



FY16 Combat Marksmanship Symposium

Out-Brief to DC, CD&I

**Col T. M. Parker, USMC
CO, WTBN
4 December 2015**



Combat Marksmanship Symposium

- ⊕ **The Combat Marksmanship Symposium (CMS) was chartered as a forum for vetting issues and serves in an advisory capacity to Deputy Commandant Combat Development & Integration (DC CD&I) and marksmanship advocates**

- ⊕ **Advocacy**
 - ⊕ **DC, CD&I → advocate for the Marine Corps Combat Marksmanship Program (MCCMP)**
 - ⊕ **CG, TrngCmd → staffs / distributes products developed by MCCMP proponent.**
 - ⊕ **CO, WTBn → marksmanship proponent; responsible for oversight of the MCCMP / maintaining the MCCMP Order; development, maintenance, and update of all master lesson files and other supporting documentation for conducting marksmanship training throughout the Marine Corps**

- ⊕ **CMS examines marksmanship issues for review and consensus prior to submission to other forums, advocates, and HQMC as required.**



MCATS Input

COMMAND	CONCURRENCE	ISSUES /RECOMMENDATIONS	SLIDE
MARFORPAC	CONCUR	No Comment	
MARFORCOM	CONCUR	Any additive training needs to be targeted to those specific MAGTF entities whose T&Rs are focused towards small arms employment.	9
MARFORRES	CONCUR	No Comment	
I MEF	CONCUR	No Comment	
II MEF	CONCUR	Table 7: S/B Infantry only, other MOS's optional	9
III MEF	CONCUR	No Comment	
PP&O	CONCUR	Semi-Annual ART requirement; time is a resource Begin drafting a Marksmanship ICD for MROC	10
I&L	Delegated to MCICOM	No Comment	
MCICOM	CONCUR	No Comment	
AVN	CONCUR	RFI's answered via email correspondence Truncated ART and waiver capability	10
TRNGCMD	Delegated to SOIs	No Comment	
MCRD PI	CONCUR	No Comment	
MCRD SD	CONCUR	No Comment	
SOI - E	CONCUR	No Comment	
SOI - W	CONCUR	No Comment	



Competition in Arms Program (CIAP)

CIAP MARADMIN

Discussion:

- ⊕ Current level of release does not facilitate tasking of host sites in conduct of matches or resourcing needed funding and materials.
- ⊕ Host sites have difficulty requisitioning funding and supplies to support the CIAP.

Recommendation:

- ⊕ DC, CDI release the MARADMIN in coordination with the other advocates IOT ensure maximum participation, resourcing, and coordination of the Combat Shooting Team matches.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____

Combat Shooting Match (CSM) Standardization

Discussion:

- ⊕ Standardization throughout Regional CSM's is nonexistent.
- ⊕ Minimum guidance is required to ensure the intent of CSM's is accomplished at the regional level.

Recommendation:

- ⊕ Each regional host site will identify Marine Corps issued equipment / wpons to be worn / employed.
 - ⊕ At a minimum, the equipment required for MCCMP Table 1 will be worn during CSM's.
 - ⊕ Competitors must use as-issued weapons and optics as per annual MARADMIN detailing allowable Table 1, Table 2, and CPP weapon systems.
 - ⊕ Match must contain at a minimum: Rifle/Pistol mag changes, (5) targets at 100+ meters, (1) stage with cover to cover movement, and (1) stage with a minimum of (3) weapon systems.
- ⊕ Conduct a study to identify Marine Corps standards to guide the development of CSM stages of fire.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____



Weapons

Authorized Gear & Equipment MARADMIN for ELT/ART/APT

Discussion:

- ⊕ Pistol visible white light w/ required holster.
- ⊕ M7 RCO modification.
- ⊕ SOCOM buttstock kit.
- ⊕ Define the purpose of collapsible buttstock for service rifle.



M9A1/M45 w/X300



M7 RCO/SDO reticle



SOCOM Stock

Recommendation:

- ⊕ Add SOCOM buttstock kit, Surefire X300U w/ associated gear, and M7 RCO.
- ⊕ Update collapsible buttstock currently in MARADMIN to reference MCO 3574.2L.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____

Service Rifle SL-3 Gear Changes

Discussion:

- ⊕ 3-Point Sling still an SL-3 end item.
- ⊕ M16A4/M4 carry handle is obsolete; new M203 aiming device approved.
- ⊕ (3) Back-Up Iron Sights (BUIS) in service; (2) are legacy.
- ⊕ Current SL-3 cleaning kit inadequate; no cleaning rods.



