

MTSAT Monthly Operations Report

December 2011

1. Special operation events

1.1 Eclipse operation

There was no Eclipse Operation of both MTSAT-1R and MTSAT-2.

1.2 Solar-interference operation

There was no Solar-interference Operation of both MTSAT-1R and MTSAT-2.

2. Imagery dissemination

2.1 High Rate Information Transmission (HRIT) imagery via MTSAT-1R

HRIT dissemination via MTSAT-1R was performed according to the regular schedule.

The following tables show the performance of HRIT dissemination and a summary of canceled HRIT dissemination during December 2011.

Performance of HRIT dissemination via MTSAT-1R

	HRIT	Remarks
Scheduled	1734	
Performed	1734	Observed by MTSAT-2 and MTSAT-1R
Performance in %	100.00	

Summary of canceled HRIT dissemination via MTSAT-1R

Date	HRIT	Reasons
	None	

2.2 Low Rate Information transmission (LRIT) imagery via MTSAT-1R

LRIT dissemination via MTSAT-1R was performed according to the regular schedule. The following tables show the performance of LRIT dissemination and a summary of canceled LRIT dissemination during December 2011.

Performance of LRIT dissemination via MTSAT-1R

	LRIT	Remarks
Scheduled	2975	
Performed	2975	Observed by MTSAT-2 and MTSAT-1R
Performance in %	100.00	

Summary of canceled LRIT dissemination via MTSAT-1R

Date	LRIT	Reasons
	None	

2.3 HRIT imagery via landline

HRIT dissemination via landline was performed according to the regular schedule. The following tables show the performance of its dissemination and a summary of canceled HRIT dissemination during December 2011.

Performance of HRIT dissemination via landline

	HRIT	Remarks
Scheduled	12390	
Performed	12390	Observed by MTSAT-2 and MTSAT-1R
Performance in %	100.00	

Summary of canceled HRIT dissemination via landline

Date	HRIT	Reasons
	None	

3. Data Collection System

3.1 International Data Collection System (IDCS)

The following table shows the status of reception and dissemination of International Data Collection Platform (IDCP) messages that were received in MTSAT-1R's area of responsibility.

Reception and dissemination of IDCP messages

IDCP channels	Numbers of IDCPs ^{a)}	Received messages	Error messages ^{b)}	Messages disseminated to the GTS
I06	0	0	0	0
I07	0	0	0	0
I12	3	0	0	0
I14	0	0	0	0
I15	2	0	0	0
I16	4	0	0	0
I18	0	0	0	0
I20	2	0	0	0
Total	11	0	0	0

a) IDCP numbers are those registered in MTSAT-DCS as of December 1, 2011.

b) No message, or message unsuitable for WMO codes.

3.2 Interference on IDCP channels

The following table shows interference on MTSAT International Data Collection System (IDCS) channels that occurred during December 2011.

Interference on MTSAT IDCS Channels (December 2011)

Channel	1	2	3	4	5	6	7	8	9	10	11
Interference											
Channel	12	13	14	15	16	17	18	19	20	21	22
Interference	H							H			
Channel	23	24	25	26	27	28	29	30	31	32	33
Interference											H

Note - W: weak interference / H: harmful interference

4. Satellite system status

4.1 Satellite status

MTSAT-1R located at longitude 140 east was performing the observation operation instead of MTSAT-2 because of the ground system maintenance from December 1 through December 26, and MTSAT-2 located at longitude 145 east restarted to perform the observation operation from December 26. In addition, MTSAT-1R was operating telecommunication services such as data dissemination and DCP data relay.

4.2 Maneuver

- 1) A north-south station-keeping maneuver of MTSAT-1R was carried out from 03:56 UTC on December 3, 2011.
- 2) An east-west station-keeping maneuver of MTSAT-1R was carried out from 08:14 UTC on December 13, 2011.
- 3) A north-south station-keeping maneuver of MTSAT-2 was carried out from 01:02 UTC on December 28, 2011.

4.3 Orbit elements of MTSAT-1R/2

The orbit elements of MTSAT-1R and MTSAT-2 are shown in the following table.

Epoch 08:00:0.00 UTC on December 28, 2011 – MTSAT-1R

	Element	Unit	Value
Orbit	Semi-major axis (a)	Km	42166.282124
	Eccentricity (e)	-	0.000292872
	Inclination (I)	Degree	0.034724
	Right ascension of ascending node (Ω)	Degree	148.156397
	Argument of perigee (ω)	Degree	162.073719
	Mean anomaly (M)	Degree	46.179599

Epoch 08:00:0.00 UTC on January 4, 2012 – MTSAT-2

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42164.810200
	Eccentricity (e)	-	0.000174611
	Inclination (I)	Degree	0.043287
	Right ascension of ascending node (Ω)	Degree	4.567595
	Argument of perigee (ω)	Degree	314.217702
	Mean anomaly (M)	Degree	49.595085