

**REQUEST FOR INFORMATION:**

**MARITIME HEAVY LIFT UAS**

**Reference: RFI006**

**December 2020**

**RFI Title:** Maritime Heavy Lift UAS

**Issue Date:** 18 December 2020

**Reference:** RFI006

**Version:** 1.0

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# Introduction

The Royal Navy’s Chief Technology Officer (CTO) is responsible for driving technology further and faster into the heart of the Royal Navy. The lead catalyst for Strategic tech change, the CTO, as a Navy Executive Committee (NEC) Member, and his team in the Office of the CTO (OCTO), are the true disruptive edge in RN tech. OCTO advises on and funds rapid advances in science and technology to increase the Operational Advantage of the £7Bn business that is the Royal Navy.

Ongoing RN Transformation is focused on Operational Advantage in the North Atlantic (OANA), Carrier Strike, Littoral Strike/Future Commando Force, Forward Presence and Tech & Innovation. Digital, Autonomy and Agility are key themes that run through all with the intent to improve global Availability, Sustainability and Lethality in an exponential world.

In Autonomy, the RN is driving hard toward an Open Architecture, Plug & Play, payload-agnostic, globally deployable maritime Autonomy network operating above, on and in the water, in the littoral and on land at range and in the most demanding and contested environments.

# Background

The Ministry of Defence (The “Authority”) is currently seeking information in order to qualify requirements and develop our understanding of the potential for the market to provide an autonomous maritime airborne heavy lift capability for the Royal Navy. The purpose of this Request for Information (“RFI”) is to enhance the Authority’s awareness and allow for initial review of a range of maritime airborne autonomous capabilities which currently exist or are in development within the marketplace to support the development of the RN’s Autonomy network and the creation of the Future Maritime Aviation Force (FMAF, the rapid transformation of crewed aviation roles (Intelligence, Surveillance, Reconnaissance, Communications, Lift and Strike) to uncrewed).

The Authority intends to use the responses to this RFI to inform future decision making regarding the potential supply of maritime autonomous airborne heavy lift capability. For clarity, this RFI is not a bidding opportunity but a means by which industry can provide information to the Authority. The Authority makes no obligations or undertakings in any way to:

1. invite tenders for the capability which is the subject of this RFI;
2. accept any RFI information received from suppliers;
3. include suppliers responding to this RFI in any future tender invitation; or,
4. make any other commitment to respondents whatsoever, including any intention to form a contract with any respondent for provision of the capability.

For avoidance of doubt, any resulting procurement activity will be conducted competitively.

# RFI intended outcomes

This RFI aims to achieve the following three (3) outcomes:

1. Develop further the Authority’s understanding of the different technologies and capabilities available in the market, both current and emerging.
2. Align Authority requirements with industry standards and processes for procurement of maritime autonomous airborne capabilities; and,
3. Enable the Authority to develop a procurement strategy that will deliver best value for money for Defence.

# Requested Information:

The Authority wishes to assess potential maritime airborne autonomous heavy lift solutions for use within the Royal Navy.

Potential suppliers and interested parties are invited to provide information in relation to potential solutions which could deliver an airborne autonomous heavy lift capability which is aligned to the following indicative requirements.

Potential solutions ideally should offer:

1. Autonomous / Crewless operation;
2. Accurate delivery of payloads exceeding **200kg**;
3. Ability for over the horizon operation;
4. Suitability for maritime environments (sea states, salt ingress, deck mobility)
5. Suitability for use in a variety of environmental conditions ashore and at sea
6. Rapidly interchangeable, multiple payload types;
7. Open Architecture;
8. Sustainability and enduring capability.

The above requirements are indicative only and we would welcome innovative submissions from respondents, especially in regards to:

1. Emerging technology / technologies at lower Technology Readiness Levels;
2. Any solutions which may offer reduced payload weight / distance capabilities (E.g. sub 200kg), but which may potentially be scalable in future.
3. Technologies which are not yet, but could be, adapted for use in the maritime environment.

# How to submit responses to this RFI

Respondents should provide responses in accordance with the format provided in **Annex A.**

Once completed, please return electronically to the e-mail address(es) shown below in **section 9,** no later than **12:00, Friday 22nd January 2021.**

Responses will be acknowledged electronically by return e-mail.

