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INTEGRATED WAVEFORM SERVICE PRICE & AVAILABILITY

PROJECT #: C.002565

TACTICAL NARROWBAND SATCOM – GEOSYNCHRONOUS (TNS–GEO) PROJECT

Project Sponsor: Commander Royal Canadian Air Force



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Canada

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1.0 PURPOSE

- 1.1 The Department of National Defence (DND) is requesting Price and Availability (P&A) information for access to world-wide, Ultra-High Frequency (UHF), Integrated Waveform (IW) Satellite Communication (SATCOM) services.
- 1.2 A Price and Availability (P&A) enquiry is a request sent to suppliers for information concerning approximate prices and availability of specific goods or services. It is used when such information is needed by Canada for program planning or budgetary purposes. This P&A enquiry clearly indicates that the request is not a solicitation and that there are no commitments with respect to future purchases or contracts.
- 1.3 The objectives of this P&A are to determine price and availability of the IW UHF services described in section 5.0 Minimum Requirements, and determine if economic benefit opportunities exist for Canada.
- 1.4 This is not a bid solicitation. A contract will not result from this activity. This P&A will not necessarily result in any procurement action. This P&A is for informational purposes only and does not constitute a commitment by Canada. Responses to this P&A will not constitute a commitment from the industry provider. Canada will not reimburse any expenses incurred for the preparation of responses to this P&A.
- 1.5 Any provider of IW UHF services which can meet the requirements as set out in Section 5 of this document is invited to respond.

2.0 NATURE OF THIS PRICE AND AVAILABILITY

- 2.1 Respondents are encouraged to identify, in the information they share with Canada, any information that they feel is proprietary or confidential. Canada will handle the responses in accordance with the Access to Information Act and will not disclose proprietary or commercially sensitive information concerning Respondents or third parties, except and only to the extent required by law. For more information, see: <http://laws-lois.justice.gc.ca/eng/acts/a-1/>.
- 2.2 Although the information collected may be provided as commercial-in-confidence (and, if identified as such, will be treated accordingly by Canada), Canada may use the information to assist in drafting performance specifications and budgetary estimates.
- 2.3 Respondents are asked to identify if their responses, or any part of their responses, are subject to the Controlled Goods regulations.
- 2.4 Participation in this P&A is encouraged, but is not mandatory. Respondents should note that this P&A is not a pre-selection process and that there will be no short-listing of potential suppliers for the purposes of undertaking any future work as a result of this P&A. Participation is not a condition or prerequisite for the participation in any potential subsequent Industry Engagement activities, Invitation to Qualify (if applicable) or RFP solicitation.

- 2.5 Respondents will not be reimbursed for any cost incurred by participating in this P&A. Responses to this P&A will not be returned to Respondents.
- 2.6 Responses will not be formally evaluated. The responses received however, may be used by Canada to develop or modify business requirements, conduct analysis, and analyze possible procurement approaches. Canada will review all responses received by the P&A closing date. Canada may, at its discretion, review responses received after the P&A closing date.

3.0 BACKGROUND

- 3.1 The Tactical Narrowband SATCOM - Geosynchronous (TNS-GEO) Project has been established to provide the Canadian Armed Forces (CAF) with an UHF Satellite Communications (SATCOM) capability at all longitudes and between 65 degrees North and South latitudes.
- 3.2 Project scope includes the acquisition of IW Channel Services for CAF and North Atlantic Treaty Organization interoperability. These IW services will be required as early as June of 2021 for up to 15 years.
- 3.3 DND presently has neither IW capable ground stations or satellite payload, therefore Canada requires access to both in order to provide the required IW capability to the CAF.
- 3.4 The option of acquiring a hosted UHF payload was studied and was found to be cost prohibitive.
- 3.5 The Project is working with the United States Department of Defense to gain access to the Mobile User Objective System constellation and associated UHF narrowband SATCOM services. This is being done in parallel to the IW capability.
- 3.6 The Industrial and Technological Benefits (ITB) Policy, Including Value Proposition may apply to this work. For more information on the ITB Policy, refer to: www.canada.ca/itb.

