffic, both civil and military in the area, potential for mid air collision is considered to be high. Unauthorized civil aircraft observed within Camp Pendleton's restricted airspace should be reported to LONGRIFLE.

4003. NO OVER FLIGHT AREAS/NOISE ABATEMENT RESTRICTIONS

1. San Onofre Nuclear Generating Station. SONGS is located at grid coordinate 482 925; latitude 33 22' 10"N, longitude 117 33' 20"W. SONGS shall not be overflown at any time.

2. Endangered Species Nesting Areas. Refer to Chapter 2 of this Order for restrictions.

3. A minimum altitude of 500' above ground level (AGL) shall be maintained when flying over non-participating personnel, housing areas, camps, San Onofre State Beach, Capistrano TRW Complex, Golf Course, the Naval Hospital (695 891), and the Ammunition Supply Point (596 917).

4. Aircraft shall maintain a minimum altitude of 2500 Ft AGL over the following municipalities:

a. Oceanside

b. San Clemente

c. Fallbrook

4004. MARINE CORPS AIR STATION (MCAS) CAMP PENDLETON

1. General. MCAS Camp Pendleton airspace, facilities, support capabilities, and hours of operation are listed in current FLIP Planning, enroute Initial Flight Release (IFR) Supplement Publications and reference (l). Requests involving MCAS Camp Pendleton must be coordinated and approved by the Commanding Officer, MCAS Camp Pendleton.

2. MCAS Camp Pendleton Airspace

a. Portions of the MCAS Camp Pendleton Class D Airspace are located within the R2503A and R2503B airspace. When the Air Station is closed, the MCAS Camp Pendleton Class D airspace is inactive, and MCIWEST-MCB CAMPEN Range Control is responsible for all activity within those portions of the R-2503A and R-2503B. When the Air Station is open, aircraft must contact the MCAS Air Traffic Control Tower for clearance into the Class D airspace.

b. A number of MCIWEST-MCB CAMPEN aviation training facilities are located within the MCAS Camp Pendleton Class D airspace. Aviation training facilities within the MCAS Class D Airspace shall be scheduled with the MCIWEST-MCB CAMPEN Range Scheduling Office.

4005. AIRSPACE CONTROL PROCEDURES

1. General. To operate within MCIWEST-MCB CAMPEN SUA, aircraft shall check in and out with LONGRIFLE on the primary UHF or VHF frequency. Aircraft must maintain communication with LONGRIFLE at all times while operating within Camp Pendleton airspace. All aircraft utilizing ranges will monitor the guard frequency (121.5 VHF/243.0 UHF). Alternate discrete range safety frequencies may be requested to support individual training activities. (NOTE: Due to the mountainous terrain within Camp Pendleton, some low altitude communication blind spots exist in areas around the Base. Therefore, aircraft may have to climb to obtain positive communication with LONGRIFLE).

2. Check-In/Out. Aircraft checking in with LONGRIFLE shall provide call sign, location, number and type aircraft, planned activity, and ordnance (if applicable). Aircraft/flights working with Tactical Control Agency [e.g., TACP, Air Liaison Officer (ALO), etc.] to conduct TACP, SIMCAS, or Para-drop operations will be switched to the appropriate controlling frequency. All aircraft shall check out with LONGRIFLE when departing the SUA. Aircraft checking out shall provide call sign, ordnance expended (if applicable), and departure direction.

3. Radio Frequencies. LONGRIFLE utilizes four ultra high frequency (UHF), one very high frequency (VHF), and two frequency modulation (FM) frequencies for control of operations within Camp Pendleton airspace.

a. UHF – 310.3 (primary)/ 305.925/255.2/249.9 (secondary)

b. VHF - 123.2 (primary)

c. FM - 40.35 (primary)/ 30.35 (secondary)

4. Weather. The MCIWEST-MCB CAMPEN Range Complex SUA is a Visual Meteorological Conditions (VMC) operating area.

5. Fixed Wing Routing. Following check-in with LONGRIFLE, fixed-wing aircraft arriving for SIMCAS/TACP/Intelligence, Surveillance, and Reconnaissance (ISR) operations within Camp Pendleton Restricted Airspace will normally be directed to hold over the Case Springs area and assigned an altitude above any vertical hazards. Refer to Appendix F of this Order for the standard Fixed-Wing pattern.

6. Transit Routes. Helicopter and MV-22 aircraft in conversion mode, not engaged in specific training activities, shall transit using the routes listed below unless otherwise coordinated with Range Control. To transition to training facilities, aircraft should take the most direct route from the transit routes to the training facility. Grid coordinates based on the Camp Pendleton Military Installation Map [reference (b)] are provided for each point. Transit routes are depicted in Figure 4-2. These routes are subject to temporary closures when events such as artillery live fire are in progress.

a. Offshore

(1) Route of flight. Proceed one nautical mile (NM) offshore abeam the following check points. Call LONGRIFLE for transit to beach training facilities. Landing lights should be on.

(2) Checkpoints.

(Abeam)	San Clemente Pier	429 966
	San Mateo Point	439 932
	Power Plant	469 912
	CALSITE 20	535 877
	OCN VORTAC	589 772

b. Basilone Route

(1) Route of flight. Follow Basilone Road between the intersection of I-5 freeway to the intersection of Basilone and Roblar Roads; remain on the right side of the road to the maximum extent possible. Due to the large number of ranges located along Basilone Road, remain as close to the road as possible.

(2) Checkpoints.

I-5 and the Northern Base Boundary	449 952
Ammo Supply Point	604 917
Basilone/Roblar Roads	662 902

c. Case Springs Route

(1) Route of flight. Follow Talega Canyon power lines to Point Devil, turn right to parallel power lines, proceed southeast to CALSITE 10, CALSITE 8, and CALSITE 5.

(2) Checkpoints.

LZ 64	479 017
Devil	539 040
CALSITE 10	595 018
CALSITE 8	630 986
CALSITE 5	719 959

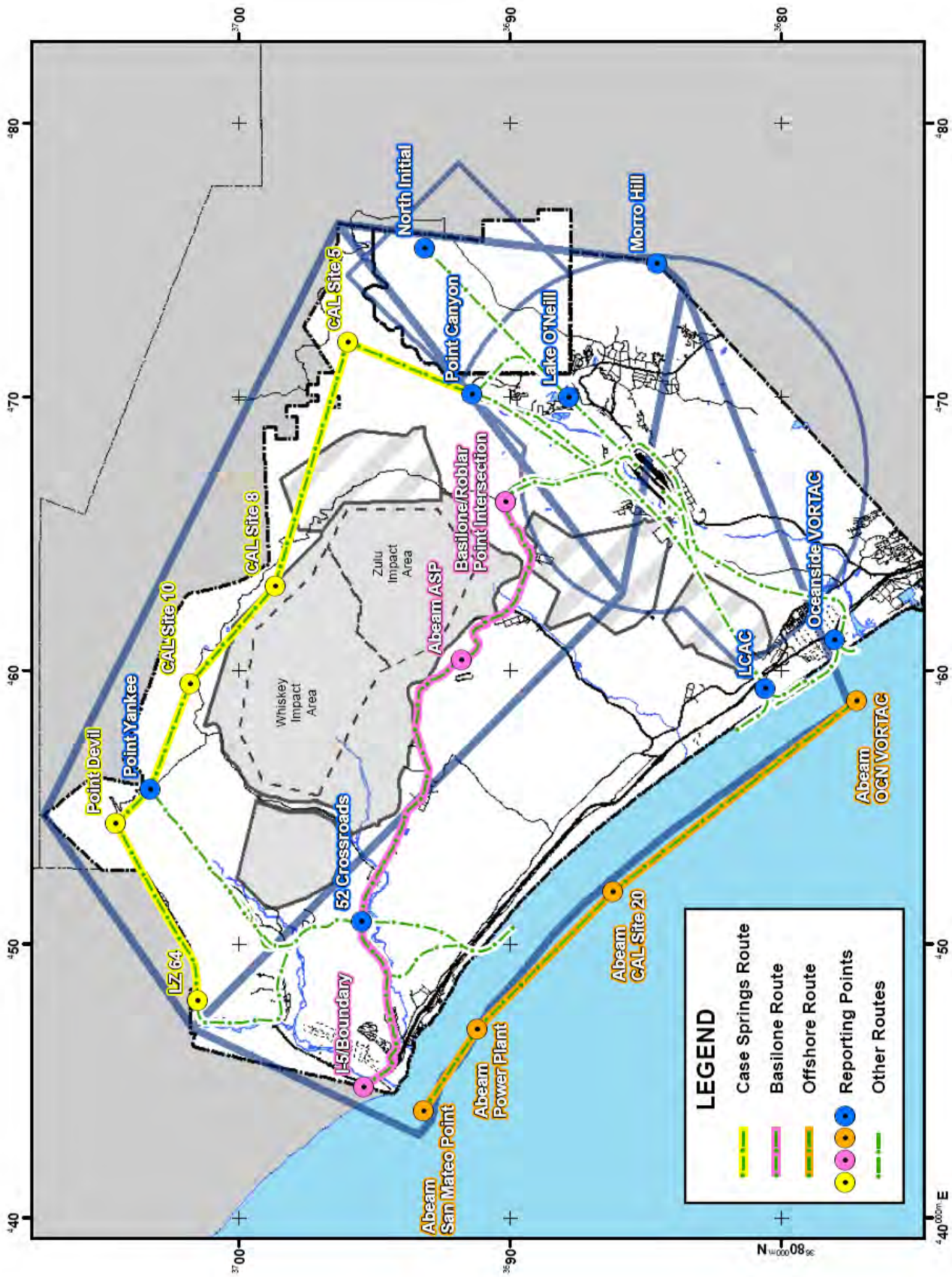
North Initial
Morro Hill
CAL Site 5
Point Canyon
Lake O'Neill
CAL Site 8
Basilone/Roblar
Point Intersection
Zulu
Impact
Area
CAL Site 10
Abeam ASP
Whiskey
Impact
Area
Point Yankee
Point Devil
ILCAC
Oceanside VORTAC
Abeam
OCN VORTAC
52 Crossroads
LZ 64
I-5/Boundary
Abeam
CAL Site 20
Abeam
Power Plant
Abeam
San Mateo Point
LEGEND
Case Springs Route
Basilone Route
Offshore Route
Reporting Points
Other Routes

Figure 4-2

7. Altitudes. Unless otherwise specified in this order or coordinated with LONGRIFLE, aircraft operating outside established aerial gunnery ranges, terrain flight (TERF) routes/areas and aviation training facilities shall maintain the following altitudes:

a. Helicopters/MV-22 in conversion mode- 500’ AGL. If a higher altitude is required for operations, aircrew should notify LONGRIFLE of their intentions.

b. Fixed Wing Aircraft/MV-22 airplane mode- a minimum of 1500’ AGL

8. Lost Communications. Aircraft unable to maintain communications with LONGRIFLE must depart the SUA by the most direct means using transit routes as necessary.

4006. AVIATION FACILITIES

1. Numerous aviation facilities to include: Administrative Landing Zones, Tactical Landing Zones, Confined Area Landing Sites, Drop Zones, simulated flight decks, Vertical Takeoff, and Landing Sites are located throughout the training areas. Appendix F lists the location of these aviation facilities. Additionally, a more detailed description of these facilities can be found in the Camp Pendleton Aviation Range and Training Inventory and on the ROD SharePoint site at https://pendleton.mciwest.nmci.usmc.mil/ot/rod/default.aspx

2. Administrative Landing Zones. Most cantonment and major command areas on Camp Pendleton maintain a standard Administrative LZs for MEDEVAC, VIP, command, or routine administrative flights. Area Commanders with designated landing zones are responsible for the marking and maintenance. The use of Camp Pendleton Administrative LZs shall be coordinated with the Area Commander prior to submitting a scheduling request to the Range Scheduling Office. Administrative LZs are not intended for routine training events.

4007. GENERAL OPERATIONS

1. Prohibitions. Aircraft are prohibited from operating and/or landing within any impact area, range, firing line, artillery position, or mortar position when firing is in progress, or whenever troops or ammunition occupy the position.

2. VIP Flights. Coordination should be made with Range Scheduling by calling (760) 725-3510 at least two working days in advance for aircraft transporting VIPs.

3. MEDEVAC. Any aircraft engaged in an actual MEDEVAC mission shall immediately contact LONGRIFLE stating, “This is an actual MEDEVAC mission.” LONGRIFLE will place all applicable ranges, artillery firing areas, or mortar positions in a check-fire status and allow the aircraft to proceed via the most direct route to the scene. This suspension of operations will remain in effect until the MEDEVAC aircraft commander informs LONGRIFLE that the MEDEVAC mission is completed, and the aircraft is clear of all ranges and impact areas.

4. Special Patrol Insertion/Extraction (SPIE) Rigging/External Operations

a. Aircraft conducting SPIE rigging/external operations over Base public roads shall provide road guards to stop traffic while the aircraft is crossing. Operations shall not require a road to be closed for more than ten minutes. Aircraft are prohibited from conducting external operations over non-participating personnel or across the I-5 Freeway.

b. For all SPIE rigging operation, using units shall submit an aviation overlay to Range Scheduling no later than seven working days from the event.

5. Chaff and Flares. Chaff and flares may be expended at or below 500' AGL within an impact area, and within one nautical mile offshore of Camp Pendleton. Chaff and flares shall NOT be expended without approval from LONGRIFLE. Aircraft shall make a range/sea sweep prior to the use of expendables to ensure the area is clear. Flares may NOT be expended during high wind conditions or when the FDR is EXTREME. The following locations are approved sites for loading chaff and flares; they must be scheduled separately:

a. LZ View Point

b. LZ Red Beach

c. CALSITE 20

d. VTOL Pad 2

4008. NIGHT VISION GOGGLE (NVG) OPERATIONS

1. General. Aircraft operating within Camp Pendleton airspace on night vision devices shall follow the lighting configuration described below.

a. Single Aircraft Operations. Anti-collision lights shall be on; navigation lights shall be on at the highest intensity consistent with NVG compatibility.

b. Multiple Aircraft Operations. All aircraft in the flight shall have navigation, anti-collision, formation and blade tip lights on at intensity levels in keeping with safe flight. Aircraft in the flight, except the last aircraft, may turn off the anti-collision light if deemed in the best interests of safety by the pilot in command/flight leader. Separation between the lead aircraft and last aircraft in the flight shall not exceed one NM.

2. See and Avoid. The requirement to "see and avoid" shall take priority over NVG tactical training. Modification, taping, and/or cat eyeing of external lighting are not authorized.

4009. TACP OPERATIONS

1. General. TACP operations shall be under the positive control of a Camp Pendleton qualified JTAC, TACP, FAC or a rotary-wing Forward Air Controller Airborne [FAC (A)]. For information on Camp Pendleton FAC/JTAC safety training, go to the ROD SharePoint site at https://pendleton.mciwest.nmci.usmc.mil/ot/rod/default.aspx

2. Scheduling and Coordination

a. TACP scheduling requests shall include type/number of aircraft, ordnance, impact area, IP, mark type, and supporting facilities (e.g., MP, AFA, etc.).

b. Standard TACP FAC brief sheets shall be submitted to the Range Scheduling Office NLT 14 working days prior to the event. The standard FAC brief sheet for TACP operations are located on the Range Operations SharePoint site at https://pendleton.mciwest.nmci.usmc.mil/ot/rod/default.aspx or hard copies are available upon request from ROD.

c. Non-standard TACP training shall be briefed to the RCO NLT 14 working days prior to the event. The brief shall include FAC brief sheet, ORM, Concept of Operations (CONOPS), and an overlay.

3. TACP OIC/RSO Requirements. Units shall ensure that required safety personnel are present during training IAW with following table.

TACP OIC & RSO Requirements

	Controls			
OIC/RSO FAC/JTAC/LSSO	**Aircraft With No Ground Mark – No Laser**	**Aircraft With No Ground Mark – With Laser**	**Aircraft With Ground Mark – No Laser**	**Aircraft With Ground Mark – With Laser**
FAC/JTAC	**Yes**	**Yes**	**Yes**	**Yes**
LSSO	**No**	**Yes**	**No**	**Yes**
OIC From Grd Unit	**No**	**No**	**Yes**	**Yes**
RSO From Grd Unit	**No**	**No**	**Yes**	**Yes**
FSC From Grd Unit	**No**	**No**	**Yes**	**Yes**

Table 4-1

4. Communication. Positive two-way communication must be established and maintained between the aircraft, the JTAC/TACP/FAC/FAC(A), and LONGRIFLE prior to conducting any TACP operations. Operations will be suspended if air-ground communication is lost.

5. Ordnance. TACP operations at Camp Pendleton are limited to rotary-wing air-to-ground ordnance delivery and fixed-wing bombing. No live ordnance exceeding 500 pounds (MK82 series) may be dropped within the Camp Pendleton aviation impact areas without prior approval of the AC/S, G-3/5. Maximum ordnance authorized per each fixed-wing aircraft pass on the target is one bomb, unless specifically authorized by the Range Control Officer. A number of ground ranges are located along the borders of the Whiskey and Zulu Impact Areas (as described in Appendix B). Units conducting TACP training should expect ground ranges along the borders of the impact areas to be occupied by other personnel. Ordnance delivery should not occur until forward of all ground personnel and ranges. All ordnance and their effects shall impact beyond the forward line of personnel and the forward limit of ranges along the borders of aviation impact areas. Effects of ordnance include the resulting fragments, debris, and components of ordnance such as shell casings, links, expendables, chaff, and flares. (Please note "Restricted

Fire Areas (RFA)" within the aviation impact areas.) At no time shall any ordnance be released without positive target identification and marking. Only Type 1 control may be conducted during live ordnance delivery.