3-Point Sling



Cleaning Kit

Recommendation:

- ⊕ Remove 3-Point Sling as SL-3 end item; replace by attrition w/ Common Wpns Sling.
- ⊕ Remove carry handle as SL-3 end item.
- ⊕ Remove multiple BUIS variants; replace older BUIS by attrition.
- ⊕ Remove current cleaning kit; replace w/ legacy kit by attrition.



Common Wpns Sling



Micro BUIS

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____



Weapons

Simulation and Distance Learning



Service Rifle Proposal

Discussion:

- ⊕ Current service rifle trigger, rail, barrel and selector leave capability gaps as shown in CBA, Moving Target Engagement and Muzzle Brake studies.
- ⊕ Engagement time/accuracy requirement unable to be met without new weapon system.
- ⊕ The Army continues to test and evaluate modifications to current service rifle.
- ⊕ Current simulators do not support use of issued service rifle.

Recommendation:

- ⊕ Continue to monitor Army testing and validation for potential improvements to current service rifle **icw CDD (FMID)**.
- ⊕ Coordinate with PM TRASYS for simulation upgrades.
- ⊕ Have Combat Marksmanship Symposium (CMS) representatives tie into the next generation squad wpns and optics capabilities efforts.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____

Service Rifle COF ISMT Incorporation

Discussion:

- **TECOM and PMTRASYS** working with WTBn Quantico and SOIs to incorporate service rifle course of fire (COF).
- ISMT night capability limits ability to simulate night tables.

Recommendation:

- **OPT with TECOM, PMTRASYS and WTBn Quantico to define future requirements.**

DC, CD&I (Advocate)

- ⊕ For informational purposes only.



Simulations and Distance Learning

Expanded Use of ISMT

Discussion:

- ⊕ WG3 inputs indicated need for moving target engagement situations in order to support training objectives not supportable with current range infrastructure.
- ⊕ ~~ISMT interoperability with other simulations.~~
- ⊕ Formalizing / codifying utilization of simulation systems for practice and pre-qualification firing; live fire as a validation of training.

Recommendation:

- ⊕ WTBn Quantico **ICW TECOM** develops specifications for the moving target engagement scenarios in conjunction with the **current effort to update tables 2-6.**
- ⊕ Validate / further define the requirement for ISMT **interoperability** and next generation small arms marksmanship trainer (**WTBn/TECOM**) ~~with other simulations to support collective T&R tasks.~~

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____

Current Capability Deficiencies

Discussion:

- ⊕ RCOs/SDOs for ISMT weapons.
- ⊕ Night time filters for NVDs.
- ⊕ Simulated M27/M32/LAW fielding; within next 3 years.
- ⊕ Issues highlight need for better coordination between MCCDC CDD, PMIW, PMONS, PMTRASYS, and TECOM.

Recommendation:

- ⊕ **WTBN staffs CMS identified prioritized ISMT deficiencies to TECOM, then PMTRASYS.**
- ⊕ New weapon fielding is first priority, followed by day optics and night capabilities.
- ⊕ Optics and night vision capabilities funded via calendar year deficiencies, or “sweep up” funding; not in the POM.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____



Simulations and Distance Learning

Development of MarineNet Classes

Discussion:

- ⊕ MarineNet classes would be beneficial for basic marksmanship refresher training prior to grass weeks.
- ⊕ TECOM CDET funds online courseware development and lifecycle sustainment.
- ⊕ SMEs from WTBn develop course content and provide to CDET project officer.

Recommendation:

- ⊕ WTBn develops following courses for implementation as MarineNet periods of instruction for submission to CDET (MCU)

Targeting Board:

- ⊕ RCO.
- ⊕ Gear setup / adjustment.
- ⊕ Marksmanship fundamentals / databook utilization.
- ⊕ CMC / CMT pre-req courses.
- ⊕ Small Arms Collimator.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____

Future Requirements Definition

Discussion:

- ⊕ Augmented / virtual reality state of the art discussed.
- ⊕ Potential seen in augmented reality training for small units.
- ⊕ WG refined scenarios for implementation in the new ISMT; collective and video shoot / no shoot.

