Ref. Frontex/OP/888/2019/JL/CG

Remotely Piloted Aircraft Systems (RPAS) for Medium Altitude Long Endurance Maritime Aerial Surveillance

Tender Specifications - Annex I

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1. Terms and Definitions

Unless otherwise stated, the terms and definitions used throughout this tender specifications are as defined in the table below.
The terms appearing either in a complete or in an abbreviated form, when used in this document and its annexes, relating to the Technical Proposal, Financial Proposal and Draft Contract, shall be understood to have the following meaning:

Term	Abbreviation	Meaning
Agency	Frontex	The European Border and Coast Guard Agency.
Airspace		Any three dimensional area where the surveillance operations are conducted. Applicable rules, regulations and conditions in place for that airspace dictate the classification and flight rules in place – Visual Flight Rules (VFR) and Instrumental Flight Rules (IFR).
Area of Interest	AoI	The geographical area where data/ information that will satisfy a Mission requirement can be collected. Areas of Interest are inside the Deployment Area (DA).
Asset		It is a resource controlled by the Contractor (only Remotely Piloted Aircraft Systems - RPAS) capable to perform a mission.
Beyond Radio Line of Sight	BRLOS	Geographical area with Radio communication capabilities that allow linking the transmitting and receiving station that are too distant from each other or fully obscured by terrain for Line of Sight communication.
Beyond visual line-of-sight operation	BVLOS	An operation in which the remote pilot or RPA observer does not use visual reference to the remotely piloted aircraft in the conduct of flight.
Broadband Link		A high-capacity transmission technique using a wide range of frequencies, which enables a large amount of data to be transmitted simultaneously using a single telecommunication link.
Command and control link	C2	The data link between the remotely piloted aircraft and the remote pilot station for the purpose of managing flight.
Compiled Operational Picture		The Contractor shall be able to present in a geospatial information system (GIS) and to disseminate in formats specified in this document correlated and fused data captured by all the sensors in the aircraft payload, including in a single picture: • Moving Mission Map • Asset GPS position including heading, speed and altitude • Sensors footprint • Areas and flight pattern • Radar and AIS Tracks correlated • Georeferenced objects and incidents of interest Metadata text associated to objects and events of interest.
Coordination Centre	CC	A centre located at Frontex, and/or in the Host Country, responsible for the coordination of the asset and related deployed staff/crew.
Data Link		A telecommunication link over which data is transmitted.

Day		The days in the document refer to calendar days, unless otherwise explicitly provided.
Deployment		Logistical arrangements made by the Contractor, to have its Remotely Piloted Aircraft System (RPAS), with supporting resources, deployed, tested and ready to fly at one of the Deployment Aeronautical Facilities.
Deployment Base		The deployment aeronautical facility selected by the Contracting Authority in the Host Country of the operation, from where the deployment of the Remotely Piloted Aircraft System (RPAS) will take place, taking into account the operational suitability, working hours and the existence of adequate logistic services.
Deployment Area	DA	The geographical area where the Remotely Piloted Aircraft System (RPAS) may be required to fly. The Deployment Area encompasses the Areas of Interest (AoI) which are to be covered by each specific missions.
EU, EEA, and SAC		European Union, European Economic Area, Schengen Associated Countries.
EU Security clearance certificate		The term EU security clearance shall be read as: - A clearance certificate for the required level of security clearance issued by the respective NSA/DSA and provided by the management or the security officer (if there is one) of the company itself; - A Request for Visit (RFV) or a clearance certificate issued by the NSA/DSA and directly communicated to Frontex through official channels (to the LSO). There is no other equivalent for EU security clearance. NATO security clearances are not accepted.
Event of Interest	EoI	Any unusual behaviour of sea craft potentially involved in irregular migration, smuggling, illegal fishery, sea pollution and maritime distress situations. Additionally, specific Event of Interest (EoI) may be defined during pre-mission briefings.
Flight capabilities of the asset		The asset shall be capable to fly in any class of airspace under Visual Flight Rules (VFR) and Instrumental Flight Rules (IFR).
Flight Information Region	FIR	A flight information region (FIR) is a specified region of airspace of defined dimensions within which flight information service and alerting service are provided.
Flight rules		The rules and regulations in the host country and EU that are applicable depending on flight conditions, airspace classification etc. for the RPAS surveillance missions.
Flight time		The elapsed time between when the asset leaves the surface of the earth (take-off) until it comes into contact with the ground (landing).
Full Motion Video	FMV	Digital video data that is transmitted or stored on video discs for real-time reproduction on a computer (or other multimedia system) at a rate of not less than 15 frames per second, and not less than 640 x 480 pixels.
Ground Station	GS	A deployed working space (container, vehicle, tent, other) that allows the Contractor's crew to fly the Remotely Piloted Aircraft System (RPAS) and manage its payload.
Host Country	HC	The country where the Coordination Centre (CC) and the Deployment aeronautical facility(s) is/are situated. For this document the Host Country is only Greece, and/or Italy and/or Malta.

Maximum endurance		Maximum mission endurance of the asset with the minimum specified payload, mission equipment, including the weight of final reserve and contingency fuel.
Maximum range		The maximum distance that can be covered by the asset with a specified payload before its fuel resource is exhausted (safe return to the deployment aeronautical facility is guaranteed).
Medium Altitude Long Endurance Remotely Piloted Aircraft System	MALE RPAS	For this document: An aircraft without a pilot on-board, capable to perform long endurance flights of minimum 20 hours duration excluding reserve and contingency fuel, with required maritime configuration payload on-board.
MISB ST 0601		The Motion Imagery Standards Board defined the MISB ST 0601 standard for encoding various metadata parameters into the video stream. The metadata enables advanced Full Motion Video applications such as locating the video frame on a map, locating and mapping features within the video frame, viewing the sensor ground track and pointing direction, and multicast broadcasting.
Mission		Each flight implemented by the Remotely Piloted Aircraft System (RPAS) under this contract in an Area of Interest (AoI).
Narrowband Link		Refers to data communication and telecommunications tools, technologies and services that utilize a narrow set or band of frequencies in the communication link.
Near real time	NRT	Near real time is pertaining to the timeliness of data or information which has been delayed by the time required for electronic communication and automatic data processing. This implies that there are no significant delays.
NMEA 0183 standard		The National Marine Electronics Association (NMEA) 0183 Interface Standard defines electrical signal requirements, data transmission protocol and time, and specific sentence formats for a 4800-baud serial data bus. Each bus may have only one talker but many listeners. This standard is intended to support one-way serial data transmission from a single talker to one or more listeners. This data is in printable ASCII form and may include information such as position, speed, depth, frequency allocation, etc. It is in general use by Automatic Identification System (AIS) devices.
Object of Interest	OoI	Any object located in the Area of Interest (AoI), which is the objective of the mission. A non-exhaustive list of Objects of Interest contains the following: every sea craft involved in any form of irregular or illegal activities at sea. Additional, specific Object of Interest (OoI) may be defined during pre-mission briefings.
Payload (maritime configuration)		The load carried by the RPAS, consisting of the sensors, necessary for the purpose of the mission: i.e. Electro-Optical, Infrared Cameras, maritime surveillance radar, GPS, Automatic Identification System (AIS) Receiver.
Pre-frontier Area		'Pre-frontier Area' means the geographical area beyond the external borders of the EU/SAC.
Radar Tracks		A path or a trail created automatically by a radar using echo signals. A radar track will typically contain the following information: Position (in two or three dimensions), Heading, Speed and a Unique Track Number.

Radio Line of Sight	RLOS	Radio communication capabilities that link the transmitting and receiving station within mutual radio link coverage.
Raw data		Also referred to as source data is the data collected from the sensors on board, e.g. Electro-optical Full Motion Video, Automatic Identification System (AIS) Receiver, etc.
Readiness Time		The period of time needed by the Contractor to test the RPAS communication and data transfer with the designated Coordination Centre (CC) before the starting date of the Service. Any necessary test flight should be executed during this time period.
Remotely Piloted Aircraft System	RPAS	A remotely piloted aircraft, its associated remote pilot station(s), the required command and control links and any other components as specified in the type design.
Remotely piloted aircraft	RPA	An unmanned aircraft which is piloted from a remote pilot station.
Remote Mission Portal		Dedicated web application presenting data/ information structured as follows: • The Portal should grant web based access to a number of authorized IP addresses via HTTPS (designated Coordination Centre (CC), Frontex and/or any other EU Agency/Institution, and/or other authorized remote users from the Host country) with the possibility to administer locally the access to live and recorded video and to access display the live and recorded video. • The Portal interface should give structured access, for the duration of the service, at least to: – Ongoing mission (if any): live Compiled Operational Picture, live camera feed – Schedule of future Missions – Information on finished Missions: mission reports, registered videos. The Contractor supplies all components required for the Remote Mission Portal to work.
Satellite Communications	SATCOM	When a signal is transferred between the sender and the receiver with the help of satellite. In this process, the signal which is basically a beam of modulated microwaves is sent to the satellite. Then the satellite amplifies the signal and sends it back to the receiver's antenna located on the earth's surface.
Service		It is the subject of a Specific Order. A service is composed of a number of flights called missions, each of these missions is carried out in a specific Areas of Interest (AoI), defined within the Deployment Area (DA).
Situational Picture		A graphical interface to present near-real-time data and information received from different authorities, sensors, platforms and other sources, shared to achieve situational awareness supporting reaction capability. The 'Compiled Operational Picture' provided by the aerial asset contributes to the 'Situational Picture.'
Tactical User		For this document: Frontex, Local authorities or officials appointed at the designated Coordination Centre (CC) acting on

		the Surveillance Information provided by the Remotely Piloted Aircraft System (RPAS) and any other consumer of the surveillance information collected, indicated by Frontex for a given mission.
Test flight		The Contractor is obliged to conduct all necessary equipment tests (sensors, communications) and demonstrate the Contracting Authority the optimal functioning of payload and data transfer (e.g. compiled operational picture, etc.) in a test flight before the first effective day of the first mission within a contracted service. In case of failure of the first test flight, the Contractor may organise a second test flight within 7 working days. The failure of the second test flight might be the reason for termination of the Specific Order.

