

No. 18643

**UNITED STATES OF AMERICA
and
BRAZIL**

**Exchange of notes constituting an agreement concerning
sounding rockets and balloons for space research (with
memorandum of understanding). Brasília, 14 November
1978 and 24 January 1979**

Authentic texts of the Exchange of notes: English and Portuguese.

Authentic text of the Memorandum of Understanding: English.

Registered by the United States of America on 18 April 1980.

**ÉTATS-UNIS D'AMÉRIQUE
et
BRÉSIL**

**Échange de notes constituant un accord sur les fusées et
ballons-sondes pour la recherche atmosphérique (avec
mémoire d'accord). Brasília, 14 novembre 1978 et
24 janvier 1979**

Textes authentiques de l'Échange de notes : anglais et portugais.

Texte authentique du Mémoire d'accord : anglais.

Enregistré par les États-Unis d'Amérique le 18 avril 1980.

EXCHANGE OF NOTES CONSTITUTING AN AGREEMENT¹ BETWEEN THE UNITED STATES OF AMERICA AND BRAZIL CONCERNING SOUNDING ROCKETS AND BALLOONS FOR SPACE RESEARCH

I

The American Ambassador to the Brazilian Minister of External Relations

EMBASSY OF THE UNITED STATES OF AMERICA
BRASÍLIA

November 14, 1978

No. 525

Excellency:

I have the honor to refer to the Memorandum of Understanding between the United States National Aeronautics and Space Administration (NASA) and the Brazilian Commission for Space Activities (COBAE) concerning atmospheric research sounding rocket and balloon cooperation dated November 14, 1978, attached as an annex to this note. Recognizing the close cooperation that has been built in this area since 1965, the Government of the United States of America confirms the provisions of the Memorandum of Understanding referred to above.

It is understood between the parties that the operations envisaged in the Memorandum of Understanding annexed to the present note shall not interfere with the program of activities of the Barra do Inferno Rocket Launching Center.

If the Government of the Federative Republic of Brazil would also confirm the provisions of the Memorandum of Understanding, I propose that my note and your reply to that effect shall constitute an agreement between our two Governments regarding this matter which will enter into force for two years, subject to extension as may be agreed by the parties and our Governments.

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

[Signed — Signé]²

His Excellency Antonio Francisco Azeredo da Silveira
Minister of External Relations
Brasília, D.F.

MEMORANDUM OF UNDERSTANDING BETWEEN THE BRAZILIAN COMMISSION FOR SPACE ACTIVITIES (COBAE) AND THE UNITED STATES NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

1. The United States National Aeronautics and Space Administration (NASA) and the Brazilian Commission for Space Activities (COBAE) agree to pursue a cooperative sounding rocket and balloon launching effort to be implemented on the Brazilian side by

¹ Came into force on 24 January 1979, in accordance with the provisions of the said notes.

² Signed by Robert Sayre — Signé par Robert Sayre.

the Institute for Space Research (INPE) of the National Council for Scientific and Technological Development (CNPq) and the Barreira do Inferno Rocket Launching Center (CLFBI) of the Air Force (MAER) to study the concentrations of various atmospheric constituents to aid in the understanding of the earth's ozone layer, its generation and depletion, and to help calibrate and verify satellite remote sensors. This cooperation will supplement measurements being made from Wallops Island, Virginia (37° 50' N) and other sites for high earth latitude coverage. Launchings from Natal at 5° 55' S will provide the near Equatorial data needed for broad latitudinal coverage. It is understood that CNPq/INPE will be the coordinating agency on the Brazilian side.

It is planned that rocket launchings for ozone and meteorological measurements, each approximately 15 times per year (total of 30 launchings per year), and a balloon-sonde launching approximately twice a month, will be carried out by CNPq/INPE and MAER/CLFBI, for an initial period of two years.

2. To carry out this project, NASA will use its best efforts to:

A. Provide the Brazilian side with the following equipment:

- Rocket systems (rocket motors and payloads);
- Launchers for the unique NASA supplied rockets;
- Radiosonde tracker (GMD) modification kit and special recording and display equipment;
- Unique payload checkout equipment;
- Ozone balloonsondes;
- Portable ozonesonde calibration equipment.

B. Process data from rocket observations and provide copies of processed data to CNPq/INPE.

C. Provide to CNPq/INPE satellite data which correlates with the specific Brazilian rocket and balloon observations.

D. Provide training for approximately three Brazilian specialists at Wallops Flight Center for approximately three weeks, to be followed by three weeks of training in Natal to be conducted by NASA personnel. This training will cover the set-up and operation of ground equipment and the handling and processing of payloads.

3. The Brazilian side will use its best efforts to:

A. Conduct rocket launchings for ozone and meteorological measurements (after the training period), each approximately 15 times per year (total of 30 launchings per year) according to a schedule to be provided by NASA. These launchings will be in conjunction with NASA requirements such as satellite over-pass times.

