

WORLD METEOROLOGICAL ORGANIZATION

ET-SUP-6/Doc. 9.3
(9.XII.2011)

COMMISSION FOR BASIC SYSTEMS
OPEN PROGRAMME AREA GROUP ON INTEGRATED OBSERVING SYSTEMS

EXPERT TEAM ON SATELLITE UTILIZATION AND PRODUCTS

ITEM: 9.3

SIXTH SESSION

GENEVA, SWITZERLAND, 12-16 DECEMBER 2011

Original: ENGLISH

FY-3 data access

(Submitted by CMA)

Summary and Purpose of Document

This document reports on the status of access to the data of FY-3. Current FY-3 data delivery services include web-based services and CMACast service. Users can access the data through the webpage (<http://FY3.satellite.cma.gov.cn>) after a quick registration.

ACTION PROPOSED

The sixth session is invited to note the information provided in this document.

FY-3 DATA ACCESS

1. Status of FY-3 operation

As a new generation of polar orbiting meteorological satellite, the FY-3 series consists of two experimental and at least four operational satellites. The FY-3 series is expected to have a service life until 2020 (Yang et al., 2011).

The first two satellites in the FY-3 series are research and development satellites (R&D). FY-3A was launched successfully on 27 May 2008, from the Taiyuan launch centre. FY-3B was launched successfully on 5 November 2011, from the same launch site. FY-3A and FY-3B are designed the same and equipped with 11 payloads, but FY-3A is on a monitoring-orbit and FY-3B on an afternoon-orbit.

FY-3A and FY-3B constitute a sun-synchronous constellation to provide global observation of the Earth four times per day. These observation data from the FY series have been broadly utilized in weather analysis, numerical weather forecasting, climate prediction, and environment and disaster monitoring. The innovation analysis between observation and simulation from the ECMWF Integrated Forecasting System has shown the FY-3 data to be of good quality overall.

2. Satellite Data Service and sharing

For promoting FY-3 data sharing in meteorological sciences, National Satellite Meteorological Center (NSMC) set up its meteorological satellite data-sharing platform based on the Fengyun meteorological satellite ground application system. The system has provided a speedy and convenient service of meteorological satellite data and products of all levels to the domestic departments and users from many fields.

The satellite data and products received and processed at the National Satellite Meteorological Center are sent to the user via two main ways. The first is web-based Data Service. Users can browse, search and download both real-time and archived historical data and products on Data Service website (<http://FY3.satellite.cma.gov.cn>). The second is the CMACast. CMACast is primarily used for the distribution of images and derived products from China's Fengyun series satellites to both domestic and international users. It also provides access to data and services provided by external data providers.

3. Data and Products of FY-3 Satellite

(see following pages)

Satellite	Product Name	Product Introduce/Format	Data Format	Time/Space
FY-3A	1B Data of Visible and Infrared Radiometer (VIRR)	Y/Y	HDF	2008.10--Now Global
	1B Data of Infrared Atmospheric Sounder (IRAS)	Y/Y	HDF	2008.11--Now Global
	1B Data of Microwave Temperature Sounder (MWTS)	Y/Y	HDF	2008.11--Now Global
	1B Data of Microwave Humidity Sounder (MWHS)	Y/Y	HDF	2008.10--Now Global
	1B Data of Medium Resolution Spectral Imager (MERSI)	Y/Y	HDF	2008.10--Now Global
	1B Data of Microwave Radiation Imager (MWRI)	Y/Y	HDF	2008.10--Now Global
	1B Data of Solar Backscatter Ultraviolet Sounder (SBUS)	Y/Y	HDF	2008.12--Now Global
	1B Data of Total Ozone Unit (TOU)	Y/Y	HDF	2008.12--Now Global
	1B Data of Earth Radiation Measurement (ERM)	Y/Y	HDF	2008.12--Now Global

Satellite	Product Name	Product Introduce/Format	Data Format	Time/Space
FY-3A	1B Data of Solar irradiance Monitor (SIM)	Y/Y	HDF	2008.12--Now Global
	VIRR Cloud Detection	Y/Y	HDF	2009--Now Global
	1B Data of Earth Radiation Budget Measurement (ERMB)	Y/Y	HDF	2009--Now Global
	Multi-Sensor Synergy (MULSS)	Y/Y	HDF	2009--Now Global
	VIRR Total Cloud Cover Dekad/Monthly Product	Y/Y	HDF	2009--Now Global
	VIRR Total Precipitation Water Daily/Dekad/Monthly Product	Y/Y	HDF	2009--Now Global
	VIRR Fog Daily Product	Y/Y	HDF	2009--Now Global
	VIRR GFR Daily Product	Y/Y	HDF	2009--Now Global
	VIRR Sea Ice Daily/Dekad Products	Y/Y	HDF	2009--Now Global

Satellite	Product Name	Product Introduce/Format	Data Format	Time/Space
FY-3A	VIRR Land Surface Reflectivity	Y/Y	HDF	2009--Now Global
	VIRR Dust Storm Monitoring Daily Product	Y/Y	HDF	2009--Now Global
	VIRR Geographic Longitude/Latitude Projected Area Dataset (Day/Night)	Y/Y	HDF	2009--Now Global
	VIRR Vegetation Index Dekad /Month Products	Y/Y	HDF	2009--Now Global
	MERSI Vegetation Index Dekad /Month Product (1KM/250M)	Y/Y	HDF	2009--Now Global
	MWTS Atmospheric Temperature Profile L1c	Y/Y	HDF	2009--Now Global
	MERSI Precipitation Water Vapor Overland	Y/Y	HDF	2009--Now Global
	MWHS Ice Water thickness Index Daily /Orbit Product	Y/Y	HDF	2009--Now Global

Satellite	Product Name	Product Introduce/Format	Data Format	Time/Space
FY-3A	MWHS Atmospheric Humidity Profile L1c	Y/Y	HDF	2009--Now Global
	VASS Atmospheric Temperature Humidity Profile/Stability Index/ Geopotential Height	Y/Y	HDF	2009--Now Global
	MWHS Precipitation Detection Orbit	Y/Y	HDF	2009--Now Global
	IRASAtmospheric Temperature Humidity Profile	Y/Y	HDF	2009--Now Global
	TOU Total Ozone Daily Product (Global)	Y/Y	HDF	2009--Now Global
	TOU Total Ozone Daily Product (Polar Stereographic Projection)	Y/Y	HDF	2009--Now Global
	TOU Total Ozone Daily/Orbit Product	Y/Y	HDF	2009--Now Global

Satellite	Product Name	Product Introduce/Format	Data Format	Time/Space
FY-3A	MWRI Land Surface Temperature and Humidity Daily/Dekad Product	Y/Y	HDF	2009--Now Global
	MWRI Orbit Rain Rate Cloud Liquid Water	Y/Y	HDF	2009--Now Global
	MWRI Oceanic Total Precipitation Water Orbital Product	Y/Y	HDF	2009--Now Global
	MWRI Channels Resolution Match	Y/Y	HDF	2009--Now Global
	MWRI Sea Ice Cover Daily Product	Y/Y	HDF	2009--Now Global
	ERBM Flux at TOA From ERM Non Scanner	Y/Y	HDF	2009--Now Global
	ERBM Flux at TOA From ERM Scanner	Y/Y	HDF	2009--Now Global