2. Scope and Objectives

The European Border and Coast Guard Regulation[1] (hereinafter the 'Regulation') sets out at Article 38 that Frontex may acquire or lease technical equipment to be deployed during joint operations, pilot projects, rapid interventions, migration management support team deployments, joint return operations or technical assistance projects, and in accordance with the financial rules applicable to the Agency. This Regulation extends also the purpose and the geographical areas for potential Frontex surveillance interests, e.g. in the context of coordinated European monitoring activities.

With this tender procedure Frontex is looking to acquire aerial surveillance services by the means of Medium Altitude Long Endurance Remotely Piloted Aircraft System (MALE RPAS) for maritime purposes.
The service will be delivered in Greece and/or in Italy and/or in Malta within a Framework Contract signed between Frontex and the Contractor. The aerial surveillance service shall include reliable close to real time live data streaming and data sharing capacity in the requested formats. Frontex is looking for a complete service providing all the necessary technical and human resources, including obtaining the applicable permissions and certificates.

[1] *Regulation (EU) 2016/1624 of the European Parliament and of the Council of 14 September 2016 on the European Border and Coast Guard and amending Regulation (EU) 2016/399 of the European Parliament and of the Council and repealing Regulation (EC) No 863/2007 of the European Parliament and of the Council, Council Regulation (EC) No 2007/2004 and Council Decision 2005/267/EC (OJ L 251, 16.09.2016, p. 1*

3. Introduction to Frontex

Frontex was established in 2004 as *the European Union agency coordinating operational cooperation of national border authorities of the EU member states and Schengen associated countries*, mandated to reinforce and streamline cooperation between national border authorities. In 2016 the agency's mandate was enlarged and its name changed to *the European Border and Coast Guard Agency*[2] .
The areas of Frontex activity relevant to this contract are:

- Operations: Frontex plans, coordinates, implements and evaluates joint operations, pilot projects and rapid border interventions.
- Capacity Building: Frontex participates in the development and management of research and innovation activities relevant for the control and surveillance of the external borders, including the use of advanced surveillance technology,
- Risk Analysis: the Agency monitors migratory flows and carries out risk analysis as regards all aspects of integrated border management.
- Frontex Situation Centre: the Agency develops and distributes the European Situational Picture and is responsible for creating and sharing the Pre-Frontier Common Intelligence Picture.
- Providing a rapid response capability: Frontex sets up and deploys a pool of resources which brings together specialist human and technical resources from across the EU.
- Information systems and information sharing environment: Frontex provides the necessary assistance for the development and operation of the EUROSUR and, as appropriate, for the development of a common information-sharing environment, including interoperability of systems, in particular by developing, maintaining and coordinating the EUROSUR framework in accordance with Regulation (EU) No 1052/2013.

More about Frontex origin, organisation, its mandate, fields of activities, strategy and planned activities and especially the recent Frontex Programme of Work[3] can be read on the official information section published on the Frontex web site, available the following link: https://frontex.europa.eu.

In 2018 and 2019 Frontex launched and implemented a trial for medium altitude long endurance maritime surveillance with two different sizes of platforms. The trial took place in areas of the Mediterranean Sea – mainly Greek, Italian and Maltese airspace.

[2] *REGULATION (EU) 2016/1624 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 September 2016 on the European Border and Coast Guard and amending Regulation (EU) 2016/399 of the European Parliament and of the Council and repealing Regulation (EC) No 863/2007 of the European Parliament and of the Council, Council Regulation (EC) No 2007/2004 and Council Decision 2005/267/EC*
[3] *http://frontex.europa.eu/about-frontex/governance-documents/2017*

4. Description of the Tender

4.1. The tender process

The purpose of competitive tendering for awarding the contract is two-fold:

- to ensure process transparency;
- to obtain the desired quality of services at the best possible price.

This tender will be conducted as an open tender procedure.

The procurement procedure is governed by the following legal provisions:

- Title VII of Regulation (EU, Euratom) 2018/1046 on the financial rules applicable to the general budget of the Union (Financial Regulation), repealing Regulation (EU, Euratom) No 966/2012 and Annex I to the same regulation.

4.2. Eligibility

This procurement procedure is open on equal terms to any natural or legal person wishing to bid for the assignment. Exceptionally in this procedure, bids from economic operators from third countries will also be accepted.

Participation in this call for tenders is open as well to international organisations.

Participation is open to all natural and legal persons as defined above, under the condition that:

a) They are not in any of the situations excluding them from participation and that they have no conflict of interest in connection with this contract (see section 6.7 of these Tender Specifications);

b) They have all the necessary knowledge and experience as well as technical and human resources to implement the contract and

c) They possess adequate economic and financial capacity to perform the required services (see section 6.8 of these Tender Specifications).

Any attempt by a tenderer to obtain confidential information, enter into unlawful agreements with competitors or influence the Frontex evaluation committee during the process of examining, clarifying, evaluating and comparing tenders will lead to the rejection of his tender and may result in administrative penalties.

4.3. Penalties

Without prejudice to the application of liquidated damages laid down in the contract, Tenderers and Contractors who have been guilty of making false declarations, shall be subject to the financial penalties set out in Article 135 and 138 of the above mentioned Regulation No 2018/1046.

4.4. Contract Description

The services required by Frontex are described in the terms of reference stipulated within the present tender specifications. In drawing up a tender, tenderers should also bear in mind the provisions of the draft contract (a separate Annex to the invitation to tender). In particular, the draft contract indicates the method and the conditions for payments to the Contractor. The contractual conditions set out hereby are considered to be exclusive obligatory at any time. If any Tenderer or Contractor also stipulates the applicability of their company's own contractual conditions in their offer for FWC or Specific Order, such offer will be rejected.

Tenderers are expected to examine carefully and respect all instructions and standard formats contained in these tender specifications and other annexes to the invitation to tender. An offer which does not contain all the required information and documentation may be rejected.

4.5. Participation of consortia

A consortium may submit a tender on condition that it complies with the rules of competition.

A consortium may be a permanent, legally-established grouping or a grouping which has been constituted informally for a specific tender procedure. Such grouping (or consortium) must specify the company or person heading the project (the leader) and must also submit a copy of the document authorising this company or person to submit a tender. All members of a consortium (i.e. the leader and all other members) are jointly and severally liable to Frontex.

In addition, each member of the consortium must provide the required evidence for the exclusion and selection criteria (see section 6.7 and 6.8 of these tender specifications). Concerning the selection criteria 'technical and professional capacity', the evidence provided by each member of the consortium will be checked to ensure that the consortium as a whole fulfils the criteria.

4.6. Subcontracting

Sub-contracting is allowed, provided that the subcontractor(s) and his scope of work shall be clearly indicated in the tender. Nevertheless, the responsibility for the full execution of the contract rests with the Contractor, as Frontex has no direct legal commitment with the subcontractor(s).

Accordingly:

a) Frontex shall treat all contractual matters (e.g. payment) exclusively with the main Contractor, whether or not the tasks are performed by a subcontractor;
b) Under no circumstances the main Contractor can avoid liability towards Frontex on the grounds that the subcontractor is at fault.

If subcontracting is envisaged in the tender the tenderer shall include a complete documentation that:

a) defines clearly the roles, activities and responsibilities of subcontractor(s);
b) specifies the volume / proportion of the tender being subcontracted for each subcontractor, and
c) contains a letter of intent by each subcontractor stating its intention to collaborate in case the contract is awarded. Subcontracting is permitted in the tender but the tenderer will retain full liability towards Frontex for performance of the contract as a whole and clearly indicates in the tender which parts of the work will be subcontracted and to which subcontractor.

Subcontractors must satisfy the eligibility and exclusion criteria applicable to the award of the contract.

