

## Terms of Reference

# Purchase of aerial surveillance service for the EU external land borders

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Ref. No: Frontex/

# Purchase of aerial border surveillance service - aircraft equipped with multi-intelligence sensors, radio communication means, ground station and personal equipment

## Terms of Reference (ToR)

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## 1. DESCRIPTION OF THE ASSIGNMENT

The awarded Contractor shall provide the necessary technical equipment and staff to perform aerial surveillance at the external EU land border between Greece and Turkey. The dedicated aerial mean shall fly on Greek territory not closer than 1.5 nm to the border line. The flights will be performed mainly during the night. The results from the aerial surveillance shall be transmitted in real time to a mobile ground station and forwarded to the border patrols, deployed in the operational area during the flight. After each flight the contractor shall produce a detailed report about the activities implemented during the flight, including the assigned tasks, flight route, snapshots and motion pictures captured during the surveillance. The flight report shall contain any other information considered necessary to facilitate the activities of the ground patrols.

### 1.1. GLOBAL OBJECTIVE

The global objective of the Pilot Project is to further develop the Technical Equipment Pool by establishment of new category of equipment with higher level of availability, thus to increase Frontex own operational capability.

Frontex will assess the operational performance of the deployed technical assets and the cost-efficiency of the purchased service. On that base Frontex Management will decide on further development of the Technical Equipment Pool and acquisition of other technical equipment.

### 1.2. SPECIFIC OBJECTIVES

The specific objectives of the Pilot Project are:

1. Frontex to purchase a complete service for aerial border surveillance;
2. To check the capabilities of the economic operators to provide service for aerial surveillance;
3. To establish the basis for development of Frontex strategy for acquisition of its own technical resources

## 2. REQUESTED SERVICES AND MODALITIES

- The Contractor shall provide for Frontex an aerial surveillance service, at the external EU land border between Greece and Turkey from Greek territory;
- The base airport will be the Airport of Alexandroupolis
- The Contractor shall provide an aerial surveillance service for a period of 30 days;
- The aerial surveillance service shall include at least 6 hours flights per day;
- In case of urgency defined by Frontex the Contractor may be required to perform additional flights, but the total number of flying hours should not exceed 200 hours within a period of 30 days;

- The pilots shall have the qualification to operate under Visual Flight Rules during the night;
- The aerial platform shall be registered in one of the EU Member States;
- The aerial platform shall be used solely for operational purposes and under the supervision of particularly assigned Greek officer(s);
- The Greek officer(s) shall be appointed by the Host Member State - Greece;
- The Contractor shall ensure the implementation of the flights and performance of the aerial surveillance by providing sufficient number of crew and other necessary staff;
- The number of the crew and the other staff shall ensure the implementation of at least two consecutive flights per night;
- The Contractor shall provide at least 4 pieces of personal digital assistant (PDA) to be used by the ground patrols;

### 3. DESCRIPTION OF THE SURVEILLANCE SYSTEM

The surveillance system shall provide the possibility to control the onboard sensors on two ways - by the operator on board and by the ground station.

The system shall provide the possibility the onboard surveillance sensors to be controlled remotely by the ground station operator (*optional*).

The surveillance system shall contain three main components:

- **Aerial component** - a flying platform with the capability to carry on board the surveillance equipment and the necessary crew and to comply with the technical parameters stipulated in p. 4.1 below;
- **Ground component** - a mobile station for Command, Control and data transfer, based on a 4WD vehicle with the capabilities and equipment as stipulated in p.4.4 below;
- **Personal equipment** - personal digital assistants with communication range of at least 10 km.

### 4. TECHNICAL CAPABILITIES REQUIRED

#### 4.1. PLATFORM REQUIREMENTS

- Low noise and long endurance fixed or rotor wing aircraft;
- Operational mode - manned;
- Single mission range - at least 800 km;
- Minimum endurance with the required equipment and passengers on board - 6 hours;
- Ability to operate at speed less than 150 km/hour;
- Ability to operate at speed over 250 km/hour;
- IR signature - undetectable at distance longer than 2500m;
- Service ceiling - at least 3000m;
- Aircraft Accident Rate - historical accident rate less than 2 accidents per 100 000 hours flown;

- Maximum take-off weight (MTOW) - less than 3000 kg;
- Minimum payload - ability to carry and operate simultaneously the onboard multiple sensors and equipment; minimum 2 (Electro-optical/Infra red (EO/IR) and a Radar);
- TCAS (Traffic Collision Avoidance System);

#### 4.2. ONBOARD SENSOR REQUIREMENTS

- High definition infrared sensor with multi-spectral (short, medium and near infrared) capabilities;
- High definition electro-optical sensor with meta-data included in the output;
- Fully integrated sensors in a Common Operating Picture ground system;
- The on board sensors shall provide the possibility to be remotely controlled from the ground station.

