NAVIGATION EQUIPMENT SUPPORT - REQUEST FOR INFORMATION (RFI)

Ministry of Defence

de&s

Sense, Decide, Communicate
Command & Control, Targeting,
Navigation and Communications

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Subject:

The Navigation team seeks to continue the In-Service Support for Platform Data Management (PDM2 and PDM4) systems, Controlled Reception Position Antenna (CRPA), Precise Fixing System (PFS), NAVFIX system, Precise Time and Frequency Equipment (PTFE), and Fibre Optic Compass System (FOCS).

The purpose of this Request For Information (RFI) is to determine whether there is **interest in the market to deliver all, or part, of the In-Service Support and/or one-off spares buys** to the listed equipments. This will not define what is done, the purpose of this RFI is purely to obtain information.

The equipment support provided must be able to support the ships and submarines at all locations where operated and be deployable overseas.

Requested Return: 31 May 2025

RFI responses are required by the requested return date. Please direct response to the RFI issuer – Jordan Jones via the Defence Sourcing Portal (DSP).

A review of RFI responses will be led by the DE&S Navigation team. Other than for providing clarifications, the MoD will not provide feedback on any responses provided.

Background:

Defence Equipment & Support (DE&S) is a procurement agent for the Ministry of Defence (MOD) and acts as the contracting authority responsible for the establishment of suitable contracts with industry to provide the necessary capability to meet the needs of the Armed Forces.

The equipment is utilised at UK and overseas locations and deployed locations as required to support military operations.

This RFI is issued from the Command & Control, Targeting, Navigation and Communications Team (C2TNC) within the Sense, Decide, Communicate (SDC). This team is responsible for various navigation equipments across surface ships, submarines, and other wider domains. By maintaining situational awareness and providing accurate navigation support, the C2TNC Team contributes significantly to the overall success of maritime operations.

As part of this RFI we would like to gather information on five different capabilities within our Navigation portfolio. A summary of the equipment can be found below:

1) Platform Data Management (PDM)

The role of the PDM system is to receive Geospatial and Temporal Reference (G&TR) sensor inputs from the platform Gyro/Naval Compass Stabilisers, Ship's Log System and Wind Data System, and output this data in the required format to various navigation and weapon systems. Provision is also made for the input of simulated data and for transmission to various user equipments for training purposes. This role is generally common to all outfits of PDM.

The PDM equipments are fitted to Type 23 Frigates (PDM2) and Vanguard Class Submarines (PDM4).

2) NAVFIX

The NAVFIX capability is a military GPS equipment. It provides primary NAVSTAR GPS Precise Positioning Service (PPS) reception capability for integration into a range of legacy and future platforms and equipments to contribute to navigational safety, combat system effectiveness and force protection. The NAVFIX fits will vary depending on the shore location or class of ship they are fitted to.

NAVFIX is fitted to Type 23 Frigates, Landing Platform Dock Class Vessels, Offshore Patrol Vessels, Trafalgar Class Submarines, Vanguard Class Submarines, Hunt and Sandown Class Submarines and Royal Fleet Auxiliary.

3) Controlled Reception Pattern Antenna (CRPA) and Precise Fixing System (PFS)

In the presence of jamming in the GPS bands, the CRPA system antenna control the reception pattern of the antenna array in order to steer a null in the antenna pattern toward the source of the jamming to minimise the jammer power presented to the GPS receiver.

The role of the PFS system is to provide a mechanism to accurately position the ships weapon datum and to maintain a horizontal accuracy of +/-5m when operating with the Differential GPS service. When interfaced with the CRPA system, the PFS system provides improved GPS performance against “jamming”.

CRPA and PFS systems are fitted to Hunt and Sandown Class Minehunters.

4) Precise Time and Frequency Equipment (PTFE)

PTFE is used to provide a precise time and/or frequency to essential communication equipment and acts as a timing backup, should GPS be jammed by hostile forces. PTFE provides timing sources to, for example, 2QCD, ICS6, JTIDS and the Combat Systems Highway, as well as providing a frequency standard that allows operation of the spread spectrum frequency hopping secure communication system, Saturn.