The Contractor may be supported by associated partners providing local expertise and logistical support. If such local support is perceived by the Contractor as needed for the interest of Frontex, a prior authorisation from Frontex must be received and reflected in the Specific Order. The Contractor remains the sole party which is contractually liable. Where no subcontractor is given, the work will be assumed to be carried out directly by the tenderer.

4.7. Assessment of joint tenders and tenders involving subcontracting

Joint tenders shall be assessed as follows:

a) The exclusion criteria and the selection criteria for economic and financial capacity shall be assessed in relation to each company individually[4]
b) The selection criteria for technical and professional capacity shall be assessed in relation to the combined capacities of all members of the consortium, as a whole.

[4] *For the criteria that are deemed to be achieved above a certain level, e.g. overall turnover or turnover with the respect to the specific procurement, a consolidated assessment of all members of consortium together shall be made.*

c) The award criteria shall be assessed in relation to the tender, irrespective of whether it has been submitted by a single legal or natural person or by a tendering group.

Joint offers in the stage following the award:

If the Tenderer submits a joint offer but has not yet set up an entity with a legal form, and if he is awarded the contract, the contracting authority may require the Tenderer to give a formal status to his collaboration before the contract is signed, if this change is necessary for proper performance of the contract. This can take the form of an entity with or without legal personality but offering sufficient protection of Frontex contractual interests (depending on the Member State concerned, this may be, for example, a consortium or a temporary association).

The contract shall be signed by all members of the group, or by one of the members, which has been duly authorised by the other members of the group (a power of attorney or sufficient authorisation has to be provided and shall be attached to the contract as an annex), when the Tenderers have not formed a legal entity.

Tenders involving subcontracting shall be assessed as follows:

d) The exclusion criteria and the selection criteria for economic and financial capacity shall be assessed in relation to each company individually[5].
e) The selection criteria for technical and professional capacity shall be assessed in relation to the combined capacities of the Tenderer and the subcontractor, as a whole, to the extent that the subcontractor puts its resources at the disposal of the Tenderer for the performance of the contract.

The awarding criteria shall be assessed in relation to the tender. Subcontracting as such cannot be an awarding criterion.

4.8. Cost of preparing tenders

The invitation to participate in a tender procedure does not constitute any commitment on behalf of Frontex to award the contract to a company. Frontex shall not reimburse any costs incurred by Tenderers in preparing and submitting offers.

4.9. Misrepresentation and corruptive practices

The contract shall not be awarded to Tenderers who, during the procurement procedure:

a) are subject to a conflict of interest;
b) are guilty of misrepresentation in supplying the information required by Frontex as a condition of participation in the contract award procedure or fail to supply this information;
c) attempt to obtain confidential information, enter into unlawful agreements with competitors or influence the evaluation committee or Frontex during the process of examining, clarifying, evaluating and comparing tenders.

All the above-mentioned circumstances shall lead to the rejection of this offer and may result in administrative penalties.

4.10. Confidentiality and public access to documents

In the general implementation of its activities and for the processing of tendering procedures in particular, Frontex observes the following EU regulations:

[5] *For the criteria that are deemed to be achieved above a certain level, e.g. overall turnover or turnover with the respect to the specific procurement, a consolidated assessment of a Tenderer plus subcontractor together shall be made, to the extent that the subcontractor puts its resources at the disposal of the Tenderer for the performance of the contract..*

a) Regulation (EC) 2018/1725 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC;

b) Regulation (EC) No. 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents.

For the purpose of performing the services the Contractor and its staff engaged in the implementation of the contract will be required to sign the Agreement of non-disclosure (*see the relevant annex to the invitation to tender*).

4.11. Informative meeting

An informative meeting, for the purpose of answering questions from potential Tenderers, and for providing clarifications, is organised on 28 October 2019, at 14:00 Warsaw local time, at Frontex premises, in Warsaw (Plac Europejski 6), Poland. Representatives of the prospective Tenderers (maximum two per Tenderer) are requested to inform Frontex (by sending an e-mail to procurement@frontex.europa.eu) about their planned participation up to 3 calendar days before the scheduled meeting. The list of questions and answers from the informative meeting will be published on the relevant e-Tendering website 6 working days before the deadline for submission of offers at the latest.

5. Implementation

5.1. Types of assignment

5.1.1. Scope of contract

The subject of the contract is to establish multiple Framework Contract (hereinafter called "FWC") for Maritime Aerial Surveillance services with Remotely Piloted Aircraft Systems for long endurance, providing of information via Remote Mission Portal and sharing of compiled operational picture and/or raw data (the data transmission requirements will be defined in the Specific Orders).

5.1.2. Contractual information

Frontex intends to award the framework contract to maximum three (3) Contractors, rating them in ''cascade'' (1st, 2nd, 3rd) order, provided that there is a sufficient number of economic operators that satisfy the selection criteria and a sufficient number of admissible tenders which meet the award criteria. Nevertheless, if there is only one tender satisfying all minimum requirements, Frontex may decide to cancel the procedure or sign a single FWC instead of a cascade.

Frontex will conclude a multiple FWC with the selected Tenderers on the basis of the draft contract attached as one of the annexes to the Invitation to tender. The provisions of the draft contract might be subject to minor modifications prior to the signature.

The multiple Framework Contract will take the form of contracts which are separate but concluded on identical terms with each of the successful Tenderers. The FWC involves no direct commitment and, in particular, does not constitute orders per se. Instead, it lays down the legal, financial, technical and administrative provisions governing the relationship between Frontex and the Contractor during its period of validity.
The provision of Maritime Aerial Surveillance services with Remotely Piloted Aircraft Systems for long endurance deployments will be implemented through Specific Orders.

5.1.3. Duration of the contract

The duration of the FWC is two years with the possibility to prolong it maximum 2 times, each time for a period of 12 months and on the same conditions unless one of the parties informs the other of its intention not to extend the framework contract and such notification is received by the party to which it is addressed, no later than three months before the framework contract expires. The overall duration may in no event exceed four years (two years + two potential extensions for one year). The FWC provisions shall continue to apply to the Specific Orders after its expiry, but no longer than 6 months.

5.1.4. Service Specification

The services acquired should consist of flying maritime border surveillance missions using a MALE RPAS in designated Areas of Interest within a Deployment Area. Each of the flights will be called a 'mission' defined by timeframe, geographical area, Objects and Events of Interest, combination of sensors, communication capacity required in the RPAS, as well as the expected transfer of data/information to the designated Coordination Centre for exploitation and further distribution (i.e. to Frontex and eventually other entities, including national authorities, as indicated by Frontex for a given mission).

5.1.5. Form and content of the tender

The tender shall be clear and concise, with continuous page numbering, and assembled so as to constitute a coherent whole (e.g. bound or stapled, etc.). It must be clearly stated that the Tenderer is able to fully meet all the requirements of the Terms of Reference and is capable of carrying out the work foreseen. The tender shall include all the information and documents required by Frontex for the appraisal of tenders on the basis of

the award criteria, and in accordance with these specifications and the relevant Terms of Reference, in the absence of which, Frontex may decide to exclude the tender from the awarding procedure for the contract.

5.2. Payment

All prices shall be in Euro, excluding VAT, and be all inclusive, i.e. include all costs aligned with the services.

In preparing the Financial Proposal, the Tenderer should take into account that Frontex is, in general, exempt from all taxes and dues, including VAT, pursuant to the Protocol on the Privileges and Immunities of the European Union, annexed to the Treaty on the Functioning of the European Union. Therefore, VAT will not be taken into account in evaluation of tenders.

The Contractor, if established outside of Poland, shall take the necessary steps in order to obtain, from the competent national authorities, exemption from VAT in respect of the services to be provided under the contract concluded with Frontex, in case those services are subject to VAT taxation rules. In such case, Frontex will assist the Contractor by issuing "VAT and excise Duty Exemption Certificate – 1510 form" used for this purpose by the European Union.

The payments for each Specific Order shall be executed as follows:

Pre-financing:

- Upon signature of the Specific Order the Contractor may issue a pro-forma invoice for a pre-financing payment corresponding to the value indicated in its Financial Proposal for the FWC, but the amount of the pre-financing cannot be higher than 20% of the total financial cost of the given Specific Order. The contracting authority shall pay the pro-forma invoice within 30 days after its receipt. The invoices for interim or final payment as described below shall indicate and deduct the advance payment until its amount is fully cleared.

Interim payment(s):

- Invoices for the first interim payment may be issued after the first 200 executed mission flight hours which is followed by interim payment(s) after blocks of 200 executed mission flight hours, based on a mission reports accepted by the contracting authority. The first interim payment can be requested only after the amount of pre-financing payment is consumed (meaning the number of flight hours corresponding to the amount of the advance payment have already been executed and accepted). The payment shall be executed within 30 days after the receipt of the invoice.

Final payment:

- After acceptance of all deliverables and reception of the final invoice, the contracting authority will execute the final payment within 30 days.

Only the flight hours flown will be paid by the contracting authority.