4.0 CONCEPT OF EMPLOYMENT

- 4.1 The CAF requires assured, reliable, and sustainable IW Service that meets the minimum requirements described in section 5.0.
- 4.2 The CAF requires strategic Beyond Line-of-Site communication for training, exercise, and missions whether domestic or deployed in support of its security missions.
- 4.3 The CAF requires the ability to exercise and operate independently from other nations.
- 4.4 The IW Services will ensure that the CAF can deploy rapidly and have the communications required for tactical operations.

- 4.5 All tactical users within the CAF will utilize this service (i.e. Canadian Army, Royal Canadian Air Force, Royal Canadian Navy, Canadian Special Operations Command etc.).
- 4.6 The CAF intends to utilize IW Services for secure communications at the SECRET level.
- 4.7 All tactical SATCOM user terminals will be provided, installed and maintained by Canada.
- 4.8 The minimum period of performance of the potential future contract will be two (2) years, with a maximum of fifteen (15) years.
- 4.9 Canada intends to have at least one (1) IW channel available at all times in all regions of the world. Not all regions need to be covered by the same supplier.

5.0 MINIMUM REQUIREMENTS

The following are Canada's minimum requirements as they are currently understood. They are subject to change before any future procurement action.

5.1 Technical Requirements

5.1.1 The Respondent provided IW service must meet the following Military Standards (MIL-STD)s:

- a. MIL-STD-188-181C, Interoperability Standard for Access to 5 Kiloherz (KHz) and 25 KHz UHF Satellite Communications Channels.
- b. MIL-STD-188-182B, Interoperability Standard for UHF SATCOM DAMA Orderwire Messages and Protocols.
- c. MIL-STD-188-183B, Interoperability Standard for Multiple-Access 5 KHz and 25 KHz UHF Satellite Communication Channels.
- d. MIL-STD-188-185A, Interoperability Standard for UHF MILSATCOM DAMA Control System.

5.1.2 The Respondent provided IW Services must be compatible with at least the following terminals:

- a. AN/PRC-117F and -117G;
- b. AN/ARC-210 Generation 4;
- c. AN/ARC-231 Skyfire;
- d. AN/ARC-234 AITG;
- e. AN/PRC-148(V)3-6(C) JEM;
- f. AN/PRC-163;
- g. AN/PRC-152 and -152A;
- h. Viasat RT-1828;
- i. Viasat RT-1829; and
- j. Viasat RT-1830.

5.1.3 The service must be provisioned on an International Telecommunication Union (ITU) licensed UHF satellite that is fully operational for IW Service or will be operational by June 2021.

5.1.4 The provided service must have ability to support secure communications using User Terminals with built-in cryptography.

5.1.5 Canada must have the ability to operate independently from other nations.

5.1.6 The provided service (including satellite, payload and ground segment) must adhere to security standards such as Committee on National Security Systems Publication (CNSSP) No. 11 and CNSSP No. 12.

5.1.7 The Respondent must ensure that the satellite channel frequencies utilized by Canada through the IW Services are coordinated for use in the relevant geographic regions worldwide.

5.2 Service Order Processing

5.2.1 The Respondent must provide both Regular priority and Express priority levels for Service Orders. These levels must be accepted 7 days per week, 24 hours per day, and every day of the year.

5.3 Client Assistance and Support

5.3.1 The Respondent must provide Canada with technical support from Tier 1 to Tier 3 for all aspects of the Service. This support must be available 7 days per week, 24 hours per day and every day of the year.

5.4 Service Performance

5.4.1 The Respondent must provision the Services and maintain a guaranteed Service Availability Percentage Level for each 5 KHz and 25 KHz UHF channels of at least 99% in each calendar month.

5.4.2 The Respondent must manage all problems affecting the delivery of the UHF Channel Service and must be managed 24 hours a day, every day of the year and relayed to Canada.

5.5 Scheduled Service-Affecting and Maintenance Advisory

5.5.1 The Respondent must provide Canada with the network maintenance schedule. Any changes in the schedule must be updated as known by the Respondent.

6.0 REQUESTED SUPPLIER INFORMATION

6.1 Suppliers are asked to answer the questions found at Annex A and Annex B, and Annex C and submit responses in accordance with Section 7, Enquiries and Submissions.

