

No. 19684

**UNITED STATES OF AMERICA
and
CANADA**

Memorandum of Understanding concerning the Satellite Based Global Positioning and Navigation System (NAVSTAR) (with annex). Signed at Washington on 7 August 1978 and at Ottawa on 5 October 1978

Authentic text: English.

Registered by the United States of America on 27 March 1981.

**ÉTATS-UNIS D'AMÉRIQUE
et
CANADA**

Mémorandum d'accord relatif au système mondial de localisation et de navigation par satellite NAVSTAR (avec annexe). Signé à Washington le 7 août 1978 et à Ottawa le 5 octobre 1978

Texte authentique : anglais.

Enregistré par les États-Unis d'Amérique le 27 mars 1981.

MEMORANDUM OF UNDERSTANDING¹ BETWEEN THE UNITED STATES DEPARTMENT OF DEFENSE AND THE CANADIAN DEPARTMENT OF NATIONAL DEFENCE CONCERNING NAVSTAR GLOBAL POSITIONING SYSTEM

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Section I. INTRODUCTION AND OBJECTIVES

1. The Participants to this Memorandum of Understanding (MOU) are the United States Department of Defense (DOD) and the Canadian Department of National Defence (DND). The United States Air Force is authorized by DOD to be their representative.

2. The United States DOD is conducting a major research and development (R&D) effort directed to the establishment of a satellite based world-wide positioning and navigation system, known as the NAVSTAR Global Positioning System (GPS). Subsequently, DND initiated a related activity and now has a program to design and build prototype NAVSTAR GPS user equipment. The DND R&D program also allocates effort to the NAVSTAR GPS activity.

3. The objective of this MOU is to outline the terms and conditions for establishment of a joint research program whereby the DOD and DND can exchange information, arrange for the temporary transfer of equipment and coordinate mutually supporting research, development, test and evaluation activities on aspects of the existing DOD NAVSTAR GPS program as selected and agreed to by the Participants.

4. Arrangements concerning the operational use of the NAVSTAR GPS will be negotiated in due course as a separate matter.

¹ Came into force on 5 October 1978 by signature, in accordance with section XI (2).

Section II. SCOPE

1. The scope of this MOU includes exchange of information on the development of user equipments, the conduct of mutually agreed research activities and the provision of system engineering/design specifications and other scientific data on selected research and development activities.

2. DND has initiated a program to develop prototype user equipment and will undertake a research activity on the following projects in support of the NAVSTAR GPS:

- a. Aiding Strapdown Inertial Navigation (ASIN);
- b. User equipment antennas; and
- c. Measurement of high latitude effects on GPS Signal Propagation.

3. The DOD will provide information to assist DND in making a realistic evaluation of the total system concept and will provide further assistance, in accordance with its policies, for DND fabrication of its own prototype user equipment. Information resulting from the specified and agreed areas of research and development by each Participant will be made available to the other. This includes the exchange of relevant documentation and advice, assistance and discussion on matters relating to the research activities, development projects and test and validation facilities.

4. The DOD and DND will provide each other with reasonable access to the test and evaluation facilities and will, where feasible, include Participant developed user equipments in the overall test and validation phase of the user equipment program.

5. The DOD and DND will make arrangements for the temporary transfer of equipment appropriate to the research and development activities listed in paragraph 2 above. Each Participant will receive the results of all tests conducted using its equipment.

Section III. AGREEMENTS AND ARRANGEMENTS

1. The following agreements and arrangements apply to this MOU:

- a. NATO Agreement on the Mutual Safeguarding of Secrecy of Inventions relating to Defence and for which Applications for Patents have been made, done in Paris on 21 September 1960¹ and the Implementing Procedures for this Agreement approved by the North Atlantic Council on 7 March 1962 and subsequent amendments;²
- b. NATO Agreement on the Communication of Technical Information for Defence Purposes, done in Brussels on 19 Oct. 1970,³ and the implementing procedures for the NATO Agreement on the Communication of Technical Information for Defence Purposes, approved by the North Atlantic Council on 1 January 1971. C-M(68)11;
- c. Security Within the North Atlantic Treaty Organization. C-M(55)15 (Final);⁴ and

¹ United Nations, *Treaty Series*, vol. 394, p. 3.

² *Ibid.*, vol. 787, p. 316.

³ *Ibid.*, vol. 800, p. 5.