5.3. Language

For the implementation of the Framework Contract and the Specific Orders, all communication shall be in English.

5.4. Points of Contact

The Contractor shall nominate a person who acts as a single contact point vis-a-vis Frontex for all contract execution matters and must be available upon Frontex' request. All the contractual correspondence and related coordination will be addressed to this person.

The Contractor shall also nominate a Contract Executive who will be ultimately representing the Contractor (and subcontractor(s), if applicable) vis-a-vis Frontex for the supervision of the overall performance of the Contractor, the change management on the contract terms and escalation of issues not solved at working level.

Frontex shall nominate a Contract Responsible, who will be a single contact point for all the matters related to the Contract implementation, including the acceptance of the service.

5.5. Methodologies, best practices and standards

The Contractor shall perform in accordance with technical norms, standards and procedures based on best professional practice in the aeronautical and/or telecommunications field.

5.6. Underperformance

In case the Contractor:

- is not respecting its contractual obligations (fails to provide the RPAS, payload, communications, or mission support as specified in its bid) or
- is not responding to specific requests (e.g. fails to perform satisfactorily a test flight for the second time without duly justified circumstances beyond the control of the Contractor),

a breach of the Contractors' obligations may be assumed, and Frontex reserves the right to terminate the Specific Order or the Framework Contract.

5.7. Escalation

The Contractor shall continuously monitor the progress of the work and risks of underperformance. In case the Contractor registers underperformance or assesses a risk of underperformance behind acceptable tolerances established in the project plan, the Contractor must report it to the contracting authority according to standard reporting procedures agreed for the Specific Order. If the standard reporting procedure does not correspond to the urgency of the issue, or in the Contractor's perception the report does not reflect proportionally the reported underperformance or risk, the Contractor shall escalate it by Means of Registered Communication to the contracting authority.

In case of observing serious underperformance or a risk of underperformance of the Contractor, the contracting authority may escalate this observation to the Contractor by Means of Registered Communication and this requires that the Contractor's higher management representative will be available to the contracting authority to report on the issue and propose countermeasures at short notice.

6. Terms of Reference

The terms of reference will become an integral part of the Framework Contract that may be awarded as a result of this tender procedure.

6.1. Description of the services & scope of the contract

With this contract Frontex seeks to acquire aerial surveillance services for maritime domain by the means of Medium Altitude, Long Endurance, Remotely Piloted Aircraft System (MALE RPAS). The deployments will take place in Greece and/or in Italy and/or in Malta Airports. The services offered shall include the provision of a RPAS platform, payload, communication equipment and capacity, mission storage and all the necessary experts managing the system and providing operational support.

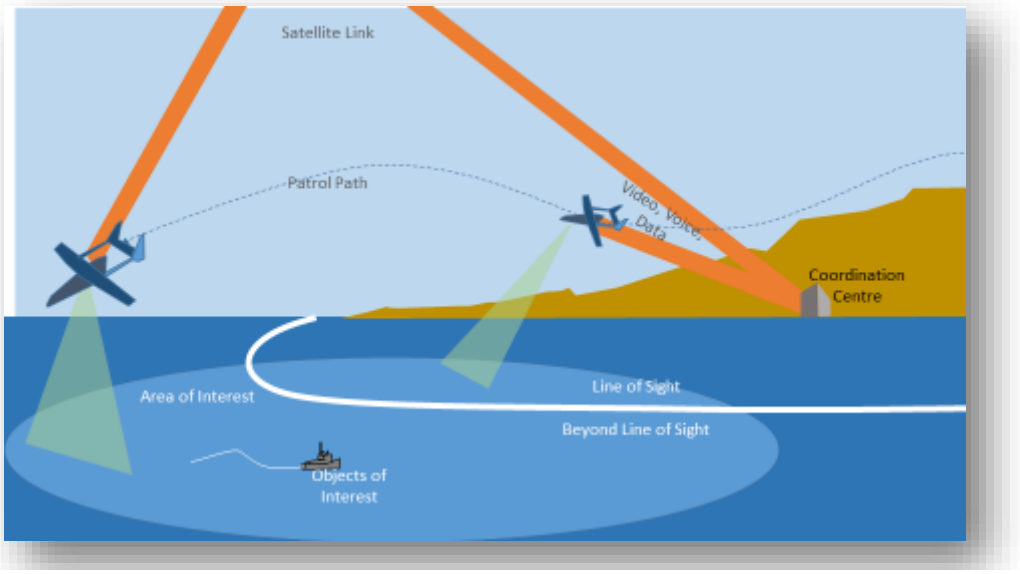

Figure 1 RPAS Aerial Surveillance in a Maritime Scenario

The scenario depicted in Figure 1 shows a typical maritime border surveillance operation conducted by Border Control Authorities. The 'artist impression' reflects the development of a mission where the surveillance platform (RPA) surveys the Area of Interest, included in the Deployment Area, searching for 'Objects of Interest', and passing surveillance data/information to the designated Coordination Centre.

For this transfer, the surveillance platform may use a direct link when flying within RLOS changing seamlessly to a satellite link when flying BRLOS. The image does not show the deployment base where the surveillance platform is based nor the option that the communication link with the Coordination Centre should be made via an *in-situ* Contractors' ground station.

As part of the contract the following deliverables are expected:

- RPAS fitted with ad-hoc payload, relevant communication equipment, and corresponding ground mission control, maintenance and support;
- RPAS data shared –in a to be agreed format - in near real time with the designated Coordination Centre;
- Sensors data shared –in an agreed format - in near real time with the designated Coordination Centre;
- Formats and protocols used to transfer data should enable further sharing of these data by the Coordination Centre, in near real time, with selected stakeholders (i.e. with Frontex and eventually other entities, including Host Country national authorities, as indicated by Frontex for a given mission).

6.2. Indicative Implementation plan for the FWC

The list below presents the indicative plan of the implementation of the Framework Contract, which is not binding on the contracting authority and may be adapted during the contractual period:

- Contract signature Q4 2019.
- First Specific Orders are scheduled for the first quarter of 2020;
- The contracting authority may call more than one service simultaneously (maximum two);
- Frontex intends to launch 2 calls per year for 2000-3000 contracted hours in total on yearly bases.

6.3. Financial Ceiling

Maximum budget available for this contract is intended to be 50,000,000 EUR.

The maximum total duration of the FWC is 4 years.

Should a need for additional similar services (remaining in conformity with the concluded contract) occur, Frontex reserves the right to conduct a negotiated procedure without prior publication of a contract notice, in accordance with points 11.1(e)(f)(i) of the Annex 1 to FR, in order to increase the financial ceiling (for not more than 50%) of the FWC.

6.4. General Requirements

The following requirements apply to any work item of the FWC, and adherence to these requirements shall be explicitly confirmed by the Tenderer in his offer.

To be awarded for the FWC the bidder shall declare (relevant free-format declaration has to be submitted in its offer for the FWC) that in order to be fully prepared for the proper implementation of its contractual obligations, after the FWC signature he will initiate (if not in possession) the process for obtaining security clearance at level of CONFIDENTIEL UE/EU CONFIDENTIAL for the staff involved in management of data/information, including but not limited only to pilots, system operators, liaison officers. Verification of the possession of proper and valid security clearances will be done by Frontex Security Officer during the validity of the Framework Contract. The security clearances must be valid at the moment of the Specific Orders' performance.

6.4.1. Location

Any services contracted under this FWC, including those in the scope of any Specific Order, should be performed by the Contractor in the designated Area of Service Deployment defined in each Specific Order.

The service shall be carried out by the Contractor in the designated Deployment Area, identified by Frontex at the time of the contract signature. Additional deployments / re-deployments are not foreseen and respectively not a subject of the present contract.

At present it can be indicated that the deployment aeronautical facilities and the Deployment Area will be the Eastern Mediterranean in Greece and/or Centre Mediterranean in Italy and/or Malta (flight mission execution could cover areas of Eastern Mediterranean and may include one or more FIRs).

