EUMETSAT use of different frequency bands and related services
In response to CGMS action 37.26

In response to CGMS action 37.26, this contribution is aimed to provide information on frequency spectrum use by current and future EUMETSAT missions.

Tables 1 and 2 provide a simple but comprehensive overview of frequencies used by current and future EUMETST missions.

Having up-to-date frequency information in such a format from all MetSat operators could be very beneficial for future system planning purposes.

Therefore, it is proposed to maintain a frequency inventory in the framework of CGMS in form and format as provided in Tables 1 and 2 above. Updates to this inventory could be provided by all MetSat operators by marking the changes to the information provided in the previous year.

Action:

"CGMS members to provide to each CGMS meeting a list of frequencies used by their current and future systems in a format as provided in Tables 1 and 2 of Document CGMS-38 EUM-WP-23."

EUMETSAT use of different frequency bands and related services

1   INTRODUCTION

This document provides basic information on frequencies used by current and future EUMETSAT missions.

The attached Table 1 in Section 3 contains the frequencies (in ascending order) used by the different EUMETSAT missions in the uplink (Earth to space direction).

Table 2 contains the frequencies (in ascending order) used by the different EUMETSAT missions in the downlink (space to Earth direction).

2   PROPOSAL

Tables 1 and 2 provide a simple but comprehensive overview of frequencies used by current and future EUMETST missions.

Having up-to-date frequency information in such a format from all MetSat operators could be very beneficial for future system planning purposes.

Therefore, it is proposed to maintain a frequency inventory in the framework of CGMS in form and format as provided in Tables 1 and 2 above. Updates to this inventory could be provided by all MetSat operators by marking the changes to the information provided in the previous year.

The following action is proposed:

"CGMS members to provide to each CGMS meeting a list of frequencies used by their current and future systems in a format as provided in Tables 1 and 2 of Document CGMS-38 EUM-WP-23."

3 FREQUENCIES OF THE DESCRIBED EUMETSAT MISSIONS (STATUS: 31 AUGUST 2010)

TABLE 1: EARTH - SPACE

SATELLITE	FREQUENCY (MHz)	DIRECTION	EMISSION[1]	APPLICATION	D.B.I.U.[2]
EPS-SG (ADCS)	399.975 401.1125 401.4275 402.045 402.5855 402.925	E-S	150KG7D 225KG7D 305KG7D 710KG7D 129KG7D 150KG7D	ARGOS-4	2018
Metop-A (ADCS)	401.585	E-S	10K0G7D	ARGOS-B	IN ORBIT
Metop-B (ADCS)	401.595	E-S	10K0G7D	ARGOS-B	2012/04
Metop-C (ADCS)	401.61	E-S	20K0G7D	ARGOS-B	2016/10
MSG	402.001 – 402.435	E-S	1K50G7D 3K00G7D	DCP	IN ORBIT
IODC (Met-6, Met-7)	402.001 – 402.435	E-S	3K00G7D	DCP	IN ORBIT
MTG	401.7 – 402.85	E-S	1K50G7D 3K00G7D	DCP	2016/2017
Metop-SAR	406 – 406.1	E-S	100KG1D	SAR	IN ORBIT
MSG-SAR	406 – 406.1	E-S	100KG1D	SAR	IN ORBIT
MTG-SAR	406 – 406.1	E-S	100KG1D	SAR	2016/2017
Jason-3	2040.493	E-S	300KG2D	TC	2013/07
Metop	2053.4583	E-S	500KG1D	TC, Ranging	IN ORBIT
MSG-2 (Met-9)	2067.7313	E-S	1M00GXX	TC, Ranging	IN ORBIT
MSG-1 (Met-8)	2068.6521	E-S	1M00GXX	TC, Ranging	IN ORBIT
MSG-3	2069.5729	E-S	1M00GXX	TC, Ranging	2012/06
MSG-4	2070.4938	E-S	1M00GXX	TC, Ranging	2014/01
MTG	2060 - 2075	E-S	TBD	TC, Ranging	2016/2017
GMES Sentinel-3	2075.6504	E-S	768KG2D	TC	2013/04
Jason-2	2088.87819	E-S	300KG2D	TC	IN ORBIT
IODC (Met-6, Met-7)	2098.0000	E-S	6K30GXX	TC, Ranging	IN ORBIT
IODC (Met-6, Met-7)	2099.0000	E-S	6K30GXX	TC, Ranging	IN ORBIT
MSG	2101.5000	E-S	660KG1D	LRIT uplink	IN ORBIT
IODC (Met-6, Met-7)	2101.5000	E-S	30KG1D	WEFAX uplink	IN ORBIT
IODC (Met-6, Met-7)	2105.0000	E-S	660KG1D	HRI uplink	IN ORBIT
MSG	2105.6500	E-S	2M00G1D	HRIT uplink	IN ORBIT
EPS-SG	2025 - 2110	E-S	TBD	TC, Ranging	2018