6. Target Marking. All live ordnance delivery shall be marked by laser, mortar, artillery or helicopter. Marking targets with direct fire weapons requires prior approval by the RCO. "Talk- ons" are authorized in R440 (Zulu Impact Area) and R220 (Whiskey Impact Area) during daylight with Marine Aircraft Group 39 helicopters only.

7. Clearing Hot. FACs/JTACs/FAC(A)s shall not call "cleared hot" until the FAC/JTAC/FAC(A) has the aircraft in sight, and the aircraft has cleared the forward line of personnel and the forward limits of ranges along the borders of aviation impact areas.

8. FAC(A) Firing Areas. Ranges 227, 407, and 407A are designated firing areas for FAC (A) marking activities if FAC (A) aircraft do not desire to fire from within the Zulu Impact Area. They must be scheduled through the Range Scheduling Office prior to use. FAC (A) aircraft shall not enter these ranges without authorization from LONGRIFLE. Aircraft shall verify to LONGRIFLE the left and right lateral limit of the range being utilized.

9. Lasing. Lasing in support of TACP is conducted IAW Chapter 8.

10. Weather Minimums. Pilots must maintain positive identification of the target and visual reference to the surrounding area for clearance of terrain and other hazards.

4010. SIMULATED CLOSE AIR SUPPORT (SIMCAS). SIMCAS operations are allowed in any training area that falls within Camp Pendleton's restricted airspace. All SIMCAS must be supervised by a current FAC/JTAC/FAC(A). Units desiring to conduct SIMCAS shall submit a FAC Brief sheet and overlay of intended SIMCAS routings and areas to the Range Control Branch NLT 14 working days prior to the planned event. Exception will be if utilizing a scheduled ACA. SIMCAS training may simulate type two and three controls.

4011. AVIATION ORDNANCE DELIVERY OPERATIONS. Helicopter and MV-22 Aircraft may schedule independent aviation ordnance delivery operations within the Zulu and Whiskey impact areas. Detailed instructions for aviation ordnance delivery operations are located under aviation special instructions located on the ROD SharePoint site at https://pendleton.mciwest.nmci.usmc.mil/ot/rod/default.aspx. A number of ground ranges are located along the borders of the Whiskey and Zulu Impact Areas (as described in Appendix B). Units conducting aviation ordnance delivery training should expect ground ranges along the borders of the impact areas to be occupied by other personnel. Ordnance delivery should not occur until forward of all ground personnel and ranges. All ordnance and their effects shall impact beyond the forward line of personnel and the forward limit of ranges along the borders of aviation impact areas. Effects of ordnance include the resulting fragments, debris, and components of ordnance such as shell casings, links, expendables, chaff, and flares. (Please note Restricted Fire Areas (RFA) within the aviation impact areas). Non-standard aviation ordnance delivery operations shall be briefed to the RCO NLT 14 working days prior to the event (i.e utilizing TERF routes or non-standard holding areas).

4012. HELICOPTER TERF OPERATIONS

1. General. Camp Pendleton airspace includes designated TERF routes/areas for helicopter low altitude navigation and pilot training proficiency. TERF operations outside established aviation ordnance delivery ranges and TERF routes/areas are not authorized. Helicopters conducting TERF operations along routes or in areas shall have a "high bird."

2. Scheduling. TERF routes/areas must be scheduled through the Range Scheduling Office prior to their use. Refer to paragraph 4004 of this order when utilizing MIKE TERF route/area. Scheduling a TERF route does not authorize use of the TERF Maneuver Area. Maneuver Areas shall be scheduled separately from the TERF route.

3. TERF Routes. The following helicopter TERF routes are depicted in the Aviation Special Instructions; they can be found at https://pendleton.mciwest.nmci.usmc.mil/ot/rod/default.aspx:

Case Springs
DeLuz Canyon
Devils Canyon
Mike
Pulgas

4. TERF Maneuver Areas. The following helicopter TERF areas are depicted in the Aviation Special Instructions:

Case Springs
DeLuz Canyon
Mike
Pulgas

4013. HELICOPTER OUTLYING LANDING FIELD (HOLF) OPERATIONS

1. General. The Camp Pendleton HOLF is located in San Mateo Canyon, in the vicinity of 504 994. The HOLF provides one 3,000-foot grass runway (Rwy 22L/04R) and one 3,000-foot concrete runway (Rwy 22R/04L). The HOLF field elevation is approximately 350' MSL. The HOLF is uncontrolled and unlit.

2. Scheduling. 3rd Marine Aircraft Wing aircraft shall have priority use. All requests will be made via RFMSS.

3. HOLF Transitions. The following HOLF transitions have been developed to facilitate transition from established transit routes. Aircraft shall enter the HOLF at 1,400' MSL. Aircraft shall depart the HOLF at or below 900' MSL.

a. Ocean HOLF Transition. Transit from the Offshore Route to a point on the shoreline one NM south of SONGS (vicinity of 495 915), north to San Mateo Road (52 Area Crossroads), and inbound to the HOLF. Caution: Cross R-207A and R-300 at or above 1,000' AGL.

b. Basilone HOLF Transition. Transit along the Basilone Route to San Mateo Road (52 Area Crossroads) and inbound to the HOLF. Caution: Cross R-207A and R-300 at or above 1,000' AGL.

c. Case Springs HOLF Transition. Transit from the Case Springs Route to Point Yankee (vicinity of 557 035) via San Mateo Canyon, and inbound to the HOLF.

NOTE: Unless otherwise instructed by LONGRIFLE, aircraft shall fly right side right-of-way while flying the HOLF transitions (i.e., left to left aircraft pass).

4. Communications Procedures. Aircraft shall employ the following communication procedures when operating at the HOLF.

a. Aircraft shall report the following points to LONGRIFLE for communication switch to HOLF common frequency of UHF 249.9.

(1) 52 Area Crossroads. The intersection of Basilone Road and San Mateo Road (vicinity of 508 955).

(2) Point Yankee. Located at 557 035.

b. HOLF pattern position calls will be made as required; however, a mandatory call shall be made on HOLF common under the conditions listed below.

(1) When entering from an entry point, report position and intentions.

(2) When departing the HOLF for an exit point, report intentions and direction of departure.

(3) When abeam for landing, report abeam and intended runway.

5. Standard Operations

a. Aircraft shall operate at or below 1,400’ MSL (1,000’ AGL), unless otherwise instructed by or coordinated with LONGRIFLE. Nominal pattern altitude is 800’MSL when operating on Runway 22L/04R and 1,000’MSL when operating on Runway 22R/04L. Aircraft shall remain north of the San Mateo riverbed to remain clear of live-fire operations in the Quebec Impact Area when active.

b. Single runway operations. Aircraft may fly a left or right pattern. The first aircraft arriving in the pattern will establish pattern direction. No more than three aircraft may operate at the HOLF during single runway operations.

c. Parallel runway operations. When parallel runway operations are in progress, aircraft at Runway 22L or 04L shall fly a left pattern, and aircraft at Runway 22R or 04R shall fly a right pattern. No more than three aircraft may operate at each runway, for a maximum of six aircraft at the HOLF during parallel runway operations.

d. Runway change procedures. When prevailing conditions require a runway change, the following procedures apply:

(1) All aircraft will land on the runway or depart the HOLF operating area:

(2) All aircraft will report, "Ready for runway change."

(3) The aircraft closest to the new departure threshold will call for take off on the new runway.

e. Procedures for transitioning from one parallel runway to another parallel runway. Aircraft wishing to transition from one parallel to the other runway may do so if they are the only aircraft in the pattern. Aircraft desiring to transition from one parallel runway to the other while other aircraft are operating at the HOLF shall depart the pattern and reenter via established reporting points (52 Area Crossroads/Point Yankee).

f. Concurrent use of HOLF by MV-22 in conversion mode and rotary wing aircraft is authorized.

g. Departure procedures. Aircraft departing the HOLF shall broadcast intentions and ensure they give way to pattern aircraft as they effect transition to the designated departure point (52 Area Crossroads/Point Yankee). Aircraft departing from Runway 04L at night for 52 Area will transit downwind, south of Camp San Mateo, and clear of the pattern before turning toward 52 Area Crossroads.

6. Night Operations. Patterns shall be flown as described above; however, no more than two aircraft may operate at the HOLF during single runway operations. No more than four aircraft may operate at the HOLF during parallel runway operations. NVG operations are authorized; however, simultaneous night aided and unaided operations are not authorized.

7. Concurrent HOLF and Helicopter Landing Zone (HLZ) Operations. When simultaneous operations are in progress at the HOLF and the HLZ, the following deconfliction procedures apply.

a. Runway 22 L/R. Aircraft flying a right pattern shall remain clear of, and give way to aircraft operating at the HLZ.

b. Runway 04R/L. Simultaneous Runway 04R/L and HLZ operations are not authorized.

c. HLZ. HLZ Aircraft shall monitor HOLF common (UHF 249.9) when HOLF operations are in progress. HOLF and HLZ position calls shall be made as required. Expect HLZ aircraft to fly a northwest pattern to remain within Base boundaries.

d. Night simultaneous HLZ/HOLF operations are not authorized.

8. Non-participating HOLF Aircraft Transit Routes. Aircraft transiting or operating in the vicinity of the HOLF, when HOLF operations are in progress, shall transit via Talega Canyon.

9. Concurrent HOLF/Fixed-Wing Operations. HOLF aircraft operations will be restricted at or below 1,400' MSL when fixed-wing aircraft are operating in the vicinity of San Mateo Canyon. Fixed-wing aircraft will operate at or above 2,500' MSL.

4014. PARACHUTE AIRDROP OPERATIONS

1. General. Parachute airdrop operations include dropping or releasing personnel, cargo, or vehicles from an aircraft for descent to the ground. Appendix F lists all certified DZs. A list of DZs and associated capabilities is also available in the aviation special instructions located on RODs SharePoint site at https://pendleton.mciwest.nmci.usmc.mil/ot/rod/default.aspx.

2. Scheduling and Briefing. Units desiring to conduct parachute airdrop operations shall schedule the airspace and the DZ required to support the operation PRIOR to attending the Air FRAG conference. Failure to do so may result in disapproval of a DZ request. Additionally, on Zulu Air Priority days, parachute airdrop operations are subject to cancellation or modification. The requesting unit shall provide Range Scheduling a DZ Brief Sheet no later than (NLT) seven working days prior to the jump. Units requesting to jump into non-standard drop zones shall submit a tactical DZ survey to the RCO NLT 14 working days prior to the event. An aircrew airspace and range safety brief is mandatory for all drop operations. POC for briefing is the Range Operations Officer at (760) 725-4277 (DSN 365).

3. Restrictions. The following restrictions and safety precautions apply to all parachute and paradrop operations at Camp Pendleton.

a. The RSO will suspend or cancel drop operations if, in their judgment, wind direction or wind gusts in combination with aircraft position make the drop unsafe.

b. During static-line parachute operations, the winds on the surface will not exceed 13 knots, or 30 knots through the jump altitude. When utilizing Ram-Air parachutes, either static-line deployed or manually deployed, the winds on the surface will not exceed 18 knots; the winds through the jump altitude are unlimited.

c. Within R-2503B, the maximum drop altitude is 15,000’ MSL; in R-2503A, the maximum drop altitude is 2,000’ MSL. If a training requirement exists for parachute airdrop operations above these altitudes, advanced coordination with the Camp Pendleton Range Scheduling Office shall be made at least 10 working days prior to the desired airdrop operation.

d. All High Altitude High/Low Opening Airdrops shall be conducted in Visual Meteorological Conditions (VMC)to include aircraft transit/pattern and jumper descent to DZ.

e. Cargo drops will not be made at an altitude above 3,000’ AGL in R-2503B or 2,000’ MSL in R-2503A, unless coordinated with the Range Scheduling Office at (760)725-4219/3510. A cold pass is required prior to dropping cargo.

f. Units conducting cargo drops within dropzones that impact Major Surface Roads (MSR) shall provide road guards to stop traffic while the A/C is conducting its drop. Operations shall not require a road to be closed for more than ten minutes.

4. Hazards. Planning Considerations. The Unit Commander, RSO and Jump Master (JM) perform the following actions to reduce the risks associated with hazards:

a. Unit Commander

(1) Ensure a risk assessment analysis has been conducted to determine the risk level for jumpers. If a high risk exists, select (if possible) an alternate DZ that allows mission conduct at a lower risk level.

(2) Ensure a follow-on assessment has been made to determine whether the jumpers' risk level has changed.

b. In order to validate the DZ survey and identify any potential hazards, the DZ Safety Officer (DZSO) shall complete a safety survey of the DZ no less than 24 hours prior to conducting live parachute airdrop operations. The results of the DZ assessment shall be included in the ORM prepared by the unit conducting the parachute training.

5. Procedures. The following control procedures will apply to all parachute airdrop operations conducted on this Base.

a. The RSO shall be physically located within the drop zone. Prior to occupying the DZ, the RSO shall contact LONGRIFLE to receive a safety brief and verify the DZ Brief Sheet.

b. All aircraft entering Camp Pendleton Restricted Airspace for participation in parachute airdrop operations shall first check-in with LONGRIFLE. All aircraft conducting parachute or airdrop operations shall maintain constant radio contact with LONGRIFLE.

c. DZ Basilone is located within MCAS Camp Pendleton Class D Airspace. All aircraft conducting drop operations at this site may be directed by LONGRIFLE to contact the MCAS Camp Pendleton Air Traffic Control Tower. When the Class D Airspace is active, the MCAS Camp Pendleton Air Traffic Control Tower will provide clearance authority for the aircraft to begin drop operations.

4015. AIRCRAFT REFUELING OPERATIONS

1. Sites. A list of approved aviation refueling sites is located in Appendix F.

2. Constraints

a. Use existing access roads to all sites.

b. Use only the existing disturbed areas/hard-stand at each site. No brush cutting or disturbance outside of the existing footprint is allowed.

c. No digging/grading is allowed at any site without approval from Environmental Security.

d. Secondary containment for refueling operations will be constructed using sand bags or some other implement over which impermeable material is draped and secured.

e. No dirt piles or loose soil will be left at any site for any reason. This could present an "attractive nuisance" to the endangered Arroyo Southwestern Toad and/or Pacific Pocket Mouse.

f. All sites are to be left in their original condition after each refueling operation (no permanent tanks, containment berms, etc.).

g. Units choosing to use the designated sites will not be required to seek additional environmental approval.

h. Units shall obtain approval from Environmental Security when refueling sites, not listed above, are requested.

4016. UAS OPERATIONS

1. General. UAS operations at Camp Pendleton shall remain within the SUA. ACA have been established in multiple locations within the RTA complex in order to facilitate daily UAS operations. Any UAS operations conducted outside of established ACAs requires coordination with the RCO at least 14 working days prior to the event. Units shall submit an aviation overlay depicting the maneuver box, route of flight, altitudes and ingress/egress points. Contact the Range Scheduling Office for the most current listing of approved UAS platforms.

2. Communication. UAS operations shall not be conducted at Camp Pendleton unless positive two-way communication is established and maintained between the UAS operator and LONGRIFLE. The Mission Commander shall advise LONGRIFLE prior to launching/recovering the UAS, and when training is complete. Units conducting UAS operations shall have a radio to monitor the LONGRIFLE primary Aviation Safety Net (UHF 310.3).

3. Weather. UAS operations shall be conducted in VMC.

4. Safety Training. All UAS operations shall be supervised by a MCIWEST-MCB CAMPEN locally qualified UAS RSO. Following completion of the Camp Pendleton specific UAS RSO class, the certification will remain in effect for two years.

5. ACAs. A listing of all UAS ACA's within the MCIWEST-MCB CAMPEN range complex are located at: https://pendleton.mciwest. nmci.usmc.mil/ot/rod/default.aspx

CHAPTER 5

MARITIME OPERATIONS

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CHAPTER 5

MARITIME OPERATIONS

5000. GENERAL. MCIWEST-MCB CAMPEN's proximity to the Pacific Ocean provides a littoral training capability unlike any other DoD installation within the CONUS. However, unlike the land-space that makes up the ranges and training areas located throughout the installation, the Marine Corps does not own the sea-space. Federal land and MCIWEST-MCB CAMPEN jurisdiction ends, and state waters begin, at the mean high tide line. Therefore, the ability of the Range Operations Division to de-conflict offshore activities is limited to previously scheduled military or civilian units. It is not uncommon for unscheduled, non-participating civilian vessels to navigate within published off shore operating areas. Hence, all maritime activities conducted within state or federal waters must be conducted in accordance with the United States Coast Guard (USCG) navigation Rules of the Road, outlined in Navigation Rules International Inland (USCG Commandant Instruction M16672.2D, 1999).

5001. MARITIME OPERATIONS AND SAFETY. In the case of all offshore activities, to include the Del Mar Boat Basin, the designated RSO is responsible for ensuring unit compliance with all communication requirements and personnel safety provisions identified in this order, as well as, the Marine Corps Warfighting Publications or technical manuals specific to the intended waterborne activity.

1. Communication. Units conducting operations within the Del Mar Boat Basin or the Camp Pendleton Amphibious Vehicle Training Area (CPAVA) shall contact LONGRIFLE prior to going feet wet, feet dry, and in the event of a medical or operational emergency.

2. Safety Boat/Primary Rescue Vehicle and Medical Personnel. Upon check-in with LONGRIFLE, the RSO shall affirm the presence of a safety boat, or a Primary Rescue Vehicle has been identified within the formation, and appropriate medical personnel are on board with first aid equipment.

5002. CPAVA

1. The CPAVA is an ocean area adjacent to the shoreline of MCIWEST-MCB CAMPEN used for amphibious operations and associated training. The CPAVA is contained within the boundaries listed below.

