W8476-206262 - Land ISR Mod RFI - Unique Supplier Questions

Question 1:

What functional capabilities are you most interested in?

Answer 1: The capabilities that Canada is the most interested in are:

1) Unified Networking capability whether it be hardware or software (C2 tool to manage our sensor tasks and passing of sensor information for cross-queuing and information sharing);
2) Modernized or upgrades to our existing sensors;
3) New sensors to DRI emerging and existing threats.

New software should include mapping and 3D mapping or visualization tools, but these are not within the core required capabilities.

Question 2:

Are you thinking of a tactical cloud sort solution over all the domains?

Answer 2: Canada is not precluding any solution at the moment.

Question 3:

If you had better sensors do you have enough data connection ability?

Answer 3: It is not a question of increasing the number of links but the sharing of the data. The project will modernize sensors as needed, but is focusing more on data sharing. We're not precluding any sort of networking hardware but the scope of Land ISR Mod project is focused more on software than radios or hardware equipment.

Question 4:

Who retains Total System Responsibility incl. integration with other projects (JFM, EW Mod, JDHQSR Mod, ISSP, etc.), in-service sensors, and networks such as CSNI, LCSS?

Answer 4: DGLEPM specifically DLCSPM will have the overall responsibility as the Project Implementer.

Question 5:

In terms of HLMRs & scope, what is the priority for DND? Has DND prioritized or weighted the HLMR's?

Answer 5: Land ISR Mod will deliver on three areas: networking ISR sensors for C2, queuing & cross-queuing and Information sharing, modernize in-service sensors, and introduce new sensors. The priority for Land ISR Mod is the networking of sensors. In line with that priority, the Technical and Informational Interoperability are the priority HLMRs. Of course, all HLMR are mandatory and key requirements. The HLMR have not been weighted at this time and no procurement strategy or evaluation plan have been decided.

Question 6:

What is DND's vision for Training & Simulation? Is there any preference towards Networked Solutions: LVC sim (live, virtual, & constructive simulation)' PTT (Part Task Trainer); HoT (Hands on Trainer); stand-alone systems?

Answer 6: These requirements are not fully defined. It is expected that the Land ISR Mod will require individual training, including simulation, for sensors both classroom and field. It is expected that the network solution will be required to interface with the CA collective simulation training environment.

Question 7:

Does scope include Army (RegF / Res?), and SOF, Int, Sigs, 4GS Regt, other?

Answer 7: The main user groups are defined in the Industry Day presentation. Reserves will continue to use ISR capability but any additional reserve capability will be defined in upcoming PRICIE G working groups.

Question 8:

The budget listed as $100-249M; does this include long-term ISS? Is there potential to grow if scope increases?

Answer 8: The project expects the need for a larger budget. The initial project funding is typically expected to cover acquisition and two years of ISS. RFI responses will be used to help define the overall required budget. Any increase to budget will need approval. The ISS procurement strategy is still to be defined. Also see Recurring Answer # 2

Question 9:

Annex B identifies Key Performance Indicators (KPIs) for Sustainability, what technical KPIs are they considering for the Digitized Land ISR C2 Network (e.g. AI/ML automated tools for info collection planning, predictive analysis, simulation/war-gaming, Course of Action generation & assessment, sensor tasking, track management, fusion & dissemination; and network range, latency, quality of service, bandwidth, redundancy; and ISR Sensors (automated detection, recognition & identification of C2 elements, Arty Systems, low-level air threats such as Micro & Mini UAS, NBCW threats, other 'high pay-off targets; range, weather conditions, spectral coverage, cross queuing, EO/IR counter camouflage capability)?

Answer 9: Technical KPIs will be released at a later time once Canada has determined which capabilities they intend to further pursue.

Question 10:

Annex E, paragraph 2 p) lists a number of required Land ISR Mod interfaces including LCSS, LCSS Battle Management System, IFCSS/Arty MIS, LCMR, SUAS (Blackjack), LRSS, Persistent Surveillance Suite, MUAS, MRR, TAPV, LAV 6 OPP, and ISS. When does industry get the GFI that defines these interfaces so that we can estimate the hardware, software and integration costs?

Answer 10: Within the legal bounds of our permissions to share information with any 3rd Parties, Canada will provide the information necessary to understand how to interface with GFE when the Draft RFP is released. Due to intellectual property rights of the GFE, appropriate security clearances and non-disclosure agreements may apply – and still, not all details may be releasable.

Question 11:

The Industry Day Slide Deck identifies STANAG 2895 and the NATO Joint ISR Capability Implementation Plan and Annex A, paragraph 1.8.3.3 identifies STANAGs 4559 and 2723 as "pertinent NATO STANAGS"; will these references be provided as GFI?

