



**NATO SUPPORT AND PROCUREMENT AGENCY
AGENCE OTAN DE SOUTIEN ET D'ACQUISITION**



PROCUREMENT DIRECTORATE
DIRECTION DES ACHATS

P/2019/070

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2 July 2019

SUBJECT : Request For Information (RFI) in relation to potential Cooperation on Accelerated Interim Multinational MPA Solution (AIM2S)

NATO will face an increasingly widening gap of available Maritime Patrol Aircraft (MPA) starting in 2023. Beyond this quantitative aspect, some NATO Allies and Partner nations are also experiencing qualitative challenges due to the rapidly ageing assets and equipment in their fleet inventories. In addition, as some NATO Allies and Partner nations upgrade their fleets to meet current and future threats, interoperability challenges arise with ageing assets and less capable modernization programs.

A group of 9 (nine) NATO Allies and Partner nations are considering joining efforts to create an Accelerated Interim Multinational MPA Solution (AIM2S) to their ageing maritime anti-submarine, intelligence surveillance and reconnaissance aircraft. This initiative is looking for solutions for a multinational fleet construct for this critical capability area, which will deliver an affordable interim solution to meet the current threat and address the operational challenges until potential longer-term solutions can be developed and delivered.

NSPA is seeking, in coordination with NATO IS Defence Investment Division, Industry responses to the attached Request for Information (RFI), to provide interested NATO Allies and Partner nations with relevant information on a number of key aspects such as existing market capabilities, potential applicable contractual frameworks, and potential benefits of a cooperative approach.

If your company has the interest and ability to deliver AIM2S solutions starting in 2023, you are kindly invited to confirm your participation in this RFI by returning the form at Annex A hereto by 19 July 2019. Your RFI response, in the form of a Report answering the specific questions posed, should be provided no later than ~~30 August 2019~~ 8 September 2019.

All RFI responses will be handled in confidence. RFI responses shall not be the basis for a contract and NSPA does not intend that any contract shall be concluded by this RFI and your Company response. NSPA will not reimburse any costs your Company incurs in responding to this RFI.

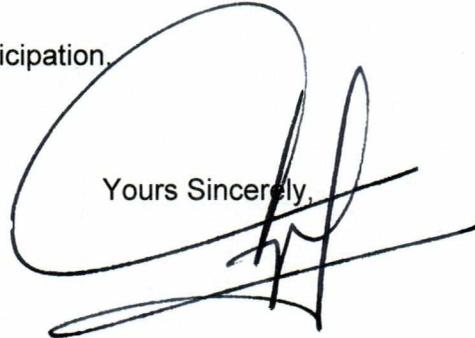
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NSPA may invite respondents to a future industry day in order to provide further details to interested NATO Allies and Partner nations.

For any questions or additional information do not hesitate to contact NSPA POC Mr Carlos Ferrer López, carlos.ferrer-lopez@nspa.nato.int , +352 3063 6563.

Thanking you in advance for your attention and participation.

Yours Sincerely,

A handwritten signature in black ink, appearing to be 'PF', written over the text 'Yours Sincerely,'.

Patrick Fesquet
Director of Procurement

AIM2S CAPABILITIES REQUEST FOR INFORMATION

1. INTRODUCTION

Solution AIM2S would be based on several key principles:

1. In order to meet the short-term NATO Defence Planning Process Maritime Patrol Reconnaissance Aircraft capability requirements, the intent is to enable an initial fielding of capabilities as early as 2023;
2. Solutions should meet all relevant NATO Capability requirements given in Table 2 (see paragraph 2.2); and
3. Industries may explore all potential contracting solutions including:
 - a. Leasing (such a solution might also consider 2 sub-solutions being the leasing of new assets or the leasing of refurbished assets);
 - b. Buying new assets (including the option to include an obligation to buy-back the assets);
 - c. Mixed approach consisting of a fleet with leased and bought assets;
 - d. Other to be defined.

2. GENERAL INFORMATION

This section briefly describes a number of key expectations for the system. It discusses the operational missions that the system must perform, a short description of the system architecture and other information of interest.

