

RSSSA Renewal

The Recommendations

The recommendations are copied from the 2017 report in the order that they appear in the report.

1. Make the language of the Act more clear in regards to remote sensing, Earth observation and whether the latter falls within its purview. Alternatively, issue a Client Procedural Circular, in “layman’s terms”, to outline the intended interpretation of the Act’s various phrases.
2. Investigate whether there are more appropriate ways of addressing the seeming difficulties associated with the definition of “transform”. Similarly, utilize the authority granted under s 20(1)(a) to denote specific activities as either transforming or not transforming raw data.
3. Define the scope of “operate” in section 5 to determine who must be licensed for their activities related to the operation of a remote sensing space system or, alternatively, establish an exemption process for persons acting as employees or agents of remote sensing satellite operators from procuring a licence where reasonable to do so.
4. Amend the Act so that the default term of a licence is for the lifetime of the satellite system. Conversely, issue a Client Procedural Circular or similar document that communicates the official position of the regulator on this position.
5. Consider implementing a deadline by which the Minister must provide a decision on an application for licence. Additionally, applicants seeking a remote sensing space system licence should begin to involve the regulator as early as possible in the design and development stages of their operation.
6. Engage with licensees affected by a S14 restriction order to determine whether alternative courses of action may reach the same objective without hindering commercial operations or whether there are ways to mitigate the harm caused to the commercial operator (such as compensation for loss of business).
7. Ensure proper compensation for priority access (as made available in the Regulations) and clarify what kinds of representations may be made by an operator and what effect such representations would have on the priority access order.
8. Monitor remote sensing security strategy to ensure Canada’s security interests are maintained despite changing international players and evolving and divergent interests.
9. Embed within the Act different ways of stimulating commercial interest so that the balance between security and technological development is regained.
10. Provide the regulatory office in charge of remote sensing with significantly more resources and more personnel.
11. Establish an independent regulatory body that is tasked with overseeing the RSSSA from the perspective of reviewing applications, granting licences, conducting inspections, monitoring compliance, etc. The independent body should be provided with sufficient financial resources, technical expertise, a broad mandate to regulate (in consultation with other key departments and agencies) and should aim to facilitate commercial space remote sensing activities.
12. Implement a reasonable fee in the application and licensing process that will establish a certain level of expected service and, if implemented on a cost-recovery basis, will alleviate the resource shortages currently associated with the regulator’s office.
13. Implement a formal process whereby the licensee and the regulator have an opportunity to discuss and review a licence (before and after it is issued), such that any disagreements regarding conditions or restrictions can be resolved or mitigated as best as possible without needed to undertake the licence amendment process.
14. Engage community stakeholders by attending industry and academic conferences, publishing client information circulars and establishing an easily and intuitively-accessible online presence

to explain clearly and candidly what kinds of activities fall within the scope of remote sensing as defined in the Act.

15. Include a provision that would allow Canada to be indemnified by a private entity for damages it is required to pay internationally as a result of a private entity's space activity causing damage as well as a provision that requires all operators to procure insurance to cover the liability risks associated with space activity.
16. Enter discussions that harmonize international rules related to the cloud so that anyone operating in the cloud, regardless of physical location, is subjected to the same regulations and/or operating procedures as attempting to unilaterally address the cloud without causing severe consequences to private industry is nearly impossible.
17. Engage foreign allies in high- and low-level discussions in an attempt to harmonize the various rules, procedures, standards, methods and strategies by which remote sensing operations are regulated.
18. Enact a general Outer Space Act that would apply to new and emerging space activities as they become a reality.

Analysis

For each recommendation the analysis takes the form of the recommendation being stated, comment/discussion follows and an "approach", or next steps, to resolve or implement the recommendation, from the point of view of the regulatory body, follows.

Recommendation 1

Make the language of the Act more clear in regards to remote sensing, Earth observation and whether the latter falls within its purview. Alternatively, issue a Client Procedural Circular, in "layman's terms", to outline the intended interpretation of the Act's various phrases.

