

VTOL Maritime Surveillance (Lot 2)

RPAS Capabilities

Company: [company]

Contract: [contract]

Aircraft type: [aircraft]

Tail number: [tail number]

Capability test date: [test date]

Reference or Version of document: [version]

Date: [date]

1. Introduction

This “capability tables” below present the conclusions of the evaluation made with regard to the operational capabilities of the RPAS services provided by the contractor and valid for the given configuration of the aircraft and ground segment.

This evaluation is based on the RPAS service status as demonstrated during the capability test. The evaluation will be benchmarked against the offered capabilities in the bid and the tender specifications of Framework contract OP/10/2018.

2. System configuration

The following tables are referring to the following RPAS system:

Reference document	Version	Date

3. Result categories:

The system will be evaluated according to the technical description and configuration in the offer.

Fully available (FULL): The capability is fully provided by the RPAS system in compliance with the contract.

Partially available (PARTIAL): The capability is not fully provided by the RPAS system due to contractually non-compliant system limitations.

Not available (FAIL): The capability is not available at all, however requested in the contract.

Additionally available (BEYOND): The capability is additionally available or partially available, beyond the requirements of the contract

Not tested (NOT): This capability could not be tested and thus is regarded as not achieved.

Not applicable (N/A): The systems is not designed to provide this capability (Contractually not requested).

For “Maximum Range / Endurance of Mission” and “Operation in specific environmental conditions”, the values shall be given.

4. Summary results and comments

The “Percentage per category” is calculated by:

$$\text{Percentage per category} = \text{Points achieved} / \text{Maximum points possible per category} \times \text{Weight}$$

Category	Points achieved	Maximum points possible per category	Weight	Percentage per category
General Capabilities and operational needs		(depends on configuration)	40%	
Operational capabilities		100	60%	
Total percentage of requested capabilities			100%	

5. General Capabilities and operational needs

The general capabilities contribute by 40% to the overall capabilities of the system according to the degree of completeness of the capabilities.

Maximum Endurance of Mission and speed of aircraft (max. 30 points)		
Endurance	Contractual value:	
Maximum and operational speed	Contractual value:	
Points achieved:		

Operation in specific environmental conditions (max. 15 points)		
Wind resistance at take-off and landing	Contractual value:	
Rain	Contractual value:	
Ice	Contractual value:	
Points achieved:		

Data availability to the users (max. 20 points)		
A) Either via the user interface of the contractor until Module 5 is accepted		
All relevant data (flight and payload data) is available to the user <ul style="list-style-type: none"> in real time with low latency with suitable layout and enough quality to be used in operations 		
The flight can be replayed by the user		
The user is able to extract data and to perform post analysis		
A communication channel between the flight operator and the user is established		
B) Via direct data transmission after Module 5 is used¹		
All data (flight and payload data according the ICD) is available to the RPAS-DC <ul style="list-style-type: none"> in real time with low latency and With enough quality to be used in operations 		
All data is available to the user in real time with low latency		
A communication channel between the flight operator and the user is established		
Points achieved:		

Operational team (max. 20 points)		
The team has the necessary qualification to run the service		
Team is able to provide day and night operations in a consecutive manner (7/7)		
Points achieved:		

¹ If Module 5 is not completed 6 months after the signature of the specific contract, the points obtained under option A) are automatically zeroed, impacting immediately the % capability of on-going deployments. The new % capability for "Data availability to the users" will be based on the capability evaluation of B) which can occur at the beginning or during a deployment.

Detectability of RPAS (max. 10 points)	Day	Night
The RPAS remains visually undetected while performing identification, tracking and behaviour monitoring		
The RPAS remains acoustic undetected while performing identification, tracking and behaviour monitoring		
Points achieved:		

Flight operations (max. 10 points) <i>generic capability</i>	Day	Night
Maritime Patrol and General Surveillance <ul style="list-style-type: none"> • automatic take-off and landing • automatic manoeuvres in case of emergencies 		
Points achieved:		

In- situ support (max. 10 points)	Day	Night
Capability of carrying objects and dropping as required		
Points achieved:		

Documentation (max. 15 points)		
The documentation is comprehensive and counts with enough quality to allow the process to obtain the permit to fly		
The operational documentation and procedure are available and in place to guarantee the operations		
Configuration management (documentation, procedures, tools, ...) are well implemented		
Points achieved:		

6. Operational capabilities

The operational capabilities contribute by 60% in total to the overall capabilities of the system. The degree of completeness of the capabilities will be determined from the “applicable” capabilities (e.g. which are not marked with “N/A”).

Maximum Range of Mission (max. 20 points)		Day	Night
Range	Contractual value:		
Points achieved			

Maritime Patrol and General Surveillance (max. 10 points) <i>generic capability</i>		Day	Night
Maritime Patrol and General Surveillance <ul style="list-style-type: none"> perform pre-planned flight plan with live updates when detection is made, then resume initial plan Operational flight manoeuvres (for marine pollution surveillance, vessel identification, search and rescue and behaviour monitoring) 			
Points achieved			

Marine pollution (monitoring and response support) (max. 20 points)		Day	Night
Detect presence of oil spills or other pollution			
Confirm presence of oil spill at predetermined location			
Oil spill characterisation: assessment of size, thickness, subparts and possible spread or movement			
Points achieved			

Vessel identification and tracking (DRI) (max. 20 points)		Day	Night
Vessel detection (presence)			
Detection of potential suspicious objects			
Vessel recognition: vessel type, length and beam.			
Vessel identification and confirmation by at least name, IMO number and flag			
Vessel tracking			
Points achieved			

Search and Rescue (max. 10 points)		Day	Night
Detection of vessel in distress			
Detection of life raft			
Detection of man over board			
Points achieved			

Behaviour and Activity Monitoring (max. 20 points)		Day	Night
Provision of vessel position, estimated speed & course and distance to shoreline			
Detection of sudden changes of course and unusual vessel tracks			
Detection of people on board and monitoring of on-board activities (drug trafficking, speed boat, discard of fish overboard, other activities)			
Detection and monitoring of activities around a vessel of interest, including floating devices adrift or undertow			
Points achieved			

Vessel Based Operations (max. 20 points)	Day	Night
Able to VTOL on a Vessel (sea-state, oscillation of the ship, dimensions of deck for take-off and landing).		
RPAS staff and equipment are deployed appropriately on the vessel.		
Coordination between RPAS missions and other vessel activities is ensured.		
Points achieved		

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