

# Tender Specifications

## Attached to the Invitation to tender

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# Invitation to tender No. EMSA/OP/32/2020 for The procurement of supplementary SAT-AIS data services

## 1. Introduction

The European Maritime Safety Agency (EMSA) was established under Regulation (EC) No 1406/2002 of the European Parliament and of the Council<sup>1</sup> for the purpose of ensuring a high, uniform and effective level of maritime safety, as amended.

The Agency's main objective is to provide technical and scientific assistance to the European Commission and Member States in the proper development and implementation of EU legislation on maritime safety, pollution by ships and security on board ships. To accomplish this, one of EMSA's most important supporting tasks is to improve cooperation with, and between, Member States in all key areas.

Among its tasks, the Agency:

- operates several maritime information capabilities at EU Level, including the SafeSeaNet (SSN) vessel tracking system and the EU LRIT Data Centre. SSN enables the EU-wide tracking of vessels and their cargoes while the EU LRIT Data Centre provides the identification and tracking of EU flagged ships world-wide;
- develops and maintains the Integrated Maritime Services (IMS), aimed at enhancing the maritime domain awareness through the provision of an integrated maritime picture. The services are available for authorities in Member States, EU bodies and third countries in the framework of EU regional programmes. The main goal of EMSA's IMS is to offer a technical platform providing, inter-alia, integration and fusion capabilities;
- provides access to SAT-AIS data from the EMSA SAT-AIS data processing centre through both a Graphical User Interface (a dedicated web portal and mobile application) as well as through "System-to-System" interfaces (S2S). Users have access to a global feed of SAT-AIS data currently being provided by SAT-AIS service as a part of the IMS services.

Through the procurement of a supplementary global feed of real time SAT-AIS data services, EMSA aims to have a back-up solution and to complement the present SAT-AIS data feeds which the Agency provides to its users. EMSA users include public authorities in EU and EFTA countries and their associated entities, EU institutions including bodies and operations, EU candidate countries and European Neighbourhood Policy Countries, and international operational entities collaborating with EMSA.

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<sup>1</sup> Regulation (EC) No 1406/2002 of the European Parliament and of the Council of 27 June 2002 establishing a European Maritime Safety Agency (OJ L 208, 5.8.2002, p.1.).

## 2. Objective, scope and description of the contract

### 2.1 Objectives

The objective of this Call for Tender is to award a Framework Service Contract (FWC) for the procurement of supplementary SAT-AIS data services to serve as a backup solution and to complement the SAT-AIS data streams presently being processed by EMSA's applications.

2.1.1 The Contractor shall provide the following two types of services:

2.1.1.1 **Technical Support** – the service set up, testing and validation, service maintenance, reporting, and the provision of SAT-AIS data services as defined by section 2.1.1.2.

2.1.1.2 **Global feed of real-time SAT-AIS and licence for global feed of real-time and historical SAT-AIS data for EMSA users:**

The Contractor shall provide a global feed of real-time SAT-AIS data from space-assets to EMSA in accordance with the standards referred to in section 2.2 and according to the performance requirements described in section 2.3. EMSA will provide a global feed of real-time and historical SAT-AIS data, including its associated data quality indicators and where available its associated Doppler data, through the SafeSeaNet Ecosystem Graphical User Interface (SEG) including web and mobile applications, to entities such as:

- a) EU / EFTA Member States authorities;
- b) EU Institutions such as EMSA, EFCA, and Frontex, to support their users: governmental and international operational public entities collaborating with EMSA, EU bodies and operations such as EUNAVFOR, MAOC-N or other similar agreements or arrangements. The global feed of real-time SAT-AIS data in the form of S2S will be provided to EFCA and Frontex and to other EU institutions, if so required;
- c) Authorities from entities such as EU candidate countries', or for the European Neighbourhood Policy Countries (ENP), or Instrument for Pre-accession Assistance (IPA), e.g. beneficiary countries under European Commission programmes such as SAFEMED, BCSEA or any other EMSA cooperation agreements.

2.1.2 For SAT-AIS data services specified under section 2.1.1.2, EMSA will receive a global feed of real-time SAT-AIS data directly from the Contractor in accordance with section 2.1.1.1 and will make the SAT-AIS data available with no limitations to the number of users, participants and entities as mentioned in section 2.1.1.2.

2.1.3 The data quality indicators, which will be provided by the Contractor for the service specified under section 2.1.1.2, will be processed by EMSA to assist users to validate ship position/s and to determine the geo-position of vessels when it is required to do so.

2.1.4 For the scope of the SAT-AIS data services explained under section 2.1.1.2, a continuous global data feed of real-time SAT-AIS data is required for all the geographical areas covering the following "worldwide" coordinates: latitude -90 to 90 degrees and longitude: -180 to 180 degrees.

## 2.2 SAT-AIS data technical requirements

EMSA aims to provide high quality SAT-AIS data services to its users therefore it requires data of good quality in terms of data completeness, integrity, and timeliness that meets the requirements stated in the tender specifications.

2.2.1 The Contractor shall provide a global feed of real-time SAT-AIS data to EMSA using the following standard formats, in their final version:

2.2.1.1 IEC 61162-1;

2.2.1.2 IEC 62320-1 (comment block extension);

2.2.1.3 ITU-R M.1371-5;

2.2.1.4 EMSA's additional usage of 'i' parameter-code defined in the STAR Streaming Ecosystem Interface Guide<sup>3</sup>.

2.2.2 The Contractor shall provide a global SAT-AIS data stream that contains all AIS messages received from AIS transponders class A and class B mobile equipment including shipborne equipment, AtoN stations, and SAR aircrafts.

2.2.3 The Contractor shall provide the global SAT-AIS data stream without any restriction or limitation on the 27 AIS message types as described in Rec. ITU-R M.1371-5: "Technical characteristics for an automatic identification system using time division multiple access in the VHF maritime mobile frequency band".

2.2.4 The Contractor shall provide the data quality indicators for all the 27 AIS message types of the global SAT-AIS data stream, as defined in **2.2.6.7**.

2.2.5 The Contractor, if requested by EMSA, shall be able to provide for any given area, within one day<sup>2</sup> following the request (depending on the nature of the request), a copy of the historical SAT-AIS data for a global or a defined geographical area for a number of ships or as the case may be.

2.2.6 The Contractor shall provide the SAT-AIS ancillary data associated to each AIS message. Ancillary information should be contained in the message comment blocks<sup>3</sup> including:

2.2.6.1 **Acquisition Timestamp** - timestamps indicating the date and time of reception of the AIS message by the satellite:

- a) timestamp, with resolution of 1 second, sent inside comment block 'c:' + timestamp (in epoch format);
- b) timestamp with the best possible resolution (ideally 1 µs), sent inside comment block 'i:' element <T>, character T: + second given after 'c:' integer (in µs).

2.2.6.2 **Satellite ID** - information indicating which satellite received the AIS message – this shall be able to be transmitted either as:

- a) the talker device identification - inside comment block 's:' integer (satellite NORAD id);

<sup>2</sup> The word 'day' in these Tender Specifications refers to a calendar day unless otherwise specified.