⁴ *Ibid.*, vol. 34, p. 243.

d. U.S.–Canada Industrial Security Agreement, as revised 20 December 1971.

2. This MOU does not change or in any way alter existing arrangements for the exchange of information related to NAVSTAR GPS.

Section IV. PROGRAM MANAGEMENT AND ORGANIZATION

1. There will be a Coordinating Committee consisting of a representative of each Participant or their appointees. Each representative may bring to meetings any additional personnel provided the other representative is notified in advance. The Coordinating Committee will meet at such times (at intervals not exceeding six months) and places as the members of the Committee so determine and all decisions will be by mutual agreement. The responsibilities of the Coordinating Committee are to:

- a. Administer the MOU;
- b. Approve or otherwise provide for mutual understanding as required throughout this MOU;
- c. Review the MOU and propose and coordinate amendments to the MOU from time to time as appropriate;
- d. Coordinate the activities of the Participants in pursuance of this MOU;
- e. Provide for or coordinate resolution of any dispute that may arise during the duration of this MOU;
- f. Receive notification of any proposal to terminate this MOU; and
- g. Arrange for preliminary coordination of materiel loans, visits, meetings and other routine matters pertaining to their responsibilities for implementation of the MOU.

2. Direct correspondence within any constraints imposed by national regulations is authorized between officers on the Coordinating Committee for the exchange of information, preliminary coordination of materiel loans, visits, meetings, and other routine matters pertaining to their responsibilities for implementation of the MOU.

3. National Authorities, Establishments and Project Staff pertinent to this MOU are listed in Annex A.

Section V. EXCHANGE OF INFORMATION

1. General conditions of release

a. The Participants understand that all information authorized for disclosure and exchanged under the conditions of this MOU is accepted subject to the following conditions, and that these conditions will be permanently affixed thereto in a conspicuous place or manner:

- (1) The information is only for use for the purpose of this MOU,
- (2) The information will be afforded substantially the same degree of security protection given to it by the sending Participant. The provisions in Security Agreements between the Participants will apply,
- (3) The information or knowledge of its possession will not be revealed to non-participating nations or third parties except with the prior approval of the sending Participant,

- (4) Information will not be used or disclosed in any manner that will prejudice the rights of the owner including the right to obtain patent or other like protection thereof,
- (5) Information that is subject to limited rights of use or disclosure will not be released to non-government parties without the prior written consent of the sending Participant,

b. A Participant originating information may release it without condition if it so desires and is permitted by its own laws and regulations. Information so released without conditions will carry no reference to this program;

c. The sending Participant will identify any information exchanged under the conditions of this program that is subject to limited rights of use or disclosure; and

d. Reasonable effort will be made to ensure that contractors selected by the Participants will, within the scope of this MOU, have equal treatment with regard to source documentation, specifications and preliminary data.

2. *Transmission of information*

a. Transmission of information will be in accordance with paragraphs of this section except that:

- (1) Oral and visual exchange of technical information at meetings and conferences is permissible between personnel authorized to make such exchange. Such exchanges will be noted and regarded as subject to the general conditions of paragraph 1 of this Section,
- (2) Classified patent applications and correspondence related thereto will continue to be dealt with according to procedures already established between the respective Participants,

b. For all classified information released, a receipt identifying that information in detail must be obtained and maintained by the sending Participant's Project Staff;

c. Regardless of security classification, all releases of documentary information must be recorded by the sending Participant's Project Staff;

d. The transmission of National documents and correspondence pertaining to this program will be via established channels;

3. *Release of proprietary technical information for information only*

a. Proprietary technical information which is known or believed to be privately owned or developed may be released "for information only" if any one of the following conditions is met:

- (1) The owner expressly consents to the proposed release,
- (2) The releasing or sending Participant, by contract or otherwise, has acquired the information under the circumstances which permit the proposed release,
- (3) Appropriate officials of the releasing or sending Participant determine that under their laws, regulations and policies they may permit release of the information without consent of the owner,

b. When technical information which is known or believed to be privately owned is released for information only under this paragraph, it will be subject to the receiving Participant accepting the general conditions and the following

additional conditions, a copy of which will be permanently affixed thereto in a conspicuous place or manner:

- (1) This information is accepted upon the understanding that it might be privately owned or developed,
- (2) This information is accepted solely for the purpose of information and will accordingly be treated as disclosed in confidence. The receiving Participant will use its best endeavors to insure that the information is not dealt with in any manner likely to prejudice the rights of the private owner thereof, including the right to obtain patent or other like statutory protection therefor.

