Predeployment Collective Training under lockdown: lessons learnt from the COVID-19 pandemic

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ABSTRACT

Completing meaningful and high-fidelity Collective Training during the COVID-19 pandemic presents an entirely new set of challenges to both the Chain of Command and supporting medical assets. Under Project PHOENIX, the Field Army will gradually phase the return of Collective Training, starting with Deployed Operation Force Generation. This article describes the personal experiences and challenges faced by 1st Battalion Coldstream Guards Battle Group and the Mission Training and Mobilisation Centre to enable the Operation SHADER 11 Mission Rehearsal Exercise, the first Collective Training the Field Army completed during the national lockdown.

Key messages

- Service Personnel should not attend Collective Training if they, or any of their family household, are classified as 'vulnerable' as per the Service Occupational Health or Public Health England guidance.
- Dividing exercising troops and training staff into distinct 'Households' and smaller 'Sub-Households' that adhere to social distancing aims to prevent the transmission of COVID-19 and facilitate rapid contact tracing while enabling realistic training.
- When organising sleeping arrangement in multioccupancy accommodation, anticipate the effect if an entire block is quarantined and plan accordingly.
- Be prepared to use rations, packed lunches or set up a second kitchen to facilitate timely meals when catering 'socially distanced' for hundreds of troops in one location.
- COVID-19 testing on-mass and pre/post-training isolation are effective mitigation strategies but they require significant infrastructure to facilitate.

INTRODUCTION

On 23 March 2020, the UK Government implemented a national lockdown to slow the global pandemic caused by SARS-CoV-2 (COVID-19).[1] It is well recognised that military establishments and activities provide favourable conditions for the spread of communicable diseases due to the dense living proximities and frequent social interaction.[2] Consequently, during lockdown, non-operational military undertakings in the UK and overseas paused and communal living adapted drastically to accommodate 'social distancing'.

Project PHOENIX (Pj. PHOENIX) describes how the Field Army will continue to respond to COVID-19, maintain directed outputs (for example supporting civilian authorities) and resume a 'new normal' while adhering to national guidance and adapting to the challenges that COVID-19 poses.

The first Collective Training that the Field Army conducted was undertaken by the 1st Battalion Coldstream Guards Battle Group (1CG BG) as final preparation for their impending deployment to Iraq in late Spring 2020 on Operation SHADER 11 (the UK's ongoing intervention against so-called 'Islamic State'). This training was authorised, despite the lockdown, as it was considered critical in order to properly prepare soldiers for imminent deployment to a high-threat operational environment. Run by the Mission Training and Mobilisation Centre (MTMC), the battle group assembled at the end of April 2020 to complete their 12-day Mission Rehearsal Exercise (MRX).

This article, written by the Medical Officer for 1CG BG, outlines measures taken by the stakeholders to mitigate the impact of COVID-19 on the MRX and the challenges that these presented. It goes on to look at the sequence of events that followed a possible case outbreak and the considerations that other training establishments are implementing.

THE MRX

There was, understandably, considerable interest in the MRX from the highest levels of the British Army. To reduce the COVID-19 risk to 'As Low As Reasonably Practicable' while still delivering high fidelity training, MTMC, the Field Army's Collective Training Group and 1CG BG collaboratively implemented a number of mitigation measures. They can be divided into predeployment (Box 1) and deployed (Box 2).

Predeployment mitigation measures

The predeployment mitigation measures reduced the individual's risk of morbidity/mortality secondary to COVID-19 infection as a result of the MRX, and the potential risk to family members who contract the infection following the return of an asymptomatic Service Personnel (SP) post-MRX.[3]

The first challenge this presented to commanders was a 4% reduction in the number of deployable troops. This was widely accepted as an appropriate step, and in the authors opinion, the most important measure to reduce the possible impact that COVID-19 had on SP and their families a result of conducting the Collective Training.

Deployed mitigation measures

On arrival, all personnel were given a safety brief and aide memoire (Figure 1) by MTMC, including location of isolation facilities and reporting procedure if symptoms developed. All members of MTMC and 1CG BG were to remain on the training area to reduce the risk of spreading a new source of infection to/from the local population.

Every day, at each meal time, all SP conducted strict hand hygiene (using soap and water) and had their temperature measured using an InfraRed thermometer. No fever (>37.8°C) was recorded during the MRX.[4]

Social distancing was a further mitigation measure employed. This presented a unique and novel challenge to deliver realistic predeployment training. SP involved on the MRX were separated into different 'Households', identified by coloured wristbands worn at all times:

- Household 1. 1CG BG and Role Play Troops (RPT).
- Household 2. MTMC Staff and MTMC Contractors.
- Household 3. Defence Infrastructure Organisation (DIO) and Support Services (ESS).
- Household 4. Visitors.