<sup>3</sup> " 04 - Tender Specifications Appendix II - STAR Streaming Ecosystem Interface Guide.pdf"

- b) the satellite identifier identification - inside comment block 'i:', element <T>, L: string (satellite common name).

2.2.6.3 **Ground Station Acquisition Timestamp** – time when the position report was downloaded by the ground station from the satellite - inside comment block 'i', element <T>, character 'A:' + timestamp (in epoch format).

2.2.6.4 **Ground Station ID** - Information on the ground station identifier receiving a message from the satellite - inside comment block 'i', element 'T', character 'G:' + string.

2.2.6.5 **Data Centre Ingestion Timestamp** – time when the position report is delivered to the Contractor's data centre and is ready to be forwarded to the EMSA streaming solution - inside comment block 'i', element <T>, character 'I' + timestamp in (epoch format).

2.2.6.6 **Data Centre Delivery Timestamp** – timestamp when the message is forwarded to the EMSA streaming solution. The timestamp shall be updated for every consecutive attempt following unsuccessful communication. In case of nominal communication flow the **data centre ingestion timestamp** will be similar or the same to the **data centre ingestion timestamp** - inside comment block 'i', element <T>, character 'D:' + timestamp (in epoch format).

2.2.6.7 **Data quality indicator** – For all provided AIS messages, the parameter aiming at providing information on the data quality shall contain a 2-digit number where the first digit refers to the level of processing to which the data has been subjected to before being sent through the proxy. The second digit represents quality of the position/ level of confidence. The coding is explained in the **Tender Specification Appendix II**<sup>4</sup>. Data quality indicators shall cover at least the three following reports:

- a) **A valid position report** - element Q=32 – a valid position. The measured and computed values are close enough for the message to be considered valid. In any case, at least it can be determined for sure that the reported position is within the satellite footprint;
- b) **An invalid position report** - element Q=31 – an invalid position. There is a discrepancy between the measured and the computed values;
- c) **An uncertain position report** - Element Q=12 – the status of the position is uncertain. The Contractor does not have enough information to perform the check. This applies for example to messages which do not contain a position information or do not contain a valid position information.

2.2.6.8 **Doppler shift (if available)** – the parameter measured by the satellite at the time of reception of the AIS message, with the best possible resolution (ideally 0.1 Hz). The frequency shift of arrival with respect to the centre of the AIS channel (inside comment block 'i', element <T>, character 'F:' + integer (in MHz).

2.2.7 The Contractor shall:

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<sup>4</sup> "04 - Tender Specifications Appendix II - STAR Streaming Ecosystem Interface Guide.pdf"

- 2.2.7.1 Reference the satellites by using NORAD identification parameters;
- 2.2.7.2 Provide the SAT-AIS orbit files, either as prediction consisting of state vectors in J2000, or as 2-lines elements;
- 2.2.7.3 Be able to update the SAT-AIS auxiliary data on a routine basis, a day or a week in advance and should be able to update the auxiliary data in near-real time in case of an unscheduled event (e.g. satellite failure);
- 2.2.7.4 In case of unavailability of a satellite, the Contractor shall immediately provide EMSA the reason for unavailability and the date and duration of the event.

## 2.3 SAT-AIS data information, coverage, and performance requirements

- 2.3.1 The Contractor shall provide a global feed of real-time SAT-AIS data for class A and class B transponders and, where available, the Doppler data.
- 2.3.2 The service offered by the Bidder shall not have an average timeliness longer than 45 minutes per detected message.
- 2.3.3 The Bidder shall indicate in the offer the number of AIS messages currently detected per day from all satellites and per satellite for all message types.
- 2.3.4 The Bidder shall indicate in the offer the number of individual ships (MMSIs) currently detected per day from all satellites and per satellite.
- 2.3.5 The Bidder shall indicate the data quality indicators, as defined in section **2.2.6.7**, that can be supported and, where available, the data quality indicators not included in section **2.2.6.7**, but supported by the offered service.
- 2.3.6 If available, the Bidder should indicate the percentage of Doppler data provided in relation to the global feed of SAT-AIS data and should also indicate the number of satellites and which satellite/s within the constellation will be providing the Doppler data.
- 2.3.7 The Bidder shall provide technical details on the orbit satellite assets and constellations, which will be utilized including characteristic of the on-board sensors, satellite and ground station transmitters and receivers (including down link rate).
- 2.3.8 The Bidder shall provide evidence that the orbit satellite assets and constellations will not, in December 2020, be forming part of the present EMSA's contracts for the provision of SAT-AIS data services.
- 2.3.9 The Bidder shall also indicate any envisaged deviations or low performances in terms of the timeliness, probability detection, and time update interval.
- 2.3.10 The Contractor shall ensure that global satellite coverage does not depend upon the deployment of additional space assets and ground stations. The global coverage is required during the whole duration of the contract.

- 2.3.11 The Bidder shall demonstrate that his company has the legal ownership and rights on the global SAT-AIS data and that his company has the right to provide the global SAT-AIS data and its associated Doppler data, where available, to EMSA.
- 2.3.12 The Contractor shall grant the right to EMSA to store, process, and display the global feed of SAT-AIS data in EMSA's visualisation applications, including web and mobile applications, and to distribute it to the users, as defined in section 2.1.1.2 in real-time or historically.
- 2.3.13 The Contractor shall grant the right to EMSA to produce vessel traffic, route statistics, and density maps based on the global SAT-AIS data feed it receives and to make it available to its users whenever requested so.
- 2.3.14 The Contractor shall grant the right to EMSA to process data quality indicators and Doppler data (where Doppler data are available), and to provide services, such as position validation, to its users through the use of Doppler data.
- 2.3.15 If requested by EMSA, the Contractor shall apply a solution for controlling the data transmission rate by which the global SAT-AIS data feed is provided to EMSA's streaming solution.
- 2.3.16 If requested by EMSA, the Contractor shall remove any duplication of messages acquired through different satellites or of any unwanted AIS message types, as the case may be.
- 2.3.17 If requested by EMSA, the Contractor shall exclude given geographical areas.
- 2.3.18 The Contractor shall tag the SAT-AIS data stream by identifying the SAT-AIS data provider, satellite, and ground station through which the AIS data was acquired and provided.
- 2.3.19 If requested by EMSA, the Contractor shall determine, based on the message detection timestamp by the satellite, the exact number of SAT-AIS messages (per message type) that are streamed into EMSA on a daily basis.
- 2.3.20 If requested by EMSA, the Contractor shall indicate the number of distinct MMSIs reported in the messages (per message type – query to be based on the message detection timestamp by the satellite).
- 2.3.21 The Bidder shall provide the methodology that will be applied for assessing the quality and capability of the SAT-AIS data service and shall give details on the approach that will be taken in determining the:
- 2.3.21.1 Position accuracy;
  - 2.3.21.2 Detection density per ship and orbit;
  - 2.3.21.3 Traffic distribution including variable factors i.e. seasonal, etc;
  - 2.3.21.4 Average number of messages received for each ship for each orbital path;
  - 2.3.21.5 Temporal coverage of the area and day;
  - 2.3.21.6 Total number of ships detected in a given geographical area for each defined time interval.