4. *Release of privately owned information for use*

a. If subject to paragraph 1a(5) the information is submitted to non-government recipients, such recipients will receive the information on the conditions determined by the originating Participant. The consent of the originating Participant will be obtained prior to the release of such information to non-Government organizations; and

b. The receiving Participant will obtain the consent of the sending Participant if it desires that this information be made available for manufacture, or use, for defense purposes.

5. *Patent applications to be placed in secrecy*

a. Any request that an application for a patent to be placed in secrecy will be subject to the NATO Agreement on the Mutual Safeguarding of Secrecy of Inventions relating to Defense and for which Applications for Patents have been made, done in Paris on 21 September 1960 and the Implementing Procedures for this Agreement approved by the North Atlantic Council on 7 March 1962 and subsequent amendments; and

b. Each Participant will, where consistent with its laws and patent rules, use its best endeavors to supply reports to the other Participant, if it is known or believed that the invention subject matter has been embodied in any device or practiced in any process.

6. Subject to the foregoing, the provisions of the NATO Agreement on the Communication of Technical Information for Defence Purposes, done in Brussels on 19 Oct 1970, and the implementing procedures for the NATO Agreement on the Communication of Technical Information for Defence Purposes, approved by the North Atlantic Council 1 January 1971, will apply.

7. *Public release of information.* The release of information (formal releases or responses to queries) to the public concerning activities under this MOU should be made only after advance coordination between the Participants and mutual concurrence in the release. Questions addressed to nations concerning plans and activities of the other Participant should be referred to the respective Participant's Project Staff (see Annex A). The term "release" includes, but is not limited to, news articles, contract announcements, advertisements, brochures, photographs, motion picture films, technical papers, unclassified presentations at symposia, speeches, or displays on any phase of its program.

Section VI. VISITS AND ACCESS

1. The Participants will allow each other reasonable access to test and validation facilities, to contractors' industrial facilities in which activities covered

by this MOU are carried on, and to establishments agreed upon by the Coordinating Committee and appended to this MOU. This list of establishments may be modified by the Coordinating Committee.

2. The Project Staff may exchange information and approve in principle visit requests related to this program in accordance with the procedures listed at *a-d* below and subject to security provisions outlined in Section IX:

- a.* Each Participant will, given reasonable notice, arrange access to establishments and agencies' premises (see Annex A) for accredited representatives of the other Participant where this is necessary for the purpose of this MOU;
- b.* Requests for visits by personnel of one Participant to establishments or agencies' premises of the other will be processed using normal visit request channels and procedures for clearances. Visit requests will include a statement of confirmation that such personnel are actively engaged in work having a direct relationship with the subject covered by this MOU. After informal coordination between the Project Staffs to determine operational convenience, a formal visit request supported by certificates of security clearance for those making the visit will be made to the host Participant through official channels;
- c.* All visiting personnel will comply with the security regulations of the host Participant and any trade secrets or proprietary technical data including software disclosed in confidence to visitors will be subject to the provisions of this MOU; and
- d.* Any information such as trade secrets, or proprietary information, data or software disclosed in confidence to visitors while at an establishment will be treated as if supplied by formal means to the Participant sponsoring the visiting personnel.

Section VII. FINANCE, EXCISE AND TAXES

1. Subject to the availability of funds:

- a.* All costs for particular national projects or requirements relating to or incorporated in the NAVSTAR GPS program will be borne by the Participant sponsoring such particular projects or requirements;
- b.* Costs for the testing of one Participant's equipment with the other Participant's facilities will be a matter for separate negotiation;
- c.* Costs for the acquisition of data not otherwise available under this MOU and of equipment peculiar to the requirements of the other Participant will be borne by the Participant having the requirement for such data or equipment;
- d.* The costs of personnel exchanges, visits, travel and accommodation, etc. related to the program will be the responsibility of the Participant sending personnel; and
- e.* Insofar as existing national laws and regulations permit, the Participants will accord duty-free entry and tax-free treatment to articles imported as a consequence of arrangements made under this MOU.

