

MTSAT Monthly Operations Report

April 2006

1. Events of special operation

1.1 Eclipse Operation

Spring Eclipse and Sun Avoidance (SA) Operation of MTSAT-1R was performed from April 1 through April 26.

1.2 Solar-interference Operation

There was no Solar-interference Operation of MTSAT-1R.

2. Image observations and dissemination

2.1 HiRID and HRIT image dissemination

Spring Eclipse and Sun Avoidance (SA) Operation of MTSAT-1R was performed from April 1 April 26. On account of this, the following MTSAT-1R observation and image dissemination were canceled:

N14, F15, N15 and F16 from April 1 through April 16, and
N14, F15 and N15 from April 17 through April 21, and
F15, N15 from April 22 through April 26.

The following tables show the performance of HiRID and HRIT image dissemination and the summary of its canceled dissemination. Data dissemination was performed according to the schedule except the cancellation shown below.

Performance of HiRID and HRIT image dissemination

	HiRID	HRIT	Remarks
Scheduled	1571	1571	
Performed	1526	1525	
Performance in %	97.1	97.1	

Summary of canceled HiRID and HRIT image dissemination

Date	HiRID	HRIT	Reasons
April 16	N16 – F00	F16 – N23W	Problem with MTSAT-1R (Loss of Lock)
April 17	S00 – N11W	F00 – N11W	Problem with MTSAT-1R (Loss of Lock)

2.2 LRIT image dissemination

Because of the operation described in 2.1, following LRIT image dissemination was changed:

PS-N14, F15, N15, F16 and D1-F15, F16 from April 1 through April 16, and PS-N14, F15, N15 and D1-F15 from April 17 through April 21, and PS-F15, N15 and D1-F15 from April 12 through April 26.

The following tables show the performance of LRIT image dissemination and the summary of its canceled dissemination. Data dissemination was performed according to the schedule except the cancellation shown below.

Performance of LRIT image dissemination

	LRIT	Remarks
Scheduled	1996	
Performed	1940	
Performance in %	97.2	

Summary of canceled LRIT image dissemination

Date	LRIT	Reasons
April 16	D1-F16—PS-F00	Problem with MTSAT-1R (Loss of Lock)
April 17	D1-F00—PS-N11	Problem with MTSAT-1R (Loss of Lock)
April 26	PS-F16—PS-N16	Ground system trouble

2.3 WEFAX image dissemination

Because of the operation described in 2.1, following WEFAX image dissemination was cancelled:

H/J-15, H/J-16 and A/B/C/D-15 from April 1 through April 16, and H/J-15 and A/B/C/D-15 from April 17 through April 26.

The following tables show the performance of WEFAX image dissemination and the summary of its canceled dissemination. Data dissemination was performed according to the schedule.

Performance of WEFAX image dissemination

	WEFAX	Remarks
Scheduled	2420	
Performed	2337	
Performance in %	96.6	

Summary of canceled WEFAX image dissemination

Date	WEFAX	Reasons
April 16	D1-F16 – PS-F00	Problem with MTSAT-1R (Loss of Lock)
April 17	D1-F00 – PS-N11	Problem with MTSAT-1R (Loss of Lock)
April 26	PS-F16 – PS-N16	Ground system trouble

2.4 HRIT image dissemination via landline

Because of the operation described in 2.1, following HRIT image dissemination via landline was cancelled:

F15 and F16 from April 1 through April 16, and
F15 from April 17 through April 26.

The following tables show the performance of HRIT image dissemination via landline and the summary of its canceled dissemination. Data dissemination was performed according to the schedule.

Performance of HRIT image dissemination via landline

	HRIT	Remarks
Scheduled	5336	
Performed	5182	
Performance in %	97.1	

Summary of canceled HRIT image dissemination via landline

Date	HRIT	Reasons
April 16	F17 – F00	Problem with MTSAT-1R (Loss of Lock)
April 17	F01 – F11	Problem with MTSAT-1R (Loss of Lock)

3. Data Collection System

3.1 International Data Collection System (IDCS)

The following table shows the status of reception and dissemination of messages.

Reception and dissemination of messages

IDCP channel	Number of IDCPs ^{a)}	Received messages	Format errors ^{b)}	Non WMO codes ^{c)}	Disseminated messages to the GTS
I06	14	0	0	0	0
I07	22	0	0	0	0
I10	3	0	0	0	0
I14	3	0	0	0	0
I15	7	170	0	170	0
I16	5	0	0	0	0
I18 (ASDAR)	7	375	38	0	337
I20	3	0	0	0	0
Total	64	545	38	170	337

- a) Number of DCPs registered to MTSAT-1R IDCS as of March 1, 2005.
- b) DCS system did not process reports because the reporting DCPs were out of the responsible area of MTSAT-1R.
- c) There was no message or the message was unsuited to the WMO codes. The DCP data processing software at MSC detected "DATA BUFFER EMPTY" or "NO MESSAGE."

3.2 Interference on IDCP channels

Table 1 shows the interference on MTSAT International Data Collection System (IDCS) channels experienced the period April 2006.

Table 1 Interference on MTSAT IDCS Channels Apr. 2006)

Channel	1	2	3	4	5	6	7	8	9	10	11
Interference	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											S

S: severe interference
W: weak interference

4. Satellite system status

4.1 Satellite status

MTSAT-1R was located at 140 degrees east and continued to provide its operational services.

4.2 Maneuver

East- west station-keeping maneuver of MTSAT-1R

07:14 UTC April 4

North- south station-keeping maneuver of MTSAT-1R

15:56 UTC April 30

4.3 Orbit elements of MTSAT-1R

The orbit elements of MTSAT-1R are shown in the following table.

Epoch 03:00:0.00 UTC May 10, 2006

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42165.849749
	Eccentricity (e)	-	0.000233063
	Inclination (I)	Degree	0.016763
	Right ascension of ascending node (Ω)	Degree	171.704667
	Argument of perigee (ω)	Degree	229.334244
	Mean anomaly (M)	Degree	11.987665