

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Mark Milloy
mark.milloy@tpsgc-pwgsc.gc.ca

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

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Detection, Simulation and Optical Systems Division
Place du Portage III, 8C2
11 rue Laurier Street
Gatineau
Quebec
K1A 0S5

Title - Sujet RFI For AIEDDD	
Solicitation No. - N° de l'invitation W8476-226486/B	Amendment No. - N° modif. 008
Client Reference No. - N° de référence du client 6000542498	Date 2024-05-24
GETS Reference No. - N° de référence de SEAG PW-\$\$QT-006-28774	
File No. - N° de dossier 026qt.W8476-226486	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Daylight Saving Time EDT on - le 2025-06-30 Heure Avancée de l'Est HAE	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Milloy, Mark	Buyer Id - Id de l'acheteur 026qt
Telephone No. - N° de téléphone (343) 549-4768 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein
Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

If there is any discrepancy between the English and French document, the English document takes precedence.

W8476-226486/B

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

Solicitation Amendment 008 has been raised to:

- Extend the closing date on page 1 to June 30, 2025;
- Provide industry with a project update and to coordinate upcoming industry engagement;
- Provide industry with answers to some questions raised during 1-on-1 engagements in Fall/Winter 2023 and Spring 2024;
- Provide additional questions to industry.

Note – RFI Applicability. As mentioned in previous RFI Amendments, the project is divided in two phases, which have separate timelines. It is recognized that some of the information provided in the RFI Amendments may only be applicable for either one or both phase(s) of the project. To clarify and simplify industry's interpretation and applicability, a statement to that effect was added at the beginning of each Section.

This Amendment is divided into four sections:

- A. Section A – Project update and coordinating information for the Project Management Office (PMO) participation in CANSEC 2024
- B. Section B – Additional questions for industry
- C. Section C – Q&A: Industry questions during one-one-one, and Canada's answers
- D. Section D – AIEDDD Project Power Point Presentation to industry (copy of the brief used during 1-on-1 industry engagements)

Section A – Project update and coordinating information for the Project Management Office (PMO) participation in CANSEC 2024.

➔ This section applies to both phases of the project.

1. Project schedule. AIEDDD continues to work on the development of Draft Requests for Proposal (RFP) for Phase 1 of the project, which includes the Mini and Small Uncrewed Ground Vehicle (MUGV, SUGV), and wish to publish it during the summer of 2024. It is anticipated that the draft RFPs would be published via separate CanadaBuys posting than this current AIEDDD RFI posting.
2. High Energy Laser System (HELs). AIEDDD is planning on conducting an industry day in Ottawa for the HELs capability only. This will not occur before late Fall 2024, and potentially in 2025. More details will be released in a future RFI amendment. This current RFI posting on CanadaBuys will remain open and continue to be used for future phase 2 related RFI Amendments.
3. CANSEC. The AIEDDD project team will be present at CANSEC in Ottawa on 29-30 May 2024, and is available to meet any requesting OEM/Vendor. Appointments are necessary to ensure that sufficient time is available to all interested parties. See point of contact below to coordinate engagements. There is no obligation from any Vendor to present themselves at CANSEC, and it will have no implication on eligibility, and Vendors will not be precluded from submitting a bid on future RFP's, if they do not attend.

W8476-226486/B
Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process

UNCLASSIFIED - NON CLASSIFIÉ

4. Vendors who wish to engage with Canada in the manner stated above will not have any advantage over any other Vendor wishing to submit a bid on future RFPs. Any clarifications or changes resulting from any industry engagement will be included either as an amendment to this RFI or as part of newly published Draft RFP documents on CanadaBuys.
5. Fairness Monitor Update. While the initial RFI mentioned that a fairness monitor has not been engaged, as the project matures, the services of a fairness monitor has been requested. As a result, a fairness monitor may be engaged throughout the remainder of this RFI process.
6. Point of contact for coordination of engagements. For all inquiries related to this RFI: Mark Milloy, SPAC/PSPC Mark.Milloy@tpsgc-pwgsc.gc.ca

W8476-226486/B
Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process

UNCLASSIFIED - NON CLASSIFIÉ

Section B – Additional Questions for Industry

- ➔ This section applies to both phases of the project, except for topic 3 and 4 which only apply to phase 1.

In the RFI Annex A, under Technical Financial Costing requirements, **after** section “4.0 Advanced list of questions and discussion points (MUGV, SUGV)”

Insert:

5.0 Additional Questions for Industry – Spring 2024

Comments on the following questions are requested by **June 14th 2024**.

Questions will cover the following topics:

- 1) Greenhouse gas (GHG) Emissions
- 2) Human Factors
- 3) Cameras’ field of view clarification
- 4) Indigenous Participation Plan (IPP)
- 5) Accessibility

1) Greenhouse Gas (GHG) Emissions

Background

During one-on-one engagements for the RFI, industry was notified about the new “[Standard on the Disclosure of Greenhouse Gas Emissions and the Setting of Reduction Targets](#),” which induces suppliers to measure and disclose their greenhouse gas emissions and adopt a science-based target to reduce greenhouse gas emissions in line with the [Paris Agreement](#) as part of participating in the [Net-Zero Challenge](#) (NZC) or in an equivalent initiative or standard.

As such, for the planned RFPs, Canada intends to include a requirement that would require the bidder to sign a certification that certifies the bidder is participating in the NZC or equivalent, and the bidder would be required to maintain participation throughout the life of the acquisition and support contracts. The Draft RFP would clarify whether this will be required at bid closing or precedent to contract award.

Question 1: Are you participating in the Net-Zero Challenge or equivalent greenhouse gas (GHG) emissions disclosure and reduction target initiative?

- a) If yes, please identify which initiative. Note that the list of equivalent initiatives can be found [here](#) at Table 1.
- b) If you are participating in an *alternative* initiative and would like to propose it as an equivalent, please confirm and identify it in your answer and Canada will confirm if it is an acceptable equivalent.

W8476-226486/B
Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process

UNCLASSIFIED - NON CLASSIFIÉ

- c) If you are not able to participate in any initiative, please explain the reason why and provide any additional feedback.

2) Human Factors

Background

Canada is striving to make its equipment accessible to all CAF personnel through consideration of human factors. For AIEDDD, this translates in components size and physical accessibility of parts. As such, Canada intends on adding a human factor requirement that would read similarly to:

“The MUGV/SUGV/MUAS/HELS must accommodate at least 90% of all CAF personnel as defined in [Canadian Forces Anthropometric survey DRDC-2015-R186](#) for CAF personnel, to carry out all functions and duties related to operating and maintaining the equipment”.

Question 2: Does industry have any concerns or comments over this requirement?

3) Cameras’ field of view clarification

➔ This question only applies to **phase 1** of the project.

Background

Several questions were raised with regards to the specifications of the field of view for various UGV cameras. Canada would like to clarify that its stated requirements are for the entire field of view, encompassing both halves and not solely the positive portion. For example, a desired vertical FOV of 60deg would be from +30deg to -30deg from the horizontal (and not +60deg to -60deg).

Another question was related to the requirement, in some cases, for a higher vertical FOV compared to the horizontal. A potential solution discussed with some supplier was to have the camera mounted sideways and to turn the feed to appear straight on the CCS.

Question 3: Based on the above, Canada would like to know:

- a) For those that had FOV concerns or issues,
 - i. Does this resolve them?
 - ii. Does this change your response(s) provided concerning FOVs?
- b) Could you provide your camera details (make, model)?

W8476-226486/B
Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process

UNCLASSIFIED - NON CLASSIFIÉ

4) Indigenous Participation Plan (IPP)

➔ This question only applies to **phase 1** of the project.

Background: Information Related to the Indigenous Inclusion in the AIEDDD Project

Canada is considering incorporating Indigenous participation as part of the AIEDDD project in order to meet the Government of Canada's commitments of advancing Indigenous socio-economic development through federal contracting opportunities.

Indigenous participation can be achieved through direct (sub-contracting, employment, training) or indirect means of participation. AIEDDD will not be considering direct means of participation.

Indirect Forms of Indigenous Participation

Indirect participation may include innovative measures that could stimulate economic development of Indigenous communities and contribute to capacity building for Indigenous businesses and People, such as career or skills development, scholarships, grants, bursaries, work placements, and community outreach to support Indigenous communities in meeting their economic development goals.

Questions 4:

- a) Can your company incorporate innovative measures into their bid to maximize Indigenous inclusion in the potential resulting contracts for the AIEDDD project deliverables? And if yes, what do you propose? For example, a future RFP could require suppliers to include a plan detailing the relevant measures they will take to support Indigenous socio-economic development including, but not limited to training, skills development, scholarships, grants and bursaries, which would be evaluated as either a mandatory or rated requirement. The expectation would be that the supplier provides the support at some milestone in the contract period, with a holdback clause in place. If not, what are the barriers preventing this?
- b) When Indigenous participation is incorporated into projects, a portion (percentage or dollar value) of the total value of the contract is allocated exclusively for Indigenous subcontracting and/or employment and/or other indirect forms of Indigenous participation. What percentage of the total value of the contract do you see as attainable and achievable to incorporate Indigenous participation in the AIEDDD project?
- c) What incentive strategies have you encountered in previous contracts to encourage Indigenous involvement resulting in skills development, capacity building, and economic benefits to Indigenous groups?
- d) Is your business located within a [modern treaty](#)? If yes, please specify which one.

W8476-226486/B
Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process

UNCLASSIFIED - NON CLASSIFIÉ

Early Engagement with Indigenous Businesses

Early engagement with Indigenous communities and businesses is beneficial for Suppliers to:

- Enhance relationships;
- Ensure a common understanding of the project requirements;
- Determine Indigenous business capacity for the procurement of goods and services; and
- Identify skills and training gaps for employment of Indigenous peoples.
- **Contacts for Huron-Wendat:**
 - a. Maxime Picard, Director of Economic Development: Maxime.Picard@wendake.ca
 - b. Nicolas Picard, Economic Development Advisor: Nicolas.Picard@wendake.ca

Definitions related the Indigenous Participation

Incorporating Indigenous participation into federal contracting compliments the objectives of the [Procurement Strategy for Indigenous Businesses \(PSIB\)](#) and the [mandatory requirement for federal departments and agencies to ensure a minimum of 5% of the total value of contracts are held by Indigenous businesses](#). PSIB is a federal policy that reserves, or ‘sets-aside’ certain contracts exclusively for competition among Indigenous businesses where capacity exists. The AIEDDD project is not a set aside for Indigenous businesses under PSIB, but may contain Indigenous subcontracting, employment and/or other forms of participation.

