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SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

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Title - Sujet GROUND SEGMENT SOLUT. (MEOSAR PROJ)	
Solicitation No. - N° de l'invitation W8474-16ME03/A	**Amendment No. - N° modif.** 014
Client Reference No. - N° de référence du client W8474-16ME03	**Date** 2016-08-10
GETS Reference No. - N° de référence de SEAG PW-$$ST-005-29512	
File No. - N° de dossier 005st.W8474-16ME03	**CCC No./N° CCC - FMS No./N° VME**
Solicitation Closes - L'invitation prend fin **at - à 02:00 PM** **on - le 2017-03-31**	**Time Zone** **Fuseau horaire** Eastern Daylight Saving Time EDT
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Signature **Date**

Amendment 14

This amendment serves to answer questions posed by vendors.

Q1: A Definition/Interface Control Document (ICD) of the MEOLUT Network is required. Definition in section 6.1.7 is not sufficient to assess its demarcation from existing Crown Wide Area Network (WAN), as an example. Would the MEOLUT Network be completely independent from existing Crown networks?
Ref: SOW for B&C of MEOLUTS, para 3.2 and 6.1.7
A1: *The network demarcation points were shown at the Canadian Mission Control Centre (CMCC) Ground Segment Industry days for CMCC connections. A demarcation point for power and communications will be provided at the two sites. See "Installation on existing building" question #13 and response.*
The MEOLUT Network will run over existing Government of Canada (GoC) network and will be part of its Search and Rescue Network (SARNET.)

Q2: Is Canada open to alternate sites or are the suggested sites locked down? There could be concerns with the Happy Valley - Goose Bay, Newfoundland and Labrador location because of high winds and weather attenuation conditions.
Ref: SOW for B&C of MEOLUTS, para 3.4
A2: *At this point, the site locations have been selected. All issues have been considered and sites have been selected as the best locations for MEOSAR.*

Q3: What facilities does Canada provide on each of the proposed sites?
Ref: SOW for B&C of MEOLUTS, para 3.4
A3: *Sites are located at DND premises with a demarcation point for power and network communications and road access to the site. Detailed site information will be made available at final Request for Proposal (RFP) posting. Everything else must be provided by the bidder.*

Q4: Where is this data located and how do we access this data?
Ref: SOW for B&C of MEOLUTS, para 3.5.1
A4: *No mention of data in this section. Please clarify.*

Q5: Why is it important that the MEOLUT Network installation start prior to installation of the first MEOLUT? It's understandable that it must be completed prior to MEOLUT commissioning.
Ref: SOW for B&C of MEOLUTS, para 4.1.3
A5: *Without the installation of the MEOLUT Network components, one cannot test the Remote Operator Interface (ROI) and CMCC connections to the MEOLUT. Network issues such as bandwidth requirements and reliability need to be resolved as quickly as possible and before installation is completed. However, as stated in para 4.2, Table 1 the first four items take place concurrently.*

Q6: While frozen the Second Generation Beacon specification should occur in coming months, it should useful to ensure that MEOLUT owns capability of processing signal coming from those beacons. Is it foreseen to include such function in the final RFP?
Ref: SOW for B&C of MEOLUTS
A6: *As per the current MEOSAR project, Second Generation Beacons (SGBs) are not within scope at this time. However, as with all new mandatory COSPAS-SARSAT requirements, SGBs will be a critical update that manufacturers will be required to support as a future function under the In-Service-Support (ISS) scope of work.*

Q7: Depending on MEOLUT technology chosen, this feature could be useless. Could DND add in the requirement "if relevant" to permit "Not applicable" settlement in the statement of compliance?
Ref: SOW for B&C of MEOLUTS, para 6.1.6.3
A7: *Tracking satellites is a broader term which takes into account the MEOLUT ability to receive and decode beacon signals from as many MEOSAR satellites as possible in view of the ground station, so one can accurately calculate beacon locations based on correct orbit vectors. Bidders must describe their engineering design for receiving and decoding such signals from satellites in view of the MEOLUTs to maximize detection rates and location accuracy. Hence, all methods of satellite tracking, independent of the scheduler type or implementation, are relevant and applicable.*

