

RADARSAT-2: Capabilities and Benefits for the Canadian Government

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Abstract

RADARSAT-2 was successfully launched in December 2007. RADARSAT-2 will be the most versatile commercial SAR Earth observation system with a high spatial resolution mode of 3 meters and a fully polarimetric mode that will be available on an operational basis. The advancement in satellite technology do not only profit the imaging modes, other innovations on RADARSAT-2, such as high downlink capacity, onboard digital recorders, and high performance processing will increase the quality of the service and products.

RADARSAT-2 is unique example of public-private partnership. The private sector owns and operates the spacecraft, and in return for their investment, the Government of Canada has obtained a credit for data to be drawn against over the lifetime of the spacecraft. RADARSAT-2 data will be used by the Government of Canada to meet the current and evolving priorities of the Government and the needs of Canadians.

Therefore, beyond the commercial benefits, the Government has a vital interest in the public good aspects of RADARSAT-2. The CSA has committed to objectives that pertain to natural resource management, environmental monitoring, ice mapping and marine monitoring. RADARSAT-2, together with RADARSAT-1 help assure Canada's safe navigation in icy waters, patrol of coastal waters, support for pollution and fisheries interdiction, and, sustainable development of the far north. RADARSAT-2 will be an important space asset, providing Government departments with the continuity of critical and timely data for the active management of natural resources and monitoring of the environment.

This paper will briefly present RADARSAT-2 and its imaging capabilities, and will focus on the activities that the Canadian Government is undertaking to optimize the use of RADARSAT-2 in support of its mandate and priorities.