Section VIII. BAILMENT

Upon taking possession of materiel supplied by one Participant to another on a loan basis for the purpose of research and development, the receiving Partic-

ipant will be responsible for such materiel and will return such materiel to the supplying Participant in as good condition as when received, reasonable wear and tear excepted, unless it is specifically stated that there is a requirement to test to destruction, in which case the supplying Participant will specify the method of disposal of any residue if applicable. If the receiving Participant fails to return such equipment, except items tested to destruction, the receiving Participant will pay to the supplying Participant an amount not to exceed the replacement value of such equipment less the amount determined to represent reasonable wear and tear for the period of the loan. Terms and conditions of loan will be mutually agreed before the loan takes place.

Section IX. SECURITY

1. The handling and treatment of classified material exchanged in connection with this MOU will be subject to existing arrangements between the Participants.

2. Exchanges of information will be within the limitations of respective national disclosure policies and in accordance with the procedures in the US-Canada Industrial Security Agreement as revised 20 Dec 1971.

3. Where special security arrangements are in force, such arrangements will continue to be effective. Nothing in this MOU will be interpreted as altering existing agreed procedures for the handling of information exchanged between the Participants.

4. The Project Staffs will be responsible for ensuring that all personnel concerned with activities under this MOU have appropriate security clearances.

5. Any personnel visiting the country of the other Participant in accordance with Section VI will comply with all security regulations of the host Participant.

Section X. AMENDMENT, DURATION AND TERMINATION

1. This MOU may be amended by mutual arrangement between the Participants hereto. (The annex to this MOU may be amended by the Coordinating Committee.) It may be terminated at any time by mutual consent of the Participants.

2. Any Participant may unilaterally withdraw from this MOU after giving the other Participant at least 90 days written notice of its intent to do so.

3. If written notice of intent to terminate is received by one Participant, there will be an urgent meeting between Participants to consider the orderly termination of the MOU, the effect on and disposition of any relevant activities, and to consider possible continuation of the activities in a modified form or by one of the Participants. Reports of progress up to the time of termination will be made available to each Participant.

4. The obligations of the Participants regarding the use, safeguarding and disclosure to others of information and material exchanged will continue to remain in effect after any termination or withdrawal as if there had been no termination or withdrawal.

5. Rights in the use of information accruing to a withdrawing Participant up to the date of his withdrawal will continue thereafter.

6. Any disagreement regarding the interpretation or application of this MOU will be resolved only by consultation between the Participants and will not be referred to an international tribunal or to any third party for settlement.

Section XI. EFFECTIVE DATE AND SIGNATURE

1. The foregoing represents the understanding reached between the United States Department of Defense and the Canadian Department of National Defence.

2. This MOU consists of Section I to XI inclusive and Annex A and will be effective from the date of the last signature.

3. This MOU is done in two original copies.

The United States Department of Defense:

Signature: [Signed — Signé]¹

Date: 7 Aug. 1978

Place: Washington, D.C.

The Canadian Department of National Defence:

Signature: [Signed — Signé]²

Date: 5 October 1978

Place: Ottawa, Ontario

A N N E X A

DND AND DOD AUTHORITIES, ESTABLISHMENTS AND PROJECT STAFF

A. DND

1. Authorities:

- a. Chief of Air Doctrine and Operations;
- b. Chief of Research and Development; and
- c. Chief of Engineering and Maintenance.

2. Establishments:

- a. Defence Research Establishment Ottawa;
- b. Directorate Air Requirements;
- c. Directorate Electronics Engineering and Maintenance; and
- d. Canadian Defence Liaison Staff (Washington).

3. Project Staff:

Director Technology Application (Communications and Electronics)
National Defence Headquarters
Ottawa, Ontario, K1A 0K2

¹ Signed by Gerald P. Dinneen — Signé par Gerald P. Dinneen.

² Signed by R. G. Crutchlow — Signé par R. G. Crutchlow.

B. *DOD*

1. Authorities:

- a. Assistant Director, Combat Support; Under Secretary for Defense (Research and Engineering);
- b. Directorate of Space, Deputy Chief of Staff for Research and Development;
- c. Deputy Chief of Staff, Systems Division; Air Force Systems Command; and
- d. Deputy for Space Navigation Systems, Space and Missiles Systems Organization.

2. Establishments:

- a. NAVSTAR Joint Program Office, Los Angeles Air Force Station, CA;
- b. Yuma Proving grounds, Yuma, AZ; and
- c. Air Force Avionics Laboratory, Wright-Patterson Air Force Base, Ohio.

3. Project Staff:

Communications and Navigation Division
Directorate of Space, DCS/R&D
Pentagon, 5D-340
Washington, D.C. 20330