For definitions of ‘Indigenous business’, ‘Indigenous Person’ and ‘Indigenous Content’, visit: <https://www.sac-isc.gc.ca/eng/1100100032802/1610723869356>

Further Information and Assistance

Indigenous Services Canada is available to provide assistance to Respondents with:

- Providing resources to identify Indigenous business capacity
- Participate in events and workshops
- Provide advice on diversifying supply chains

Email: IndigenousProcurement@sac-isc.gc.ca

Phone: 1-800-400-7677

Website: <https://www.isc-sac.gc.ca/eng/1100100032802/1610723869356>

5) Accessibility

➔ This section applies to **both phases** of the project.

Background: PSPC’s role in promoting accessibility

The *Accessible Canada Act* is intended to enhance the full and equal participation of all persons, especially persons with disabilities, in society. This is to be achieved through the progressive realization, under federal jurisdiction, of a Canada without barriers, particularly by the identification, removal, and prevention of barriers.

W8476-226486/B
Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process

UNCLASSIFIED - NON CLASSIFIÉ

PSPC's goal is to ensure that the goods and services PSPC buys are inclusive by design and accessible by default. Considering accessibility in public procurements is now an obligation in the Treasury Board [Directive on the Management of Procurement](#). Accessibility criteria must be included in the requirements for goods and services, where appropriate.

PSPC has a role in implementing the Government of Canada's (GC) vision for a more accessible Canada because PSPC provides the information technology infrastructure that supports the delivery of digital services to Canadians and GC employees. This means that PSPC is engaged in the procurement of goods and services and in supporting the delivery of programs and services by other government departments, both of which are areas covered by the *Accessible Canada Act*. PSPC's goal is for its information technology infrastructure to be more accessible and usable by the broadest range of government officials and Canadians who use it, including those with disabilities.

PSPC is committed to providing leadership to procure accessible ICT goods and services and supporting the goal of inclusive by design, accessible by default. Future RFPs/Contracts could include accessibility requirements which are adopted from the EN 301 549 (**v3.2.1 (2021-03)**) Harmonised European Standard – Accessibility requirements for ICT products and services.

Question 5a: Which of the following standards do you use to ensure your non-web documents are prepared in an accessible format? A non-web document includes formats such as Word, Excel, PowerPoint, email, PDFs, and video. Please select all that apply and the applicable version.

- EN 301 549 Harmonised European Standard – Accessibility requirements for ICT products and services, versions: [v3.2.1 \(2021-03\)](#), [V3.1.1 \(2019-11\)](#), [V2.1.2 \(2018-08\)](#), or [V1.1.2 \(2015\)](#) *(Note: PDF is English Only)
- [United States Revised Section 508 \(English only\)](#)
- Web Content Accessibility Guidelines (WCAG), [versions 2.2,\(English only\)](#), [2.1](#), or [2.0](#)
- ***None (If none, please explain why your organization does not apply any of these accessibility standards to ensure your non-web documents are prepared in an accessible format.)***

Question 5b: Which of the following standards do you use to ensure that your instructional training materials are prepared in an accessible format? Please select all that apply and the applicable version.

- EN 301 549 Harmonised European Standard – Accessibility requirements for ICT products and services, versions: [v3.2.1 \(2021-03\)](#), [V3.1.1 \(2019-11\)](#), [V2.1.2 \(2018-08\)](#), or [V1.1.2 \(2015\)](#) *(Note: PDF is English Only)
- [United States Revised Section 508 \(English only\)](#)
- Web Content Accessibility Guidelines (WCAG), [versions 2.2,\(English only\)](#), [2.1](#), or [2.0](#)

W8476-226486/B
Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process

UNCLASSIFIED - NON CLASSIFIÉ

- None (*If none, please explain why your organization does not apply any of these accessibility standards to ensure that your instructional training materials are prepared in an accessible format.*)

Question 5c: How do you consider accessibility in the design and delivery of your instructional training courses? For example, do you apply Universal Design principles when developing instructional training courses.

Question 5d: How do you reflect the needs of diverse learners in the design and delivery of your instructional training courses? For example, do you apply Gender Based Analysis (GBA) Plus when developing instructional training courses.

W8476-226486/B
Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process

UNCLASSIFIED - NON CLASSIFIÉ

Section C – Q&A: Industry questions during one-one-one visits, and Canada's answers

➔ This section only applies to the phase 1 of the project.

Question No	Question	Answer
1	With respect to Slide 7 and 8 of the Presentation to Industry PowerPoint, what is the difference between upgrade and obsolescence for UGVs?	These terms are examples of why the CAF capabilities need to be improved. From a procurement aspect, there is no difference as Canada would be buying brand new fleets for each of the MUGV and SUGV.
2	Is there a possibility to bid in CAD and then award the contract in Euros?	This would be indicated in a future Draft RFP.
3	Regarding Slide 26 of the Presentation to Industry PowerPoint, regarding technical publications like the Provisioning Parts Breakdown (PPB), what level of detail will be needed? Can we access the publications for each of the Data Item Descriptions (DIDs)?	Access to the publications would be available at a future RFP stage, and should be available in a future Draft RFP.
4	Regarding Slide 26 of the Presentation to Industry PowerPoint, should the manuals and instructions for ILS be submitted as two separate books (one for English and one for French) or can it be one book with side by side languages within the single book?	There are many different ways of providing bilingual manuals: 1) English and French side by side in two columns, 2) Tumbled, 3) Facing Pages, 4) Over and under and 5) Separate books altogether. Depending on the size of the book, it is often better to have 2 books, one in English and one in French. This would be discussed at a contract kick-off meeting. Note that the publication that explains these options would be available on request via the Contracting Authority.
5	For SUGV, A1.2.1.1.4, can you clarify why this specification was lowered to 267mm?	The decision was based on the user-related requirement.
6	For SUGV, A1.2.1.6. (GPS), can Canada share which Military Grid Reference System they are referring to?	The Military Grid Reference System (MGRS) is based off of the Universal Transverse Mercator (UTM) and the Universal Polar Stereographic (UPS) grid systems with different labelling. Canada would require a 10 figure MGRS grid reference to provide a precision of +/- 1m for the location of the UGV. Note: This requirement was added for the MUGV.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

7	For SUGV, A1.2.1.7.7.1, is the EMC Directive of the EU an equivalent to the RE102 IAW MIL-STD 461G? And if so, what evidence would need to be provided to demonstrate equivalency?	<p>The following statement applies to all Equivalency of Test Methods questions, not just for the spec A1.2.1.7.7.1:</p> <p>Should a bidder propose to demonstrate compliance to the SUGV System requirements using an alternate test method obtained from a commercial or military standard that is different in either title or version from the one specified in the SUGV SRS or Evaluation Matrix, that bidder would first have to demonstrate how the specified and alternate test methods are equivalent by identifying any gaps in the test methodologies or test severities, and where gaps exist, provide an analysis to demonstrate that there would be no measurable effect on the SUGV characteristic(s) being qualified. Approval of the equivalent test method would be at the sole discretion of the Technical Authority (TA), following a review of the gap analysis provided by the bidder.</p> <p>Ideally, contractors would propose equivalencies at the earliest opportunity, so that they could be properly reviewed.</p>
8	For SUGV A1.2.1.8.3, can we please have a clarification on the required IP range?	As long as there are no IP conflicts between radio and UGV components and that they would be able to meet the 172.16.xx.xx IP scheme, then this would be satisfactory.
9	For SUGV, A1.2.2.7.3.5, does the communication need to be encrypted?	Yes communication needs to be encrypted.
10	For SUGV, A1.2.3.1, should the battery requirement for CBRNE detectors be removed since usually these detectors have their own batteries?	Yes. Canada does not plan to make it a mandatory requirement for the UGV to provide power to the detectors. Contractors have the option to power the detectors. Canada plans to adjust the specification in a future Draft RFP to reflect this.
11	For SUGV, A1.2.3.3, is the intent to allow recharge of the battery?	Yes. To be clear, suppliers would need to calculate the number of sets required to operate for 8 hours consecutively, given their respective battery depletion and recharge rates.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

12	For SUGV, A1.2.5.1, where are you measuring the horizontal length from, i.e. the front of the chassis or the centre of the turret?	Yes, Canada would contemplate adjusting the specification in a Draft RFP to reflect the following: "The Manipulator Arm and Gripper horizontal reach beyond the front of the SUGV, with the datum point being the centre of the turret/shoulder joint, must be no less than 1600mm (the horizontal reach must be done without an Arm Extension addition to the Manipulator Arm and Gripper)."
13	For SUGV, A1.2.5.2, can you clarify what 'reach' really means? I.e. should the robot also be able to do something at that extension?	Yes, Canada would contemplate adjusting the specification in a Draft RFP to reflect the following: "The Manipulator Arm must achieve a vertical reach of 2000mm when the wrist is turned to orient the gripper horizontally, enabling inspection, manipulation, and firing of a disruptor in an overhead storage bin at that height. This vertical reach can be extended using an Arm Extension, provided that the extension meets the following requirement:..."
14	For SUGV, A1.2.5.4.2.5, is the pan on a horizontal axis?	Yes, the specification refers to panning from left to right on a horizontal axis.
15	For SUGV, A1.2.6.1; A1.2.7.1; A1.2.8.1, can DND please define what all angles means?	Canada means that the SUGV must be able to fire disruptors from various angles (upward, downward, and sideways) from various levels of arm position and out to full extension of the arm without damaging the UGV. i.e. we expect that the UGV will be robust enough to survive the shock of disruptors being fired from a variety of angles.
16	For MUGV, A1.1.1.4, Does the "without needing to be folded" refer to the technical publications or hard transport container?	It refers to the Technical Publications. The hard transport container must be designed so the technical publications stored inside do not have to be folded or distorted from a flat horizontal or vertical position.
17	For MUGV, A1.2.1.2.7.1, are the following EN certifications equivalent? EN-61000-62, EN-61000-63, EN-61000-42, EN-61000-43.	See Answer 7.
18	For MUGV, A1.2.1.2.7.1, does this requirement apply to the whole robot or just the firing circuit?	The specification applies to the whole UGV system.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