APPROACH: A Client Procedural Circular (CPC) in "layperson's terms" defining key terminology and outlining other aspects of the RSSSA is to be prepared.

Recommendation 2

Investigate whether there are more appropriate ways of addressing the seeming difficulties associated with the definition of "transform". Similarly, utilize the authority granted under s 20(1)(a) to denote specific activities as either transforming or not transforming raw data.

While it is accepted that "substantially" in the RSSSA (section 2, definition of transform) is problematic, collecting an exhaustive list of specific "transformation" processes is also problematic. The sensitive nature of the data under consideration may also impact on the type of transformation required.

APPROACH: The Minister, when evaluating an application that includes processing, could make a decision on whether or not a requested particular transformation is sufficient to render the result as no longer "raw data".

Recommendation 3

Define the scope of “operate” in section 5 to determine who must be licensed for their activities related to the operation of a remote sensing space system or, alternatively, establish an exemption process for persons acting as employees or agents of remote sensing satellite operators from procuring a licence where reasonable to do so.

The definition of operate is to “perform a controlled activity”. A person who performs a controlled activity needs a licence.

APPROACH: As is the current practice, an “entity” (person), when applying for a licence, lists those employees that will perform controlled activities and demonstrates that each such person has the appropriate security level. These employees are then considered as authorized to perform a controlled activity under the terms of the licence.

Recommendation 4

Amend the Act so that the default term of a licence is for the lifetime of the satellite system. Conversely, issue a Client Procedural Circular or similar document that communicates the official position of the regulator on this position.

The Minister sets the terms of the licence with due regard for several factors, including national security and the lifetime of the satellite for single satellite systems. It would be improper to take away the Minister’s prerogative in this matter. A 20-year lifespan would have significant change in technology and cybersecurity that must be addressed. A 20-year term of licence would result in amendments by the Minister to counter such changes. Constellations of satellites that are constantly being refreshed have no predictable lifespan. As well, “antenna farms” that cater to many systems also have an unpredictable lifespan.

APPROACH: The CPC will discuss issues to be considered when addressing the term of a licence. Among others, topics include: lifespan of single satellite systems, sensitivity of data from satellites, cybersecurity concerns for the ground segment, and the term of the operator’s contract with the satellite owner. Antenna farms would be evaluated based on overall business levels.

Recommendation 5

Consider implementing a deadline by which the Minister must provide a decision on an application for licence. Additionally, applicants seeking a remote sensing space system licence should begin to involve the regulator as early as possible in the design and development stages of their operation.

There is already a deadline in the legislation. The Minister has 180 days (Regulations Section 7) to render a decision on new applications and 90 days (Regulations Section 7) on renewals and amendments. Applicants are always invited to involve the regulator as early as possible in order to expedite the process and address issues early on. For new systems, the applicant is required to contact the regulator at the design review stage (Regulations Section 20).

APPROACH: The CPC provides (1) a list of required documents for a complete application; (2) an invitation to an early discussion with the regulator; and (3) a notice that the 180 day timeframe starts when the documentation is complete.

Recommendation 6

Engage with licensees affected by a S14 restriction order to determine whether alternative courses of action may reach the same objective without hindering commercial operations or whether there are ways to mitigate the harm caused to the commercial operator (such as compensation for loss of business).

All licensees may be affected by an S14 restriction order. All licensees may make representation to the Minister regarding any S14 order. Compensation, however, is ruled out in other parts of the Act or Regulations.

APPROACH: When an S14 order is issued, the licensee is encouraged to make representation to the Minister regarding alternative measures.

Recommendation 7

Ensure proper compensation for priority access (as made available in the Regulations) and clarify what kinds of representations may be made by an operator and what effect such representations would have on the priority access order.

The wording of the recommendation seems odd. “Ensure proper compensation” suggests that the licensees are being “ripped off”. Section 22(2) of the Act states “the Minister may pay a licensee an amount determined in accordance with” Regulation 14. The debate thus centres around the word “may” versus a substitute “will” or “must”.

