STATEMENT OF INTENTION
BETWEEN
THE GEOLOGICAL SURVEY
OF THE
DEPARTMENT OF THE INTERIOR
OF THE UNITED STATES OF AMERICA
AND
THE SURVEYS, MAPPING AND REMOTE SENSING SECTOR
OF THE
DEPARTMENT OF ENERGY, MINES AND RESOURCES
OF CANADA
ON COOPERATION IN SURVEYS, MAPPING AND REMOTE
SENSING ACTIVITIES

ARTICLE I. SCOPE AND ACTIVITIES

The Geological Survey of the Department of the Interior of the United States of America (hereinafter referred to as "USGS") and the Surveys, Mapping and Remote Sensing Sector of the Department of Energy, Mines and Resources, Canada, (hereinafter referred to as "SMRSS"), hereby state their intention to pursue scientific and technical cooperation in the fields of topographic mapping, thematic mapping, remote sensing, geographic information systems, and related subjects in accordance with this Statement of Intention (hereinafter referred to as "SOI"), which establishes the procedure for cooperation.

This statement of intent by the parties provides a framework for the execution, as appropriate, of further Memoranda of Understanding or the arrangements for the exchange of scientific and technical knowledge and augmentation of scientific and technical capabilities of USGS and SMRSS (hereinafter referred to as the "Parties").

ARTICLE II. COOPERATIVE ACTIVITIES

Forms of cooperative activities under this SOI may consist of exchanges of technical information, exchange visits, cooperative research between engineers, scientists, and technicians of the Parties engaged in research, and data exchange in the field of surveys, mapping, and remote sensing within the scope of programs of the Parties. Other forms of cooperative activities as agreed in implementing arrangements are mutually acceptable. All activities are subject to applicable laws and policies of Canada and the United States.

ARTICLE III. SOURCE OF FUNDING

Cooperative activities under this SOI will be subject to and contingent upon the financial support and human resources available to the Parties. The terms of financing will be established by the Parties before the commencement of each activity.

ARTICLE IV. INTELLECTUAL PROPERTY

It is not anticipated that intellectual property will be generated by activities undertaken pursuant to this SOI. If, during the course of the development of an activity, it appears likely that intellectual property will be generated, the Parties will negotiate provisions for the allocation of intellectual property as part of a project annex or redesign the activity to avoid creating intellectual property.

ARTICLE V. REVIEW OF ACTIVITIES

The Parties will designate representatives who, at times mutually established by the Parties, will review the activities under this SOI.

ARTICLE VI. PROJECT ANNEXES

Any activity carried on under this SOI will be subject to an exchange of correspondence between the Parties relating to that activity and to any further arrangements as may be necessary in accordance with the laws and procedures of Canada and the United States. Such correspondence and related arrangements will be placed in project annexes to the SOI.

ARTICLE VII. NATURE OF THE SOI

The Parties do not intend that this SOI create obligations under international law.

ARTICLE VIII. EFFECTIVE DATE AND TERMINATION

This SOI will be effective upon signature by both Parties. The SOI may be terminated at any time by either Party upon ninety (90) days written notice to the other Party. The termination of this SOI will not affect the validity or duration of projects under this SOI which are initiated prior to such termination.

Done at Reston, Virginia, and Ottawa, Canada.

For the:	For the:
GEOLOGICAL SURVEY OF THE DEPARTMENT OF THE INTERIOR UNITED STATES OF AMERICA	SURVEYS, MAPPING AND REMOTE SENSING SECTOR, DEPARTMENT OF ENERGY, MINES AND RESOURCES GOVERNMENT OF CANADA
By:	By:
Name: Allen H. Watkins	Name: J.H. O'Donnell
Chief, Title: National Mapping Division	Title: ADM, Surveys Mapping & Remote Sensing
Date: <u>JAN 2 4 1992</u>	Date: MAR 1 2 1992

PROJECT ANNEX UNDER THE STATEMENT OF INTENTION BETWEEN THE GEOLOGICAL SURVEY OF THE UNITED STATES DEPARTMENT OF THE INTERIOR AND

SURVEYS, MAPPING, AND REMOTE SENSING SECTOR OF THE CANADIAN DEPARTMENT OF ENERGY, MINES AND RESOURCES FOR A PROJECT ON INTERNATIONAL BORDER MAPPING

I. GENERAL

The purpose of this Project Annex between the National Mapping Division (NMD) and the Canada Centres for Mapping and Surveying is to establish cooperation between the Parties and to coordinate their respective mapping programs on the international border with the object of supporting user requirements, including those of the International Boundary Commission (IBC).

II. SCOPE OF ACTIVITIES

The following scope of activities will be addressed by the NMD and by the Canada Centres for Mapping and Surveying:

- A. Establish general coordination of existing programs; sharing information on data that exist, are in process, or are planned.
- B. Identify the project areas that have high priority in support of the Parties' objectives and/or the needs of map users.
- C. Identify the essential elements (content, formats, symbology, and transferability of data) that need to be incorporated into the data bases of the respective Parties.
- D. Cooperate on a long-term program to digitize and revise the cartographic products required by both Parties in support of their missions and the needs of map users, including the responsibilities of the IBC.
- E. Develop a coordinated map revision pilot project. The initial effort will encompass an area equivalent to three 1:50,000-scale quadrangles. This effort will assist in evaluating the effectiveness of program coordination in the generation of products at various scales to satisfy requirements of map users.

