

19th February 2021

Our reference QINETIQ/21/00571

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Request for Information- Electronic Range Management System

1 Request for Information

1.1 Background

1.1.1 This letter covers a Request for Information (RFI) for a study that is being conducted by QinetiQ Group Canada Inc. ("QinetiQ") for the Department of National Defence (DND) concerning considerations for air range modernization. Information is requested from suppliers of associated products or services.

1.1.2 QinetiQ, under contract to DND is currently exploring areas of improvement for Operational Training Infrastructure (OTI) around DND Training sites. In order to progress the program, industry is being invited to provide information of a general nature regarding capability, products and costs for supply of OTI services or products where OTI modernization may be a need or priority.

1.2 Key Notes To Industry

1.2.1 This information request is not a commitment to any current or future contract for services or products on the behalf of Canada or QinetiQ. Neither is it intended to imply any future procurement will take place. It is limited to providing product or service intelligence (whichever may be applicable) to understand if a procurement lifecycle could be readily achieved in the future. Any costs incurred by your organisation in reviewing this request letter, preparing for and providing a response shall be at your sole risk.

1.2.2 Any information provided by any supplier may be shared with Canada and QinetiQ's affiliates for the purposes of the Canadian Range Modernization Study, under DND Contract W6431-19LC01/002/TOR.

1.2.3 Any sharing with Canada of received information from interested parties or clarifications related thereto will be managed by QinetiQ and interested parties are explicitly requested not to contact Canada, including DND and PSPC, directly relative to this request.

1.2.4 QinetiQ may respond to information received with questions to clarify aspects of supplied information.

2 Request for Information - Instructions

2.1 Suppliers responding to this request (responders) are asked to provide the following information:

- Business Address;
- Contact Details;
- Short statement stating area of interest;
- Short Statement of scope of potential supply of goods or services;
- Indicative compliance statement against requirement herein.

2.2 Responses to this request should be supplied by email to Madison.Aubry@qinetiq.ca by the 16th March 2021 in order to be considered in the formulation of the study response.

2.3 Responders are requested to provide indicative or typical costs for an Electronic Range Management System (ERMS) including periodic maintenance of the software application. These costs will not be considered binding or an offer of any kind and indications of their basis would greatly assist in meeting the study objectives.

2.4 Responders are also requested to provide a description on how they would deliver the service associated with the information being provided, addressing the key requirements in Section 3 and 4 below.

2.5 Responders are requested to provide details on any systems additional capabilities not mentioned in Section 3 and 4 below.

3 Introduction to Electronic Range Management System (ERMS)

3.1 There may be a need for an Electronic Range Management System that provides the following key attributes:

- Provides the means for users to book geographical training spaces in a Geographical Information System (GIS);
- Provides the means for users to assign and distinguish geographical training spaces;

3.2 These key attributes lead to a software application that uses a GIS to display geographical bounded areas. These bounded areas in this case are training areas or training complexes that might be in use at a given time on any given day. In a GIS these are often displayed as Polygons. Users need to be able to book these polygons for future training events. While administrators of the system will need to review the bookings made by users and provide administration to the software application e.g. approve bookings and define polygons.

3.3 The scheduling functionality will allow training units to books training spaces on Ranges, while Range organisations providing facility management of the areas will be able to plan maintenance around training exercises booked in the ERMS.

4 ERMS Requirements

4.1 QinetiQ in consultation with DND has identified a number of potential top level ERMS requirements. These are provided for responders to consider and comment on in Table 4-1.

Requirement	Notes
The ERMS must allow target areas or training areas to mapped and booked.	ERMS must be able to generate polygons representing training areas or target areas. These must be bookable by ERMS users i.e. show scheduling of these areas.
The ERMS must be capable of displaying accurate airspace bookings and be able to display the future airspace control plan.	
The ERMS must be capable of displaying entities (personnel and vehicles) tracked in real time.	The ERMS must be capable of real time tracking of entities and displaying them as an overlay in the GIS. The data will come from another system separate from the ERMS.
The ERMS must be capable of displaying 3000 entities.	
The ERMS should be capable of displaying Ranges in a Graphical Information System providing a 2D or 3D solution.	Ranges refers to training areas that might be displayed as a polygon.
The ERMS must cater for multiple Ranges.	The ERMS must be able to cater for multiple DND sites. Each DND site may be subdivided into training areas

Requirement	Notes
The ERMS must be able of handling and creation of weapon templates i.e. generation, importing and exporting.	A weapon template is the weapon Maximum Energy Boundary of any particular weapon. It must be displayed in the ERMS GIS if called for.
The ERMS must allow Range Users to scroll through bookings i.e. past bookings and future bookings.	
The ERMS must allow a real time display of real time activity.	The ERMS must be able to display real time activity to Range Control or users of the system.
The ERMS must consider safety through a safety assessment.	Handling weapon templates and displaying the weapon templates correctly has a safety consideration. There is safety functionality from ensuring the weapon template is contained in the Range Danger Area and it cannot be incorrectly displayed.
The ERMS tool must consider software assurance levels to recognised standards.	
The ERMS application will need mounting on DND existing network and hardware.	The assumption is there will be a number of licences required for selected users to use the tool.

Table 4-1: ERMS Requirements - Top Level Design Requirements

5 Points of Contact

- 5.1 Responders wishing to brief on capability can do so on request to kirk.soroka@qinetiq.ca
- 5.2 RFI response should be sent to: Madison.Aubry@qinetiq.ca We thank you in advance for your consideration of this request.

Madison Aubry
QinetiQ Target Systems
#3 – 1735 Brier Park Rd NW
Medicine Hat, AB T1C 1V5
Canada

6 References

- 1. Chief of Land Staff, *Range Construction and Maintenance*, NDHQ Chief of Land Staff, B-GK-381-002/TS-001, 01/05/2005
- 2. Canadian Centre for Occupational Health and Safety, *Cold Weather Workers Safety Guide* 3rd Edition.

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