2.3.22 The Bidder shall describe the end-to-end system architecture which shall include the space and ground segment components and the processing steps.

2.3.23 The Bidder shall explain the methodology that will be applied in mitigating the effect of technical problems which might impact the SAT-AIS data quality such as:

2.3.23.1 Interference sources (legal and illegal);

2.3.23.2 Topographic conditions such as tropospheric ducting;

2.3.23.3 Collision of AIS messages;

2.3.23.4 Signal processing;

2.3.23.5 Performance of the AIS receiver i.e. receiver saturation;

2.3.23.6 Poor message detection in areas where high density of traffic exists.

## 2.4 Data reception at Ground Station and SAT-AIS processing requirements

2.4.1 The Bidder shall submit, in electronic format, a GIS shapefile (e.g. ESRI) with the name, location, coordinates (latitude and Longitude), identification (i.e. call sign), and range of their Ground Station(s).

2.4.2 The Bidder shall submit in electronic format, a GIS shapefile (e.g. ESRI) with the maximum Ground Station coverage, for different satellites, for ascending and descending passes which should indicate the possible capability of providing global SAT-AIS data for the geographical areas within the coordinates mentioned in section **2.1.4**.

2.4.3 The Contractor shall be able to provide reports with the following additional auxiliary data upon request and within the interval set by EMSA. The reports shall be available in electronic form through the contractor's GUI and/or email:

2.4.3.1 The gain of antenna for each ground station and the minimum elevation angle for satellite reception as a function of azimuth, sensor type, conic shape and exclusion areas;

2.4.3.2 For each ground station, the schedule for planned SAT-AIS satellite acquisitions, with the beginning and end date/time of the acquisition and the satellite identifier;

2.4.3.3 For each satellite of the SAT-AIS constellation, the status of the data acquisition and if relevant the acquisition mode;

2.4.3.4 The operational status of each ground station, and, shall a station be unavailable, the reason for unavailability (e.g. maintenance);

2.4.3.5 For each ground station and each satellite, the average time for ground station data processing, that is the interval between the satellite acquisition by the ground station and the availability of SAT-AIS data at EMSA;

2.4.3.6 Other information such as received signal power.

2.4.4 The Bidder shall describe in detail the back-up strategy that will be used in case of satellite failure.

- 2.4.5 The Bidder shall explain how the AIS payload data is processed after it is retrieved from the ground station and shall further explain any measures taken to minimize latency.
- 2.4.6 The Bidder shall describe the availability of trained personnel at operational level, the operational facilities used to perform the tasks, support services, computing, networking and telecommunication infrastructure; hosting environment; electrical power supply system; disaster recovery site(s), contingency planning; all other facilities relevant for the provision of the service.

## 2.5 Interface Requirements

- 2.5.1 The Contractor shall provide the real time SAT-AIS data, data quality indicators and, where available, its Doppler data to EMSA through the EMSA streaming solution which will be used to ingest data. The technical specifications in terms of the message structure are attached as **Tender Specifications Appendix II**<sup>5</sup>.
- 2.5.2 The interface technical specification between the SAT-AIS Processing Service and the Contractor will be provided by EMSA. The Contractor shall adhere to these specifications and shall also adhere to any modifications to the interface specifications that will be made by EMSA after the signature of the Framework Service Contract.
- 2.5.3 The Contractor shall download and install the EMSA streaming solution following the instructions that will be given by EMSA and shall install any upgrades of the EMSA streaming solution when such upgrades will be made available by EMSA. The access to the software and all other documents and digital certificates necessary to configure and use the software will be provided after signature of the Framework Service Contract.
- 2.5.4 The Contractor shall provide the hosting infrastructure (hardware/operating system/network connections) and hosting service for the EMSA solution at the premises being controlled by the Contractor.
- 2.5.5 The Contractor shall ensure a minimum 95% availability of the global SAT-AIS data service over 12 calendar months and better than 95% availability of global SAT-AIS data stream per day.
- 2.5.6 The Contractor shall be able to maintain a parallel SAT-AIS data stream to the EMSA quality environment such as the pre-production environment, by providing for a number of days, as determined by EMSA, a SAT-AIS data stream to EMSA for troubleshooting proposes.
- 2.5.7 The Contractor shall, in case of service upgrades (e.g. a new satellite is launched or an existing one is decommissioned, or new satellite is integrated in the stream), notify EMSA at least a calendar month in advance, and shall be able to support the service change in order to maintain the minimum requirements for a global feed during the whole duration of the contract.
- 2.5.8 The Contractor shall furthermore satisfy the following requirements when installing and using the EMSA streaming solution for the provision of SAT-AIS data:
  - 2.5.8.1 provide 24 hours by 7 days maintenance of the EMSA streaming solution, its configuration at local level and IT operation of the system;

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<sup>5</sup> "04 - Tender Specifications Appendix II - STAR Streaming Ecosystem Interface Guide.pdf"

- 2.5.8.2 support EMSA's monitoring by enabling the performance monitoring service provided by EMSA to be installed in its premises, for the purpose of the optimal operation of the EMSA streaming solution;
- 2.5.8.3 support the execution of system tests, when required by EMSA;
- 2.5.8.4 respond in less than one hour to incidents causing unforeseen service interruption;
- 2.5.8.5 analyse the aforementioned incidents and the required interventions for repair or maintenance;
- 2.5.8.6 report incidents requiring remote intervention by EMSA to the Agency's Maritime Support Services (MSS);
- 2.5.8.7 report reasons and the anticipated beginning and end date of scheduled maintenance;
- 2.5.8.8 receive requests from the MSS on service failures, control the processing of the reported incidents, and keep MSS informed about the status of issues;
- 2.5.8.9 support the back-up and recovery in case of EMSA streaming solution failure and to provide unprocessed data following recovery on EMSA's end point/node.

## 2.6 Service Validation and Reporting Requirements

- 2.6.1 The global feed of SAT-AIS data service and its associated Doppler data, where available, shall be subject to evaluation to ensure product quality during the lifetime of the service. All aspects of the service will be evaluated by the contracting parties (contractor and EMSA) and the validation of the service may include verification campaigns by EMSA as well as routine verification measures.
- 2.6.2 EMSA may use vessels position data services acquired from other sources as a reference source of data for evaluation purposes.
- 2.6.3 All technical requirements and their specified associated limits of timeliness and other parameters shall be evaluated as part of the service validation.
- 2.6.4 The Contractor shall be able to provide **Service Evaluation Reports** which will then be reviewed and accepted by EMSA. For payment purposes, the Contractor shall provide Service Evaluation reports on a quarterly basis. The frequency of reporting may be increased to monthly intervals, as requested by EMSA.
- 2.6.5 The **Service Evaluation Reports** shall include a detailed analysis of the quality and performance of the SAT-AIS data service and, where available, its associated Doppler data which will be provided to EMSA in respect of services provided as explained in **2.1.1**.
- 2.6.6 The **Service Evaluation Reports** shall contain an analysis of the obtained results within the target performance. If required by EMSA, specific geographical areas from where the SAT-AIS data is to be provided, may be analysed separately. The analysis shall contain, as a minimum, detailed information on compliance or divergences on the following technical parameters:
  - 2.6.6.1 Time update interval;