19	For MUGV, A1.2.1.6.1, is it possible to achieve the objective of this criteria via tools or another solution other than throwing the MUGV?	Canada would contemplate adjusting the specification in a Draft RFP to reflect the following: "The unpackaged MUGV, with no attachments, must remain functional after drops from 1m onto concrete, from 5 different orientations, IAW MIL-STD-810H method 516.8 procedure IV - Tactical Transport Drop Test - Unpackaged Handling."
20	For MUGV, A1.2.2.1.1., would DND accept something with smaller dimensions?	Yes, Canada would contemplate adjusting the specification in a Draft RFP to reflect the following: "The CCS screen size must be no less than 153mm on the diagonal"
21	For MUGV, A1.2.5.2, is this mechanism via cable or remote?	See specification A1.2.5.3.
22	For MUGV, A1.2.5.1., what is the rationale for the height requirement?	It is the typical height of a road curb.
23	For MUGV, A1.2.9.2, does DND want the image on the screen exported or would it be the raw map data that needs to be exported?	The image must be exportable. The raw data could be exportable.
24	Regarding RFI Amendment question 1a/b, would Canada accept the info being displayed on a device separate from the CCS?	No, this would not be acceptable.
25	If a bidder wins both RFPs, can the training be simultaneous for both SUGV and MUGV?	If the same bidder were to win on future MUGV and SUGV RFPs, and if both contracts were to progress at a very similar rate, there could be an opportunity for training to occur together at one/some training locations. However, should both contracts progress at different rates, training for one of the UVGs will not be delayed just so both UVGs can be trained simultaneously. Bidders must take this into account if they bid on both UVGs.
26	Will we need to submit a response for the draft RFP?	Suppliers would have to refer to any future Draft RFP to confirm this.
27	Will we know the length and location of the product test trial portion of the bid evaluation?	This information would be available at a future RFP stage.
28	Will we be required to train an operator for the product test trial?	No, it is not expected to be a requirement.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

29	How many product samples will have to be sent for the product test trial?	The specific number would be confirmed at a future RFP stage, but each bidder should bring enough samples to ensure their test trial is successful.
30	Regarding Slide 9 of the Presentation to Industry PowerPoint, green procurement initiatives, do you count the emissions for the subcontractors as well?	Whether the emissions of the subcontractors counts towards the supplier's overall emissions would need to be addressed by contacting the initiative in which the supplier is participating. The contact for Net-Zero Challenge is defizeronet-netzerochallenge@ec.gc.ca.
31	Regarding Slide 9 of the Presentation to Industry PowerPoint, green procurement initiatives, would the rated criteria points scale be related to the level of emissions?	Incorporation of Canada's Standard on the Disclosure of Greenhouse Gas Emissions and the Setting of Reduction Targets within procurements addresses whether or not the bidder is an active participant to the Net-Zero Challenge or an initiative deemed equivalent by Canada, not the level of their emissions.
32	For SUGV, A1.2.1.1.3 to 8, can you please clarify where the 20kg payload is to be located? E.g. Is it on the platform, on the gripper of the manipulator arm, etc?	The payload needs to be located in the gripper and not be seated on the platform.
33	For SUGV, A1.2.1.1.3-8, is the 20kg payload to be carried at the same time as the disruptor mount assembly?	Yes. To be clear, the robot would be required to carry the disruptor mounts and two fully loaded disruptors for all the tests. The 20kg payload is carried in the gripper and is in addition to the weapons.
34	For SUGV, A1.2.1.1.3-8, has a test plan already been developed to test this capability.	No.
35	For SUGV, A1.1.2.8, when will we know the list of CBRNE detectors and how many?	Two detectors need to be integrated on the MUGV and SUGV; the RadEye G-10 and the LCD 3.3. The quantity would be one adapter for each detector per SUGV and MUGV.
36	For SUGV, A1.1.1.3, the Hard Transport container is not fully/clearly defined, will you be providing further details on this requirement?	See A1.2.10.1 for more details. Further clarification may be provided in a future Draft RFP.
37	For SUGV, A1.2.1.1.3., where and how will the payload be placed with respect to the robot? And does the disruptor count as a payload?	See Answer 33.
38	For both UGV requirements, what is the primary location where the robot will be used?	There is no specific location as this will be used by the Canadian Army, the Air Force, and the Navy.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

39	For SUGV, A1.2.1.1.4., why was the height reduced to 267 mm? We have other clients whose standard is 500 mm based on the requirement?	See Answer 5.
40	For SUGV, A1.2.1.1.5, can we propose using wheel attachments to achieve the objective of this criteria?	The project team is considering the aspect of UGV configuration, and if configuration changes will be allowed between different sections of the testing. The configuration question needs to be consistent with other specs, such as the weight and size requirements. More details to be provided later with a future Draft RFP.
41	For SUGV, A1.2.1.1.5-6, having done a similar product test using synthetic grass, we found the material to be more slippery than real grass. What will be used, real or synthetic?	This would be clarified in a future Draft RFP.
42	For SUGV, A1.2.1.4.1.2, can you confirm if the Near infrared light is mandatory?	Yes, it is currently a mandatory requirement.
43	For SUGV, A1.2.1.4.1.5, for the field of view, is the requirement supposed to be horizontal? Vertical field of view is not standard.	This would be clarified in a future Draft RFP.
44	For SUGV, A1.2.1.4.1.7, would you accept a degree variation of +90 to -60?	Without fully understanding the impact on visibility, this would not be acceptable.
45	For SUGV, A1.2.1.7, will you go through ASMB for the firing cost?	The project would take the necessary steps to get the firing circuit approved by the ASSB (Ammunition Safety and Suitability Board). This would occur post bid evaluation.
46	For SUGV, A1.2.7.1.1, For the M6 Electric detonator, can you provide more info on this so we can determine if compatibility is possible (e.g. firing electrical energy, no firing energy, etc.)?	Suppliers would need to find out this information about the MS Electric detonator on their own.
47	For SUGV, A1.2.1.7.5, is the EN standard a requirement of your firing system?	Yes, it is a safety requirement.
48	For SUGV, A1.2.1.7.7.1, is this only applicable to the firing circuit or the robot itself, or the entire UGV system (SUGV + CCS, and all applicable accessories)?	The entire system (SUGV + CCS, and all applicable accessories).

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

49	For SUGV, A1.2.1.7.7.1, would you accept the EN61000-6-4 standard?	See Answer 7.
50	For SUGV, A1.2.1.7.7.1 & 7.2, if MIL STD 461G is strictly mandatory, can you please clarify whether the key application is GROUND field for (Navy & Air Force)?	<p>For A1.2.1.7.7.1 - The SUGV must meet the requirements of RE102 IAW MIL-STD-461G, Figure RE102-4, RE102 Limit for Ground Applications, Curve 'Navy Mobile & Army', or other equivalent international standard.</p> <p>For A1.2.1.7.7.2 - The SUGV must meet the requirements of RS103 IAW MIL-STD-461G, for Army Ground levels (50V/m) from 2 MHz to 18 GHz, or other equivalent international standard.</p>
51	For SUGV, A1.2.1.7.7.2, is this standard applicable to all accessories of the SUGV? And must the CCS be compliant with this standard (or equivalent) as well?	The entire system (SUGV + CCS, and all applicable accessories).
52	For SUGV, A1.2.1.7.7.2, would you accept the EN61000-4.2 and EN61000-4-3 standard?	See Answer 7.
53	For SUGV, A1.2.1.8.1, does the MPU5 have to have flexible antennas (vertical polarization & horizontal antenna)?	For the UGV, the antennas must be spring-based. For the CCS, either gooseneck (preferred) or spring-based are acceptable. The recommended polarization is for two antennas with vertical polarization and one antenna with horizontal polarization.
54	For SUGV, Would the Crown consider buying its own MPU5 system, rather than having the supplier source it?	Canada is considering the option of having MPU5 radios be provided as GFE (Government Furnished Equipment). More information would be provided as part of a future Draft RFP.
55	For SUGV, A1.2.1.8.2, would you accept C-band?	No.
56	For SUGV, A1.2.1.8.2, would it be possible to power the MPU5 by an independent battery rather than via the battery of the robot?	Yes, Canada would accept if the MPU5 radio is powered by its own PS battery; however, Canada prefers if it were powered by the UGV. In each case, the battery system must meet all other battery life requirements.
57	For SUGV, A1.2.1.9, in the event of an optical cable breakage (for example the cable wraps around an obstacle, due to the path taken by the robot and becomes entangled), will the operator be required to reactivate the radio mode (MPU5) without having to perform any action on the robot's mobile base?	In a case like this we would expect that the radio would be left on while operating in a fibre optic mode, so there would be an option to revert to radio mode if something happened to the cable. There should be no requirement to do anything on the mobile base.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

58	For SUGV, A1.2.1.10.2, can you identify the kind of detergent referenced in this requirement?	Normally, a solution containing some mild soap is used; however, suppliers would need to state if there are any limits in the Operator manual.
59	For SUGV, A1.2.3, can the mandatory requirement for in situ charging of the CCS battery be removed or made optional?	In situ charging for the CCS is not mandatory.
60	For SUGV, A1.2.3.5, would DND accept the following operational solution? Use AC/DC adaptor to supply the CCS (with the battery removed from the CCS) and at the same time use the supplied external battery charger to recharge, the battery outside the CCS. The SUGV and CCS batteries are hot swappable.	Yes, it would be acceptable for the CCS to function without a battery while being powered by an external source. However, suppliers should consider that they would still need to provide sufficient battery sets to meet the 8 hours of operation as per Requirement A1.2.3.3.
61	For SUGV, A1.2.5.1-2, would DND consider bonus points for a longer reach?	At this time, Canada does not intend on using point rated criteria in a future evaluation.
62	For SUGV, A1.2.5.3.1, how do you achieve this test (e.g. what is the length, type, etc., of the pipe)?	Details would be provided in a future Draft RFP. One example could be a steel cylinder.
63	For SUGV, A1.2.5.4.2, why was the infrared requirement removed?	While it was removed from the mandatory requirements, the IR illuminator can still be provided as to not incur additional changes by the contractors.
64	For SUGV, A1.2.5.7, what is the minimum and maximum distance for shooting?	Canada expects that most shots will be taken from 5cm to 30cm. But there may be occasions when the distance could be greater. (1 meter)
65	For SUGV, A1.2.5.7, a) what range and accuracy should the laser range finder have?	The laser range finder needs to be effective at range from 1cm to 3m.
66	For SUGV, A1.2.5.8.1 & 1.1., would you accept using 2 cameras to achieve the result of the 'aiming pointer' (i.e. laser pointer)?	Yes.
67	For SUGV, A1.3.2.1, can you clarify the requirement for a 90kg and 50kg weight?	Please refer to RFI Amendment 004, Answer 5.
68	For SUGV, A1.4.1.2, would you be able to provide further details on the storage prior to deploying to operate? E.g. At which temperature and for how long?	Details would be provided in a future Draft RFP.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

