DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
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MCO 3550.9A
TECOM (RTPD)
24 AUG 2021

MARINE CORPS ORDER 3550.9A

From: Commandant of the Marine Corps
To: Distribution List

Subj: OPERATIONAL TRAINING RANGE CERTIFICATION / RECERTIFICATION PROGRAM

Ref: (a) MCO 3570.1C
     (b) MCO 3550.10
     (c) 10 USC 34
     (d) MCO 11000.25A
     (e) DODD 6055.09E
     (f) MCO 5090.2
     (g) MCO 5100.29C
     (h) MCO 3550.12A

1. Situation. The Operational Training Range Certification / Recertification Program standardizes safety, management, and technical requirements for all Marine Corps operational training ranges. It establishes a process that enables Marine Corps installations to enhance safety and preserve the environment while more effectively and efficiently managing operational ranges to meet training requirements and standards.

2. Cancellation. MCO 3550.9

3. Mission. Commanders of bases / stations / installations will establish and execute range certification programs per this Order.

4. Execution
   a. Commander’s Intent and Concept of Operations
      (1) Commander’s Intent. This Order establishes responsibilities and prescribes policies and procedures for the Marine Corps Operational Training Range Certification Program.
      (2) Concept of Operations. Reference (a) establishes the Commanding General (CG), Training and Education Command (TECOM) (RTPD) as the executive agent and resource sponsor for Range and Training Area Management (RTAM) programs, and proponent for all range safety matters. Reference (b) directs CG, TECOM (RTPD) to develop, coordinate, and manage Marine Corps air / ground range safety and range certification programs. Reference (c) defines an operational range as a range that is under the jurisdiction, custody, or control of the Secretary of Defense and is used for range activities. This definition includes sea space areas covered within the 33 Code of Federal Regulation, Title 33 and airspace areas designated for military use by the Administrator of the Federal Aviation Administration. This Order applies specifically to permanent operational training ranges used for the training...
of Marine forces in the use and handling of military munitions, other ordnances, and weapons systems.

(a) The following Marine Corps installations require establishment of a range certification program:

1. Marine Corps Base (MCB) Camp Pendleton, CA
2. MCB Camp Lejeune, NC
3. MCB Quantico, VA
4. MCB Hawaii, Kaneohe Bay, HI
5. MCB Camp Butler, Okinawa, Japan
6. Marine Corps Air Station Yuma, AZ
7. MCAS Cherry Point, NC
8. MCAS Miramar, CA
9. MCAS Beaufort, SC
10. Marine Corps Logistics Base Albany, GA
11. MCLB Barstow, CA
12. Marine Corps Recruit Depot Parris Island, SC
13. Marine Corps Air Ground Combat Center Twenty-nine Palms, CA
14. Marine Corps Mountain Warfare Training Center Bridgeport, CA

(b) Non-Marine Corps locations where Marines operate and maintain ranges through a formal agreement, require establishment of a range certification program.

1. Marine Corps Security Force Regiment, Chesapeake, VA
2. MCSFR Bangor, WA
3. MCSFR Dam Neck, VA
4. MCSFR Kings Bay, GA
5. MCSFR Rota, Spain
6. MCSFR Yorktown, VA

(c) Operational Training Ranges not listed above do not require certification in accordance with (IAW) this Order. All Marine Corps units training on other types of ranges (civilian, foreign, expeditionary, etc.) should apply range safety criteria contained in reference (a) and risk mitigation measures contained in this Order.