- 2.6.6.2 Timeliness;
- 2.6.6.3 Total number of messages detected per day, based on message detection timestamp by the satellite;
- 2.6.6.4 Total number of distinct MMSIs captured daily (based on message detection timestamp by the satellite);
- 2.6.6.5 Number of detections for a specific ship identified during each orbit (only if required);
- 2.6.6.6 Average numbers of messages per orbital path;
- 2.6.6.7 Any incidents that may have occurred i.e. data outage, satellite/payload fail, etc.;
- 2.6.6.8 Type of vessels detected;
- 2.6.6.9 Temporal satellite coverage for a given area;
- 2.6.6.10 Cumulated number of detected ships for an area;
- 2.6.6.11 Spatial and ground segment status report;
- 2.6.6.12 Availability of the global SAT-AIS data feed on a daily, monthly, and yearly basis in respect of the SAT-AIS data streamed to EMSA, as a whole, and per satellite;
- 2.6.6.13 Additional parameters as requested by EMSA.

### 3. Contract management responsible body

EMSA – Unit 2.2, in charge of Surveillance, will be responsible for managing the contract.

## 4. Project Planning

### 4.1 Project Management

For the execution of this service, strong project management is required. Recognised standards for project management shall be identified in the bid.

### 4.2 Project Plan

The Bidders shall comply with the timetable for all milestones, deliverables and meetings identified in **Table 1** below:

Time	Activity	From T0	Comment	Event	Delivery	Milestone
T0	<b>Framework Contract</b> is	0 week	Update of the Service	x	x	F

	signed  Kick-off meeting		Implementation Plan Interface specifications to be provided by EMSA Service Set-Up Plan, Test plan, and Service evaluation reports to be agreed by EMSA.			
T1	Specific contract for service set-up, testing and validation, service maintenance and reporting is signed Interface set-up.	+ 1 week <sup>6</sup>	Set-up parameters to be approved by EMSA.	x	x	F
	<b>Specific contract for set-up</b>	<b>From T1</b>				
T2	Testing of the interface, Service implementation and service test.	+ 1 week	Implementation status report to be approved by EMSA. Report on the service implementation and service test result to be approved by EMSA.	x	x	F
T3	Service Acceptance Test (SAT) Service Validation.	+ 1 weeks	Service acceptance test report to be approved by EMSA.	x	x	F
	<b>Specific contract(s) for global feed</b>	<b>From T3</b>				
T4	Signature of specific contracts for the provision of a global feed of SAT-AIS data.	0 Week	Service Implementation Plan will be reviewed and approved by EMSA.	x x	x x	F
T5	Provision of a global feed of SAT-AIS data, data quality indicators and where available Doppler data, service in full operation.	+1 week	Service Validation approved by EMSA.	x x	x x	F

Table 1: Project Plan (F: Fixed milestones which cannot be changed)

4.2.1 After the Framework Contract is signed, the kick-off meeting will be held at EMSA. Its purpose shall be to enable contracting parties to discuss the procedures for communication and service provision,

<sup>6</sup> The specific contract for the service set-up, testing, validation and maintenance is expected to take place as soon as possible after signature of the Framework Contract.

as well as to settle all the details of the work to be undertaken, in respect of the service set-up, testing, validation, and the service evaluation reports.

- 4.2.2 The Contractor's Project Manager, responsible for the work to be undertaken, and Contractor's key technical staff shall be present at the kick-off meeting.
- 4.2.3 During the kick-off meeting, the Contractor will be provided with any additional information that may be required for the downloading and the installation of the EMSA streaming solution and of any upgrades of the EMSA streaming solution as mentioned in section **2.5.3**.

### 4.3 Quality Assurance

Meeting deadlines are critical in light of the short time frame between the award of the Contract and the schedule for the services to be available. Therefore, the bidder shall provide the documents for evaluation, as requested below:

- 4.3.1. Bidders must provide a **Service Implementation Plan** containing:

- 4.3.1.1 Details of the activities and timelines for the implementation period which shall include three phases, namely: service set-up, testing, and validation. All phases should cater for the provision of global SAT-AIS data and Doppler data, where available;

- 4.3.1.2 A work breakdown, a Gantt chart showing tasks, schedule, and milestones for service set-up, testing and service validation including those concerning data quality indicators;

- 4.3.1.3 An outline of the **Service Test and Acceptance Plan** which shall include an end-to-end service test plan prior to service roll out, including user evaluation criteria, description of internal communications, and progress reporting. The outline shall present end to end service test plan prior to service roll out, including user evaluation criteria description of internal communications and relations, progress reporting;

- 4.3.1.4 An update of the **Service Implementation Plan** shall be provided upon the request of EMSA.

- 4.3.2 At the end of the set-up and test phase, the Contractor shall provide an **Implementation Status Report** of the interface which needs to be approved by EMSA.

- 4.3.3 The Bidder shall present an outline of the **Service Evaluation Report** including the technical parameters that will be included for assessment as explained in sections **2.6.4**, **2.6.5**, and **2.6.6**.

- 4.3.4 The Bidder shall present an outline of the proposed **Team Structure** and the involvement and interaction of each team member within the project.

- 4.3.5. The Agency will evaluate the **Risk Management Plan** including risk analysis and the possible risk mitigation and associated management procedures. The Bidder shall present an outline of the risk analysis on their proposed solutions in terms of:

- 4.3.5.1 Technical performance (including service availability, loss of satellite/payloads);

- 4.3.5.2 Implementation time;

- 4.3.5.3 Management issues;

4.3.5.4 Risk mitigation procedure.

4.3.6 The Bidder shall provide detailed information on how the **Data Service and System Monitoring** is to be conducted which shall also include details on how the entire SAT-AIS data processing chain (i.e. data flow, alert triggers, hardware/software malfunction, etc), is going to be monitored during the life time of contract.

4.3.7. A **Quality Management Plan** shall be provided by Bidders and will be evaluated by the Agency. The document shall describe, inter-alia:

4.3.7.1 Service Quality control procedures including incident management;

4.3.7.2 Quality assurance procedures;

4.3.7.3 Service compliance plan.

4.3.8 All documentation that will be provided by the Contractor shall be clearly written in the English language.

## 5. Timetable

The Contract resulting from this procurement procedure will be a framework service contract valid for a period of **48 calendar months**.

The estimated date for signature of the contract is **November 2020**.

The service set-up, testing, and validation of service shall start from the date of the first specific contract after the Framework Service Contract is signed, which is expected to take place as soon as possible after signature of the Framework Contract. The estimated date for signature of specific contract under **2.1.1.1** is **November 2020**.

The provision of a global feed of SAT-AIS data services, and where available Doppler data, shall start from **December 2020** and shall be subject to the signature of the specific contract for the provision of a global feed of SAT-AIS data services, as defined in section **2.1.1.2**.

## 6. Estimated Value of the Contract

The maximum budget available for this Contract is **EUR 1,525,000.00** excluding VAT (one million five hundred and twenty five thousand euro) covering a 4 year period. This amount includes the price for the service set-up, testing and validation, service maintenance, and reporting.

