

No. 14968

UNITED STATES OF AMERICA
and
ITALY

Memorandum of understanding between the Italian Telespazio (S.p.A.) and the United States National Aeronautics and Space Administration (NASA). Signed at Washington on 16 April 1974 and at Rome on 9 May 1974

Authentic text: English.

Registered by the United States of America on 19 August 1976.

ÉTATS-UNIS D'AMÉRIQUE
et
ITALIE

Mémorandum d'accord entre Italian Telespazio (S.p.A.) et l'Administration nationale de l'aéronautique et de l'espace des États-Unis (NASA). Signé à Washington le 16 avril 1974 et à Rome le 9 mai 1974

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MEMORANDUM OF UNDERSTANDING¹ BETWEEN THE ITALIAN TELESPAZIO (S.P.A.) AND THE UNITED STATES NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

1. The purposes of this agreement are to set forth the responsibilities of the parties and the procedures for providing for (a) direct access, by a ground station to be built and operated in Italy by Telespazio in a project designated TERRA, to NASA ERTS-1 and ERTS-B satellite data and to the data from any future ERTS experimental satellites which NASA may launch, and (b) availability to NASA of data acquired by the Telespazio station pursuant to (a) above, subject to the provisions which follow.

2. For its part, Telespazio will use its best efforts to:

- (a) Develop and operate a facility at Fucino for acquisition and processing of ERTS data as well as other non-space data of interest to Telespazio entirely at its own cost, including the cost of the necessary communication links with the NASA ERTS OCC/NDPF (Operations Control Center/NASA Data Processing Facility) at the Goddard Space Flight Center.
- (b) Provide during Phase B, as described below, processed data to ERTS Principal Investigators duly selected by NASA whose test sites are in range of the Telespazio data acquisition station for the period of coverage promised to them and under the same conditions as NASA provides data to Principal Investigators. Should another country in the region establish ERTS facilities, Telespazio's obligation to provide data to Principal Investigators in that country will terminate as soon as the new facilities are capable of providing this service. Telespazio will continue to serve Principal Investigators in countries within range of the Telespazio station which do not have ERTS facilities unless and until alternative arrangements are concluded.
- (c) Provide, to the best of its ability, any support requested by NASA in a spacecraft emergency condition, such as the provision of data indicated in paragraph 2(e) below should the on-board tape recorders fail.
- (d) Provide quarterly reports in English to NASA on the progress and results of the TERRA experiment with respect especially to the experience with a multi-purpose, flexible facility, the ability to apply data and analyses obtained to real-time decision making, and the principal applications made.
- (e) Make available to NASA, on a cost-free basis and in the NASA-preferred format (negative imagery format with identifying annotation) such copies of the ERTS data it acquires and processes as NASA may request in reasonable quantities (except in emergency conditions as noted in paragraph 2(c) above). These data provided to NASA by Telespazio will be made available to the public from U.S. sources on precisely the same terms as data acquired directly by NASA. These provisions apply as well to selected duplicate compatible tapes. Public requests (for data) from the area covered by the Fucino station will be referred as appropriate to Telespazio or to other regional facilities which may be established in the area. Coordination among such facilities would be highly desirable.

¹ Came into force on 9 May 1974 by signature, in accordance with paragraph 7.

- (f) Include as output data from the Fucino station Computer Compatible Tapes (CCT's) and 70mm roll film.
3. For its part, NASA will use its best efforts to:
- (a) Program ERTS-1 and any subsequent experimental ERTS-type satellites to acquire data in areas accessible for direct read-out by the Telespazio station. The frequency of such programming will be subject to mutual agreement by the Project Managers (see below). It will be limited to test purposes in Phase A and expanded as agreed in Phase B.
- (b) Provide to Telespazio as necessary antenna pointing elements for acquisition of the ERTS spacecraft transmitted signal and updated definitive orbital information for use in processing the data.
- (c) Process, on a time-available basis and as may be agreed by the Project Managers, a limited number of data tapes acquired by Telespazio in Phase A for initial evaluation and calibration of the station's performance.
- (d) Continue to provide, during Phase A, ERTS data to NASA-selected Italian Principal Investigators to the extent of the time-coverage promised for them.
- (e) Make available, for comparison purposes, a limited number of selected NASA data tapes covering portions of the area accessible to the Telespazio station.
- (f) Keep Telespazio informed of other prospective ERTS facilities in the area so that regional coordination can be effected.

4. The course of the project will be divided into two phases. Phase A is for the test and checkout of the Fucino station. Phase B is for the following period of routine data acquisition and processing at the Fucino station. Phase A will begin when the Project Managers agree on the readiness of the technical and operational interfaces required to carry out the project and on a schedule for accomplishing Phases A and B. Phase A will be concluded and Phase B begun by mutual agreement of the Project Managers.

5. To implement the agreement, Telespazio and NASA will each designate Project Managers to be responsible for coordinating the agreed functions and responsibilities of each side with the other. The Project Managers will be co-chairmen of a Joint Working Group (JWG) which will be the principal instrument for assuring the execution of the TERRA project and for keeping both sides continuously informed of the project status. The Joint Working Group may establish such committees as required to carry out the project.

6. The following additional understandings are confirmed:

- (a) Telespazio will resolve any radio frequency difficulties to the satisfaction of the parties concerned so this cooperation can proceed without difficulty.
- (b) The responsibility for spacecraft control, health and status will remain with NASA throughout the program.
- (c) There will be no exchange of funds between Telespazio and NASA for ERTS-1 operations. This agreement assures Telespazio access to the ERTS-B satellite throughout its design life of one year without charge by NASA. It is understood, however, that NASA may thereafter establish some cost-sharing arrangement, such as users' fees, for participating ground stations.
- (d) It is understood at this stage that NASA cannot make a firm commitment for future ERTS-type satellites.

- (e) Decisions taken by the International Telecommunications Union require that radio frequencies for future operational ERTS satellites will differ from those currently used for experimental satellites.
- (f) It is understood that Telespazio and the other Italian agencies participating in the program will pursue an ERTS open-data policy comparable to that of NASA and other U.S. agencies participating in the program, particularly with respect to the public availability of data. Telespazio will thus ensure unrestricted public availability of the earth resources satellite data at a fair and reasonable charge based on actual cost.
- (g) Training and exchange of technical personnel will take place as mutually agreed.
- (h) Telespazio and NASA will freely share and exchange data and technical information as mutually agreed and consistent with the laws and regulations of the two countries.
- (i) It is understood that this project is experimental in character and subject to change in accordance with changes in technical requirements and opportunities.
- (j) Telespazio and NASA will use their best efforts to arrange for free customs clearance for equipment required in the program.
- (k) Telespazio and NASA may each release general information to the public regarding the conduct of their own portion of the project as desired and, insofar as participation of the other agency is concerned, after suitable coordination.
- (l) Telespazio and NASA will assure that the project is appropriately recorded in still and motion picture photography and that the photography is made available to the other agency upon request for public information purposes.
- (m) It is understood that the ability of Telespazio and NASA to carry out the responsibilities of this agreement is subject to the availability of appropriated funds.

7. This Memorandum of Understanding shall enter into force upon signature by Telespazio and NASA and shall continue in force for four years, subject to extension as may be agreed by Telespazio and NASA.

For Telespazio:
Telespazio
S.p.A. per le Comunicazioni
Spaziali Presidente
Amministratore Delegato,
MARCELLO RODINO

Date: 9-V-74

For the National Aeronautics
and Space Administration:

[Signed]
JAMES C. FLETCHER
Administrator

Date: 4/16/74