

Industry Engagement Day

Call to Action

Range Safety, Planning & Management (RSPM)

Help to form the tender approach

Shaping the final requirements

Assessing affordability

Assessing whether the project is deliverable to desired timelines

Challenge MOD assumptions and dependencies

Identify technology and delivery risks not already covered

We will collect your feedback through Slido and the post event questionnaire to help inform the above.



Range Safety, Planning and Management (RSPM) Industry Engagement Day

Friday the 5th September 2025 TechUK

Presented by: Army/ Defence Equipment & Support (DE&S)

Senior Responsible Owner (SRO): Brigadier Nick Serle

Requirements Manager: Major Alex Rickard

Commercial Manager: Jack Morgan

Project Manager: Sophie Barlow



Agenda

Item	Personality			
Overview of RSPM Programme	Senior Responsible Owner (SRO): Brigadier Nick Serle	15		
User need and problem Statements	Requirements Manager: Major Alex Rickard	30		
Integrated Life Support	Project Manager: Sophie Barlow	15		
Comfort break				
Commercial: Procurement approach and caveats	Commercial Manager: Jack Morgan	15		
Finance overviewProject timelinesFurther engagement	Project Manager: Sophie Barlow	15		
Closing remarks	Brigadier Nick Serle	5		



Slido

Range Safety, Planning & Management (RSPM)

Please use Slido throughout the presentation. These will be grouped thematically after the event and answers will be published on DSP.

Opportunities for conversations over coffee and lunch

#3839541





Fus Dean Griffiths

14 Sep 2011

Lydd Ranges using shoot-through house

Rgr Micheal Macguire

2 May 2012

Killed by machine gun over-head fires, Castlemartin Ranges, Pembrokeshire LCpl Joe Spencer

1 Nov 2016

Sniper Operator's Course, Tain Air Weapons Range Pte McPherson

22 Aug 2016

LFTT exercise Heely Dodd Range, Otterburn

Sgt Gavin Hillier

4 Mar 2021

1st Bn WG, Safety Supervisor for night Coy live fire, Castlemartin Ranges



Welcome from the SRO

Range Safety, Planning & Management (RSPM) Context:

Risk reduced As Low As Reasonably Practicable (ALARP).

Training improved through maximum possible exploitation and efficient use of resource.

Need:

Planning: using digital tools to reinforce long-standing methods.

Safety: enhancing the Safe System of Work by employing monitoring technology.

Management: exploitation of historical data improving training and investigative process.









Single Statement of User Need

Range Safety, Planning & Management (RSPM)

The User requires a capability to **plan**, **conduct**, and **review** Dismounted Close Combat (DCC) **live-fire tactical training (LFTT)** activities across UK and overseas ranges. The system must enable the creation, submission, authorisation, and secure retention of compliant digital traces, in accordance with Defence Safety Authority (DSA) Regulations¹ and Training Regulations². It must provide enhanced situational awareness for range safety staff. The system must support After-Action Review (AAR) by integrating historical activity data and allow access via Defence Gateway on both MOD and civilian devices.

Footnote:



^{1.} Defence Safety Authority (DSA) Ordnance Munitions and Explosives (OME) Part 3: Ranges

^{2.} Pamphlet No.21 Training Regulations for Armoured Fighting Vehicles, Infantry Weapon Systems and Pyrotechnics and Operational Shooting Policies 1, 2 & 3

Single Statement of User Need

Range Safety, Planning & Management (RSPM)

Plan

The legacy reversionary methods of planning DCC live-fire activity, whilst considered safe, can be made more efficient.

Conduct

Incidents and fatalities have occurred during live-fire activity for multiple reasons, often compounding. Situational awareness of range safety staff has been cited as a Contributory Factor, especially at night.

Review

To garner the most benefit from any live-fire exercise there needs to be feedback, formal and informal to those involved with all stages of the training.



