

Tender Specifications Appendix 2 Initial Configuration test

VTOL Emissions Monitoring (Lot 1)

Initial Configuration

Company: [company]
Contract: [contract]
Aircraft type: [aircraft]
Tail number: [tail number]
Flight test date: [flight test date]

Reference or Version of document: [version]
Date of document: [date]

1. Introduction

Before signature of the Framework contract an initial configuration test will be required in order to provide evidence for the selection criteria 14.5.3 “Maturity of the Configuration Offered” as stated in the tender specifications. This shall ensure that only mature systems already equipped with standard minimum payload will be selected for the framework contract. Following the signature of the FWC the initial configuration test is also used to assess any delays in the delivery of the second RPAS and the timely integration of the emissions sensors (see section 6.1 of the Appendix 1 Technical Specifications). In case of delays liquidated damages apply as explained in section 7.1 of the tender specifications.

This configuration test can take place at a location chosen by the contractor and shall fulfil the essential requirements given in this document.

The initial configuration test shall demonstrate that the standard configuration as described in the bid, responding to the minimum requirements as laid down in the tender specifications is already integrated in the RPA and the RPA is capable to fly in this configuration. Exception is made if requested by the tenderer to test the RPAS platform and the emissions sensor separately. In such case the RPAS will be required to fly with a dummy weight corresponding to the weight of the emissions sensor offered and the emission sensor capabilities may be tested separately (refer to “Emissions Measurements” below).

2. System configuration

The following tables are referring to the following RPAS system:

Reference document	Version	Serial number	Date
Reference document and platform should be indicated in the bid.			

3. Result categories:

Fully available (PASS): The configuration is fully provided by the RPAS system in compliance with the tender specifications and bid.

Not available (FAIL): The configuration is not available at all or only partially available, although it is requested in the tender specifications or mentioned in the bid. It could also be the case that the capability cannot be tested and thus it is regarded as not achieved.

4. General Configuration, capabilities and operational needs

Configuration of RPAS			
	Contractual value	What shall be demonstrated	PASS or FAIL
Configuration	The payload configuration as offered in the bid	<ul style="list-style-type: none"> Completeness of the RPAS configuration against the configuration management documentation and the offer (exception may apply for the emissions monitoring sensor as indicated under "Emissions Measurement" below) The proper operation by going through the operational check procedures during flight. 	

Maximum Endurance of Mission and speed of aircraft			
	Contractual value	What shall be demonstrated	PASS or FAIL
Endurance	4 hours or as offered	<p>The RPAS shall be capable to carry all offered payload for a flight with the minimum endurance (exception may apply for the emissions monitoring sensor as indicated under "Emissions Measurement" below).</p> <p>This can be shown by flying or through a logbook inspection.</p>	
Range	50 km or as offered	<p>50km</p> <p>This can be shown by flying or through a logbook inspection.</p>	
Maximum speed	90 km/h or as offered	<p>Minimum true air speed (TAS - relative to the wind) 90 km/h can be reached.</p> <p>To be shown flying.</p>	

Flight operations/capabilities			
	Contractual value	What shall be demonstrated	PASS or FAIL
Flight Modes	<ul style="list-style-type: none"> VTOL take-off and landing Approaching vessels to measure the gas concentrations Hovering Fly to coordinates Hold altitude and hold speed Adaptation of flight path and sensors according to immediate user request 	<p>That the RPA can fly according to any of the modes.</p> <p>In case the emissions monitoring sensor is not integrated the RPAS must fly with a dummy object equivalent in shape, size and weight of the emissions monitoring sensor offered.</p>	

Operation in specific environmental conditions			
	Contractual value	What shall be demonstrated	PASS or FAIL
Wind, Rain, Ice, etc.	Environmental limits as offered in the bid and in the tender specifications	If the conditions are not suitable for the test then logbook entries and documentary evidence to be provided.	

Data availability to the users			
	Contractual value	What shall be demonstrated	PASS or FAIL
Data available to users	N/A	<p>All relevant data (flight and payload data) are available to the user via the contractor interface:</p> <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 real time communication channel between the flight operator and the user is available 	

Operational team			
	Contractual value	What shall be demonstrated	PASS or FAIL
The team is available and has the necessary qualification to run the service	N/A	The core members of the team shall be present and show they are capable to operate the system during the flight.	

Emissions Measurement			
	Contractual value	What shall be demonstrated	PASS or FAIL
Emissions measurements	N/A	<p>Sensor availability and suitability: The offered emissions measurement sensor/equipment is available, fully calibrated and a gas measurement is performed demonstrating that the device is working. In addition the capability of this emissions measurement sensor or of a device of the same type must be described through reports of actual emissions monitoring campaigns and laboratorial evidence of sensor accuracy in line with the data quality defined in section 4.2.4.2 of Appendix 1 Technical Specifications of vessel plumes. Preferably the sensor should be mounted on the offered RPAS platform.</p> <p>Integration: To test the successful integration the device has to be mounted and fully integrated on the VTOL platform offered. Live emissions measurements on vessel(s) shall also be taken to demonstrate the readiness of the whole platform.</p> <p><u>First platform:</u> The sensor availability and suitability tests have to be undertaken before signature of the framework contract. Sensor integration may be performed after the signature of the FWC if requested by the tenderer; see section 7.1 of the tender specification.</p> <p><u>Second aircraft :</u> For the second RPAS the emissions sensor must already be integrated in the offered RPAS platform (refer to section 7.1 of the tender specifications).</p>	

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