

## BRAZIL

### Earth Resources: Cooperative Research in Remote Sensing for Earth Surveys

*Agreement effected by exchange of notes*

*Signed at Rio de Janeiro January 18 and September 10, 1968;*

*Entered into force September 10, 1968.*

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*The American Deputy Chief of Mission to the Minister for Foreign Affairs of Brazil*

No. 482

RIO DE JANEIRO, January 18, 1968.

**EXCELLENCY:**

I have the honor to refer to the Memorandum of Understanding concerning cooperative research in remote sensing for earth surveys between the National Aeronautics and Space Administration (NASA) of the United States of America and the Comissão Nacional de Atividades Espaciais (CNAE) of Brazil, dated January 13, 1968.

The Memorandum of Understanding, which is set forth in the Annex to this Note, provides *inter alia* that its provisions shall be subject to confirmation by the respective Governments of the two agencies by an exchange of notes, and that the provisions shall then enter into force on the date of the exchange.

I now have the honor to inform you that the Government of the United States of America confirms the provisions of the Memorandum of Understanding referred to above. If the Government of Brazil would also confirm the provisions of this Memorandum, I have the honor to propose that my note and Your Excellency's reply to that effect shall constitute an agreement between our two governments regarding this matter, which shall enter into force on the date of your reply and shall terminate on January 1, 1971 unless extended as may be mutually agreed.

Accept, Excellency, the renewed assurance of my highest consideration.

WILLIAM BELTON

His Excellency

JOSÉ DE MAGALHÃES PINTO,  
*Minister for Foreign Affairs,  
Rio de Janeiro.*

**MEMORANDUM OF UNDERSTANDING BETWEEN THE  
COMISSAO NACIONAL DE ATIVIDADES ESPACIAIS AND  
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

The Comissao Nacional de Atividades Espaciais of Brazil and the National Aeronautics and Space Administration of the United States of America, desiring to continue the valuable cooperation established in previous space research projects, affirm their desire to carry out a cooperative program in association with other Brazilian and US research groups, the purpose of which is:

- 1) to develop techniques and systems for acquiring, interpreting, and utilizing earth resources data from aircraft in order to determine the potential utility of spacecraft applications of these techniques;
- 2) to contribute to Brazilian and United States competence in an advancing technology, aiming for additional scientific breadth and depth for such technology;
- 3) to provide for additional scientific and technical experience and research data useful in the development of earth resources survey techniques;
- 4) to familiarize Brazilian personnel with the acquisition, processing, reduction and analysis of remote sensor data;
- 5) to identify promising applications of remotely sensed earth resources data in Brazil and the United States;
- 6) to develop compatible data management systems to facilitate the exchange of data between the US and Brazil.

This program is described in detail in Annex A, entitled "Plan for Cooperation Between Brazilian and US Agencies on Research of Remote Sensing for Earth Survey," dated August 22, 1967. The Plan is based upon detailed discussions that have taken place within and among Brazilian and US agencies.

It is contemplated that the program will be divided into four phases. They are:

**PHASE A** - Cooperative Study and Research in the US and Establishment of a Program Structure by Brazil.

**PHASE B** - Program Development (selection and development of test sites in Brazil by Brazilian User Agencies; procurement of instrumented Brazilian aircraft; and establishment of a Brazilian data processing and reduction center by CNAE).

**PHASE C** - Brazilian and NASA Aircraft Flights over Brazilian Test Sites.

**PHASE D** - Operational Flights by Brazilian Aircraft.

As the program develops, it may become desirable to modify the Plan in the light of new information that becomes available. Therefore, the second, third, and fourth phases may be modified by mutual agreement upon the conclusion of the preceding phases, and each successive phase will be undertaken with the agreement of both parties that further program development is desirable and feasible.

To carry out this program, CNAE and NASA, in their capacities as co-ordinating agencies for the Brazilian and US research teams respectively, agree to use their best efforts to ensure that the responsibilities designated in Tables I-IV of Annex A in the columns entitled "Prime Responsibility," are effectively discharged. These responsibilities are described further throughout Annex A, pages 4-19. Additionally, each agency will assist with customs clearance for the equipment required for the project.

No exchange of funds is contemplated between the two research teams. Each side will bear the cost of discharging its respective responsibilities, including travel and subsistence of its personnel and transportation charges on all equipment for which it is responsible.

CNAE and NASA will each designate a Program Manager to be responsible for co-ordinating the agreed functions and responsibilities of each research team with the other. The Program Managers will be co-chairman of a Joint Working Group, which will be the principal instrument for assuring the execution of the project and for keeping both sides continuously informed of project status at each stage. This Working Group may establish scientific and technical subcommittees and other subcommittees as required to carry out the program.

All data acquired in the course of the joint program shall be made available to both teams. Primary responsibility for the analysis of data will reside in general with the team over whose national territory the data were obtained. However, if either team should identify data of economic significance concerning the territory of the other team, such data will be brought immediately to the attention of the other team. The scientific results of the program will be made freely available to the scientific community.

This Memorandum is conditioned upon an exchange of notes between the two Governments confirming its provisions. It shall enter into force on the date of this exchange of notes.

FERNANDO DE MENDONCA

*Comissao Nacional de  
Atividades Espaciais*

*Date January 13, 1968*

JAMES E. WEBB

*National Aeronautics and  
Space Administration*

*Jan. 13, 1968*

*The Minister for Foreign Affairs of Brazil to the  
American Ambassador*

MINISTERIO DAS RELAÇÕES EXTERIORES

DNU/DAI/DAS/230/502.21(22)

EM 10 DE SETEMBRO DE 1968.

