

INFORMATION REPORT

PREPARED AND DISSEMINATED BY
CENTRAL INTELLIGENCE AGENCY

COUNTRY

Pakistan

SUBJECT

Observation of Sputnik I

DATE OF INFORMATION

PLACE AND DATE ACQUIRED

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DOCUMENTARY

In file in the CIA Library is a copy of a letter written by SW Mequi of the Pakistan Meteorological Department on 6 Dec 57, to the CRAGI Reporter on Rockets and Satellites, Uccle, Belgium. The subject is as follows: "Russian Satellite Observations in Pakistan." UNCLASSIFIED

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1970

No.

PAKISTAN METEOROLOGIC

From: Mr. S. Z. JAGOTI,
THE DIRECTOR,

METEOROLOGICAL SERVICE,

KARACHI.

To:

L.V. Berkner Esqr.,
SIGHT Reporter on Space & Satellites,
C/o Service du Rayonnement, P. R. K.
3, Avenue Circulaire,
Brussels, BELGIUM.

Scatt. Block Nos. 1-3, P.M.
Karachi (Pakistan) 1970

Subject: RUSSIAN SATELLITE OBSERVATIONS IN PAKISTAN.

Re: Sir,

I feel gratified to inform you that observations of the Russian artificial earth satellite (Sputnik I) were started by the scientists of the Pakistan Meteorological Service in accordance with standing arrangements immediately after news about the release of the satellite reached in this country.

I am enclosing a summary of the preliminary observations reported along with my comments, whenever necessary. A more detailed report will follow in due course.

I shall be glad to have your comments on the enclosed summary of observations.

Yours sincerely,

(S.Z. JAGOTI)

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On October 9, 1952, the following was observed:

- October 9, 1952, 0900 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 1000 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 1100 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 1200 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 1300 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 1400 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 1500 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 1600 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 1700 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 1800 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 1900 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 2000 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 2100 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 2200 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 2300 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.
- October 9, 1952, 2400 hrs. 00T -
A short burst of pulses was received.
The pulses were very faint.

In the afternoon, the first series of pulses was recorded. Signals were received by the radio station, R. H. D. Radio station, R. H. D. It was observed that the carrier wave was modulated in phase, by a frequency whose coordinates were indeterminate due to the inherent limitation of the equipment or the low intensity signals. These however detectable on the carrier wave at intervals. This series of signals was employed to obtain intelligence from the source of communication.

On a more detailed study of October 9, 1952, pronounced modulations were observed as follows:-

October 9 at 1000 hrs. 00T
1412 hrs. 00T
2120 hrs. 00T

October 10 1127 hrs. 00T

The regularity of these signals after intervals of 96 minutes or 16 integral multiples is surprising. Some may note:

2) 1 hrs. 36 min. + 96 x 1
3 hrs. 08 min. + 96 x 2 (e)
4 hrs. 20 min. + 96 x 3 (e)

It is clearly established that the signals on the carrier ultra high frequency are from the Soviet earth station.

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As I stated in an earlier talk the notified signals on 80 and 40 mc were presumably for fixing the orbit in the early stages and not for obtaining the scientific information. The use of the letter "7" for these signals is very significant.

In the 10th evening four observers of the Pilot Balloon Observatory, Airport, observed the satellite in a direction of 300° from North and 4.5° above the horizon and after about 8 minutes in a position 298° from North and 2.5° above horizon, after which it was not visible.

The observation of the first satellite from Karachi was independently reported by Mrs. Cook, the wife of Third Secretary in U.S. Embassy in Karachi on the morning of 11.10.1958 and her description agreed closely with that of Meteorological Observers except for the altitude which differed in the two cases widely and is perhaps due to the fact that the observations were taken by the observers with a theodolite, while the others were without any instrument. I am however, convinced that these observations refer to the real satellite.

The satellite was seen at the observatory by Pilot Balloon theodolite Mark IV. The colour was red at the top and violet at the bottom and appeared to be something like the columns of the spectrum in which the 2 ends could be recognised but not the intervening ones. This is what we should expect; while flying I have noticed a number of times that when an aeroplane enters the field and its shadow becomes perceptible in the clouds, we see the columns of the spectrum round the shadow. The satellite is apparently revolving in an atmosphere of cosmic dust and these columns of the spectrum round its shadow. All those who claim to have seen the satellite have really seen the spectrum round its pin-point shadow as the satellite and its shadow cannot be perceived by the low power binoculars or theodolites. The reported observation of changing colour of the satellite by the U.S. Naval Officers in Alaska fit in this.

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