The maximum budget allocated for service set-up and testing, service validation, service maintenance, and reporting under section **2.1.1.1** shall not exceed **EUR 25,000.00** excluding VAT (twenty five thousand euro) covering a four year period.

The estimated budget for services under section **2.1.1.2** is **EUR 1,500,000.00** excluding VAT (one million five hundred thousand euro) covering a 4 year period.

## 7. Terms of payment

Payments shall be issued in accordance with the provisions of the **draft contract** available under the dedicated section of the procurement procedure on the e-Tendering platform at <http://simap.ted.europa.eu/>.

## 8. Terms of contract

When drawing up a bid, the tenderer should bear in mind the terms of the draft contract.

EMSA may, before the contract is signed cancel the award procedure without the tenderers being entitled to claim any compensation.

The Framework Contract will be implemented in the following manner:

- a) For services under section **2.1.1.1** – one specific contract will be concluded following signature of the Framework Contract;
- b) For services under section **2.1.1.2** – one or more specific contracts will be concluded following signature of the Framework Contract. Number and duration of the contracts will be decided based on budget availability.

## 9. Financial guarantees

Not applicable.

## 10. Subcontracting

If the tenderer intends to either subcontract part of the work or realise the work in co-operation with other partners it shall indicate in its offer which part will be subcontracted, as well as the name and qualifications of the subcontractor or partner. It should be noted that the overall responsibility for the work remains with the tenderer.

The tenderer must provide required evidence for the exclusion and selection criteria on its own behalf and, when applicable, on behalf of its subcontractors. The evidence for the selection criteria on behalf of subcontractors must be provided where the tenderer relies on the capacities of subcontractors to fulfil selection criteria<sup>7</sup>. The exclusion criteria will be assessed in relation to each economic operator individually. Concerning the selection criteria, the evidence provided will be checked to ensure that the tenderer and its subcontractors as a whole fulfil the criteria. However, the selection criteria may apply individually where it is relevant in view of their nature.

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<sup>7</sup> To rely on the capacities of a subcontractor means that the subcontractor will perform the works or services for which these capacities are required.



## 11. Requirements as to the tender

Bids can be submitted in any of the official languages of the EU. However, as the main working language of the Agency is English, bids should preferably be submitted in English and should in particular include an English version of the documents requested under points 15.5 and 16 of these Tender Specifications.

The tenderer must comply with the minimum requirements provided for in these Tender Specifications. This includes compliance with applicable obligations under environmental, social and labour law established by Union law, national law and collective agreements or by the international environmental, social and labour law provisions listed in Annex X to Directive 2014/24/EU of the European Parliament and of the Council.<sup>8</sup>

The tenderer shall complete the Tenderer's Checklist.

If the tenderer intends to either subcontract part of the work or realise the work in co-operation with other partners (Joint Offers) it shall indicate it in its offer by completing the form "Statement of Subcontracting / Joint Offer". This document is available on the Procurement Section / Calls for Tenders (Documents for tenderer) of EMSA's website ([www.emsa.europa.eu](http://www.emsa.europa.eu)).

## 12. Submission via the e-Submission application

Tenderers shall submit tenders electronically via e-Submission in one of the official languages of the European Union through the e-Tendering website and before the closing date for the tenders reception as described in the Invitation to tender.

The detailed steps on how to access and use e-Submission are provided in Appendix I – *E-Submission Guidelines*, attached to these Tender Specifications.

The tenderer must provide the following information using e-Submission:

- A. **Cover letter** indicating the name and position of the person authorised to sign the contract, the bank account to which payments are to be made and the email address to be used for contacts during the procurement procedure.
- B. **The Financial Identification Form** - completed. This document is available on the Procurement Section (Financial Identification Form) of EMSA's website ([www.emsa.europa.eu](http://www.emsa.europa.eu)).
- C. **The Legal Entity Form** - completed, along with the requested accompanying documentation. This document is available on the Procurement Section (Legal Entity Form) of EMSA's website ([www.emsa.europa.eu](http://www.emsa.europa.eu)).
- D. All the information and documents required by the contracting authority for the appraisal of tenders on the basis of the points **10, 14, 15.2 and 15.6** of these Tender Specifications (part of the exclusion criteria).
- E. All the information and documents required by the contracting authority for the appraisal of tenders on the basis of the **Economic and Financial capacity** (part of the selection criteria) set out under point **15.4** of these Tender Specifications.
- F. All the information and documents required by the contracting authority for the appraisal of tenders on the basis of the **Technical and professional capacity** (part of the selection Criteria) set out under point **15.5** of these Tender Specifications.

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<sup>8</sup> Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (OJ L 94, 28.3.2014, p. 65).

- G. All the information and documents required by the contracting authority for the appraisal of tenders on the basis of the **Award Criteria** set out under point **16** of these Tender Specifications.
- H. Setting out **prices** in accordance with **point 13** of these Tender Specifications.

Tenderers are exempt from submitting the Legal Entity Form and Financial Identification Form requested if such a form has already previously been completed and sent either to EMSA or any EU Institution. In this case the tenderer shall simply indicate on the cover letter the bank account number to be used for any payment in case of award.

In e-Submission please fill in all mandatory fields (marked with a star \*) and other fields as appropriate. All tenders must be clear, complete and consistent with all the requirements laid down in the Tender Specifications including the above instructions. The documentary evidence/documents required in the Tender Specifications must be uploaded in e-Submission. Tenders not uploading the necessary documents may be rejected.

## 13. Price

- A. Prices for The procurement of supplementary SAT-AIS data services shall include:
  - a. A price **P1** for set up, testing and validation, service maintenance and reporting over duration of the framework contract as described under section **2.1.1.1**;
  - b. A price **P2** for the provision of a global feed of real time SAT-AIS data, and the licence to provide global feed of real-time and historical SAT-AIS data for EMSA users for one-year of service under section **2.1.1.2**.
- B. For provision of services under section **2.1.1**, in case the duration of the specific contract/s will be less than one year, the price will be calculated pro-rata temporis.
- C. When quoting prices under section **13.A.b.**, Bidders shall not impose any conditions, restrictions or limitations on the number of users or entities, type of entities and their number of users, which will be provided with a global feed of SAT-AIS data as described under section **2.1.1.2**.
- D. When quoting prices, Bidders are required to provide the prices by completing the **Table 2** under **Section 16**.
- E. Prices must be quoted in Euro.
- F. Prices must be fixed amounts, non-revisable and remain valid for the duration of the contract.
- G. Under Article 3 and 4 of the Protocol on the privileges and immunities of the European Union, EMSA is exempt from all duties, taxes and other charges, including VAT. This applies to EMSA pursuant to the Regulation (EC) No 1406/2002. These duties, taxes and other charges can therefore not enter into the calculation included in the bid. The amount of VAT must be shown separately.

## 14. Joint Offer

Groupings, irrespective of their legal form, may submit bids. Tenderers may, after forming a grouping, submit a joint bid on condition that it complies with the rules of competition. Such groupings (or consortia) must specify the company or person heading the project and must also submit a copy of the document authorising this company or person to submit a bid.

