

AFAC POSITION PAPER 03/2008

Issue: The Need for a Canadian Space Strategy

Background

- Announcement of the proposed sale of the defence and space division of Macdonald Dettwiler and Associates to the U.S. aerospace company Alliant Techsystems has raised a number of observations regarding Canadian taxpayer investment in space activities. The disposition of Radarsat-2 and the information it provides has figured prominently in the discussion. At issue is Canadian sovereignty, the freedom of access to U.S.-owned technical data, the extent of our national interest in space-based capabilities, and opportunities for Canadian companies to compete for space-related work.
- The Prime Minister has been quoted as saying that “Canada has a choice when it comes to defending our sovereignty in the Arctic: either we use it or we lose it....Make no mistake; this government intends to use it.”¹ The Minister of Industry, Jim Prentice, recently lauded the benefits of Radarsat-2, saying it “...will help us vigorously protect our Arctic sovereignty as international interest in the region increases.”²
- Canada was the third nation to actively enter the space age with the launch of the Allouette-1 satellite in 1962. Today, the mandate of the Canadian Space Agency is “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.”³ Annual funding for the CSA is modest. It has been in the \$300 million range for years, is projected to be \$368 million for 2008-09, but will be decreasing gradually in subsequent years. Well-known activities include the astronaut program, ‘Canadarm’ technology for the space shuttle and the international space station, remote sensing, Martian exploration, and space-related education programs.

AFAC Position

- The AFAC has advocated for appropriate surveillance of Canadian territory – see position papers 07/2007, Air Power and Canadian Sovereignty, and 03/2007, CF Manned Strategic Surveillance Capability. The unique capabilities of on-orbit assets presents a compelling argument

¹ Harper, Stephen as reported by Spears, Joseph in *FrontLine Defence*, Mar/Apr 2008, page 12

² Prentice, Jim, *ibid*

³ *Canadian Space Agency Act*, SC. 1990, c. 13



- for some sort of space-based surveillance capability for Canada, especially given the vast geographical area involved. Moreover, the world class capabilities of Radarsat-2 put Canada in good stead to be able to provide the coverage necessary to support our sovereign interests.
- Given the vast dependence of Canadians on space services (GPS positioning, weather information, communications, e-commerce, radio and television, etc), it would seem appropriate that Canadians participate in the exploitation of space capabilities, to include the development of leading-edge technologies.
 - To maintain space capabilities in Canada, companies must have enough business prospects to be viable. MDA, for one, maintains that the Canadian market is not large enough to sustain the company and that they can only access much of the U.S. market by being part of a U.S. entity.
 - These circumstances raise a number of questions, the most dominant of which relates to the nature of Canada's space policy or strategy. The current strategy appears to be focused on a number of commendable initiatives, such as Radarsat-2 and the Canadarm, but lacks a comprehensive set of goals for long term sustainment of space-related activity. Given the ubiquitous nature of everyday activities which are dependent on space, Canada, as a developed western nation, should have an identifiable plan for space involvement for the long term, supported by the appropriate resources. Awareness of space should be promoted; attractive jobs should be available for Canadians; and centres of excellence should be nurtured for technological development.
 - In calling for a national space policy in Oct 07, Marc Garneau, former astronaut and CSA head, stated "So far, I think Canada's space program has been a little bit ad hoc and has been pushed from the bottom by people who have good ideas. But I think what we need is leadership from the top."⁴ This has been a common theme. Professor Jim Fergusson, a well-known expert in this area, states "The government of Canada has not undertaken a systematic examination of outer space since 1967."⁵ The recommendations of these and other very qualified individuals bear serious consideration by the Government.
 - The recent action by Minister Prentice to create an advisory council to examine the need for a space policy is commendable, albeit late to need.

⁴ CBC News, 5 Oct 07 at <http://www.cbc.ca/canada/story/2007/10/04/garneau-space-policy.html>

⁵ As quoted in *Spacewar* 26 Jun 2007 at http://www.spacewar.com/reports/Canada_Needs_A_New_Space_Policy_Says_Canadian_Defence_And_Foreign_Affairs_Institute_999.html



Messages

- Canada should have a concept of how it intends to exploit space activities in the pursuit of our national interests. We should not be wholly dependent on other nations for support in exercising our national sovereignty.
- The fact that access to domestically-developed world class technology of national importance may be denied to us is unacceptable.
- Notwithstanding some dramatic achievements in space, Canada dedicates only very limited funding for this purpose.
- Canada needs a coherent and comprehensive national space policy or strategy that identifies priorities for space-related activity and the publicly-funded resources needed to promote it.

Developed by the Aviation Affairs Committee – for more information, visit <http://www.airforce.ca/aac.php3>

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