LATITUDE NORTH	LONGITUDE WEST
33° 19′ 52.537″	117° 40′ 03.513″
33° 22′ 56.588″	117° 35′ 20.333″
33° 12′ 19.898″	117° 24′ 09.943″
33° 09′ 16.267″	117° 28′ 52.943″

2. Scheduling

a. MCIWEST-MCB CAMPEN Range Operations is responsible for scheduling and de-confliction of training in the CPAVA. Units desiring to conduct offshore training that results in crossing the shore line of MCIWEST-MCB CAMPEN, must schedule the beach landing site and associated training areas/facilities through Range Operations IAW Chapter 3 of this Order.

b. Units desiring to conduct hazardous activities offshore are responsible for publication of a Notice to Mariners via coordination with the USCG.

c. Underwater demolitions must be scheduled 30 days in advance of operations.

5003. LCAC TRANSIT LANE. Due to the LCACs high speed of advance, a clear LCAC Transit Lane extending 4,000 yards seaward from the Assault Craft Unit Five (ACU-5) ramp (33-15.5N/117-26.3W) has been designated for LCAC line-up purposes. This exclusion area (in effect, an LCAC "driveway") is the only safe access for LCACs departing from and returning to the ACU-5 ramp. The LCAC Transit Lane is contained within the boundaries listed below.

LATITUDE NORTH	LONGITUDE WEST
33° 15' 44" N	117° 26' 30" W
33° 15' 17" N	117° 26' 8" W

5004. LCAC OPERATIONS

1. General. LCACs are restricted in their ability to maneuver when departing from and returning to the ACU-5 ramp. This LCAC maneuverability restriction equates to plus or minus ten degrees from a line perpendicular to the surf zone.

2. Anchoring. For LCAC safety purposes, it is imperative ships do not anchor within the LCAC Transit Lane.

3. Environmental. LCAC operations ashore shall be conducted per Chapter 2 of this Manual. LCAC operations shall maintain a 1,000-foot seaward buffer zone from the Blue Beach/White Beach least tern/snowy plover nesting areas between 1 March and 15 September. Direct ingress from the LCAC ramp/facility is not affected by this buffer zone.

5005. BEACHES. The CG, MCIWEST-MCB CAMPEN exercises command in all matters pertaining to the government-owned beaches and any restricted sea areas off the outer breakwater identified in reference (m).

Beach Name	Easting	Northing	Latitude	Longitude
State Beach A	44538	94342	33°23' 13" N	117° 35' 47" W
Green Beach	46173	93612	33° 22' 50" N	117° 34' 43" W
State Beach B	46935	93226	33° 22' 37" N	117° 34' 14" W
SONGS	47730	92538	33° 22' 15" N	117° 33' 43" W
State Beach C	48935	91867	33° 21' 53" N	117° 32' 56" W
Gold Beach	53065	88119	33° 19' 52" N	117° 30' 16" W
Red Beach	56318	84071	33° 17' 41" N	117° 28' 9" W
White Beach	56907	83243	33° 17' 15" N	117° 27' 46" W
Blue Beach	60785	77555	33° 14' 10" N	117° 25' 15" W
Del Mar Rec (N)	61682	76270	33° 13' 29" N	117° 24' 40" W
Del Mar Rec (S)	62301	75170	33° 12' 53" N	117° 24' 16" W

5006. DEL MAR BOAT BASIN

1. General. The CG, MCIWEST-MCB CAMPEN exercises command in all matters pertaining to the Del Mar Boat Basin, the adjacent government owned beaches, channel, channel entrance, and the restricted sea areas off the Del Mar outer breakwater.

a. In accordance with reference (m), Del Mar Boat Basin is reserved exclusively for use by vessels owned and operated by the Federal Government. Permission for civilian vessels or craft to enter the area must be obtained from the enforcing agency.

b. The AC/S, G-3/5, exercises general staff cognizance over the Del Mar Boat Basin Complex. The AC/S, G-3/5 shall resolve "Priority Use" conflicts. All requests for use of the Del Mar Boat Basin will be addressed to the Range Scheduling Office.

c. The maximum speed of a craft operating within the Del Mar Basin and channel waters shall not exceed 5 mph or safe wake speed.

d. All units must gain and maintain positive communications with LONGRIFLE prior to and during any training, testing or transition event.

2. Scheduling. Units will utilize RFMSS to schedule.

a. Scheduled as separate facilities:

(1) Quay Wall

(2) Landing Craft Unit (LCU) Sand Beach

(3) LCU Ammo Ramp

(4) Basin

b. Maximum units to be scheduled:

(1) 1 at Quay Wall

(2) 1 at LCU Sand Beach

(3) 1 at LCU Ammo Ramp

(4) 2 in Basin

c. Transitions do not require scheduling. During transition to/from the Basin to/from open sea, units will call LONGRIFLE prior to launch/recovering in Basin. LONGRIFLE will provide advisories of Basin activity.

d. Surface swimming is prohibited in the area starting from the LCU Sand Beach/Quay Wall and continuing out into the channel (see Figure 5-1).

62
63
75
5 MPH
Speed Limit
5 MPH
Speed Limit
DEL MAR BOAT BASIN
FEDERAL WATERS
N
E
63

Figure 5-1

5007. FISHING

1. No lobster traps, commercial or otherwise, will be set within the Del Mar Boat Basin or channel; nor within 750 feet of the jetty or groyne.

2. Commercial fishing boats will not be permitted within the Del Mar Boat Basin Area.

3. Fishing is permitted from the North Jetty, South of Del Mar Beach and authorized privately owned boats during daylight hours only, except when precluded by military commitments.

4. State of California fishing regulations apply to all users. Both a state fishing license and a Base fishing permit are required for fishing.

5. Violations of these restrictions will be reported to the Base Game Warden at (760) 725-3360.

5008. RESTRICTED SEA AREAS

1. All navigational aids are off-limits to all personnel, except those personnel authorized to service, inspect, and maintain them.

2. Restricted sea areas include all of the water of the Del Mar Boat Basin entrance channel lying northerly of a line between a light on the north Del Mar jetty at latitude 33 degrees 12’ 20”, longitude 117 degrees 24’ 0”, and a light on the north Oceanside Harbor groyne at latitude 33 degrees 12’ 30”, longitude 117 degrees 23’ 0” (Del Mar Recreational Beach). Restricted sea areas are off-limits to all unauthorized personnel.

5009. PORT OF REFUGE

1. Use of the Del Mar Boat Basin and channel as a port of refuge by small craft is authorized.

2. A vessel in distress will be provided all necessary assistance, within the capability of the Base, to prevent loss of life or property.

5010. PRIVATELY-OWNED BOATS AND SMALL CRAFT. All authorized personnel operating a privately-owned boat within the Del Mar Boat Basin and channel waters will ensure boats or craft are properly outfitted and registered per applicable U.S. documentation regulations or state registration procedures, and reference (e).

CHAPTER 6

RANGE OPERATIONS

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CHAPTER 6

RANGE OPERATIONS

6000. GENERAL

1. Establishment. Ranges are established by the CG, MCIWEST-MCB CAMPEN. When units are the primary users of a particular range, they do not inherit title to those ranges, and possess no authority to modify the nomenclature, purpose, or design of any range. Recommendations to improve ranges and facilities should be submitted to the AC/S, G-3/5.

2. Maintenance. RTAMD maintains ranges.

3. Operations. ROD personnel are authorized access to all ranges and training facilities for the purpose of inspection and investigation at all times. These personnel will not disrupt unit training unless necessary to perform their duties. Training units will not interfere with these personnel in the performance of their duties, even if the range or facility is in use.

4. Targets

a. TSD provides targets for installed mechanisms on COMTS ranges and for the Portable Infantry Target System (PITS) mechanisms.

b. Targets for artillery and aircraft will be provided by RTAMD and positioned in the impact areas as approved by ROD.

c. Other than PITS, Regimental Enhanced Training Section (RETS) or other targets provided by TSD or RTAMD, using units will provide their own targets. Targets shall be placed and engaged IAW the published Special Instructions (SPINS) for the range. Units shall observe all safety precautions and regulations, and coordinate with the RCO. Targets will never be placed in any dud-producing impact area without approval from the RCO and escort by Explosive Ordnance Disposal (EOD) personnel, or other personnel designated by the RCO.

d. All targets utilized during any live fire and movement event shall be "knock down stay down" type targets.

e. All targets used for Enhanced Marksmanship Program (EMP)/CQB static "Square Bay" type training shall be mounted on soft wood uprights and shall be made from cardboard or paper.

f. Pallets shall only be used for Battlesight Zero (BZO) or 10 meter machinegun qualifications. When engineer stakes are utilized to support pallets, they shall be placed on the outside edges of the pallet.

6001. RANGE ACCESS CONTROL FEATURES

1. Barricades and Range Guards. Either barricades or range guards shall block normal approaches to danger areas created by firing. The RCO shall determine specific requirements.

a. Barricades. When required, barricades shall be emplaced on all roads and trails leading into range areas.

(1) Firing units shall ensure barricades with clearly visible signage area in place prior to firing. Specific requirements for each range are listed in the SPINS located on each Range.

(2) Firing units are responsible for ensuring that during hours of darkness or limited visibility, barricades shall be lighted with chemlights or other suitable means.

(3) In order to establish barricades on any facility other than live fire ranges, units shall submit an overlay depicting location and type of barricade to the RSO NLT 14 working days prior to the event. This type of barricade shall be surface laid only and manned at all times.

b. Range Guards

(1) Range guards shall be posted in pairs with positive communications with the RSO to prevent entry into danger areas that cannot be observed, or which do not lie within the established impact areas. Normally, range access roads are not within this category and do not require a range guard, except as listed in the Special Instructions on the range or as specified by the RCO.

(2) Artillery firing units shall post range guards on established roads when the area "E" of the SDZ diagram (refer to directives in the MCO 3570 series) covers the road involved. Traffic on these roads shall be halted during actual firing. Delays must not exceed 10 minutes at any one time.

(3) OICs/RSOs may post additional range guards, as necessary, to enhance safety. The arbitrary blocking of roads or the denial of access to other than a danger area is not permitted.

(4) Range guards shall be provided with a means of positive communication issued by the unit. Range guards shall also be provided with some means of illumination for the identification of their positions during hours of darkness.

2. Warning Flags and Warning Lights. During daylight hours, the warning flag shall be raised whenever a unit is on any range. During hours of darkness, a blinking red light, facing to the rear of the range, shall be in place. LONGRIFLE will place the unit in check-fire until flags or lights are in place. The flag is in an ammo can, along with the specific Special Instructions, attached to a pole at each training facility. When aviation units are conducting night live fire operations in the Zulu or Whiskey Impact Areas, units on ranges adjacent to the Zulu and Whiskey Impact Areas shall mark their forward position with an Infrared (IR) Strobe, IR chemlight, or a visible light source. Once air assets know of, and have positively identified the forward position, LONGRIFLE may contact the unit to secure the IR light source.

6002. PROCEDURES FOR RANGE CHECK-IN/OUT

1. General. All personnel shall establish and maintain communication with LONGRIFLE when they are in training areas, off-shore operating areas,

beaches, training facilities, ranges and/or operating within Camp Pendleton SUA. If at any time, communication with LONGRIFLE is interrupted, that unit will immediately cease training and remain in an inactive or "check-fire" status until positive communication has been reestablished.

a. Ammunition cans are attached to a pole at each range, rappel tower, mortar position, and artillery firing area. In the ammunition can, the RSO will find a red flag and the most current copy of the Special Instructions for that range/facility. If any items are missing, the RSO shall contact LONGRIFLE for replacement.

b. Briefs. The RSO must participate in a "Hot Brief" with LONGRIFLE via radio on published LONGRIFLE frequencies. Only the RCO at ROD may approve alternate communication methods. The RSO shall identify himself/herself as the RSO, confirm numbers of participating personnel, types of weapons, types of ammunition by DOD Identification Code (DODIC), and the presence of a safety vehicle and appropriate medical personnel.

2. Radio Communication

a. Establishing Communication. Units shall establish communication with LONGRIFLE before entering any training area or range. If communication cannot be established you are not authorized to occupy any training areas or ranges.

b. The below frequencies are approved for use by MCIWEST-MCB CAMPEN Range Operations:

40.35 FM	Primary Base Ground Safety Net
30.35 FM	Alternate Base Ground Safety Net
310.3 UHF	Primary Base Air Safety Net
249.9 UHF	Alternate Base Air Safety Net
255.2 UHF	Alternate Base Air Safety Net
305.925 UHF	Alternate Base Air Safety Net
123.2 VHF	Alternate Base Air Safety Net

3. Communication Procedures

a. All military units should use tactical radio gear to the maximum extent possible.

b. Those military units that do not have tactical radio gear and civilian organizations may use the Land Mobile Radio System (LMRS) using commercial, off the shelf radios.

c. Any additional means of communications (i.e. cell phones) shall be approved by the RCO.

d. A radio check with LONGRIFLE shall be made every hour on the top of the hour for units conducting training on ranges.

e. A radio check shall be made every hour on the bottom of the hour for units conducting training in training areas, on beaches, or on facilities.

4. Call Signs

a. Units on ranges shall identify themselves by range number, rather than unit call sign.

b. Units in training areas shall identify themselves by unit and training area.

c. Unit nick-names (i.e. Thunder, Highlander etc.) are not authorized on range control ground nets.

5. Administrative Traffic. Unit administrative traffic shall not be transmitted over the Base Range Safety Nets. Units shall use other organic communication to accomplish administrative matters.

6. Large Exercises. The procedures listed below will be in effect during battalion size (or larger) exercises (e.g., artillery FIREXs, combined arms exercises, amphibious operations involving air and/or live-fire etc.), where a tactical control agency [Fire Direction Center (FDC)/Fire Support Coordination Center (FSCC)/Direct Air Support Center (DASC)] or consolidated operations center has been established.

a. Subordinate units shall contact LONGRIFLE for emergency notifications (e.g., MEDEVACS, wildland fires, etc.). Subordinate units shall monitor LONGRIFLE communications at all times.

b. The tactical control agency/consolidated operations center shall keep LONGRIFLE advised of all subordinate unit locations and status throughout the exercise.

c. After LONGRIFLE provides the initial approval to commence live-fire, the tactical control agency/consolidated operations center shall keep LONGRIFLE informed, at all times, as to which ranges, artillery positions, and mortar positions are actually conducting live-fire operations.

d. The tactical control agency/consolidated operations center shall keep LONGRIFLE advised of all air operations taking place.

7. Safety. If at any time, LONGRIFLE feels that a unit's communication is unsatisfactory, LONGRIFLE will put that unit in a "check fire"/cease training status until satisfactory communication is re-established.

8. Radios. Each training unit shall provide its own radio equipment to support range safety communication requirements. LONGRIFLE will not issue communication equipment.

9. Wire Communications. Units may lay wire for temporary intra-unit communication (field telephones) as long as the wire does not interfere with other operations or units in the same area. All wire shall be removed from the area when the using unit secures. Temporary or semi-permanent field wire lines shall not be installed on Base telephone or electrical poles.

6003. AUTHORIZATION FOR LIVE FIRE

1. Live fire shall not be conducted unless it has been scheduled with the Range Scheduling Office and authorized by LONGRIFLE.

2. Once all regulations and safety requirements have been satisfied, LONGRIFLE will authorize the unit to go hot or into a training status.

3. Helmets and flak jackets shall be worn for any live fire event involving movement or maneuver, high explosives, grenades, machinegun, or CQB in shoot houses. For all other training, either unit ORM or SOP will determine if helmets and flak jackets will be required.

4. The RSO and OIC shall be physically present at the range or firing position whenever training is in progress. If it becomes necessary to change RSOs, both old and new RSOs must be physically present at the range or firing position to conduct a face-to-face relief. Prior to requesting a change over, the new OIC will conduct a joint inventory of all ammunition with the old OIC. The new RSO/OIC will verify all safety/weapon data.

5. Securing from Training

a. The RSO is not released from his/her responsibilities until cleared by a Range Safety Specialist, Range Inspector or the Range Landlord. RSOs will be present with the appropriate personnel at the time of the inspection to conduct additional police calls if required.

b. For Ranges that will be inspected the morning following night firing, the RSO shall coordinate an inspection time with LONGRIFLE. The RSO shall provide a point of contact (POC) and phone number.

c. Range Inspection timelines are as follows:

(1) Any standard range in the south:

(a) No earlier than 0630

(b) 1/2 hour intervals

(2) Any LFAM or Combat Town (no landlord) in the south:

(a) No earlier than 0630

(b) 1 hour intervals

(3) Any standard range in the North:

(a) No earlier than 0700

(b) 1/2 hour intervals

(4) Any LFAM or Combat Town (no landlord) in the north:

(a) No earlier than 0700

(b) 1 hour intervals

(5) For evening inspections:

(a) South standard ranges NLT than 1 hour prior to sunset

(b) South LFAM and Combat Towns NLT 1 1/2 hours prior to sunset

(c) North standard ranges NLT than 1 1/2 hour prior to sunset

(d) North LFAM and Combat Towns NLT 2 1/2 hours prior to sunset

6004. BIVOUACKING

1. Permitted Areas. Bivouacking is allowed on ranges, training areas, training beaches, Observation Posts (OPs), Mortar Firing Areas (MFAs) and in AFAs subject to the following conditions:

a. Ranges shall not be scheduled for the purpose of bivouacking only.

b. If scheduled for the following day, units may arrive the night before firing to occupy the range providing there is no conflict.

c. Units may bivouac after firing, provided they are clear of the range or AFA/MFA before the arrival of the next scheduled using unit.

d. Bivouacking shall take place only behind the firing line or start point, of the range.

e. Bivouacking in training areas shall not impede training at specific facilities unless those facilities have also been scheduled to support the bivouac.

f. Bivouac sites shall remain a minimum of 500 meters clear of all aviation facilities.

g. Bivouac sites in locations within training areas or beaches shall be marked at night.

h. A six-digit grid coordinate shall be provided to LONGRIFLE when bivouacking in training areas or on beaches.

i. A RSO must be present.

j. The safety net shall be monitored at all times during bivouac status.