Q8: Storage of ALL Raw spectrum data in I/Q format can lead to a monthly amount of data of around 500 Gigabytes. Do you expect a manual operation each month to change the external disk? Considering that external disk Mean Time Between Failure (MTBF) are low compare to other components, do we need to take this into account for the total computation of availability of the MEOLUT ?
Ref: SOW for B&C of MEOLUTS, para 6.2.20
A8: *At this time, some form of switch out of external disk monthly or once every 2 months would be expected, depending on external disk size. The I/Q spectrum data collection, primarily used by GoC personnel for spectrum monitoring, is not to be taken into account as part of the total computation of availability of the MEOLUT.*

Q9: Can DND confirm the need to track Geosynchronous Earth Orbit (GEO) satellites as mentioned in para 6.3.2.17.2? It seems there is no need for specific processing on them, is it an optional feature?
Q10: Each MEOLUT must be capable of receiving and decoding beacon signals received through downlinks from COSPAS-SARSAT commissioned GEOSAR satellites to obtain beacon data (para 6.2.11). Is the requirement to be able to track, receive and process the GEOSAR satellites using MEOLUT antennas? This could lead to an increase in antenna size, adding significantly to system and maintenance costs. However, if the signal were to come from a GEOSAR suited antenna, the system could easily be configured to process without loss in performance as it relates to C/S specifications for GEO signal processing with little or no addition to overall lifetime system cost.
Ref: SOW for B&C of MEOLUTS, para 6.3.2.17.2 and para 6.2.11
A9 &A10: *DND has noted this, and will remove the requirement of the MEOLUT to track and receive GEO satellites since GEOLUTs are commercially available, in use, and are specifically designed for use with GEO satellites. The capability of Location Processors to be able to use processed data from GEOLUTs will still be required.*

Q11: Can DND provide detailed information on Beacon Simulator capabilities and on how to interface with them?
Ref: SOW for B&C of MEOLUTS, para 7.7.5.
A11: No interfacing from the MEOLUTS or Remote Operator Interface (ROI) to the beacon simulator will be required. An operator manual on how to operate the beacon simulator and execute test scripts will be provided in advance of all commissioning testing.

Q12: Service support and maintenance are not described in the RFP, while usually a significant contributor to the global cost. Would DND consider that it will be part of the final RFP?
A12: *Please review the now-posted Draft ISS SOW which will address this question.*

Q13: Are there any specific constraints on the roof of existing building in Edmonton and Goose Bay site that prevent installation of MEOLUT Antenna (active antenna array solution)? Is it possible to get detailed design of those building?
A13: *No existing buildings, shelters or structures will be used as part of the installation. A demarcation point will be provided where network communications and power will be distributed from to the exact site where the MEOLUTs and all its required buildings, shelters, and structures will be built by the vendor*.

Q14: The 406 band spectrum plots are not normally sent to the MCC or MEOLUT Command and Control. It can be viewed remotely (via RAdmin). Is the unusual activity in the band visually identified by the operator? Are there specific aids with thresholds for various parameters that are needed in identifying these signals?
Ref: SOW for B&C of MEOLUTS, para 6.1.4.6 and para 6.2.9.
A14: *Regarding 6.1.4.6, viewing of the plots remotely is sufficient, and there is no requirement to send the plots to the MCC. Regarding 6.2.9, on occasion operators or SARSAT GOC technical experts will visually analyze spectrum plots. At this time, no specific aids with thresholds for identifying specific signals are required.*

Q15: Will the necessary interface information to work with the CBRV be provided to the MEOSAR contractor? This information can be used by the MCC, as beacon IDs can be correlated with historic archived sites. Alternatively, the data connections can be made with the MEOLUT itself. What is the preferred ConOps for inverted frame test data?
Ref: SOW for B&C of MEOLUTS, para 6.1.4.8 and para 6.2.6.
A15: *At this stage, as with the GEOLUTs, the MEOLUTs shall send this information directly to the CBRV, as per the CMCC ConOps document.*

