RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Bid Receiving - PWGSC / Réception des soumissions - TPSGC
11 Laurier St. / 11, rue Laurier
Place du Portage, Phase III
Core 0B2 / Noyau 0B2
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

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
Science Procurement Directorate/Direction de l'acquisition de travaux scientifiques
Terrasses de la Chaudière, 4th Flo
10 Wellington Street
Gatineau
Québec
K1A 0S5

Title - Sujet
Surveillance of Space 2 GBO RFI

Solicitation No. - N° de l'invitation
W8474-207923/A

Amendment No. - N° modif.
002

Client Reference No. - N° de référence du client
W8474-207923

Date
2019-10-16

GETS Reference No. - N° de référence de SEAG
PW-$$ST-047-36767

File No. - N° de dossier
047st.W8474-207923

CCC No./N° CCC - FMS No./N° VME

Solicitation Closes - L'invitation prend fin on - le 2020-09-03

F.O.B. - F.A.B.
Plant-Usine:  Other-Autre: 

Address Enquiries to: - Adresser toutes questions à:
Chan, Alan

Buyer Id - Id de l'acheteur
047st

Telephone No. - N° de téléphone
(613) 858-9358 (   )

FAX No. - N° de FAX
(   ) -

Delivery Required - Livraison exigée

Delivery Offered - Livraison proposée

Instructions:  See Herein

Instructions:  Voir aux présentes

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
Surveillance of Space 2

Industry Day Briefings

October 8, 2019
DG SPACE OPENING REMARKS

Colonel Cam Stoltz, CD, MEng, PEng, MBA
Director Space Requirements
## Industry Day Briefings: Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Item</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00</td>
<td>Welcome</td>
<td>PD SofS 2, Maj. D. Bédard</td>
</tr>
<tr>
<td>09:00 – 09:05</td>
<td>DG Space Opening remarks</td>
<td>DSR, Col C. Stoltz</td>
</tr>
<tr>
<td>09:05 – 09:10</td>
<td>DGIMPD Opening remarks</td>
<td>DGIMPD, D. Rousseau</td>
</tr>
<tr>
<td>09:05 – 09:10</td>
<td>SofS 2 Team presentation and administration</td>
<td>PD SofS 2, Maj. D. Bédard</td>
</tr>
<tr>
<td>09:10 – 09:55</td>
<td>SofS 2 Project Overview</td>
<td>PD SofS 2, Maj. D. Bédard</td>
</tr>
<tr>
<td>10:00 – 10:10</td>
<td>Procurement process</td>
<td>Contracting Authority, A. Chan</td>
</tr>
<tr>
<td>10:30 – 11:00</td>
<td>Vendor networking</td>
<td></td>
</tr>
</tbody>
</table>
**Surveillance of Space 2: GoC Team**

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISR Section Head</td>
<td>LCol Melissa Reyes</td>
</tr>
<tr>
<td>Project Director</td>
<td>Major Donald Bédard</td>
</tr>
<tr>
<td>Deputy Project Director</td>
<td>Major Charles Wood</td>
</tr>
<tr>
<td>Project Officer</td>
<td>Captain Mart Einer</td>
</tr>
<tr>
<td>Project Manager</td>
<td>Patrick Falardeau</td>
</tr>
<tr>
<td>Deputy Project Manager</td>
<td>Brad Fitzsimmons</td>
</tr>
<tr>
<td>DND Procurement Authority</td>
<td>Nadya Lukey</td>
</tr>
<tr>
<td>PSPC Contracting Authority</td>
<td>Alan Chan</td>
</tr>
<tr>
<td>ITB Branch, ISEDC</td>
<td>Linda Piovesan</td>
</tr>
<tr>
<td>Sapphire LCMM</td>
<td>Colin Currie</td>
</tr>
</tbody>
</table>
Industry Day Briefings: Administration

Electronic copy of the briefings:
• Will be posted to the buyandsell.gc.ca site shortly.

Questions:
• Q&A report will be complied and posted on Buy & Sell site:
  • This report will not contain any proprietary information.

