



MOD Request for Information

Section 1: Contract Title:

Title attributed to the Contract by the Contracting Authority

Country

Town

Title of notice: **COMMON AVIATION SITUATIONAL AWARENESS (CASA) and PERFORMANCE BASED NAVIGATION (PBN) – Request for Information**

Section (DIO only)

Section 2: Contracting Authority

Name of Institution

MOD Organisation

Integrated Project Team (IPT)

Other Integrated Project Team (IPT): Click or tap here to enter text.

Official Name: Click or tap here to enter text.

National ID: *(In some European countries each contracting authority/entity is registered in 'Chambre de Commerce' and has a 'National ID'. This should only be entered if known.)*

Click or tap here to enter text.

Address Line 1: Chinook Delivery Team (Chinook DT)

Address Line 2: Teak 1, #5101

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Town: Bristol

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Country: UK

Contact Person: Mr J Pass

For the attention of: Click or tap here to enter text.

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Section 3: Object of the Request for Information:

Contracting Authority's file Reference number: CHC/651

Weblink to where further documentation can be obtained: Click or tap here to enter text.

Short Description of

Requirements:

Common Aviation Situational Awareness (CASA) including ADS-B Out:

To deliver a "carry on" Rotary Collision Avoidance Capability solution across multiple Joint Helicopter Command (JHC) platforms (Apache, Chinook, Wildcat, Dauphin and Merlin) with the Chinook Deliver Team (DT) acting as the lead DT for this requirement/procurement. Requirement to deliver 314 tablets and 61 base stations plus an appropriate unlicensed 10% spares by 31 Mar 2023. The requirement for a Common Aviation Situational Awareness (CASA) capability is to deliver a safety aid to Rotary Wing Aircraft to mitigate the operating risk of controlled flight into terrain, by reducing the risk of collisions with low-altitude obstructions and therefore, CASA is required to ensure Operating Safety risk is as Low as Reasonably Practicable (ALARP). The CASA solution is to deliver this by providing mapping information to allow aircrew to plan their flight routes so as to avoid software-highlighted obstructions which cause risk to the aircraft and environment. The CASA solution needs to be at Initial Operating Capability by 01 April 2023. Full Operating Capability (FOC) by 01 April 2024. In addition, but only for the Chinook Platform (Quantity 51 Aircraft to be embodied, which includes the design, test and integration in accordance with MAA regulations and appropriate spares to support for a five year period), an Automatic Dependent Surveillance - Broadcast (ADS-B) Out capability is required to be available via the CASA technical solution. This must meet the Civil Aviation Authority (CAA), Federal Aviation Administration (FAA) & European Union Aviation Safety Agency (EASA) regulations, which direct the need for aircraft to be fitted with ADS-B Out functionality to continue to operate within civilian controlled airspace. It is recognised for this specific Chinook requirement, that an aircraft modification (in accordance with the latest Military Aviation Authority (MAA) regulations) may be required. The ADS-B Out solution needs to be at Initial Operating Capability by 31 Jul 2023, Full Operating Capability (FOC) by 31 Dec 2023. Both aspects of the CASA requirements will also include support elements such as Train the Trainer, Courseware and Material. Additionally, the successful supplier will be expected to support security accreditation of the technical solution.

Performance Based Navigation (PBN):

There is a requirement for the Chinook Platform only (quantity 51 Aircraft) to be embodied with a fully compliant PBN capability, inclusive of the design, test and integration in accordance with MAA regulations and appropriate spares to support the capability for a five year period. Chinook crews will require a capability that complies with International Civil Aviation Organisation (ICAO)

requirement for navigation and communications systems within international civil or military controlled national, international, or disputed airspace. Defence Airspace And Air Traffic Management (DAATM) and ICAO have stated changes to airspace from Dec 2020 with all services transferred to PBN by 2030. The first planned UK move is Exeter airport in 2024 when its Instrument Landing System (ILS) service will be terminated. A recent QinetiQ report (Chinook HC Mk5/6/6A - Performance Based Navigation (PBN) Market Study) looked at a walk on solution, a semi integrated and fully integrated option. All options have advantages and disadvantages, and none have therefore been discounted by the Authority at this stage. The solution must be compliant with MAA Regulatory Article (RA) 2380 [5] covering PBN operations, complementing RA 1380 [6] which covers the PBN regulatory requirements. The PBN solution needs to support an Initial Operating Capability (Trials and Proof Installations Completed on Mk5, 6 & 6As (Qty 6 aircraft embodied) and training available (proposed EDD-1) by 31 Jan 2026 and Full Operating Capability (Qty 51 Chinook aircraft embodied with the PBN capability (proposed EDD-2)) by 31 Mar 2027. The requirement will also include support elements such as Train the Trainer, Courseware and Material. Additionally, the successful supplier will be expected to support security accreditation of the technical solution.