6.4.2. Service to be delivered by the Contractor

The service provided by the Contractor shall include both planned missions and short notice callouts during the ongoing Specific Contracts to conduct aerial maritime surveillance in a specific Areas of Interest within the Deployment Area. The provision of this service will require the following:

a. **RPAS:**
   - Aircraft type: Medium Altitude Long Endurance RPA;
   - The RPA shall be fully remotely piloted, optionally piloted aircraft system is not accepted;
   - Minimum 20 hours endurance with minimum acceptable payload stipulated in 6.4.2/c and with reserve and contingency fuel;
   - The RPA will be capable to carry at least 230 Kilograms payload;
   - The asset is capable of operating in any class of airspace under VFR (Visual Flight Rules) and IFR (Instrumental Flight Rules);
   - The platform will have either piston or turbine engine;
   - Able to fly during the day and night and without any weather limitations except the ones related to take-off and landing;
   - Able to take off and land at least 15 kts crosswind;
   - The operations might be interrupted by scheduled maintenance. This shall not exceed more than 5 days per month;
   - In case of any technical failure the Contractor has to be ready to repair it or has to provide spare platform and spare parts and/or extra staff.

b. **RPA crew:**
   - The Contractor has to guarantee the sufficient number of crew members necessary to operate and maintain the deployed RPA(s), as well as with staff contingency in case of unforeseen cases (i.e. sickness);
   - Certified pilot needed to fly with the offered RPA executing the surveillance flights day/night;
   - Ground Mission crew, responsible for mission management: Sensors, Communications, etc. They are responsible for identifying, recording, and mapping of objects and events of interest;
   - Ground Maintenance crew, responsible to ensure the reliability and availability of the platform, payload, and communications;
   - Following demands of the Host Country, the proposed personnel involved in the management of data/ information will be required to be in possession of security clearance, valid for the duration of the Specific Order, at the minimum level of CONFIDENTIEL UE/EU CONFIDENTIAL (the declaration of possession/processing/intention of applying for after FWC signature of such security clearances by the relevant personnel has to be stated in the Contractor's offer for the FWC). The Contracting Authority reserves its rights to check possession and validity of these EU security clearances through its Security Officer.

c. **Mandatory minimum payload on board the RPAS consisting of a combination of sensors, including:**
   - Electro – Optical payload (the payload shall have the following <u>minimum</u> configuration):
     - giro – stabilized turret;
     - thermal imager;
     - daylight zoom camera;
     - daylight spotter;
   - The giro – stabilized turret shall meet the following minimum requirements:
     - At least two axis giro – stabilization;
     - Line of Sight (LOS) stabilization per each axis: better than 0,15 mrad radians;
     - LOS pan range: 360 degree, continuous;
     - LOS tilt range: - 90 to +10 degree;
     - LOS high slew rate: 60 degree per second;
     - LOS low slew rate: adaptable to the current FOV;

        - geopointing operation (might be externally implemented);
    - Thermal imager shall meet the following minimum requirements:
        - operation in Midwave Infrared - MWIR (3 – 5 μm) spectral band;
        - continuous zoom operation;
        - resolution: 1280 x 1024;
        - FOV range: from 1.3 to 35 degrees;
        - electronic zoom: 2X;
    - Daylight zoom camera shall meet the following minimum requirements
        - type: colour;
        - resolution: 1920 x 1080;
        - FOV range: from 2.3 to 20 degrees;
    - Daylight spotter shall meet the following minimum requirements:
        - type: colour;
        - resolution: 1920 x 1080;
        - narrow FOV: not wider than 1.2 degrees.
- Maritime Surveillance Radar (minimum requirements):
        - Frequency: X band;
        - Designed for air to air and air to ground target detection;
        - Automatic target tracking (Track while scan): minimum 1000 tracks;
        - SAR and Ground Moving Target Indication - GMTI operation modes;
        - Detection capability on the sea (at sea state 3):

            at least 15 NM for small size targets (Radar Cross Section -RCS = $1m^2$);

            at least 40 NM for medium size targets (RCS = $20m^2$);
        - Pan range 360 degree continuous.
- EO/IR system must be cued with the radar;
- AIS Receiver (compatible of receiving Class A and Class B messages);
- GPS;
- VHF/maritime band radio.

d. **Optional payload on board of the RPAS, not to be assessed by the contracting authority**
- Satellite phone location equipment;
- GSM phone location equipment;
- EPIRB (Emergency Position indicating Radio beacons) detection capability.

e. Communications:

The Contractor should include a clear description in his proposal on the communication channels capable of transmitting the payload data. This should include communication from the RPA to the ground segment and from there to the users.

- Link to Ground Control Station via Satellite Broadband Communication (video streaming and data) - the satellite link directly to a satellite transportable terminal in the Ground Control Station;

- Optionally, link to Ground Control Station via Line of Sight Broadband (video streaming and data);
- Streamline design will be provided to Frontex for validation;
- Link to designated Coordination Centre via secure internet Remote Mission Portal (according to 6.4.2. i.)

All the communication has to be encrypted. The encryption method, device, architecture has to be detailed in the offer and to meet the requirements for transmission at marking level "sensitive".

f. Data sharing:

The Contractor shall be able to present in a geospatial information system (GIS) correlated and fused data captured by all the sensors in the aircraft payload. This 'compiled operational picture' should be made available in the designated Coordination Centre and to other external stakeholders and to any other institution/entity indicated by Frontex for a given mission) in close to real time as required.

In the event, based on the Frontex decision, that only the collected raw data should be made available in the designated Coordination Centre, it will be stipulated in the requirement of the Specific Order.

The Contractor has to be able to provide the collected data in both ways (compiled operational picture and raw data only).

Contracting Authority requires that the Contractor shall ensure secure in-stream of data flow to the Internet.

The Contractor shall provide internet connection. The bandwidth should be suitable to transfer all data without any latency delay and it should be a fully managed service including all necessary circuit, hardware and software rental and maintenance for the duration of the contract.

The Contractor shall bear all costs (set-up, maintenance, operation and the fee's to the communication service providers) for data transfer to the end point.

g. Activities under Contractors' exclusive responsibility (their related potential costs are to be covered by their financial offers provided for the tender purpose):

- Ground support for the RPAS;
- Customs issues;
- All the staff participating in the deployment must have all the permits, clearances to stay and work within the EU territory for the duration of the Specific Order;
- Management of International Traffic on Arms Regulation (ITAR) constrains;
- Appropriate insurances in place for third party liability, for his staff and for his equipment and the deployed Frontex or Host MS staff located/accommodated in the premises used by the Contractor for FWC implementation;
- Management of process for request of ATC authorization in the relevant FIR.

h. Activities under shared responsibilities:

- Frequency Allocation (joint endeavour undertaken by Host Country and Contractor);
- Presence of Liaison Officer from the designated Coordination Centre at the Ground Control Station during missions' execution (joint endeavour by Host Country and Contractor).

i. Compiled Operational Picture:

1) <u>Near real time data streaming via Remote Mission Portal</u>

One way of sharing the collected information is via the Remote Mission Portal. On request, the Contractor shall make available at the designated Coordination Centre a dedicated client presenting data/ information structured as follows:

- The Portal should grant web based access to a number of authorized IP addresses via HTTPS (designated Coordination Centre, Frontex and/or any other institution/entity indicated by Frontex for a given mission, other authorized remote users from the Host Country) with the possibility to administer locally the access to live and recorded video.

- The Portal interface should give structured access, for the duration of the service, at least to:
  - Ongoing mission (if any): live Compiled Operational Picture, live camera feed, radar feed, chat with mission chief who coordinates pilot and sensor operator;
  - Schedule of future Missions;
  - Information on finished Missions: mission reports, registered videos.

The bidder is required to describe in its bid the technical setup, the topology for the data flow and the details of the data processing in line with the requirements stipulated above.

2) Near real time data streaming via direct raw data streaming

A considerable number of service requests will be dedicated to the implementation of tasks with the specific purpose of creating a European Situational Picture (ESP) and the Common Pre-Frontier Intelligence Picture (CPIP) as defined in Regulation 1052/2013 (establishing the European Border Surveillance System (Eurosur)). When such calls are launched by Frontex, the Contractor will be obliged to comply with the requirements stipulated below.

Data coming from Aerial Surveillance Services is one of the components that contribute to the creation of the ESP and the CPIP. In order to manage the data and information to compile this ESP and the CPIP, Frontex has implemented one backend service to integrate different kind of surveillance data.

The envisaged way of data distribution for the purpose of creating ESP and CPIP is therefore via near real time streaming services from the aircraft directly to Frontex IT infrastructure without any third party processing. The data streamed including FMV, AIS, Radar tracks and other surveillance data shall be provided protected by the end to end encryption and in the formats specified below.

At the transport layer all raw data shall be available using TCP or UDP sockets acting as servers or clients.

For the near time data streaming setup, no data processing shall take place at the Contractors' or any other 3rd party premises. Pre-processing and data fusion on board of the aircraft however is permitted for example in the case of AIS, radar or phone detections. In this case, the pre-processed and fused data shall be disseminated to Frontex in a format well described and easy to handle like plain text CSV stream. The Full Motion Video shall always be distributed according to the standards described below.

1. Full motion video (FMV)

FMV shall be provided in compliance with NATO STANAG 4609 Edition 3 including metadata elements according with MISB 0601. The envisaged end result is locating the video frame on a map, position, altitude, pitch and roll of the asset.

2. AIS

AIS data shall be streamed in native NMEA 0183 format. The AIS data stream will be stored at Frontex and integrated into the European Situational Picture.

3. Radar tracks

Radar tracks shall be streamed in NMEA 0183 or CSV text format. In exceptional situation when those are not available, the Contractor may propose a different format easy to be decoded and similar in complexity. Binary formats are also accepted. In this situation, the Contractor shall provide a justification and a clear description in their proposal. The radar tracks will be stored at Frontex and integrated into the European Situational Picture.

4. GSM and Satellite phone locations (optional requirement)

The requirements for the transmission of this data are the same as the requirements to the transmission of the radar tracks.