Each member of the group must provide the required evidence for the exclusion and selection criteria. The exclusion criteria will be assessed in relation to each economic operator individually. Concerning the selection criteria, the evidence provided by each member of the group will be checked to ensure that the consortium as a whole fulfils the criteria.

If awarded, the contract will be signed by the person authorised by all members of the group. Tenders from consortiums of firms or groups of service providers, contractors or suppliers must specify the role, qualifications and experience of each member or group.

## 15. Information concerning the personal situation of the tenderer and information and formalities necessary for the evaluation of the minimum economic, financial and technical capacity required

### 15.1 Legal position – means of proof required

When submitting their bid, tenderers are requested to complete and enclose the **Legal Entity Form** and requested accompanying documentation, available in the Procurement Section (Legal Entity Form) of EMSA's website ([www.emsa.europa.eu](http://www.emsa.europa.eu)).

### 15.2 Grounds for exclusion - Exclusion criteria

To be eligible to participate in this contract award procedure, a tenderer must not be in any of the exclusion situations listed in the Declaration of Honour.

For this purpose, the Declaration of Honour available on the Procurement Section of EMSA's website ([www.emsa.europa.eu](http://www.emsa.europa.eu)) shall be completed and signed.

### 15.3 Legal and regulatory capacity – Selection criteria

#### 15.3.1 Standards / Prerequisites

The tenderer must have the legal and regulatory capacity to pursue the professional activity needed for performing the contract.

#### 15.3.2 Evidence

For this purpose, the Declaration of Honour available on the Procurement Section of EMSA's website ([www.emsa.europa.eu](http://www.emsa.europa.eu)) shall be completed and signed as per section **15.2** above.

### 15.4 Economic and financial capacity – Selection criteria

#### 15.4.1 Standards / Prerequisites

- A. The tenderer must be in a stable financial position and must have the economic and financial capacity to perform the contract.

#### 15.4.2 Evidence

- A. Financial statements or their extracts for the last three years for which accounts have been closed. The most recent year must have been closed within the last 18 months. In case the accounts have

not been closed for 2019, the Tenderer may submit draft accounts duly stamped and signed by the relevant person.

- B. Statement of the overall turnover and, where appropriate, turnover relating to the relevant services for the last three financial years available. The most recent year must have been closed within the last 18 months. In case the turnover is not finalised for 2019, the tenderer may submit a draft turnover duly stamped and signed by the relevant person.
- C. Evidence provided must pertain to the economic operators submitting the bid. In case the evidence as bullet points a) and b) relates to the corporate group (parent company) to which the tenderer belongs, the tenderer must provide a statement from its parent company declaring that the latter is jointly liable for the execution of the contract.
- D. Tenderers are exempt from submitting the documentary evidence if such evidence has already been completed and sent to EMSA for the purpose of another procurement procedure and the provided documents are up-to-dated. In this case the tenderer should simply indicate on the cover letter the procurement procedure where the evidence has been provided.
- E. If, for some exceptional reason which EMSA considers justified, a tenderer is unable to provide one or other of the above documents, it may prove its economic and financial capacity by any other document which EMSA considers appropriate. In any case, EMSA must at least be notified of the exceptional reason and its justification in the tender. EMSA reserves the right to request at any moment during the procedure any other document enabling it to verify the tenderer's economic and financial capacity.

## 15.5 Technical and professional capacity – Selection criteria

### 15.5.1 Standards / Prerequisites

- A. The tenderer should demonstrate his professional experience gained in performing a similar service in relation to SAT-AIS data services and its ability to work with industry partners.

### 15.5.2 Evidence

To prove their technical and professional capacity, Bidders shall provide the following evidence:

**15.5.2.1 Evidence proving the relevant experience:** This proof will consist of a list identifying the work carried out during at least the last three years. The work shall be of relevance and/or analogous to the services to be provided in respect of global SAT-AIS data services and, where available, Doppler data. This list shall include:

- a) Detailed description of the Bidder's services covering the provision of global SAT-AIS data feed on an operational basis delivered to the market, demonstrating the Bidder's respective level of experience;
- b) A description of the SAT-AIS services previously offered, including those related to position validation by means of Doppler data, where available, indicating objectives, tasks, contracting parties, duration and budget;
- c) A description of SAT-AIS services provided for maritime surveillance applications, or to similar applications;
- d) Evidence of the Project Manager's experience in managing similar projects and contracts, particularly operational management skills, having been proven through at least 3 years with other relevant projects/customers;

- e) Evidence of the Project Manager's a high proficiency of English, oral and written. The tenderer is free to submit any kind of evidence suitable to prove a high proficiency of English presented by the person who will be appointed as the Project Manager, for example:
- certificates issued after the completion of an English language assessment exam or training course and/or
  - the provision of credentials of projects undertaken in English and/or
  - publications/reports written in English and/or
  - proofs of studying partly or fully in English / in an English speaking country.
- However, a mere self-evaluation as part of the CV without any further evidence would not be considered as sufficient proof, but would need to be supported by further evidence of the kind listed above.
- f) Any evidence, statement or testimonial from the customer, from the public sector or private sector, relating to the performance and/or quality of the SAT-AIS data services and, where available, Doppler data previously provided by the Bidders.

15.5.2.2. Bidders shall provide a company profile illustrating the company's structure, technical, and management organisation to demonstrate their capability in implementing, providing, maintaining and monitoring the requested service.

15.5.2.3. Bidders shall also provide detailed curriculum vitae of the key technical and management persons who will be technically and operationally involved in the provision of a global feed of SAT-AIS data services.

15.5.2.4. The bidders shall provide a data sample which shall meet the requirements as described in sections from **16.1.4** to **16.1.12**. The data sample is considered as an essential part of the bid and shall reflect the bidder's technical capability to provide the services as specified in the Tender Specifications.

## 15.6 Declaration of Honour (DoH)

Please note that the tenderer shall provide information with regards its situation and on the natural or legal persons that are members of the administrative, management or supervisory body or that have powers of representation, decision or control and beneficial owners.

Upon request and within the time limit set by EMSA, the tenderer shall provide the following evidence concerning itself, the natural or legal persons as listed under the first paragraph, and concerning the natural or legal persons which assume unlimited liability for the debt of the tenderer:

For the exclusion situations described in points (a), (c), (d), (f), (g) and (h) of the Declaration of Honour, production of a recent extract from the judicial record is required or, failing that, an equivalent document recently issued by a judicial or administrative authority in the country of establishment of the tenderer showing that those requirements are satisfied.

For the exclusion situations described in (a) and (b) of the Declaration of Honour, production of recent certificates issued by the competent authorities of the country of establishment is required. These documents must provide evidence covering all taxes and social security contributions for which the tenderer is liable, including for example, VAT, income tax (natural persons only), company tax (legal persons only) and social security contributions. Where any document described above is not issued in the country concerned, it may

be replaced by a sworn statement made before a judicial authority or notary or, failing that, a solemn statement made before an administrative authority or a qualified professional body in its country of establishment.