Recordings:
• All meetings will be recorded by the GoC Team.
• Recordings will be used to ensure that the record of discussion is accurate.
SURVEILLANCE OF SPACE 2: Project Overview

Major Donald Bédard, CD, PhD
SofS 2 Project Director
Outline

1. Background
2. SofS 2 Project
3. GBO Request for Information
BACKGROUND
Number of nations operating in space were fewer in number than today:
  • Mostly limited to national governments

Notwithstanding the harsh physical environment, Earth orbit environment was considered benign:
  • Adversarial behaviour in space was not observed

Emphasis for space surveillance was focussed on catalog maintenance to maintain accurate orbits in support of:
  • Keeping informed on objects in Earth-orbit
  • Space mission support (ie. Pass management, antenna pointing)
  • General space mission planning
  • Collision avoidance
Background:
Canadian Space Surveillance System
Background: CSSS: Space Segment

An operational Canadian space surveillance system:

- Launched 25 February 2013
- Mass: ~ 148 kg
- Dimensions: ~ 1 m$^3$
- Orbit: 784 km sun-synchronous
- Track capacity: ~ 2700 observations/day
  - Tracks deep space objects (orbits > 6000 km altitude)
- Design life: 5 years
New space technologies are changing the way we need to perform space surveillance

- Smaller satellites are appearing at all orbital regimes
  - Detection problem is becoming more complex

- Multiple satellites flying in tight co-located clusters are expanding in GEO orbit

- All-electric satellites are demanding more precise tracking data to maintain orbit custody

- On-orbit Servicing technologies are appearing which are straining classical space surveillance systems
Background:
The space situation: Post-2007

Space-threat is evolving:
- Kinetic and co-orbital ASAT
- Orbital stalkers
- On-orbit servicing

Since 2013, commercial sector is taking a larger role in collecting observations for catalog maintenance

As the threat evolves and becomes greater, the US DoD is focussing its SSA activities towards more traditional ISR-type functions.

Canada needs to provide a space surveillance system that is applicable to this new reality.
SofS 2 Project
The aim of the SofS 2 is to:

Sustain SSA strategic relevance and allied burden sharing.

The mission focus of the SofS 2 capability remains the deep space Earth orbit environment:

Orbital altitudes between 5,000 to 40,000 km
Surveillance of Space 2
Policy Framework

Investments in the Royal Canadian Air Force

45. Acquire space capabilities meant to improve situational awareness and targeting, including: replacement of the current RADARSAT system to improve the identification and tracking of threats and improve situational awareness of routine traffic in and through Canadian territory; sensors capable of identifying and tracking debris in space that threatens Canadian and allied space-based systems (surveillance of space); and,

Space Capabilities

To adapt to evolving challenges and opportunities in the space domain, the Defence team will:

83. Defend and protect military space capabilities, including by working closely with allies and partners to ensure a coordinated approach to assuring continuous access to the space domain and space assets.

84. Work with partners to promote Canada's national interests on space issues, promote the peaceful use of space and provide leadership in shaping international norms for responsible behavior in space.

85. Invest in and employ a range of space capabilities, including space situational awareness, space-based earth observation and maritime domain awareness, and satellite communications that achieve global coverage, including in the Arctic.

THE RESPONSIBLE USE OF SPACE

Defence’s development and use of space capabilities is carried out in accordance with domestic legislation, such as the National Defence Act, the Remote Sensing Space Systems Act, and the Canadian Space Agency Act, as well as relevant international law, including the Outer Space Treaty, the Limited Test Ban Treaty, and the Law of Armed Conflict.

We actively support Global Affairs Canada’s participation in international diplomatic efforts to ensure that space does not become an arena of conflict.
Surveillance of Space 2

Key Stakeholders

- RCAF
- CJOC
- SSN (US)
- CSpO (Allied)