2. Environmental. Bivouacking shall comply with the provisions of Chapter 2 of this Order.

6005. CONDUCT OF TRAINING

1. General. Assignment to a training area does not include any range, AFA, MFA, OP, CALSITE, LZ, DZ, airspace, or other training facility (including combat towns) located within that area unless specifically requested and approved by the Range Scheduling Office. Therefore, personnel are not authorized access to these areas.

a. Training shall be conducted and supervised in a manner that avoids damage to facilities and utilities located within the training areas. Units training in the vicinity of any aviation training facility shall ensure sites are not disturbed, no obstruction is left in the area, and no foxholes or other entrenchments are constructed at these locations. Unless otherwise

scheduled by the Range Scheduling Office and approved by LONGRIFLE, units training in the vicinity of any aviation facility shall remain clear by not less than 500 meters.

b. Training shall be conducted in a manner that avoids unnecessary damage to or destruction of natural resources (refer to Chapter 2 of this Order).

2. Housing Areas. Units using the Bravo Three, Hotel, India, Juliet, and Oscar One Training Areas will remain clear of Base housing areas at all times. Entry into the Juliet Training Area will not be made via any 17 Area housing access roads.

3. Fighting Holes. All Fighting holes will be constructed IAW Chapter 2 of this Order. All fighting holes shall be filled in upon the completion of each training exercise.

4. Trash. All trash shall be removed from the training area or range by the using unit. Trash will not be buried. The practice of stockpiling refuse for removal later is not permitted.

5. Exclusive Use. Training areas are not exclusive use areas unless special coordination with Range Scheduling has been accomplished. Exclusive use consideration will be based upon the type and size of the requested activity.

6. Training Near the Ammunition Supply Point (ASP). The ASP is located in the Papa Three Training Area. Activity in this area is restricted due to an explosive arc that extends 500 meters out from the perimeter fence. Although troops may be permitted in this area, the use of pyrotechnics of any type is prohibited.

7. Communication Wire. Any wire strung across ravines, between poles or trees, or at an altitude higher than 15 feet above ground level shall be clearly marked with white engineer tape or other highly visible materials. All communication wire laid by using units in training areas must be retrieved prior to departure.

8. Livestock. If livestock are in a location where they interfere with training, notify LONGRIFLE.

9. I-5 Freeway and Railroad Tracks. The I-5 Freeway, the rights-of-way immediately adjacent to the I-5 Freeway highway, and the North County Transit District rail-road tracks are off-limits to pedestrians, troop training, and all vehicular traffic. Underpasses and overpasses will be used when crossing railroad tracks or the I-5 Freeway. If it is necessary to cross the railroad tracks at ground level, the unit shall make prior arrangements to have a certified flagman at the railroad tracks by contacting the Camp Pendleton Transportation Management Office (TMO) at (760) 725-8164. Units shall inform the Range Scheduling Office when all coordination has been made. Any fees incurred are the responsibility of the training unit. TMO’s notification requirement is 48 hours.

10. Road Crossings. Regulations pertaining to the use of tank/Assault Amphibious Vehicle (AAV) and other vehicle crossings are contained in paragraph 6015 in this Chapter. Personnel formations and troop movements, of any type, on hard-surface roads are prohibited.

6006. LIVE-FIRING IN TRAINING AREAS. Live-firing in training areas is strictly limited to established ranges, AFAs, MFAs, LFAMs, and hunting IAW reference (e). LFAM exercises shall be conducted per approved RCO briefs and this Order.

6007. IMPACT AREAS

1. Access into impact areas can only be approved by the RCO. The process for impact area access is discussed in Appendix B of this Order

2. Detailed descriptions of the R206, R207, R300, R800, Zulu, Whiskey, Quebec, Yankee, Edson Range, R409A and X-Ray Impact Areas are provided in Appendix B of this Order.

6008. SPECIFIC LIVE FIRE RANGES. Location and training capability of specific live fire ranges are located in Appendix C.

6009. INFANTRY WEAPONS

1. All weapons will be operated in strict accordance with appropriate field manuals, weapons TMs, MCWP's, directives in the MCO 3570 series, and special instructions for specific ranges.

2. Overhead or flanking-fire is authorized only as prescribed by directives in the MCO 3570 series, appropriate firing tables and field manuals, and approved by the RCO.

6010. MINES, BOOBY TRAPS, AND PYROTECHNICS

1. General. The use of live mines and live booby traps will be confined to demonstrations of their effectiveness. Demonstrations shall be conducted in an impact area, or on an approved demolition range IAW special instructions.

a. Demonstrations in impact areas shall be approved by the RCO and coordinated with EOD. Live mines shall not be placed under or near any metal object which could become a missile hazard (e.g., jeeps, 55-gallon drums, etc.).

b. Practice mines and booby traps may be used in all training areas and on all demolition ranges. Their use shall be governed by the FDR (refer to Figure 1-4 of this Order).

c. Live/practice mines or booby traps or any other type of explosive device shall not be left on any range or in any maneuver area. Trip flares shall be counted before issue to ensure all items issued have been retrieved on completion of the demonstration or exercise.

2. Pyrotechnics. Pyrotechnics may be used in all impact areas, training areas, and field firing ranges provided the FDR does not prohibit their use. Units shall request permission from LONGRIFLE prior to using any pyrotechnic device.

a. 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.

b. Use extreme care when handling pyrotechnics so they do not fall onto shooters or other personnel, into boxes of pyrotechnics, or other ammunition.

c. Trip flares shall be fenced or guarded to prevent personnel from approaching within five feet of each installed flare.

d. Trip flares shall be positioned so the hazard pattern or the impacting flare does not endanger personnel.

e. Trip flares shall not be left on any range or in any area. Trip flares shall be counted before issue to ensure all items issued are retrieved on completion of the demonstration or exercise.

f. 40MM illum, star clusters and smoke may be used in all impact areas, training areas and field firing ranges provided the FDR does not prohibit their use. Units shall request permission from LONGRIFLE prior to using any shoulder fired 40mm DODICs.

g. While conducting rehearsals and live fire with flash bangs, the RSO shall ensure:

(1) Flash bangs shall be carried in pouches.

(2) Flash bangs will only be used inside urban structures.

(3) No flash bang shall be thrown if there is any standing water or mud.

(4) Only one flash bang shall be thrown at a time.

(5) The maximum number of flash bangs to be thrown by an individual thrower are two with single hearing protection and 41 with double hearing protection, within a 24 hour period.

(6) No one shall be closer than five feet of detonation.

(7) Human target participation is not authorized.

(8) Once a pin is pulled on a flash bang, it shall not be reinserted into the flash bang.

6011. DEMOLITIONS

1. Safety precautions shall be strictly adhered to as prescribed in appropriate field and training manuals, MCO 3570 series, and this Order.

a. Explosives equivalent to 1/4 pound TNT (1/4 pound blocks of TNT and C4 equivalent) net explosive weight (NEW) may be used on all ranges and training areas.

b. Units shall submit a demolition plan no later than seven days from the event when using 1/4 pound demolitions within the training areas

c. All personnel engaged in demolitions training are required to wear helmets, flak jackets and hearing protection at all times.

2. Demonstrations. Approval to use demolitions larger than 1/4 pound NEW (or equivalent) for demonstrations in training areas shall be requested per Chapter 3 of this Order.

a. Requests for approval of demonstrations shall contain the following information.

(1) Date, time, and location of demonstration

(2) Exact placement, quantity, and composition of charges

(3) Measures for control and safety of spectators

b. Be aware of critical Base utility points that may be located throughout training areas and could be subject to damage. Contact AC/S, G-F, (760) 725-4820/4743 for more information to coordinate.

c. The following safety measures shall be observed when using demolitions in conjunction with maneuvering troops during training exercises and demonstrations.

(1) An officer or staff non-commissioned officer will be appointed as the Demolition Control Officer.

(2) The Demolition Control Officer shall have a functional means of communication and signal flares to halt the exercise in the event of a malfunction or misfire.

(3) A single centralized controlling position, with a clear view of the demolition area, shall be used and controlled by the Demolition Control Officer.

(4) All demolition pits shall be clearly marked with engineer tape or barbed wire. Charges shall not exceed 1/4 pound NEW explosives.

(5) Troops shall not maneuver in, through, or within the established SDZ (for the particular exercise) of demolition pits during the hours of darkness. Use of demolitions at night will be subject to the approval of the RCO. The RSO shall have an unobstructed view of the demolition pit area(s) at all times, and ensure a means of protecting the surface danger zone of each pit.

3. Engineer Demolition

a. 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 the MCO 3570 series.

b. Units desiring to use demolitions shall submit a request to the Range Scheduling Office at least 90 days prior to the first day of firing. It shall contain the location, nature of work, type and size of charge, times and dates, and the name and telephone number of the OIC of Firing.

6012. NON-LETHAL/LESS THAN LETHAL WEAPONS

1. The terms, "non-lethal" or "less than lethal" should be understood as a function of intent. It is a goal, not a guarantee for these weapons. The RCO must approve the concept of employment of any non-lethal weapons not previously addressed in this Order.

2. The use of Special Effects Small Arms Marking System (SESAMS) shall be conducted in accordance with reference (a).

6013. SHOOTHOUSES

1. OIC and RSO certification and qualification to conduct shoot house training shall be indicated on the unit ORM.

2. Shooter Qualifications

a. All personnel conducting live fire must have completed the required live fire qualification prior to shooting on this range.

b. "Current" qualifications must meet the following criteria:

(1) Qualification must be completed within 48 hours prior to conducting training.

(2) Qualification must include both static and moving courses of fire.

(3) Qualification shall be indicated as completed on unit ORM.

6014. ARTILLERY AND MORTARS

1. Procedures for Firing Artillery.

a. General. The AFAs, indicated in Appendix D, are authorized for use by units conducting indirect-fire aboard Camp Pendleton. When firing over training areas, roadways, maneuver units or occupied positions, ammunition cleared for overhead-fire is required.

b. Preparation. All AFAs require reconnaissance by survey prior to occupation and live-firing. Each AFA is marked by a sign to denote the AFA number and a hearing hazard zone.

c. SDZ Diagram Construction and Safety Cards. All active SDZs and data cards are on file with the RCO. Any modifications or additions shall be submitted no less than 14 days prior to the event.

d. Target Area. The target area, as depicted in the SDZ diagram, will be communicated to LONGRIFLE prior to the unit going into a hot status.

e. Non-Designated AFAs. Use of an AFA not designated in this Order shall be made by a special request, accompanied by a SDZ diagram. Forward requests to the RCO 30 days prior to the proposed firing date. Establishment of an AFA, not described in this Order, shall also require an environmental review. Please refer to Chapter 2 of this Order for environmental documentation requirements.

f. Special Use Airspace. Dimensions and operational characteristics of SUA required to support artillery live-fire are discussed in detail in Chapter 4.

g. Direct Observation. The impact of all rounds fired shall be under direct observation by personnel or radar. The OIC shall ensure qualified observers are present. OIC shall record and call in the location of all duds upon completion of firing.

h. Direct Fire Procedures

(1) Direct-Fire Shoots. Direct-fire shoots shall be conducted per current unit safety SOPs, appropriate Weapons TM and FMs.

(2) Direct-Fire Ranges. Ranges 407 and 408A are designated for direct-fire.

i. HIMARS and Improved Conventional Munitions (ICM) firing will be conducted in accordance with the established SDZs and Data Cards.

j. FASCAM. The firing of scatterable mine munitions is prohibited.

k. Powder Burning

(1) Powder burning may be conducted in all AFAs during FDRs of LOW, MODERATE, and HIGH. In order to reduce the potential for costly wildland fires when the FDR is VERY HIGH or EXTREME, burn areas will be identified by the RCO. During all powder burning activities, the area shall be cleared to mineral earth, no closer than 200 feet to vegetation. Powder shall be burned in single or double rows, not to exceed 12 inches in width, and not to exceed a total of 40 bags.

(2) Units shall have fire extinguishers, water, and shovels at the burn site. Units shall contact LONGRIFLE for permission prior to burning. Units shall remain at the burn site for 30 minutes after the last burn, ensuring no fires have been started in the surrounding vegetation.

2. Procedures for Firing Infantry Mortars.

a. General. The following procedures shall be used when firing infantry mortars aboard MCIWEST-MCB CAMPEN. MFAs and mortar positions must be scheduled 14 days prior to training evolution. The RCO shall catalog the authorized data cards and SDZs for MFAs and mortar positions. Information regarding the conduct of firing is contained in the ammo can attached to a pole at each MFA/mortar position. The location of MFAs and mortar positions are listed in Appendix D.

b. Target Area. The target area, as depicted in the SDZ diagram, and the maximum ordnance of the ammunition to be fired, will be communicated to LONGRIFLE prior to the unit requesting a hot status.

c. Restrictions. Firing infantry mortars over the heads of unprotected troops is prohibited.

d. Direct Observation. The impact of all rounds fired shall be under direct observation by personnel. The RSO shall ensure qualified observers

are present. The RSO shall record and call in the location of all duds upon completion of firing.

e. Calculated Safety Information. The RSO shall verify to the OIC of the firing unit lay of gun line, FDC fire control (plotting boards and/or MBC), and each gun "SAFETY T" for each charge to be fired in that position. After the FDC calculates the firing data from the call for fire requests, the RSO shall check it against the appropriate "SAFETY T," to ensure the data placed on the mortar is safe.

f. Removal of Increments and Powder Burning

(1) Increments removed before firing shall be placed in a metal or wooden covered container located outside the firing position at a safe separation distance (e.g. 25m).

(2) Powder burning shall be conducted within mortar positions and MFAs during FDRs of LOW, MODERATE and HIGH. In order to reduce the potential for costly wildland fires when the FDR is VERY HIGH or EXTREME, burn areas will be identified by the RCO. During all powder burning activities, powder shall be burned in areas cleared to mineral earth, and no closer than 200 feet to vegetation. Powder shall be burned in single or double rows not to exceed 12 inches in width with no more than 100 increments total per burn.

(3) Units shall have fire extinguishers, water and shovels at the burn site. Units shall contact LONGRIFLE for permission prior to burning. Units shall remain at the burn site for 30 minutes after the last burn to ensure no fires have been started in the surrounding vegetation.

6015. TANKS/AAV/LAV/ARMORED HMMWV

1. Firing over the heads of personnel from moving vehicles is prohibited.

2. Individual vehicles shall display a red range flag while firing. While on the firing line, each vehicle shall display a green range flag when all weapons have been cleared. A yellow flag shall be displayed when there is a weapon malfunction.

a. The relationship between firing points and targets must meet the requirements listed in the MCO 3570 series.

b. Firing points will be physically marked on the ground when moving to those positions to fire; ground marks are not required for static fire.

c. Live rounds shall not be chambered until the firing vehicle has reached the specified point on the range designated as a firing area. Light Armored Vehicles (LAV) in an uploaded status shall have systems in both manual and electric-safe.

d. No weapons system shall be elevated above the line of sight to target, unless that weapons system has been determined to be clear of ammunition, or is required to be elevated above that line in order to be safely cleared.

e. The clearing of any weapon shall be accomplished per the appropriate operator's manual.

f. Prior to movement of any vehicle from designated firing areas, the RSO shall ensure all weapons systems are clear.

6016. POLICE OF TANK/LAV/AAV, AND OTHER VEHICLE CROSSINGS

1. General. COs, OICs, or NCOICs of vehicles crossing hard-surfaced roads shall ensure crossings are properly policed immediately after use. Proper police includes removing soil, rocks, debris, and dunnage from the paved surface of the road, leveling the shoulders of the road, and cleaning drainage ditches paralleling shoulders of the road. When it is necessary for tracked vehicles to cross wheeled vehicle access roads in training areas, crossings shall be made at right angles to the road, at low speed, without turns. If it is necessary for tracked vehicles to operate on these roads, the approach shall be made at the minimum angle possible to avoid sharp turns on the road surface. Speeds shall not exceed five miles per hour. Do not hold up traffic for more than ten minutes.

2. Road Guards. Road guards shall be posted a safe distance on either side of crossings to stop traffic while vehicles are crossing, and when police is conducted. Road guards shall wear high-visibility safety vests for all crossings, day and night. For all crossings made during periods of darkness or limited visibility, road guards shall carry operating flashlights, turned on, with plastic signal wands.

3. Road Use. Tracked vehicles are prohibited from using asphalt and macadam roads, and operating on the shoulders of all roads. Old El Camino Real (569 852 to 489 925) and Roblar Road may be used, observing speed restrictions, minimum angle turns on road surfaces, and conditions of entrance and exit. Permission to use paved roads under unusual or emergency conditions shall be requested from LONGRIFLE.

6017. TRAINING AREA ROADS

1. General. The speed limit on all training roads throughout Camp Pendleton is 25 mph unless otherwise posted, or conditions dictate a lower speed to ensure safe transit. Units should conduct route recons during the planning phase of training to ensure conditions of the roads will safely accommodate the movement of unit vehicles to and from scheduled training sites, and to establish appropriate controlling/safety measures as needed. Route recons do not need to be scheduled but must be conducted utilizing government vehicles or previously authorized POVs (trucks only). Continuous communication must be maintained with LONGRIFLE throughout the transit. Route recons that are not scheduled may be impeded by training units. Range Control provides a Roads and Rivers Report outlining conditions of major roads and rivers during times of inclement weather. All foot and vehicle traffic must remain clear of any fire break.

2. Roblar Road

a. Safe transit of Roblar Road requires a thorough ORM, and compliance with all road sign instructions and speed limits.

b. Access. Unscheduled vehicular traffic transiting along Roblar Road adjacent to Range 409A has a negative impact on Range 409A training evolutions due to check fires to allow passage of vehicles. In order to reduce Range 409A down time, the following Roblar Road access schedule for

transition are in effect unless otherwise modified by Range Control.

