# MTSAT Monthly Operations Report February 2015

# 1. Special operation events

- 1.1 Equinox operation MTSAT-2 spring equinox operation was performed from 14 to 28 February.
- 1.2 Solar-interference operation There was no solar-interference operation of MTSAT-2.

# 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 February 2015.

|                  | HRIT   | Remarks             |
|------------------|--------|---------------------|
| Scheduled        | 1565   |                     |
| Performed        | 1565   | Observed by MTSAT-2 |
| Performance in % | 100.00 |                     |

#### Performance of HRIT dissemination via MTSAT-1R

#### 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 February 2015.

| remonitance of EXTI dissemination via WIS/M-IK |        |                     |  |  |  |  |
|--|--------|---------------------|--|--|--|--|
| LRIT   |        | Remarks             |  |  |  |  |
| Scheduled                                      | 2683   |                     |  |  |  |  |
| Performed                                      | 2683   | Observed by MTSAT-2 |  |  |  |  |
| Performance in %                               | 100.00 |                     |  |  |  |  |

# Performance of LRIT dissemination via MTSAT-1R

### 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 February 2015.

| Performance of HRII dissemination via landline |        |                     |  |  |  |
|--|--------|---------------------|--|--|--|
|  | HRIT   | Remarks             |  |  |  |
| Scheduled                                      | 11180  |                     |  |  |  |
| Performed                                      | 11180  | Observed by MTSAT-2 |  |  |  |
| 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.

| IDCP<br>channels | Numbers of<br>IDCPs <sup>a)</sup> | Received<br>messages | Error<br>messages <sup>b)</sup> | Massages<br>disseminated<br>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                                      |

Reception and dissemination of IDCP messages

a) IDCP numbers are those registered in MTSAT-DCS as of 1 February 2015.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 February 2015.

| interference on WISAT IDes channels (February 2015) |    |    |    |    |    |    |    |    |    |    |    |
|---|----|----|----|----|----|----|----|----|----|----|----|
| 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  |    |    |    |    |    | W  |    |    |    |    |    |
| Channel   | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| Interference  |    |    |    |    |    |    |    |    |    |    | Н  |

Interference on MTSAT IDCS Channels (February 2015)

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, and MTSAT-1R located at longitude 140 east was 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 08:16 UTC on 11 February 2015.
- 2) A north-south station-keeping maneuver of MTSAT-2 was carried out from 22:02 UTC on 18 February 2015.
- 1) A north-south station-keeping maneuver of MTSAT-2 was carried out from 22:02 UTC on 25 February 2015.

# 4.3 Orbit elements of MTSAT-2

The orbit elements of MTSAT-2 are shown in the following table.

|       | 1  |        |              |
|-------|--|--------|--------------|
|       | Element                                      | Unit   | Value        |
|       | Semi-major axis (a)                          | km     | 42165.263700 |
|       | Eccentricity (e)                             | -      | 0.0004531100 |
| Orbit | Inclination (I)                              | Degree | 0.056587     |
|       | Right ascension of ascending node $(\Omega)$ | Degree | 245.291209   |
|       | Argument of perigee (ω)                      | Degree | 100.096503   |
|       | Mean anomaly (M)                             | Degree | 322.032592   |

## Epoch 00:00:0.00 UTC on 5 March 2015 - MTSAT-2