Sensor System Operations Center

Ground stations

NextGen SBO

GoC Spacecraft Operations Center

SBO Sensor Segment

GBO Sensor Segment

(OPSEC: un to SECRET)
# Surveillance of Space 2

## High level mandatory requirements

<table>
<thead>
<tr>
<th>Id.</th>
<th>HLMR</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLMR-01</td>
<td>Deep space surveillance</td>
<td>The ability to detect, track, characterize and monitor deep space Earth-orbiting artificial objects having orbit altitudes greater than 5,000 km and having a minimum visible apparent brightness of 17.5 magnitude and brighter.</td>
</tr>
<tr>
<td>HLMR-02</td>
<td>Coverage</td>
<td>The ability to observe objects anywhere on the geostationary regime within a 12-hour period.</td>
</tr>
<tr>
<td>HLMR-03</td>
<td>Interoperability</td>
<td>The ability to interface with the US SSN as a contributing deep space surveillance sensor in the conduct of allied space operations.</td>
</tr>
<tr>
<td>HLMR-04</td>
<td>Information security</td>
<td>The ability to communicate information at a classification level that is commensurate with the level of operational security required by the space surveillance missions performed by the SofS 2 capability.</td>
</tr>
<tr>
<td>HLMR-05</td>
<td>Responsive control</td>
<td>The ability for Canadian operators to plan, operate, manage, monitor, and prioritize deep space surveillance tasks in accordance with Canadian priorities and mission timelines.</td>
</tr>
<tr>
<td>HLMR-06</td>
<td>SSA Data Continuity</td>
<td>The ability to continuously collect deep space surveillance data over a minimum period of 10 years.</td>
</tr>
</tbody>
</table>
Surveillance of Space 2
Conceptual capability

Notes:
1. Green box specifies the scope of the capability to be delivered by SofS 2.
2. All SSA request and data are UNCLASS up to SECRET.
3. JFSCC has OPCON of SSOC (ref.: 3373-Space (DG Space) dated 28 Aug 17), represented by segmented box around Sensor System Operations Center.
The Defence Capabilities Blueprint* provides the following information regarding funding:

**Funding Ranges**

$100 million to $249 million

The SofS 2 PMO will use Industry responses to review their own budgetary figures.

Current capability: Sapphire

- Launched in February 2013
- Designed for 5 years of operations

Future capability: Surveillance of Space 2

1. Industry inputs on drafts of the GBO and SBO statements of work, evaluation plans and requests for proposal will be sought during the Definition Phase.

2. The GBO RFP is anticipated to be released between mid-2021 to early 2022 during the Definition Phase.

3. The SBO RFP is anticipated to be released in the second half of 2022 during the Definition Phase.

GBO: Ground-Based Optical
SBO: Space-Based Optical
IOC: Initial Operational Capability
FOC: Final Operational Capability
SofS 2 GBO RFI
Objectives:
SofS 2 GBO RFI

1. Inform Industry of DND’s SofS 2 requirements for a GBO system.

2. Obtain input from Industry on the feasibility, deficiencies, and proposed improvements with respect to potential options to meet the requirements.

3. Align the requirement with Industry’s capabilities, as applicable.

4. Seek Industry input on potential economic leveraging opportunities.

5. Obtain indicative costing estimates from Industry:
   • The SofS 2 PMO requires Industry responses to assess current budgetary figures.
<table>
<thead>
<tr>
<th>Id.</th>
<th>HLMR</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLMR-01</td>
<td>Deep space surveillance</td>
<td>The ability to detect, track, characterize and monitor deep space Earth-orbiting artificial objects having orbit altitudes greater than 5,000 km and having a minimum visible apparent brightness of 17.5 magnitude and brighter.</td>
</tr>
</tbody>
</table>
| HLMR-02   | Coverage (Not applicable to the GBO sensor segment) | **NOT APPLICABLE TO THE GBO SENSOR SEGMENT:**  
The ability to observe objects anywhere on the geostationary regime within a 12-hour period. |
| HLMR-03   | Interoperability                    | The ability to interface with the US SSN as a contributing deep space surveillance sensor in the conduct of allied space operations. |
| HLMR-04   | Information security                | The ability to communicate information at a classification level that is commensurate with the level of operational security required by the space surveillance missions performed by the SofS 2 capability. |
| HLMR-05   | Responsive control                  | The ability for Canadian operators to plan, operate, manage, monitor, and prioritize deep space surveillance tasks in accordance with Canadian priorities and mission timelines. |
| HLMR-06   | SSA Data Continuity                | The ability to continuously collect deep space surveillance data over a minimum period of 10 years. |
Conceptual representation of the GBO System (outlined by red box) within the context of the CSSS.
Note: the purple outline contains the SofS 2 project scope, which includes the SBO Segment.
   • maximize use of commercial-off-the-shelf and proven technologies

