

# MTSAT Monthly Operations Report

## August 2009

### 1. Special operation events

#### 1.1 Eclipse operation

MTSAT-1R autumn eclipse and sun avoidance operation were performed from August 23 through August 31.

#### 1.2 Solar-interference operation

There was no MTSAT-1R solar-interference operation during August 2009.

### 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 August 2009.

Performance of HRIT dissemination via MTSAT-1R

|                  | HRIT   | Remarks |
|------------------|--------|---------|
| Scheduled        | 1728   |         |
| Performed        | 1728   |         |
| 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 August 2009.

Performance of LRIT dissemination via MTSAT-1R

|                  | LRIT   | Remarks |
|------------------|--------|---------|
| Scheduled        | 2216   |         |
| Performed        | 2216   |         |
| 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 August 2009.

Performance of HRIT dissemination via landline

|                  | HRIT   | Remarks |
|------------------|--------|---------|
| Scheduled        | 12320  |         |
| Performed        | 12320  |         |
| 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                              | 363               | 363                          | 0                                |
| I16           | 4                              | 0                 | 0                            | 0                                |
| I18           | 0                              | 0                 | 0                            | 0                                |
| I20           | 2                              | 0                 | 0                            | 0                                |
| Total         | 11                             | 363               | 363                          | 0                                |

a) IDCP numbers are those registered in MTSAT-DCS as of August 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 August 2009.

Interference on MTSAT IDCS Channels (August 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 east longitude and continues to provide operational services.

##### 4.2 Maneuver

- 1) An east-west station-keeping maneuver of MTSAT-1R was carried out from 08:14 UTC on August 13, 2009.
- 2) A north-south station-keeping maneuver of MTSAT-1R was carried out from 09:56 UTC on August 24, 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 September 9, 2009

|       | Element  | Unit   | Value        |
|-------|--|--------|--------------|
| Orbit | Semi-major axis (a)                            | km     | 42165.618117 |
|       | Eccentricity (e)                               | -      | 0.000279459  |
|       | Inclination (I)                                | Degree | 0.076643     |
|       | Right ascension of ascending node ( $\Omega$ ) | Degree | 204.795370   |
|       | Argument of perigee ( $\omega$ )               | Degree | 333.937790   |
|       | Mean anomaly (M)                               | Degree | 69.868777    |