

**MEMORANDUM OF UNDERSTANDING**

**BETWEEN**

**The Canadian Space Agency**

**and**

**Natural Resources Canada,  
Represented by the Canada Centre for Remote Sensing**

**of the Government of Canada**

**AND**

**The Norwegian Space Centre**

**ON COOPERATION IN SATELLITE REMOTE SENSING**

## MEMORANDUM OF UNDERSTANDING

Between:

THE CANADIAN SPACE AGENCY,  
an Agency of the Government of Canada  
(Hereinafter referred to as "CSA"),

and:

NATURAL RESOURCES CANADA,  
a Department of the Government of Canada, represented by the  
Canada Centre for Remote Sensing  
(Hereinafter referred to as "NRCan"),

and:

THE NORWEGIAN SPACE CENTRE,  
co-ordinating the space activities of the Government of the  
Kingdom of Norway  
(hereinafter referred to as "NSC"),

hereinafter jointly referred to as "the Parties"

### ON COOPERATION IN SATELLITE REMOTE SENSING

WHEREAS the Parties recognise the importance of furthering international space cooperation for peaceful purposes;

WHEREAS the Parties wish to promote cooperation in the field of remote sensing by satellite between themselves, with a view to reinforcing technological and economic development and ties between Canada and Norway;

WHEREAS the Parties recognise the mutual benefits that would result from such cooperation;

WHEREAS the Parties have paid due regard to the United Nations Resolution A/41/65 of December 3, 1986, on Principles Relating to Remote Sensing of the Earth from Outer Space; and

WHEREAS the Parties wish to promote commercial cooperation between Canada and Norway and take note of the negotiations currently under way between RADARSAT International Inc. and Tromso Satellite Station, and between MacDonald Dettwiler and Associates and Kongsberg SpaceTec,

The Parties have reached the following understanding:

### Article 1

The purpose of this Memorandum of Understanding (hereinafter referred to as the "Memorandum") is to establish a framework for cooperation in the field of remote sensing by satellite between the Parties, on the basis of equality, mutual benefit and reciprocity.

### Article 2

The Parties will use their best reasonable efforts to support cooperation in the following areas:

- 1) remote sensing satellite operations and applications related to the RADARSAT programme, building on cooperation begun with RADARSAT-1 and guiding cooperation on RADARSAT-2 and RADARSAT-3;
- 2) industrial cooperation in the commercial exploitation and market development of satellite remote sensing products and services;
- 3) the use of satellite remote sensing and its applications for furtherance of mutual circumpolar interests, including northern shipping and ice monitoring;
- 4) the application of remote sensing to scientific understanding, monitoring and protection of the Earth and its environment, in particular in the Arctic;
- 5) the use of satellite remote sensing for disaster monitoring and mitigation, in particular in areas of oil spills and oil dumping; and
- 6) other areas which may be agreed upon between the Parties.

### Article 3

The areas of cooperation listed under Article 2 thereof may take the following forms:

- 1) encouragement of cooperation in science and technology between the two Governments, the private sectors and academia in both countries;
- 2) joint research and applications projects and activities;
- 3) exchange of scientists, engineers and other experts;
- 4) liaison with industrial, academic, professional and other organizations;
- 5) exchange of scientific information, data and experimental results;
- 6) organisation of symposia, seminars, conferences and special events;
- 7) education and training;
- 8) cooperation for TT&C (telemetry, tracking and control) services for satellite missions;

- 9) other forms of cooperation which may be agreed upon between the Parties.

#### Article 4

The Parties acknowledge that the following negotiations are currently under way which, if successful, will generate agreements that are intended to form part of the cooperation undertaken pursuant to this Memorandum:

1) RADARSAT-2 Data Licence, Data Allocation and Regional Distribution Agreements

a) A Data License and Data Allocation Agreement will be implemented between RADARSAT International Inc. and the Norwegian Space Centre. This agreement will provide for access to RADARSAT-2 data for government use.

b) A Data License and Regional Distribution Agreement will be implemented between RADARSAT International Inc. and Tromso Satellite Station. This agreement will provide for access to RADARSAT-2 data for commercial use; data distribution rights; data processing, including a regional processing centre; and broader cooperation in the area of developing the commercial business for RADARSAT-2 data.