2.1. Key assumptions:

- The AIM2S foresees the creation of a multinational fleet of assets providing an expected aggregated total of 8,500 (eight thousand, five hundred) annual operating hours.

The assets should as a minimum meet or exceed the following key requirements:

A- Time related requirements

AIM2S is envisioned as an interim solution with an initial in service time of 2023-2035. Options should be included to extend the in service time beyond 2035, either for the entire AIM2S fleet or parts of it.

B- Performance related requirements

The broad scope of operationally relevant areas for AIM2S employment in Europe favours the establishment of a network of operating bases to meet the needs of NATO's Area of Operations (AOR). As such, responses should include basing options of operating the AIM2S fleet out of minimum of one Main Operating Base in Europe and several Forward Operating Bases. The overall basing concept should allow the AIM2S fleet to effectively operate in various regions, potentially including the Baltic Sea, the North Sea, the Mediterranean, the Black Sea, and the Atlantic.

C- Cost related requirements

Responses should include the provision of non-binding rough order of magnitude cost indications based on the various assumptions stipulated within this RFI (i.e. various basing configurations, fleet size, delivery mechanisms, acquisition only, acquisition plus operations and maintenance, acquisition plus acquisition and maintenance and

training). The cost indications should be provided as aggregate totals as well as per flight hour, while specifying the annual predicted flight hour contingent serving as the baseline.

2.2. Missions

AIM2S should foster multi-national cooperation to fulfil NATO capability obligations more efficiently. AIM2S will be capable of performing overland operations. Table 1 identifies the Core and Collateral missions of the expected AIM2S systems:

Mission type	Mission	Roles
CORE	Find, Fix, Finish ASW	Anti-Submarine Warfare and associated weapons delivery Underwater Surveillance and Reporting Environmental Characterization
	Find, Fix, Finish ASuW	Anti-Surface Warfare and associated weapons delivery Surface Surveillance and Reporting Shipping interdiction Over the Horizon Targeting (OTH-T) Anti-Piracy (at sea) / Fisheries Patrol / Anti-Shipping Anti-illegal Activity (smuggling, poaching, migration)
	Maritime ISR	Surface Surveillance and Reporting Image collection
	Electronic warfare	
COLLATERAL	Joint Personnel and Recovery	Search and Rescue (SAR) Operations
	Support to Special Operations	Support to Special Operations Forces Other specialized, mission tailored capabilities Transport and para-drop of cargo and personnel
	Airborne Mine Warfare	Naval Mine Laying Covert Naval Mine Laying Overt Harbour Protection Module

Table 1 – Missions of the AIM2S

Table 2 outlines the key requirements expected from the AIM2S assets:

Capability Variant Group	Capabilities
Anti-Submarine Warfare	The platform must be capable of executing airborne operations denying the enemy the effective use of their submarines in any maritime environment and engaging in sub-surface targets and capable of

Capability Variant Group	Capabilities
	<p>establishing, maintaining and surveillance of a sonobuoy field IAW ref documents.</p>
<p>Naval Operations Air Delivery (Long Range)</p>	<p>Capable of being deployed worldwide executing long range maritime airborne operations. Requirements include:</p> <ul style="list-style-type: none"> - Capable of a minimum of 6 hours' time on station when operating 500NM from base. - Capable of maintaining a transit speed of 250 knots and of sustaining a minimum speed of 200 knots. <p>In addition, the platform must be capable of:</p> <ul style="list-style-type: none"> - Operating in a hostile and dense EM (electromagnetic) environment. - Safe and expeditious access to segregated and non-segregated airspace based on operational and technical requirements (with appropriate avionics (see reference document MC 195)). - Communicating with ground station or command unit via Common Data Link. - Secure line-of-sight and Over the Horizon (OTH) communication with other deployed units and static command facilities (IAW ref MC 195). - Gathering acoustic Measurement and Signature Intelligence (MASINT)/Acoustic Intelligence (ACINT), for dedicated ASW aircraft. - Satisfying the CIS requirements stated in MC 195 for a AIM2S.
<p>Naval Operations Air Delivery (Tactical)</p>	<p>Capable of being deployed worldwide executing maritime airborne operations at tactical ranges. Capabilities include:</p> <ul style="list-style-type: none"> - A minimum of 3 hours' time on station when operating 120 NM from base. - Maintaining a transit speed of 120 knots. - Operating in a hostile and dense EM (electromagnetic) environment. - Being deployed to airbases and/or naval units. - Safe and expeditious access to segregated and non-segregated airspace based on operational and technical requirements (with appropriate avionics IAW MC 195). - Communicating with command unit via Common Data Link. - Secure line-of-sight communication with other deployed units. - Gathering acoustic Measurement and Signature Intelligence (MASINT)/Acoustic Intelligence (ACINT), for dedicated ASW assets.