The successful tenderer must provide the documents mentioned as supporting evidence before signature of the contract and within the deadline given by EMSA. This requirement applies to each member of the group in case of joint tender.

If the tenderer already submitted such evidence for the purpose of another procedure, its issuing date does not exceed one year and it is still valid, the person shall declare on its honour that the documentary evidence has already been provided and confirm that no changes have occurred in its situation.

## 16. Award criteria

The contract will be awarded to the tenderer who submits the most economically advantageous bid (the one with highest score) based on the following quality criteria and their associated weightings:

1. Quality criterion 1 ( $W_1 = 30\%$ ): Fulfilment of technical requirements to closest possible extent in terms of service performance;
2. Quality criterion 2 ( $W_2 = 5\%$ ): Quality assurance of services;
3. Quality criterion 3 ( $W_3 = 5\%$ ): Quality of Project Management;
4. Quality criterion 3 ( $W_4 = 30\%$ ): Completeness and quality of the Data Sample:
  - a) Number of position reports delivered per day ( $W_{4.1} = 10\%$ );
  - b) Number of unique MMSIs reported per day ( $W_{4.2} = 5\%$ );
  - c) Average of latency of messages per day ( $W_{4.3} = 15\%$ ).

and the price criterion and associated weighting:

5. Price of the bid ( $W_{price} = 30\%$ ).

For all bids, evaluators will give marks between 0-10 (half points are possible) for each quality criterion.

The score is calculated as

$$S = SQ + SP$$

where:

The average quality for quality criterion  $i$  is

$$Q_i = \frac{1}{\text{number of evaluators}} * \sum_{\text{evaluator}} \text{mark of the evaluator for quality criterion } i$$

The overall weighted quality is

$$Q = \sum_i Q_i * W_i$$

The score for quality is

$$SQ = \frac{Q}{Q \text{ of the bid with highest } Q} * 100 * \sum_i W_i$$

The score for price is

$$SP = \sum_i \frac{\text{lowest Price}_i \text{ of all bids}}{\text{Price}_i} * 100 * W_{\text{Price}_i}$$

Only tenders that have reached a minimum of 60 % for  $Q_1$ , a minimum of 60 % for  $Q_2$ , and a minimum of 60 % for  $Q_3$  will be taken into consideration when calculating the score for quality  $SQ$ , score for price  $SP$  and score  $S$ .

Only tenders that have reached a minimum of 70 % for the score  $S$  will be taken into consideration for awarding the contract.

## 16.1 Fulfilment of requirements – Quality award criteria

The requirements on the Contractor as outlined in Section 2 will be used by the Agency to assess the technical aspects proposed in the bids.

16.1.1 **Q1** - Quality criterion 1 ( $W_{Q1} = 30\%$ ): **Fulfilment of technical requirements** to closest possible extent in terms of service performance. For the purpose of evaluation of award criteria **Q1**, the Bidder shall provide information relating to the technical characteristics of the offered service, satellite constellation and performance, and where available Doppler data summarised in tables 1, 2, 3, and 4 of bidder's declaration of fulfilment of requirements<sup>9</sup>. The assessment made by evaluators based on the submitted bid and the offer description explaining how the Bidder plans to fulfil the requirements defined in the following sections:

16.1.1.1 SAT-AIS data technical requirements (**section 2.2**);

16.1.1.2 SAT-AIS data information, coverage, and performances requirements (**section 2.3**);

16.1.1.3 Data reception at Ground Station and SAT-AIS processing requirements (**section 2.4**);

16.1.1.4 Interface requirements (**section 2.5**);

16.1.1.5 Service Validation and Reporting (**section 2.6**).

16.1.2 **Q2** - Quality criterion 2 ( $W_{Q2} = 5\%$ ): **Quality assurance of services**. The assessment made by evaluators based on the submitted bid and the offer description explaining how the Bidder plans to fulfil the requirements defined in section 4.3. For the purpose of evaluation of award criteria Q2, the Bidder shall provide information relating to quality assurance of services summarised in table 5 of bidder's declaration of fulfilment of requirements<sup>9</sup>.

16.1.3 **Q3** - Quality criterion 3 ( $W_{Q3} = 5\%$ ): **Quality of Project Management**. The assessment made by evaluators based on the submitted bid and the offer description explaining how the Bidder plans to fulfil the requirement defined in section Error! Reference source not found. and 4.2. For the purpose

<sup>9</sup> "06 - Tender Specifications Appendix IV - declaration of fulfilment of requirements.docx"



of evaluation of award criteria Q3, the Bidder shall provide information relating to quality assurance of services summarised in table 6 of bidder's declaration of fulfilment of requirements<sup>9</sup>.

16.1.4 **Q4 - Quality criterion 4 ( $W_{Q4} = 30\%$ ): Completeness and quality of the Data Sample.** The Bidder shall provide a TXT file with data separated by the "Tab" delimiter, containing a backlog of position reports being acquired by the service on the **1st of September 2020**. The file must follow the example presented in data sample file<sup>10</sup> provided as an appendix to the tender specifications. The Bidder shall also provide an overview of the data sample in table 7 of bidder's declaration of fulfilment of requirements<sup>9</sup>.

16.1.5 The data sample file provided by the Bidder shall contain following elements for all position reports (AIS message types 1, 2, 3, 18, 19, and 27) with timestamps of the AIS message payload between **the 1st of September 2020, 0:00:00 UTC – the 1st of September 2020, 23:59:59 UTC** collected by the Bidder's system:

- a) **ais\_ts** - AIS message timestamp – the timestamp extracted from the AIS message payload – UTC in epoch format;
- b) **acq\_ts** - satellite acquisition timestamp – to be added by the satellite payload when the message acquisition took place – UTC in epoch format;
- c) **gnd\_ts** - ground segment timestamp – to be added by ground segment infrastructure when the position report is downloaded from the satellite – UTC in epoch format;
- d) **mmsi** - ship's id extracted from the AIS message payload – integer, 9 digits;
- e) **lat** - ship's latitude extracted from the AIS message payload - values up to plus or minus 90 decimal degrees;
- f) **long** - ship's longitude extracted from the AIS message payload - values up to plus or minus 180 decimal degrees;
- g) **sat\_id** - NORAD id of the satellite which acquired the AIS message;
- h) **gnd\_id** - NORAD id or a common name of the ground station which downloaded the AIS message from the satellite;
- i) **nmea** - the original message payload.

16.1.6 The data sample file provided by the Bidder shall contain data acquired by satellite receivers only. Data collected by terrestrial AIS equipment (including shipborne AIS transponders/receivers and terrestrial AIS base station) and acquired by the Bidder via other means of communication will not be accepted.