^{1.} Defence Safety Authority (DSA) Ordnance Munitions and Explosives (OME) Part 3: Ranges

^{2.} Pamphlet No.21 Training Regulations for Armoured Fighting Vehicles, Infantry Weapon Systems and Pyrotechnics and Operational Shooting Policies 1, 2 & 3

Problem statements [1/3]

An efficient range planning and management process: The legacy reversionary methods of planning DCC live-fire activity, whilst considered safe, can be made more efficient.

- The RSPM capability will aid in all stages of the Range Danger Area (RDA) Trace production, revision, authorisation and retention. Digital tools will aid during a recce of the Live-Fire Tactical Training (LFTT) Area such that the Planning Officer is able to begin construction of RDA Trace through calling upon the library of Weapon Danger Area(WDA) Templates and combining with plots of firing points, lines or areas. The RDA Trace will be submitted digitally to the Range Authorising Unit (RAU) who will give confirmation that the Planning Officer is authorised to subsequently conduct live-fire training.
- Where there is no formally established Range Control (almost exclusively when conducting Overseas Training Exercises (OTX)), the RSPM capability will still aid in the live-fire planning process. It will have the ability to nominate expert users (advisors of the Small Arms School Corps (SASC)) as the RAU.
- The RSPM capability will aid in the production, retrieval, authorisation and storage of supporting instructions including, but not limited to; Range Action Safety Plan (RASP), admin instructions, e.g ammunition, stores, transport and feeding, any additional Risk Assessment applied to the exercise.

Assumptions:

Training

Reversionary methods of range planning will remain being taught alongside RSPM digitally enabled tools.

- Train-the-trainer (TTT) will be delivered by the contractor at the establishments responsible for delivering LFTT planning qualifications (Commando Training Centre Royal Marines, Infantry Battle School).
- RSPM will be included in the online annual refresher training mandated by in-service live-fire training policy.

Submission of RSPM planning products to Range Authorising Unit (RAU) will be via the Defence Gateway hosted application.

RSPM will have the ability to create accounts for users who have previously been awarded LFTT planning qualification, having first attended a face-to-face training delivery.

Equipment:

'RSPM will allow the User to draft the RDA Trace whilst conducting the recce of the LFTT Area, using either their Personal Electronic Device (PED), a MODNET terminal, or the COTS ruggedised PED (later used for tracking) in a 'planning' mode with access to Defence Gateway.

Doctrine

- RSPM planning will incorporate all in-service weapon systems as contained within Pamphlet No.21 (Training Regulations for Armoured Fighting Vehicles, Infantry Weapon Systems and Pyrotechnics. ("Pam No.21")) Chapter 9 and;
 - Operátional Shooting Policies 1,2,3:Individual Weapon Systems (SA80 system, L129A1, Service pistol), Machine guns, Command Detonated Munitions, Grenades, 40mm Underslung Grenade Launcher, Light Mortar, 81mm Mortar, Light Anti-Armour/Anti-Structure Munitions, JAVELIN (ATGW) (and subsequent updated weapon systems within four weeks from inclusion within Pam No.21).

Information:

- Ability to produce Range Danger (RDA) Trace for those twenty-one LFTT Permanent Training Ranges (PTR) UK Defence Training Estate (DTE) locations, as specified in JSP 907, and also those overseas locations designated as PTRs.
- Ability to draft, submit, update, authorise and retain electronically: RDA Trace and associated MS Word documentation (Range Action Safety Plan (RASP), Daily Range Summary) for each live-fire range activity conducted.



An efficient range planning and management process

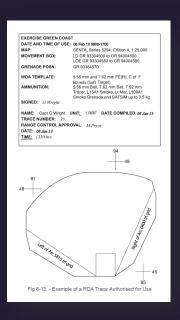
The legacy reversionary methods of planning DCC live-fire activity, whilst considered safe, can be made more efficient.

