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ABSTRACT BOOK

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DETERMINATION OF GEOMETRICAL PARAMETERS OF METEOR TRAILS AND RADIANT USING TV TRANSMITTER SIGNAL INFORMATION

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Characteristics of one-site forward-scattering radar to estimate the radiant and meteoroid's velocity are considered. TV and FM stations of VHF range are assumed to be used as transmitters. The possibility of creating an antenna system to determine the elevation and azimuth to the point of specular scattering at the meteoroid trail with the required accuracy is described. The determination for time of signal propagation is technically feasible at the reception of TV-signal scattered on the ionized meteoroid's trail. If the distance between the transmitter and the receiver is known, those data are sufficient for estimation of radiant and meteoroid's velocity. Such radar is more profitable from organizational and financial points of view in comparison with multi-site radar.

THE SURVEILLANCE DYNAMIC STATE GSS “INTELSAT 10-02” ON BASE MULTICOLORED PHOTOMETRICAL DATA

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Complex coordinate and multicolored photometric observations of active geostationary satellite (GSS) “Intelsat 10-02” (28358/2004022A, sub point GSS 359⁰.0E, with inclination to the equator $i=0^0.05$, the eccentricity $e=0.00$) took place at the “Mayaki” station, located nearby Odessa, on October 6,7,12,13,14, 2010 and on March 4, 2011. On those dates the satellite was nearby the border of the Earth's shadow. On basis of multicolored photometric observations some of its optical and geometrical characteristics were calculated. The analysis of light variation of GSS in B,V,R spectral regions of Johnson's system and the color indexes variation show that during the dates of observation the systems of stabilization of the platform of the transceiver antenna and the solar panels worked in the normal operating mode. During the