7.0 ENQUIRIES AND SUBMISSIONS

7.1 All enquiries and responses to the P&A shall be directed to the Procurement Authority as follows:

Department of National Defence
101 Colonel By Drive
Ottawa, ON
K1A 0K2
ATTN: DES Proc 7-3

Telephone: 613-901-7829
E-mail address: Phillip.Willison@forces.gc.ca

7.2 Responses should be submitted on or before January 31st, 2020, 2:00 pm Eastern Standard Time. Responses received after this deadline may not be reviewed by Canada.

7.3 Enquiries should be received no less than fifteen (15) calendar days prior to the P&A closing date to allow sufficient time to provide a response. Enquiries received after that time might not be answered prior to the P&A closing date.

7.4 Respondents are requested to provide all responses in Portable Document Format (PDF), or in a file format that is readable by the Microsoft Office Suite Version 2013.

7.5 Responses are to be submitted in one of the two Official Languages of Canada (English or French).

7.6 **All** the documentation submitted **must be marked** with the following:

Name of Respondent
TNS-GEO IW P&A Response - Reference # W8474-207947/A
Date (YYYY-MM-DD)

8.0 ACRONYMS AND ABBREVIATIONS

Acronym	Definition
CAF	Canadian Armed Forces
CNSSP	Committee on National Security Systems Publication
DAMA	Demand Assigned Multiple Access
dBK	Decibel Kelvin
dBW	Decibel Watt
DND	Department of National Defence
EIRP	Effective Isotropic Radiated Power
G/T	Gain to Temperature Ratio
ITB	Industrial and Technological Benefits
ITU	International Telecommunication Union
IW	Integrated Waveform
KHz	Kilohertz
MHz	Megahertz
MIL-STD	Military Standard
P&A	Price and Availability
PDF	Portable Document Format
RFP	Request for Proposal
SATCOM	Satellite Communications
TNS-GEO	Tactical Narrowband SATCOM - Geosynchronous
UHF	Ultra-High Frequency

ANNEX A – Integrated Waveform Pricing

1. Respondents are asked to fill out the below Table 1 Integrated Waveform Pricing, considering the following instructions
 - a. In each row, indicate the zone coordinates where service is available, and what the price is per channel.
 - i. If no service is available in a particular region or with the requested number of channels, state "N/A".
 - ii. If pricing tables and / or region coverage is already available in another format, provision of those prices are requested as well.
 - b. Indicate if pricing changes for 2 year contract, 5 year contract, 10 year contract or 15 year contract.
 - c. Indicate if pricing changes when several channels are purchased in the same region.
 - d. Indicate whether pricing provided is for 5KHz or 25KHz channels.
 - e. Common region titles are provided. Re-name these regions as required.

Term in Years	Number of UHF Channels per region — 25KHz — 5KHz	Regions					
		Europe Middle East Indian Ocean Africa Theatre of Operation		Asia-Pacific Theatre of Operation		North and South America Theatre of Operation	
		Price	Zone Coordinates	Price	Zone Coordinates	Price	Zone Coordinates
2	1						
2	2						
2	etc						
5	1						
5	2						
5	etc						
10	1						
10	2						
10	etc						
15	1						
15	2						
15	etc						

Table 1. Integrated Waveform Pricing

ANNEX B – Service Details

1. Respondents are asked to provide the following information about the available service:

- a. The name of spacecraft(s) and/or ITU number hosting the IW payload.
- b. The expected mission life of the satellite constellation from which the IW service is currently available. Based on the mission life what is the projected years for the IW service?
- c. Define if the IW payload offers phase 1 and / or phase 2 IW services.
- d. Does Canada require controllers to use this service?
- e. EIRP and G/T coverage map(s) for available areas of the world. It is not necessary to offer worldwide coverage.
- f. Technical specifications and narrative to assist in Canada's understanding of the available service.

ANNEX C – Industrial and Technical Benefits Policy Questionnaire

Canada is seeking information regarding economic benefit opportunities in relation to this requirement. Under the Industrial and Technological Benefits Policy Respondents are required to undertake business activities in Canada, equal to the value of the contract.

1. A description of your current business activities within Canada is requested.

2. Does your company have business activities with Canadian suppliers? If so, in what general areas?

3. What activities in Canada do you currently undertake in relation to this service requirement?