Answer 11: If a pertinent STANAG is not available online for free, Canada will provide if there are no security issues.

Question 12:

Appendix 1 to Annex A paragraphs 4.12 and 4.16 indicate that Land ISR Mod should include a radar ESM and the Blackjack Small UAS should have an "RF detecting payload". Annex E, paragraph 2. c) implies that the ISR Mod should detect, recognize, identify, track and locate C2 Nodes. What is the relationship between Canadian Forces Land EW Modernization Project and Land ISR Modernization Project as there seems to be a potential overlap in capability?

Answer 12: Land ISR Mod focus for Electronic Warfare is on passive sensor capability for detection and location of hostile threats or areas of interest. Anything active or Top Secret is out of scope for ISR Mod. CFLEWM project will deliver all the active EW capability for the CA including any electronic intelligence (ELINT) payloads on Small Unmanned Aerial System (SUAS), for example.

Question 13:

Will architectural guidance be provided or is it still independent?

Answer 13: Canada is not able to provide guidance at this point but may be able to provide systems and wave forms at a later time.

Question 14:

Will the program office be planning to provide any capability information on the GFE products in order to be able to fully assess total solution capability?

Answer 14: Yes - within the legal bounds of our permissions to share information with any 3rd Parties, Canada will provide current existing systems/sensors/capability details including the information necessary to understand how to interface with GFE within the DRAFT RFP. Due to the intellectual property rights of the GFE, appropriate security clearances and non-disclosure agreements may apply – and still, not all details may be releasable.

Question 15:

Can you confirm under which organization the project will fall? Will this be an ADM (Mat) - DGLEPM – DLR Project?

Answer 15: ADM (Mat)/DGLEPM will be responsible for the delivery of the ISR Mod project. CA is the project sponsor and DLR provides the technical requirements for DGLEPM to deliver.

Question 16:

What ITAR restrictions might there be?

Answer 16: ITAR will be involved as some of our current capability has ITAR restrictions, however it is too early however to respond fully to this question. See recurring questions, answer # 2

Question 17:

5 Eyes and NATO compatibility requirements have been referenced. How will DND assess the final compatibility of the solution to other NATO systems?

Answer 17: It is too early to tell how individual standards, including those of NATO, Five Eyes, or any other industry standards will be either assessed or tested. Any information in how the proposed system meets those standards, or any other standards would be of interest as DND values the use of standards in order to guarantee interoperability with partner nations and agencies. Please see Answer #2 of the recurring questions for to the procurement strategy.

Question 18:

For Key Industrial Capabilities; how does DND propose they would score a solution for including of KICs such as Artificial Intelligence or Cyber Resilience?

Answer 18: Bidders' commitments related to KICs will be addressed as part of the ITB Value Proposition requirements on the ISR Mod procurement. At this time, Canada has not determined the Value Proposition requirements. The RFI process invites industry to submit feedback to inform Canada about industry's perspectives on how best to support economic outcomes for Canada through the Value Proposition. Feedback is welcome on such topics as the application of the different Value Proposition Pillars, the selection of KICs for this procurement, and how best to leverage support for KICs through this procurement.

Typically, investments in Key Industrial Capabilities are broader in scope than direct work on the specific procurement, and the weighting of the Value Proposition differs in approach between KICs that are considered Emerging Technologies, and those that are Leading Competencies and Critical Industrial Services. For more information on how Canada seeks to leverage support for KICs through defence procurements, please visit http://www.ic.gc.ca/eic/site/086.nsf/eng/00006.html

Question 19:

DND is looking for a very sophisticated system that will be expected to support a myriad of different sensors that communicate through different standards. When evaluating bids during the RFP phase, how will DND be assure that the chosen solution will work to DND's expectations when delivered? Or, is DND looking for some level of capability that is demonstrable to work at the time of bid evaluation? In order to de-risk this project, would DND consider pre-qualifying bidders by ensuring they have at least a partial solution, say 40% of the desired functionality, on which to build a solution for Land ISR Mod?

Answer 19: At this point, all the project can confirm is that the preference is to use standards such as STANAGs, Mil Standards, 5 EYES, etc. but it is too early to respond. Canada will likely specify relevant standards in the Draft RFP once it has determined which capabilities it wishes to pursue. As previously mentioned, Canada has not determined a procurement strategy yet and so no decision has been made on prequalifying suppliers. Canada welcomes proposals from suppliers as to how to de-risk the project.

Question 20:

What tasks are expected for In Service Support and how would this dovetail with the LCSS ISTAR ISS approach?