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[1] In accordance with Appendix 1 of the Radio Regulations
[2] DBIU: Date of Bringing In Use

TABLE 2: SPACE - EARTH

SATELLITE	FREQUENCY (MHz)	DIRECTION	EMISSION	APPLICATION	D.B.I.U.
Metop	137.1 / 137.9125	S-E	150KG1D	LRPT	NOT USED
Metop (ADCS)	465.9875	S-E	1K00G1D	ARGOS-B	IN ORBIT
EPS-SG (ADCS)	465.9875	S-E	20K0G1D	ARGOS-4	2018
Metop-SAR	1544.4 – 1544.6	S-E	200KG1D	SAR	IN ORBIT
MSG-SAR	1544.4 – 1544.6	S-E	200KG1D	SAR	IN ORBIT
MTG-SAR	1544 - 1545	S-E	200KG1D	SAR	2016/2017
MSG and IODC	1675.2810	S-E	750KGXX	DCP	IN ORBIT
IODC (Met-6)	1676.2280	S-E	2K60G1D	TM	IN ORBIT
IODC (Met-7)	1676.3280	S-E	2K60G1D	TM	IN ORBIT
MSG and IODC	1686.8330	S-E	6M00G1D	Raw Data	IN ORBIT
IODC	1691.0000	S-E	20KG1D	WEFAX	IN ORBIT
MSG	1691.0000	S-E	660KG1D	LRIT	IN ORBIT
IODC	1694.5000	S-E	660KG1D	HRI	IN ORBIT
MSG	1695.1500	S-E	2M00G1D	HRIT	IN ORBIT
Metop	1701.3000	S-E	4M50G1D	HRPT	IN ORBIT
Metop	1707.0000 (back-up)	S-E	4M50G1D	HRPT	IN ORBIT
Jason-3	2215.92	S-E	1M9G1D	TM, Raw Data	2013/07
Metop	2230.0000	S-E	500KG1D	TM	IN ORBIT
IODC (Met-7)	2242.2250	S-E	2K60G1D	TM	IN ORBIT
IODC (Met-6)	2242.5250	S-E	2K60G1D	TM	IN ORBIT
MSG-2 (Met-9)	2245.5000	S-E	1M00G1D	TM	IN ORBIT
MSG-1 (Met-8)	2246.5000	S-E	1M00G1D	TM	IN ORBIT
MSG-3	2247.5000	S-E	1M00G1D	TM	2012/06
MSG-4	2248.5000	S-E	1M00G1D	TM	2014/01
MTG	2240 - 2255	S-E	TBD	TM	2016/2017
GMES Sentinel-3	2254.1000	S-E	2M20G1D	TM	2013/04
Jason-2	2268.465	S-E	1M9G1D	TM, Raw Data	IN ORBIT
Metop	2230.0000	S-E	500KG1D	TM	IN ORBIT
EPS-SG	2200 - 2290	S-E	TBD	TM	2018
EPS-SG	7750 – 7900	S-E	TBD	TBD	2018
GMES Sentinel-3	8095.0000	S-E	140MG1D	Raw Data	2013/04
GMES Sentinel-3	8260.0000	S-E	140MG1D	Raw Data	2013/04
EPS-SG	25500 - 27000	S-E	TBD	Raw Data (TBD)	2018
MTG	26200 - 27000	S-E	TBD	Raw Data	2016/2017