TIMES	**SCHEDULE**
0001-1000	Open for transit
1000-1800	Closed to all through traffic except for emergencies
1800-1900	Open for transit
1900-2359	Closed to all through traffic except for emergencies

c. Hiking on Roblar Road

(1) Units should follow all scheduling, communication, and safety procedures required for all other hikes; but when on the paved portion of Roblar Road the rules listed below shall apply.

(2) Daylight

(a) The unit shall have at least one lead and one trail vehicle. The uphill vehicle must be at least 100 meters from the nearest Marine on foot and the down hill vehicle must be at least 50 meters. These vehicles will stop ALL traffic before traffic reaches the column.

(b) In addition to communication with LONGRIFLE, communications must be established and maintained between both road guard vehicles and the column.

(c) Vehicle traffic movement through the column will be allowed only after communication and coordination is made between the vehicle driver and the OIC or staff noncommissioned officer in charge (SNCOIC) of the unit on foot.

(d) No vehicles will be allowed to pass any troops that are moving.

(3) After sunset

(a) There will be no tactical night movements on Roblar Road.

(b) All vehicles will use headlights.

(c) Flashlights will be on and spaced throughout the column (at least one every 10th person).

(d) Lead and trail personnel will each have BOTH a flashlight and a reflective vest.

3. Old El Camino Real. Old El Camino Real is the asphalt paved road east of I-5 running from SONGS to the vicinity of Pulgas Gate. This road is a training facility and must be scheduled in RFMSS. Use of the road for convoy operations is limited to one unit.

4. Old Highway 101. Old Highway 101 is the asphalt paved road paralleling I-5 running from State Beach to the vicinity of Pulgas Gate. Vertical and/or short take off and landing (V/STOL) 101 is the concrete portion of Old Highway 101. This road is a training facility and must be scheduled in RFMSS no later than 60 days from the event. Use of the facility is limited to one unit.

6018. EXPERIMENTAL WEAPONS AND ORDNANCE. Experimental weapons or ordnance shall not be fired on ranges, MFAs or AFAs at Camp Pendleton without prior approval from the RCO.

6019. FORCE ON FORCE TRAINING. No force on force training will take place within a 24 hour period from the end of the live fire event without AC/S, G-3/5 approval.

1. The OIC and RSO for force on force will take the following steps prior to any force on force training:

a. Conduct a "shake down" of every participant prior to conducting the force on force event.

b. Inspect all weapons to ensure they are in Condition Four.

c. Inspect all magazines to ensure they are empty.

2. If any live ammunition is discovered during training, OIC will cease all activities, recover all ammunition, and reinitiate shake down procedures.

3. If additional personnel arrive after training has commenced, a shake down must be conducted.

6020. WATER TRAINING TANKS

1. The Area Commander is responsible for maintaining the proper life-saving and first aid equipment identified in reference (n) for military training and reference (s) for recreational swimming, at all water training tanks. Additionally, a primary and secondary means of communication capable of contacting Emergency Services (911) is required. The following is a minimum essential equipment list:

a. Rescue Tube with Shepard's Crook

b. Ring Bouy with Throw Line

c. Stretcher

d. Blankets

e. First Aid Kit Approved by Local Medical Facility

f. Drinking Water

g. Aid Cot and Pillow

h. Backboard and Splints

2. For individual aquatic PFT (i.e. lap swimming) during published or coordinated hours of Area water training tank availability, the Area Commander shall ensure an American Red Cross Certified Lifeguard, or a Marine Combat Instructor Water Survival (0918 MOS) is present.

3. In the case of unit level aquatic PFT during published or coordinated hours of Area water training tank availability, the unit level commander is

responsible for ensuring one American Red Cross Certified Lifeguard, or a Marine Combat Instructor Water Survival (0918 MOS) is present for every 10 swimmers.

4. For Marine Corps Water Survival Training, to include the Modular Amphibious Egress Trainer (MAET) and the Shallow Water Egress Trainer (SWET) systems located in the 52 and 62 Areas, the Unit Level Commander shall ensure all activities are conducted IAW Reference (n), and scheduled through RFMSS. In addition, the Unit Commander shall identify a Water Survival Safety Officer (WSSO). The WSSO must be a SNCO (or above) and shall be identified in writing on the ORM worksheet. In addition, the WSSO must be Training RSO qualified. The WSSO will not personally participant in the training event, and will be responsible for ensuring all provisions of this order are followed, to include establishing two-way communication with MCIWEST-MCB CAMPEN Range Control ("LONGRIFLE") when occupying the training tank.

CHAPTER 7

AMMUNITION AND EXPLOSIVES

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CHAPTER 7

AMMUNITION AND EXPLOSIVES

7000. TRANSPORTATION OF AMMUNITION AND EXPLOSIVES

1. General. References (o), (g) and (p) govern policies and procedures associated with the use, storage, and accountability of ammunition and explosives.

2. Qualified Drivers. Drivers of any vehicle transporting ammunition or explosives aboard MCIWEST-MCB CAMPEN shall meet specific administrative and medical criteria. Drivers shall also complete the Explosives Driver Course. POC is Base Safety at 725-9065.

3. POVs. Using POVs aboard MCIWEST-MCB CAMPEN to load, store, or transport ammunition, pyrotechnics, or explosives of any kind for military training is prohibited. Authorized users of ranges dedicated to recreational firing, and individuals authorized to hunt aboard Camp Pendleton, are permitted to transport a reasonable amount of small arms ammunition when enroute to and from those activities.

7001. AMMUNITION HANDLING AND STORAGE

1. Ammunition Handling Facilities. Operations at ammunition handling facilities (e.g., LZ Red Beach, V/STOL Pad 1, CALSITE 21, V/STOL Pad 2 Aliso Canyon, and LZ Viewpoint) shall be conducted in the same manner as any other range during ammunition operations. It shall be scheduled, checked in and out by a qualified RSO, and communication shall be established and maintained with LONGRIFLE. Notify the Explosive Safety Office when an ammunition handling site has been scheduled, Base Safety Center (Explosive Safety Officer) at (760) 763-4817. All operations are subject to reference (p) and directives in the MCO 3570 series.

2. Firing Sites

a. Ammunition at firing sites shall be positioned to minimize the possibility of accidental ignition, explosion, or detonation. Ammunition shall be staged in a dry place; and protected from inclement weather and the direct rays of the sun.

b. Flame producing devices or other spark-producing items must remain 25 feet from any explosive materials.

c. Precautions shall be taken to prevent ammunition from contacting the ground or spark-producing substances (for example, placing the ammo on the pallets provided upon delivery will prevent the ammunition from ground contact).

d. Ammunition may be pre-positioned at firing sites if approved by the Range Control Officer and in compliance with the provisions of references (g) and (p).

3. Ammunition Control. The following ammunition control procedures shall be observed.

a. Supervisory personnel shall be present with the vehicle/convoy designated to pick up or return ammunition from or to the ASP.

b. All ammunition shall be delivered to the OIC of the range/firing site. The OIC shall conduct a joint physical/visual inventory of the ammunition received with the designated personnel delivering the ammunition. The OIC shall compare this against what is reflected on the Standard Supply Form (DD Form 1348-1A). The OIC shall verify the lot number on every container of ammunition to ensure it matches the lot number on the Standard Supply Form. The OIC shall open all containers which are not factory-sealed, and physically/visually inspect the ammunition to ensure it corresponds with the ammunition type on the issue document.

c. The OIC shall sign for the ammunition using the Standard Supply Form. Using NAVMC 11381 (Expenditure Report), the OIC will enter the quantity received by DODIC, document number, and lot number. A copy of the Expenditure Report shall remain on the range with the OIC at all times.

d. The OIC is ultimately responsible for the accountability of ammunition and shall supervise the issue and control of the ammunition for the duration of the exercise. The OIC shall ensure ammunition is not removed from the original packing until just prior to firing. Ammunition not containing a factory seal shall be expended first.

e. The OIC shall take measures to prevent ammunition from being rendered unserviceable, in the event the exercise is terminated prematurely, by not removing excessive quantities of ammunition from its original packaging, losing lot number identity, burning, or otherwise destroying containers, or exposing items to the weather, etc.

f. The OIC shall account for all ammunition as it is expended on the firing range. Upon completion of the exercise, the OIC shall ensure all unexpended ammunition is inventoried, verified, and annotated on the Standard Supply Form and the Expenditure Report. If any ammunition is found missing during the inventory, the using unit shall submit a Missing, Lost, Stolen, or Recovered (MLSR) Report per reference (p).

g. The OIC shall complete and sign the Expenditure Report and the Standard Supply Form prior to securing from the range, per reference (o).

h. Ammunition shall never be abandoned, destroyed, fired indiscriminately, buried, treated, or otherwise disposed of in order to circumvent the inconvenience of returning the items to a storage area. Units discovering abandoned, buried, or treated ammunition shall notify LONGRIFLE immediately.

i. Ammunition that is authorized to be fired on a particular range may be staged on that range. At a minimum there shall be two armed guards at least one of which is an NCO. The guards shall maintain hourly radio checks with LONGRIFLE. The range must be scheduled via Range Scheduling. The OIC shall conduct an inventory of all ammunition prior to departing and upon returning to the range.

j. A checklist for handling and storing ammunition and explosives on ranges is provided on the MCIWEST-MCB CAMPEN web site and on the ROD SharePoint site at https://pendleton.mciwest.nmci.usmc.mil/ot/rod/default.aspx. Use of the Ammunition and Explosives Range Checklist for Range OICs is recommended.

k. All Security Code One (or "Category One") items (e.g., AT-4, LAW, etc.) shall be positively controlled by an E-6 (or above), from ASP pick-up to expenditure/return of unused ammunition. The E-6 (or above) shall sign, escort, and observe use while maintaining control at all times. Any unused Category One item shall be returned to the ASP by an E-6 (or above). Per Appendix F of reference (h), Category One item control may be turned over to another E-6 (or above) utilizing the DD Form 1907, Signature Tally Record, which is included with every Category One item.

l. Blank and live ammunition shall never be co-located on any range. A minimum of 24 hours shall pass before a unit can transition from live to any force on force training. Refer to Chapter 6 of this Order.

m. Issuing blank and live ammunition at the same time is prohibited.

n. Storing ammunition in a billeting area is prohibited.

o. Requests for a field ASP must be submitted to the RCO at least seven days prior to the event. A field ASP must be established any time ammunition/explosives are stored or staged on a range or in a training area where it is not authorized to be fired.

4. Modifications

a. Modification or "fixing" ammunition charges before shooting is not authorized. If the charges are not fully ready to fire, return them to the local ASP.

b. Mixing or combining DODICs into a single munition is prohibited, unless the DODICs were designed to be integrated (e.g., CS capsules or loose CS powder will not be introduced into smoke grenades in order to generate a smoke/CS cloud).

7002. DEFECTIVE AMMUNITION. Defective ammunition shall not be expended. Every round of ammunition which malfunctions, or does not fire as it is designed shall be reported to the ASP.

7003. MALFUNCTION REPORTS. Detailed malfunction reporting requirements and exceptions are contained in reference (i). Duds, hang fires and misfires should be considered malfunctions for the purpose of reporting.

7004. EXPLOSIVE ORDNANCE DISPOSAL (EOD). The mission of EOD is to remove explosive ordnance hazards posing a threat to personnel, equipment, material, and the installation, which are beyond the capability of other MOS' in the Marine Corps. EOD will provide appropriate technical assistance to units requesting assistance. EOD is not available or responsible for the routine transportation of ammunition and explosives. EOD assistance is available on a 24-hour basis. Contact LONGRIFLE for EOD assistance.

7005. DUDS. With the exception of hand grenade ranges, duds occurring within a dedicated impact area do not normally require an EOD response, but shall be reported to LONGRIFLE with the approximate location. Short rounds, which place the firing unit within the fragmentation radius of the fired munitions require the unit to go into an immediate cease fire and contact LONGRIFLE for EOD support. Duds found outside an impact area, or in a training area, shall be reported to LONGRIFLE 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.

7006. MISFIRES AND HANG FIRES. All misfire and hang fire procedures shall be completed on the range. If applicable procedures are unsuccessful, safeties will be reapplied and ammunition will be returned to the ASP as grade three. Munitions that do not qualify for grade three must be destroyed on the range by EOD.

7007. RIOT AGENTS, SMOKE, AND OTHER OBSCURATION MATERIALS

1. General. Riot agents, smoke, and other obscuration materials shall be used only during scheduled training, per the provisions in applicable technical manuals and directives, and reference (q).

2. CS Training. The following procedures shall be used when CS capsules or GS grenades are utilized anywhere on MCIWEST-MCB CAMPEN. A current list of CS chambers may be found Appendix E. The intent to use CS shall be specified when scheduling training areas.

a. Special Instructions. Information regarding the conduct of the Individual Protective Equipment Confidence Exercise (IPECE) is contained in the ammo can attached to the range pole. The ammo cans contain appropriate safety, IPECE procedures along with RSO instructions, regulations, and a red flag.

b. Use of CS in Ranges and Training Areas. Units must provide an overlay to Range Scheduling depicting intend area of CS employment. The RSO shall not allow CS/HC smoke to be used:

(1) Anywhere west of the I-5 Freeway.

(2) Within 1,000 meters east of the I-5 Freeway.

(3) Within 1,000 meters of any Base boundaries.

(4) Within 500 meters of any hard-surface roads or built-up areas anywhere aboard Camp Pendleton.

c. Weather Conditions. FDR permitting, a smoke grenade shall be used to check wind direction and agent cloud formation when using CS outside of a designated chamber to calculate downwind analyses.

7008. NONSTANDARD AMMUNITION. Use of nonstandard ammunition and explosive items is prohibited on Marine Corps operational ranges without explicit approval of the CG, Marine Corps Combat Development Command (MCCDC) (C465). The CG, MCCDC (C465) will request and consider a technical review of nonstandard ammunition and explosive items from CG, Marine Corps Systems Command (MARCORSYSCOM) as required. Once the use of nonstandard ammunition and explosives has been authorized by CG, MCCDC (C465), the Base or Station Commander has final approval authority for their use on operational ranges. Commander, Marine Corps Special Operations Command (MARSOC) will validate the need and authorize the use of nonstandard ammunition by MARSOC personnel. Base/Station Commanders will be the approval authority for the use of MARSOC nonstandard ammunition. Authorization to store nonstandard ammunition must be requested from Naval Ordnance Safety and Security Activity via CG, MARCORSYCOM in accordance with reference (g).

7009. BLANK AMMUNITION. The blank firing attachment (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. However, 5m 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. Hearing protection (ear plugs) should be worn while firing blank ammunition.

7010. SESAMS. All personnel shall wear approved hearing protection during all SESAMS training exercises. A minimum safe engagement distance of 2m (6.5ft) for the 9mm SESAMS training system and 4m (13ft) for the 5.56mm system shall be maintained from the muzzle.

CHAPTER 8

LASER OPERATIONS

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CHAPTER 8

LASER OPERATIONS

8000. GENERAL. This Chapter applies to the use of the laser systems specifically designed for military exempt training. Only laser systems approved for use by the Navy Laser Safety Review Board (LSRB) are authorized within the RTAs for Camp Pendleton. An LSRB letter specific to each system must be on file with the RCO prior to use. A current list of approved systems can be found in the Camp Pendleton RFMSS library.

8001. LASER USE ABOARD CAMP PENDLETON RTAs

1. All authorized ranges with associated lasing profiles and firing points are discussed in reference (r) and individual range special instructions.

2. Units planning to use lasers aboard Camp Pendleton shall schedule Laser Training Areas (LTAs) as outlined in Chapter 3 of this Order. All LTAs are confined within one of five separate impact areas described in Appendix B.

8002. LASER SYSTEMS SAFETY OFFICER (LSSO). Any unit operating lasers at Camp Pendleton shall assign an LSSO in accordance with reference (j). The LSSO may also serve as the RSO after successful completion of the Camp Pendleton Range Safety Certification Course. The LSSO must be listed on the Unit Commander's ORM.

8003. LASER SAFETY PROCEDURES

1. General. Only personnel authorized by the unit LSSO shall operate ground lasers; and, only on approved ranges and observation posts established per this order, and those listed in the current Laser Survey/Certification.

2. LSSO Firing Logs

a. The LSSO will provide a copy of the laser-firing log to the RCO no later than 24 hours from the completion of the training event. The log will contain the date, time, type of lasers, name of the operators, direction, and distance employed.

b. Laser logs shall be maintained on any system categorized as 3b or greater.

APPENDIX A

DEFINITIONS

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APPENDIX A

DEFINITIONS

Air Sentry	An individual designated by the Officer in Charge (OIC) of Firing to maintain surveillance of an assigned sector of airspace to warn of the approach of aircraft.
Artillery Firing Area	Area established to support artillery firing activities.
Base	Marine Corps Installations West-Marine Corps Base, Camp Pendleton (MCIWEST-MCB CAMPEN)
Cantonment	An area assigned for administrative and logistical functions, such as housing, troop billeting, offices, storage and maintenance areas. Normally, field training and live-firing are not conducted within cantonment areas.
CBRN	Chemical, Biological, Nuclear, Radiological.
Common Impact Area	The impact area created when the surface danger zones (SDZs) of concurrently used ranges overlap.
Confined Area Landing Site (CALSITE)	Helicopter landing areas located in Camp Pendleton training areas used for confined area landing practice, external training, etc.
Consolidated Radar Control Facility (CRCF)	MCIWEST-MCB CAMPEN and Marine Corps Air Station, Camp Pendleton Air Traffic Control and Range Control Facility, BLDG 2399, Marine Corps Air Station, Camp Pendleton. Location of LONGRIFLE.
Controlled Firing Area (CFA)	Airspace established to conduct activities that would be hazardous to non-participating aircraft if not conducted in a controlled environment. It is the range user's responsibility to provide for the safety of persons and property on the surface and to cease firing when aircraft transit the CFA.
Camp Pendleton Amphibious Assault Area (CPAAA)	An ocean area used for amphibious training activities and exercises.
Camp Pendleton Amphibious Vehicle Training Area (CPAVA)	The CPAVA is an ocean area. It is adjacent to the shoreline and used for amphibious training activities.
Dedicated Impact Area	Impact area supporting live-fire of dud-producing ordnance (e.g., Quebec, Whiskey, and Zulu Impact Areas).
Drop Zone (DZ)	A tactical landing zone in which personnel or cargo paradrops are authorized.
Dud	Ammunition of any caliber or weight that has been fired, placed, dropped, thrown or launched, but which fails to function as designed.
FCLP	Field Carrier Landing Practice.
Field Training Facilities	Those areas designated for a specific type of training, normally not requiring the use of live ordnance (e.g., rappel towers, combat towns).