With respect to representations, why restrict the types of representations that can be made to the Minister? Why predict the outcome of the negotiations and, thereby, limit both parties to the discussion? The whole point is to have a substantive discussion and to reach a conclusion that is appropriate in the circumstances of the unique system under consideration.

APPROACH: Review the choice of the word “may” in the Act and perhaps write an article on priority requests, both interruptions of service and priority requests.

Recommendation 8

Monitor remote sensing security strategy to ensure Canada’s security interests are maintained despite changing international players and evolving and divergent interests.

Such changes are one reason why long term licences are not the best solution.

APPROACH: The Regulator continues to monitor remote sensing security strategy to ensure Canada’s security interests are maintained

Recommendation 9

Embed within the Act different ways of stimulating commercial interest so that the balance between security and technological development is regained.

Technological development is not more important than national security. Canadian industry commercial interests are already imbedded in the Act as one of the factors the Minister must consider when making a decision.

APPROACH: Additional discussion to be held with the private sector to understand their concerns in this area.

Recommendation 10

Provide the regulatory office in charge of remote sensing with significantly more resources and more personnel.

APPROACH: GAC is already taking steps to increase expert resources in the regulatory office.

Recommendation 11

Establish an independent regulatory body that is tasked with overseeing the RSSSA from the perspective of reviewing applications, granting licences, conducting inspections, monitoring compliance, etc. The independent body should be provided with sufficient financial resources, technical expertise, a broad mandate to regulate (in consultation with other key departments and agencies) and should aim to facilitate commercial space remote sensing activities.

A truly independent regulatory body is not the solution. Ministerial oversight is required and an independent body would require significant administrative support eating up much of the additional funding suggested in Recommendation 10.

APPROACH: The current regulatory body within GAC should be allowed to grow to a division level status, using some of the resources suggested in Recommendation 10. Recognizing the specialized expert nature of the work, there is a need to ensure that rapid management rotation is avoided.

Recommendation 12

Implement a reasonable fee in the application and licensing process that will establish a certain level of expected service and, if implemented on a cost-recovery basis, will alleviate the resource shortages currently associated with the regulator's office.

This recommendation recognizes that (1) there is no level of expected service; (2) fees will improve the level of expected service; and (3) resource shortages are an ongoing problem the government is unwilling to address.

There is a required level of service in the Act –the Minister must respond within 180 days of a complete submission and 90 days of an amendment submission. These timelines give adequate time for the necessary intra- and interdepartmental conversations that are held to evaluate submissions, provided that all documentation is available from the applicant at the start, or the clock restarts when the last required document is submitted. To help streamline the process there is a Client Procedural Circular being drafted that will summarize the documentation that is required for a complete submission.

Adding a licence fee for each application may not change the timelines. Fee revenue may be largely consumed in administration of the fees.

The addition of a service fee could create two conditions. First, it may lead to a reduction in overall research as small companies, unable to pay the fees and still stay solvent, go dormant. In fact, it could create a small club of commercial players, to the exclusion of new entries. Handling new entrants through a program of fee exemptions would only complicate the process. Second, as the level of income from fees is not guaranteed to be sustained year after year, GAC should not hire indeterminate staff to meet the need, but rather short term staff who could be released when demand is not there. Costs of training would increase and additional oversight would be required – not a solution to the problem.

APPROACHES: One approach is for GAC support of additional ongoing staff (see Recommendation 10) to meet growing demands for both licence applications and inspections. The other approach is for the Client Procedural Circular to provide the required list of documentation before consideration of an application by the regulatory team, and for continuing the practice of early contact. These will have a positive effect on the timeframe for evaluation of proposals.

Recommendation 13

Implement a formal process whereby the licensee and the regulator have an opportunity to discuss and review a licence (before and after it is issued), such that any disagreements regarding conditions or restrictions can be resolved or mitigated as best as possible without needed to undertake the licence amendment process.

The legislation neither requires nor excludes a period of the back and forth discussion as a licence request is being formulated. However within GAC there is an ongoing policy of early contact with an applicant to discuss various components of the licence to be issued in order to reach a consensus within the timelines provided.