(d) Certification. The online Marine Corps Range and Training Area Management System (MCRTAMS) range certification module found at https://rtam.tecom.usmc.mil, will be used to complete the range certification process. Initial certification will be completed for all operational training ranges that include training with direct fire, indirect fire, air-to-ground weapons, explosives, and lasers. The following procedures and components must be addressed in the certification process:

1. Standard Operating Procedures / Range Regulations. Comprehensive range safety and operations standard operating procedures (SOP) / Range Regulations for ranges must be current and signed by the installation commander prior to certification. SOPs must incorporate the policies and procedures in references (a), (b), this Order, and other applicable regulations. SOPs must be uploaded in the MCRTAMS range certification module.
2. Site Map and Range Danger Zone Map. The installation range control officer will use geospatial data in the development of site maps and range danger zone maps utilizing the Range Managers Tool Kit (RMTK) suite of tools. In order to maintain the highest quality map fidelity, Geographic information system (GIS) data must comply with the current GEOFidelis implementation of Spatial Data Standards for Facilities Infrastructure and Environment contained in reference (d). Training and Ranges GIS data must comply with these Marine Corps Training and Ranges GIS Data Quality Standards. All other data, as outlined in paragraph two, must be provided by the Installation Geographic Information and Services (IGI&S) office IAW reference (d) and be current as of the date of the certification. Metadata for GIS data used to develop all maps will be converted into a report collecting, at a minimum, the most up to date information, accuracy, and data source by using the RMTK Map Metadata Report Generator. This report will be included with the range certification information in the MCRTAMS range certification module. Only one map metadata report is required for each range certification / recertification.

a. Site Map. The installation range control officer will develop a detailed site map for each range or training area site. This detail oriented, close-in view of the range will include, at a minimum, the following layers: range boundaries, range equipment, range towers, ammunition storage locations, roads, buildings, firing sites, target sites, impact areas, weapon target lines, left and right lateral limit markers, airspace, road guard positions, gates, and observation points. Any other logistical or operational training information pertaining to the physical location of the range and training activities must also be included.

b. Range Danger Zone Map. The installation range control officer will develop detailed range danger zone maps only utilizing RMTK produced layouts. The range danger zone maps will include, at a minimum, the following layers: danger zones, firing sites, target sites, impact areas, airspace, gates, road guard positions, observation points, restricted areas, no fire areas, roads, installation boundaries, and any other feature that may cause a safety issue for non-participating personnel, operational forces or equipment. Utilities and buildings will be on the danger zone map if located within the danger zone. Each allowable munition and laser on a range certification / recertification or training area site must have a danger zone map. In addition, a composite map showing all munitions and lasers must be created. The RMTK layout tools will be used to create the danger zone map.

3. Deviations from Range Safety Policy. A copy of a current deviation from policy IAW reference (a) (if applicable) will be uploaded and included with the range certification information in the MCRTAMS range certification module.

4. Explosives Safety Site Approval. When permanent ammunition storage facilities are located on operational ranges, documentation with Department of Defense Explosives Safety Board (DDESB) site approval is required per reference (e). If applicable, DDESB site approval must be uploaded and included with range certification information in the MCRTAMS range certification module.

5. National Environmental Policy Act Compliance. The appropriate National Environmental Policy Act (NEPA) documentation for the new or modernized ranges must be completed prior to certification (if
required). A copy of the appropriate NEPA documentation will be uploaded and included with the range certification information in the MCRTAMS range certification module. Guidelines for determining appropriate NEPA compliance are contained in reference (f).

6. Spectrum Management. Prior to range certification, communication equipment and target control systems must have an approved spectrum certification document with frequency assignment. Installation range managers should coordinate with the installation G-6 office to obtain this documentation. The documentation assigning frequencies must be uploaded and included with range certification information in the MCRTAMS range certification module.

7. Checklists. Electronic checklists are available for completion in the MCRTAMS range certification module and will be used for range certification. Hard-copy certification checklists contained in the previous edition of this Order are no longer authorized and will not be used.

   a. The Operational Training Range Certification Checklist must be completed for all ranges. In addition, Known Distance Qualification Training Checklist, Range Certification for Indoor Training Checklist, Range Certification for Explosives Training Checklist, Range Certification for Laser Training Checklist, and Range Certification for Aviation Training Checklist must be completed in the MCRTAMS range certification module for the applicable range being certified / recertified.

   b. "No" answers on the certification checklists require a risk assessment per reference (g). If a risk assessment is completed, an explanation of action taken to mitigate risk will be included in the designated space on the checklist. If a risk assessment is not required, then an explanation justifying the "no" response must be included in the space provided on the on-line checklist.

   c. Instructions for certification checklist completion, authentication, and pertinent document uploads are contained on the range certification module of MCRTAMS.

   d. Installation Range Control certification / recertification will be conducted by a team from CG TECOM (RTPD).