The bidder is requested to describe in its bid the technical setup, the topology for the data flow and the details of the data processing.

6.4.3. Working environment and conditions

The flying platform(s) could be requested for one of the airports of the following countries:

- Greece;
- Italy;
- Malta.

No redeployment is envisaged. However, in the event based on the operational needs identified by Frontex, that the deployment base has to be changed, both parties will first have to accept it and the costs of this (re)deployment will be reimbursed by Frontex outside of the financial scope of this Contract.

The Contractor is responsible for the logistics of the asset including but not limited to: aeronautical facility accommodation for the asset, aeronautical facility access for the crews, fuel and any other required ground support, security of the asset, crews accommodation.

The Contractor shall provide an external power supply (generator) to be used if necessary and in case of power failures.

The Contractor is also responsible for addressing custom and potential import issues, of getting the necessary flight permissions and diplomatic clearance (if required), of Air Traffic Control management, and of procuring the necessary maps of the Operational Area.

Frontex will put the Contractor in contact with the designated Point of Contact (PoC) at the Coordination Centre. This PoC will facilitate the access to all necessary operational briefings and de-briefings for the Contractor's ground mission responsible.

Within 4 weeks after the Specific Order is signed by both Parties, the Contractor will have the possibility to deploy the RPAS platform and all the equipment to the assigned deployment aeronautical facility and to organise familiarisation flight(s) in cooperation with Frontex and the local authorities.

6.4.4. Other costs

The prices provided for the purpose of this contract are fully inclusive. This includes costs related to travel, subsistence, logistics, communication (including SATCOM), secretariat, customs, training, tooling and equipment used by the Contractor's staff, lease and/or use of the facilities and/or airfield in the Host Country. No additional costs are eligible.

6.5. Data Security Management

6.5.1. Access to data

Access to the data will be granted to the staff of the Contractor or its sub-contractor(s) only on a need to know basis.

The staff of the Contractor or its subcontractor(s) shall not disclose any operational information (e.g. but not limited only to flight schedule, operational area, OoI, etc.) to anyone who has not been granted prior written consent of access to data by Frontex during the course and even after the end of the deployment. The Contractor will be required to sign an Agreement of non-disclosure of information together with the signature of any Specific Order within this framework contract.

6.5.2. Data and medium management

Frontex is the owner of all the video records and the images captured by the aircraft during the flights.

For the Remote Mission Portal and real time streaming, the crew shall record all the surveillance activities performed during the flight. After each flight, the records are handed over to an appointed Frontex representative on an agreed information carrier (details will be agreed during the briefing). No other copy will be made or kept by the Contractor or its subcontractor. The records shall be erased from all the Contractor's data carriers latest on the last day of deployment. No hard drive used for such data transfer will be kept by the contractor after the last day of deployment.

When in the possession of the Contractor, the hard drive will be stored in a secure place not accessible to persons not involved in the execution of the Specific Order.

6.5.3. Sensitivity of data

The data provided must be considered as sensitive/limited and can only be shared following duly Frontex approval.

6.5.4. Security of the solution related to data handling, data transfer and data processing

6.5.4.1. Use of Encryption

The bidder shall describe the equipment he will use for the encryption of the data during the operation.

In case of use of the Remote Mission Portal, the solution must guarantee the end-to-end encryption of data. In case of "Near real time data streaming", implying the transfer of data to a server of the Host Country or/and of Frontex the solution must guarantee the encryption between the flying platform and the network of the Host Country/Frontex. In that case, the Contractor shall provide the authority, in addition to the satellite receiver/ transmitter, with a device that will decrypt and encrypt the flow of data to be located at the edge of the Host Country/Frontex IT infrastructure or just in front of the server to which the receiver/transmitter must be connected. The Contractor will be responsible for the maintenance and the support of that equipment. The network owner is responsible to adapt the configuration of its network and security device to enable the connectivity of this device to the receiver receiver/transmitter on board of the plan and to the server of the Host Country or Frontex to which the data will be routed.

6.5.4.2. Documentation of the solution in relation with data processing

The bidder shall describe in detail the architecture, the components, services and the security measures that are implemented in order to guarantee the confidentiality, the integrity and the availability of data during its processing, transfer and storage. This documentation must also include the components and services delivered by subcontractor(s) and/or third parties (e.g. cloud provider if applicable). It must also deal with the hardening of the infrastructure and the patching policies in place for all components.

6.5.4.3. Audit

Frontex (or any third party authorised by Frontex) may at any time perform security audit of IT infrastructure and the IT standard operating procedures applied by the Contractor for the implementation of this framework contract in order to verify the conformity with the documentation provided. The Contractor will facilitate the performance of such audit.

6.5.4.4. Penetration tests

The solution must pass the attack vectors defined in the OSSTMM (Open Source Security Testing Methodology Manual) in its current version. If the deliverables include web-applications or other web-based technologies, they need to pass all the vulnerability tests defined in the OWASP standard (Open Web Application Security Project).

Frontex (or any third party authorised by Frontex) may at any time perform security penetration test. If requested, the Contractor will facilitate the performance of such tests. In case the results indicate obvious

security gaps or vulnerabilities or failures in the implementation and compliance with the required standards and practices the Contractor will be required to correct the system immediately at its own costs.

6.6. Specific Requirements

The following specific requirements shall be obligatory for the Tenderer. The Tenderer is required to declare compliancy to these requirements in his offer.

6.6.1. Long endurance maritime surveillance flights

The Contractor shall provide Frontex with maritime surveillance flights within pre-defined Deployment Area, in a specific timeframe, to report Objects of Interest and Events of Interest to a Coordination Centre designated by Frontex.

All the information captured during the flights shall be recorded by the Contractor and kept for the duration of the Specific Order. All the video records and images collected by the Contractor in the course of the missions will be deleted from all the data supports at the end of the deployment after being transferred to the Host Country or/and Frontex representative.

The Contractors' mission crew in the Ground Station, shall detect, track, identify and report pre-defined Objects of Interest and/or Events of Interest. This information shall be:

a) integrated by the Contractor in a Geographical Situational Picture of the AoI shared with the designated Coordination Centre, which should be able to share it (the Compiled Operational Picture), near real time, with external stakeholders (i.e. Frontex and/or any other institution/entity indicated by Frontex for a given mission);
or, if Frontex requests,
b) made available – only the raw data in the format described under point 6.4.2./h/2 - in the designated Coordination Centre.

The way of information sharing will be stipulated in the requirements of the Specific Order.

6.6.2. Preparing the mission flights

The Contractor will deploy the asset and necessary ground equipment to the deployment aeronautical facility within the limits of time as specified in the Specific Order. The asset will be fitted with the suite of sensors and communications specified by the Contractor in full compliance with the Contractor's technical offer for this FWC.

The Contractor will conduct all required necessary equipment tests (sensors, communications) and demonstrate to the contracting authority the optimal functioning of payload and data transfer in a test flight before starting the scheduled flight missions. The operational flights can start only after having satisfactory results of the test flight. The results are reflected in the relevant Test Protocol, which shall be accepted by the end-user(s) of the service.

In case the results of the test flight are not in accordance with the capabilities stipulated in the Contractor`s offer, the Contractor has 7 working days from the moment of detection of unsatisfactory results of the first test flight to fulfil the capabilities offered. The second test flight shall be implemented to confirm the capabilities are the ones stipulated in the Contractor's offer. In case the Contractor fails for the second time to remedy the deficiencies detected (without duly justified circumstances beyond the control of the Contractor), the Contracting Authority has the right to terminate the Specific Order.

6.6.3. Planning the mission flights

Frontex local coordinator and the Contractor's representative will review the flights weekly, according to the Host Country operational constraints. The details of the mission will contain:

- Geographic coordinates of the AoI;
- Objects and Events of Interest in the AoI;
- Coordination Centre Officer assisting the crew during the mission (this will depend of the designated Objects/Events of interest, i.e. border control experts, fisheries experts, other as needed).

In unforeseen situation (e.g. identification of a specific vessel in an area which was not indicated in the mission details) the Coordination Centre Officer will provide the crew the geographic coordinates of the new AoI and the objects/events of interest to focus on.

6.6.4. During the mission

The Contractor shall:

- Fuse the data acquired by all RPAS sensors, the RPAS flight path, and Objects/ Events of Interest and present this information and data, geo-referenced, in a Geographical Information System providing a Situational Picture of the Area of Interest; or
- Transfer the raw data in the requested format (point 6.4.2./h/2) collected by the RPAS sensors.