Recommendation:

- ⊕ Develop a Capabilities Development Document (CDD) **via Joint Capabilities Integration and Development System (JCIDS)** to **assist in defining future** marksmanship simulation requirements.
- ⊕ Creating a new set of requirements for system which will replace next-gen ISMT needs to be a dedicated future working group.
- ⊕ INFO: 16 scenarios refined for PMTRASYS delivery to ISMT contractor.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____



Combat Rifle/Pistol

Moving Threat Engagement

Discussion:

- ⊕ Moving Threats T&R event 0300-RFL-1011.
 - ⊕ 0300-RFL-1011 stay as 1000 level task.
 - ⊕ Task is coded IOT train to standard on simulations when live fire range is not available.
- ⊕ Range capabilities/requirements.
 - ⊕ Throughput no less than 440 Marines within 8 hours (SOI/MCT).
 - ⊕ Multi lane/firing point.
 - ⊕ Distances 25, 50, 75, 100, and 150 meters.
 - ⊕ Automated, centralized score retrieval system.
- ⊕ Target requirements.
 - ⊕ Simulates Threat.
 - ⊕ Instant realistic feedback.
 - ⊕ Speed, distance, and angle/direction.

Recommendation:

- ⊕ Convene OPT to develop Table 7 for both live fire and simulations; brief to ESC FY17 CMS.
- ⊕ Assess applicability across the MAGTF, Active Duty and Reserve.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____

Alternate Table 2

Discussion:

- ⊕ Alternate Table 2 testing background.
 - ⊕ 4 Formal Marksmanship Training Center's (FMTC) conducted during CMC course.
 - ⊕ At least two evolutions per FMTC.
- ⊕ Alternate Table 2 testing results.
 - ⊕ 16 evolutions totaling 280 Marines trained.

Recommendation:

- ⊕ Expand Alternate Table 2 testing to all FMTC and ELT sites during FY16; voted on and unanimously passed in the WG.
- ⊕ Allow modifications for FMTCs with short range restrictions.
- ⊕ Issue implementation message directing FMTCs to conduct alternate Table 2 during 2nd Qtr FY16 IOT collect data prior to FY17 CMS for decision.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____



Combat Rifle/Pistol

CPP Sustainment

Discussion:

- ⊕ MPMS conducted test in Aug 2015 IOT determine viability of compressed training/evaluation program for CPP.
 - ⊕ Blocks 1-3 compressed to single block.
 - ⊕ Block 4 then Block 5.
 - ⊕ Total time 2 hours 25 minutes.
- ⊕ Ammo reduction by half (100 rds vs. 200 rds).
- ⊕ Target savings (2 per shooter vs. 3 per shooter).

Recommendation:

- ⊕ WG voted 12-7 to implement CPP sustainment COF with stipulations:
 - ⊕ Must have previously executed all five CPP Table 1 training blocks.
 - ⊕ Currently qualified as Sharpshooter or Expert.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____

Pistol T&Rs

Discussion:

- ⊕ Pistol T&R events not updated since they were written under the former Individual Training Standards (ITS) manual.
- ⊕ Current approved T&Rs are weapons handling/qualification centric.
- ⊕ Existing draft T&Rs are employment centric.

Recommendation:

- ⊕ Direct an OPT to refine the draft T&Rs prior to the upcoming Infantry T&R conference.
 - ⊕ OPT members consist of EOTG, MCSFR, PMO, MCESG, PP&O, MARSOC, and Combat Shooting Team .
- ⊕ Target OPT during January 2016.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____



Combat Rifle/Pistol

MCO 3574.2L W/CH 1

Major changes to current MCCMP order.