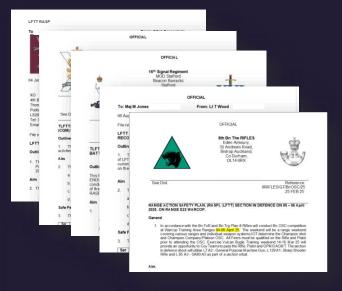






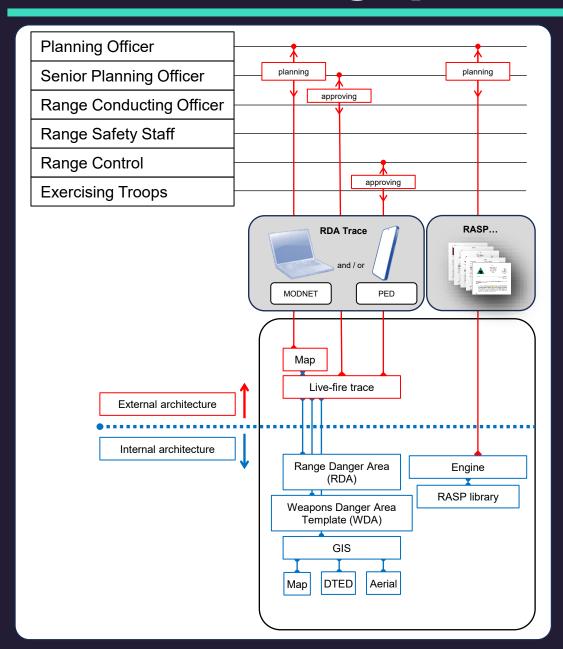








An efficient range planning and management process



- Range Danger Area (RDA) Trace production revision, authorisation and retention.
- Aid during a recce of the Live-Fire Tactical Training (LFTT).
- Aid in the production, retrieval, authorisation and storage of supporting instructions;
 - Range Action Safety Plan (RASP), admin instructions, e.g. ammunition, stores, transport and feeding, any additional Risk Assessment applied to the exercise.





Problem statements [2/3]

<u>Situational awareness and enhancing safety of live-fire activity:</u> Incidents and fatalities have occurred during live-fire activity for multiple reasons, often compounding. Situational awareness of range safety staff has been cited as a Contributory Factor, especially at night.

- RSPM Hardware will be organic to the Defence Training Estate (DTE) location and stored as part of Defence Infrastructure Organisation (DIO)-operated estate.
- The RSPM capability will gather information upon targets' and exercising troops' locations and provide this to all non-exercising personnel involved in the conduct of the range, including Safety Staff. The latency of such information will be such that Safety Staff situational awareness can be aided as to the current locations of all instrumented persons and targets within the RDA Trace.
- RSPM will provide information as to the unsafe aiming direction of any direct-fire and indirect-fire weapon instrumented as part of LFTT during the period of the live-fire activity.
- This will be done in a way as to not impede with the tactical exercise scenario.

Assumptions:

Training:

- The training burden for fitting of RSPM hardware should be minimal and included within the existing LFTT planning qualification.
- Any Level 1 user maintenance should be minimal and delivered to those DIO workforce responsible for the upkeep of LFTT areas.

Equipment:

- RSPM hardware will be stored securely at each LFTT Area, along with any necessary spares to allow for suitable levels of reliability and availability.
- Barrel telemetry technology is assumed to be COTS version of Inertial Measurement Unit (IMU). Hardware that presents personnel and target locations to LFTT safety staff assumed
 to be COTS PEDs.
- Target instrumentation assumed to be Location of Miss-and-Hit (LOMAH) hardware as Government Furnished Asset (GFA).

Personnel:

Any contractor workforce burden associated with the fitting and operation of the RSPM hardware used during LFTT will be minimal so as not to create undue delay in training.

Logistic:

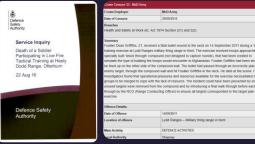
The RSPM LFTT software must be capable of running concurrently at each of the (No.21) UK DTE LFTT areas as specified in JSP 907. Each LFTT Area location should have the ability to instrument 45 exercising personnel (Infantry PI with support weapons) and 22 Safety Staff.



