

## **Polar Orbiting Meteorological Satellite Systems**

### **STATUS OF METEOR POLAR ORBITING METEOROLOGICAL SYSTEMS**

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#### Summary and purpose of document

This paper presents the current status of METEOR polar orbiting meteorological systems as well as meteorological payload on board of other Russian satellites

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#### Action

No action required

### Status of METEOR polar orbiting meteorological systems

Two satellites of METEOR-2 and –3 series are currently operated in circular orbit inclined at approximately 82°. These satellites are operated beyond their lifetime and their capabilities are limited. TV images of MR-900 scanning instrument (resolution 2 km, swath width 2600 km, spectral band 0.5-0.7 µm) are directly disseminated from these satellites in APT mode (137 MHz) as well as from RESURS-01 N4 satellite.

Satellite series and number	Launch date	APT radio signal characteristics			
		Carrier frequency, MHz	Modulation	Allocated bandwidth, kHz	Radio transmitter output power, W
METEOR-2 N21	31/08/1991	137.3	FM	100	5
METEOR-3 N5	15/08/1991	137.85	FM	100	5
RESURS-01 N4	10/07/1998	137.75	FM	100	5

### Meteorological payload on oceanographic satellites

Additional satellite information useful for meteorological and hydrological applications is provided by Okean-01 N 7 (launched 11/10/94) and Okean-O (launched 17/07/99) satellites. Core payload includes, in particular, side-looking radar RLSBO as well as ensemble of tracking and scanning MW radiometer and multizonal scanning device of low resolution MSU-M. Besides high resolution data transmitted to Roshydromet Main Receiving Centers, low resolution data are disseminated in APT format. The APT transmission includes one of four MSU-M channels or a frame of SLR, RM-08 and MSU-M channel 4 images of the same area. Characteristics of APT signal are the following: carrier frequency - 137.4 MHz; modulation – FM; allocated bandwidth - 100 kHz; radio transmitter output power: 5 W.

The Meteor-2 N 21, Meteor-3 N 5, Okean-01 N 7, Okean-O and Resurs-01 N 4 satellites orbital data needed for APT data direct readout are distributed via GTS in «ORBIT» code (WMO bulletin September - October 1997). Dissemination schedules are placed to SRC Planeta Internet server <http://sputnik.infospace.ru>.