Capability Variant Group	Capabilities
Anti-Surface Warfare	Capable of executing airborne operations in any maritime environment to detect, identify and counter an adversary's naval surface capability. Capable of assuming the duties of Aircraft Control Unit (ACU) and directing FBA aircraft Direct Support (DS) operations and engage surface targets.
Naval Airborne ISR (Long Range)	Capable of conducting long range, persistent surveillance and reconnaissance in order to detect, classify, identify, and track targets in all weather conditions, day and night, in a maritime environment. Capable of providing persistent surveillance and reconnaissance coverage to a horizon (optical and radar) of at least 50 nautical miles.
Naval Airborne ISR (Tactical)	Capable of conducting surveillance and reconnaissance at tactical ranges (in accordance with NTRAD and NUAD) in order to detect, classify, identify, and track targets in all weather conditions, day and night, in a maritime environment. Capable of providing surveillance and reconnaissance coverage to a horizon (optical and radar) of at least 30 nautical miles.
Combat Search and Rescue- Personnel Recovery	<p>Capable of planning and executing Joint Personnel Recovery (JPR) operations by locating, authenticating and recovering isolated personnel from a situation where hostile interference may be expected.</p> <p>Capable of lifting 12 Fully Equipped Combat Soldiers (FECS), or three tonnes of equipment/supplies, loaded internally or slung externally, with a minimum cruise speed of 120 knots, duration of 2.5 hours (at least one hr on station) and combat radius of 150km at 85% of maximum mission gross weight.</p> <p>Capable of conducting CASEVAC missions.</p> <p>Capable of conducting tactical reconnaissance and air surveillance day and night.</p> <p>Capable of providing an appropriate level of self-defence and protection of crew, passengers and patients.</p>
Special Operations Task Group	<p>AIM2S shall be able to support Special Operations with specific and/or residual capabilities which should include C2 capability, the transport and para-drop of cargo and personnel, support to Special Operations Forces and other specialized, mission tailored capabilities.¹</p> <p>The AIM2S shall support the planning and execution of the full spectrum of special operations in the maritime environment, across the full spectrum</p>

¹ AIM2S are not specifically targeted within the NDPP for Support to Special Operations, however, as an C2 and ISR platform AIM2S can be expected to contribute to these operations using its collateral ISR capability.