2. Remote Operations
   • control of GBO Sensors from a centralized and extensible Sensor Tasking and Reporting System

3. Short GBO System Implementation Timelines

   The SofS 2 team is also interested in technologies that would maximize operations of the GBO Sensors within the Canadian Environment
### GBO RFI Schedule and Milestones

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry Day</td>
<td>8 Oct 2019</td>
</tr>
<tr>
<td>Industry Day One-on-One Meetings</td>
<td>8-10 Oct 2019</td>
</tr>
<tr>
<td>Requested RFI “Response By” Date</td>
<td>12 Nov 2019</td>
</tr>
<tr>
<td>Draft RFP</td>
<td>Apr 2020</td>
</tr>
</tbody>
</table>
QUESTIONS?
Surveillance of Space 2

Aim
Sustain SSA strategic relevance and Allied burden sharing

Key Stakeholders
RCAF
CJOC
SSN (US)
CSpO (Allied)

Details
Strong Secured Engaged
Initiative: #45, #67, #83, #84, #85 and #86
Capability Based Planning:
Contributes to Sense Function (conduct space surveillance)

HLMRs
01 - Deep Space Surveillance
02 - GEO coverage
03 - US SSN Interoperability
04 - Information Security
05 - Responsive Control
06 - SSA Data Continuity

GBO Sensor Segment

Sensor System Operations Center

SBO Sensor Segment

Sensor System Operations Center

Ground stations

NextGen SBO

GBO IOC
Apr 2024
GBO FOC
Mar 2025

SBO IOC
Nov 2027
SBO FOC
Aug 2028

PA Imp. (GBO)
Mar 2023
PA Imp. (SBO)
Dec 2023

PA Imp. (Def)
Dec 2020

DCB2
Sep 2019

• Launched in February 2013
• Designed for 5 years of operations

QUESTIONS?
Procurement Process

Surveillance of Space 2
Ground Based Optical Industry Day

Alan Chan
Public Services and Procurement Canada
Contents

1. Procurement Overview
2. Engagement Process
3. Communications
4. One-on-one Meetings
5. Draft Document Review
6. Contact Information
7. Questions
Procurement Overview

National Security Exception
Allows Canada to exclude a procurement from some or all of the obligations of the relevant trade agreement(s).

Fairness Monitor
Providing independent third-party oversight for the procurement process

Industry Engagement
Opportunities for meaningful interaction between Canada and Industry members
Engagement Process

- **Industry Day**
  October 8, 2019

- **One-on-one Meetings**
  Meetings between industry members and representatives of Canada on October 8-9, 2019

- **Request for Information**
  Information required by Canada to support Options Analysis process; responses requested for November 12, 2019

- **Future Engagement Activities**
  Additional engagement activities, which may include additional one-on-one meetings and review of draft project documentation, will be advertised on buyandsell.gc.ca
Communications

- All communications between Industry and Canada must be via PSPC
Meeting discussions will be recorded for use by Canada in the development of Q&A and Engagement Summary documents, which will be posted on buyandsell.gc.ca;

Questions may be edited so that the proprietary nature of discussions is eliminated, as required;

Participation is not required in order to submit a response to any future solicitation; and

Additional one-on-one meetings may occur later in the engagement process.
Draft Document Review

Draft project documents, including Terms and Conditions, Evaluation Plans, Economic Benefit Plans, Technical Documentation and/or Statements of Work, may be posted on buyandsell.gc.ca for industry review and feedback;

Vendors will be invited to provide comments and respond to specific questions from Canada;

All Q&As discussed during the review process will be made available to industry. Questions may be edited so that the proprietary nature of discussions is eliminated, as required; and

Participation is not required in order to submit a response to any future solicitation.
• Buyandsell.gc.ca will continue to be used as the main notification and distribution mechanism for this engagement process (W8474-207923)
• All communications must go through the PSPC Contracting Authority