The PTFE system is fitted to Type 23s, Type 45s, Landing Platform Dock (LPD), Fort Victoria, Collingwood training establishment and QinetiQ Communications Development Integrated Facility (CDIF).

5) Fibre Optic Compass System (FOCS)

The Fibre Optic Compass System (FOCS) is fitted to Type 23 Frigates, Hunt Mine Counter Measures Vessels (MCMV), RFA Auxiliary Oiler Replenishment (AOR) vessel, Vanguard-class submarines, and the land-based test, training and maintenance facilities.

The configuration units that form part of FOCs are as follows: MARINS INS/Gyro, SEIU/Keyboard, EIU/Keyboard, UPS, DSIU, SLD, SBOB, EBOB, MARINS Simulator and LM Adaptor, and MARINS M7 Shock Mount.

Request For Information:

Responses to this RFI are not contractually binding. No formal procurement process has been launched. The information received in response to this RFI is for information purposes only. All responses to this RFI will be held in confidence.

Respondents are encouraged to provide any additional observations and information that is believed to be relevant and supports meeting the requirement with their RFI responses.

1. Please confirm if your Organisation would have the interest and capability to support all, and/or part of, the listed equipment/requirement as part of a competitive tender. The commercial construct has not been formalised and could, for example, take the form of individual contracts, a Prime/Lots arrangement, or a Framework Agreement.

2. Please confirm any areas of In-Service Support that your Organisation could provide for any of the listed equipment (please refer to the Generic Statement of Requirement to support this question). Please include details of any other areas not shown:

    a. Repairs
    b. Maintenance and repairs support
    c. Spares (UK and overseas)
    d. Technical Support
    e. Upgrades
    f. Warranty Services
    g. Training
    h. Maintaining & Updating Technical Documentation
    i. Obsolescence Management
    j. Safety Management
    k. Work packages

3. Outside of ISS, please confirm if your Organisation could provide a one-off spares buy of any of the listed equipment.

4. With regard to meeting the requirement, please comment on your Organisation's state of readiness (for e.g. maintenance capability, repair lead times, spares availablilty).

5. Please describe how you would propose to best support the requirements identified in this RFI to the Authority. Please include details of any relevant experience, case studies, and certifications or accreditations that demonstrate your Organisation's capability to provide such support and/or one-off spares buys.

6. Please provide information regarding your Organisation's track record in handling obsolete equipment, your approach to managing obsolescence, and any specific strategies you employ to ensure the safety and reliability of the equipment.

Supporting Reference:

(1) Generic Statement of Requirement

APPENDIX 1

Abbreviations:

AOR	Auxiliary Oiler Refueller
C2TNC	Command & Control, Targeting, Navigation and Communications
CDIF	Communications Development Integrated Facility
CRPA	Controlled Reception Position Antenna
DE&S	Defence Equipment and Support
DSIU	Digital Synchro Interface Unit
EBOB	Ethernet Breakout Box
EIU	Electronic Interface Unit
FOCS	Fibre Optic Compass System
G&TR	Geosptial and Temporal Reference
GPS	Global Positioning System
INS	Inertial Navigation System
ISS	In Service Support
JTIDS	Joint Tactical Information Distribution System
LM	Lockheed Martin
LPD	Landing Platform Dock
MCMV	Mine Counter Measures Vessel
MOD	Ministry of Defence
PDM	Platform Data Management
PFS	Precise Fixing System
PPS	Precise Positiong Service
PTFE	Precise Time and Frequency Equipment
RFA	Royal Fleet Auxiliary
RFI	Request for Information
SBOB	Serial Breakout Box
SDC	Sense, Decide, Communicate
SLD	Surge Limiter Device
UK	United Kingdom
UPS	Uniterruptible Power Supply