MTSAT Monthly Operations Report September 2007

1. Events of special operation

1.1 Eclipse Operation

Autumn Eclipse and Sun Avoidance Operation of MTSAT-1R were performed from September 1 through September 30.

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 September 2007.

Performance of HiRID dissemination via MTSAT-1R

| | HiRID | Remarks |
|------------------|--------|---------|
| Scheduled | 1676 | |
| Performed | 1676 | |
| 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 September 2007.

Performance of HRIT dissemination via MTSAT-1R

| | HRIT | Remarks |
|------------------|--------|---------|
| Scheduled | 1676 | |
| Performed | 1676 | |
| 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 September 2007.

Performance of LRIT dissemination via MTSAT-1R

| | LRIT | Remarks |
|------------------|--------|---------|
| Scheduled | 2156 | |
| Performed | 2156 | |
| 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 September 2007.

Performance of WEFAX dissemination via MTSAT-1R

| | WEFAX | Remarks |
|------------------|--------|---------|
| Scheduled | 2628 | |
| Performed | 2628 | |
| Performance in % | 100.00 | |

Summary of canceled WEFAX dissemination via MTSAT-1R

| Date | WEFAX | Reasons |
|------|-------|---------|
| | None | |

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 September 2007.

Performance of HRIT dissemination via landline

| | HRIT | Remarks |
|------------------|--------|---------|
| Scheduled | 10866 | |
| Performed | 10866 | |
| 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 a) | Received messages | Error messages b) | Disseminated messages to the GTS |
|---------------|---------------------|----------------------|----------------------|----------------------------------|
| I06 | 0 | 0 | 0 | 0 |
| I07 | 0 | 0 | 0 | 0 |
| I12 | 3 | 0 | 0 | 0 |
| I14 | 1 | 0 | 0 | 0 |
| I15 | 2 | 335 | 335 | 0 |
| I16 | 5 | 0 | 0 | 0 |
| I18 | 0 | 0 | 0 | 0 |
| I20 | 3 | 0 | 0 | 0 |
| Total | 14 | 335 | 335 | 0 |

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

3.2 Interferences on IDCP channels

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

Interference on MTSAT IDCS Channels (September, 2007)

| 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 | | | | | | | | | | | Н |

Note; W: weak interference / H: harmful interference

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

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) East-west station-keeping maneuver of MTSAT-1R was carried out from 10:14 UTC on September 1, 2007.
- 2) East-west station-keeping maneuver of MTSAT-1R was carried out from 09:14 UTC on September 14, 2007.
- 3) East-west station-keeping maneuver of MTSAT-1R was carried out from 09:14 UTC on September 28, 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 October 1, 2007

| | Element | Unit | Value |
|-------|--|--------|--------------|
| Orbit | Semi-major axis (a) | Km | 42165.600478 |
| | Eccentricity (e) | - | 0.000300020 |
| | Inclination (I) | Degree | 0.047102 |
| | Right ascension of ascending node (Ω) | Degree | 193.822362 |
| | Argument of perigee (ω) | Degree | 15.191059 |
| | Mean anomaly (M) | Degree | 60.737119 |