

Future Geostationary Meteorological Satellite Systems

FUTURE RUSSIAN GEOSTATIONARY METEOROLOGICAL SATELLITE ELECTRO-L / GOMS N2

Summary and purpose of the WD

In order to fulfill demand of Roshydromet and in accordance with Federal Space Program of Russia Lavochkin Association is developing a second- generation geostationary meteorological satellite Electro-L / GOMS N2.

The satellite will be equipped with a multi-zonal scanner MSU-GS with the parameters closed to those of SEVIRI scanner.

Now Lavochkin Association is performing Vehicle Vibration Tests and Vehicle Thermal Balance Tests. Flight Subsystems are now under manufacturing and acceptance testing.

Action proposed: no action required.

FUTURE RUSSIAN GEOSTATIONARY METEOROLOGICAL SATELLITE ELECTRO-L / GOMS N2

In order to fulfill the demand of Roshydromet and in accordance with Federal Space Program of Russia, Lavochkin Association has been developing a second-generation geostationary meteorological satellite Electro-L since 2001.

The international name of this Russian satellite is GOMS N2.

The geostationary position of the satellite is 76° eastern longitudes. This localization proves the best observation of a large part of Russia in addition to view of the Indian Ocean region.

The main remote sensing device of Electro-L is a multi-channel (10 channels) scanning radiometer MSU-GS. Its characteristics are rather similar to SEVIRI scanner parameters, including spectral channels and spatial resolution.

This scanner is developing by Russian Institute of Space Device Engineering.

The scanner will give several multi-spectral images every 30 - 15 minutes. The spatial resolution of the images in the 3 visible channels is 1 km. In the 7 infrared channels the resolution is approximately 4 km.

There are seven additional payload sensors on the board of Electro-L. They are for measuring and registration of solar activity and geomagnetic and radiation parameters in the near Earth space.

Electro-L must fulfill definite data collection and retranslation functions. The satellite will relay various information between Russian ground meteorological centers and receive and transmit the data from the net of Russian and foreign Data Collection Platforms. Electro-L will also retransmit signals from the Search and Rescue beacons of COSPAS-SARSAT system.

The full meteorological data from Electro-L will be received and processed in the main Roshydromet Scientific Centre Planeta and the two Regional Centres in Novosibirsk and Khabarovsk. After processing these data will be retransmission by SC Electro-L to Russian and foreign users ground stations in HRIT and LRIT formats.

Roscosmos intends to launch the first satellite of Electro-L type in 2007 and the second one in 2009.

At the moment Lavochkin Association is performing Vehicle Vibration Tests and Vehicle Thermal Balance Tests. Flight Subsystems are now under manufacturing and acceptance testing.