#### 4.3. COMMUNICATION SYSTEM

The communication system shall provide reliable communication to support real time data transfer between the aerial component and the ground component and the PDA devices which are within the radio range of the ground component.

The communication system shall provide two way voice communication between the ground station and the aircraft.

The communication system shall contain at least the following elements:

- Digital two-way line of sight data-link with at least 150 km range and quad band capabilities;
- Beyond line of sight communication system (Dual-ARC-210 radio or equivalent);
- SATCOM;
- The communication system shall provide the possibility to control the onboard sensors remotely from the ground station (*optionally*).

#### 4.4. GROUND STATION

- Mobile, autonomous ground station based on a 4WD vehicle;
- Capability for continuous operation - not less than 6 hours.
- The ground station shall provide simultaneous functionality of all the built-in systems;
- The images from the onboard surveillance sensors shall be displayed on the monitors of the ground station;
- During the operation on the monitors in the ground station shall be simultaneously displayed the vectors of the directions of the aircraft and the surveillance camera;
- The ground station shall provide remote control to the sensors on board the aerial component (*optional*);
- Web-base distribution - to disseminate tactical picture (feeds, video) to end users by thin clients and portals over IP;
- Remote Video Terminal capability.

- The ground station shall provide at least two working places - one for the sensor operator and one for the national official.

## 5. LOGISTICS

All the logistics related to the deployment and implementation of the surveillance tasks remain responsibility of the Contractor. The logistics shall include at least the following:

- transportation of the equipment to the place of deployment;
- customs formalities;
- insurance of the equipment
- insurance for the crew and the other staff;
- installation of the equipment;
- transportation and accommodation of the crew and the other staff;

One week before the deployment the Airport facilities will be opened for the Contractor to adjust the aircraft and the ground equipment, including for testing flights.

## 6. OPERATIONAL ORGANISATION

Upon signature of the contract the Contractor will be assigned a 30 day time slot within the period July - September 2013 for deployment of the equipment and implementation of the tasks. One week before the deployment the Contractor will have the possibility to take part in the drafting of the flight schedule and to organise familiarisation flights in cooperation with Frontex and local police authorities.

Depending on the effective starting date of deployment and on the available budget, Frontex may decide to extend the deployment with up to two months more.

## 7. REPORTING

The communication between the crew, Frontex and the local authorities shall be in English. After each flight the crew shall prepare a Mission Report.

The report shall include at least the following points:

1. Name of the airport/airfield, destination, any itinerary;
2. Number and the names of the crew and the passengers on board;
3. Take-off and landing time (start/end of mission);
4. Weather conditions;
5. Description of the functioning of the systems for radio communication and real time data-transmit;
6. Tasks and activities performed during the mission;
7. Suspicious cross-border activities monitored and detailed description of the area and location;
8. Other illegal activities detected i.e. smuggling, etc.;

9. Measures taken and authorities informed (including search and rescue);
10. Flight-track map;
11. List of gathered documentary evidences (e.g. photographs, video data, sketches);
12. Any additional information required by Frontex or local authorities.

The crew will record all the surveillance activities performed during the flight and will present the records to the local authorities upon request.

The report shall be made in English language.

The reporting procedure will be performed in accordance with the particular Operational Plan, which will be presented to the crew before the beginning of the deployment.

## 8. ADMINISTRATIVE INFORMATION

### 8.1. INTELLECTUAL PROPERTY RIGHTS

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

All the video records and images collected by the Contractor during the surveillance activities shall be transferred to Frontex and deleted from all the data carriers latest at the last day of deployment.

Frontex reserves the rights to record the process of implementation of the service, to take pictures and to publish follow up reports under its name.

### 8.2. OTHER

The Contractor shall sign a Declaration of Confidentiality (attached as an Appendix) and shall ensure the implementation of the conditions of the Declaration by the Contractor's staff involved in the implementation of the Contract.