Situational awareness and enhancing safety of live-fire activity

Incidents and fatalities have occurred during live-fire activity for multiple reasons, often compounding. Situational awareness of range safety staff has been cited as a Contributory Factor, especially at night









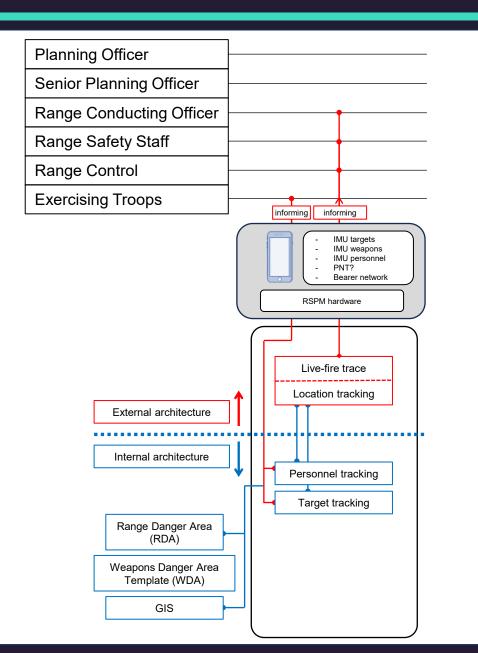








Situational awareness and enhancing safety of live-fire activity



- Location tracking (players, targets, safety, danger area)
- Aiming direction (unsafe practice, DCC weapon systems)
- Hardware will be organic to the Defence Training Estate (DTE) location and stored as part of Defence Infrastructure Organisation (DIO)-operated estate.

Problem statements [3/3]

<u>Quantification of lethality:</u> The imperative for the DCC operative is to become more lethal and this begins with the fundamentals of marksmanship training. The aim of live-fire training is to provide a realistic tactical setting to train firers and team leaders in the skills and procedures necessary for operations. This can be shortened into the adage '**Train how we fight**'. To garner the most benefit from any live-fire exercise there needs to be feedback, formal and informal to those involved with all stages of the training.

RSPM After-Action Review (AAR) levels:

- 1. Immediate feedback. RSPM will provide immediate feedback to those COTS PEDs detailing when targets have been correctly engaged and by whom.
- 2. Hot de-briefs. Upon pausing or completion of live-fire activity, RSPM will provide, via those COTS PEDs, the ability to present visually the historical locations of all personnel and targets within the RDA Trace and target suppress and/or hit records.
- 3. Formal After-action Reviews. Within thirty minutes of activity completion, RSPM will provide the ability to present visually, more complete data including time to engage target following exposure, firer-to-target allocation, suppress/hit data of targets.
- **4. Longstanding data retention**. LFTT conduct produces documentation that must be retained for ten years. RSPM will either;
 - a. produce historical data in a format that can be exploited with no bespoke or specialist software, that can be retained within MOD data services for the necessary period, or
 - b. retain the data within RSPM in an organic format but maintain the ability to exploit data for the necessary period.

Assumptions:

Training:

- Interrogation of historical location data for AAR Levels 1,2,3 (see above) to be intuitive and not restricted to those personnel holding the LFTT planning qualification.
 - Equipment:
- Level 1 and 2 AAR to be possible using COTS PEDs as part of RSPM hardware.
- Level 3 AAR to be possible through Defence Gateway. Level 4 AAR to be possible via either Defence Gateway or requests to Army Data Warehouse (ADW).
 - Information
- · RSPM will have ability to database information into the ADW.
- RSPM will provide a training 'Sand Pit' to be used within the training environment such that Range Authorising Unit responsibility is afforded to those delivering the training.