2) Agreement for the Development of RADARSAT-2 Processing Systems

A cooperation agreement between MacDonald Dettwiler and Associates and Kongsberg Spacetec for the purpose of developing a business relationship which would include RADARSAT-2 technologies. This agreement will allow for the cooperative exploitation of proprietary technologies and software products relating to the RADARSAT-2 program including the licensing of its technologies to pursue business opportunities.

3) Agreement for the provision of LEOP TT&C Services for RADARSAT-2

An agreement between Tromso Satellite Station and Delta Launch Services for the provision of tracking, telemetry and control (TT&C) services during the LEOP period for RADARSAT-2

4) Agreement for the provision of TT&C Services for RADARSAT-2

An agreement between RADARSAT International Inc. and Tromso Satellite Station for the provision of backup TT&C services during the routine operation of the RADARSAT-2 satellite.

#### Article 5

Signing of this MOU by CSA and NRCan does not constitute Canadian Government endorsement of the Access Control privileges and restrictions contained in the Commercial Agreements mentioned in paragraph 1 of Article 4 above. Official approval of these agreements by the Government of Canada is required before they become effective. If, after 90 days from the signing of this Memorandum, the official approval of the said Commercial Agreements has not been provided by the Government of Canada, the Parties hereto will discuss the situation and thereafter, NSC will have the option of terminating this Memorandum.

#### Article 6

- 1) In order to implement cooperation under this Memorandum, the Parties will establish a Coordination Committee, whose membership will consist of representatives designated by CSA, NRCan and NSC.
- 2) The representatives will develop and maintain a dialog in order to identify opportunities for cooperation, discuss the relevant implementation details, and review the co-operative activities, undertaken pursuant to this Memorandum. The Coordination Committee will meet annually, alternately in each country if possible.
- 3) The Parties will consult each other on public announcements concerning cooperation under this Memorandum.

#### Article 7

- 1) Each specific cooperation project undertaken under this Memorandum will be the subject of an implementation arrangement agreed to by the concerned Parties, which implementation arrangement will form part of this Memorandum as an annex.
- 2) The Parties to each implementation arrangement will define the specific technical and detailed financial aspects of their cooperation by mutual consent.

#### Article 8

Subject to any laws and regulations of the respective countries, the Parties will make best efforts not to divulge, except to the extent agreed by the disclosing Party at the time of disclosure, information disclosed either in writing or orally. Any waiver of confidentiality must be made by the disclosing Party in writing.

#### Article 9

It is understood that the ability of each Party to undertake cooperation under this Memorandum is subject to the availability of funds and resources. No cost incurred by one Party will be assumed by another Party unless otherwise agreed to in writing under an implementation arrangement.

#### Article 10

This Memorandum may be amended by mutual written consent.

#### Article 11

- 1) This Memorandum will enter into effect on the date of signature by the Parties and will remain in effect for a period of five (5) years or until three years after the launch of RADARSAT-2, whichever is later. It may then be extended by mutual written consent.

- 2) Should one Party experience major difficulties that may affect its ability to pursue cooperation under this Memorandum, that Party will inform the other Parties forthwith. The Parties will then consult promptly in order to determine the appropriate steps to be taken under the circumstances.
- 3) Except as may be agreed between the Parties, expiration or termination of this Memorandum will not affect the terms of the activities which are in progress at the time of expiry or termination of this Memorandum.

Done in triplicate,

For the Canadian Space Agency  
of the Government of  
Canada

For the Norwegian Space Centre

Signature

S. S. SACHDEV

Name

Director General, Space Systems

Position

17 October, 2002

Date

Signature

ROLF SÖRVAR

Name

PRESIDENT

Position

Oct 17, 2002

Date

For Natural Resources Canada,  
Represented by the Canada Centre  
for Remote Sensing, of the Government of  
Canada

Signature

Marc D'Iorio

Name

A/Director General

Position

6/11/02

Date