B. Provide range support (data acquisition services, rocket and payload preparation).

C. Provide to NASA, for each rocket launch, reduced radar tracking data in a presentation similar to the Exametnet format.

D. Calibrate and launch, ozone balloonsondes on a twice per month basis; data from these balloonsondes will be reduced and provided to NASA.

E. Provide NASA with the results of any data analysis resulting from this effort.

F. Provide ground-based measurements in accordance with WMO standards using a Dobson spectrophotometer.

4. The following additional understandings are confirmed:

A. CNPq/INPE will continue to conduct routine weekly temperature and wind observations in conjunction with Exametnet. These data are essential in interpreting ozone profiles.

- B. CNPq/INPE and NASA will designate a project manager to be responsible for coordinating the agreed functions and responsibilities of each agency with the other in the implementation of this agreement.
- C. Each agency will bear the costs of discharging its respective responsibilities, including travel and subsistence for its own personnel and transportation charges on all equipment for which it is responsible.
- D. Items of equipment provided to the Brazilian side by NASA under this agreement and deemed by NASA to be nonexpendable will be returned to NASA at the expiration of the agreement. NASA will pay for the transportation and handling of such equipment.
- E. COBAE and NASA will use their best efforts to arrange for free customs clearance of equipment required for this project.
- F. Release of public information regarding this cooperative project may be made by each agency for its own activities as appropriate and, insofar as the participation of the other is involved, after suitable coordination.
- G. The ability of CNPq/INPE and MAER/CLFBI and NASA to carry out activities under this agreement is subject to the availability of appropriated funds.

5. This agreement will enter into force upon exchange of Diplomatic Notes between the Governments of the United States of America and the Federative Republic of Brazil and shall continue in force for two years, subject to extension as may be agreed between COBAE and NASA and endorsed by the respective Governments.

II

[PORTUGUESE TEXT — TEXTE PORTUGAIS]

MINISTERIO DAS RELAÇÕES EXTERIORES

Em 24 de janeiro de 1979

DNU/DCS/DAI/07/692.2(B46)(B13)

Senhor Embaixador,

Tenho a honra de acusar o recebimento da Nota no. 525, de 14 de novembro de 1978, de Vossa Excelência cujo teor em português é o seguinte:

« Excelência, Tenho a honra de me referir ao Memorando de Entendimento entre a Administração Nacional para Espaço e Aeronáutica (NASA) e a Comissão Brasileira de Atividades Espaciais (COBAE), acerca da cooperação em pesquisa atmosférica com foguetes de sondagem e balões, datado de 14 de novembro de 1978, o qual consta como anexo à presente Nota. Reconhecendo a estreita cooperação implementada nessa área desde 1965, o Governo dos Estados Unidos da América confirma as disposições do Memorando de Entendimento referido acima.

Fica entendido entre as Partes que as operações contempladas no Memorando de Entendimento em anexo à presente Nota não interferirão com o programa de atividades do Centro de Lançamentos de Foguete de Barreira do Inferno.

Caso o Governo da República Federativa do Brasil também confirme as disposições do Memorando de Entendimento, proponho que minha Nota, e sua resposta nesse sentido, constituam um acordo entre nossos dois Governos

no tocante à matéria, o qual entrará em vigor por dois anos, passível de prorrogação se assim concordarem as Partes e nossos Governos.

Aceite, Excelência, os renovados protestos de minha mais alta consideração. »

2. Em resposta, informo Vossa Excelência de que o Governo brasileiro concorda com os termos da Nota acima transcrita, a qual, juntamente com a presente, passa a constituir um Acordo entre nossos dois Governos, a entrar em vigor na data de hoje.

Aproveito a oportunidade para renovar a Vossa Excelência os protestos de minha mais alta consideração.

Anexo: 02

[Signed — Signé]¹

A Sua Excelência o Senhor Robert Sayre
Embaixador Extraordinário e Plenipotenciário
dos Estados Unidos da América no Brasil

[TRANSLATION² — TRADUCTION³]

The Brazilian Minister of External Relations to the American Ambassador

MINISTRY OF EXTERNAL RELATIONS

January 24, 1979

DNU/DCS/DAI/07/692.2(B46)(B13)

Mr. Ambassador:

I have the honor to acknowledge receipt of Your Excellency's note No. 525 of November 14, 1978, the text of which in Portuguese reads as follows:

[See note I]

In reply, I inform Your Excellency that the Brazilian Government concurs with the terms of the note transcribed above, which together with this note, constitutes an agreement between our two Governments to enter into force on today's date.

I avail myself of this opportunity to renew to Your Excellency the assurances of my highest consideration.

A. F. AZEREDO DA SILVEIRA

Enclosures: 2

His Excellency Robert Sayre
Ambassador Extraordinary and Plenipotentiary
of the United States of America

¹ Signed by A. F. Azeredo da Silveira — Signé par A. F. Azeredo da Silveira.

² Translation supplied by the Government of the United States.

³ Traduction fournie par le Gouvernement des Etats-Unis.