8. Technical Assist Visits (TAVs) are available from RTAM to assist in range certification for the below types of ranges / activities that are unique, not standardized, and require individual analysis: live-fire shooting houses, military operations in urban terrain, and breaching facilities.

9. A TAV analysis is available by RTAM for laser training on operational ranges (both air and ground) for inclusion into the installation range certification package.

10. Other operational ranges requiring certification, that are used for both training and recreational activities include:

   a. Shotgun (skeet / trap). Marine Corps bases / stations / installations will meet all safety requirements set forth by the Army Corps of Engineers Drawings (Planning and Design of Outdoor Sports Facilities) and the installation range safety regulations.
b. Archery target shooting will follow range designs and meet all safety requirements set forth by the Army Corps of Engineers Drawings (Planning and Design of Outdoor Sports Facilities). Other designs including three-dimensional archery targets or field environments simulating hunting scenarios must have a positive backstop. Additional guidance is available from the National Field Archery Association website at https://www.nfbausa.com/ and the installation range safety SOP / range regulations.

(e) Range Managers Tool Kit. RTAM, TECOM has provided resources to the installation range control facilities to assist in the day-to-day management of geospatial data and the submission of range and training area (RTA) data to the appropriate authoritative installation geodatabase managed in accordance with reference (d). The RMTK suite of tools allows the user to interact with this information in a common-map format. RMTK enhances range safety and operations through the application of inter-related tools and technologies that provide a systematic, standardized methodology supporting Marine Corps policies. Per reference (b), MCRTAMS, located at https://rtam.tecom.usmc.mil, contains the institutional database of GIS information for all Marine Corps RTAs. RMTK tools are available for download in MCRTAMS and can be found at https://rtam.tecom.usmc.mil/rm/safety under the Range Managers Tool Kit tab. RMTK tools used for range certification require ARCGIS software to operate. They must be used on "standalone" computers at the range control facility, as ARCGIS is not currently supportable, except via remote desktop application, via the Marine Corps Enterprise Network. Base / station range personnel should coordinate with RTAM Branch representatives to obtain the appropriate license for the software. RTAM Branch support is available at tecomrtamsupport@usmc.mil. The following list of RMTK tools will be utilized for the certification of operational ranges.

1. The Explosives Training Range (ETR) Tool supports breaching operations and explosives training by generating associated explosives danger zones. The ETR Tool automates the creation of explosives danger zones in accordance with references (b) and this Order. It provides an accurate method to evaluate the blast and fragmentation pattern of an explosives training event. The ETR Tool will be used to produce explosives danger zones for single or multiple Department of Defense Identification Codes.

2. Surface Danger Zone (SDZ) Tool defines the ground and airspace designated for a range including vertical and lateral containment of projectiles, fragments, debris, and components resulting from the firing, launching, or detonation of weapon systems. The SDZ Tool generates "worst case" scenario (deterministic) SDZs in accordance with parameters defined in reference (b).

3. Weapon Danger Zone (WDZ) Tool identifies the minimum area necessary to contain munitions and hazardous fragments within the installation or range boundary that result from air-to-ground ordnance delivery operations. WDZs for fixed wing, rotary wing, and unmanned aircraft systems will be generated using the WDZ Tool in accordance with reference (b).

4. Laser Range Management Tool (LRMT). LRMT calculates Laser Danger Zone hazards associated with laser use on operational training
ranges. LRMT must be used in conjunction with the SDZ and WDZ tools to accurately certify the use of lasers on operational ranges. Laser use and laser certification requirements will be in accordance with references (a) and (b).