Q16: User control can certainly be provided for reprocessing beacon data through TOA only, FOA only and TOA/FOA methods. Seeking further clarification for the ConOps for this particular requirement so that we can support it.
Ref: SOW for B&C of MEOLUTS, para 6.1.9.2.
A16: *At this stage, DND would require the feature of choosing location calculation for reprocessing at the Network Location Processor (NLP), as part of improving location accuracy for all beacon detections and especially improving location accuracy for all types of moving beacons. The ConOps document will be updated to clarify this before the final RFP.*

Q17: Usually, tools for coverage are used for statistical analysis of coverage and satellite tracking tools are used for real-time satellite tracking. One can envision that the coverage tools provide guidance for operational satellite tracking. We would like to understand the level of integration required by CMCC to meet these requirements?
Ref: SOW for B&C of MEOLUTS, para 6.2.14.2
A17: *More details will be provided in the ConOps before the final RFP. At this stage, what is required is the capability to take a previous tracking schedule from the MEOLUT and input its data as a file with no operator manipulation (i.e. drop and drag or copy/paste) into the CAST to evaluate the simulated coverage area, and to take a set of satellite passes, as provided by the CAST tool, and then provide them into the tracking scheduler as a file with no operator manipulation (i.e. drop and drag or copy/paste)*

Q18: Will the DND's RAdmin software be made available for factory acceptance testing? During system installation will DND support the configuration of this software?
Ref: SOW for B&C of MEOLUTS, para 6.1.15

A18: *Yes to both. DND's RAdmin software will be made available for factory acceptance testing and DND will support the configuration of this software during system installation.*

Q19: Does this mean the injection of calibrated signal into the antenna input and processed for the pertinent monitor measurements? If not, what does the built-in-test involve?
Ref: SOW for B&C of MEOLUTS, para 6.3.2.19
A19: *Yes*.

Q20: This statistic is difficult to measure given the large number of measurements needed to accurately verify this. We expect that months of data will be needed to detect 1 or 2 anomalies. As such this requirement will be hard to verify during factory and system acceptance testing. We are seeking clarification on how will the processing anomaly rate be expected to be demonstrated?
Ref: SOW for B&C of MEOLUTS, para 6.4.2.13
A20: *The information above is noted. Clarification will be provided at the final RFP on the methodology used to demonstrate this requirement*.

Q21: What are these codes? Is it the national building code? Or is it as applicable?
Ref: SOW for B&C of MEOLUTS, para 6.1.17
A21: *As stated in 6.1.17, all local, provincial and federal codes that apply to buildings, as well as all civil, electrical and mechanical systems installed at the sites must be met. The codes that are applicable are dependent on the location of the site.*

Q22: Interface ICD to the CMCC server is required for distributing the alert data to the CMCC server. Specific alert data to be distributed should be specified.
Ref: SOW for B&C of MEOLUTS, para 6.1.4.3.
A22: *Data is specified in ConOps and C/S documents referenced in section 5 of the Statement of Work.*

Q23: What are the requirements for interfacing to the CMCC server? ICD is required to assess the scope of work accurately.
Ref: SOW for B&C of MEOLUTS, para 6.1.1.5
A23: *The requirements are specified in applicable C/S documents of section 5 of the Statement of Work and in the ConOps document.*

Q24: Does downtime in RF availability exclude schedule preventative maintenance?
Ref: SOW for B&C of MEOLUTS, para 6.4.2.2.
A24: Yes, but for the RF availability only. For all other availability parameters, downtime for scheduled preventative maintenance must be included in the calculation.