6.6.5. Situational Picture building and sharing

The Situational Picture shall be shared with the Coordination Centre, either directly or via the Contractor's satellite transportable terminal.

a. Information available in the Ground Control Station

- Compiled Operational Picture, including:
    - Moving Mission Map;
    - Platform GPS position (at least providing the heading, speed and altitude information);
    - Areas and flight pattern;
    - Sensors Footprint;
    - Georeferenced Objects and Incidents of Interest with associated metadata text description;
- Live Streaming Video of FMV quality;
- Radar and AIS tracks.

b. Additional capacities in the Ground Control Station

- Communications with the RPAS;
- Video Server with video recording capacity for the duration of the Specific Order;
- Encryption devices;
- Remote Information Portal to share information with users outside the Coordination Centre;
- VHF maritime band radio control.

c. Remote Information Portal Capacities

- The Portal should grant secure web based access to a number of authorized IP addresses via HTTPS (designated Coordination Centre, Frontex, and/or any other institution/entity indicated by Frontex for a given mission) with the possibility for the Host Country to administer access to live and recorded video
- The portal interface should give access, for the duration of the Contract, to:
- An ongoing flight (if any): Mission Map in real time, live camera feed
    - Schedule of future flights
    - Information on finished flights: flight reports, registered videos of Events/ Objects of interest

6.6.6. Mission Report

After each mission the Contractor's crew will produce and deliver to Frontex and to the Coordination Centre a written report of the flight containing flight path and Objects/ Events of Interest detected, identified, tracked. The template as well as the required distribution of the reports will be provided by Frontex to the Contractor. The Contractor shall provide a 'non-fly' report in case a scheduled flight cannot be accomplished. The non-fly report shall thoroughly explain the reasons for non-compliance with the flight request. The prior acceptance by Frontex of the Flight Reports concerned will be a necessary step for the interim contract payments. The 'non-fly' report will not constitute grounds for any payment.

6.6.7. Final Service Report

Once all the missions under the Specific Order have been performed, the Contractor shall compile all of his flight reports in a Service Summary Report within 10 calendar days containing two parts: statistical summary of activity

and a narrative outcome of the deployment. The acceptance by the contracting authority of this Service Summary Report will be a mandatory step for final contract payment.

6.6.8. Cost Scenarios

The proposed costs of the surveillance service to be provided by the Tenderer shall be presented using the Financial Proposal Template, attached to the tender dossier.

The tenderer is required to present costs of services based on the two cost scenarios, as stipulated below.

6.6.8.1. Cost Scenario 1

A total of 1 200 flying hours, provided for a period of 180 days, carrying out surveillance activities within 20 000 nm^2 - called Area of Interest. The boundary of the Area of Interest is located at a distance of 250 nautical miles from the deployment aeronautical facilities.

Payload: stipulated in point 6.4.2/c.

Livestreaming using BRLOS during the entire operational flight.

For the present cost scenario the tenderer shall assume that the number of flights will be equally spread along day and night and that each flight will be with a duration of at least 20 hours.

A summary of the abovementioned parameters is presented below.

Size of the AoI	20,000 Nm^2
Distance between deployment aeronautical facility and AoI	250 nm
Minimum duration of one flight	20 hours
Minimum availability of services	180 days
Number of hours of flight to be provided in this scenario	1 200 hours

6.6.8.2. Cost Scenario 2

A total of 2 400 flying hours, provided for a period of 360 days, carrying out surveillance activities within 20 000 nm^2 - called Area of Interest. The boundary of the Area of Interest is located at a distance of 250 nautical miles from the deployment aeronautical facilities.

Payload: stipulated in point 6.4.2/c.

Livestreaming using BRLOS during the entire operational flight.

For the present cost scenario the tenderer shall assume that the number of flights will be equally spread along day and night and that each flight will be with a duration of at least 20 hours.

A summary of the abovementioned parameters is presented below.

Size of the AoI	20,000 Nm^2
Distance between deployment aeronautical facility and AoI	250 nm
Minimum duration of one flight	20 hours
Minimum availability of services	360 days
Number of hours of flight to be provided in this scenario	2 400 hours

The costs proposed for the cost scenarios above will be binding for the duration of the FWC and will be used as quotation for the Specific Orders.

In the event the duration of the requested deployment is up to 270 days, the Contractor is obliged to apply the price declared by him for cost scenario 1.

In the event the duration of the requested deployment is longer than 270 days and up to 360 days, the Contractor is obliged to apply the price declared by him for cost scenario 2.

Deployments for period shorter than 180 days are not foreseen.

The number of particularly requested flight hours for a given assignment will be calculated proportionally, in line with the ratio of number of flight hours from the specific scenario (e.g. in case of deployment of 270 days the requested flight hours will be 1 800).

6.7. Exclusion criteria

In line with the Regulation (EU, Euratom) 2018/1046, Tenderers shall be excluded from participation in a procurement procedure if they are in any of the situations as described therein.

In order to fulfil the eligibility criteria, the Tenderer or in case of consortium all member of consortium (and also all subcontractors, if applicable) shall provide within their bids, a declaration on their honour, duly signed and dated stating that they are not in one of the situations referred above (see the Tenderer's Declaration on Honour template attached to the Invitation to Tenderers).

The Tenderer which will be selected for the award of the Contract shall provide in due time, preceding the signature of the Contract, the evidence confirming fulfilment of the Exclusion Criteria, as requested by the Contracting Authority.

6.8. Selection criteria

Tenderers must submit evidence of their legal, economic, financial, technical and professional capacity to perform the contract. Incomplete Tenders shall be rejected. However, Frontex may request that missing formal documents are submitted by email (normally these are to be submitted within 48 hours following the request).

6.8.1. Legal capacity

Requirement:

The tenderer‘s legal capacity will be evaluated using the following criterion:

- The Tenderer is asked to prove that is authorised to perform the Contract under the law of the country of establishment of the Tenderer.

Evidence required:

- The Tenderer must be registered in a relevant commercial or trade register. Evidence of that must be provided by submission of a certificate of professional or commercial registration imposed by the country in which the Tenderer is established. If the Tenderer is not required or permitted to enrol in such a register for reasons of his statute or legal status, an explanation should be provided.

6.8.2. Economic and financial capacity

Requirement:

The tenderer‘s economic and financial capacity will be evaluated using the following criterion:

- The tenderer must have the economic and financial capacity to guarantee continuous and satisfactory performance throughout the envisaged lifetime of the performance of the contract.

Evidence required

Proof of economic and financial capacity shall be furnished by the following documents:

- The Tenderer must prove its financial reliability for the past three completed financial years. Evidence of that must be provided by submission of a free-format declaration of the company's total turnover from the past three years – 2016, 2017 and 2018 (information shall be provided separately for each year) accompanied with the relevant balance sheets (provided that the publication of balance sheets is stipulated by the legislation on firms in the country where the Tenderer is established), which show the obtained Tenderer's financial balance for each of these past three years. If the Tenderer is not required to publish its balance sheets, an explanation should be provided. The average annual turnover over the period indicated above must be greater than 3,000,000 (three million) EUR.

If, for some exceptional reason which Frontex considers justified, the tenderer is unable to provide the references requested by the contracting authority, he may prove his economic and financial capacity by any other means which Frontex considers appropriate.

Frontex reserves the right to request any additional documentary evidence it deems necessary or useful in order to verify a tenderer's economic and financial standing.

6.8.3. Technical and professional capacity

Requirements:

The tenderer‘s technical and professional capacity will be evaluated using the following criteria:

- The Tenderer must have at least three years' experience in providing similar services.
- The Tenderer must be able to provide a team of experts matching the requirements specified in the Terms of Reference.
- The Tenderer must be able to demonstrate its technical ability to provide all the services and products required in this call for tenders.
- The Tenderer must demonstrate that the offered type of RPAS has already undertaken at least 500 proven operational flight hours with fully integrated maritime payload as defined above.

Evidence required:

The following documents or information shall be presented as evidence of compliance with the technical and professional capacity criteria:

- Evidence of experience must be provided by submitting **a list of contracts** performed or deliveries executed in the past three years, indicating dates and recipients. The proper performance of the contracts listed therein shall be documented in a form of a reference letter issued and signed by the authorised person of the particular Tenderer's client. **At least 3 such reference letters** for RPAS maritime configuration services are required to be submitted within the offer.
- Evidence of team capacity must be provided by submission of the **description of professional profiles of the proposed personnel**. The tenderer's written confirmation is required regarding certification of assigned crews (flight, mission, maintenance) for particular RPAS operation as well as sensor operating experience and/or maintenance experience. The Tenderer shall complete the summary table in Appendix 3 to this document.

- For all proposed contract staff dealing with managing data collected by the platform, the tenderer's written confirmation of possession by them (or intention of arranging it) of the **CONFIDENTIEL UE/EU CONFIDENTIAL security clearance** is required.
- The pilots who will be coordinating the deployments for the contract must have a minimum of 3 years' experience of piloting aircrafts and/or RPAS and this must be demonstrated through previous projects/deployments. The sensor operating/data analyst staff must have a minimum of 2 years' experience of working on RPAS deployments or similar operations.
- The Tenderer shall complete the summary table in Appendix 2 to this document. Evidence of technical ability must be provided by submission of a **detailed description of the technical equipment and material available to the Tenderer** for the provision of the services and products required by this call for tenders. This description should include RPAS, payload combinations, communication options and mission support capabilities.

