

RUSSIAN STATE SATELLITE DATA ARCHIVE

Summary and purpose of the WP

A brief description of Russian State Archive of satellite data handled by SRC Planeta is presented. This archive incorporates historical data (photographs and digital data) from all Russian Earth resources, oceanographic and meteorological satellites (Kosmos, Resurs, Okean, Meteor, GOMS) data since 1979. On-line data electronic catalogue of recent data is available at <http://sputnik.infospace.ru>.

Action proposed: no action required.

RUSSIAN STATE SATELLITE DATA ARCHIVE

Earth observation satellites data and products archive handled by SRC Planeta represents unique archive of all data received from Russian meteorological, oceanographic and earth observation satellites (of KOSMOS, METEOR, OKEAN, RESURS, GOMS series) since the first Russian satellite mission in 1979 as well as from a number of foreign satellites (as METEOSAT, NOAA, GMS, SPOT) received in Russia in direct readout mode.

Earth resources and oceanographic satellites data archive

Long-term archive of Earth resources and oceanographic satellites data handled by SRC Planeta has status of Russian State Archive of satellite data. This archive incorporates great volume of Earth resources (natural resources) and oceanographic satellites data collected since 1979 until present time. Starting from 1991 data are archived in digital form.

The archive consists of the following parts:

- Photographic archive of images from «Okean»-type and partially «Resurs-O1» N3 satellites data;
- Digital archive of data from «Okean-O1» N7, «Sich», 'Kosmos-1939» («Resurs-O1» N2), «Resurs-O1» N3, «Resurs-O1» N4 and «Okean-O», received by SRC «Planeta» receiving stations.

Photographic archive contains of about 174000 original negatives of satellite images. Digital archive total volume currently (by October 2001) exceeds 3 500 Gbytes. The archive is daily updated within one hour after receiving of data. Archived data information is summarized in tables 1 and 2.

Meteorological satellites data archive

Russian geostationary meteorological satellite GOMS/Elrectro N1 data archive (from 1995 until 1998) volume totals of about 125 Gbytes.

Since 1998 SRC Planeta commenced archiving digital meteorological satellites data received from NOAA (direct readout data), METEOSAT and Meteor satellites. These archives volumes total respectively to about 700, 450 and 5.2 Gbytes. Copy of these data is also stored in the World Data Center in Obninsk.

Data catalogues

On-line digital data catalogues including quick-look panchromatic images (compressed images) and metadata are placed onto SRC Planeta Internet site <http://sputnik1.infospace.ru>. These catalogues are available for entire set of GOMS data; medium (MSU-SK) and high (MSU-E) resolution data from Okean-O and Resurs-O1 satellites (received at Obninsk center of SRC Planeta since 1998 and at Western Siberian receiving center of Roshydromet since 1991). The on-line service allows data searching and visualization. Access to the catalogues is unlimited and free.

Later historical data (before 1998) catalogues are available at SRC Planeta. The works are carried out on integration of these catalogues into on-line electronic catalogue.

Table 1

Photographic Archive

Years	Satellite name	Number of original negatives
1979-1981	Meteor-29 (Meteor-Priroda N2-3)	503
1980-1988	Meteor -30 (Meteor-Priroda N3-1)	21951
1981-1984	Meteor -31 (Meteor-Priroda N2-4)	2101
1984-1986	Cosmos-1500 (Okean)	4566
1984-1986	Cosmos -1602 (Okean)	5609
1985-1986	Cosmos -1689 (Resurs-O1 N1)	1160
1986-1988	Cosmos -1766 (Okean)	6405
1987-1988	Cosmos -1869 (Okean)	2173
1988-1990	Okean -01	3940
1988-1993	Cosmos -1939 (Resurs-O1 N 2)	93705
1990-1991	Okean-02	2397
1991-1992	Okean -03	1717
1994-1996	Okean-O1 N 7	1443
1995-1996	Sich (Okean-O1 N 8)	187
1994-1995	Resurs-O1 N 3	7569
	Meteor	24555
	Okean	46891
	Resurs	102434
	Total	171446

Table 2

Digital data archive

Years	Satellite name	Number of image sequences
1991-1994	Cosmos -1939 (Resurs-O1 N 2)	887
1995-1996	Sich (Okean-O1 N 8)	214
1994-2000	Okean-O1 N 7	2133
1994-2000	Resurs-O1 N 3	2619
1998-1999	Resurs-O1 N 4	318
1999-2001	OKEAN-O	453
	Total:	6624

Archive of thematic products

Along with long term archives SRC Planeta maintains specialized problem-oriented and regional

archives and archives of thematic products of different kinds and different levels of processing such as:

- global sea and particular seas surface temperature;
- snow cover border;
- global and regional cloudiness imagemaps;
- sea ice thematic maps;
- regional vegetation index thematic maps and others.

Particular examples of projects on remote sensing data thematic application are presented on another recently opened SRC Planeta internet site <http://planet.iitp.ru>.