- ⊕ Update the order to reflect the new rifle T&Rs.
- ⊕ Update to Tables 3-6.
- ⊕ OIC/RSO requirements change from MOS 0931 to align with MCO 3570.2C.
- ⊕ Added authorization for 0306s to conduct CMC/CMT course with oversight from FMTCs as per FY14 CMS.
- ⊕ COMMCICOM added to waiver authority.
- ⊕ Authorize 0913s, Marine Corps Combat Instructors, (currently assigned to billet) to execute duties of an 0933, Combat Marksmanship Coach, during tables 3-6. Pending review of the 0913 POI.
- ⊕ Develop language authorizing MARFORs to exempt subordinate units unable to conduct the MCCMP due to geographical or equipment constraints; i.e. no range or wpns.

DC, CD&I (Advocate)

- ⊕ For informational purposes only.

Truncated Annual Rifle Training (ART)

Discussion:

- ⊕ OPFOR is task saturated resulting in the requirement of excessive ART waivers.
- ⊕ In FY15, CMC directed efficiencies in all annual training be explored.

Recommendation:

- ⊕ DC, CD&I tasks marksmanship proponent to establish OPT to design conceptual truncated ART and DIRLAUTH between proponent and selected units to conduct the modified ART for FY16.
 - ⊕ 3 day ART.
 - ⊕ Preparatory training prior to ART.
 - ⊕ Tables 1 & 2.
 - ⊕ ~~Semi-annual.~~
 - ⊕ Across MAGTF (Excludes MARFORRES).
 - ⊕ Tested w/ company sized units.
 - ⊕ Measure qualification rates and scores against previous.
 - ⊕ Identify location issues.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____



Ranges & Facilities Requirements Plan (RFRP)



LOE 1: Sustainment of Existing Facilities

Discussion:

- ⊕ Analyzed USMC wide rifle & pistol range inventory.
 - ⊕ Prioritized deficiencies according to training requirement (MCO 3574.2L) and safety requirement (MCO 3550.9) .
- ⊕ Rifle Range Prioritized Deficiencies.
 - ⊕ PA Systems & Target Control Shed.
 - ⊕ Firing Lines.
 - ⊕ Moving Targets (IAW with recent T&Rs).
 - ⊕ Automated Targets.
- ⊕ Pistol Range Prioritized Deficiencies.
 - ⊕ PA Systems & Target Control Sheds.
- ⊕ Deficiencies are either TECOM GRSP / RTS or MCICOM FSRM.
 - ⊕ Installation commander decides what deficiencies will be funded.

Recommendation:

- ⊕ Include deficiencies into TECOM's Ranges & Facilities Campaign Plan.
 - ⊕ Will inform GRSP / RTS prioritization and enable advocacy for FSRM projects.
- ⊕ Conduct cyclical range inventory & analysis to inform future CMS of range deficiencies .

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____

LOE 1: FSRM & GRSP / RTS Process Education

Discussion:

- ⊕ MTU OICs don't understand the MCICOM FSRM (Facilities Sustainment, Restoration & Modernization) or TECOM GRSP (Ground Range Sustainment Program) / RTS (Range Training Systems) process.
- ⊕ MTU work requests not getting funded as installation commander has higher priorities.
- ⊕ Educating the MTU OICs will improve their ability to get funding support .

Recommendation:

- ⊕ Develop FSRM and GRSP / RTS smart pack.
 - ⊕ Incorporate FSRM and GRSP / RTS education into POI at Infantry Weapons Officer Course (IWOC).
- ⊕ CMS Chair (CO, WTBn) serve as advisor in the GRSP and range projects board.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____



Ranges & Facilities Requirements Plan (RFRP)



LOE 1: Safety Command Net

Discussion:

- ⊕ RTAMs is advocating a Program of Record (POR) for range communications in order to standardize communications.
 - ⊕ Combat Marksmanship Program (CMP) range PA systems currently being maintained by Base O&M funds.
 - ⊕ PA systems are degrading.
- ⊕ On a KD range, internal range communications is critical to ensuring the RSO has positive control of the range.

Recommendation:

- ⊕ Reinforce the UNS for range communications currently at MCCDC as a critical requirement for safety when conducting CMP (all KD ranges).

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____

LOE 1: Yards vs Meters

Discussion:

- ⊕ Use of Metric distances for KD Training has been authorized via MCO 3574 since 1975.
- ⊕ Primary aiming devices (RCO, SDO, iron sights) are calibrated for metric distances, reinforcing the need to modernize ranges.
- ⊕ Marksmanship T&Rs were updated to reflect meters for all rifle marksmanship tasks.