Q25: There are no Data Item Descriptions (DIDs) or Contract Data Requirements List (CDRLs) specified in the draft SOW which describes the delivery frequency and content of deliveries (design docs, plans, etc.).
Ref: SOW for B&C of MEOLUTS, para 7.1.1
A25: *Details of deliverables are provided in section 7.2 of the document, as well as within setion 7.3 of the ISS SOW for in service support reporting. All System and Programmatic Documents, as described in sections 7.1.4 to 7.1.12 must be submitted by Systems Requirements Review (SRR) meeting. All other documents' delivery timelines will be agreed to at the Kick-off Meeting and Progress Meetings. Any CDRLs required will be identified at final RFP posting.*

Q26: Canada is asking to submit the Recommended Spares Parts List (RSPL) that is needed to meet availability targets. But there are no metrics provided for the operational or availability requirements in the draft SOW.
Ref: SOW for B&C of MEOLUTS, para 7.1.16
A26: *General operational and availability requirements are defined in section 6 of this SOW. Detailed requirements regarding availability post installation are defined in the ISS SOW.*

Q27: Is Canada looking at the suppliers to achieve the Security Assessment and Authorization (SA&A) of the system? Clarification required.
Ref: SOW for B&C of MEOLUTS, para 7.3.2 and 7.3.2.3
A27: *Details on the process to be followed for MEOSAR are being finalized. Security assessment and authorization arrangements and requirements from suppliers will be made available at final RFP posting.*

Q28: This is in regards to providing additional fences, shelters, and storage to safeguard and protect the delivered parts and installed systems from the elements and the Contractor must provide suitable buildings and enclosed spaces as per para 7.5.1.2. Will the site details be made available at time of tender or will expected respondents be able to conduct site surveys before tender response?
Ref: SOW for B&C of MEOLUTS, para 7.4.1.1.2 and 7.5.1.2
A28: *Detailed site information and any available past site surveys will be made available at final RFP posting. However, DND is considering to have respondents to the RFP conduct their own site surveys before tender response. If so the process to conduct site surveys will be detailed in the RFP.*

Q29: Is the purpose of the Electronic Information Environment (EIE) to exchange information during the implementation contract for the work defined by a separate ISS contract, or both?
Ref: SOW for B&C of MEOLUTS, para 7.5.3.1
A29: *Details on the EIE requirements have been presented with the ISS SOW. The EIE is to be implemented and tested for the Design, Build & Commission (DBAC) SOW. The main purpose of the EIE is to provide electronic access to all GS documentation (technical and operational) and changes to these based on ISS activities, including a mechanism to track all ISS issues, repairs and system modifications using a ticket based system.*

Q30: Generic comments on the Training requirements (req 7.8):
- Number of students for each course load for each course type (operational/maintenance) is not specified
- Explanation on expected course duration is not defined
- It is not clearly defined what are the skills of personnel who are to be trained OR is it “train the trainer”?
- It is not clear if training is provided one-time or is expected annually.

Ref: SOW for B&C of MEOLUTS, para 7.8.
A30: *CMCC Operators will require multiple sessions due to operational duty requirements.*
As the system and manuals are provided by the suppliers, DND is looking for feedback on training duration (i.e. 3 days for technical staff, 5 days for operators), and course material options.
CMCC Operators are the individuals who will be trained on the operation of the ROI and NLP, and they will monitor the MEOLUTs for warnings. Engineers and technologists from DND will be part of the technical staff. All students may take only one or both types of training. A “train the trainer” type of course is not planned at this time. More details on Training post installation are available in the ISS SOW.

Q31: The Contractor must warrant all equipment and labour of the MEOLUT systems, including infrastructure and hardware, for a period of three years after successful completion of the SAT.
The Contractor must warrant all equipment and labour of all other systems, including infrastructure and hardware for a period of three years after successful completion of the SAT for the MEOLUT LOI and ROI, the MEOLUT Network, the Network Location processor and the MEOLUT CAST.
The Contractor must warrant all software of the systems delivered for a period of 120 days after successful completion of related SATs.
We are seeking clarification on the different period of warranty mentioned in the above requirement. We recommend that the warranty be concurrently applicable to all the hardware and software systems to be used in operations. In this case, three years.
Ref: SOW for B&C of MEOLUTS, para 7.9.1., 7.9.2., and 7.9.3.
A31: *Final information on the warranty period will be made available at final RFP posting based on feedback from the draft SOWs.*

Q32: Is Canada considering seeking two-way messaging capabilities in this project?
A32: *No, Canada is not considering the option of having ground stations transmit the return link signals to satellites.*