CGMS-39 ROSH/ROSC -WP-06

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WG I/3.2
Discussed at Working Group Session

STATUS OF THE RUSSIAN DATA COLLECTION SYSTEM

Summary and purpose of the WP

Current status and technical specifications of Russian DCS (Electro-L №1) are described. During Electro-L №1 flight tests and commissioning phase DCS proved to be fully functional.

Action proposed: none

Status of the Russian data collection system

The main purpose of Russian data collection system (DCS) is to provide satellite channels for meteorological data transmission from DCPs. DCP signals are transmitted via Electro-L №1 dedicated channels. Main technical specifications of DCS are as follows:

Total of 300 channels, with 33 international, bandwidth of each channel – 3 KHz;

Channel rate – 100 or 1200 bit/s;

Frequency range 401.5-402.5 MHz (ground-space) and 1696.5-1697.5 MHz (space-ground);

Frequency range for international channels - 402.0-402.1 MHz;

Message size – 5192 bit (100 bit/s channel) and 15000 bit (1200 bit/s channel);

Data format for 100 bit/s channel is similar to those of Meteosat.

Messages received from DCPs onboard Electro-L №1 are retransmitted to the ground on 1696.5-1697.5 MHz. Those signals are acquired in SRC Planeta, Dolgoprudny, via 9 meter antenna system. The system comprises of six receivers, each capable of receiving messages from 40 DCPs simultaneously (20 messages from 100 bit/s channel and 20 messages from 1200 bit/s channel).

During flight tests and commissioning phase DCS proved to be fully functional.