(f) Recertification. Recertification is a function of the overall range certification process. All ranges must be recertified every three years following initial certification. Installation Range Controls will be recertified by CG TECOM (RTPD), every three years utilizing the MCRTAMS electronic checklist. Ranges will also be recertified in the event of re-designation or modification from the parameters of the previous certification. Modifications include design changes (including the addition or removal of targets), and changes in weapons / weapons stations, types of ammunition, or ammunition properties. The following items apply to the recertification process:

1. The same procedures and components for initial certification as set forth above will be used for recertification.

2. A single copy of documents that apply to numerous certification packages can be used to reduce the size of certification packages.

b. Tasks

(1) CG TECOM (RTPD)

(a) Promulgate Operational Training Range Certification Program policy and procedures as part of the overall Marine Corps Range Safety Program.

(b) Establish and maintain a secure website to facilitate a base / station on-line range certification process that also provides for the uploading of required documentation. Provide trouble-shooting and administrative support to website users.

(c) Post checklists on the secure website that can be completed on-line and used to certify operational training ranges.

(d) Monitor the website to determine the status of certification for ranges aboard all Marine Corps bases / stations / installations.

(e) Provide institutional-level guidance during the planning, construction, and final approval process of all new ranges and range modernization projects requiring certification.

(f) Assist base / station / installation commanders through technical assistance visits in the initial certification of all new ranges prior to government acceptance.

(g) Provide technical assistance, as required, to base / station commanders during the range recertification process.

(h) Provide technical assist visits for laser certification on ranges in support of bases / stations / installations laser certification packages.
(i) Provide training on all Range Managers Tool Kit tools used for the certification process.

(j) Certify base / station / installation range control equipment, facilities, operations, and organization every three years using the Certification for Range Control Operations Checklist found at the MCRTAMS range certification module.

(k) Develop and maintain Functional Area Checklist 363 in support of Inspector General of the Marine Corps (IGMC) inspection program. The Range Certification Program is an integral part of range safety. RTAM will augment IGMC with subject matter experts (SME) for the inspection of base / station / installation Commanding General Inspection Program programs as required.

(l) Approve the establishment of new High Hazard Impact Areas (HHIA) on Marine Corps base/station/installations. Coordinate with appropriate Headquarters Marine Corps staff and regulatory agencies to facilitate the establishment of HHIA IAW references (a) and (d).

(m) All base / station / installation range certification and recertification information will be retained until the range is officially closed, transferred, or placed in an “incompatible use” status. Requests for range closure, transfer, or change of status must be sent to Deputy Commandant, Installations and Logistics via CG TECOM (RTPD).

(n) Compliance with the provisions of this Order will be subject to inspection by the Inspector General of the Marine Corps under the Command Inspection Program, RTAM functional area.

(2) Commander, Marine Corps Installations Command

(a) Provide assistance to Regional Commands for range deviations and certifications IAW reference (a) and this Order.

(b) Evaluate base / station range certification programs as part of the CGIP.

(3) Commanders, Marine Corps Installations

(a) Ensure ranges are certified per the policies and procedures outlined in this Order. The installation range operations director or installation range control officer will be assigned in writing and responsible for range certification. This will include maintaining all documents, maps, and geospatial data needed to complete a range certification and coordinating with the IGI&S office to maintain ranges and training area geospatial data.

(b) Coordinate certification of ranges upon which laser training is conducted with CG TECOM (RTPD) via the chain of command.

(c) Coordinate with CG TECOM (RTPD) assignments of qualified personnel (e.g. laser, airspace, explosives technical SMEs) to conduct assessments to support certification of ranges upon which laser training is conducted per reference (a).
(d) Process deviations from range safety requirements that are identified during the certification of ranges and associated facilities per reference (a). Justification for deviations is limited to reducing danger zone (DZ) dimensions when terrain, artificial barriers, or other compensating factors make a smaller DZ safe; modifying prescribed firing procedures to increase training realism (such as accepting increased risk when the risks have been incorporated into an approved DZ); and allowing personnel who are not directly participating in the actual conduct of training within the DZ.