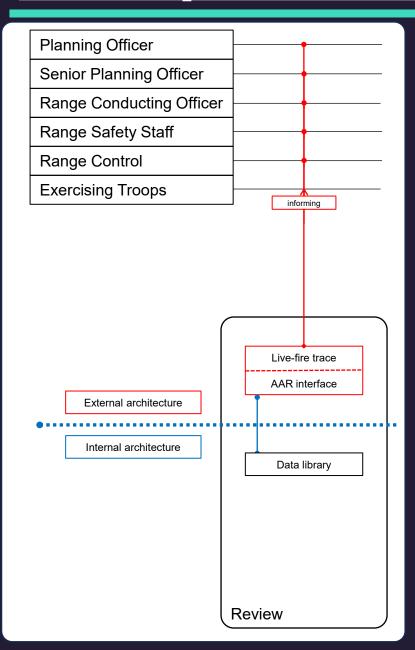
Data exploitation / Quantification of lethality

The imperative for the DCC operative is to become more lethal and this begins with the fundamentals of marksmanship training. The aim of live-fire training is to provide a realistic tactical setting to train firers and team leaders in the skills and procedures necessary for operations. This can be shortened into the adage '**Train how we fight**'. To garner the most benefit from any live-fire exercise there needs to be feedback, formal and informal to those involved with all stages of the training.

After-action Review (AAR)		
Level 1	Immediate feedback	- 'Fall when hit'- Isolated (not cohered)- Not universal
Level 2	Hot de-briefs	Team-level,GenericSubjective
Level 3	Formal After-action review	DiscreteSpecific exercisesSingle AAR event
Level 4	Longstanding data retention	Formal investigationIM/IX unique to each organisationRepetitive production of planning documents



Data exploitation / Quantification of lethality



RSPM After-Action Review (AAR) levels:

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Need summary

Range Safety, Planning & Management (RSPM)

The User requires a capability to plan, conduct, and review Dismounted Close Combat (DCC) live-fire tactical training (LFTT)activities across UK and overseas ranges.

- 1. The system must enable the creation, submission, authorisation, and secure retention of compliant digital traces, in accordance with Defence Safety Authority (DSA) Regulations¹ and Training Regulations².
- 2. It must provide enhanced situational awareness for range safety staff.
- The system must support After-Action Review (AAR) by integrating historical activity data and allow access via Defence Gateway on both MOD and civilian devices.



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Range Safety, Planning & Management (RSPM)

The RSPM Capability will require a Through Life Support (TLS) solution to maintain the capability's availability for planned training exercises with consideration to the following:

- Identification of RSPM Capability TLS solution needs and requirements to assess and assure the RSPM Capability's operational availability through an analysis of Integrated Logistics Support Elements, in accordance with Def-Stan 00-600.
- TLS demonstration of RSPM Capability for Initial Operating Capability (IOC) Readiness.
- TLS solution maturity assurance for agreed Logistics Support Date (LSD).
- In-service Support (ISS) readiness for IOC and scaling to Full Operational Capability (FOC).
- TLS planning and management consideration for capability updates, modifications, and disposal from In-Service Date (ISD) to Out of Service Date (OSD).



Range Safety, Planning & Management (RSPM)

The RSPM TLS solution will need to identify and assess the supportability requirements and needs with respect to the Integrated Logistics Support (ILS) elements shared in Table 1, to communicate both the customer support solution requirements and the contractor support solution requirements for an integrated support solution for the end user.

Integrated Logistics Support Elements Def-Stan 00-600

Reliability and Maintainability (R&M)

Technical Information

Maintenance

Supply Support

Facilities and Infrastructure

Support and Test Equipment

Training and Training Equipment

Support

Inservice Monitoring

Configuration Management

Obsolescence Management

Disposal Management

Software Support

Table: 1

The aim is to identify, assess, and communicate the RSPM Capability's support solution needs and requirements to enable RSPM Capability's availability for training exercises with minimal disruption.



