

MTSAT Monthly Operations Report

November 2009

1. Special operation events

1.1 Eclipse operation

There was no Eclipse Operation of MTSAT-1R.

1.2 Solar-interference operation

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

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 November 2009.

Performance of HRIT dissemination via MTSAT-1R

	HRIT	Remarks
Scheduled	1679	
Performed	1668	Including observations by MTSAT-2 (see 4.1)
Performance in %	99.34	

Summary of canceled HRIT dissemination via MTSAT-1R

Date	HRIT	Reasons
November 11	F13, F14, F15, F16 N13, N14, N15, N16	Loss of Lock
November 15-16	N23W, F00, S00	Failure of image data processing on MTSAT-1R ground system

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 November 2009.

Performance of LRIT dissemination via MTSAT-1R

	LRIT	Remarks
Scheduled	2159	
Performed	2147	Including observations by MTSAT-2 (see 4.1)
Performance in %	99.44	

Summary of canceled LRIT dissemination via MTSAT-1R

Date	LRIT	Reasons
November 11	PS-F13, PS-F14, PS-F15 D1-F13, D1-F14, D1-F15 PS-N13, PS-N14, PS-N15	Loss of Lock
November 16	PS-F00 D1-F00 D3-F00	Failure of image data processing on MTSAT-1R 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 November 2009.

Performance of HRIT dissemination via landline

	HRIT	Remarks
Scheduled	11995	
Performed	11930	Including observations by MTSAT-2 (see 4.1)
Performance in %	99.46	

Summary of canceled HRIT dissemination via landline

Date	HRIT	Reasons
November 11	F13, F14, F15 N13, N14, N15	Loss of Lock
November 15-16	N23W, F00, S00	Failure of image data processing on MTSAT-1R ground system

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	714	714	0
I16	4	0	0	0
I18	0	0	0	0
I20	2	0	0	0
Total	11	714	714	0

a) IDCP numbers are those registered in MTSAT-DCS as of November 1, 2009.

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 November 2009.

Interference on MTSAT IDCS Channels (November 2009)

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-1R is located at 140 degrees of east longitude and continues to provide operational services. MTSAT-2, which is located at 145 degrees of east longitude, observed as an alternative for MTSAT-1R from F16 on November 11 to N03 on November 12 and from N01 on November 16 to N03 on November 27. In those two periods, Loss of Lock on MTSAT-1R and malfunction of its image data processing occurred, respectively.

4.2 Maneuver

- 1) An east-west station-keeping maneuver of MTSAT-1R was carried out from 08:14 UTC on November 1, 2009.
- 2) An east-west station-keeping maneuver of MTSAT-1R was carried out from 08:14 UTC on November 17, 2009.
- 3) A north-south station-keeping maneuver of MTSAT-2 was carried out from 03:02 UTC on November 19, 2009.
- 4) An east-west station-keeping maneuver of MTSAT-1R was carried out from 08:14 UTC on November 25, 2009.
- 5) A north-south station-keeping maneuver of MTSAT-1R was carried out from 02:56 UTC on November 28, 2009.

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 December 1, 2009

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42164.883938
	Eccentricity (e)	-	0.000256042
	Inclination (I)	Degree	0.047561
	Right ascension of ascending node (Ω)	Degree	208.081577
	Argument of perigee (ω)	Degree	35.917326
	Mean anomaly (M)	Degree	86.399572