

# MTSAT Monthly Operations Report

## December 2007

### 1. Events of special operation

#### 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 Resolution Imager Data (HiRID) imagery via MTSAT-1R

HiRID dissemination via MTSAT-1R was performed according to the regular schedule. The following tables show the performance of HiRID dissemination and the summary of canceled HiRID dissemination during December 2007.

Performance of HiRID dissemination via MTSAT-1R

	HiRID	Remarks
Scheduled	1734	
Performed	1734	
Performance in %	100.00	

Summary of canceled HiRID dissemination via MTSAT-1R

Date	HiRID	Reasons
	None	

## 2.2 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 the summary of canceled HRIT dissemination during December 2007.

Performance of HRIT dissemination via MTSAT-1R

	HRIT	Remarks
Scheduled	1734	
Performed	1734	
Performance in %	100.00	

Summary of canceled HRIT dissemination via MTSAT-1R

Date	HRIT	Reasons
	None	

## 2.3 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 the summary of canceled LRIT dissemination during December 2007.

Performance of LRIT dissemination via MTSAT-1R

	LRIT	Remarks
Scheduled	2232	
Performed	2232	
Performance in %	100.00	

Summary of canceled LRIT dissemination via MTSAT-1R

Date	LRIT	Reasons
	None	

#### 2.4 Weather Facsimile (WEFAX) imagery via MTSAT-1R

WEFAX dissemination via MTSAT-1R was performed according to the regular schedule. The following tables show the performance of WEFAX dissemination and the summary of canceled WEFAX dissemination during December 2007.

Performance of WEFAX dissemination via MTSAT-1R

	WEFAX	Remarks
Scheduled	2728	
Performed	2727	
Performance in %	99.96	

Summary of canceled WEFAX dissemination via MTSAT-1R

Date	WEFAX	Reasons
December 6	H-08	Ground system trouble

#### 2.5 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 the summary of canceled its dissemination during December 2007.

Performance of HRIT dissemination via landline

	HRIT	Remarks
Scheduled	11245	
Performed	11245	
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 the responsibility area of MTSAT-1R.

Reception and dissemination of IDCP messages

IDCP channels	Numbers of IDCPs <sup>a)</sup>	Received messages	Error messages <sup>b)</sup>	Disseminated messages 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	504	504	0
I16	4	0	0	0
I18	0	0	0	0
I20	2	0	0	0
Total	11	504	504	0

a) The numbers of IDCP are registered in MTSAT-DCS as of December 1, 2007.

b) There was no message or the message was unsuitable to the WMO codes.

#### 3.2 Interferences on IDCP channels

The following table shows the interference on MTSAT International Data Collection System (IDCS) channels which were occurred during December 2007.

Interference on MTSAT IDCS Channels (December, 2007)

Channel	1	2	3	4	5	6	7	8	9	10	11
Interference					W				W		
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 east longitude and continues to provide its operational services.

##### 4.2 Maneuver

- 1) North-south station-keeping maneuver of MTSAT-1R was carried out from 02:56 UTC on December 7, 2007.
- 2) East-west station-keeping maneuver of MTSAT-1R was carried out from 07:14 UTC on December 9, 2007.
- 3) North-south station-keeping maneuver of MTSAT-1R was carried out from 02:56 UTC on December 19, 2007.
- 4) East-west station-keeping maneuver of MTSAT-1R was carried out from 03:14 UTC on December 23, 2007.

##### 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 January 6, 2008

	Element	Unit	Value
Orbit	Semi-major axis (a)	Km	42164.446128
	Eccentricity (e)	-	0.000198130
	Inclination (I)	Degree	0.043517
	Right ascension of ascending node ( $\Omega$ )	Degree	206.619673
	Argument of perigee ( $\omega$ )	Degree	80.593141
	Mean anomaly (M)	Degree	78.151272