Recommendation:

- ⊕ Endorse Installation requests to incorporate metric conversions of their KD Rifle ranges when resources permit.
- ⊕ Incorporate incremental metric distances in all new construction of KD marksmanship ranges.

DC, CD&I (Advocate)

- ⊕ Approved _____
- ⊕ Disapproved _____
- ⊕ Further Guidance _____



Ranges & Facilities Requirements Plan (RFRP)



LOE 2: Recommended Studies

Discussion:

- ⊕ **WG2 identified additional information requirements for marksmanship capability gaps.**
 - ⊕ **Efficiency of training times / ranges to support marksmanship training.**
 - ⊕ **What are the possible science and technology (S&T) solutions for the identified capability gaps?**
- ⊕ **Study outputs will inform and reinforce gap submission and DOTMLPF-PC solutions.**

Recommendation:

- ⊕ **Approve studies to address identified marksmanship capability gaps.**
- ⊕ **Request DIRLAUTH with MCWL, OAD, and ONR (Code 30) via TECOM.**

DC, CD&I (Advocate)

- ⊕ **Approved _____**
- ⊕ **Disapproved _____**
- ⊕ **Further Guidance _____**

LOE 2: Process to Validate CMP Requirements

Discussion:

- ⊕ **CD&I recommends the Marine Corps Capabilities Based Assessment (CBA) Process under JCA 3.1.1 (Maneuver to Engage).**
 - ⊕ **Marine Corps CBA is recently established Service Level process for validating & resourcing requirements.**
 - ⊕ **Infantry CMP T&Rs are linked to JCA 3.1.1.**
- ⊕ **JCA 3 CPM recommends drafting a Deliberate-Universal Needs Statement (DUNS) for submission via normal DUNS routing.**
- ⊕ **CD&I (FMID) will incorporate DUNS into MC CBA (JCA 3) as part of POM-19.**
 - ⊕ **CMP proponent will advocate CMP requirements throughout CBA phases (capabilities, gaps, solutions).**

Recommendation:

- ⊕ **Approve MC CBA (JCA 3) as the appropriate process for validating future CMP requirements with the eventual goal of producing a marksmanship ICD.**

DC, CD&I (Advocate)

- ⊕ **Approved _____**
- ⊕ **Disapproved _____**
- ⊕ **Further Guidance _____**



Past/Future Actions

- ✓ **MARADMIN Calling/Announcement Message**
- ✓ **Working Group (WG) Lead Preparations**
- ✓ **RSVP for Attendance**
- ✓ **CMS Opening/Briefs/WGs Convene**
- ✓ **Briefs of Interest**
- ✓ **WG Out-Briefs to Executive Steering Committee**
- ✓ **ESC Decisions/Wrap-up/Brief**
- ✓ **Out Brief to CG, Training Command (VTC)**
- ✓ **Staff CMS out-brief via MCATS to ESC stake holders**
- ✓ **Out Brief to CG, Training and Education Command – 22 Nov 15**
- ❑ **Out Brief to DC, CD&I (Advocate) - 4 Dec 15**
- ❑ **CMS Results MARADMIN**
- ❑ **Publish the annual authorized weapons and optics MARADMIN**
- ❑ **Quarterly VTC / Meetings on action items**
- ❑ **Prepare for FY17 Symposium (Oct 2016)**



Questions





Back Ups



MARKSMANSHIP

In battle, the only bullets that count are those that hit.
Theodore Roosevelt



Yards vs. Meters: Problem Framed

- ⊕ **Basic Combat Marksmanship Training (Tables 1 and 2) are conducted on KD Ranges. Table 1 provides “foundational” training program for all follow on marksmanship training.**
- ⊕ **Since 1957, the U.S military adopted the metric system, which is used as the spatial reference in every aspect of military doctrine, equipment, training and operations.**
- ⊕ **When Marines were equipped with iron sights, they merely adjusted their sights to compensate for the range to a target and environmental affects and applied the “time honored” technique of perfect sight alignment and perfect sight picture. While this technique produced impressive scores on the range, the only combat applicable aspect of this training was conditioning them to a specific “sight picture” for different targets at specific ranges.**
- ⊕ **Since 2006, every recruit and Marine was equipped with a rifle combat optic (RCO) which (once zeroed) incorporates aiming reference points for every 100m increment in range. To refine a specific sight picture, recruits or Marines, using a specific aiming reference point, on a “yard” distance range are forced to use an “off center aiming point” to hit center.**
- ⊕ **This act runs contrary to the very purpose and value of KD training prior to the execution of more advanced, combat applicable skills such as determining range and engaging threats at unknown distances.**