Capability Variant Group	Capabilities
	<p>of military operations unilaterally and independently in support of other component commanders.</p> <p>The AIM2S shall support special operations by detecting, localizing, tracking and classifying search objects by passive and active means employing the capabilities specified for ASW, ASuW and Maritime ISR.</p> <p>AIM2S shall be capable of employing selective real/near real-time friendly force tracking capabilities (e.g. discrete mode tracking) and battle tracking procedures for own forces.</p>
Special Operations Air Task Units	<p>AIM2S shall be able to support Special Operations with specific and/or residual capabilities which should include C2 capability, the transport and para-drop of cargo and personnel, support to Special Operations Forces and other specialized, mission tailored capabilities.²</p>
Mine Hunting	<p>Capable of supporting mine hunting operations that operate in water depths at least down to 200m using unmanned/manned surface, sub-surface and/or air assets means. Capable of exchanging data with a (deployable) Mine Warfare Data Centre (MWDC). Capable of supporting accurate mine hunting operations with a robust (e.g. jamming resistant) navigation system. Capable of providing an appropriate level of CBRN Defence in accordance with ACO Force Standards.</p>
Naval Mine Laying (Covert)	<p>Capable of supporting covert naval mining operations.</p>
Naval Mine Laying (Overt)	<p>Capable of supporting overt naval mining operations.</p>
Harbour Protection	<p>Capable of supporting the protection for units, facilities and infrastructure located in port/harbour areas, to include associated anchorages used in support of operations. AIM2S capabilities are not specifically targeted for Harbour Protection but due to their ASW, ASuW and Maritime ISR capabilities they are able to contribute to Harbour Protection. This code are included as it is informative of the capabilities required to support Harbour Protection.</p>

Table 2 – Key Requirements

2.3. Architecture.

AIM2S overall system will be composed of four segments.

2.3.1. Air segment

² AIM2S are not specifically targeted within the NDPP for Support to Special Operations, however, as an C2 and ISR platform AIM2S can be expected to contribute to these operations using its collateral ISR capability.

- a. Aircraft (Platform);
 - b. Communication, Navigation, Surveillance and Air Traffic Management Systems;
 - c. Mission Data Management Systems
 - d. Sensor Systems
 - e. Ordnance Systems
 - f. Weapon Systems
 - g. Data Links
 - h. Identification Systems
 - i. Self Defence Systems
- 2.3.2. Ground segment
- j. National fixed Mission Support Centres
 - k. National deployable Mission Support Centres or Aircraft Operational Mission Support (AOMS);
 - l. NATO Maritime Multi-Mission Aircraft Support Centres (MMSC)
 - m. National Processing, Exploitation and Dissemination (PED) entities.
 - n. NATO Processing, Exploitation and Dissemination (PED) entities
- 2.3.3. Network segment
- o. Beyond Line of Sight communication links
 - p. Line of Sight communication links
 - q. Network infrastructure to connect from the BLOS and LOS ground entry stations to the Ground and Support Segments
- 2.3.4. Support segment
- r. Training Systems
 - s. Maintenance Data Management Systems
 - t. Maintenance personnel and facilities
 - u. Transportable Ground Auxiliary Equipment
 - v. Logistic support and supply chains.

3. RFI REPORT AND KEY AREAS OF RESPONSE

Your Company response to this RFI is required in the format of a Report answering the following questions related to key areas of interest.

The information received will be disseminated and utilized amongst national and NATO Allies and Partner nations officials involved in the AIM2S project. Any commercially sensitive information shall be marked as such and will be managed accordingly. No information or documentation received from a participating company or organization will be shared or disclosed, whether total or partially, to any of the other respondents.

The report should be concise and structured allowing for easy reading and reference. Lengthy marketing brochures are not desirable.

Industries are invited to list the assumptions made, if any, for the production of their responses.

3.1. Solution(s) proposed

Respondents should provide here a high level description of their solution(s) emphasizing on:

- Contracting models that may be available;

- Ownership and responsibilities attribution;
- Minimum / Maximum duration of the solution;
- Potential export licensing activities required or impacting the solution;
- Conditions for termination or extension;
- Scope of services to be undertaken by Industry;
- Any other topic of interest.

3.2. Existing knowledge and capabilities

Respondents are invited to fill Tables 3 & 4 (the Report could contain further information to explain the content of these Tables) providing information about their ability to deliver the expected AIM2S operational capabilities.