69	Regarding RFI Amendment 7, Question #6, regarding the Radio System, can you elaborate on why you are asking this?	While the Canadian EOD equipment currently uses the MPU5 and therefore requires MUGV and SUGV to also use the MPU5 for compatibility purposes, the Canadian Forces use multiple radio systems and has not made a decision on which radio system it intends on using in the long run.
70	Regarding RFI Amendment 7, Question #2 on tether for fibre optic cabling, if you encounter a circumstance where the cable is damaged, how do you switch back to the radio frequency?	See Answer 57.
71	Regarding RFI Amendment 7, Question 11, would you be able provide your delivery schedule?	Canada would aim to have delivery schedule available at a future Draft RFP stage.
72	For the Basis of Payment for the ILS, would Canada consider milestone payments?	Suppliers would need to refer to a future Draft RFP for more information on the Basis of Payment.
73	What is the estimated life expectancy of the products? Will Canada require that the equipment can be supported for that time?	The In-Service Support contract would generally reflect the expected period that the equipment would be supported; however, generally this type of equipment is expected to last 10-12 years.
74	Regarding Slide 27 of the Presentation to Industry PowerPoint, regarding ILS, when you refer to technician training in the training scenario, do you mean repair?	Yes, the CAF technician will do repair on the SUGV if it takes less than 4 hrs.
75	Regarding Question 1 of RFI Amdt 7, can you confirm your list of CBRNE detector and your voltage current?	See Answer 35.
76	For RFI Amendment 7, Question 3, are you referring to the PTZ camera or the onboard camera?	The PTZ Camera.
77	For MUGV, A1.1.1.2.8, there are two levels that detectors could be integrated, 1) in the camera only, and 2) in the CCS? Do you have a preference?	The CCS must display the information provided by the detectors in an organized manner.
78	For MUGV, A1.2.1.2.1.2, have you used the disruptor before?	Yes, but with a shock absorber.
79	For MUGV, A1.2.1.2.6, can you please clarify this requirement?	If the MUGV turns on and off, it must not inadvertently fire.
80	For MUGV, A1.2.1.3, does the requirement for colour image, low light and infra-red illuminators apply to all cameras?	It is applicable for the front driving camera and for the PTZ camera.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

81	For MUGV, A1.2.1.5, would you accept a solution where the OEM system's internal radio communicates with the MPU5?	No, as it is understood that it is not feasible.
82	Regarding Slide 8 of the Presentation to Industry PowerPoint, about the project phases, has Canada considered software interoperability with Phase 2 of the procurement? E.g. Is there a goal for interoperability across command controls?	There are no requirements to have the UGVs (Phase 1) be interoperable with the Phase 2 equipment.
83	For MUGV spec, A1.2.5.2, at what distance from the robot must the drop charge be dropped?	Expectations is that it will be dropped right next to the robot, as close as possible to the target, and then the robot will leave it.
84	For MUGV, A1.2.9.1, Does DND have a preference on the system used to achieve this?	No.
85	For SUGV, A1.2.5.1, what does this horizontal reach requirement stem from?	Multiple tasks require as great a reach as possible, such as under car and culvert searches.
86	For SUGV, A1.2.5.2, what does this vertical reach requirement stem from?	It stems from the Royal Canadian Air Force requirements, based on in-service aircrafts.
87	For RFI amendment 7, Question 1.b., what do you mean by software?	Suppliers normally use software to display all the feed from the UGV on the CCS screen. The software should be modified to integrate the CBRNE sensor feed and display its data on the CCS screen as well.
88	For RFI amendment 7, Question 5, if you are testing these operating temperatures, will it be a 3rd party tester with a specific standard?	This would be clarified in a future Draft RFP.
89	For RFI amendment 7, Question 5, would you accept an equivalent standard?	This would be clarified in a future Draft RFP.
90	For RFI amendment 7, Question 6, what specific model of Trellisware are you referring to?	This would be clarified in a future Draft RFP.
91	Regarding Slide 27 of the Presentation to Industry PowerPoint, regarding ILS & Training, would the Operators be the same individuals as the Maintainers?	No. The Operator and Maintenance training would be planned to occur quasi-simultaneously at each location. It would be possible for both Operator and Maintenance groups to be together for a common portion of the training, and then split for the remainder of their respective training. Alternatively, the common portion, followed by the Operator portion, and then the Maintenance portion of the training could be conducted in succession, in this order.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

92	Regarding Slide 27 & 28 of the Presentation to Industry PowerPoint, regarding ILS Training and Maintenance, would remote access to the robot be possible for technical repair and training?	Yes, it could be considered for specific technical repair during a contract period, via the EMT only. However, it would not be considered for the training.
93	Are both the MUGV and SUGV RFP going to be scheduled at different points?	Canada would post them close together, but the MUGV and SUGV RFPs would not be simultaneously posted to CanadaBuys.
94	Regarding Slide 22 of the Presentation to Industry PowerPoint, regarding Technical Bid Eval, will there be any destructive test elements in the third-party testing?	There are currently no requirements in the technical specifications that call for thresholds for destruction.
95	Regarding Slide 22 of the Presentation to Industry PowerPoint, regarding Technical Bid Eval, for third-party testing, would you need spare components (i.e. batteries) to be available during the test?	Bidders would be able to bring what they feel would be needed to ensure a successful test (i.e. additional robots and spares).
96	For the SUGV, do you have a reach requirement for going underneath a vehicle?	Not specifically, we have the generic horizontal reach requirement of 1600mm.
97	Is there a requirement for circumference of the manipulator arm for the SUGV?	Currently, there is not.
98	Regarding RFI Amendment 7, question 6, how many additional units w/ Trellisware would be needed?	This would be clarified in a future Draft RFP.
99	For the SUGV, A1.1.2.6-7 – The Hotrod and Pigstick were offered and were on the 2021 RFI, but then they were removed in 2022. Why is that? These would also be useful tools to have in the disruptor bag.	Canada judges that firing the Hotrod and Pigstick disruptors with the SUGV would certainly be welcome capabilities, but not firmly mandatory.
100	For the SUGV, A.1.1.2.10 – What do you mean Hard Transport Container's? The requirement could be clearer.	See Answer 36.
101	For the SUGV, A1.2.1.1.3 – L3: What is the operational requirement for retrieving something weighing 20kg+?	There could be various operational scenarios necessitating this requirement. One possible scenario would be to carry a jug filled of material out of a place to dispose of it in a safer place. 20kg is the equivalent of a Canadian Jerry Can of water.
102	For the SUGV, A1.2.1.3 – Field of View, can this achieved with an aggregate of all camera views?	This would be clarified in a future Draft RFP.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

103	For the SUGV, A1.2.1.4 – Pan Tilt Camera, Why +90 to -90 degrees if you can't see anything at a certain point?	It would be to protect the camera from explosive debris.
104	For the SUGV, A1.2.1.5 – are there any specifics you need for this?	CCS must have both an option for a headset incorporating audio and mic, as well as a speaker and mic to be able to communicate with the UGV surroundings downrange without the headset. The UGV must be equipped with both speaker and microphone. Further specifications would be clarified in a future Draft RFP.
105	For the SUGV, A1.2.4, is this being plugged into a car or back at the storage?	It would need to be able to plug into both.
106	For the SUGV, A1.2.5.3.1, would more than 20kg be considered something that could be added as a point rated criteria?	See Answer 61.
107	For the SUGV, A1.2.5.3.2 – At what height does this have to be?	It would have to be above the ground.
108	Regarding Slide 27 of the Presentation to Industry PowerPoint, regarding ILS, & Training, would it be a full Operator Training in English and French?	The supplier would have to be able to provide a training program that addresses the linguistic needs of both English and French speakers. The training is expected to be primarily in English, so if the supplier's trainer only speaks and understands English, the supplier would need to provide a translator to provide support in case there is a trainee who needs clarification in French.
109	Regarding RFI Amendment 7, question 5, why is the requirement -40C?	Canada has an operational requirement to operate in cold temperature. However, the exact climatic condition requirements are still being developed. Further specifications would be clarified in a future Draft RFP.
110	Regarding RFI amendment 7, Question 10, where will the third-party testing be held?	This would be identified in a future RFP.
111	Are you able to confirm the firing system is in service with DND?	Canada would not be providing a firing system and would require the SUGV to have its own integrated firing circuit.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

112	Can you confirm if the revised RFP will include requirements for a firing system to be EMI proofed, Ordnance Board (or equivalent) approved and in service with other 5 eye countries (currently the UK, US, Australia and New Zealand) ?	There are EMI and EMC requirements for UGV systems (including the firing circuit). Canada does not envision the firing circuits needing to be approved and in the service with other 5 eyes countries. Details are still being determined. The specific requirements would be identified in a future Draft RFP.
113	For MUGV, would you be able to send over the specifications for the disruptor and other attachments?	The specifications are controlled goods and therefore must be sought directly with the manufacturer (ABP Technologies). As far as the attachments are concerned, it would be the UGV manufacturer that is responsible for the design the brackets to be able to attach, manoeuvre and fire the disruptors on the UGV.
114	For RFI Amdt 7, Question 2, can you provide a little bit more information on the tether? Were you looking to have power and comms for the unit over the tether, just comms, or was it only for emergency removal?	The tether would be for the comms only. It would be to enable operation in an RF denied environment. We think providing power and/or "towing" capability would likely make the cable unwieldy.
115	Are certain technical specifications for the UGVs intended to be rated (desirable) and others mandatory?	See Answer 61.
116	For MUGV, A1.2.1.2, is the requirement for it to be modular or do all the sensors need to be active at the same time?	Only one of the following would be expected to be used at once: Drop charge release mechanism, ABL-2000, Needle Plus, CBRNE Detector, Mapping Camera, PTZ. If contractor is able to combine any of these two, it would be a bonus.
117	For MUGV, A1.2.2., does it matter which Operating System is used for the CCS?	There is currently no preference for OS as it stands.
118	For MUGV A1.2.7.1, is there a specific manufacturer/brand used for the needle plus disruptor?	Yes, it is ABP Technologies.
119	For MUGV, A1.2.9 - what is the objective for this mapping requirement?	The objective would be to have a 2D map.
120	For MUGV, A1.2.9 - for the 2D image produced, is there an accuracy requirement?	Canada has not specified any yet, but if there is a more specific accuracy requirement, it would be specified in a future Draft RFP.
121	For MUGV, A1.2.10.1.3, can you provide a mission type to determine if it is feasible for us?	The operational need would be to scan the area before sending someone to the area in question.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