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Box 1 Predeployment mitigation measures

- SP not to attend if they are 'Vulnerable' as per Service Occupational Health and Public Health England (PHE) guidance.
- SP not to attend if they have a family member in their immediate household who is 'Vulnerable' as per PHE guidance.
- SP not to attend if they are experiencing any symptoms of COVID-19 as per PHE guidance.

Household 1 was the largest, with hundreds of 1CG BG SP and approximately 100 RPT. To facilitate meaningful and realistic simulation during training serials, members of the same Household could interact with each other without adhering to social distancing. In this dynamic field exercise where individuals were free to decide on their actions, Household 1 comprised all those who could potentially interact together closer than 2 m. In effect, this allowed for the 1CG BG to complete authentic rehearsals for their impending deployment to Iraq, that is, handling of kit, teams driving together in armoured vehicles and delivering hands-on treatment of casualties simulated by RPT. However, any interaction between members from different Households had to maintain social distancing and a 2 m separation.

Social distancing presented novel problems for the logistics team. As has been experienced across multiple military establishments, catering on the MRX involved long queues while the DIO Household served food to the 1CG BG Household individually and at 2 m separation. To soften this burden, packed lunches were issued from day 2 and a field kitchen was established on day 3, thereby dropping the numbers needed to flow through each hot plate and significantly reducing the time taken to feed everyone.

Box 2 Deployed mitigation measures

- COVID-19 safety brief and aide memoire given to each SP on arrival.
- All SP to remain on training area for the duration of the MRX.
- Temperature (using infrared forehead thermometer) checked before breakfast and dinner.
- Strict soap and water hand hygiene at all meal times.
- SP allocated into 'Households'. Social-distancing of 2 m between 'Households'.
- Predesignated isolation facilities on camp for individuals who become symptomatic.
- Occupy all available accommodation to minimise numbers of SP in each multioccupancy room.

MANAGING A POSSIBLE CASE OF COVID-19

Six days into the MRX, a SP presented with nocturnal fever and rigours. On the presumption that this could be COVID-19, he was immediately moved to the predesignated isolation facility (where a set of normal observations were taken) and the 1CG BG began to contact trace. The patient joined the MRX on day 4 and thus had only been on camp for 36 hours.

The other members of his accommodation block, the driver who brought him to the training area and the SP who had shared an armoured vehicle (on the single day's training the patient had completed), were segregated and moved to second isolation facility. All close contacts were from the same Squadron and those who had shared accommodation, including the patient, were Junior Non-Commissioned Officers. As there was not enough space for individual self-isolation, the segregated group remained together. As the patient had only been on the MRX for 36 hours, it can be reasonably assumed that those who were identified through the contact tracing would not yet be symptomatic (or shedding the virus) themselves.[5]

As the patient was clinically well, he was returned to his unit to isolate (using the same driver), in a minibus with the windows open with PPE worn by both the driver and the patient. Due to the high reported false negative rates in nasopharyngeal COVID-19 swabs,[6] the patient was tested at two locations over the following two mornings. The tests were booked using the Key Worker COVID-19 test booking website.[7]

While the results were pending, the other individuals remained segregated from the 1CG BG. At the point where it was felt no more meaningful training could be achieved, they were allocated a minibus and removed from the MRX to complete isolation in their own (single living) accommodation.

Both of the patient's COVID-19 tests returned as negative and none of the segregated SP developed symptoms.

TRAINING FIDELITY AND LOGISTICS: BALANCING THE COVID-19 RISK

The Army has a duty of care both to protect SP from COVID-19 and to properly prepare them against the threats faced on deployments to high risk areas. For 1CG BG, imminently deploying to Iraq, these dangers include rocket attacks, small arms fire and improvised explosive devices. The author believes there are three competing factors that influence the planning and conducting of authentic, large scale, face-to-face Collective Training during this pandemic (Table 1).

Commanders must balance these three factors against each other while minimising the potential negative unintended consequence, for example:

1. Normal face-to-face training with no extra COVID-19 logistical infrastructure would facilitate excellent preparation against the risks of deployments but could propagate COVID-19 between SP. Multiple individuals becoming unwell would have a widespread negative impact on operational effectiveness as well as public perception.
2. Having unlimited logistics to support anti-COVID-19 best practice results in unrealistic training and an increased risk to SP on Operations due to being underprepared.
3. Realistic training with acceptable anti-COVID-19 measures requires extensive and burdensome logistical support, additional budget and time.

Ultimately, the commander, with input from their medical support, needs to arrive at a level of training that will still be acceptable and meaningful to those completing. To achieve this safely, units must work within the boundaries imposed by logistical support and practice proportional anti COVID-19 practice.

