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## CURRENT SUPPORT MEMORANDUM

SOVIETS PLAN EXTENSIVE HIGH  
CAPACITY MICRO-WAVE SYSTEMS

OFFICE OF RESEARCH AND REPORTS

CENTRAL INTELLIGENCE AGENCY

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This report represents the immediate views of the  
originating intelligence components of the Office  
of Research and Reports. Comments are solicited.

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The Soviet Sixth Five Year Plan calls for the installation of 10,000 kilometers of radio relay links believed to be of the multi-channel micro-wave type. 1/ In the first amplification of this goal, Professor Vasily Smirnov, present position unknown, stated that the first of these links, connecting Moscow with other cities in the European USSR, 2/ have been planned, and that some are already under construction.

Smirnov's statements also strongly support the belief that these planned systems will involve high capacity micro-wave techniques. Apparently referring to the micro-wave system in operation between New York and San Francisco, he described a network which could carry 3600 telephone conversations simultaneously, telegrams, radio pictures, and television programs. The professor implied that a similar system will be installed between Moscow and Vladivostok and between Central Asia and the Black and Baltic seas.

Smirnov's statements also tend to support the belief that the Soviet Union lags well behind the West in high capacity micro-wave radio relay design, production and application. The article said that during the Sixth Five Year Plan the basic equipment for powerful links providing thousands of channels as well as smaller ones of only several hundred channels capacity will be designed and put into production.

The belief that the USSR lags well behind the West in micro-wave equipment is also supported by the installation of considerable quantities of East German low capacity so-called micro-wave (decimeter wave) equipment for relatively short distance point-to-point communication on Soviet military vehicles. 3/ The Soviet forces do not normally utilize imported equipment when domestic products are available. Some East German equipment has also apparently been installed at fixed stations in unusual circumstances 4/ but no high capacity links are presently known to be in operation in the USSR.

Installing such high capacity micro-wave systems would greatly strengthen the Soviet long-distance communications system of which about one-half the capacity is believed presently utilized by the Soviet armed forces. In addition to providing a large amount of additional capacity, the micro-wave system, like wire lines, is relatively free from jamming, intercept, atmospheric, and radio anomalies. It is also less vulnerable to damage than wire lines but, because relay stations must be provided at about 40 kilometer spacings, is more vulnerable than a long-range system which comprises no relay stations, but only the terminal stations.

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Analyst:

Coord:

1. FBIS, Daily Report, USSR National Affairs, 17 Jan 56, p CC 39  
OFF USE
2. FBIS, Daily Report, USSR National Affairs, 5 Mar 56, p CC 17-18,  
OFF USE
3. Air. ATIC, TR-EL-45-2, 27 Feb 53, Manual for Decimeter  
Communications Equipment RVG-902 and RVG 903, Summary, Page IX  
and X, Section I, p 1, C
4. Ibid.

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