122	For MUGV, A1.2.10, can you confirm which suppliers or brands for PTZ are out there that would meet this requirement?	Canada does not have any specific-brand preference. It would be the bidder's responsibility to research and propose a PTZ camera that will meet this requirement.
123	For MUGV, A1.3.2, if we made a custom back pack to meet the weight requirement, would that be acceptable?	No. Canada needs to keep the weight as low as possible. It is not necessarily relate to the size.
124	For MUGV, A1.4.1.2, what is the operational context for -40C?	See Answer 109.
125	Regarding ILS maintenance, are you able to provide a list of tools that DND already has?	If there are any specific speciality tools needed for the robot, the bidder would have to provide them. Field maintenance would be performed by Operator maintenance. Technician maintenance would be more in-house off-field repair.
126	Is there a possibility for Navy and CAF to have procurements of there own?	No, currently any requirements that fall within the scope of this project are for the entire Canadian Armed Forces.
127	Regarding Slide 27 of the Presentation to Industry PowerPoint, regarding ILS, & Training, will it training be combined or separate?	See Answer 91.
128	What is the total quantity of products that will be bought?	This would be finalized in a future RFP.
129	For MUGV, A1.1.2.6&7, regarding the ABL-2000L/Needle disruptor, are you okay with a fly away disruptor?	No, a fly away disruptor would not be acceptable.
130	For MUGV, A1.1.1.2.8, are the CBRNE datasets to be read from the CCS?	See Answer 87.
131	For MUGV, A1.2.1.2, do you want us to offer our own integrated firing circuit, or one of your own?	Industry must offer their own integrated firing circuit.
132	For MUGV, A1.2.1.2.7, Do you require 3rd party test report or internal data test reports?	This would be identified in a future Draft or Final RFP.
133	For MUGV, A1.2.1.6.3, do you clean it with bleach?	See Answer 58.
134	For MUGV, A1.2.2.6.4-.6.5, do you need to show which node it is acting with?	Yes.
135	For MUGV, A1.2.2.6.4-.6.5, are static IP Addresses on the robots an issue?	No issue so long as they use our IP scheme (172.16.xx.xx). See also Answer 8.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

136	For MUGV, A1.2.6.1, why would an MUGV be used for disrupting instead of the SUGV?	Although primarily a reconnaissance platform, the MUGV could be called upon to disrupt a device, especially when used in a light role.
137	For MUGV, A1.2.8, have you narrowed down a list or quantity of CBRNE sensors?	See Answer 35.
138	For MUGV, A1.2.8, how many sensors will be used at the same time?	As per Answer 116, the requirement is for only one sensor to be used at once. If contractors are able to mount multiple payloads at once, this would be welcomed, but would not be evaluated.
139	For MUGV, A1.2.10 The PTZ Camera is not listed as a payload but the mapping camera is. Can you confirm if it is it a payload or not?	Yes, the PTZ is a payload.
140	For MUGV, A1.4.1.3, is there additional equipment that can be added from a hardware standpoint to allow us to reach this requirement?	As the exact requirements for climatic conditions are being revisited, further specifications would be provided in a future Draft RFP.
141	For SUGV, A1.2.2.1.2, an HD screen cannot be 640 x 480 pixels, so why is this a requirement?	Canada would contemplate adjusting the specification in a Draft RFP to reflect the following: "The CCS must have an image display with a HD resolution of no less than 1280x720 pixels."
142	For ISS in-house support, will the CAF provide support for Navy and Air Force?	While the AIEDDD project is sponsored by the Canadian Army, it plans to deliver equipment to the other services as well. Therefore, the acquisition, training and in-service support provided by AIEDDD would be equally applicable to all services.
143	For RFI Amendment 7, Question 1, are you trying to cover all the letters of CBRNE?	See Answer 35.
144	Regarding the ILS Basis of Payment, will the RFP allow for upfront material costs payment?	This would be clarified in a future Draft RFP.
145	For MUGV, A1.2.1.2.1., must this be an integrated firing circuit?	Yes, the current requirement is that it must be an integrated firing circuit, the MUGV must have no less than one (1) integrated Firing Circuit, which utilizes the MUGV radio communication system instead of a separate radio frequency system.
146	For MUGV, A1.2.1.4.1.1 and 2, are the horizontal and vertical field of view ranges flipped?	This would be clarified in a future Draft RFP.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

147	For MUGV A1.2.2.6.5, can you clarify this requirement?	Canada's current intent for this requirement would be for the display to show the nodes as well as the signal strength between each nodes. As an example, there could be a colored line between each node represented on the graphic, and each line is to be colored to represent the signal strength (red/yellow/green line).
148	For MUGV, A1.3.1.1., would you accept a bidder supplied pack to meet this requirement?	No, Canada intends to continue with the in-service bag.
149	For SUGV, A1.2.1.4.1.5, should this be the range for the horizontal?	This would be clarified in a future Draft RFP.
150	For SUGV, A1.2.5.5.1.1, the turret and shoulder are normally used interchangeably, can you clarify?	Turret and shoulder indeed refer to the same joint. However they bring an additional level of detail, in that the turret indicates the rotation of the arm in an horizontal plane (like a turret on a tank), while the shoulder refer to the vertical elevation of the 1st part of the arm.
151	Regarding Slide 27 of the Presentation to Industry PowerPoint, regarding ILS, & Training, is this train the trainer or all students.	All training would be train the trainer.
152	On Slide 28 of the Presentation to Industry PowerPoint, regarding the ILS maintenance concept, do you need a hotline for the OEM-FSR technician maintenance for the 4-24 hour turn around?	No, the 4-24 hours refers to the time that it takes to repair the unit.
153	Is there an operational readiness requirement worked into the SOW?	This would be clarified in a future Draft RFP.
154	Regarding the ISS, are you leaving it up to the bidders to determine what the spare parts package would be?	This would be clarified in a future Draft RFP.
155	Where would the spare parts be held?	This would be clarified in a future Draft RFP.
156	What is the method of selection for the evaluation going to be? Strictly lowest cost or will there be point-rated?	See Answer 61.
157	Will there be any Canadian Content Policy applied to this procurement?	No, as the procurement process for both of the UGV requirements would be subject to the international trade agreements, it would not apply.

**Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process**

UNCLASSIFIED - NON CLASSIFIÉ

158	SUGV, A1.1.1.2.4, what type of case are you envisioning for the battery charging system?	Canada is currently not specifying in detail to allow some flexibility for suppliers to provide their own solutions.
159	SUGV, A1.2.1.8.2, are you expecting us to provide MPU5 or will it be GFE?	See Answer 54.
160	SUGV, A1.2.2.6.1, would you change IP64 to IP54? Would it be okay if a smaller CCS meets but the larger one isn't?	No to both requests.
161	SUGV, A1.2.2.6.1, if IP64 is a hard requirement, would the CCS be used outside of a truck?	It could be various situations (i.e. back up pick up truck, in a closed vehicle, in use on field, etc.).
162	SUGV, A1.2.5.1, if the vertical reach can be achieved with an arm extension, why not for the horizontal extension?	An arm extension increases the imprecision of the arm in all circumstances. Our experience is that this effect is more apparent on the horizontal plane than on the vertical plane due to how gravity affects each. In addition, using of full horizontal reach is more common than vertical.
163	SUGV, A1.2.5.2.7, would you accept arm extension reinstall within 5 minutes?	No, set-up time must not exceed 1 min.
164	SUGV, A1.2.5.4.2.2, currently no IR, would a separate camera attachment be acceptable?	As per Amdt 7, Para A1.2.5.4.2.2, Low light and near infra red illuminators was deleted (for the gripper camera).
165	SUGV, A1.2.5.5.1.2, would you accept 130 degrees?	No.
166	SUGV, A1.2.5.5.1.3, would you accept 200 degrees?	No.
167	SUGV, A1.2.5.5.1.4, would you accept 260 degrees?	No.
168	SUGV, A1.3.1.1, would you accept 700mm?	No.
169	SUGV, A1.3.2.1, would you accept increasing to 115kg?	No.
170	SUGV, A1.3.3.1, does it need to be all of the colours, or just one of the colours?	It would need to be one of those colours.
171	Amdt 007, Question 1 on CBRNE detectors, did you want the information from the detector displayed on the CCU or something else?	Yes, it must be displayed on the CCS.
172	Amdt 007, Question 1 on CBRNE detectors, do you want to see the UGV at the same time?	Yes, the information from the detector and the UGV should be displayed at the same time.

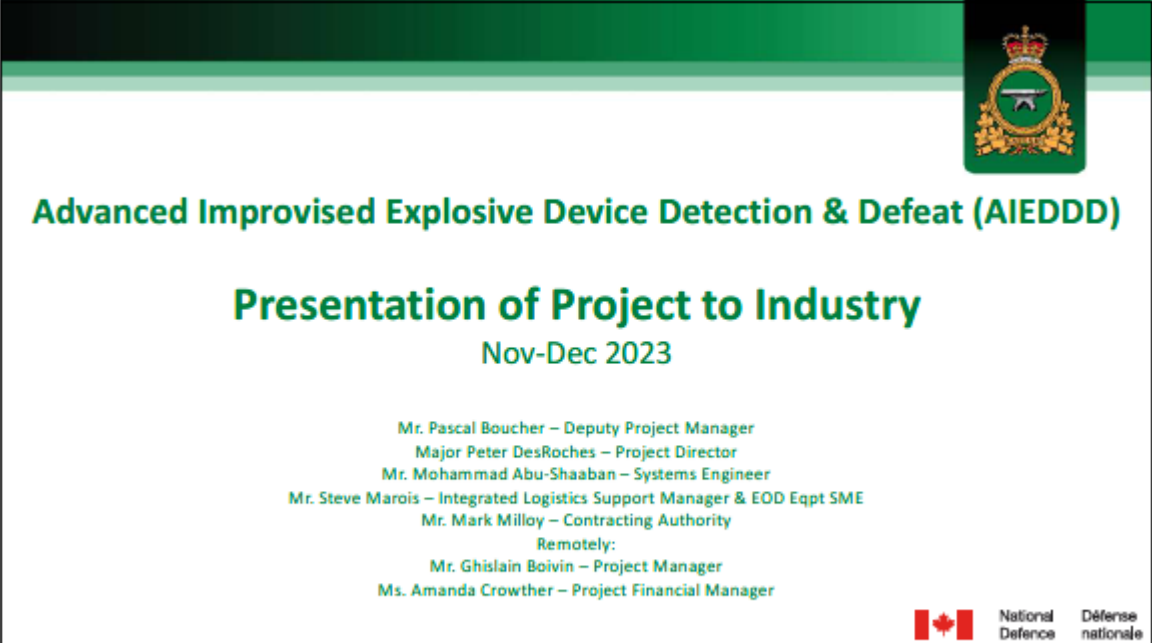
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Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process

UNCLASSIFIED - NON CLASSIFIÉ

173	Amdt 007, Question 6 on the radio system, is DND transitioning to Trellisware?	See Answer 69.
174	Amdt 007, Question 8 regarding options, will it be a cost per year or will it be an escalation, or one price for all years.	This would be confirmed in a future Draft RFP.
175	Regarding Operator and Maintenance training, will it be the same training for Army, Navy and Air force?	The Army would aim to separate operator and technician training, whereas the Navy and Air Force could have them combined. Operators and technicians from all three services will be regrouped for training. This would be detailed in a future Draft RFP.

