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COMMITTEE ON THE PEACEFUL USES OF
OUTER SPACE

INFORMATION FURNISHED IN CONFORMITY WITH GENERAL ASSEMBLY RESOLUTION 1721 B (XVI) BY STATES LAUNCHING OBJECTS INTO ORBIT OR BEYOND

Note verbale dated 16 October 1978 from the Permanent Representative of Italy to the United Nations addressed to the Secretariat

The Permanent Representative of Italy to the United Nations presents his compliments to the Secretary-General of the United Nations and, in conformity with General Assembly resolution 1721 (XVI), has the honour to transmit herewith information concerning a space object which was launched into geostationary orbit by Italy on 25 August 1977 with the co-operation of the National Aeronautics and Space Administration of the United States of America.

1. Name of satellite: SIRIO (Satellite Italiano Ricerca Industriale Orientata - Industrial Research - Oriented Italian Satellite)

2. Launching vehicle: Delta launch vehicle 2313

3. Date and place of launch:

   (1) Date: 23:50:00 GMT, 25 August 1977

   (2) Place: Eastern Test Range, Cape Canaveral, Florida, United States of America

4. Launching Organization: CNR - Consiglio Nazionale delle Richerche (National Research Council) of Italy, and:
   NASA - National Aeronautics and Space Administration of the United States of America

5. Orbital parameters:

   (a) Period: 1436 minutes

   (b) Inclination: $\leq 0.3^{\circ}$

   (c) Perigee: 35.788 km

   (d) Apogee: 35.788 km

   (e) Geographical longitude on geostationary orbit: 15° W

6. General function:

   SIRIO is a spin stabilized geostationary experimental telecommunication satellite. The satellite is equipped with basic system such as:

   (1) TLM (Telemetry) 136.14 MHz

   (2) TCM (telecommand) 148.26 MHz

   (3) Power supply

   (4) Thermal control

   (5) Attitude and orbit control

   (6) Apogee boost motor

   The experiment performs propagation and telecommunication experiments to study the influence of various meteorological conditions on the propagations medium at the 12 and 18 GHz super high frequencies (SHF) bands.

The SHF experiment consists of a transponder assembly and a mechanically despun antenna.

The principal objectives of the SHF telecommunications experiments are to:

- perform a systematic evaluation of the propagation performance at the 12 and 18 GHz bands;

- measure absolute and relative attenuation at the edges of the band;

- perform a narrow band telecommunication experiment with multiple access in frequency division;

- perform a wideband telecommunications experiment for a single television link.

7. Characteristic of satellite:

(1) Weight: at launch: 398 kg
in orbit: 218 kg

(2) Physical configuration and dimensions:

(a) Configuration: cylindrical satellite

(b) Height: 1981 millimetres

(c) Diameter: 1433 millimetres

(3) Attitude control subsystem: spin stabilization

(4) Nominal life: two years.