The recommendation gives the impression that the amendment process is both onerous and time consuming. Once a licence is issued, it is not a take it or leave it situation. Discussions may continue to resolve concerns the licensee may have with elements of the licence, with amendments proposed by either side.

APPROACH: GAC's ongoing policy of early and continuing contact with applicants throughout the process leading to issuance of the licence, as well as discussions after the licence is issued, meets the requirements of the Recommendation.

Recommendation 14

Engage community stakeholders by attending industry and academic conferences, publishing client information circulars, and establishing an easily and intuitively-accessible online presence to explain clearly and candidly what kinds of activities fall within the scope of remote sensing as defined in the Act.

With an increase in staff (see Recommendation 10), additional activities could be considered by the Regulatory Group. The response to the two independent reviews includes an outreach publication of a Client Procedural Circular (see Recommendation 1). Legislation suggested in Recommendation 18 could help clarify the particular role of the RSSSA.

APPROACH: Community engagement is clearly a desirable objective. Once the Client Procedural Circular is developed, an Ad Hoc Advisory Committee will be created, composed of government, industry, academic and international members. (I am unclear on the inclusion of international members in a body that serves Canadian interests.) to comment on future steps. In addition, discussions at conferences and workshops at such meetings may be planned.

Recommendation 15

Include a provision that would allow Canada to be indemnified by a private entity for damages it is required to pay internationally as a result of a private entity's space activity causing damage as well as a provision that requires all operators to procure insurance to cover the liability risks associated with space activity.

Section 9(1)(b) of the Act requires “arrangements satisfactory to the Minister relating to the guarantee of the performance of the licensee’s obligations under the system disposal plan.” This Section may be considered to meet the requirement expressed in Recommendation 15.

Under the UN Conventions, launching states are liable for any damage a launched satellite causes throughout the life of the satellite. Being aware of this provision GAC requires all “Canadian” operators of such satellites have their own licence. That licence will require a satellite disposal plan and “arrangements ... relating to the guarantee of performance”. Such arrangements could include indemnity insurance to a determined amount. Some countries are openly debating what the maximum of insurance is that must be carried by the satellite owner.

It is important to clearly distinguish between “operators”, “owner/operators” and “owners”. It would be expected that owners of satellites that are “operated” by a contracted “operator” would ensure that the operator has indemnity insurance for any problems that are caused as a result of said operations. Foreign owners would be tied to their “home” state for purposes of liability.

All operators are tied to the state that is the “launching state” for the satellite they are operating. It is the responsibility of the “launching state” to have a liability agreement for damages caused by said satellites. Such liability agreements would typically be with satellite “owners” and not with contracted operators.

APPROACH: GAC to reconsider whether the RSSSA should specifically state that liability insurance must be obtained by satellite owners for the purpose of indemnifying Canada from damages it is required to pay in the event of activity causing damage.

Recommendation 16

Enter discussions that harmonize international rules related to the cloud so that anyone operating in the cloud, regardless of physical location, is subjected to the same regulations and/or operating procedures as attempting to unilaterally address the cloud without causing severe consequences to private industry is nearly impossible.

This recommendation and Recommendation 17 both seek the harmonization of international rules and practices.

APPROACH See the following recommendation.

Recommendation 17

Engage foreign allies in high- and low-level discussions in an attempt to harmonize the various rules, procedures, standards, methods and strategies by which remote sensing operations are regulated.

International discussions are ongoing with allies that are both new and mature players in the space arena.

APPROACH: International discussions with other space faring nations have been ongoing for many years. One objective of these discussions is to reach a consensus on common procedures and rules to support international operations by the space industry, while at the same time respecting the unique requirements of each nation.

Recommendation 18

Enact a general Outer Space Act that would apply to new and emerging space activities as they become a reality.

APPROACH: The March 2019 release of Exploration Imagination Innovation – A New Space Strategy for Canada indicates the Government supports this recommendation.