Yards vs. Meters

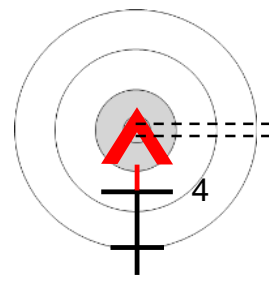
Centered Sight Alignment /
Sight Picture (Iron Sights)

Off-Center holds
using metric Aiming
Points (RCO)

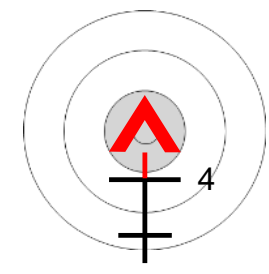
Correct "Centered"
Holds at Metric Range
Distances (RCO)



200 yd /
183 m



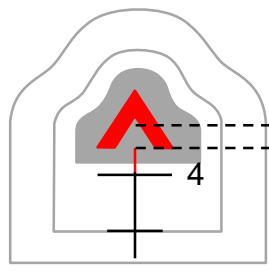
1.1"



200 m



300 yd /
274 m



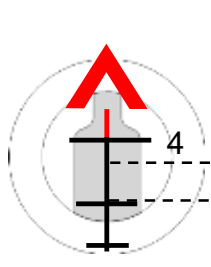
3.6"



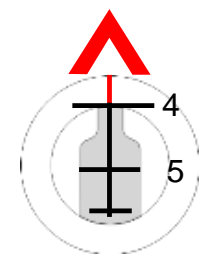
300 m



500 yd /
457 m



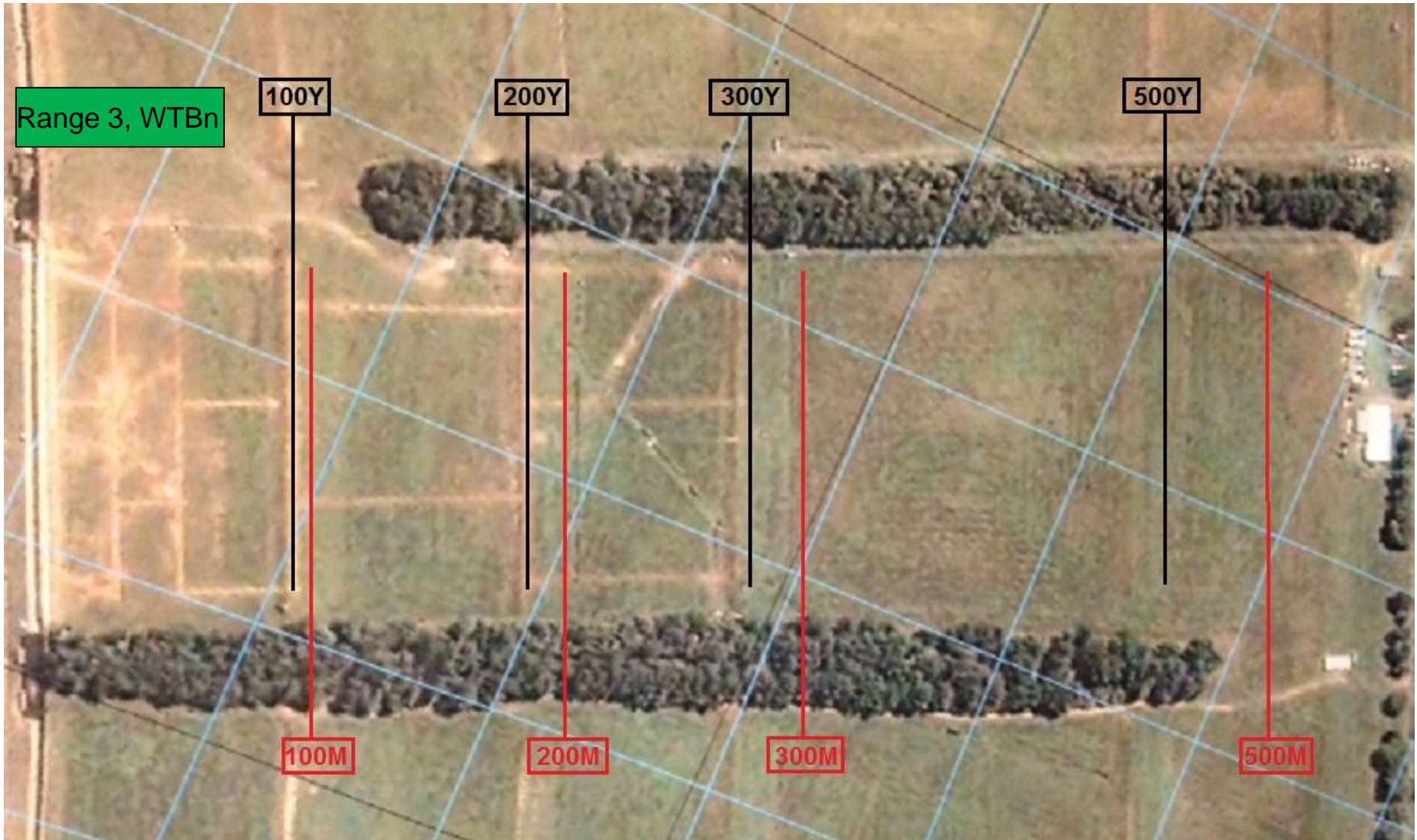
17"