Section D – AIEDDD Project Power Point Presentation to industry (copy of brief used during 1-on-1 industry engagements)

→ This section applies to both phases of the project.



The slide features a green header with a crest on the right. The main title is 'Advanced Improvised Explosive Device Detection & Defeat (AIEDDD)' in green, followed by 'Presentation of Project to Industry' in bold black, and 'Nov-Dec 2023' in black. A list of project team members is centered, including Mr. Pascal Boucher, Major Peter DesRoches, Mr. Mohammad Abu-Shaaban, Mr. Steve Marois, Mr. Mark Milloy, and remotely, Mr. Ghislain Boivin and Ms. Amanda Crowther. The bottom right corner shows the Canadian flag and the text 'National Defence' and 'Défense nationale'.

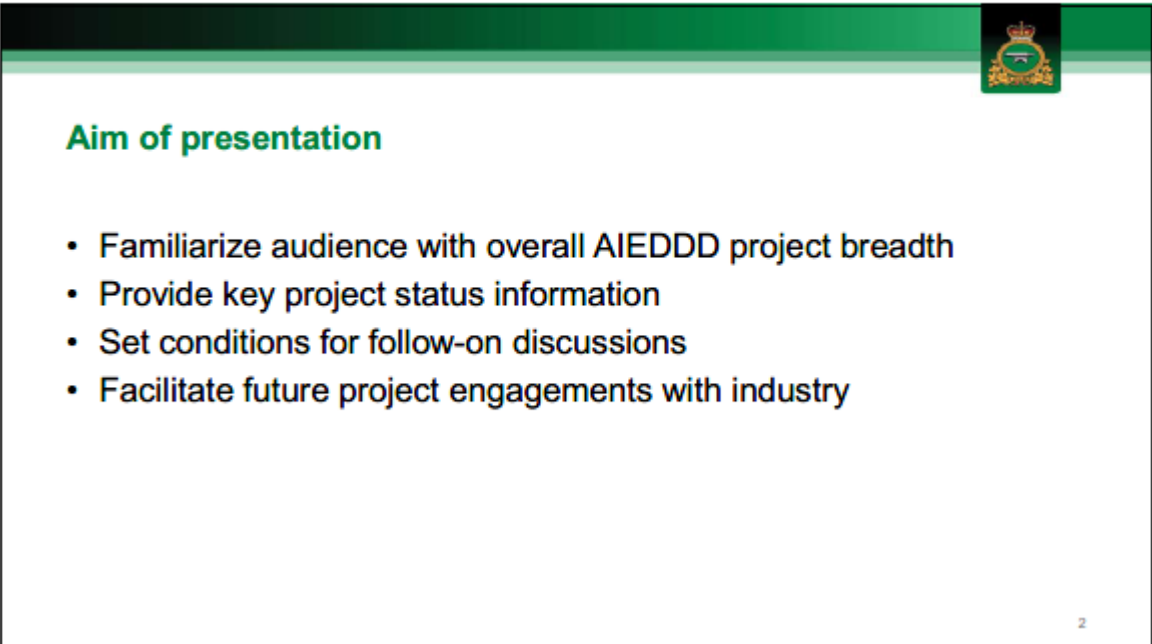


Advanced Improvised Explosive Device Detection & Defeat (AIEDDD)


Presentation of Project to Industry
Nov-Dec 2023

Mr. Pascal Boucher – Deputy Project Manager
Major Peter DesRoches – Project Director
Mr. Mohammad Abu-Shaaban – Systems Engineer
Mr. Steve Marois – Integrated Logistics Support Manager & EOD Eqpt SME
Mr. Mark Milloy – Contracting Authority
Remotely:
Mr. Ghislain Boivin – Project Manager
Ms. Amanda Crowther – Project Financial Manager

 National Defence Défense nationale



The slide features a green header with a crest on the right. The title is 'Aim of presentation' in green. Below it is a bulleted list of four points: 'Familiarize audience with overall AIEDDD project breadth', 'Provide key project status information', 'Set conditions for follow-on discussions', and 'Facilitate future project engagements with industry'. The bottom right corner has a small number '2'.



Aim of presentation


- Familiarize audience with overall AIEDDD project breadth
- Provide key project status information
- Set conditions for follow-on discussions
- Facilitate future project engagements with industry

2

Outline

Four Parts

1. Project Overview	Pascal
2. Bid Evaluation Info	Moh
3. ILS	Steve
4. Procurement	Mark



3


Part 1 – AIEDDD Project Overview

Pascal Boucher

Deputy Project Manager (DPM)



4



Outline

- Background
- Current Deficiencies
- Project Overview
- DND Project Structure
- Industry Engagement Plan
- Project Schedule

5



AIEDDD Project Context

- Strategic Fit:
 - AIEDDD project is a Canadian Army (CA) sponsored project
 - Will deliver to all Services
 - Specific Initiative within the Canadian Defence Policy – Strong, Secure, Engaged (SSE)
 - Purpose: To update various Counter Explosive Threat (CET) equipment used in the Detection, Identification, and Defeat of Explosive Threats (ET) found throughout the spectrum of operations.
- Drivers for Improvement:
 - Obsolescence
 - Improvement of Current Capabilities with newer Technology
 - Adding new Capabilities
- Business Outcomes:
 - Decreased time on target
 - Enhanced stand-off detect
 - Enhanced stand-off defeat

6



Current Deficiencies

The AIEDDD project will modernize equipment to replace obsolete equipment and to upgrade current capabilities:

- Obsolescence
 - Vanguard UGV
 - Distance CBRNE Detection by UGV
- Upgrade Canadian Armed Forces (CAF) Explosive threat Detection Capabilities
 - Aerial Detection
 - Ground Detection
- Upgrade CAF Explosive Threat Defeating Capabilities
 - Distance neutralization/defeating








(Representative Images Only)

7

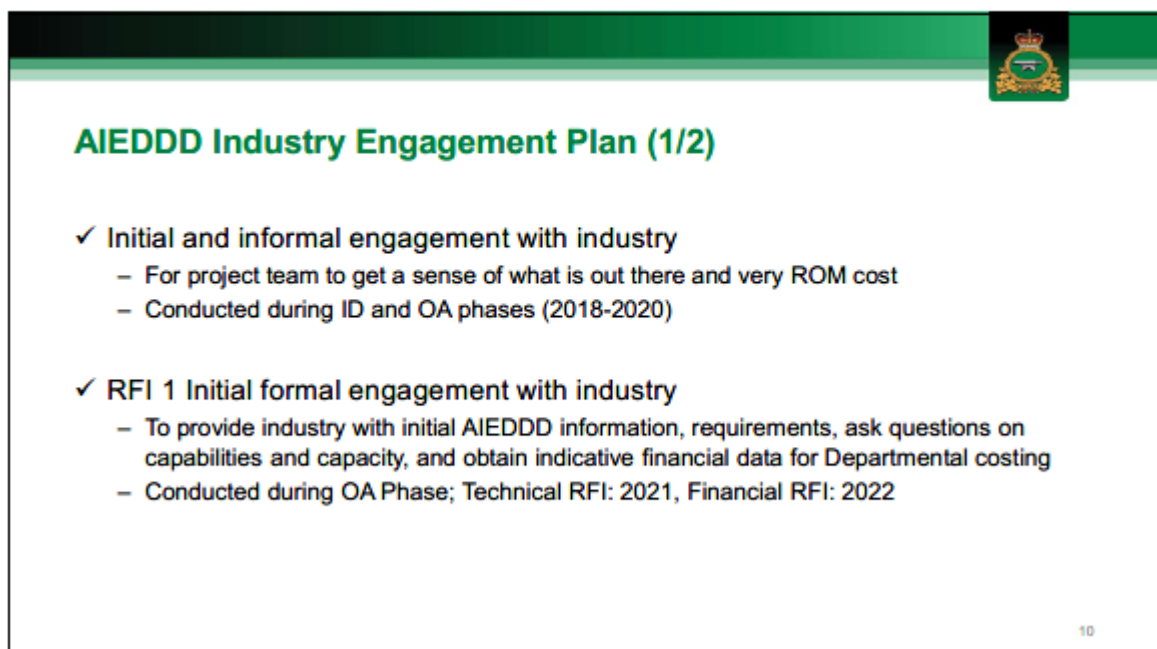
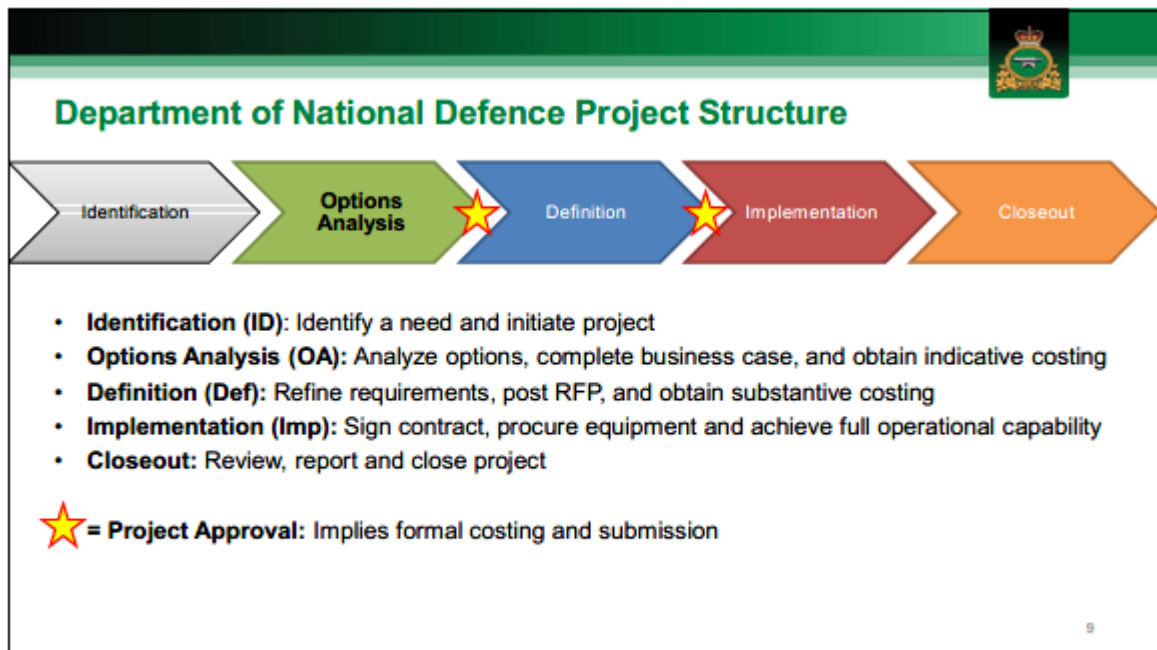