# RFI Procedure:

Responses to this RFI will be reviewed by subject matter experts from various functional areas within the Authority (including Navy Command Headquarters).

Any details provided in response to this RFI will be used for information purposes only and will not be used to determine the potential Suppliers who will be invited to bid, should the Authority proceed to tender.

The results and analysis of this RFI shall not constitute any form of pre-qualification exercise.

Any formal procurement process will be undertaken in accordance with EU Procurement Law (or equivalent, where applicable, following the exit of the United Kingdom from the EU in January 2021).

Nothing in this RFI, or any other engagements with Industry prior to a formal procurement process, shall be construed as a representation as to the Authority’s ultimate decision in relation to the future requirement.

# Confidentiality & Proprietary Information

No information included in your response, or in discussions connected to it, will be disclosed to any other third party.

Proprietary information, where included, should be kept to minimum and must be clearly marked.

# Costs of preparing your RFI response

Any costs relating to the preparation and submission of a response to this RFI are the sole responsibility of the respondent.

# Contact

Please submit i) any requests for clarification and ii) all responses to this RFI, to:

Isabel King – Commercial Manager, Pre-Sourcing

isabel.king107@mod.gov.uk

Rosemary Wright – Senior Commercial Manager, Sourcing

rosemary.wright128@mod.gov.uk

## Annex A:

Airborne Autonomous Heavy Lift Capability – RFI Response:

|  |  |
| --- | --- |
| **Required:** | **Response** |
| Company Name |   |
| Company Address |   |
|    |
| Name of Company representative completing the RFI |   |
| Contact details (e-mail and telephone number) |   |
| Company web site address |   |
|    |
| Main products/services/line of business |   |
| Main market sector |   |
| Number of years in this market sector |   |

|  |
| --- |
| **RESPONSE:**  |
| 1. Current Technical Solution:
 |
| Please Indicate: (Note: We recommend a response of up to 2-3 pages):Description of solution:

|  |  |  |
| --- | --- | --- |
|  |  | Range (km) |
|  |   | 0.25 | 2 | 10 | >10 |
| Lift capacity (kg) | <100 |   |   |   |   |
| 100-200 |   |   |   |   |
| 200-300 |   |   |   |   |
| 300-400 |  |  |  |  |
| >400 |   |   |   |   |

Payload delivery ability - Weight/Distance (Please Check appropriate box and provide detailed specification) Maximum airborne duration (hrs):Technology / Manufacturing Readiness Level of the Solution & description of testing completed to date:Is the system suitable of use in a maritime environment?Further Information / Solution assumptions, dependencies, exclusions and constraints:Link to product catalogue (if applicable): |
| 1. Technical solution(s) which could potentially be available within the next 12 months:
 |
| Please Indicate:Description of possible solution:

|  |  |  |
| --- | --- | --- |
|  |  | Range (km) |
|  |   | 0.25 | 2 | 10 | >10 |
| Lift capacity (kg) | <100 |   |   |   |   |
| 100-200 |   |   |   |   |
| 200-400 |   |   |   |   |
| >400 |   |   |   |   |

Payload delivery ability - Weight/Distance (Please Check appropriate box) Technology Readiness Level of the Solution / Basis of assertion as to capability improvements:Further information / key assumptions, dependencies, exclusions and constraints in the provision of this improved solution: |
| 1. Technical solution(s) which could potentially be available within the next 5 years:
 |
| Please Indicate:Description of possible solution:

|  |  |  |
| --- | --- | --- |
|  |  | Range (km) |
|  |   | 0.25 | 2 | 10 | >10 |
| Lift capacity (kg) | <100 |   |   |   |   |
| 100-200 |   |   |   |   |
| 200-400 |   |   |   |   |
| >400 |   |   |   |   |

Payload delivery ability - Weight/Distance (Please Check appropriate box) Technology Readiness Level of the Solution / Basis of assertion as to capability improvements:Further information / key assumptions, dependencies, exclusions and constraints in the provision of this improved solution: |
| **Innovative solutions are most welcome, even if they do not meet all of the indicative requirements.** |