

# **Canadian Space Agency RADARSAT Constellation Mission**

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## **SAR Data Policy**

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## 1. EFFECTIVE DATE

This policy will become effective at the start of routine operations of the RADARSAT Constellation Mission (RCM).

## 2. APPLICATION

This document establishes a policy for the Synthetic Aperture Radar (SAR) data collected and processed by the RCM System, with the intention of providing a comprehensive and integrated approach to the management and use of RCM SAR data.

This policy is applicable to all users of RCM SAR data.

The implementation and benefits of the RCM SAR Data Policy will be reviewed as needed during the RCM lifetime by the Government of Canada.

## 3. CONTEXT

The RCM is the flagship of Canada's space-based Earth Observation program and builds upon the success of the RADARSAT brand established by RADARSAT-1 and RADARSAT-2. RCM SAR data and services will contribute to:

- Ensuring the safety and security of Canadians;
- Monitoring and protecting the environment;
- Monitoring of climate change;
- Managing Canada's natural resources; and
- Stimulating innovation, research and economic development.

The SAR payloads on the RCM satellites collect images of the Earth's surface using radar remote sensing technology. They are managed by the Canadian Space Agency (CSA) in partnership with a number of departments within the Government of Canada.

## 4. POLICY OBJECTIVES

The RCM SAR Data Policy objectives are to:

- A. Sustain and enhance operations and services using RCM SAR Data in support of Government of Canada priorities;
- B. Expand the use of RCM SAR Data by Government of Canada in support of departmental priorities and mandates, and informed evidence-based decision making;

- C. Guide the dissemination of RCM SAR Data in order to make them available, accessible, and affordable to the broadest extent possible, subject to applicable restrictions associated with privacy, confidentiality and security;
- D. Contribute to international efforts to manage disasters and assist in other international humanitarian efforts;
- E. Stimulate economic growth by promoting the development of innovative products and services, derived from RCM SAR Data, by Canadian industry and researchers and;
- F. Enhance Canada's access to satellite data of other countries through sharing arrangements with allies, partners, and international organizations.

## 5. DATA ACQUISITION

- A. RCM will be tasked solely by the Government of Canada, to acquire data, first and foremost in support of Government of Canada services and needs.
- B. Acquisition plans to meet the RCM SAR imaging demands of the Government of Canada will mostly be over large areas, using various imaging modes and coverage frequencies. The pre-defined recurrent observation plans for RCM SAR Data expected to be acquired by the Government of Canada, with the exception of those with security restrictions, will be made available publicly in advance of the acquisitions.
- C. User feedback on future pre-defined recurrent observation plans will be collected and considered by the Government of Canada.
- D. To meet the data needs of the Government of Canada, acquisitions may be changed without notice.

## 6. DATA ARCHIVES

- A. RCM SAR data will be archived in compliance with the [Remote Sensing Space Systems Act \(RSSSA\)](#).

## 7. DATA OWNERSHIP

- A. The Government of Canada retains the ownership of all RCM SAR data.
- B. All intellectual property rights to Value Added Products (VAPs) created from the RCM SAR data will remain with the creator of the VAP.

## 8. DATA ACCESS

- A. In the spirit of the [Directive on Open Government](#), the Government of Canada is committed to facilitating and broadening the access to RCM SAR data to the greatest

extent possible, including by industry, researchers and the general public, subject to exceptions for security, privacy, and confidentiality.

- B. Registration and the creation of a user account will be required to access RCM SAR data.
- C. The user profile associated with the account will define the level of access to RCM SAR data. Vetted users may be granted greater access to RCM SAR data.

## 9. DATA DISTRIBUTION

- A. The Government of Canada is the sole distributor of RCM SAR data. Users may distribute VAPs and services created from RCM SAR data.
- B. Distribution of archived image products of RCM SAR data will be at no charge to users.
- C. The Government of Canada may implement means to recover costs for data reprocessing and/or to meet demands for high volumes of RCM SAR data outside of the current capacity and capabilities of RCM SAR system.
- D. Under certain situations the RCM System may face limitations which could prevent data being made available in a timely fashion and within the applicable quality standards.

## 10. DATA USE

- A. Use of RCM SAR data must be in accordance with the applicable End User License Agreement (EULA) accompanying the data.

## 11. REFERENCES

Legislation and policies relevant to this policy includes the following:

**Remote Sensing Space Systems Act (RSSSA)**: Legislation that governs the operation of remote sensing space systems in Canada and will impose restrictions to the applicability of the Directive on Open Government. Obligations under the RSSSA will also have precedence over principles defined in the RCM Data Policy.

**Directive on Open Government**: The objective of the directive is to maximize the release of government information and data of business value to support transparency, accountability, citizen engagement, and socio-economic benefits through reuse, subject to applicable restrictions associated with privacy, confidentiality, and security. Release of government information and data is subject to a release criteria list, which encompasses legal restrictions.

## 12. ENQUIRIES

Please direct enquiries about this policy to the following contact:

Space Utilization Branch  
Canadian Space Agency  
6767 Route de l'Aéroport  
Saint-Hubert, QC, J3Y 8Y9

Email: [asc.mcr-info-rcm-info.csa@canada.ca](mailto:asc.mcr-info-rcm-info.csa@canada.ca)

## APPENDIX A – ACRONYMS AND DEFINITIONS

Data acquisition	The process of capturing images of the earth’s surface using radar technology.
Archive	Storage, cataloguing, conservation and retention of the RCM SAR data for the preservation, access and use of the data.
Canadian Space Agency (CSA)	The government agency with the mandate to promote the peaceful use and development of space, to advance the knowledge of space through science and to ensure that space science and technology provide social and economic benefits for Canadians. It is the Government of Canada leader for RCM.
Data use	Activities performed by the user of the RCM SAR Data, which extend to data ordering (new data or previously acquired data), data storage and data exploitation.
End User License Agreement (EULA)	A EULA is a type of software license agreement outlining the rules and rights of the user towards the RCM product/data being provided.
Image Products	The output of processing of raw SAR data acquired from the RCM satellite.
Pre-Defined Recurrent Observation Plan	The plan of the Government of Canada to revisit and acquire data of the same areas, over a period of time, in order to facilitate time comparison.
RCM SAR data	Refers to SAR data that are acquired and processed by RCM System and delivered by its associated ground segment.
RCM System	a) RCM remote sensing satellites and mission control center and other facilities used to operate the satellites, and; b) the facilities used to receive, store, process or distribute data from the RCM satellites, even after the satellites themselves are no longer in operation.
Remote Sensing Space Systems Act (RSSSA)	A Canadian law requiring any Canadian remote sensing space system operator to acquire authority, from the Government of Canada, through an issuance of a license, to operate such a system.
Synthetic Aperture Radar (SAR)	Is a form of radar that is used to create two- or three-dimensional images of objects, such as landscapes. SAR uses the motion of the radar antenna over a target region to provide finer spatial resolution than conventional beam-scanning radars.



Task	To send commands to the satellite, such as observation requests.
Users (of RCM SAR data)	Include Departments of the Government of Canada and partners; commercial and non-commercial entities (such as Value Added Product and Service Providers); as well as all academia and the general public.
Value Added Product (VAP)	Is the output of the transformation or combination of earth observation data to enhance its usability or applicability.
Vetted User	A person representing themselves, or their organization, that applies for, and is granted a type of account that aims to provide better access to archived RCM data products.