

Draft of Paper by V.A.Kotelnikov of the USSR on Soviet
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When we were planning for the URSI conference, we did not anticipate presenting a paper on investigations utilizing satellites and rockets, and therefore we did not bring with us any of the materials necessary for such discussions. However, when requested by Dr. Berkner to speak of such investigations in the USSR, I agreed to present everything I know on this subject. The information I can provide is rather limited since I am not personally engaged in preparations for the IGY.

The Soviet Union, as well as the United States, is planning to launch several earth satellites during the IGY. I have been asked frequently in this country to specify the exact date of launching in the USSR. I cannot give such precision since I do not know myself. Evidently they will be launched when they are ready.

It is contemplated that satellites launched from the USSR will cross higher latitudes than those crossed by the U.S. satellite.

At the present time it is planned to install in the satellites radio transmitters with an output power of about one watt. These transmitters will operate continuously and will broadcast alternately on frequencies of about 20 and 40 megacycles per second. Measures will be taken to stabilize the frequencies of these transmitters.

The time of switching from one frequency to the other will vary and will be used for the transmission of telemetry. On the average this time will be about one half second.

It is proposed to use the signals from the artificial satellite to determine its exact orbit and also to study the ionosphere.

This is all that I am able to say at present about the satellite.

With reference to probing the upper layers of the atmosphere by use of vertically launched rockets, I have heard that this also will be done in the USSR during the IGY, but I know no details. In September of this year, a special conference devoted to the IGY will be held in Canada. A delegation from the USSR will certainly attend this conference and will give more complete information on the above subject.