Fire and Range	On which troop movement and live-firing may be conducted simultaneously.
Fire Danger Rating (FDR)	National rating based on weather conditions and fire burning indexes describing the potential for wildland fire ignition, rate of spread, and suppression probability.
Firing Lane	The area within which a weapon system is fired. It consists of a start firing line, cease-firing disarm line, and left and right limits of fire.
Firing Line or Point	The location from which a weapon is fired at a target or into an impact area.
Flat Trajectory/High Velocity Weapons	Recoilless rifles, tank guns, LAV 25mm guns, and artillery (when conducting direct-fire operations).
Formal School	A school or a single course conducted by a school, which produces, as a result of its Program of Instruction (POI), a Marine qualified in a Military Occupational Specialty (MOS).
Forward Air Controller(FAC)	A Naval Aviator designated to serve in the same capacity as an OIC of Firing and/or Range Safety Officer (RSO), but specifically for control of aircraft in support of ground troops.
Forward Air Controller Airborne (FAC/A)	A Naval Aviator/Flight Officer aboard an aircraft designated to serve in the same capacity as an OIC of Firing and/or Range Safety Officer (RSO), but specifically for control of aircraft in support of ground troops while airborne. On board MCIWEST-MCB CAMPEN, only rotary-wing FAC(A)s are authorized.
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.
High Explosive Impact Area	Impact areas specifically designed for the impact of all types of ordnance, such as high explosive impact areas (Quebec, Whiskey, and Zulu). These areas are also referred to as dedicated or permanent impact areas.
Instrument Flight Rules (IFR)	Aircraft flights conducted under instrument flight rules.
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.
Landing Zone (LZ)	A pre-designated, numbered helicopter landing zone, which provides major commands ready access to air transportation and medical evacuation.

Laser System Safety Officer (LSSO)	A designated individual who has attended the Laser System Safety Course, and has been issued an LSSO card. The LSSO is responsible for ensuring compliance with the Range and Training Regulations and the unit standing operating procedures for laser operations and training.
Leased Area	Government property within the confines of MCIWEST-MCB CAMPEN that is leased to non-military tenants, such as the State Beach.
Live-Fire Range	A range on which live-fire exercises, including the use of some types of practice ammunition, may be conducted.
LONGRIFLE	The communication call sign for Range Control.
Malfunction	Failure of a munition to function in accordance with design, intent, or expected performance.
Maneuver Area	Two or more contiguous training areas designated and scheduled by a using unit for tactical exercises of battalion level or higher.
Military Munitions Rule (MMR)	Rule that identifies when conventional and chemical military munitions are or are not considered solid hazardous wastes.
Military Operations Area (MOA)	An airspace assignment established to separate or segregate certain military aircraft activities from IFR traffic and to identify for VFR traffic where these activities occur.
Misfire	Temporary failure or delay in the action of a primer, igniter, or propelling charge. A DRAGON, TOW, or other item that fails to launch, but internal components such as thermal batteries and gyros are initiated.
Mortar Firing Area	An area established to support multiple mortar-firing activities from a designated area to a pre-determined target position.
Net Explosive Weight (in pounds)(NEW)	The actual weight of explosive mixture of compound including the TNT equivalent of other energetic material, which is used in the determination of explosive limits and explosive safety quantity distance (ESQD) arcs.
No Fire Area (NFA)	A designated area into which neither live-fire nor effects of live-fire will occur. NFAs are designated by a six-digit grid with a radius in meters.
Non-Lethal	Also known as less than lethal. Pertains to training conducted with munitions not intended to be lethal.
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.

Notice to Mariners (NOTMAR)	A publication to mariners and vessels warning of conditions dangerous to navigation, such as live-firing or amphibious exercises.
Observation Post (OP)	A designated area/point from which impacting ordnance may be observed.
Officer In Charge (OIC)	An individual designated by the Commanding Officer of the training unit who assumes responsibility for all aspects of training to include, but not limited to live-fire, paradrops, or air exercises.
Overhead-Fire	The firing of projectiles over the heads of personnel, or over areas in which the presence of personnel is suspected (must be approved in advance by the Range Control Officer).
Paradrop	The controlled aerial delivery of personnel or equipment by parachute.
POL	Petroleum, oil, and lubricants
Position Commander	Officer in command of an artillery position.
Position Safety Officer	A Position Safety Officer (PSO) is an additional safety observer assigned by a unit to enforce proper weapons handling and employment procedures. The PSO is assigned by the unit conducting training and is supervised by the RSO. A PSO should be thoroughly familiar with the weapons system and method of employment they are directed to supervise.
Pyrotechnics	Non-injury causing smoke or signals, either flares or grenades. White phosphorous is not considered a pyrotechnic.
Range	A training facility designated for live-fire, practice firing of weapons, demolitions, flame weapons, or fire and maneuver exercises.
Range Guard	An individual designated to maintain surveillance over an assigned locale to prohibit unauthorized entry into a surface danger area, and to give the alarm in the event that entry is detected.
Range Safety Officer (RSO)	A designated individual who has attended the Camp Pendleton Range Safety Certification Course and has been designated by their command to act as an RSO. The RSO assists in enforcing all safety measures while operating in Camp Pendleton ranges and training areas.

Restricted Airspace	Airspace designated under Federal Aviation Regulations, Part 73, within which the flight of non-participating aircraft, while not wholly prohibited is subject to restriction.
Special Use Airspace (SUA)	Airspace in which aviation activities must be confined because of their nature and where limitations may be imposed on aircraft operations that are not a part of those activities. Types of SUA include Restricted Areas, CFAs, MOAs, and Warning Areas.
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 weapon systems to include explosives and demolitions.
Survey Control Point	A permanent or semi-permanent concrete or brass marker placed to denote a topographical reference point.
TNT Equivalent	Considering the peak overpressure produced by detonation of a given weight of TNT as 100 percent, the TNT equivalency of an explosive is the amount of overpressure produced by detonation of an identical quantity of explosive compound under com-parable conditions, expressed as a percentage.
Terrain Flight (TERF) Route/Area	A Route/Area used for helicopter low altitude navigation training.
Training Area	All areas on Camp Pendleton outside of cantonment and impact area boundaries.
Visual Flight Rules (VFR)	Aircraft operations conducted under visual flight rules.

APPENDIX B

IMPACT AREAS

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APPENDIX B

1. GENERAL

a. Zulu Impact Area. A high hazard impact area bound by a line starting at a point near the intersection of Basilone and Range 223 Roads at grid 61797 90890, following Range 223 Road generally North to grid 61746 91503, to grid 60960 92204, to grid 60885 92213 on Range 222 Road, following the road generally West to grid 60365 92008, then generally Northwest along trail paralleling Basilone Road to intersection with Horno Canyon Road at grid 59649 92959, following Horno Canyon Road generally Northeast to grid 64982 97042, to grid 66116 96178, to grid 66159 94228, to grid 67090 93330 at the intersection of Roblar and Tower Roads, following Roblar Road generally South to 66547 91896 at intersection with Range 407 Road, following generally West along Range 407 Road to 63956 89850, continuing along unnamed trails to grid 63239 90457, to grid 62650 90855, to grid 62423 90435, to grid 62310 90152, to grid 62183 90294, to grid 62115 90234, then parallel with Basilone Road generally Northwest to the beginning.

b. Whiskey Impact Area. A high hazard impact area bound by a line starting at a point near the intersection of Range 212 and Range 212A Roads at grid 54894 93950, to grid 54737 94314, to grid 53871 95285, to grid 53982 95888, following Jardine Canyon Road generally North to grid 55350 99362, then generally Northeast to intersection with Tate Road at grid 57646 01251, following Case Springs Road generally East to grid 62253 00011, then generally South parallel with firebreak to grid 62486 99228, to grid 62586 98695, following firebreak generally East to grid 64030 98171, then generally South along firebreak to intersection with Horno Canyon Road at grid 64382 96677, following Horno Canyon Road generally Southwest to a point near Basilone Road on unnamed trail at grid 59650 92958, then generally West along trail to intersection with Range 218A Road at grid 58212 93582, following Range 218A Road generally West to intersection with Range 214 Road at grid 56308 93407, following Range 214 Road generally North to grid 56433 93892, then generally Northwest along road to 56146 94097, to grid 55389 94080, then generally West along Range 212 Road to the beginning.

c. Quebec Impact Area. A high hazard impact area bound by a line starting at a point at grid 53700 96000, to grid 52200 96600, to grid 51700 97500, following firebreak generally Northwest to grid 51353 97711, continuing along firebreak generally Northeast to grid 51578 97971, following firebreak generally Northwest to grid 51222 98281, to grid 51277 98583, to grid 51355 98904, to grid 51511 99091, following Range 314 Road generally Northeast to grid 51805 99306, to grid 52400 00099, to grid 55200 99400, to grid 54800 98200, to grid 54800 97200, to grid 54500 96600, to the beginning.

d. Edson Range. A dedicated impact area bound by a line starting West of the 31 Area at grid 59722 81533, and running generally Northeast along South Aliso Canyon Road to a point at grid 61510 84283, to grid 61827 84393, then generally Southeast to the vicinity of the 32 Area border at grid 63723 83124, then generally along Cockleburr Canyon to the Southwest to grid 62089 80701, then generally Northwest along the Northern portion of the 31 Area behind the Edson lettered ranges to grid 60447 81197, to grid 60063 81086, to the beginning.

e. X-Ray Impact Area. A dedicated impact area bound by a line starting near Range 131 at grid 61764 84684, and running generally North behind the Range 130 Complex to grid 61343 86015, then to grid 61499 88583, then generally along the Las Flores Creek to grid 62537 89703, then generally along Basilone Road to grid 64944 89567, to grid 65746 89190, to grid 64848 87765, then West of the 33 Area to grid 65662 85013, the generally along Stage Coach Road to grid 64364 84255, then generally West to the beginning.

f. 409A Impact Area. A dedicated impact area bound by a line starting at a point near the intersection of Roblar and Tower Roads at grid 67096 93329, to grid 68064 93153, to grid 68322 93339, to grid 68507 93416, to grid 68537 93462, to grid 68542 93520, to grid 68468 93662, to grid 67965 96543, to installation boundary at grid 66019 99043, to grid 64966 99009, to grid 64086 98263, following firebreak generally Southwest to grid 64028 98174, continuing generally South to intersection with Horno Ridge Road at grid 64351 96715, following Horno Ridge Road generally Northeast to grid 64982 97042, to grid 66116 96178, to grid 66159 94228, to the beginning.

g. Yankee Impact Area. A dedicated impact area bound by a line starting at a point on San Mateo Canyon Road at grid 52224 00538, following San Mateo Canyon Road generally Northeast to intersection with Tate Road at grid 55648 03251, following Tate Road generally Southeast to intersection with Jardine Canyon Road at grid 57646 01251, then following Jardine Canyon Road generally Southwest to grid 55349 99360, to grid 52400 00100, to the beginning.

2. RANGES NOT WITHIN IMPACT AREAS. The following ranges (also listed in Appendix C of this Manual) are not within the boundaries of the impact areas delineated above: R-107, R-109, R-127, R-202, R-206, R-207, R-207A, R-300, R-301, R-302, R-303, R-307, and R-401. Surface impact areas associated with these ranges are depicted on the current edition of the Camp Pendleton Military Installation Map.

3. SIGNS AND ENTRY

a. Signs. Impact area and range boundaries are marked with red warning signs stating, “DANGER – IMPACT AREA – KEEP OUT.” Signs are posted at approximately 200-meter intervals in prominent locations.

b. Entry.

(1) For access into an impact area, the unit/organization shall submit a request to the RCO no later than 30 days prior to the event. The request should include the rational for access, as well as a detailed description of the requirement.

(2) Access into a high hazard impact area requires the RCO to complete a worksheet (Figure B-1) in order to determine the types of munitions, most hazardous munitions, and UXO densities expected during access. Based on the worksheet information provided by the RCO, the unit/organization requesting access shall complete an ORM worksheet, to include signature by the command, and submit to the RCO for final approval.

(3) MCIWEST-MCB CAMPEN high hazard impact area access approval will occur at the command level correlated with the following assigned Risk Assessment Code (RAC):

(a) Negligible – RCO
(b) Minor – RCO
(c) Moderate – Director Range Operations
(d) Serious – Assistance Chief of Staff G-3/5
(e) Critical – Commanding General

(4) Access into high hazard impact areas will require escort by EOD.

(5) The unit/organization is expected to provide an after action report to the RCO to validate the impact area access risk assessment based on actual munitions encountered.

(6) For ORM planning purposes, the current impact area hazard assessment map is located at https://www.mciwest.usmc.mil/inst/mciwest/rpolicy/rod/ORM/Forms/AllItems.aspx

(7) Permission to enter an impact area may be granted only by LONGRIFLE as approved by the RCO.

(8) Permission to travel established roads (San Mateo Canyon, DeLuz Canyon entrance to R-409A, Aliso Canyon, or Roblar Roads) through impact areas may be granted only by LONGRIFLE.

(9) Entry into the Quebec, Whiskey, and Zulu Impact Areas and Jardine Canyon for hunting is prohibited.

4. CONTROL. LONGRIFLE controls all firing on ranges, and into the designated impact areas. LONGRIFLE is located at the Consolidated Radar Control Facility (CRCF), Bldg. 2399, MCAS, Camp Pendleton. Telephone numbers are DSN 365-4604/3974 or commercial (760) 725-4604/3974.

High Hazard Impact Area Access Worksheet
******SAMPLE********** Target Insert –R226/OPA ******SAMPLE**********

The Rational for Access	Received request from I MEF SOTG during face to face meeting on 06 February to insert targets ISO Live Fire raid on R226. Target locations in request were forward of R225, R226 & OP A and would be used to support Sniper engagements during raid.
The Number of Personnel Required	2 Range Safety Specialists, 3 EOD Technicians and 10 to 15 personnel from supported unit.
Support Requirements	2 Range Control GOV, 2 EOD GOV, 3 Unit GOV/Tactical Vehicles.
Types of Military Munitions Anticipated	Small Arms, 40mm TP
Most hazardous Expected	40mm TP

Expected UXO Densities – 1 January 2013 to 19 February 2014

Facility	DODIC	Nomenclature	Quantity Fired	Expected DUD Rate
R225	B519	CTG 40MM PRACTICE M781 W/WO/FUZE F/GRENADE LAUNCHE	1	0
	A059	CTG 5.56MM BALL M855 F/M16A2 RIFLE	1500	NA
	A023	CTG.12 GAGE, SLUG LOADED, W/PLASTIC CASE	5137	NA
	A014	CTG 12 GAGE SHOTGUN NR 7 1/2 CHILLED SHOT	9880	NA
R226	AA68	CTG 5.56MM SHORT RANGE TRNG AMMO	1176	NA
	AA21	CTG 9MM BLUE MARKING SESAM, (SPECIAL EFFECT SMALL	4	NA
	AA12	CTG 9MM RED MARKING SESAM, (SPECIAL EFFECT SMALL A	1521	NA
	A475	CTG CAL.45 BALL M1911	50001	NA
	A102	CTG 7.62MM BALL F/RIFLE AK47	6	NA
	A071	CTG 5.56MM BALL M193 F/RIFLE M16 10/CLIP	600	NA
	A059	CTG 5.56MM BALL M855 F/M16A2 RIFLE	78937	NA
	A011	CTG 12 GAGE SHOTGUN #00 BUCKSHOT M19	110	NA
OP A/R227	All	NONE EXPECTED	NA	NA

Sequence of Events

1. Contacted EOD to determine supportability.
2. Coordinated with I MEF SOTG to conduct target insert on 19 February at 0600.
3. All personnel and support assets will muster at R226 for safety brief and dud brief.
4. Vehicles will drive to edge of limit of penetration FOR R226, R227/OP A prior to entry into Zulu Impact and Range Safety Spec will request entry from LONGRIFLE.
5. EOD Technician will ground guide vehicles from entry point at grid 627907 to target staging area location at 629 909.
6. EOD Technician will conduct safety assessment of target area.
7. Once safety assessment is complete, personnel will walk to target locations 62821 90949 & 62904 90902 to insert targets.
8. Once safety assessment is complete, Range Safety Specialist will supervise target insert to ensure targets are emplaced within approved lateral limits.
9. Upon completion of target emplacement, EOD Technician will ground guide vehicles back to exit point.
10. Upon departure of all personnel and vehicles, Range Safety Specialist will contact LONGRIFLE.

Types of Military Munitions Encountered - TBD Will be reported on extract assessment.

