

# MTSAT Monthly Operations Report

## October 2013

### 1. Special operation events

#### 1.1 Equinox operation

MTSAT-2 autumn equinox operation was performed from October 1 through October 21.

#### 1.2 Solar-interference operation

MTSAT-2 solar-interference operation was performed from October 3 through October 12.

### 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 2013.

Performance of HRIT dissemination via MTSAT-1R

	HRIT	Remarks
Scheduled	1730	
Performed	1730	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 October 2013.

Performance of LRIT dissemination via MTSAT-1R

	LRIT	Remarks
Scheduled	2971	
Performed	2971	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 October 2013.

Performance of HRIT dissemination via landline

	HRIT	Remarks
Scheduled	12370	
Performed	12370	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 <sup>a)</sup>	Received messages	Error messages <sup>b)</sup>	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, 2013.

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 2013.

Interference on MTSAT IDCS Channels (October 2013)

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	H									H

Note - W: weak interference / H: harmful interference

#### 4. Satellite system status

##### 4.1 Satellite status

MTSAT-2 located at longitude 145 east was performing the observation operation until October 22, and MTSAT-1R located at longitude 140 east took over the observation operation from MTSAT-2 due to its ground system maintenance on October 22. MTSAT-1R is operating telecommunication services such as data dissemination and DCP data relay.

##### 4.2 Maneuver

- 1) An east-west station-keeping maneuver of MTSAT-2 was carried out from 19:16 UTC on October 3, 2013.

##### 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 November 4, 2013 – MTSAT-1R

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42164.131654
	Eccentricity (e)	-	0.000100112
	Inclination (I)	Degree	0.058630
	Right ascension of ascending node ( $\Omega$ )	Degree	254.890287
	Argument of perigee ( $\omega$ )	Degree	356.934477
	Mean anomaly (M)	Degree	51.857331

Epoch 00:00:0.00 UTC on October 31, 2013 – MTSAT-2

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42166.827600
	Eccentricity (e)	-	0.000378202
	Inclination (I)	Degree	0.004968
	Right ascension of ascending node ( $\Omega$ )	Degree	259.576696
	Argument of perigee ( $\omega$ )	Degree	320.355148
	Mean anomaly (M)	Degree	324.547739