CASA (including ADS-B OUT) AND PBN REQUIRED TECHNICAL SPECIFICATIONS

Common Aviation Situational Awareness (CASA) Pan Platform:

The equipment needs to have the following capabilities: Mission planning (including standard series of map formats and scales used by MOD), Geo-rectified products, wires/obstacle avoidance, platform Electronic Flight Reference Cards (eFRCs), Electronic Flight Bag, Electronic Performance Planning Aid, real-time airspace and weather alerts, flight following including with civil emergency services, ACANS, sky demon, pFLARM, ADS-B In, wifi and Cellular (for data transfer air to air and air to ground (and return), iridium capable, TAK, SAI, STARS, CADs, output capability to platform(s) Mission Planning Systems, minimum battery life 6hrs (threshold) 12hrs optimum, with option to either recharge or replace battery, manipulatable with aircrew glove, non-glare/NVD compatible, built-in camera. Options for small (~7") and large (~10") tablets, along with ground station.

CASA Chinook Specific – ADS-B Out:

In addition to the functionality provided by the CASA, a certified Civil GPS antenna will be required to be integrated on to all Marks of Chinook aircraft, to enable the ADS-B Out capability.

Performance Based Navigation (PBN):

The PBN technical solution needs to be fully compliant with the legislated change in airspace use and airfield approaches, requiring aircraft to use Area Navigation (RNAV) systems. The system will need a Civil Aviation Authority (CAA)/European Union Aviation Safety Agency (EASA) approved GPS for procedural navigation for RNP 0.3, 1.0 and 5.0 and be DAL compliant to the correct level so it can be used during terminal phases of flight. Display needs to be within the pilot's natural scan as during approaches he will be using it as his primary reference.

The Principal Information Being Sought:

CASA including ADS-B Out:

The Authority requests interested suppliers to present a Company Brief to the Authority on the Market Information Exchange Day. This brief should include: company name; key POC; a top-level summary of the company's history / experience of working with a similar requirement; and any GFX the company anticipates requiring for the completion of the CASA and ADS-B Out requirement.

PBN:

The Authority requests from interested suppliers a Company Brief, which should include: company name; key POC; a top-level summary of the company's history / experience of working with a similar

requirement; and any GFX the company anticipates requiring for the completion of the PBN requirement.

Note: Suppliers can express an interest in one or both requirements to attend the Market Information Exchange Day and deliver the above requested brief(s).

INNOVATIVE DELIVERY POTENTIAL:

The Authority would be interested in any innovative opportunities which may exist that involves a single technical solution delivering both requirements (CASA and PBN) or even two separate solutions to the two requirements that have some joined up approach in its delivery so that there is an element of crossover and exploitation of cost and technical opportunities. If such solutions are offered, they are to be included in the above requested briefs and presented to the Authority during the Market Information Exchange Day.

Market Information Exchange Day:

The MoD shall invite suppliers with an interest in the CASA and/or PBN requirement(s) to a face-to-face Market Information Exchange Day on **27 June 2022 (venue details and timings to be communicated separately)**. The event will allow Chinook DT the opportunity to present the CASA and PBN requirements in more detail from both a Commercial and Technical perspective, before offering attending suppliers the chance to discuss solutions and any queries in one-to-one breakout rooms. The Market Information Exchange Day will allow Chinook DT to further understand the capability of Industry with regards to delivering these solutions. Interested suppliers should come to the event with a pre-prepared brief which they will present to the Authority, detailing how they aim to fulfil the CASA and/or PBN requirement(s), as well as any Clarification Questions they may have. Following the event, the slide pack is to be emailed to the Authority (a suitable POC will be given on the day).

To Register Interest: Suppliers who believe they can meet the requirement(s) and have an interest in engaging in the Market Information Exchange Day should register by email to jack.pass103@mod.gov.uk by **21 June 2022**, providing the following information:

1. Full name of the company and UK base;
2. Full name(s) and contact details of the POC representative(s) within the company;
3. An indication of the number of representatives who will attend the Market Information Exchange Day along with their details including whether they have security clearance; and
4. Any dietary or site access assistance requirements.