

MTSAT Monthly Operations Report

October 2010

1. Special operation events

1.1 Eclipse operation

MTSAT-1R and MTSAT-2 autumn eclipse operations were performed from October 1 through October 17.

1.2 Solar-interference operation

MTSAT-1R and MTSAT-2 solar-interference operations were performed from October 5 -11 and October 3-12 respectively.

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 October 2010.

Performance of HRIT dissemination via MTSAT-1R

	HRIT	Remarks
Scheduled	1731	
Performed	1726	Observed by MTSAT-2 and MTSAT-1R
Performance in %	99.71	

Summary of canceled HRIT dissemination via MTSAT-1R

Date	HRIT	Reasons
October 7	F03, F04, F05, S12, N13	Failure of MTSAT-2 ground system and recovery operations

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 October 2010.

Performance of LRIT dissemination via MTSAT-1R

	LRIT	Remarks
Scheduled	2970	
Performed	2959	Observed by MTSAT-2 and MTSAT-1R
Performance in %	99.63	

* nn - indicates the hour of observation time

Summary of canceled LRIT dissemination via MTSAT-1R

Date	LRIT	Reasons
October 7	PS-F03, PS-F04, PS-F05, D0-F03, D0-F04, D0-F05, D1-F03, D1-F04, D1-F05, PS-N13	Failure of MTSAT-2 ground system and recovery operations
October 8	PS-N20	Failure of ground system

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 October 2010.

Performance of HRIT dissemination via landline

	HRIT	Remarks
Scheduled	12370	
Performed	12330	Observed by MTSAT-2 and MTSAT-1R
Performance in %	99.68	

Summary of canceled HRIT dissemination via landline

Date	HRIT	Reasons
October 7	F03, F04, F05, S12, N13	Failure of MTSAT-2 ground system and recovery operations

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 October 1, 2010.

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 October 2010.

Interference on MTSAT IDCS Channels (October 2010)

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											
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-2 located at longitude 145 east is performing the observation operation. Meanwhile, MTSAT-1R is operating telecommunication services such as data dissemination and DCP data relay at longitude 140 east.

MTSAT-1R took over the observation operation from MTSAT-2 due to its ground system failure on October 7. The system was restored soon, but MTSAT-2 stood by the operation during October.

4.2 Maneuver

- 1) An east-west station-keeping maneuver of MTSAT-2 was carried out from 09:16 UTC on October 6, 2010.
- 2) An east-west station-keeping maneuver of MTSAT-1R was carried out from 09:14 UTC on October 9, 2010.
- 3) A north-south station-keeping maneuver of MTSAT-1R was carried out from 05:26 UTC on October 14, 2010.
- 4) An east-west station-keeping maneuver of MTSAT-1R was carried out from 08:14 UTC on October 19, 2010.

4.3 Orbit elements of MTSAT-1R

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

Epoch 08:00:0.00 UTC on November 6, 2010

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42163.168811
	Eccentricity (e)	-	0.000209997
	Inclination (I)	Degree	0.059724
	Right ascension of ascending node (Ω)	Degree	142.232318
	Argument of perigee (ω)	Degree	61.023800
	Mean anomaly (M)	Degree	102.248928