Figure B-1

APPENDIX C

RANGE MATRIX

PAGE

RANGE MATRIX.....C-2

Appendix C- Ranges				MISC			RIFLES			MACHINE GUNS			DEMO, MINE, GERNADES, GERNADE LAUNCHER					ROCKET & MISSILES		CANNONS & MORTARS		TANK, APC, & AERIAL GUNNERY					
RANGE	REGS DATE	DESCRIPTION	CMP / EMP	PISTOLS .45& BELOW	SHOTGUNS	SEASAMS	5.56MM	7.62MM	.50 CAL	5.56MM	7.62MM	.50 CAL	DEMOLITIONS NEW LISTED	GERNADE LAUNCHER	CLAYMORE & BANGALORE	APOBS & MICLIC	HAND GERNADES	ROCKETS	MISSILES	ARTILLERY	MORTARS	120MM	25MM & 30MM	M257 SNK GREN	AVIATION TOW	20MM	2.75"
102	15-Sep-09	PISTOL RANGE (KD MTB)		X																							
102A	5-Jan-11	PISTOL/BZO RANGE (MTB)		X			X																				
103	21-Jul-10	RIFLE RANGE (KD MTB)					X	X																			
104B	31-Jan-12	SACON		X	X		X	27									3,X										
107	22-Jul-09	SKEET AND TRAP (MCCS)			26																						
108	6-Feb-12	MCB EOD					X	X	X				300														
109	15-Dec-09	HAND GERANDE RANGE															X										
110	29-Mar-10	FIELD FIRING RANGE	YES	X	X		X	X						4,7													
111	13-Feb-12	T.R.C.	YES	X	X		X	X																			
112A	21-Jun-11	T.R.C. (SONGS)	YES	X	X		X	X																			
116A	24-May-11	RIFLE RANGE (NSWC)	YES	X	X		X	X																			
116B	8-Mar-10	BZO RANGE (NSWC)	YES	X	X		X	X																			
116C	8-Mar-10	FIELD FIRING RANGE (NSWC)		X	X		X																				
116D	8-Nov-11	SHOOT HOUSE (NSWC)																									
117A	28-Nov-11	SNIPER RANGE (KD & UKD)		X	X		X	X																			
127		LAR BZO RANGE (AWAITING CERT.)																									
130 COM		SPECIAL OPERATIONS	PLEASE REFER TO SPECIAL INSTRUCTIONS.																								
131	21-Jun-11	MOUT TOWN			11,24	X	30						.25LBS				3										
132	13-Sep-11	URBAN RETS RANGE		X	11,24	X	X	X					.25LBS				3										
133	21-Mar-12	CQB SHOOT HOUSE		28	24	X	X						.25LBS				3,X										
200		INACTIVE																									
201	4-Aug-09	FIELD FIRE	YES	X	X		X	X		X	X			X				X			21						
202	26-Jan-10	HAND GERNADE RANGE															X										
203	7-Jul-11	FIELD FIRING RANGE		X	X		X	X	X	X	X	X		X				X					X				
204B	9-May-11	FIELD FIRING RANGE					X			X				8							X						
206	23-Jun-09	BZO / NON-LETHAL RANGE		X	X		X	X		X	X						20										
207	28-Jul-11	DEMOLITION RANGE											2LBS														
207A	4-Aug-08	MOUT / BREACHING			24	X	30						.18 LBS														
208C	15-Feb-12	OFFENSIVE COMBAT RANGE		X	X	X	X	X		X	X			4,7	5	6		X			21,22						
210B		INACTIVE																									
210C	25-Aug-09	EMP / BZO RANGE		X	X		X			X																	
210D	15-Dec-09	M203 QUAL RANGE												4,7													

				MISC			RIFLES			MACHINE GUNS			DEMO, MINE, GERNADES, GERNADE LAUNCHER					ROCKET & MISSILES		CANNONS & MORTARS		TANK, APC, & AERIAL GUNNERY					
RANGE	REGS DATE	DESCRIPTION	CMP / EMP	PISTOLS .45& BELOW	SHOTGUNS	SEASAMS	5.56MM	7.62MM	.50 CAL	5.56MM	7.62MM	.50 CAL	DEMOLITIONS NEW LISTED	GERNADE LAUNCHER	CLAYMORE & BANGALORE	APOBS & MICLIC	HAND GERNADES	ROCKETS	MISSILES	ARTILLERY	MORTARS	120MM	25MM & 30MM	M257 SNK GREN	AVIATION TOW	20MM	2.75"
210E	2-Feb-12	FIELD FIRING RANGE	YES	X	X		X	X		X	X			9				X									
210F	7-Feb-12	BZO/ FIELD FIRING RANGE	YES			X	X	X	X	X	X	X		X	5	6	X	X			X		20				
210G		INACTIVE																									
211	29-Jul-10	DEMOLITION RANGE			24								15LBS														
212 COM	24-Jan-12	BZO / NON-LETHAL RANGE	YES	X	X		X																				
212 TOW		INACTIVE																									
213	21-Nov-06	PISTOL RANGE (MTB)		X																							
214	7-Feb-11	RIFLE RANGE (KD MTB)					X	X																			
215A	7-Feb-12	OFFENSIVE FIELD FIRING	YES	X	X	X	X	X		X	X			9,4							21						
216	31-Jan-12	SACON/ EMP/ FIELD FIRING	YES	X	X	X	27,X	27	27					9			X	X			21,22						
217	22-Mar-10	FIELD FIRING RANGE					X	X		X	X			7				X									
218A	31-Jan-12	INF SQD DEF & OFF FIRING	YES	X	X		X	X	X	X	X	X		9,4				X			21,22						
219	15-Nov-11	DEMOLITION RANGE			24								50LBS	13	5												
221	12-Apr-11	FIELD FIRING RANGE	YES	X	X		X	X	X	X	X	X		15				X									
222	11-Apr-11	FIELD FIRING RANGE					X	X	X	X	X	X		X				15			X						
223A	3-Feb-12	SHOOT HOUSE / TT RANGE	YES	X	X	X	X	X					.18LBS				3										
223B	31-Jan-12	MPMG/ OFFENSIVE FIRING	YES	X	X		X	X	X	X	X	X		X				X	2		22						
225	17-Aug-09	SHOTGUN/ NON-LETHAL			X												11,12										
227	14-Sep-09	FIELD FIRING RANGE	YES	X	X		X	X	X	X	X	X		4,8				14,15			X						
300	7-Jul-11	BZO/EMP	YES	X	X	X	X	X		X	X																
301	31-Jan-12	SACON		X	X	X	X										3,29										
302	31-Jan-12	SACON		X	X	X	X										3,29										
303	6-Aug-09	PISTOL RANGE		1	X																						
307	26-Jan-10	HAND GERNADE RANGE															X										
312		INACTIVE																									
312A		INACTIVE																									
314	2-Nov-11	FIELD FIRING RANGE												4,7													
314A	21-Dec-11	BZO/ DEF FIRE/ DEMO		X	X		X	X	X	X	X	X															
314B	9-Dec-11	STATIC COMBAT RANGE	YES	X	X		X	X		X	X			4,10													
314C	4-Jan-12	OFFENSIVE COMBAT RANGE	YES	X	X		X			X				4,7			12										
314D	1-Nov-11	SESAM RANGE				X	40																				

				MISC			RIFLES			MACHINE GUNS			DEMO, MINE, GERNADES, GERNADE LAUNCHER					ROCKET & MISSILES		CANNONS & MORTARS		TANK, APC, & AERIAL GUNNERY					
RANGE	REGS DATE	DESCRIPTION	CMP / EMP	PISTOLS .45& BELOW	SHOTGUNS	SEASAMS	5.56MM	7.62MM	.50 CAL	5.56MM	7.62MM	.50 CAL	DEMOLITIONS NEW LISTED	GERNADE LAUNCHER	CLAYMORE & BANGALORE	APOBS & MICLIC	HAND GERNADES	ROCKETS	MISSILES	ARTILLERY	MORTARS	120MM	25MM & 30MM	M257 SNK GREN	AVIATION TOW	20MM	2.75"
401		MCB EOD RANGE (INERTING)																									
403A		INACTIVE																									
403B		INACTIVE																									
403C		INACTIVE																									
403D		INACTIVE																									
407	9-Apr-09	FIELD FIRING RANGE	YES	X	X		X	X	X	X	X	X		7						17	X					X	
407A	16-Nov-09	FIELD FIRING RANGE	YES	X	X		X	X	X	X	X	X		7				33			X					X	
407B	21-Dec-11	FIELD FIRING RANGE	YES				X			X				9													
408	26-Mar-12	OFFENSIVE COMBAT RANGE	YES	X	X	X	X	X	X	X	X	X		8,9	X	X		X			X		X				
408A	24-Oct-11	TANK &FIGHTING VEHICLE RANGE								X	X	X		19					2	16		18	X	X			
409A	18-Jan-11	Offensive Combat, LAV/Tank Gunnery Range		X	X	X	X	X	X	X	X	X		X				X	2		X	18	20				
501	20-Sep-11	FIELD FIRING RANGE		X	X		X																				
503		INACTIVE																									
505		INFILTRATION RANGE					30																				
505A		INFILTRATION RANGE					30																				
505B		INFILTRATION RANGE					30																				
600	23-Nov-10	DEMOLITON RANGE	YES		24,26								13,25			X											
800	18-Jan-12	LIVE FIRE & MANEUVER	YES	X	X	X	X	X	X	X	X	X	20 lbs	X	5		X	X	32		X		31				
EDSON A	10-Aug-09	RIFLE (KD) WFTBN					X							7,23													
EDSON B	10-Aug-09	RIFLE (KD) WFTBN					X							7,23													
EDSON C	10-Aug-09	RIFLE (KD) WFTBN					X							7,23													
EDSON D	10-Aug-09	RIFLE (KD) WFTBN					X							7,23													
EDSON PISTOL	6-Feb-12	PISTOL P-1 TO P-3 (WFTBN)		X	X																						

NOTES:

1. PISTOL 9MM -BELOW
2. ALL TOW MOIC ONLY
3. FLASHBANG ONLY
4. 40MM PYRO / TP (B519) ONLY
5. CLAYMORE ONLY
6. APOBS ONLY
7. M203/ M79 ONLY
8. MK19 TP ONLY
9. SHOULDER FIRED GERANDE LAUNCHER
10. SHOULDER FIRED GERANDE LAUCHER (TP)
11. NON-LETHAL ONLY
12. RUBBER BALL HAND GERNADE
13. RIFLE ENTERY GRENADE (GREM)
14. PRACTICE ROCKET ONLY
15. LAW & AT-4 TRAINER ONLY
16. DIRECT FIRE ONLY
17. DIFRECT FIRE ARTY ONLY
18. 120 MM TP ONLY
19. MK19 40 MM ONLY
20. 25MM & 30MM TP-T ONLY
21. MORTAR ILUM ONLY
22. 60MM ONLY
23.40MM PYRO ONLY
24. BREACHER ROUND ONLY
25.200 NEW(UN-TAMP) 600 (TAMP)
26. 7 1/2 BIRD SHOT ONLY & GAME WARDEN "CRACKER"
27. SNIPER HIDE ONLY
28. BALL ONLY
29. PRACTICE GERNADE
30. BLANKS ONLY
31. 25MM TP ONLY
32. TOW INERT/ MOIC ONLY
33. SMAW, AT-4

APPENDIX D

INDIRECT FIRE TRAINING AREAS

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ARTILLERY FIRING AREAS.....D-2

MORTAR FIRING AREAS D-3

OBSERVATION POSTS.....D-4

APPENDIX D

1. ARTILLERY FIRING AREAS

a. Listed below are the designated and identified Artillery Firing Areas (AFAs).

AFA	Geo Location	Grid	Alt Ft MSL	Remarks
AFA 01	San Mateo	54206 03004	NA	RSOP
AFA 02	San Mateo	53817 02530	NA	RSOP
AFA 04	San Mateo	50312 99854	NA	IED Lanes
AFA 05	San Mateo	50113 98957	310	Conflict with HOLF
AFA 06	San Mateo	49700 99140	335	Conflict with HOLF
AFA 07	San Mateo	47930 99460	560	Conflict with HOLF
AFA 08	Papa	57900 92750	710	
AFA 09	Papa	59253 94463	NA	RSOP
AFA 10	Papa	60429 92141	NA	RSOP
AFA 11	Papa	58890 91690	500	Whiskey Only
AFA 12	Papa	57820 91310	610	
AFA 13	Papa	59464 90642	NA	RSOP & DZ Papa 3
AFA 14	Coastal	55520 86880	175	Firing requires activation of R2503D.
AFA 15	Coastal	56232 86307	185	Firing requires activation of R2503D.
AFA 16	Coastal	57260 85480	135	Firing requires activation of R2503D.
AFA 17	Roblar	62547 90275	NA	RSOP
AFA 18	Roblar	62790 89916	305	
AFA 19	Roblar	64592 89469	NA	RSOP
AFA 21	Roblar	65583 90335	530	
AFA 22	Roblar	66700 87700	215	DZ Basilone
AFA 24	Roblar	67900 89500	435	
AFA 25	Roblar	66590 90187	NA	RSOP
AFA 26	Roblar	66890 90510	520	
AFA 27	Roblar	67373 90467	450	
AFA 28	Roblar	68253 91021	680	
AFA 29	Roblar	67970 91381	NA	RSOP
AFA 30	Roblar	66250 90850	550	
AFA 31	Roblar	66630 91909	690	HIMAR
AFA 32	Roblar	67120 93140	950	HIMAR
AFA 33	Roblar	67450 92650	805	
AFA 34	Roblar	70371 92376	350	
AFA 35	Roblar	70481 93078	330	
AFA 36	R409A	68165 92607	NA	RSOP

AFA	Geo Location	Grid	Alt Ft MSL	Remarks
AFA 37	R409A	67316 94367	985	
AFA 38	R409A	67787 94457	1025	
AFA 39	Roblar	72010 95929	715	DZ DeLuz & HIMAR
AFA 40	Case	63799 98919	2525	
AFA 41	Case	62828 99312	2475	
AFA 42	Case	62601 00435	2455	
AFA 43	Case	60282 00360	2120	
AFA 44	Case	61400 01600	2300	
AFA 45	Case	60912 01844	NA	RSOP
AFA 46	Case	58804 01649	NA	RSOP
AFA 90	Juliet	73942 87433	NA	RSOP
AFA 91	Juliet	74637 85994	NA	RSOP
AFA 92	Juliet	79260 85503	NA	RSOP
AFA 93	Mike	65916 81583	NA	RSOP
AFA 94	November	68219 80889	NA	RSOP
AFA 95	November	67313 79111	NA	RSOP
AFA A	San Mateo	55440 03360	395	
AFA C	Case	61429 00421	NA	RSOP
AFA D	Case	61852 00726	NA	RSOP
AFA F	Roblar	71236 94409	795	
AFA G	Papa	58758 90097	445	
AFA H	San Mateo	51875 00085	270	HIMAR
AFA I	San Mateo	52764 01078	290	HIMAR
AFA J	Finch	57212 93682	NA	RSOP
R407	Zulu	64755 91255	560	Direct Fire
R408A	Zulu	65203 91874	575	Direct Fire

2. MORTAR FIRING AREAS

a. Listed below are the designated and identified Mortar Firing Areas (MFAs).

MFA	Geo Location	Grid	Alt Ft MSL	Remarks
MFA 5	Jardine Canyon	55218 97168	440	
MFA 6	Yankee Impact	56344 00169	850	
MFA 7	Yankee Impact	57635 00619	1550	
MFA 9	TA-Echo	62121 99113	2570	
MFA 9A	TA-Echo	63076 99662	2420	

MFA 10	R409A	66473 94994	975	
MFA 11	TA-Kilo 1	65133 90880	475	
MFA 12	MP-1	63786 90455	500	
MFA 13	R227	63137 90375	350	
MFA 14	R221/222	60118 92629	675	
MFA 15	LFAM 219	58878 93526	550	

3. OBSERVATION POSTS

a. General. Listed below are the designated and identified Observation Posts (OPs).

OP LOCATIONS	COORDINATES	REMARKS
A	636 900	Hand-held lasers allowed
B	640 904	Hand-held lasers allowed
C	642 919	Inactive
D	643 906	Hand-held lasers allowed
E	643 921	Marking for southern AFA's
F	666 926	Hand-held lasers allowed
I	649 968	Designation into the Zulu Impact Area is not authorized
J	596 995	Hand-held lasers allowed
K	566 938	Inactive
M	617 989	Marking for northern AFA's
W	545 953	Marking for northern AFA's
NOAH	630 972	Observation of HIMAR

b. PROCEDURES FOR USE

(1) Observation Posts being utilized SOLELY for observation of indirect fire do not require an RSO. Positive communication with the RSO of the firing unit is required.

(2) Scheduling. OP's shall be scheduled through the Range Scheduling Office prior to conducting training. Scheduling requests shall be completed in accordance with Chapter 3.

(3) Temporary OP's. Special requests to use other terrain for OP's shall be submitted to the Range Scheduling Office. Units shall identify the coordinates, intended purpose, and time periods.

APPENDIX E

2-CHLOROBENZALMALONONITRILE (CS)

PAGE

CS TRAINING CHAMBERS.....E-2

APPENDIX E

CHLOROBENZALMALONONITRILE (CS) TRAINING CHAMBERS

1. The CS chambers listed below are authorized for use by units conducting Individual Protective Equipment Confidence Exercises (IPECEs) aboard Camp Pendleton.