Mission type		Do you have an existing solution to perform this operational activity? If yes, please detail (integrated into a platform, modular, coherence with expected schedule given at 1)
CORE	Find, Fix, Finish ASW	
	Find, Fix, Finish ASuW	
	Maritime ISR	
COLLATERAL	Joint Personnel and Recovery (JPR)	
	Support to Special Operations	
	Airborne Mine Warfare	

Table 3: Assessment of participant ability to address operational functions of AIM2S

Capability Variant Group	Do you have an existing solution to perform capability variant group as detailed in table 2?
Anti-Submarine Warfare	
Naval Operations Air Delivery (Long Range)	
Naval Operations Air Delivery (Tactical)	

Anti-Surface Warfare	
Naval Airborne ISR (Long Range)	
Naval Airborne ISR (Tactical)	
Combat Search and Rescue-Personnel Recovery	
Special Operations Task Group	
Special Operations Air Task Units	
Mine Hunting	
Naval Mine Laying (Covert)	
Naval Mine Laying (Overt)	
Harbour Protection	

Table 4: Assessment of participant ability to address capability variant groups of AIM2S

Respondents are invited to highlight the solutions currently available and / or in service. Can one single aircraft type reasonably cover the full mission spectrum described? If not, what would be the areas more difficult to incorporate?

What are the types of existing platforms that can best suit all missions: manned, unmanned, combinations of both? Is there a need to operate different platforms to cover the overall spectrum of operations listed in the previous table?

For multirole modular platform, what would be your Company's baseline configuration and what capabilities could be modular?

For any solution proposed, Respondents should provide information about the state of design, technology maturity level, status of certification for major subsystems/equipment, state of production wherever applicable.

Companies should also highlight, if applicable, the number of operational hours of the assets proposed through the solution and the references of user Nations.

3.3. Delivery strategy

AIM2S is envisioned as an interim solution with an initial in service time of 2023-2035. Options should be included to extend the in service time beyond 2035, either for the entire AIM2S fleet or parts of it.

When presenting their delivery strategy (-ies), Respondents may also include information and further details about:

- Basing options of operating the AIM2S fleet out of minimum of one Main Operating Base in Europe and several Forward Operating Bases. Reminder: The overall basing concept should allow the AIM2S fleet to effectively operate in various regions, potentially including the Baltic Sea, the North Sea, the Mediterranean, the Black Sea, and the Atlantic;
- Training and In Service Support activities;
- What would be the Rough Order of Magnitude (ROM) cost of your solution(s) and based on the assumptions given in this RFI? (i.e. various basing configurations, fleet size, delivery mechanisms, acquisition only, acquisition plus operations and maintenance, acquisition plus acquisition and maintenance and training). The cost indications should be provided as aggregate totals as well per flight hour, while specifying the annual predicted flight hour contingent serving as the baseline.

3.4. Cooperative effort

What does your Company consider to be the benefits of international cooperation in terms of cost and interoperability/availability/shared use of your solution? Simulation of cost savings under different possible scenarios could be provided.

What are the strategic areas to be considered to enable a cooperative solution?

3.5. Delivery schedule

Considering the expected delivery schedule of operating hours given in section 2.1, what is its level of realism and under which conditions?

If deemed not achievable, what would be your company's proposed schedule?

3.6. Risk assessment

Highlight the high-level risks from the industry side against the key assumptions for the delivery and deployment of a AIM2S capability in line with the mission overview and related to the solution(s) proposed

Propose possible mitigation plans to the risks identified.

3.7. Conclusion

Provide a summary and explanation of the key elements of your RFI Report and a set of recommendations for further consideration.

4. RESPONSE FORM

Please confirm your Company's participation in this RFI by returning the form at Annex A hereto by 15 July 2019.

Your RFI response, in the form of a Report, not to exceed 40 A4 pages, and 10 megabytes, answering the specific questions posed above, should be provided no later than 30 August 2019.

ANNEX A

**ACCELERATED INTERIM MULTINATIONAL AIM2S SOLUTION
REQUEST FOR INFORMATION
RESPONSE FORM**

I, Mrs, Mr representative of the company

and acting as (role) into the company, kindly inform NSPA:

- Our company intends to participate in this RFI Yes No

- The Point of Contact for this effort is:

Name, Surname:

Position:

Email:

Telephone

(location / Date / signature) / /

PS: This form is to be sent to carlos.ferrer-lopez@nspa.nato.int by 15 July 2019.