

Doc ID: 3860802

CIA/OSI - SIKR-67-24

F.I. 444

547057

20 Oct 67

Sci. & Tech. Intell. Rpt.

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1958 to Aug 1967

6.2

Meteor Burst

Non - Responsive

Meteor Burst

6.2

The Soviet interest in meteor burst communications* clearly developed as a result of related work in the Western world. The earliest Soviet paper (1958), by Arane, consists of a review of basic factors, all of which were obtained from US, UK, and Canadian periodicals.⁶² Later, original Soviet work began to appear, but it has sometimes been of questionable quality. Experimental results began to appear in 1962, consisting of measurements of different modes, signal strength, intervals between bursts, seasonal variations, and polarization changes.⁶³ Only two Soviet papers were found containing detailed analysis of problems encountered in the design of meteor burst communications systems.^{64,65} Despite the lack of significant Soviet publication on meteor burst communications systems, TASS announced on 17 August 1967 that the Soviet Union would soon introduce a meteor burst communications system to the far north. Either security restrictions imposed upon burst communications techniques or the nature of the communication traffic intended to be transmitted over the meteor system are possible explanations for the apparent suppression of publication of detailed technical papers.

In addition to the communications aspects of meteor trails, a large Soviet effort has been underway for some time dealing with radar detection of meteors, properties of meteors which cause ionization, properties of the upper atmosphere, etc. This seems to be basic research and not directly connected with communications.

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* Meteor burst communication is accomplished by reflecting signals off ionized meteor trails. Communication must be in bursts since each trail seldom lasts longer than a few seconds.

Assembly

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