Meteorological Satellite Center
Japan Meteorological Agency

GMS Monthly Operations Report

June 2005

1. MTSAT-1R information

Formal operation of MTSAT-1R, including the dissemination service of the High Rate Information Transmission (HRIT) and the Low Rate Information Transmission (LRIT), was started at 03 UTC on June 28. Along with HRIT and LRIT imagery, dissemination service of the High Resolution Imager Data (HiRID, compatible with S-VISSR imagery of GMS-5) was started as transition measures for current users of GMS-5/GOES-9 observational data. WEFAX image dissemination was changed into the one using data obtained with MTSAT-1R, and was also continued. Furthermore, distribution of HRIT product via the landline containing imagery obtained with MTSAT-1R was started to the registered National Meteorological and Hydrological Services (NMHSs) from JMA.

2. Events of special operation

2.1 Eclipse Operation

There was no Eclipse Operation of GMS-5.

2.2 Solar-interference Operation

There was no Solar-interference Operation of GMS-5.

2.3 System maintenance

There was no system maintenance that affects GMS operation.

3. Image observations (GOES-9) and dissemination (MTSAT-1R)

3.1 S-VISSR type data dissemination

GOES-9 observation of G04 was canceled on June 8 due to East-West Station-Keeping maneuver of GOES-9.

Except for the scheduled cancellation, data dissemination was performed according to the schedule. The following table shows the performance and summary of the S-VISSR type data dissemination.

Performance of S-VISSR type data dissemination

	S-VISSR type data dissemination	Remarks
Scheduled	651	
Performed	642	
Performance in %	98.6	

Summary of anomalous S-VISSR type data dissemination

Date	Product	Remarks
June 14	01UTC	The 0025UTC image was lost at 50N and southward
June 16	19UTC	The 1825UTC image was lost from 2N to 38S
June 23	05UTC	Some parts of full disk images were lost
June 23	07UTC	Some parts of full disk images were lost
June 28	02UTC	The 0125UTC image was lost from 12N to 10S

Summary of canceled S-VISSR type data dissemination

Date	Product	Reasons
June 8	04UTC	East-West Station-Keeping maneuver of GOES-9
June 16	20-23UTC	Ground system trouble at MSC
June 20	20-21UTC	Ground system trouble at MSC
June 23	01UTC	Ground system trouble at MSC
	06UTC	The 0525UTC image was missing

3.2 WEFAX dissemination

WEFAX dissemination was canceled for H/I-04 on June 8 due to East-West Station-Keeping maneuver of GOES-9.

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

Performance of WEFAX dissemination

	WEFAX dissemination	Remarks
Scheduled	2390	
Performed	2357	
Performance in %	98.6	

Summary of anomalous WEFAX dissemination

Date	Product	Remarks
June 14	01UTC	H/I-01 image was lost at 50N and southward
June 16	19UTC	H/J-19 image was lost from 2N to 38S
June 23	05UTC	Some parts of H/I-05 images were lost
June 23	07UTC	Some parts of H/I-07 images were lost
June 28	02UTC	H/I-02 image was lost from 12N to 10S

Summary of cancelled WEFAX dissemination

Date	Product	Reasons
June 2	03-04UTC	Ground system trouble at MSC
June 7	05UTC	Ground system trouble at MSC
June 8	04UTC	East-West Station-Keeping maneuver of GOES-9
June 16	20-23UTC	Ground system trouble at MSC
June 20	20-21UTC	Ground system trouble at MSC
June 23	06UTC	The 0525UTC image was missing

4. Image observations and dissemination of MTSAT-1R data

4.1 HiRID and HRIT image dissemination

Expect 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	161	161	
Performed	158	159	
Performance in %	98.1	98.8	

Summary of anomalous HiRID and HRIT image dissemination

Date	HiRID	HRIT	Remarks
June 28	F19	F19	F19 image was lost from 42N to 52N

Summary of canceled HiRID and HRIT image dissemination

Date	HiRID	HRIT	Reasons
June 30	F22, N22, F23	F22, N22	Ground system trouble at MSC

4.2 LRIT 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 LRIT image dissemination.

Performance of LRIT image dissemination

	LRIT	Remarks
Scheduled	207	
Performed	204	
Performance in %	98.6	

Summary of anomalous LRIT image dissemination

Date	LRIT	Reasons
June 28	PS-F19 D1-F19	F19 image was lost from 42N to 52N

Summary of canceled LRIT image dissemination

Date	LRIT	Reasons
June 30	PS-F22 D1-F22 PS-N22	Ground system trouble at MSC

4.3 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 in this month.

Performance of WEFAX image dissemination

	WEFAX	Remarks
Scheduled	250	
Performed	248	
Performance in %	99.2	

Summary of anomalous WEFAX image dissemination

Date	WEFAX	Reasons
June 28	H/J-19	H/J-19 image was lost from 42N to 52N

Summary of canceled WEFAX image dissemination

Date	WEFAX	Reasons
June 30	H/I-22	Ground system trouble at MSC

4.4 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	552	
Performed	551	
Performance in %	99.8	

Summary of anomalous HRIT image dissemination via landline

Date	HRIT	Remarks
June 28	F19	F19 image was lost from 42N to 52N

Summary of canceled HRIT image dissemination via landline

Date	HRIT	Reasons
June 30	F22	Ground system trouble at MSC

5. Data Collection System

5.1 International Data Collection System (IDCS)

The following table shows the IDCP messages received at MSC and disseminated through the GTS.

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	696	0	696	0
I16	5	0	0	0	0
I18 (ASDAR)	7	378	41	0	337
I20	3	0	0	0	0
Total	64	1074	41	696	337

a) Number of DCPs registered to GMS-5 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."

5.2 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

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

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

Ch.	23	24	25	26	27	28	29	30	31	32	33
Jun.			W	W							S

S: severe interference
W: weak interference

6. Satellite system status

6.1 Satellite status

MTSAT-1R was located at 140 degrees east. MTSAT-1R continued test dissemination of imagery obtained with MTSAT-1R until 02 UTC of June 28 and started operational services from 03 UTC of June 28.

GMS-5 was being stored in orbit as a standby satellite, located at 120 degrees east.

6.2 Maneuver

North-South Station-Keeping maneuver of MTSAT-1R was performed at 1456 UTC on June 22, and East-West Station-Keeping maneuver of MTSAT-1R was performed at 1014 UTC on June 25.

East-West Station-Keeping maneuver of GMS-5 was performed at 1258 UTC on June 9.

6.3 Orbit and attitude elements of GMS-5

The orbit and attitude elements of GMS-5 are shown in the following table.

Epoch 00:00:00 UTC, June 7, 2005

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42168.16573
	Eccentricity (e)	-	0.00000471
	Inclination (I)	Degree	3.83918
	Right ascension of ascending node (Ω)	Degree	78.24664
	Argument of perigee (ω)	Degree	342.55168
	Mean anomaly (M)	Degree	314.54197
Attitude	Right ascension (α)	Degree	169.17116
	Declination (δ)	Degree	-86.15511

7. Ground system status

Ground system operations were performed successfully.