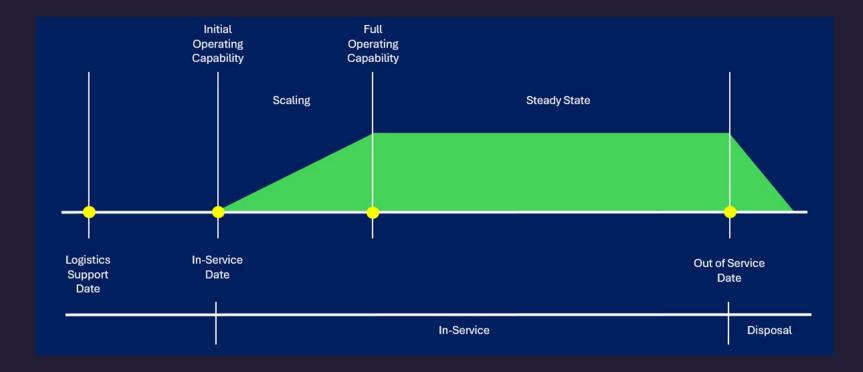
Range Safety, Planning & Management (RSPM)

The RSPM TLS Solution will identify, assess, design, and develop a suite of appropriate demonstrations to enable the following:

- In-Service Support Solution (ISS) is assessed and verified for ISD.
- · Identify and clarify customer and supplier points for In-Service Monitoring and optimisation.
- Enable planning, management, and communication for ISS IOC to FOC Scaling in line with RSPM Capability
 Scaling to Defence Training Estate (DTE) FOC Target.
- Identify customer and supplier TLS Solution points for DOWNTIME Optimisation.

Range Safety, Planning & Management (RSPM)

RSPM Capability assumes that the RSPM TLS Solution readiness is established three to six months before ISD (and IOC) at the current time to prepare and implement In-Service monitoring, training, maintenance, supply support, and physical logistics.



Range Safety, Planning and Management (RSPM)

The RSPM TLS Solution design and development strategy will be influenced by three simplified assumptions:

- Minimal training and maintenance at Level 1.
- Scaled training and maintenance to support a single Range to multiple Ranges.
- Technical Readiness Level of RSPM Capability assumed to be (High).

Early TLS Solution strategy paths will be shaped by initial assumptions to promote early engagement for support solution maturity for the following key ILS Elements with respect to the near-term and long-term capability needs and requirements:

ILS Elements - Near Term:

- Training and Training Equipment
- Technical Information

- Maintenance
- Support & Test Equipment

ILS Elements – Near Term to Long Term:

Configuration Management

Obsolescence Management

Disposal Management



Comfort Break

Range Safety, Planning & Management (RSPM)

Please use this time for a comfort break or ask us any questions about the Requirements and ILS problems presented so far.





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Commercial Caveats

- All information provided today will be available to all potential bidders (including anonymised supplier questions and Authority responses)
- All discussions and correspondence are on "Subject to Contract" and "Without Commitment" basis
- We do not intend any discussions to be legally binding until a written contract has been agreed and signed by those with authority to do so
- The MOD reserves the right and has no obligation to continue with the requirement following Preliminary Market Engagement (PME), and if a potential supplier or suppliers elect to act on any information received prior to or during the PME event, it is entirely at their own risk.

Commercial Considerations

- Procurement/Commercial strategy still in development subject to the outcomes of Preliminary Market Engagement
- Procurement will be competitive
- Possibility of utilising the SPARK Dynamic Purchasing System technology products and services via Crown Commercial Services (under the Simulated and Enhanced Environments category)
- Authority is also considering the use of Spiral Acquisition/Development
- Governing legislation is likely to be the Procurement Act 2023 unless SPARK is utilised which is governed by the legacy Public Contract Regulations.



Commercial Considerations

- Proposed length of contract is three years with two additional one-year options
- We are open to consortia and collaboration if necessary
- Anticipated to be Firm Priced contract (with milestone payments for any spirals of development)
- Small and Medium enterprise participation welcome
- Further formal announcements will be made via the Defence Sourcing Portal (DSP)
 and be available on the Find a Tender Service government website.

