**Advance Contract Award Notice (ACAN)**

**23-58277**

**Hyspex Short-Wave-Infrared Radiation (SWIR) Sensor Upgrade to Mjolnir VS-620**

## 1. Advance Contract Award Notice (ACAN)

An ACAN is a public notice indicating to the supplier community that a department or agency intends to award a contract for goods, services or construction to a pre-identified supplier, thereby allowing other suppliers to signal their interest in bidding, by submitting a statement of capabilities. If no supplier submits a statement of capabilities that meets the requirements set out in the ACAN, on or before the closing date stated in the ACAN, the contracting officer may then proceed with the award to the pre-identified supplier.

## 2. Definition of the requirement

The Earth Observation and Microgravity Group (EOMG) from the National Research Council Canada has a requirement for the supply of 1x HySpex Mjolnir V1240 sensor (a sensor to be added to the current S-620) and 1x Mjolnir Upgrade S-620 - > VS-620 (The S-620 with the V1204 is what makes the VS-620) to be delivered to Ottawa, Ontario.

## 3. Criteria for assessment of the Statement of Capabilities (Minimum Essential Requirements)

Any interested supplier must demonstrate by way of a statement of capabilities that its product/equipment/system (as appropriate) meets the following requirements:

**Visible Near Infrared Radiation-Short Wave Infrared Radiation (VNIR-SWIR) sensor mounted on a medium Remotely Piloted Areal System (RPAS) ~15 kg payload that includes VS-620 and the following working parts.**

- Communication and power cables from VS-620 sensor to power, Inertial measurement unit (IMU) and GPS antenna.
- Payload battery LiPo 800 62SP 22.2v
- Tallysman TW3972 triple frequency positioning antenna (GPS L1/L2/L5, GLONASS G1/G2/G3, BeiDou B1/B2, Galileo E1/E5 a + b), grounding plate and mount;
- External inertial measurement unit (IMU) (Applanix AIMU-M5 Type 69);
- Radio transmitter with mounting bracket
- Power distribution board;
- Power switch;
- Damperzen type A underslung vibration isolator;
- Flight Flix VibeX gel vibration isolator;
- Gremsy AEVO gimbal, includes mounting plate and payload adaptor plate.

**Maximum weight of 7 kg for hyperspectral sensor payload not including the other parts.**

- Mounting plate design by NRC's Design and Fabrication (DFS) for VS-620 payload and additional parts mentioned above.

**Operator real-time data output**

- Hyperspectral data recorded in VS-620's hard drive during data acquisition, and evidence of file size increase for system operator.
- Screen waterfall showing visible-near-infrared radiation (VNIR) and SWIR data acquisition and pixel saturation in real-time.

**Availability of start and end data acquisition at any point during data acquisition**

- Doodle Labs Smart transmitter to provide real-time control and visualization for the hyperspectral data stream; max throughput: 100 Mbps; range: 100+ km.
- Availability of start and end data acquisition at any point during data acquisition.

**Integrated tactical grade IMU/GPS system**

- Applanix AIMU-M5 Type 69 for direct hyperspectral imagery geocorrection, error <3 pixels.

**4. Applicability of the trade agreement(s) to the procurement**

This procurement is subject to the following trade agreement(s):

- Canadian Free Trade Agreement (CFTA)
- Canada-Korea Free Trade Agreement

**5. Justification for the Pre-Identified Supplier**

Because this is an upgrade to integrate a second sensor from the same manufacturer, there are no other suppliers that can integrate the VS-620. Moreover, the vendor provides a unique full system characterization from a Standards Laboratory, the German National Metrology Institute (Physikalisch-Technische Bundesanstalt). In addition, NEO HySpex is part of the IEEE P4001 Hyperspectral Standard group, which is an international group of experts seeking better standards and transparency in remote sensing sensor products. This is a standards group in which NRC also participates actively. Finally, the VS-620 proposed here, uses standard software for image processing and data analysis, which is advantageous over other manufacturers, where they have their own proprietary software. These manufacturer updates also affect the data output quality, which affects the overall repeatability sought as a consistent scientific output.

**6. Government Contracts Regulations Exception(s)**

The following exception to the *Government Contracts Regulations* is *(are)* invoked for this procurement under subsection 6- “only one person is capable of performing the work”.

**7. Exclusions and/or Limited Tendering Reasons**

The following exclusion(s) and/or limited tendering reasons are invoked under the:

a. Canadian Free Trade Agreement (CFTA) – Article 513 (1) (b) (iii): due to an absence of competition for technical reasons;
b. Canada-Korea Free Trade Agreement – referencing the WTO Protocol Amending the GPA, Article XIII (1) (b) (iii): due to an absence of competition for technical reasons;

**8. Period of the proposed contract or delivery date**

The Hyspex Short-Wave-Infrared Radiation (SWIR) Sensor Upgrade to Mjolnir VS-620 must be delivered on July 30, 2024.

**9. Cost estimate of the proposed contract**

The estimated value of the contract, is 80,000 Euros or $118,000 CAD.

**10. Name and address of the pre-identified supplier**

Norsk Elektro Optikk AS
Østensjøveien 34
0067 OSLO
Norway

**11. Suppliers' right to submit a statement of capabilities**

Suppliers who consider themselves fully qualified and available to provide the goods, services or construction services described in the ACAN may submit a statement of capabilities in writing to the contact person identified in this notice on or before the closing date of this notice. The statement of capabilities must clearly demonstrate how the supplier meets the advertised requirements.

**12. Closing date for a submission of a statement of capabilities**

The closing date and time for accepting statements of capabilities is April 8, 2024 at 2:00 p.m. (EDT).

**13. Inquiries and submission of statements of capabilities**

Inquiries and statements of capabilities are to be directed to:

Sylvianne Beaulne
Procurement Team Lead
Finance and Procurement Services Directorate
National Research Council Canada

Telephone: 343-553-1211
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