

MTSAT Monthly Operations Report

August 2005

1. Events of special operation

1.1 Eclipse Operation

Autumn Eclipse and Sun Avoidance (SA) Operation of MTSAT-1R was performed from August 15 to August 31.

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

Autumn Eclipse and Sun Avoidance (SA) Operation of MTSAT-1R was performed from August 15 to August 31. For this reason, the following MTSAT-1R observation and image dissemination were cancelled:

N14, F15 and N15 from August 15 through August 27.

F14, N14, F15, N15 and F16 from August 28 through August 31.

The MTSAT-1R observation of N13 was canceled on August 12 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	1677	1677	
Performed	1672	1669	
Performance in %	99.7	99.5	

Summary of canceled HiRID and HRIT image dissemination

Date	HiRID	HRIT	Reasons
August 12	N13	N13	North-South Station-Keeping maneuver.
August 14		S06, S06W N07	Ground system trouble at MSC.
August 22	S00W, F01 N01, F02	S00W, F01 N01, F02	Problem with JAMI. (Japanese <u>A</u> dvanced <u>M</u> eteorological <u>I</u> mager)

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-N14, F15, N15 and D1-F15 from August 15 through August 27.

PS-F14, N14, F15, N15, F16 and D1-F14, F15, F16 from August 28 through August 31.

LRIT image dissemination of PS-N13 was canceled on August 12 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	2148	
Performed	2138	
Performance in %	99.5	

Summary of canceled LRIT image dissemination

Date	LRIT	Reasons
August 3	PS-F08 D1-F08	Radio frequency interference.
August 12	PS-N13	North-South Station-Keeping maneuver.
August 22	PS-F01, N01, F02 D1-F01, F02	Problem with JAMI. (Japanese <u>A</u> dvanced <u>M</u> eteorological <u>I</u> mager)
	PS-F03, N03	Ground system trouble at MSC.

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-15 and A/B/C/D-15 from August 15 through August 27.

H/J-14, 15, 16 and A/B/C/D-15 from August 28 through August 31.

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	2610	
Performed	2596	
Performance in %	99.5	

Summary of canceled WEFAX image dissemination

Date	WEFAX	Reasons
August 3	H/I-08	Radio frequency interference.
August 11	H/I-02	Ground system trouble at MSC.
August 22	H/I-01, H/I-02	Problem with JAMI. (Japanese <u>A</u> dvanced <u>M</u> eteorological <u>I</u> mager)
	H/I-03, A/B/C/D-03	Ground system trouble at MSC.

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:

F15 from August 15 through August 27.

F14, F15 and F16 from August 28 through August 31.

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	5752	
Performed	5722	
Performance in %	99.6	

Summary of canceled HRIT image dissemination via landline

Date	HRIT	Reasons
August 3	F08	Radio frequency interference.
August 22	F01, F02	Problem with JAMI. (Japanese <u>A</u> dvanced <u>M</u> eteorological <u>I</u> mager)
	F03	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	705	0	705	0
I16	5	0	0	0	0
I18 (ASDAR)	7	377	39	0	335
I20	3	0	0	0	0
Total	64	1082	39	705	335

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 (Aug. 2005)

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

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

Ch.	23	24	25	26	27	28	29	30	31	32	33
Aug.			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 August 12.

East-West Station-Keeping maneuver of MTSAT-1R was performed at 1014 UTC on August 16.

East-West Station-Keeping maneuver of MTSAT-1R was performed at 0414 UTC on August 26.

4.3 Orbit elements of MTSAT-1R

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

Epoch 23:35:16.88 UTC September 4, 2005

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42166.5158
	Eccentricity (e)	-	0.00017848
	Inclination (I)	Degree	0.03520167
	Right ascension of ascending node (Ω)	Degree	254.159124
	Argument of perigee (ω)	Degree	280.649391
	Mean anomaly (M)	Degree	303.444170

5. Ground system status

Ground system operations were performed successfully.