III. SOURCE OF FUNDING

Each Party will be responsible for its own costs in carrying out this Project Annex. It is acknowledged by the Parties that the activities identified herein will not result in the transfer of funds between Parties. It is acknowledged that the ability of each Party to carry out its obligations under this Project Annex is subject to the availability of funds.

PROJECT ANNEX UNDER THE STATEMENT OF INTENTION BETWEEN

THE UNITED STATES GEOLOGICAL SURVEY (USGS) OF THE UNITED STATES DEPARTMENT OF THE INTERIOR

THE SURVEYS, MAPPING AND REMOTE SENSING SECTOR (SMRSS) OF THE CANADIAN DEPARTMENT OF ENERGY, MINES AND RESOURCES

ESTABLISH COOPERATION FOR PROCESSING AND ACCESSING GLOBAL CHANGE DATA

I. GENERAL

The purpose of this Project Annex between the EROS Data Center (EDC) of the USGS's National Mapping Division and the Canada Centre for Remote Sensing (CCRS) of SMRSS, is to establish cooperation between the Parties for processing satellite data and for providing access to directories and inventories describing the archive data holdings of the two Centers.

II. SCOPE OF ACTIVITIES

The following scope of activities will be addressed by EDC and CCRS.

- A. Establish and carry out cooperative production of composite data sets of registered, calibrated satellite imagery, with initial effort concentrated on creation of a prototype composite for North America from Advanced Very High Resolution Radiometer (AVHRR) 1-km Local Area Coverage data acquired during the summer of 1990. EDC will process data of the U.S., Mexico, and Central America, and CCRS will process the coverage of Canada, with the national data sets to be merged into a single North American product.
- B. Establish a network link between CCRS and EDC to provide access to directories and inventories describing the archive data holdings of the two Centers.
- C. Develop, document, implement, and coordinate standards for processing AVHRR data in such areas as calibration, atmospheric correction, map projection, and compositing period. Meetings to address the required standards began in 1990 and will continue in 1991-92 to clarify and document consistent processing standards between the two Centers.
- D. Establish a working group to exchange information on standards and procedures for creating and maintaining metadata and associated image query techniques, and comparison of procedures and techniques for calibration and processing of Landsat multispectral scanner and thematic mapper archive data and related data products. Of particular interest is the joint development of a position paper describing the status of Landsat calibration in the U.S. and Canada, and transfer of calibration techniques as applied at CCRS to EDC for possible incorporation into the design specifications for the EDC system planned for 1992.

III. SOURCE OF FUNDING

Each Party will be responsible for its own costs in carrying out this Project Annex. It is acknowledged by the Parties that the activities identified herein will not result in the transfer of funds between Parties. It is acknowledged that the ability of each Party to carry out its obligations under this Project Annex is subject to the availability of funds.

IV. INTELLECTUAL PROPERTY

Intellectual property rights under this Project Annex shall be observed as specified in Article IV of the Statement of Intention (SOI) between the USGS and SMRSS on Cooperation in Surveys, Mapping and Remote Sensing Activities.

V. REVISION AND MODIFICATION

This Project Annex can be revised or modified at any time by mutual agreement of the Parties in writing. Either Party may, with the consent in writing of the other Party, include the participation of other entities within its country as is desirable for any activities under the SOI and subject to the laws and policies of the U.S. and Canada.

VI. REVIEW OF ACTIVITIES

- A. For this project, the USGS designates $\underline{\text{Donald T. Lauer}}$ of EDC as principal liaison officer and $\underline{\text{June M. Thormodsgard}}$ of EDC as principal technical officer.
- B. For this project the SMRSS designates $\underline{\text{Leo Sayn-Wittgenstein}}$ of CCRS as principal liaison officer and $\underline{\text{Terry Fisher}}$ of CCRS as principal technical officer.
- C. The principal liaison officers will produce a report, at least once a year, and submit it to the signatories of this Project Annex (or their successors if a change in personnel should occur).

VII. ENTRY INTO FORCE AND TERMINATION

The Project Annex will enter into effect upon signature of the second Party and remain in effect until the termination of the SOI or the completion of the proposed projects, whichever comes first. This Project Annex may be terminated at any time by either Party upon ninety (90) days' written notice to the other Party.

FOR THE:

GEOLOGICAL SURVEY OF THE DEPARTMENT OF THE INTERIOR OF THE UNITED STATES OF AMERICA

1-24-96

Allen H. Watkins

Date

Chief, National Mapping Division

FOR THE:

SURVEYS, MAPPING AND REMOTE SENSING SECTOR OF THE DEPARTMENT OF ENERGY, MINES AND RESOURCES OF CANADA

J. H. O'Donnell Assistant Deputy Minister, SMRSS 92.03.12.