LOCATION	GRID	DESCRIPTION	SCHEDULED BY
14 AREA	737 859	Concrete Block Structure	Range Scheduling
31 AREA	630 808	Metal Structure	Range Scheduling
33 AREA	668 860	Concrete Block Structure	Range Scheduling
41 AREA	606 839	Concrete Block Structure	Range Scheduling
43 AREA	611 889	Concrete Block Structure	Range Scheduling
53 AREA	556 926	Concrete Block Structure	Range Scheduling
62 AREA	487 990	Concrete Block Structure	Range Scheduling
FMSS AREA	654 782	Concrete Block Structure	Range Scheduling

APPENDIX F

AVIATION

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ADMINISTRATIVE LANDING ZONES.....F-2
TACTICAL LANDING ZONES.....F-3
CONFINED AREA LANDING SITES (CALSITES).....F-4
VERTICAL TAKEOFF AND LANDING (VTOL) SITES.....F-4
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AIRCRAFT REFUELING SITES.....F-5
DROP ZONES.....F-6
FIXED WING PATTERN WITH R2503B AND R2503D ACTIVE.....F-7
FIXED WING PATTERN WITHIN R2503B (R2503D INACTIVE).....F-8

APPENDIX F

AVIATION

1. ADMINISTRATIVE LANDING ZONES

ADMINISTRATIVE LANDING ZONE	LOCATION	DESCRIPTION
LZ-11	71211 85205	East side of 11 Area Parade field adjacent to 1stMarDiv HQ (Bldg 1133); unmarked.
LZ-16	70152 84588	H&S (MCB) Motor Pool parking lot, south of the 13 Area BOQ (Bldg 1341); unit requesting use shall coordinate with PMO and provide security to ensure the area is clear of POVs prior to operations.
LZ-21	TBD	TBD
LZ-22	67825 83788	Northeast side of Bldg 22172; across from chapel.
LZ-27	68818 89105	East side of Naval Hospital.
LZ-31	60653 80473	Blacktop in front of Edson Range Receiving Barracks; west of Alpha Range.
LZ-33	TBD	TBD
LZ-41	TBD	TBD
LZ-43	62062 89616	1/4 mile northeast of gas station on east side of Las Pulgas Road; limited to UH-1s only.
LZ-52	TBD	TBD
LZ-53	55611 93752	Blacktop 1/4 mile north of ”E” Club.
LZ-62	48995 98032	100 m southwest of the rappel tower.
LZ-63	46953 99126	Located near gas station; unmarked.
LZ-64	47955 01738	North side of hardtop road; near Camp Talega main entrance.

2. TACTICAL LANDING ZONES

TACTICAL LANDING ZONE	LOCATION	DESCRIPTION
LZ Red Beach	56590 84260	Beach area between LHA Pad and VSTOL Pad #1; unmarked.
LZ Viewpoint	54447 86811	Concrete pad located on Gold Beach.
HLZ Heavy Lift Pad	48062 99498	Hilltop adjacent to San Mateo Water Tank, lighted pad with windsock and LPD markings. NOTE: Aircraft shall return weights to the designated external weight area.
LZ Horno	57702 91614	Zone is concurrent with AFA 12.
LZ Fallbrook	74813 87303	Zone is along Eastern border of Base boundary.
LZ Pelican	67905 88354	Zone is located in the middle of 25 Area Combat Town.
LZ Toucan	68016 88148	Zone is not confined.
LZ Vulture	50967 94829	52 Area Combat Town 45m north.
LZ Cardinal	49525 96578	Zone is situated in a box canyon IVO 52 CBT.
LZ Ostrich	64168 88977	Zone is located between the 500-yard and 600-yard firing on R-116A.
LZ Peregrine	61838 85738	Used to support training at R-130. Contact R130 Range Manager 48 hours prior to use.
LZ Eagle	61843 84679	Zone is associated with the MOUT facility (R131). Coordinate with MOUT STAFF 24 hours prior to use.
LZ Sparrow	68166 93622	Zone is associated with R409.
LZ Turkey	68086 93685	Zone is associated with R409.
LZ Canary	62660 00454	Zone supports assault landings in the vicinity of OP Mike (LFAM 711). Supports multiple A/C
LZ Gnatcatcher	63080 98680	Zone supports assault landings in the vicinity of OP Mike (LFAM 711).
LZ Swallow	62052 99057	Zone supports the simulated or actual medical evacuation of personnel in the vicinity of OP Mike
LZ Blue Bird	62900 99651	Zone supports assault landings in the vicinity of OP Mike (LFAM 711).
LZ Robin	60345 00317	Zone supports assault landings in the vicinity of R800. Supports CH-53 and smaller.
LZ Buzzard	61467 00682	Zone supports assault landings in the vicinity of R800.
LZ Hawk	61104 01266	Zone supports assault landings in the vicinity of R800.
LZ Falcon	60294 99921	Zone supports assault landings in the vicinity of R800.
LZ Starling	62031 91260	Zone supports assault landings between R225 and R223A.

3. CONFINED AREA LANDING SITES (CALSITES)

SITE	COORDINATES	LAT/LONG	REMARKS
1	64465 81080	33° 16′05″, 117° 22′54″	
2	67738 81213	33° 16′10″, 117° 20′47″	
3	69931 92658	33° 22′22″, 117° 19′24″	
4	70246 94112	33° 23′09″, 117° 19′12″	
5	71991 95970	33° 24′10″, 117° 18′04″	
7	66544 97881	33° 25′11″, 117° 21′35″	
8	63080 98680	33° 25′37″/ 117° 23′50″	
9	61104 01266	33° 27′00″, 117° 25′07″	
10	59517 01662	33° 27′13″, 117° 26′08″	
13	49549 00002	33° 26′18″, 117° 32′24″	
14	48689 99782	33° 26′10″, 117° 33′07″	
15	47817 99531	33° 26′02″, 117° 33′41″	
16	48845 96718	33° 24′31″, 117° 33′01″	
17	52251 92236	33° 22′06″, 117° 30′48″	
18	57592 90383	33° 21′07″, 117° 27′21″	
19	58347 88537	33° 20′07″, 117° 26′51″	
20	53591 87798	33° 19′42″, 117° 29′55″	
21	57614 82702	33° 16′57″, 117° 27′17″	
22	55786 86418	33° 18′58″, 117° 28′30″	
23	58032 83962	33° 17′38″/ 117° 27′03″	
24	49950 93380	33° 22′42″/ 117° 32′17″	

4. VERTICAL TAKEOFF AND LANDING (VTOL) SITES

SITE	COORDINATES	LAT/LONG	REMARKS
VTOL Pad 1	57548 83035	33° 17′08″/117° 27′13″	Constructed of AM-2 matting.
VTOL Pad 2	60078 82014	33° 16′35″/117° 25′08″	Concrete pad. Pilot controlled lighting (VHF 126.2).
VSTOL 101	56064 85508	33° 18′28″/117° 28′51″	Concrete pad. Active roadway (old Highway 101).

5. SIMULATED FLIGHT DECKS

FACILITY	DESCRIPTION	COORDINATES
CALS 20	Marked to simulate LSD/LPD	53591 87798
HLZ	Marked to simulate LSD/LPD	48062 99498
LHD Pad	Marked to simulate LHD	56346 84646

6. AIRCRAFT REFUELING SITES

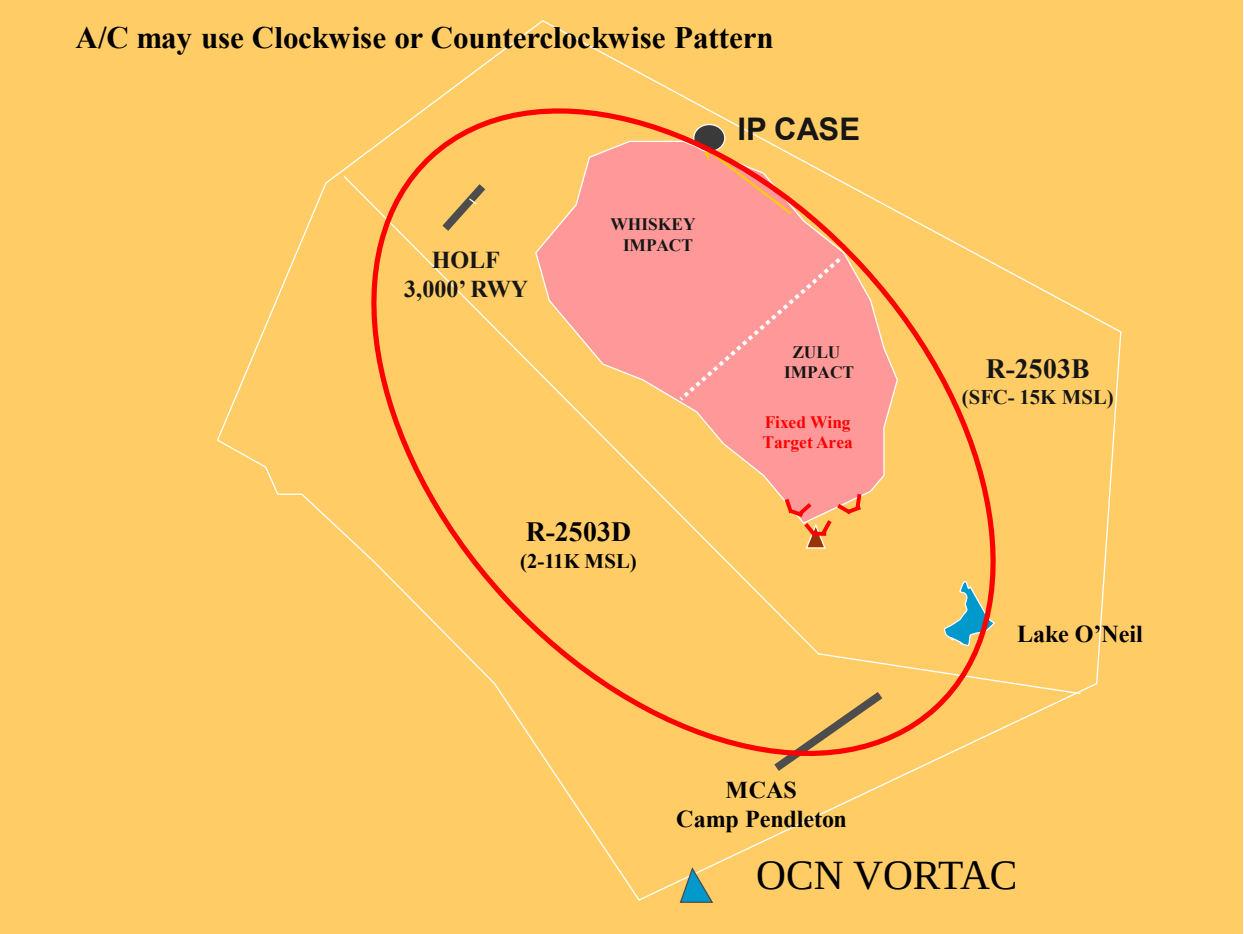
The following training facilities are approved aviation refueling sites:

SITE	LOCATION	ENVIRONMENTAL CONSTRAINTS
LHD	561 847	Stay on the LHD Pad; vernal pools in close proximity.
LZ-53	555 937	Stay on landing site; rare plant area in close proximity.
STOL-101	564 852	No special concerns.
PAD-1	574 834	Stay in the landing zone; vernal pool in close proximity.
PAD-2	601 822	The site is near riparian habitat and rare plant area.
AFA-22	668 880	No special concerns.
AFA-31	667 917	No special concerns.
AFA-40	638 989	No special concerns.
AFA-41	629 993	No disturbance to north; archaeological site.
HOLF	505 995	Limited to mobile refueling trucks. Vernal pools, Arroyo Toad, and rare plants in area.
LZ Viewpoint	548 869	Gnatcatcher habitat nearby; no brush removal/disturbance around site.

7. DROP ZONES

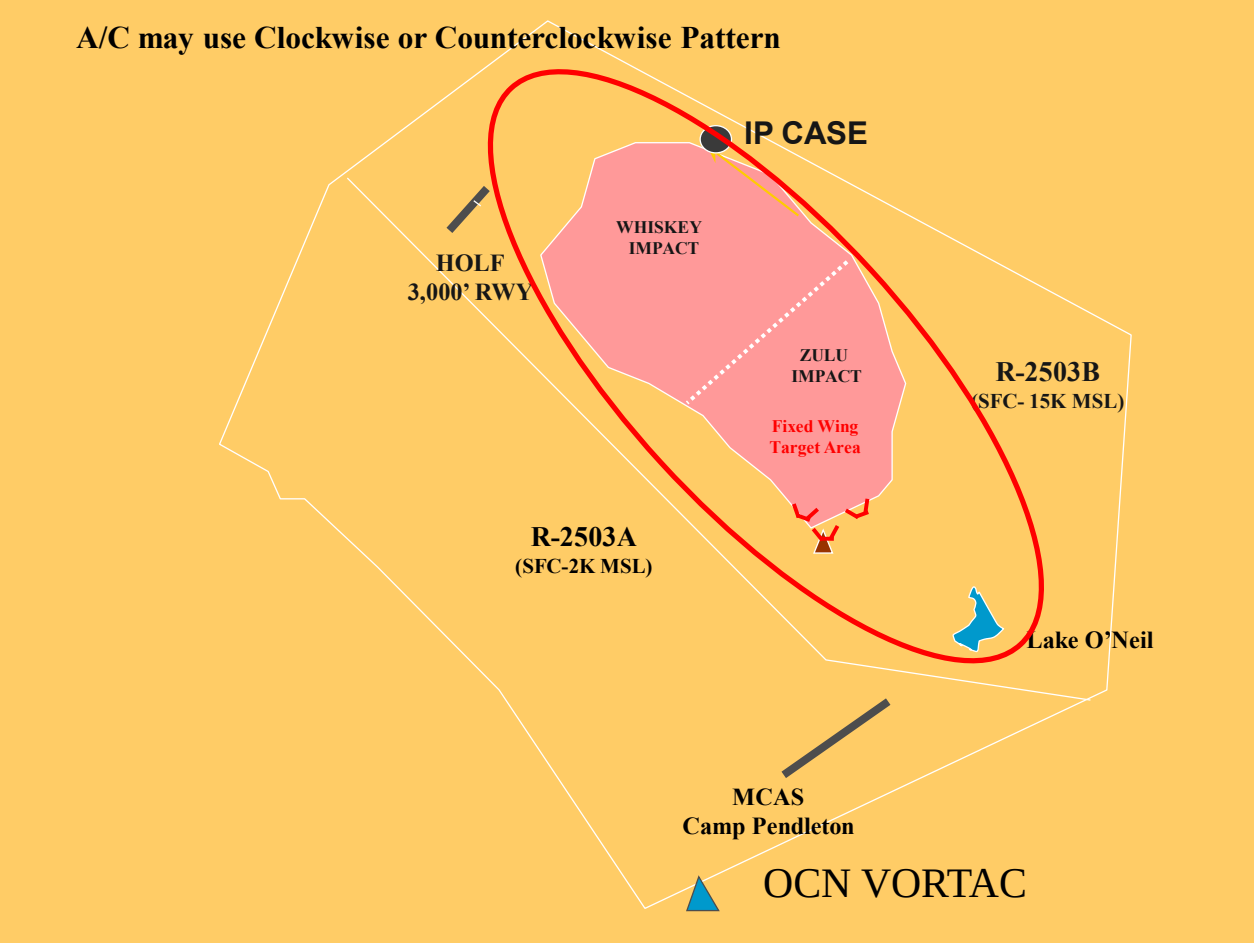
DROP ZONE	COORDINATES CENTER POINTS	NOTES
DZ Deluz	72026 96001	Circular DZ 250m Radius
DZ R409A	67532 94066	1106m X 829m
DZ Basilone	66390 87508	1110m X 921m
DZ Papa 3	59404 90660	Circular DZ 375m Radius
DZ Tank Park	60001 83003	Circular DZ 350m Radius
DZ Six Three	46952 99248	Circular DZ 200m Radius Resupply Bundles Only
DZ Ocean	55314 83458	Water DZ 3000m X 1200m
DZ Oro	53909 85531	Circular/Water DZ 500m Radius
DZ Meadows	62840 99320	Circular DZ 200m Radius

8. FIXED WING PATTERN WITH R2503B AND R2503D ACTIVE



- Aircraft should contact LONGRIFLE on 310.3 at least ten minutes prior to entering R-2503; expect to hold in clockwise/ counter-clockwise pattern oriented on IP Case (11SMT 615005).
- Aircraft will be assigned initial altitude and hard deck to integrate with indirect fire weapons and other aviation operations.
- Aircraft will be switched to secondary/tactical control frequency following check-in and hot range brief.
- Aircraft conducting TACP/CAS live ordnance delivery in the Zulu Impact Area must verify comprehension of, and operate in accordance with, the Special Instructions for MCIWEST-MCB CAMPEN R-440 TACP.
- Aircraft must maintain radio contact with LONGRIFLE at all times for traffic advisories and spill-out instructions as required. Aircraft shall remain within the confines of the active portions of the R-2503 SUA throughout the training evolution.
- Aircraft shall remain above the MCAS Camp Pendleton Class D airspace.
- Absolute Fixed Wing minimum altitude in the R-2503 SUA is 1500' AGL.
- Aircraft should contact LONGRIFLE on 310.3 prior to departing R-2503.

9. FIXED WING PATTERN WITHIN R2503B (R2503D INACTIVE)



- Aircraft should contact LONGRIFLE on 310.3 at least ten minutes prior to entering R-2503; expect to hold in clockwise/ counter-clockwise pattern oriented on IP Case (11SMT 615005).
- Aircraft will be assigned initial altitude and hard deck to integrate with indirect fire weapons and other aviation operations.
- Aircraft will be switched to secondary/tactical control frequency following check-in and hot range brief.
- Aircraft conducting CAS/ live ordnance delivery in the Zulu Impact Area must verify comprehension of, and operate in accordance with, the Special Instructions for MCIWEST-MCB CAMPEN R-440 TACP.
- Aircraft must maintain radio contact with LONGRIFLE at all times for traffic advisories and spill-out instructions as required. Aircraft shall remain within the confines of the active portions of the R-2503 SUA throughout the training evolution.
- Aircraft shall remain above the MCAS Camp Pendleton Class D airspace.
- Absolute Fixed Wing minimum altitude in the R-2503 SUA is 1500' AGL.
- Aircraft should contact LONGRIFLE on 310.3 prior to departing R-2503.