

CMA Satellite Frequency Networks

Currently, CMA is running two meteorological satellite frequency networks: FY-1 polar-orbiting satellite series and FY-2 geostationary satellite series. A new frequency network FY-3 will be brought into use in the end of 2007. This paper provides the frequency list of these networks that have been notified to ITU.

CMA Satellite Frequency Networks

1

Network name: FY-1 Series Polar-Orbiting Meteorological Satellites

Launch of first satellite: September 1988 (FY-1A)

General objective: Collects Earth atmospheric and surface condition parameters such as ice, snow and vegetation.

Orbit: LEO polar at 8:00 (time of descending node equatorial crossing)

Number of satellites: 4

2

Network name: FY-3 Series Polar-Orbiting Meteorological Satellites

Expected planning date for launch of first satellite: 2007 (FY-3A)

General objective: Collects atmospheric and surface condition parameters such as ice, snow and vegetation; atmospheric temperatures; moisture, aerosol, and ozone distribution.

Orbit: LEO polar at 10:20 (time of descending node equatorial crossing) for FY-3A/C/E/G; at 14:00 (time of ascending node equatorial crossing) for FY-3B/D/F.

Number of satellites: 7 (FY-3A/B/C/D/E/F/G)

Main ground station(s): Beijing , Guangzhou, Urumuqi and Jiamusi

3

Network name: FY-2 Series Geostationary Meteorological Satellites

Launch of first satellite: June 1997 (FY-2A)

General objective: Collects atmospheric and surface condition parameters such as ice, snow and vegetation; atmospheric temperatures; moisture, aerosol using instruments sensing in visible, near-IR, and thermal IR frequencies.

Orbit: Geostationary; locations: 86.5E, 105E, and 123.5E.

Number of satellites: 7 (FY-2A/B/C/D/E/F/G)

Main ground station(s): China: Beijing (primary), Urumuqi(TARS), Guangzhou(TARS), and Melbourne (TARS, backup)

CMA Satellite Frequency List

(Status: 25 August 2006)

**TABLE 1: EARTH-TO-SPACE FREQUENCIES
NGSO NETWORKS**

SATELLITE	FREQUENCY (MHz)	DIRECTION	EMISSION DESIGNATOR	D.B.I.U. ¹	NOTES
FY-3	2025-2110	E-S	1M40G2W--	30-12-2007	Tele-control

¹ DBIU: Date of Bringing In Use

TABLE 2: EARTH-TO-SPACE FREQUENCIES**GSO NETWORKS**

SATELLITE	FREQUENCY (MHz)	DIRECTION	EMISSION DESIGNATOR	D.B.I.U. ²	NOTES
FY-2	5926	E-S	1M00FXD-- 1M00FXW--	31-12-1999	Command
FY-2	5964.88	E-S	70K0FXD-- 45K0G9W--	31-12-1999	Command
FY-2	2095.08	E-S	70K0FXD--	01-12-2001	Command
FY-2	2108.34	E-S		01-12-2001	Command
FY-2	2099.5	E-S		01-12-2001	Command

² DBIU: Date of Bringing In Use

**TABLE 3: SPACE-TO-EARTH FREQUENCIES
NGSO NETWORKS**

SATELLITE	FREQUENCY (MHz)	DIRECTION	EMISSION DESIGNATOR	D.B.I.U. ³	NOTES
FY-1	1708.46	S-E	3M00G1D--	07-09-1988	CDPT
FY-1	1700.4	S-E	5M00G1D--	07-09-1988	CHRPT
FY-3	8145.95	S-E	149MG1W--	30-12-2007	DPT
FY-3	7775.00	S-E	45M0G1W--	30-12-2007	MPT
FY-3	1704.50	S-E	6M80G1W--	30-12-2007	CHRPT
FY-3	2200-2290	S-E	1M40G2W--	30-12-2007	Telemetry

³ DBIU: Date of Bringing In Use

TABLE 4: SPACE-TO-EARTH FREQUENCIES**GSO NETWORKS**

SATELLITE	FREQUENCY (MHz)	DIRECTION	EMISSION DESIGNATOR	D.B.I.U. ⁴	NOTES
FY-2	1681.6	S-E	20M0G1D--	31-12-1988	To CDAS
FY-2	1687.5	S-E	2M00G1D	31-12-1988	S-VISSR
FY-2	1691.0	S-E	260KFXD--	31-12-1988	WEFAX / LRIT
FY-2	4192.02	S-E	1M00FXD-- 1M00FXW-- 450KFXW-- 450DG9W--	31-12-1988	Telemetry
FY-2	4169.88	S-E		31-12-1988	Telemetry
FY-2	2275.2	S-E		31-12-1988	Telemetry
FY-2	2289.5	S-E	400FXD--	31-12-1988	Telemetry
FY-2	2280	S-E		31-12-1988	Telemetry

⁴ DBIU: Date of Bringing In Use