DEFENCE INFRASTRUCTURE ORGANISATION

TECHNICAL ADVISORY SECTION (TAS)

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RANGE ADVICE NOTE 04/14

DSEA DLRSC Sec* for RAUs other than DIO SD Trg
HQ DIO SD Trg DHd UK Delivery*
HQ DIO SD Trg DHd Overseas Delivery*
UK PTSOs *

Our reference: 28-14-01
Date: 08 May 2014

IMPLEMENTATION OF THE ARMY OPERATIONAL SHOOTING POLICY 2014

Introduction

Overseas PTSOs*

1. AOSP 2014 has introduced a number of live firing lessons that may require changes to current fixed range templates and infrastructure; primarily for CQM at dual targets. It is essential that RAUs consider the affects of the AOSP changes to existing range infrastructure and amend Range Standing Orders accordingly, in particular clearly stating which CQM variations are or are not permitted. This RAN should be read in conjunction with 2014DIN07-0085 and AOSP 2014.

Overview

- 2. Key points are as follows:
 - a. For CQM at dual targets to be conducted on ETR or G&Z ranges, specific danger area templates are required to accommodate burst, single shot, static or firing while closing practices.
 - b. Shoot in boxes within GR mantlets require enlarging to capture all CQM rounds safely.
 - c. An increased danger area template is required to conduct LMG LF practices on MMTTRs.

TAS support

3. RAUs are to consider whether there is enough room within the range boundary to permit the new LF lessons on their FDA ranges, and whether restrictions are likely to affect the use of adjacent ranges. If it is assessed that there is enough room, target sockets should be installed and a TAS confirmatory template check requested via Principle Training Safety Officers that should allocate priority.

Gallery range 5.56, 7.62 and 9mm CQM practices

- 4. **Target positioning.** Centrally within each lane, 2 targets are placed side by side 7m in front of the mantlet so that distance between the centre of the targets is 600mm. Sockets should be flush with the range floor, constructed from timber and must not contain ricochet inducing materials.
- 5. **Flank lanes.** The flank lanes are not to be used in front of the mantlet unless confirmed by survey that the appropriate cone of fire can be applied safely.
- 6. **Shoot in boxes.** Individual lane shoot in boxes are not large enough to capture the rounds safely as they could strike the mantlet between them at the closer engagement distances. The areas in between must be replaced with sand so that a continuous shoot in box is provided. In addition to timber at the top and bottom of the shoot in box, it is recommended that timber demarcation boards are positioned at 34 degrees between the lanes to assist sand retention. This will also act as a datum for maintenance staff and assist inspectors.
- 7. **Target height.** All CQM LF practices are from the standing position with the exception of a transition from rifle to pistol practice that is kneeling. In order that gallery range 70 mils QE_{MAX} restriction is not exceeded, the upper aiming mark of the CQM targets must be no higher than 1.5m above the range floor. The pistol 3m kneeling engagement is to be at the lower aiming mark only to ensure that the rounds are captured safely.
- 8. **LMG.** It is recommended that LMG CQM LF practices are not conducted on gallery ranges due to the likelihood of increased infrastructure attrition, however it is possible and TAS should be consulted in the first instance.

ET(IM), G&Z range and all other FDA 5.56, 7.62 and 9mm CQM practices

9. **Danger area templates.** In order that CQM LF practices may be conducted on full danger area ranges an appropriate template must be applied. To assist planning, <u>indicative</u> additions to 5.56/7.62mm template widths are shown in Table 1 below. As a matter of course a 60 mil azimuth cone of fire should be applied to accommodate rifle and LMG CQM. On ranges that are restricted for space it may be possible to permit single shot rifle practices rather than discount CQM entirely as it requires less room.

Ser	Practice	Engagement type	Flank addition to the rear of the danger area	Azimuth cone of fire	Remarks
1	Rifle/carbine static to static target	Single shot	200m to each flank	40 mils	Required for ACMT
2	LMG static to static target	Automatic	250m to each flank	60 mils	
3	Rifle/carbine/LMG moving to static target	Single shot and automatic	400 m to each flank	120 mils	Firing whilst closing

Table 1 – Indicative flank additions to existing FDA templates

10. **Target positioning.** The target line should be 25m forward of the main firing point so that the crest board is not a trip hazard to the firer, nor is there a need to negotiate the front slope during a firing whilst closing practice. The distance will also allow 25m LF practices from the main firing point utilising the same target sockets and so reduce the infrastructure requirement¹. The distance between target centres is to be 600mm so that each target is 300mm either side of the lane centre line.

¹ Additional target sockets are required for LNV practices and lane markers are required to indicate the 15m, 10m, 5m and 3m firing points.

- 11. **Damage to existing target infrastructure.** The likelihood of shot damage to existing 100m target infrastructure is increased the further forward the CQM target line is positioned. TAS advice should be sought if there is a requirement to position a CQM target line further forward than 25m from the main firing point. RAUs should check whether the 100m target line coffin lids have sufficient protection from the CQM firing points in both the open and closed positions.
- 12. **Target height.** For commonality across all range types, the upper aiming mark should be 1.5m above the range floor. However, the only limiting factor on FDA ranges is the 150 mil QE_{MAX} restriction so there is scope to raise the targets higher. It is essential that the ground up to 25m beyond the target line is checked for stones or other hazards that could produce a ricochet from unintentional low shot.
- 13. **Limit of advance.** The maximum limit of advance required for an ETR is 52m from the main firing point to accommodate the Fire and Movement Test.²

LMG MMTTR practices

14. LMG LF practices require an azimuth cone of fire increase from 60 mils to 90 mils for accommodate automatic fire.

Barrack range 5.56, 7.62 and 9mm CQM practices

15. There are no changes to current guidance.

Original Signed

Lt Col (Retd) N Inglis MBE Msc C1(MSF) Technical Officer Technical Advisory Section (TAS)

Copy to:

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Ch RSIT* All LTARs*

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² There are no engagements of Fig 11 targets at 75m, therefore the 125m limit of advance from the main firing point to engage the 200m target line is no longer required.