7. Award of the contract

7.1. Tender opening session

Offers are opened and evaluated by an evaluation committee, possessing the technical and administrative capacities necessary to give an informed opinion on the offers. The evaluation committee members are nominated on a personal basis by Frontex under guarantee of impartiality and confidentiality. Only the tenders meeting the requirements of the exclusion and selection criteria and fulfilling the minimum technical requirements will be evaluated in terms of price.

The main aim of the public opening session is to check whether the tender received is compliant with the following formal requirements:

a) Not submitted later than the submission deadline, and

b) The envelope/box/package containing the tender is sealed.

The tender opening session will take place on the date indicated in the Invitation to tender at the premises of Frontex, Plac Europejski 6, 00-844 Warsaw, Poland. Tenderers wishing to attend the opening session shall send a confirmation e-mail to the Procurement Sector (procurement@frontex.europa.eu). A maximum of one representative per tenderer may attend the opening session. Their participation shall be restricted to an observer's role.

Tenders complying with the formal requirements checked during the tender opening session shall be considered eligible and will be evaluated against the following criteria:

a) Exclusion criteria
b) Selection criteria
c) Award criteria

The evaluation committee's deliberations are held in closed sessions and its decisions are collective. The members of the evaluation committee are bound to secrecy.

Frontex may on its own discretion decide to change the order of the evaluation stages.

7.2. Technical proposal

The assessment of technical compliance of the submitted offer will be based on the ability of the tenderer to meet the purpose of the contract as described in sections 6.4., 6.5. and 6.6. See also Appendix 1 to the Annex I.

7.3. Technical and financial evaluation

The quality of technical offers and conformity with the requested mandatory technical specification will be assessed in accordance with the requirements stipulated in points 6.4., 6.5. and 6.6., with a special attention to the detailed **mandatory** requirements stipulated in 7.3.1.

The quality of a technical offer will be evaluated in accordance with the award criteria table (Table 2).

The Tenderer will use the Financial proposal form to inform of their proposed financial value for the provision of the corresponding Cost Scenario services described in section 6.6.8.

7.3.1 Mandatory technical capacity minimum requirements

Integrated Payload on board the RPAS	
Electro – Optical payload	
	1) giro – stabilized turret;
	2) thermal imager;
	3) daylight zoom camera
	4) daylight spotter
1) Gyro – stabilized turret	
	a) At least two axis giro – stabilization;
	b) Line of Sight (LOS) stabilization per each axis: better than 0,15 mrad radians;
	c) LOS pan range: 360 degree, continuous;
	d) LOS tilt range: - 90 to +10 degree;
	e) LOS high slew rate: 60 degree per second;
	f) LOS low slew rate: adaptable to the current FOV;
	g) Geopointing operation (might be externally implemented);
2) Thermal imager shall meet the following minimum requirements:	
	a) operation in Mid wave Infrared - MWIR (3 – 5 μm) spectral band;
	b) continuous zoom operation;
	c) resolution: 1280 x 1024;
	d) FOV range: from 1.3 to 35 degrees;
	e) electronic zoom: 2X;
3) Daylight zoom camera shall meet the following minimum requirements	
	a) type: colour;
	b) resolution: 1280 x 720;
	c) narrow FOV: not wider than 1.2 degrees.
Maritime Surveillance Radar	
	a) Frequency: X band;
	b) Designed for air to air and air to ground target detection;
	c) Automatic target tracking (Track while scan): minimum 1000 tracks;

	d) SAR and Ground Moving Target Indication - GMTI operation modes
	e) Detection capability on the sea (at sea state 3) at least 15 NM for small size targets (Radar Cross Section -RCS = 1m2);
	f) Detection capability on the sea (at sea state 3) at least 40 NM for medium size targets (RCS = 20m2);
	g) Pan range 360 degree continuous
Full motion video	
	a) Minimum resolution : 640x480 @ 15FPS;
	b) Video encoder minimum bitrate: 512kbps;
EO/IR system must be cued with the radar	
AIS Receiver (compatible of receiving Class A and Class B messages)	
GPS	
Satellite Broadband Communication has to be guaranteed	
Compiled Operational Picture has to be provided	
Remote Mission Portal should contain all the requested elements	
Near real time data streaming via Remote Mission Portal has to be guaranteed	
Near real time data streaming via direct raw data streaming has to be guaranteed	
VHF maritime band radio	

Table 1 Mandatory technical capacity minimum requirements

Improvements of the minimum technical requirements will be scored with extra points. Special attention shall be accorded to sensors specification and data integration as follows:

- Radar: detection ranges and coverage;
- Opto – electronic payload: laser range finder, resolution, NFOV;
- FMV: resolution and encoder bitrate;
- Data integration: specific software tools to streamline operators workflow.

7.3.2 Technical Evaluation Criteria

Technical Evaluation Criteria Table		Max points
Work organization and planning within the tenderer		**10**
	- Completeness of the offered service provision description (in the technical offer)	5
	- Clarity and quality of the described work organization (deployment planning, implementation, shift schedules, key personnel`s role)	5
Involvement of key personnel		**11**
	- Joint capacity of the team of pilots proposed	4
	- Joint capacity of the team of experts proposed as Ground Mission Crew	4
	- Joint capacity of the team of experts proposed as Maintenance Ground Crew	3

Suitability and scalability of Technical Means offered by the Tenderer		
	Platform endurance	**5**
	Platform take off/landing crosswind velocity limitation	**5**
	RPAS Communication Capabilities (SATCOM, RLOS, VHF relay)	**5**
	Electro optical equipment in the RPAS	**10**
	Maritime surveillance radar and AIS	**20**
	Data Exploitation in the Ground Station	**10**
	BLOS data transfer capabilities (uplink speed in kbps)	**10**
	Compiled operational picture transfer capability and level of interactivity	**14**
TOTAL		**100**

Table 2 Technical Evaluation Criteria

Offers scoring total less than 60 points will be deemed to be of insufficient quality and eliminated from further consideration.

Notes to the Award Criteria table:

- Completeness of the offered service provision description: the technical offer contains all the information as requested in the ToR;
- Clarity and quality of the described work organization: it needs to be described, after the Specific Order is signed how the deployment is planned, organized, implemented, how the shifts are scheduled, roles and tasks of the key person, crew members, establishment of ground station, etc;
- Involvement of key personnel: the evaluation will be done by the information provided in the related annex;
- Platform endurance:
    - Between 20 hours and 21 hours - 3 points;
    - Between 22 hours and 23 hours - 4 points;
    - More than 23 hours - 5 points;
- Platform take off/landing crosswind velocity limitation 15 kts:
    - Between 15 kts and 17 kts – 3 points;
    - Between 18 kts and 19 kts – 4 points;
    - More than 19 kts – 5 points;
- Data Exploitation in the Ground Station:
    - Human machine interface software in the CGS should present and allow the exploitation of the compiled operational picture as described in point 6.6.5/a of the ToR.
      Specifically: mission map, video, chat with the pilot, list of events. The exploitation should allow the creation of rules (i.e. filtering by speed, entry in a selected area) and the combination of those rules;
- Fulfilling minimum technical requirements for maritime surveillance radar will consist of 12 points. Improvement of those requirements or other functionalities who increases operational capabilities will be scored accordingly up to 20 points.
- Fulfilling minimum technical requirements for electro – optical payload will consist of 6 points. Improvement of those requirements or other functionalities who increases operational capabilities will be scored accordingly up to 10 points.

7.3.3 Financial Evaluation Criteria

The Financial Evaluation points will be awarded to the tenders eligible to participate in the financial evaluation on the basis of the formula stipulated below.

The costs proposed for Cost Scenarios will be weighted as follows:

- 45% for the value proposed for Cost Scenario 1;
- 55% for the value proposed for Cost Scenario 2.

The final financial evaluation will take into consideration the reference price (average costs from the two cost scenarios, weighted as stipulated above).

Example for calculation of final cost of the proposal:

Proposed cost per flight hour for Cost Scenario 1 – 5 000EUR x 0.45=2250 EUR;
Proposed cost per flight hour for Cost scenario 2 –3 000 EUR x 0.55=1650 EUR;
Final cost to be taken into consideration for the purpose of evaluation of tender (reference price) is **3 900 EUR** – which represents the sum of the weighted values from both cost scenarios, as indicated above.

7.4. Final evaluation

The most economically advantageous tender is determined by weighing technical quality against price on 60/40 basis respectively.

The framework contract will be awarded to the tenderers (maximum three), who submitted tenders with the highest Final Scores, rating them in ''cascade'' (1st, 2nd, 3rd) order, provided that there is a sufficient number of economic operators that satisfy the selection criteria and a sufficient number of admissible tenders which meet the award criteria. Nevertheless, if there is only one tender satisfying all minimum requirements, Frontex may decide to cancel the procedure or sign a single FWC instead of a cascade.

7.5. Notification of outcome

Each tenderer will be informed in writing about the outcome of the call for this FWC tender.