Contact Information

alan.chan@tpsgc-pwgsc.gc.ca

buyandsell.gc.ca

613-858-9358

Alan Chan
Public Services and Procurement Canada
Acquisitions Branch

www.pspc-spac.gc.ca
Questions?
Surveillance of Space 2
Ground Based Optical RFI

Industrial and Technological Benefits Policy
October 2019
Outline

• Objective

• Industrial and Technological Benefits Policy including Value Proposition

• Next Steps
The Government of Canada is consulting with industry in order to understand the economic leveraging opportunities for the Surveillance of Space 2 Ground Based Optical requirement:

- Seek input from industry on RFI questions
- Feedback from industry provided during this engagement process along with internal analysis will inform the development of future economic leveraging approaches including the application of the Industrial and Technological Benefits Policy
Companies awarded defence procurement contracts are required to undertake business activity in Canada equal to the value of the contract. This includes a commitment to undertake work in Canada that:

- Involves minimum values of Canadian work directly on a procurement and;
- Includes work with small and medium-sized businesses across Canada.

**WHEN DOES IT APPLY?**

- All eligible defence and Canadian Coast Guard procurements over $100 million
- All eligible defence procurements with contract values between $20–100 million will be reviewed for the application of the ITB Policy.
Leverages high value investments

- Weighted and rated factor in selection
- Criteria tailored to each project
- Streamlined Policy features and processes
- Supports leading Canadian industrial capabilities and emerging technology areas

Reinforces Government Policies

- Reinforces government policies such as Canada’s Innovation and Skills Plan, and Strong, Secure, Engaged: Canada’s Defence Policy

Results have included defence sector growth and major spill- Over benefits to the broader economy

**ITB PORTFOLIO at a glance**

1986 – 2018

161 Contracts

$46.8 B in Obligations

$36.1 B Completed

$7.1 B Activities in Progress

$3.7 B Future work opportunities
Transactions are business activities undertaken to fulfill an ITB obligation, designed to be flexible within the VP framework; Measured in Canadian Content Value (CCV)

**DIRECT**

A business activity directly related to the equipment or services being procured, e.g. platform components and systems, and sustainment activities

**INDIRECT**

Strategic investments or business activities in other areas, e.g. Research & development, capacity and skills improvement, commercial sector work, etc.
CCV is measured in Canadian dollars and is the portion of the product or service (transaction) that includes Canadian costs.

**INCLUDES**
- Components of Canadian origin
- Wages paid to Canadians or permanent residents
- Utilities, maintenance, and rent paid in Canada
- Profit taxable in Canada

**EXCLUDES**
- Parts imported into Canada
- Wages, royalty and license fees paid to non-Canadians
- Bid preparation costs
- Taxes, duties, and lobbyist fees

**EXAMPLE**

**Transaction:** Tank Drive Sprockets  
**CCV:** 67%  
**Contract Value:** $3,700,000  
**Credited Value (CCV):** $2,479,000
WHAT IS THE VALUE PROPOSITION?

- A bidder’s economic proposal to Canada
- The rated and weighted element of contractor selection along with technical and cost elements
- Designed through market analysis, industry engagement and third party consultation

A VP proposal contains:

- Plans
- Commitments
- Identified business activities (transaction sheets)

OBJECTIVES OF THE VALUE PROPOSITION

1. Support the long-term sustainability and growth of Canada’s aerospace and defence sectors

2. Support the growth of prime contractors and suppliers in Canada, including small and medium-sized enterprises in all regions of the country

3. Enhance innovation through R&D in Canada

4. Increase the export potential of Canadian-based firms

5. Promote skills development and training to advance employment opportunities for Canadians
### Key Industrial Capabilities (KICs)

#### Emerging Technologies
- Advanced Materials
- Cyber Resilience
- Remotely-piloted Systems and Autonomous Technologies
- Artificial Intelligence
- Space Systems

#### Leading Competencies & Critical Industrial Services
- Aerospace Systems & Components
- Defence Systems Integration
- Ground Vehicle Solutions
- Marine Ship-Borne Mission and Platform Systems
- Shipbuilding, Design and Engineering Services
- Training & Simulation
- Armour
- Electro Optical / Infrared Systems
- In-Service Support
- Munitions
- Sonar & Acoustic Systems
- SofS2 falls within the Key Industrial Capability of space systems and features emerging technologies that are of strategic industrial importance to Canada.

