

SATELLITE TABLES - EUMETSAT
(In response to permanent actions 01 and 03)

This Working Paper is complementary to EUM-WP-01 and provides the EUMETSAT input to the satellite tables as follows:

- Tables 1, 2, 4, 5 and 7 of the CGMS meeting report (CGMS permanent action 1)
- LRIT and HRPT conversion tables for WMO (CGMS permanent action 3)

Status as per October 2006.

Table 1: Current Polar-Orbiting Satellites Coordinated within CGMS

Orbit type (equatorial crossing times)	Satellites in orbit (+operation mode) P=Pre-operational Op=operational B=back-up L=limited availability R= R&D	Operator	Crossing Time A=Ascend. D=Descend +Altitude	Launch date	Status
Sun-synchr. "Morning" (6:00–12:00) (18:00–24:00)	Metop-A (P)	EUMETSAT	09:30 (D) 837 km	19 Oct 2006	Commissioning phase.

Table 2: Current Geostationary Satellites Coordinated within CGMS

Sector	Satellites currently in orbit (+type) P: Pre-operational Op: Operational B: Back-up L: Limited availability	Operator	Location	Launch date	Status
East-Atlantic (36°W-36°E)	Meteosat-6 (B)	EUMETSAT	10°E	11/1993	Rapid Scanning Service minor gain anomaly on IR imager. Service to finish 01/2007.
	Meteosat-7 (Op)	EUMETSAT	57.5°E	02/1997	Functional. IODC coverage till end 2008.
	Meteosat-8 (Op)	EUMETSAT	3.4°W	28 Aug 2002	EUMETCast, no LRIT
	Meteosat-9 (B)	EUMETSAT	0°W	21 Dec 2005	EUMETCast. Primary back-up to Meteosat-8.
Indian Ocean (36°E- 108°E)	Meteosat-5 (Op)	EUMETSAT	63°E	03/1991	IODC coverage, back- up to Meteosat-7. To be deorbited in 2007.

Table 4: Future Polar-Orbiting Satellites Coordinated within CGMS

Orbit type (equatorial crossing times)	Future additional Satellites	Operator	Planned launch date	Other information
Sun-synchr. "Morning" (6:00 – 12:00) (18:00 – 24:00)	MetOp-1	EUMETSAT	04/2011	(837 km) (09:30D) HRPT
	MetOp-3	EUMETSAT	10/2015	(837 km) (09:30D) HRPT

Table 5: Future Geostationary Satellites Coordinated within CGMS

Sector	Future additional satellites	Operator	Planned launch	(Planned location) Other remarks
East-Pacific (180°W-108°W) and West-Atlantic (108°W-36°W)	MSG-3	EUMETSAT	2011	0°
	MSG-4	EUMETSAT	2013	0°

Table 7: Polar-orbiting satellite equator crossing times

Satellite	Service	Start	EOL	Equator Cross-time	Frequency (MHz)	BW MHz	Data rate (Mb/s)
MetOp-1	LRPT	2009	2014	0930D	137.1/137.9125*	.150	.072
MetOp-A	LRPT	2006	2011	0930D	137.1/137.9125*	.150	.072
MetOp-3	LRPT	2015	2020	0930D	137.1/137.9125*	.150	.072
MetOp-1	HRPT	2009	2014	0930D	1701.3/1707.0*	4.5	3.5
MetOp-A	HRPT	2006	2011	0930D	1701.3/1707.0*	4.5	3.5
MetOp-3	HRPT	2015	2020	0930D	1701.3/1707.0*	4.5	3.5
MetOp-1	GDS	2009	2014	0930D	7800	63	70
MetOp-A	GDS	2006	2011	0930D	7800	63	70
MetOp-3	GDS	2015	2020	0930D	7800	63	70

Status for LRIT Conversion, Satellites in Geostationary Orbit

Operator	Satellite	Launch (M/Y)	Service	1.1 ST ART	Stop	ADM service (NA, SN, PC, TNC) *
EUMETSAT	Meteosat 5	03/1991	WEFAX	03/1991	02/2007	SN: EUMETCast
	Meteosat 6	11/1993	WEFAX	11/1993	N/A	SN: EUMETCast
	Meteosat 7	02/1997	WEFAX	07/1997	2008	SN: EUMETCast
	Meteosat 8	08/2002	LRIT (ADM only)	01/2004	2010	SN: EUMETCast
	Meteosat-9	12/2005	LRIT	2007	2015	SN: EUMETCast
	MSG 3	2011	LRIT	2011	2019	SN: EUMETCast
	MSG 4**	2013	LRIT	2013	2021	SN: EUMETCast

* NA: not available; SN: service name; PC: planned with confirmation; TNC: tentative with no confirmation

** Extension of the MSG Programme with MSG-4 under approval process.

Status for LRPT Conversion, Satellites in Polar Orbit

Operator	Satellite	Launch (M/Y)	Service	Start	Stop	ADM service (NA, SN, PC, TNC) *
EUMETSAT	Metop-A	10/2006	LRPT	2006		EUMETCast
	Metop-1 (B)	04/2011	LRPT	2011		EUMETCast
	Metop-3 (C)	10/2015	LRPT	2015		EUMETCast

* NA: not available, SN: service name, PC: planned with confirmation, TNC: tentative with no confirmation