Meteorological Satellite Center
Japan Meteorological Agency

MTSAT Monthly Operations Report

July 2005

1. Events of special operation

1.1 Eclipse Operation

There was no Eclipse Operation of MTSAT-1R.

1.2 Solar-interference Operation

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

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

The MTSAT-1R observation of N13 was canceled on July 22 due to North-South Station-Keeping maneuver of MTSAT-1R.

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	1736	1736	
Performed	1732	1731	
Performance in %	99.8	99.8	

Summary of canceled HiRID and HRIT image dissemination

Date	HiRID	HRIT	Reasons
July 1	N11, N11W F12	N11, N11W F12	Problem with JAMI. (Japanese Advanced Meteorological Imager)
July 15		N11W	Ground system trouble at MSC.
July 22	N13	N13	North-South Station-Keeping maneuver.

2.2 LRIT image dissemination

MTSAT-1R observation of N13 was canceled on July 22 due to North-South Station-Keeping maneuver of MTSAT-1R.

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	2232	
Performed	2222	
Performance in %	99.6	

Summary of canceled LRIT image dissemination

Date	LRIT	Reasons
July 1	PS-F12 D1-F12 D3-F12 PS-N12	Problem with JAMI.
July 7	PS-F05 D1-F05	Ground system trouble at MSC.
July 19	PS-F05 D1-F05	Ground system trouble at MSC.
	PS-N09	Ground system trouble at MSC.
July 22	PS-N13	North-South Station-Keeping maneuver.

2.3 WEFAX image dissemination

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	2728	
Performed	2708	
Performance in %	99.3	

Summary of canceled WEFAX image dissemination

Date	WEFAX	Reasons
July 1	H/I, A-D, K-N-12	Problem with JAMI.
July 6	I-00	Ground system trouble at MSC.
	H-08	Ground system trouble at MSC.
July 7	H/I-05	Ground system trouble at MSC.
July 9	H-14	Ground system trouble at MSC.
July 10	I-04	Ground system trouble at MSC.
	I-07	Ground system trouble at MSC.
July 14	H/I-05	Ground system trouble at MSC.
July 19	H/I-05	Ground system trouble at MSC.

2.4 HRIT image dissemination via landline

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	5952	
Performed	5927	
Performance in %	99.6	

Summary of canceled HRIT image dissemination via landline

Date	HRIT	Reasons
July 1	F12	Problem with JAMI.
July 7	F05	Ground system trouble at MSC.
July 19	F05	Ground system trouble at MSC.

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	686	0	686	0
I16	5	0	0	0	0
I18 (ASDAR)	7	391	38	0	353
I20	3	0	0	0	0
Total	64	1077	38	686	353

a) Number of DCPs registered to MTSAT-1R IDCS as of March 1, 2005.
b) Format error was caused by the radio telecommunication interference.
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 (Jul 2005)

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

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

Ch.	23	24	25	26	27	28	29	30	31	32	33
Jul.			W	W							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 1256 UTC on July 22.

East-West Station-Keeping maneuver of MTSAT-1R was performed at 1414 UTC on July 25.

4.3 Orbit elements of MTSAT-1R

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

Epoch 22:35:16.88 UTC August 18, 2005

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42164.0995
	Eccentricity (e)	-	0.00022533
	Inclination (I)	Degree	0.06701993
	Right ascension of ascending node (Ω)	Degree	275.628336
	Argument of perigee (ω)	Degree	212.294668
	Mean anomaly (M)	Degree	318.537005

4.4 End of GMS-5 operation

Re-orbit maneuver of GMS-5 was performed on July 17 and 18, and all operation of GMS-5 was ceased on July 21.

5. Ground system status

Ground system operations were performed successfully.