(e) Notify CG, TECOM (RTPD) of new ranges or range name changes that must be added to the certification module.

(f) Establish an Operational Range Clearance Program in accordance with reference (h) to promote safe and sustainable training ranges.

5. Administration and Logistics
   a. Recommendations. Recommendations concerning the content of this Order may be forwarded to TECOM, (RTPD).

   b. Records Management. Records created as a result of this directive shall be managed according to National Archives and Records Administration—approved dispositions per SECNAV M-5210.1 CH-1 to ensure proper maintenance, use, accessibility and preservation, regardless of format or medium. Records disposition schedules are located on the Department of the Navy / Assistant for Administration (DON / AA), Directives and Records Management Division portal page at: https://portal.seacnav.navy.mil/orgs/DUSNM/DONAA/DRM/Records-and-Information-Management/Approved%20Record%20Schedules/Forms/AllItems.aspx Refer to MCO 5210.11F for Marine Corps records management policy and procedures.

   c. Privacy Act. Any misuse or unauthorized disclosure of Personally Identifiable Information (PII) may result in both civil and criminal penalties. The DON recognizes that the privacy of an individual is a personal and fundamental right that shall be respected and protected. The DON's need to collect, use, maintain, or disseminate PII about individuals for purposes of discharging its statutory responsibilities shall be balanced against the individuals' right to be protected against unwarranted invasion of privacy. All collection, use, maintenance, or dissemination of PII shall be in accordance with the Privacy Act of 1974, as amended (5 U.S.C. 552a) and implemented per SECNAVINST 5211.5F.

6. Command and Signal
   a. Command. This Order is applicable to the Marine Corps total force.

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

K. M. IIAMS
Commanding General
Training and Education Command
By direction

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# APPENDIX A

## Glossary of Acronyms and Abbreviations

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<th>Acronym</th>
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<tr>
<td>AA</td>
<td>Assistant for Administration</td>
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<td>CG</td>
<td>Commanding General</td>
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<td>CGIP</td>
<td>Commanding General Inspection Program</td>
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<td>DDESB</td>
<td>Department of Defense Explosives Safety Board</td>
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<td>DON</td>
<td>Department of the Navy</td>
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<td>DZ</td>
<td>Danger Zone</td>
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<td>ETR</td>
<td>Explosives Training Range</td>
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<td>GIS</td>
<td>Geographic Information System</td>
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<td>HHIA</td>
<td>High Hazard Impact Areas</td>
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<td>IAW</td>
<td>In Accordance With</td>
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<td>IGI&amp;S</td>
<td>Installation Geographic Information and Services</td>
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<td>IGMC</td>
<td>Inspector General of the Marine Corps</td>
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<td>LRMT</td>
<td>Laser Range Management Tool</td>
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<td>MCAGCC</td>
<td>Marine Corps Air / Ground Combat Command</td>
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<td>MCAS</td>
<td>Marine Corps Air Station</td>
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<td>MCB</td>
<td>Marine Corps Base</td>
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<td>MCLB</td>
<td>Marine Corps Logistics Base</td>
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<td>MCMWTC</td>
<td>Marine Corps Mountain Warfare Training Command</td>
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<td>MCRTAMS</td>
<td>Marine Corps Range and Training Area Management System</td>
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<td>MCSFR</td>
<td>Marine Corps Security Force Regiment</td>
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<td>NEPA</td>
<td>National Environmental Policy Act</td>
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<td>PII</td>
<td>Personally Identifiable Information</td>
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<td>RMTK</td>
<td>Range Managers Tool Kit</td>
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<td>RTAM</td>
<td>Range and Training Area Management</td>
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<td>SDZ</td>
<td>Surface Danger Zone</td>
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<td>SME</td>
<td>Subject Matter Expert</td>
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<td>WDZ</td>
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