REMOTE SENSING SPACE SYSTEMS ACT

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Remote Sensing Space Systems Regulation
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RSSSA - Overview

- Administered by the Minister of Global Affairs
- Regulates the operation of Canadian remote sensing space systems globally and foreign systems operating in Canada
- Applies to public, private and public-private systems
- All smallsats that perform remote sensing activities must be licensed
- Contravention of certain sections of the RSSSA could be considered as offences
**Key Definitions**

- **Remote sensing satellite** - a satellite capable of sensing the surface of the Earth through the use of electromagnetic waves

- **Remote sensing space system**
  - remote sensing satellite(s)
  - mission control centre and other facilities used to operate the satellites; and
  - facilities used to receive, store, process or distribute raw data from the satellites
Key Definitions

• **Controlled activities** –
  – Formulation/communication of commands to a RS satellite
  – Reception of raw data from a RS satellite
  – Archiving/storage, processing and distribution of Raw data & Products
  – Establishment and usage of cryptography in communications with a RS satellite
  – Implementation of information assurance measures for the RS system
Licencing – Key Factors

• Types of system
• International relations & Obligations:
  – Authorization and continuing supervision
  – Jurisdiction and control over space object
  – Orbital debris mitigation
  – U.N. Sensed State Principles
• National security, defence of Canada, protection of Canadian Armed Forces balanced with the needs of Canadian industry/space sector
Additional Powers

- Interruption of Service
- Priority Access to Services
- Restrict or block the transfer of a licence to a third party
- Suspend a licence
- Inspections of facilities
- Impose fines in cases of non-compliance
Remote Sensing

Space System Regulations

• Contains the procedural details for the effective and efficient administration of the Act
• Defines the information required for an application, amendment and the renewal of licences
• Specifies the records that must be kept by the Licensee and the notices to be given to the Minister
• Defines the violations penalties for such violations
Licensed Systems

• There are 12 licenses under the RSSSA. Small satellite missions, such as GHGSat and CASSIOPE are currently licensed under the RSSSA.
**RSSSSA Licencing Process Overview**

1. **Licence Application**
   - Entity applies for and Operating Licence for upcoming operational system
   - OR
   - GAC is consulted in early phases of design of a new system

2. **Information Gathering Phase**
   - GAC provides guidance on preparing the required documents for completing the application package:
     - Entities involved and business model
     - Concept of operations
     - Ground Segment architecture
     - Information about remote sensing data
     - Security controls
   - GAC may issue design requirements to mitigate risks or recommendations to strengthen the security of the system (OGDs consulted)
   - Licensee is asked to go through **Schedule 1 of the RSSSSA Regulations** and provide mandatory information.
   - GAC reviews and provide feedback on documents, ask for missing information
   - Client prepares Data and Command Protection Plan (DCPP) and System Participant Agreements (SPA)

3. **Analysis and Consultation Phase**
   - Threat and Risk Assessment (OGDs consulted)
   - GAC may issue design requirements to mitigate risks or recommendations to strengthen the security of the system (OGDs consulted)
   - Feedback from Licensee
   - A Provisional Operating Licence may be issued for testing or planning requirements of the Licensee and if low risk.

4. **Licence Drafting Phase**
   - Drafting is lead by GAC but OGD and Licensee are consulted (iterative process)
   - Technical limitations of the system in implementing Licence conditions are taken into account
   - Feedback from Licensee
   - Mitigation measures identified
   - Residual risks are identified
   - Licence conditions

5. **Approval**
   - The final Operating Licence is approved and signed by Minister of Foreign Affairs or delegate

6. **Compliance Monitoring Phase**
   - Compliance monitoring:
     - On-site Inspections
     - Routine reports/special reports
   - License revisions and amendments
   - End of life:
     - Satellite disposal
     - License termination

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Thank you

Questions?