Answer 20: Typical tasks such as Initial Cadre Training (ICT), engineering support, providing spares, and updating publications are likely, but it is still too early to determine the full list of ISS tasks and how they would relate to LCSS ISTAR ISS.

Question 21:

In regards to HLMR# 3, with the recapitalization of Light Forces and tactical RW lift, is this solution consistent with their needs when conducting 'Adaptive Dispersed Ops Over the Horizon' (ADOs OTH)?

Answer 21: As per RFI, the Land ISR Mod solution will need to be interoperable with the CA C2 including mounted and dismounted operations.

Question 22:

In regards to HLMR #3, how does the CA currently exchange information with its Joint, Coalition and Public partners?

Answer 22: CA currently uses analogue and limited digital communications.

Question 23:

What new type of systems, besides upgrades of existing is Canada looking for? Is it possible to know the number of existing GFE, type and descriptions?

Answer 23: The RFI, specifically Annex A and the Industry Day presentation describe the capabilities Land ISR Mod is seeking. Within that context, at this point all options are open, we look forward to reading all industry responses.

Question 24:

Will Canada provide a detailed description of existing systems, sensors and capabilities to integrate with?

Answer 24: Yes - see Answer # 14.

Question 25:

What is the timeline for the procurement/s? What will happen between now and milestone #2 (draft RFP 2022/23)?

Answer 25: See Industry Day presentation for timelines. Between now and the draft RFP, the project will be considering the feedback received from industry and determining which networking and sensing capabilities the CAF wishes to gain from Land ISR Mod.

Question 26:

Will information or conclusions of the one-to-one meetings be made public or to the individual companies?

Answer 26: All answers to supplier questions received during one-on-one meetings will be vetted by individual Suppliers prior to the posting of all generic questions and answers on www.buyandsell.gc.ca.

Suppliers are strongly encouraged to add their names to the List of Interested Suppliers on this website to facilitate any potential partnering.

Question 27:

In terms of passive sensors, is DND looking for only acoustic sensors?

Answer 27: No, any passive sensor is of interest, not just acoustic.

Question 28:

What are the different roles in the ISTAR/STAR CC? What are the deliverables?

Answer 28: **Roles:**

Intelligence, Surveillance, Target Acquisition & Reconnaissance Coordination Centre (ISTAR CC)

a. Aids the commander with the collection of ALL forms of intelligence (C4ISR support)
b. Battle-tracking of all assets feeding into the ISTAR CC
c. Coordinates with the '2' (or intelligence) cell to collate information and issue Intelligence Reports (INTREPs)
d. Can issue tasks in accordance with the Commander's plan and information requirements to any collection asset (Recce, Snipers, STACC, UAS, PSS (aerostat or towers), etc.
e. Operates at a higher level than STA CCs, but coordinates with the STA CCs and can issue tasks to their collection assets.

Surveillance and Target Acquisition Coordination Centre (STA CC)

a. Aids the Comd with respect to the Artillery Intelligence Picture
b. Concerned specifically with assets controlled by Close Support Artillery Batteries (Radars, Acoustic sensors, Mini-UAS). This includes battle-tracking, receiving information from the systems digitally, sending that information to the appropriate stakeholders.
c. Supports the conduct of counter battery fire missions
d. In accordance with the ISTAR plan and matrix, the Surveillance & Target Acquisition Coordination Centre (STACC) receives tasks to observe specific Names Areas of Interest (NAIs) and Target Areas of Interest (TAIs)
e. Supports ISTAR, but is distinct in that it has a narrower scope and usually functions at a lower tactical level. This support is typically centered on UAS, with other assets devoted primarily to counter-battery.

Deliverables (in terms of RFI stipulated HLMRs):

a. Integration of all sensors into C4ISR network to detect, identify, acquire & track objects of interest on land & in low altitude air. (as per HLMR #1)
b. Make information accessible to C2 at operational and tactical levels to enable planning & decision making (as per HLMR #1)
c. display and exchange info in near real time to LCSS, coalition and allied forces while meeting NATO Joint ISR capability integration plan. (as per HLMR #2)
d. Flexible sensor solution (scalable, modular, task-tailorable, detect stated threats) (as per HLMR #3)
e. Persistent awareness as defined in HLMR #4.
f. Responsiveness as defined in HLMR #5, specifically highlighting coordination, optimization, prioritization, queueing and cross-queueing
g. Modernized Sensors (possibly radar, UAS, acoustic, passive sensors) as stated in RFI Project Scope
h. Replacing Sensors (possibly radar, UAS, acoustic, passive sensors) as stated in RFI Project Scope
i. Training system that functions within a networked synthetic environment

Question 29:

What is the common layout of the ISTAR CC: Dismounted \ Mounted \ as Part of BG Command Centre (rear/main/forward)?

