

# MTSAT Monthly Operations Report

## October 2005

### 1. Events of special operation

#### 1.1 Eclipse Operation

Autumn Eclipse and Sun Avoidance (SA) Operation of MTSAT-1R was performed from October 1 to October 30.

#### 1.2 Solar-interference Operation

Solar-interference Operation of MTSAT-1R was performed from October 5 to October 11.

#### 1.3 System maintenance

There was no system maintenance that affects MTSAT-1R operation.

### 2. Image observations and dissemination

#### 2.1 HiRID and HRIT image dissemination

Autumn Eclipse and Sun Avoidance (SA) Operation of MTSAT-1R was performed from October 1 to October 30. For this reason, the following MTSAT-1R observation and image dissemination were cancelled:

F14, N14, F15 and N15 from October 1 through October 26.

N14 and F15 from October 27 through October 30.

Except for the scheduled cancellation, data dissemination was performed according to the schedule. The following table shows the performance and summary of the HiRID and HRIT image dissemination.

Performance of HiRID and HRIT image dissemination

	HiRID	HRIT	Remarks
Scheduled	1624	1624	
Performed	1620	1621	
Performance in %	99.8	99.8	

Summary of canceled HiRID and HRIT image dissemination

Date	HiRID	HRIT	Reasons
October 5	F17	F17	Ground system trouble at MSC
October 17	N02	N02	RFI at CDAS (the <u>C</u> ommand and <u>D</u> ata <u>A</u> cquisition <u>S</u> tation)
October 19	N03	N03	RFI at CDAS
October 20	F08		Ground system trouble at MSC

2.2 LRIT image dissemination

By the same reason of the cancellation of the HiRID and HRIT image dissemination, following LRIT image dissemination was cancelled:

PS-F14, N14, F15, N15 and D1-F14, F15 from October 1 through October 26.  
PS-N14, F15 and D1-F15 from October 27 through October 30.

Except for the scheduled cancellation, data dissemination was performed according to the schedule. The following table shows the performance and summary of the LRIT image dissemination.

Performance of LRIT image dissemination

	LRIT	Remarks
Scheduled	2064	
Performed	2050	
Performance in %	99.3	

Summary of canceled LRIT image dissemination

Date	LRIT	Reasons
October 5	PS-F17, D1-F17	Ground system trouble at MSC
October 17	PS-N02	RFI at CDAS
October 19	D1-F03, PS-N03	RFI at CDAS
October 21	PS-F01,N01,F02 N02,N03 D1-F01,F02	Ground system trouble at MSC
October 22	D1-F02	RFI at CDAS
October 29	PS-N07	North-South station-keeping maneuver

### 2.3 WEFAX image dissemination

By the same reason of the cancellation of the HiRID and HRIT image dissemination, following WEFAX image dissemination was cancelled:

H/J-14, 15 and A/B/C/D-15 from October 1 through October 26.

H/J-15 and A/B/C/D-15 from October 27 through October 30.

Except for the scheduled cancellation, data dissemination was performed according to the schedule. The following table shows the performance and summary of the WEFAX image dissemination.

Performance of WEFAX image dissemination

	WEFAX	Remarks
Scheduled	2496	
Performed	2483	
Performance in %	99.5	

Summary of canceled WEFAX image dissemination

Date	WEFAX	Reasons
October 5	H/J-17	Ground system trouble at MSC
October 19	A/B/C/D-03	RFI at CDAS
October 21	H/I-01,02, A-03	Ground system trouble at MSC
October 22	H/I-02	RFI at CDAS

### 2.4 HRIT image dissemination via landline

By the same reason of the cancellation of the HiRID and HRIT image dissemination, following HRIT image dissemination via landline was cancelled:

F14 and F15 from October 1 through October 26.

F15 from October 27 through October 30.

Except for the scheduled cancellation, data dissemination was performed according to the schedule. The following table shows the performance and summary of the HRIT image dissemination via landline.

Performance of HRIT image dissemination via landline

	HRIT	Remarks
Scheduled	5504	
Performed	5468	
Performance in %	99.3	

Summary of canceled HRIT image dissemination via landline

Date	HRIT	Reasons
October 5	F17	Ground system trouble at MSC
October 21	F01,F02,F03	Ground system trouble at MSC.
October 22	F02 (South)	RFI at CDAS

### 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 <sup>a)</sup>	Received messages	Format errors <sup>b)</sup>	Non WMO codes <sup>c)</sup>	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	682	0	682	0
I16	5	0	0	0	0
I18 (ASDAR)	7	127	13	0	114
I20	3	0	0	0	0
Total	64	809	13	682	114

a) Number of DCPs registered to MTSAT-1R IDCS as of March 1, 2005.

b) Edit processing error occurred due to the origin of the report being out of the area of responsibility for acquisition 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

The following table shows the interference on MTSAT-1R International Data Collection System(IDCS) channels.

Interference on MTSAT-1R IDCS channels (Oct. 2005)

Ch.	1	2	3	4	5	6	7	8	9	10	11
Oct.	W	S			W						

Ch.	12	13	14	15	16	17	18	19	20	21	22
Oct.											

Ch.	23	24	25	26	27	28	29	30	31	32	33
Oct.											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

North-South Station-Keeping maneuver of MTSAT-1R was performed at 0656 UTC on October 29.

East-West Station-Keeping maneuver of MTSAT-1R was performed at 0814 UTC on October 5 and October 31.

### 4.3 Orbit elements of MTSAT-1R

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

Epoch 19:35:10.88 UTC November 15, 2005

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42163.6704
	Eccentricity (e)	-	0.00021225
	Inclination (I)	Degree	0.04505561
	Right ascension of ascending node ( $\Omega$ )	Degree	349.266107
	Argument of perigee ( $\omega$ )	Degree	267.744413
	Mean anomaly (M)	Degree	232.001780