Project Overview

The four AIEDDD Project deliverables:

<div style="border: 1px solid red; padding: 5px; margin-bottom: 5px;"> Phase 1 Replacement of the Cobra Mini UGV (MUGV) </div> <div style="border: 1px solid red; padding: 5px;"> Phase 1 Replacement of the MK3 Small UGV (SUGV) </div>	<div style="margin-bottom: 5px;">→</div> <div style="margin-bottom: 5px;">→</div>	Upgrade Obsol replacement
<div style="border: 1px solid red; padding: 5px; margin-bottom: 5px;"> Phase 2 Acquire new Mini UAS (MUAS) </div> <div style="border: 1px solid red; padding: 5px;"> Phase 2 Acquire High Energy Laser System (HELS) </div>	<div style="margin-bottom: 5px;">→</div> <div style="margin-bottom: 5px;">→</div>	New Capability New Capability

8



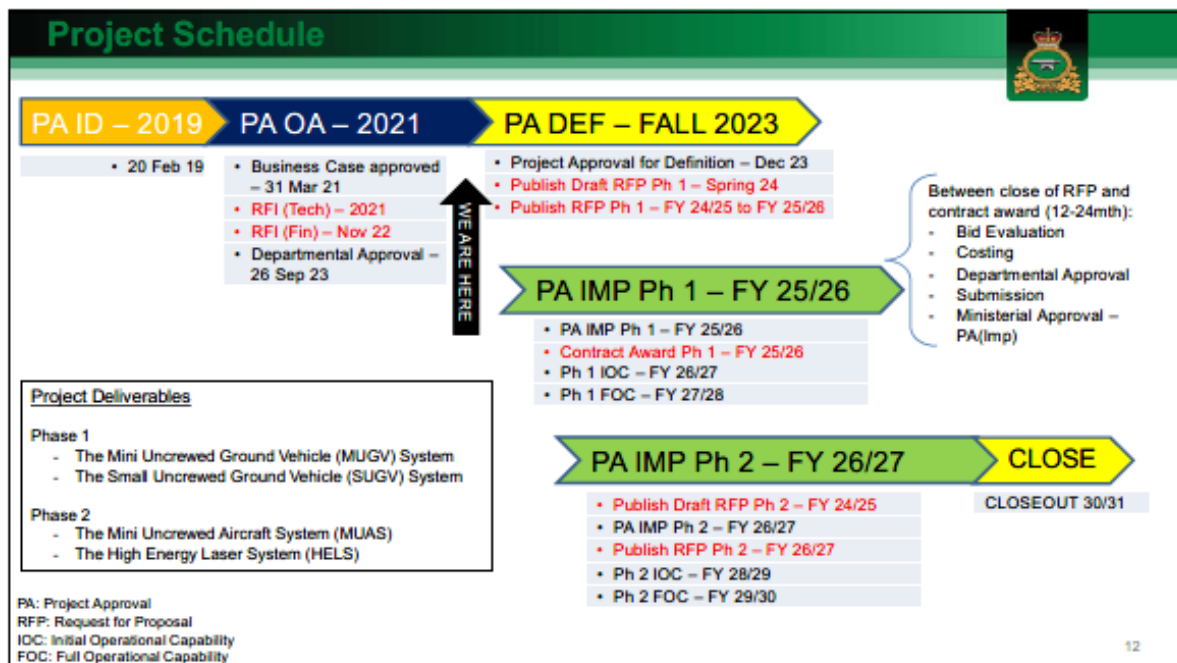
Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project Request for Information (RFI) Process

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AIEDDD Industry Engagement Plan (2/2) – For Phase 1 only

- **One-on-One Meetings**
 - To provide industry with further project information, gain detailed understanding of industry capabilities and challenges, answer industry question
 - Set the conditions for follow-on procurement steps (avoid surprises at Draft RFP)
 - Ongoing, Nov-Dec 2023
- **RFI 2 – Draft Request For Proposal (Draft RFP)**
 - To provide industry with full RFP package, seek feedback from industry
 - Last opportunity for industry to comment on proposal
 - One-on-one meetings available (likely remote)
 - Spring 2024
- **Request For Proposal (RFP)**
 - To request formal bids from industry.
 - To obtain substantive costing to obtain Departmental Approval for implementation
 - Late 2024 / Early 2025 (for Ph 1)

11





Visit Expectations

Visit Objectives:

- For the project team to gain a clear understanding of the ability of the available products to meet each of the current requirements.
- For the OEM/Vendor to ask question about the project, and to provide any suggestions to the project team.


13



Part 2 – AIEDDD Bid Evaluation Info

Mohammad Abu-Shaaban
Project System Engineering Manager (SEM)


14



Outline

- Technical Specs Amendments MUGV
- Technical Specs Amendments SUGV
- Technical Bid Eval – High Level
- Technical Bid Eval – Means of Compliance
- Technical Bid Eval – Sample Testing Readiness

15




Technical Specs Amendment MUGV (1/2)

A1.1.1.2.8	Qty TBD (TBD) Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) Detector Adaptors;
A1.2.1.2.1.2	The MUGV must have no less than one (1) Firing Circuit that can initiate an ABL-2000L Disruptor (Titanium);
A1.2.3.1	The MUGVS Battery System (MUGV, CCS, CBRNE Detectors, etc.) must provide no less than two (2) hours of continuous active operation at a temperature of 20°C (+/- 3 °C).
A.1.2.3.2	The MUGVS Battery System (MUGV, CCS, CBRNE Detectors, etc.) must provide no less than four (4) hours of continuous passive operation at a temperature of 20°C (+/- 3 °C).
A1.2.3.3	The MUGVS must have Battery System for six (6) hours of operation.
A1.2.4.1	The Battery Charging System must include a universal power input of 110VAC – 220VAC, 50Hz – 60Hz, with a North American plug type and a universal plug adapter kit .
A1.2.4.6	The Battery Charging System must recharge the full battery System at the same time (MUGV, CCS and CBRNE Detectors).
A.1.2.5.2	The Drop Charge Release Mechanism must carry and actuate the physical release of a drop charge (defined as two taped blocks of C4 explosive and Remote Firing Device Receiver), being at least 3.40kg (approx. 7.50lbs) in weight and a maximum of 6cm width x 6cm height x 30cm length (approx. 2.36 x 2.36 x 11.80 inches).

16

W8476-226486/B
Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process

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Technical Specs Amendment MUGV (2/2)

[Para A1.2.8. CETD was deleted]

[Para A1.2.8. CBRNE was added]
[CBRNE sensor List TBD]

A1.4.1.2	The System must operate in temperatures from -21°C to -40 °C without exceeding a reduction in battery performance of 50%.
A1.4.1.3	[Added] The MUGVS, without the batteries, must be stored in temperatures from -40°C to +50°C with no reduction in performance and durability.
A1.4.1.4	The MUGVS must operate in relative humidity of 5% to 95% IAW MIL-STD 810G Method 507.5 Humidity Cycle B1.

17




Technical Specs Amendment SUGV (1/3)

A1.1.1.2.9	Qty TBD Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) Detector Adaptors;
A1.2.1.1.3	The SUGV must climb and descend stairs composed of steps of no less than 216 mm of height with a stair angle of no less than 45 degree while carrying the minimum payload weight of 20kg. [Remove the "with the arm at the retracted position" portion of the requirement.]
A.2.1.1.4	The SUGV must cross vertical obstacle walls of no less than 267mm in height , while carrying the minimum payload weight of 20kg. [Remove the "with the arm at the retracted position" portion of the requirement.]
A.2.1.1.5	The SUGV must traverse a dry grass-covered side slope of no less than 25 degrees (approx. 47% grade), while carrying the minimum payload weight of 20kg. [Remove the "with the arm at the retracted position" portion of the requirement.]
A.2.1.1.6	The SUGV must climb and descend dry grass-covered slopes of no less than 40 degrees (approx. 84% grade), while carrying the minimum payload weight of 20kg. [Remove the "with the arm at the retracted position" portion of the requirement.]
A.2.1.1.7	The SUGV must ford water at a depth of no less than 150mm .

18

W8476-226486/B
Advanced Improvised Explosive Device Detection and Defeat (AIEDDD) Project
Request for Information (RFI) Process


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Technical Specs Amendment SUGV (2/3)

A1.2.1.3.2	The SUGV must have an overall rear field of view with no less than a 40 degree vertical field of view.
A.2.1.7.1.2	The SUGV must have no less than two (2) Firing Circuits that can initiate ABL-2000L Disruptor (Titanium).
A.2.1.7.1.3	The SUGV must have no less than two (2) Firing Circuits that can initiate ABL-3000L Disruptor (Titanium).
A1.2.3.1	The SUGVS Battery System (SUGV, CCS, CBRNE Detectors, etc.) must provide no less than two (2) hours of continuous active operation at a temperature of 20°C (+/- 3 °C).
A1.2.3.2	The SUGVS Battery System (SUGV, CCS, CBRNE Detectors, etc.) must provide no less than four (4) hours of continuous passive operation at a temperature of 20°C (+/- 3 °C).
A1.2.3.3	The SUGVS must have Battery System for eight (8) hours of operation.
A1.2.3.4	The batteries must be replaced in no more than five (5) minutes .
A1.2.3.5	The System Battery Sets must be rechargeable when installed in the SUGV and CCS (in SITU charging).
A1.2.4.1	The Battery Charging System must include a universal power input of 110VAC – 220VAC, 50Hz – 60Hz, with a North American plug type and a universal plug adapter kit .