500 m



Range 3 Modification





Yards vs. Meters

- ⊕ **Capability Gap:** Marines lack the ability to effectively determine range within prescribed engagement distances, contributing to ineffective employment of individual weapons. *(Inclusive of the Gaps Identified within Tasks # 1, 5 and 6 of the Functional Needs Analysis of the 2008/2014 Joint Small Arms Capability Based Assessment)*

- ⊕ Each of the following source documents clearly reinforce the requirement for Marines to use a “Metric” spatial reference when training and employing their individual weapons.
 - ⊕ Joint Small Arms Capability Based Assessment (2008/2014)
 - ⊕ Infantry T&R Manual
 - ⊕ MCWL Moving Target Engagement Test (MTET II)
 - ⊕ MCRP 3-01A
 - ⊕ MCO’s 3574.2_J_K_L (1975 to Present)
 - ⊕ Operators Manual for M16/M4 (TM 05538_10012)
 - ⊕ RCO Technical Manual (TM 11064-OR/1)
 - ⊕ ELR/ART Lesson Plans

- ⊕ **Requirement:** Marines must learn the proper use of the RCO (Range determination and specific holds) correctly during initial training (MCRD’s/TBS) at known, metric distances prior to incorporating advanced skills (IE: determining range / applying holds) at unknown distances under varying conditions and compressed times.

- ⊕ **Solution:** Direct or allow installations to incorporate their supported tenant command’s operational requirements by modifying KD ranges to incorporate metric distances when time and resources permit.



Yards vs. Meters Perceptions

- ⊕ **Expensive**: The actual cost to convert a Yard based KD Range to Metric distances should be no more than what a routine “sustainment / renovation” project of an existing range should cost.
- ⊕ **Difference between meters and yards is minimal**: Marines are required to engage threats out to 500m. The difference in bullet drop, wind deflection and determined hold is the difference between a successfully engaged threat and a miss. (17 and 11 inches respectively)
- ⊕ **Non-Standardization of Ranges During Conversion Process**: Numerous implementations of changes in our Marksmanship programs have been successfully managed by the marksmanship proponent through MARADMIN notices, Train the Trainer sessions and MTT’s (i.e: Tables 3a-4d to Tables 3-6 and ELP to CPP). Only requirement to compensate for scores between metric and yard based ranges is a score conversion, which is already tested, validated and available for use.
- ⊕ **Not all KD Ranges have the space**: The limitations of a few installations should not interfere with the capability based requirements available to the majority of our operating forces. Methods to compensate for a “down-graded” capability aboard those few “limited” capability facilities can and should be pursued in these cases.