Answer 29: The ISTAR CC will support Brigade manoeuvre operations typically using Light Armoured Vehicle CP variant. The ISTAR CC typically had 4 or 5 personnel working in a 24/7 rotation. On static operations the ISTARCC can be set up in a building, tent or expedient shelter. On all operations wherever possible, the ISTAR CC will be co-located with the Brigade G2 or All Source Intelligence Cell (ASIC), Fire Support Coordination Centre (FSCC), Airspace Coordination Centre (ASCC), and Tactical Air Control Party (TACP).

Question 30:

Please specify the amount of personnel that will receive end user terminal\application.

Answer 30: This number is not fully defined as we are still early in the project. This number will be in the hundreds for Brigade operations.

Question 31:

What type of radios/communication is planned for the ISR users Land (UHF\VHF\HF)\G2A?

Answer 31: Currently the CA is adopting a mobile ad hoc network (MANET) radio topology in the UHF band.

Question 32:

What are the roles of the ISR team at the brigade and the battalion command posts?

Answer 32: The key Brigade ISR roles are the ISTAR CC, see Answer # 28. The key role at the Battle Group or Battalion are in the STACC, see Answer #28

Question 33:

Could you please share with us the communication bearers and throughput we should assume for the solution? If multiple generations of communication solutions are required to be supported please share their characteristics.

Answer 33: Yes - within the legal bounds of our permissions to share information with any 3rd Parties, Canada will provide current existing systems/sensors/capability details including the information necessary to understand how to interface with GFE within the DRAFT RFP. Due to intellectual property rights of the GFE, appropriate security clearances and non-disclosure agreements may apply – and still, not all details may be releasable.

Question 34:

What is the computing power that is currently available at the edge (sensor node) for each sensor?

Answer 34: Yes - see Answer # 14.

Question 35:

Is an on-the-move capability needed for radars?

Answer 35: Yes it will be required.

Question 36:

Given the requirement for NATO interoperability and integration referenced in para 1.8.3.3, would this requirement mandate the use of equipment from NATO country participants? Most European suppliers are already in-step with NATO interfacing and integration standards, and mandating this requirement would be a significant risk reduction for the program.

Answer 36: As per RFI, the Land ISR Solution must be interoperable with US, 5 EYES and NATO. We have not decided whether to mandate it as a requirement. See recurring questions answer # 2 for second part of your question.

Question 37:

The Land ISR Mod may also support civil security requirements, such as protection of a large sporting event or an important gathering of world leaders. What is the concept of integration or cooperation with civil authorities such as RCMP? Government authorities? Intelligence services? How would this affect system requirements especially for counter-UAS operations?

Answer 37: As per RFI and Industry Day presentation Land ISR Mod must be interoperable with Other Government Departments, including RCMP, etc. Land ISR Mod will deliver a sense capability for counter-unmanned aircraft systems (CUAS). Requirements are still being defined.

Question 38:

Please provide the updated schedule for Land ISR Mod project

Answer 38: See recurring questions, answer # 3 for RFI extension. The project timeline in the Industry Day presentation remains valid.

Question 39:

Paragraphs 1.5.1 a) and 1.5.1 b) of Annex A states that “the Land ISR digitized C2 System interfaces to the Land C2 and Battle Management System to integrate sensor information…. And …migrates the information into the Land Battle Management System, Joint Fires and other applicable systems”. What are these systems? (Battleview, JBMS, Sitaware, Tactical Battle Management System, JADOCS, IFCCS,?)

Answer 39: These systems will be specified at a later time once Canada has determined which capabilities they intend to further pursue.

Question 40:

In the RFI, based on the results of the One-on-One meeting and the proposed Risk Mitigation, will there be changes in the scopes and requirements?

Answer 40: It is possible that there will be changes to the scope and requirements of the project. At this point however it is too early to know what those changes might be. See Recurring Answer #2 for the second part of the question.

Question 41:

In reference to HLMR #3, distributed environment implies decentralized decision making. How is decision-quality information presently being exchanged with lower levels of command?

Answer 41: CA currently uses analogue and limited digital communications.

Question 42:

In reference to HLMR #4, resilience and redundancy is paramount. How are mobile elements supported for tactical Beyond Line of Sight to push/pull information from upper tactical / operational level networks?

Answer 42: Currently the CA uses medium capacity radios mounted within vehicles to transmit data through battlefield. Within the ISR realm, wireless mesh networking Mobile ad hoc networks (MANET) radios are used for transmitting data.