19




Technical Specs Amendment SUGV (3/3)

[Para A1.2.9 CBRNE was added]
[CBRNE sensor List TBD]

A1.2.5.6	The Manipulator arm and gripper must have no less than a total of six (6) programmable positions with a minimum of two (2) of the six (6) being customizable by the operator .
A1.3.2.1	The SUGV, Manipulator Arm and Gripper, (not including the Fibre Optic Cable, Disruptor Mount and CCS), with one (1) set of batteries, must be no more than 90kg in combined weight. If the SUGV possesses a removable arm, it must be no more than 50kg and be able to be reinstalled and be functional in no more than one (1) minute. In the case of a removable arm, the main body of the UGV must be no more than 80Kg .
A1.4.1.2	[Added] The System must operate in temperatures from –21°C to –40°C without exceeding a reduction in battery performance of 50% .
A1.4.1.3	The SUGVS, without the batteries, must be stored in temperatures from –40°C to +50°C with no reduction in performance and durability.
A1.4.1.4	The SUGVS must operate in relative humidity of 5% to 95% IAW MIL-STD 810G Method 507.5 Humidity Cycle B1.


20






Technical Bid Eval – High Level

- **Separate RFP and Bid Evals:**
 - MUGVS (Phase I)
 - SUGVS (Phase I)
 - MUAS (Phase 2)
 - HELS (Phase 2)
- **Technical Evaluation of Compliance**
 - The eval team will use Bidder's submitted proposal to determine compliance against method of evaluations established in the RFP.
 - Testing and Trials will be conducted using the complete samples supplied by the bidders.


21



Technical Bid Eval – Examples of Means of Compliance

- **Compliance Statement:**
 -  ○ Test Report/Analysis Report:
 - Test procedures, Data and Results;
 - Technical Evaluation of:
 - Calculations, Computations, Drawings, Models, Simulation and/or Analytical Solutions.
 - Not limited to raw data (It must contain justification as to how the data verifies the requirements of the specification).
 - Certification:
 - The Bidder must provide a draft of the requested conformance certification documentation from an authorized independent third party.
- **Demonstration:**
 -  ○ The Bidder must display on the system, the properties, characteristics and parameters by observation/identification alone.
- **Testing:**
 -  ○ The Bidder must subject their system to test procedure by which the operability, supportability or performance capability of an items is verified.
 - Testing is expected to be handled by a third party.

22



Technical Bid Eval – Technical Readiness

- Questions to OEM:
 - Test-ready samples
 - Bidder supplied UGV operator


23



Part 3 – Integrated Logistics Support (ILS)

Steve Marois
ILS Manager (ILSM)

24



Integrated Logistics Support (ILS)

- What is ILS?
 - The management and technical process through which supportability and logistic support considerations are integrated into the design and taken into account throughout the life cycle of systems/equipment and by which all elements of logistic support are planned, acquired, tested and provided in a timely and cost-effective manner.

25




Integrated Logistics Support (ILS)

Factors to consider before establishing costs:

- Technical Publication Package
 - Writer's Guide for Technical Documentation **C-01-100-100/AG-008**
 - Publication completion
 - Bilingual Lexicon (Canadian English & French)
 - Hard copy in (Pico Film is expensive)
 - Example of Publication:
 - Op Manual
 - Op Quick Reference Card
 - Maintenance and Part Handbook
 - Op Training Package

26



Integrated Logistics Support (ILS)

Factors to consider before establishing costs:

- Training Session Example
 - Seven (7) Operator Training Sessions (train-the-trainer type) for one (1) to twenty (20) students per course, with a course length of three (3) days.
 - Seven (7) Technician Training Sessions (train-the-trainer type) for one (1) to five (5) students per course, with a course length of five (5) days.
 - Training to occur across Canada, from Coast to Coast.

27



Integrated Logistics Support (ILS)

Factors to consider before establishing costs:

- Maintenance Concept
 - Operator Maintenance
 - Less than 1 hour
 - Technician Maintenance
 - First line less than 4 hour
 - Technician Maintenance (OEM/FSR)
 - Second to fourth lines 4 to 24 hour

28




Integrated Logistics Support (ILS)

- Identification Plates
 - Unique Identification (UID) in accordance with STANAG 2290 Edition 2 - NATO UNIQUE IDENTIFICATION OF ITEMS

- Radiofrequency Spectrum
 - The Contractor must ensure that Radio Frequency equipment, systems, sub-systems, Configuration Items, and end products are certified by Innovation, Science and Economic Development Canada or meet Spectrum Supportability

29



Integrated Logistics Support (ILS)

- **Initial Provisioning Guidance Conference (IPGC) / Initial Provisioning Conference (IPC)**
 - The purpose of the IPGC is to clarify and explain the requirements of the Provisioning Documentation (PD) referred to in the contract in preparation for the Initial Provisioning Conference (IPC).
 - Provisioning Parts Breakdown (PPB)
 - Supplementary Provisioning Technical Documentation (SPTD)
 - Special Tools & Test Equipment List

 - While the IPGC typically lasts only one day, the IPC could be longer.

30



Part 4 – Procurement and Contracting

Mark Milloy
Contracting Authority (CA)
Public Services and Procurement Canada

31




Changes to the Procurement Process with PSPC

- PSPC has adopted a new electronic procurement solution called SAP Ariba, which will link the initial request from the client department (e.g. DND) to the solicitation process, evaluation process, contract award and contract administration stage.
- SAP Ariba can be accessed via the CanadaBuys website, and all suppliers will need to register prior to submitting bids in the future.
 - [How to register your business | CanadaBuys](#)

32

[How to register your business | CanadaBuys](#)



Access to the Procurement Process

- For now, the current RFI 2 ([W8476-226486/B](#)) will remain posted on the CanadaBuys website and continue to serve as a means of communicating updates to industry and responding to questions.
- Additional RFI amendments and the future RFP may be posted on [SAP Ariba](#) and CanadaBuys.

33



Green Procurement Initiatives

- As of April 2023, the Government of Canada has made it a requirement, for [procurements over \\$25M CAD](#), to include criteria asking suppliers to measure and disclose their greenhouse gas (GHG) emissions and adopt science-based targets to reduce GHG emissions in line with the [Paris Agreement](#).
- Participation in [Net-Zero Challenge \(NZC\)](#) or equivalent initiative or standard.
- This may be addressed via evaluation criteria, certification before contract award, or requirement to join an approved initiative either at contract award or before end of contract period.

34


[SAP Ariba](#) ; [procurements over \\$25M CAD](#); [Paris Agreement](#); [Net-Zero Challenge \(NZC\)](#)



Net-Zero Challenge and equivalent initiatives

- The **Net-Zero Challenge** encourages businesses to develop and implement credible and effective plans to transition their facilities and operations to net-zero emissions by 2050.
- **Equivalent initiatives:** United Nations Race to Zero, Science-Based Targets Initiative (SBTI), Carbon Disclosure Project (CDP), and *International Organization for Standardization (ISO): ISO 14064-1: 2018 – Inventory; ISO 14064-3: 2019 – Validation of Inventory; ISO 14065: 2020 – Validation bodies; ISO 14066: 2011 – Validation teams*
- Other initiatives may be proposed and reviewed on a case-by-case basis.

35

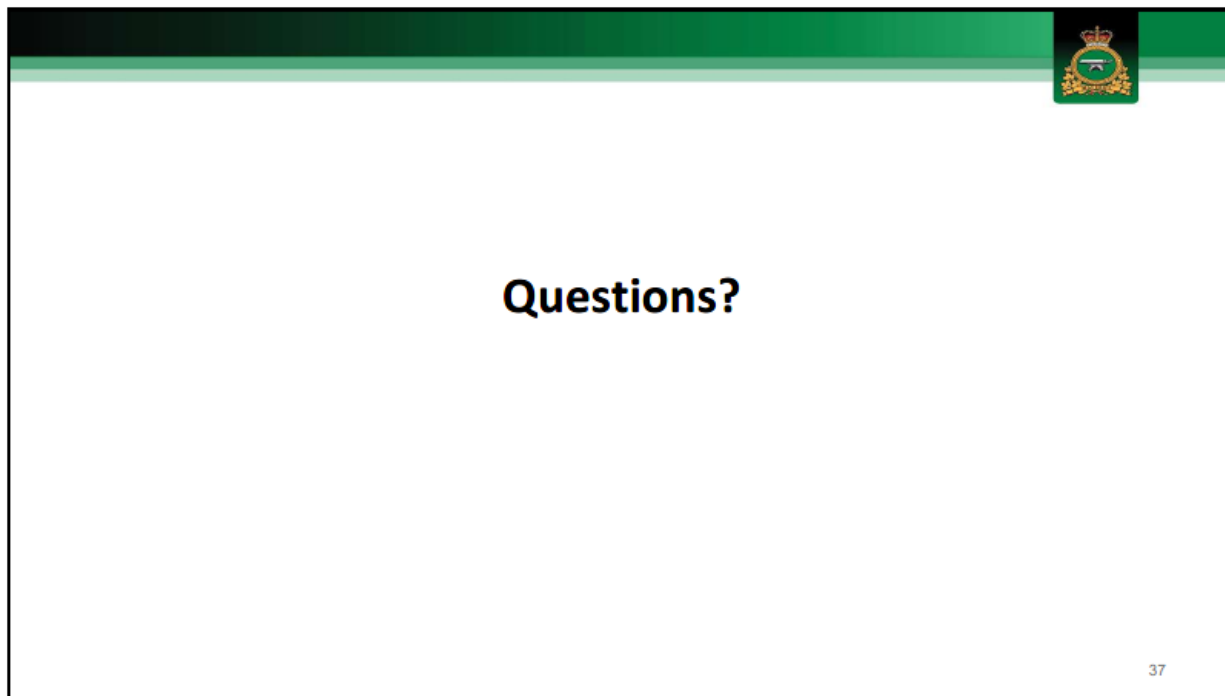


Reminder

- ALL questions, comments, communications and contact during the Request for Information (RFI) process, including this meeting, must flow through or must be in the active presence of the PSPC Contracting Authority.
- In responding to your questions, the Government of Canada must exercise its due diligence, and maintain the integrity of the procurement process. Therefore, ALL Questions from Industry and Answers from Canada may be documented and posted on [CanadaBuys](#) at a future date, with exception to any proprietary information.

36

[Equivalent initiatives](#)



ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.