Commercial Considerations

Range Safety, Planning & Management (RSPM)

- Commercial Exploitation Levy may be included within the contract where technology development is financed by the Authority
- Key Performance Indicators will be used to monitor performance throughout the contract life.

For any commercial related questions please submit via Slido or via email which will be provided at the end of the presentation

Finance Overview

Range Safety, Planning & Management (RSPM)

Indicative budget: ~£15M over 10 years.

Includes ~ £5-7M for procurement of hardware/software, Plus in-year capability uplifts.

Funding source: Government

Cost breakdown under consideration- subject to refinement and finalised contractual length.

All costs are indicative and may change based on industry feedback and solution scope.



Cost Assumptions

Range Safety, Planning & Management (RSPM)

Key Cost Assumptions

Training & Support

Contractor-led TNA

Enduring Training Support

Train-the-Trainer Package

System & Equipment

RSPM System

Range Safety Package per range

Spiral Development

Expeditionary Range Safety Package

Service & Accreditation

MODNET Accreditation

RSPM Service & Support

Security Accreditation Coordinator

Other Costs

Mapping

Disposal

Market Research



Cost Assumptions

Range Safety, Planning & Management (RSPM)

The figures presented today represent our initial working assumptions based on internal modelling conducted at the inception of RSPM. Modelling was completed on a smaller scope, which has since grown.

M

We are actively seeking industry input to validate, refine, or challenge these estimates.

We invite industry to review and challenge the cost assumptions underpinning the RSPM Formal Change Request (FCR) Cost Model to ensure robustness, realism, and alignment with current market conditions in 2025.



Timeline and milestones

Range Safety, Planning & Management (RSPM)



Current indicative timeline (Subject to Change)



Preliminary market engagement : September 2025



Industry feedback closure: 29th September 2025



Refinement of requirements: Anticipated Q4 2025



Anticipated procurement launch: Anticipated Q1 2026



DE&S aims to shorten timeframes where possible based on solutions presented by industry.



Timeline and Milestones continued

Range Safety, Planning & Management (RSPM)

Phase	Key Milestones	Target Date for completion
Pre-Concept	Industry Day	5th September 2025
Concept	Procurement Launch	March 2026
Assessment	FBC	March 2027
Assessment	Contract award	Sept 2027
D&M	D&M activities	Sept 2028
In Service	IOC	FY 2028/29
In Service	FOC	FY 2029/30

We are looking to significantly reduce this procurement timeline. We are working with the internal Accelerating Commercial Pathways team to look at ways to reduce this. We welcome feedback and challenge from industry to identify opportunities to deliver a rapid procurement timeline.

Engagement and Feedback

Range Safety, Planning & Management (RSPM)

Slido- responses from the event will be grouped thematically and published on DSP.

A SharePoint questionnaire will be provided after the event.

feedback deadline 29th September

Responses published on DSP 19th October



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Call to Action

Range Safety, Planning & Management (RSPM)

Help to form the tender approach

Shaping the final requirements

Assessing affordability

Assessing whether the project is deliverable to desired timelines

Challenge MOD assumptions and dependencies

Identify technology and delivery risks not already covered

We will collect your feedback through Slido and the post event questionnaire to help inform the above.



How Can You Contact Us?

Range Safety, Planning & Management (RSPM)

Named contacts for commercial, technical and operational queries

RSPM Project Manager: sophie.barlow109@mod.gov.uk

RSPM Commercial Manager: jack.morgan208@mod.gov.uk

RSPM Requirements Manager: alexander.rickard649@mod.gov.uk

Linked access to the Sharepoint questionnaire:

https://forms.office.com/e/B2YgpdpJre

Link to SPARK DPS: https://www.crowncommercial.gov.uk/agreements/RM6094

Link to Supplier Knowledge in Defence Sign up: https://www.gov.uk/guidance/defence-procurement-useful-information



Closing Remarks from SRO

Range Safety, Planning & Management (RSPM)

Thank you for attending.

RSPM Industry Engagement Day-Industry Feedback Questionnaire