- Canada has capacity along the space systems value chain and within SofS2 related activities, including capabilities in developing space based optical solutions, space systems integration, satellite operations, components and sub-systems including robotics and data analytics.

- Our space industry is innovative, highly collaborative, R&D and export intensive.

- Development of emerging technologies including those pertaining to SofS2 requirements can position Canadian industry for future growth and export opportunities.
1. Understand the ITB Policy and Value Proposition
   More information on the ITB Policy is available on Innovation, Science and Economic Development Canada’s website
   → [www.canada.ca/itb](http://www.canada.ca/itb)

2. Connect with the Regional Development Agencies (RDAs)
   RDAs have key knowledge of their respective regions, and can assist in making connections between Canadian industry and suppliers
   → [information about RDAs](http://www.canada.ca/itb)

3. Connect with Potential Suppliers and Post-Secondary/Research Institutions
   Gather additional intelligence and make contacts through trade associations, industry days, conferences and trade shows, including through CADSI and AIAC
   → [https://www.defenceandsecurity.ca/](http://https://www.defenceandsecurity.ca/)
ISED will review industry feedback on leveraging opportunities.

ISED is open to questions and feedback throughout the engagement process.

All questions regarding this RFI should be sent through the Contracting Authority.
Military Systems Deployed in Space, Space Launch Vehicles, Land-based Systems for the Operation, Command and Control of Space Launch Vehicles or Systems Deployed in Space; and Related Components.
This category includes sales related to production as well as research, development, design, engineering, testing and evaluation services:
Relating to primarily military systems deployed in space (e.g., satellites, spacecraft, and space robotic systems) and their sub-systems and components; as well as space launch vehicles.
Related design, engineering and production of earth-based systems used for the operation, Command & Control of military systems deployed in space and space launch vehicles (e.g., ground stations, satellite tracking systems, and launch facilities).

Commercial Systems Deployed in Space, Space Launch Vehicles, Land-based Systems for the Operation, Command and Control of Space Launch Vehicles or Systems Deployed in Space; and Related Components.
This category includes sales related to production as well as research, development, design, engineering, testing and evaluation services for primarily commercial clients and applications, of systems deployed in space (e.g., satellites, spacecraft, and space robotic systems) and their sub-systems and components; as well of space launch vehicles. Also included are related design, engineering and production of earth-based systems used for the operation, command and control of space launch vehicles and systems deployed in space (e.g., ground stations, satellite tracking systems, and launch facilities).

Government Non-Military Systems Deployed in Space, Space Launch Vehicles, Land- Based Systems for the Operation, Command and Control of Space Launch Vehicles or Systems Deployed in Space; and Related Components.
This category includes sales to government organizations relating to production as well as research, development, design, engineering, testing and evaluation services for systems deployed in space for primarily Non-Military civil applications (e.g., satellites, spacecraft, and space robotic systems) and their sub-systems and components, as well of space launch vehicles. Also included are related design, engineering and production of earth-based systems used for the operation, command and control of space launch vehicles and systems deployed in space (e.g., ground stations, satellite tracking systems, and launch facilities).
<table>
<thead>
<tr>
<th>Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABB Inc.</td>
</tr>
<tr>
<td>ADGA Consulting Ltd</td>
</tr>
<tr>
<td>Airbus</td>
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<tr>
<td>L3 Harris Technologies</td>
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<tr>
<td>ExoAnalytic Solution</td>
</tr>
<tr>
<td>Lockheed Martin</td>
</tr>
<tr>
<td>NorthStar Earth and Space Inc.</td>
</tr>
<tr>
<td>AGI Canada</td>
</tr>
<tr>
<td>J. T. McGraw and Associates</td>
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<tr>
<td>MDA</td>
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<tr>
<td>Space Strategies Consulting Ltd.</td>
</tr>
<tr>
<td>Thoth Technology Inc.</td>
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<tr>
<td>C-Core</td>
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<tr>
<td>Numerica</td>
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</tbody>
</table>