16.1.7. The data sample file provided by Bidder shall be free from AIS messages which:

16.1.7.1 Are duplicated (i.e. the same message acquired by few satellites at the same time);

16.1.7.2 Are segmented or fragmented;

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<sup>10</sup> "05 - Tender Specifications Appendix III - data sample file.txt"



- 16.1.7.3 Contain invalid MMSI (i.e. not recognized MID or not in line with the ITU-R Recommendation M.585-8 for the assignment and use of identities in the maritime mobile service;
- 16.1.7.4 Are non-compliant with the ITU-R Recommendation M.1371-5: "Technical characteristics for an automatic identification system using time division multiple access in the VHF maritime mobile frequency band";
- 16.1.7.5 Are terrestrially gathered and not space-based detected.
- 16.1.8 The average latency between the acquisition and delivery to the ground station shall reflect bidder's capability to comply with requirement 2.3.3.
- 16.1.9 Example of the line representing an AIS position report is presented in the data sample file<sup>11</sup> provided as an appendix to the Tender Specifications.
- 16.1.10 The data sample shall be provided in files containing tab-delimited values sorted by the **ais\_ts** value. To facilitate the submission process, the Bidder can deliver the data sample divided into smaller files.
- 16.1.12 For the purpose of evaluation of award criteria Q4, the Bidder shall provide information relating to completeness and quality of the data sample summarised in table 7 of bidder's declaration of fulfilment of requirements<sup>12</sup>.
- 16.1.13 Consistency of the provided data sample and bidder's declaration may be subject to a verification upon EMSA request.

## 16.2 Price award criteria

The price of the bid will be calculated in accordance with the following weighing factors. The following table shows the value of the weighing factors that will be applied for the calculation of the price of the bid ( $W_{Price}$ ).

The following price breakdown (**Table 2**) shall be completed by the Bidder against the requirements in **section 13**:

Provision of SAT-AIS data services	Price to be filled in by Bidders	
Price for the service set-up, testing and validation, service maintenance, and reporting as per <b>2.1.1.1</b>	$P_1 = \dots\dots\dots$	(Fixed price for duration of the framework contract for service <b>2.1.1.1</b> )
Price for the provision of a global feed of real time SAT-AIS data, and the licence to provide global feed of real-time and historical SAT-AIS data for EMSA users for one-year of service as per <b>2.1.1.2</b>	$P_2 = \dots\dots\dots$	(Fixed price for one year of service <b>2.1.1.2</b> )
<b>Price of the bid</b>	$(W_{Price})$	$= \dots\dots\dots$

<sup>11</sup> "05 - Tender Specifications Appendix III - data sample file.txt"

<sup>12</sup> "06 - Tender Specifications Appendix IV - declaration of fulfilment of requirements.docx"

Table 2. Price Evaluation Scenario

The price of the bid will be evaluated as follows:

$$\text{Price of the bid } (W_{\text{Price}}) = P1 + (P2 \times 4)$$

As per **section 6**:

- a) the price for **P1** shall not exceed **EUR 25,000.00** (twenty-five thousand euro);
- b) the price for **P2** (for one-year of service) shall not exceed **EUR 375,000.00** (three hundred seventy-five thousand euro).

## 17. Rejection from the procedure

Contracts will not be awarded to tenderers who, during the procurement procedure, are in one of the following situations:

- A. are in an exclusion situation;
- B. have misrepresented the information required as a condition for participating in the procedure or have failed to supply that information;
- C. were previously involved in the preparation of procurement documents used in the award procedure where this entails a breach of the principle of equality of treatment, including distortion of competition that cannot be remedied otherwise.

## 18. Intellectual Property Right (IPR)

Please consult the contract for IPR related clauses.

If the results are not fully created for the purpose of the contract this shall be clearly pointed out by the tenderer in the tender. Information shall be provided about the scope of pre-existing rights, their source and when and how the rights to these rights have been or will be acquired.

In the tender all quotations or information originating from other sources and to which third parties may claim rights have to be clearly marked (source publication including date and place, creator, number, full title etc.) in a way allowing easy identification.

## 19. Acronyms and abbreviations

For the scope of this tender, the following acronyms and abbreviations apply:

<b>AIS</b>	Automatic Identification System
<b>AOI</b>	Area of Interest
<b>BCFSEA</b>	The maritime safety and security project supporting Black Sea and Caspian Sea countries in targeted areas.
<b>CDF</b>	Canonical Data Format
<b>CSN</b>	CleanSeaNet
<b>EFCA</b>	European Fisheries Control Agency
<b>EMSA</b>	European Maritime Safety Agency
<b>ESA</b>	European Space Agency
<b>ESRI</b>	Environmental Systems Research Institute
<b>EU</b>	European Union
<b>EUNAVFOR</b>	European Union Naval Force ATALANTA
<b>FRONTEX</b>	European Border and Coast Guard Agency
<b>GUI</b>	Graphical User Interface
<b>IEC</b>	International Electrotechnical Commission
<b>IMS</b>	Integrated Maritime Services
<b>ITU-R</b>	International Telecommunication Union – Radiocommunication Sector
<b>IVEF</b>	Inter VTS Exchange Format
<b>FP</b>	Final Presentation
<b>FR</b>	Final Review
<b>GIS</b>	Geographic Information System
<b>HTTPS</b>	Hypertext Transfer Protocol Secure
<b>KO</b>	Kick-Off meeting
<b>LRIT</b>	Long-range Identification and Tracking of ships

<b>MAOC-N</b>	Maritime Analysis and Operation Centre – Narcotics
<b>MSS</b>	Maritime Support Services at EMSA
<b>NMEA</b>	National Marine Electronics Association
<b>NORAD</b>	North American Aerospace Defence Command
<b>SAFEMED</b>	Project for technical assistance bringing together national, European and international stakeholders with the aim to raise the safety, security and protection of marine environment standards in cooperation with the EU authorities, EU MS and Non-EU countries bordering the Mediterranean Sea.
<b>SAT</b>	Service Acceptance Test
<b>SAT-AIS</b>	AIS data detected by satellites
<b>SEG</b>	SafeSeaNet Ecosystem Graphical User Interface
<b>SSN</b>	SafeSeaNet
<b>SSN SI</b>	SafeSeaNet Streaming Interface
<b>S2S</b>	System-to-System interface
<b>T-AIS</b>	Terrestrial AIS
<b>TCP/IP</b>	Transmission Control Protocol/Internet Protocol
<b>WMS</b>	Web Mapping Service
<b>VDM</b>	VHF Data Link Message

## 20. Definitions of terms

For the scope of this tender, the following definitions apply:

**Time Update Interval** - Time interval between two consecutive messages, transmitted from the same vessel, delivered by the contractor to the EMSA's streaming solution;

**Bidder** - the company or consortium taking part in the tender procedure by submitting the bid;

**Contractor** - The company or consortium to whom the Contract will be awarded after the procurement procedure is completed;

**Detection Probability** - The ratio between the number of ships detected by the AIS receiver in a geographical area and the total number of ships in a given area at a certain time (or a range of time) detected by EMSA using other available tracking services;

**Doppler Data** - Is the Doppler frequency shift measured by the satellite at the time of reception of the AIS message;

**Global coverage** - Worldwide coverage which include all geographical areas of interest to EMSA;

**Latency** - Time interval (delay) between the satellite acquisition timestamp and the ground segment timestamp;

**Real time** - The acquisition of the latest AIS signal by a satellite within the shortest possible 'timeliness';

**Timeliness** - Time interval (delay) between detection of the AIS message by one of the satellites of the space segment and the availability of the AIS data retrieved from the message at the EMSA streaming solution on ground.