OTHER NOVEL APPROCHES TO COVID-19 MITIGATION

Further segregation

Extrapolating the 'Household' strategy used on the MRX, conventional infantry regimental structure lends itself to further segregation, for example, into Section or Platoon 'Sub-Households'. While this could not be implemented on the MRX due to the unpredictable, free-play nature of Mission Specific Training, the proposed Section-Household would live, train and eat together without stringent requirement to maintain social distancing, but

COVID-19
Op SHADER 11 MRX Aide Memoire

The Op SHADER 11 MRX is taking place as in accordance with AHQ direction to continue with training for CJO directed operations with no reduction in standards. All participating personnel: Troops under Training, COEFOR, MTMC staff, Real Life Support and Contractors have been required to take all possible measures to minimise the risk of infection being brought onto the exercise. We must now all play our part personally to minimise the chance of transmission while still completing the vital training that will prepare you for the challenges that you may face when operationally deployed.

Comd MTMC

What is the risk of catching the disease?

NHS Guidance states that contact risk increases if within 2m of an infected person for 15 mins.

You can protect yourself and others, by:

- Carry tissues, cover your mouth and nose with a tissue or your sleeve (not your hands) when you cough or sneeze.
- Put used tissues in the bin immediately.
- Wash your hands with soap and water often - use hand sanitiser gel if soap and water are not available.
- Don't touch you face if you have not washed your hands
- Avoid close contact with people who are unwell.
- Being vigilant, know the signs and symptoms.
- Report contact with someone who is suspected of having disease.

Symptoms

- A new persistent cough
- A temperature above 37.8 degC
- Fever

What do I need to do if I am unwell?

- Be honest, this is not a time to work through the illness.
- Don't spread to others – isolate in the STANTA isolation rooms.
- Inform your chain of Command.
- Be prepared to self-isolate (7 days).
- Be prepared to be RTU from the exercise to self-isolate under Unit arrangements.

What do I do if someone in your team is suspected of having COVID-19?

- Advise them to minimise contact with others.
- Move them to the STANTA isolation rooms.
- Inform your CoC.
- Prepare for them to be RTU to Unit isolation.

Figure 1 The COVID-19 safety aide memoire given to each SP on arrival to the MRX. AHQ, Army Head Quarters; MRX, Mission Rehearsal Exercise; MTMC, Mission Training and Mobilisation Centre; SP, Service Personnel; CJO, Chief of Joint Operations; COEFOR, Contemporary Operating Environment Force; CoC, Chain of Command; RTU, Return to unit; STANTA; Stanford Training Area.

adhere to a 2 m separation from other 'Sub-Households' and wider 'Households'. The benefit of this model is 'hands on' training at a section/platoon level with rapid and confident contact tracing and subsequent isolation should a single SP become symptomatic during Company-plus sized Collective Training.

Grading of activities

Some Training Establishments across defence have started grading activities according to their adherence to social distancing.[8] This gives commanders a guide to what can and cannot be achieved at different risk levels:

Green: 2 m rule not broken.
Amber: 2 m rule broken periodically.
Red: 2 m broken and equipment shared.

Pre/post-training isolation and mass testing

Individually isolating all SP before and/or after Collective Training (with or without mass testing) requires significant infrastructure to support, additional time and most importantly buy-in from all SP. Testing SP before and after Collective Training could prevent asymptomatic positive SP commencing and evidence the effectiveness of mitigation strategies employed throughout.

CONCLUSION

Completing meaningful and high-fidelity infantry Collective Training while perfectly adhering to anti-COVID-19 best practice is not feasible. However, by implementing a number of risk reduction modifications and accepting the resource burden that accompanies them, commanders can decrease the impact that COVID-19 could have on large-scale exercises.

Op. SHADER 11 MRX was the first collecting training that the Field Army completed during lockdown and required significant planning and logistical support to enable whist adhering to anti-COVID-19 measures. Although there were no outbreaks of symptomatic personnel either during or after the MRX, without mass testing of 1CG BG and MTMC, it cannot be known how successful the implemented policies were in preventing/limiting COVID-19 transmission.

As Pj. PHOENIX continues, other commanders planning face to face training will undoubtedly face similar obstacles. Collectively, there is a growing body of guidelines and suggested techniques for returning to work across both civilian and military settings, and the learning points from this MRX will feed into these.

Table 1 COVID-19 specific factors influencing training

Realism of training	What are the objectives of the training and how imperative is it to the SP to learn/practice these skills? Face-to-face and hands-on versus distanced and online
Anti-COVID-19 measures	Social distancing, individual personal protective equipment, single use training aides, cleaning shared equipment and so on.
Additional burdens of supporting logistics	Finance for extra coaches to support SP movement, extra accommodation, provision of cleaning products, extra catering facilities, COVID-19 testing availability, preactivity and postactivity isolation.

SP, Service Personnel.

Whether it is organising a range day, parachuting onto a drop zone or initiating a deliberate attack, military commanders have and will continue to balance risk against desired effect. Until a definitive solution is established (such as a successful vaccine), the impact of COVID-19 will undoubtedly form a significant proportion of each commander's risk assessment.

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