SENHOR EMBAIXADOR,

Tenho a honra de acusar recebimento da nota nº 482, de 18 de janeiro de 1968, na qual Vossa Excelência faz referência ao memorandum de entendimento relativo à colaboração em pesquisa sobre sensores remotos para levantamento de recursos terrestres, firmado entre o grupo de organização da Comissão Nacional de Atividades Espaciais (CNAE), do Brasil, e a "National Aeronautics and Space Administration (NASA)", dos Estados Unidos da América, em 13 de janeiro de 1968.

2. O memorandum de entendimento em apreço prevê, *inter alia*, que suas disposições estão sujeitas à confirmação dos respectivos Governos mediante troca de notas, a partir de cuja data entrarão em vigor.

3. O Governo brasileiro deseja deixar constância de seu entendimento de que todos os dados relacionados com o programa em questão, obtidos por espaçonaves da NASA sobre o território brasileiro, em coordenação com as informações provenientes de aeronaves, durante o transcurso do programa, serão postos à disposição das autoridades brasileiras interessadas. É também o entendimento do Governo brasileiro que a disponibilidade dos dados que forem adquiridos após o período de vigência do acôrdo será objeto de futuros acertos.

4. Fica, outrossim, entendido que equipes brasileiras participarão, em conjunto com equipes norte-americanas, das missões da NASA, na fase C do programa.

5. Nessa inteligência, e dentro do espírito do Acôrdo Básico de Cooperação Técnica de 19 de dezembro de 1950, o Governo brasileiro confirma as disposições do memorandum de entendimento, e considera que a nota de Vossa Excelência de 13 de janeiro último e a presente comunicação constituem acôrdo entre nossos dois Governos, que entrará em vigor na data em que fôr recebida a nota de Vossa Excelência que confirme a aceitação dos termos dos parágrafos 3 e 4 supra, e terminará em 1º de janeiro de 1971, podendo ser prorrogado mediante acôrdo mútuo.

JOSÉ DE MAGALHÃES PINTO

A Sua Excelência  
o Senhor JOHN W. TUTHILL,  
*Embaixador dos  
Estados Unidos da América.*

## Translation

## MINISTRY OF FOREIGN AFFAIRS

DNU/DAI/DAS/230/562.21(22)

SEPTEMBER 10, 1968

MR. AMBASSADOR:

I have the honor to acknowledge receipt of note No. 482, of January 18, 1968, in which Your Excellency refers to the memorandum of understanding on cooperation on research of remote sensing for earth resources survey, signed between the Comissão Nacional de Atividades Espaciais (CNAE) of Brazil and the National Aeronautics and Space Administration (NASA) of the United States of America on January 13, 1968.

2. The memorandum of understanding establishes, *inter alia*, that its provisions shall be subject to confirmation by the two Governments through an exchange of notes and that it shall enter into force on the date of the exchange.

3. The Government of Brazil wishes to make note of its understanding that all data relating to the program in question acquired by NASA spacecraft over Brazilian territory, in coordination with data acquired by aircraft during the course of the program, shall be made available to the appropriate Brazilian authorities. The Government of Brazil further understands that the provision of data that may be acquired after the period of the agreement shall be subject to future judgment.

4. It is also understood that Brazilian teams will participate with United States teams in NASA missions in Phase C of the program.

5. With this understanding, and in the spirit of the Basic Agreement on Technical Cooperation of December 19, 1950, [1] the Government of Brazil confirms the provisions of the memorandum of understanding, and considers that Your Excellency's note of January 13 [2] last and this communication constitute an agreement between our two Governments, which shall enter into force on the date of receipt of Your Excellency's note confirming acceptance of the terms of paragraphs 3 and 4 above, and shall terminate on January 1, 1971, although it may be extended by mutual agreement.

JOSÉ DE MAGALHÃES PINTO

His Excellency

JOHN W. TUTHILL,  
*Ambassador of the  
United States of America.*

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<sup>1</sup> TIAS 2239, 2626; 2 UST 845; 3 UST 4963.

<sup>2</sup> Should read "January 18."

*The American Ambassador to the Minister of Foreign Affairs of Brazil*

No. 903

RIO DE JANEIRO, September 10, 1968

**EXCELLENCY:**

I have the honor to acknowledge receipt of your note No. 236 of September 10, 1968, in which reference is made to our note No. 482 of January 18, 1968 and the Memorandum of Understanding on cooperative research in remote sensing for earth resources surveys signed between NASA and CNAE on January 13, 1968.

The Government of the United States is pleased to note that the Government of Brazil desires to confirm the provisions of the Memorandum of Understanding and, specifically, contemplates availing itself of the provisions of the Memorandum of Understanding designated as Task C-2: NASA and Brazilian Aircraft Flights, and Task D-3: Exchange of Data and Analyses.

The Government of the United States is therefore pleased to confirm the Government of Brazil's understanding set forth in paragraphs 3 and 4 of your note No. 236 of September 10, 1968, which note and this reply shall, therefore, as you propose, together with our note No. 482 of January 18, 1968 constitute an agreement between our two Governments, within the spirit of the Basic Agreement on Technical Cooperation dated December 19, 1950.

The Government of the United States would be pleased, as the period of the agreement draws to a close, to consider jointly with the Government of Brazil upon the basis of knowledge and experience gained during the program, mutually agreeable arrangements whereby appropriate data may continue to be made available.

Accept, Excellency, the renewed assurance of my highest consideration.

JOHN W. TUTHILL

His Excellency

JOSÉ DE MAGALHÃES PINTO,  
*Minister of Foreign Affairs,*  
*Rio de Janeiro.*