Meteorological Satellite Center
Japan Meteorological Agency

GMS Monthly Operations Report

April 2005

1. MTSAT-1R information

Regarding the meteorological communication function, MTSAT-1R has taken over GMS-5 since April 28. Namely, the data relay from DCPs and dissemination of WEFAX imagery obtained with GOES-9 have been implemented by MTSAT-1R since the date.

2. Events of special operation

2.1 Eclipse Operation

Spring Eclipse Operation of GMS-5 was performed from April 1 to April 3.

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 and dissemination

3.1 S-VISSR type data dissemination

GOES-9 images of G13, G14 and G15 were not observed from April 1 to April 27 due to its Spring Eclipse Operation. For this reason, the following dissemination of S-VISSR type data were cancelled:

G13, G14 and G15 from April 1 through April 27.

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 disseminations

	S-VISSR type data dissemination	Remarks
Scheduled	639	
Performed	639	
Performance in %	100	

Summary of anomalous S-VISSR type data dissemination

Date	Product	Remarks
	None	

Summary of canceled S-VISSR type data dissemination

Date	Product	Reasons
	None	

3.2 WEFAX dissemination

By the same reason of the cancellation of the S-VISSR type data dissemination, following WEFAX dissemination was cancelled:

H/J-13, H/J-14, H/J-15 and A/B/C/D-15 from April 1 through April 27.

WEFAX dissemination were canceled for H/I-04 on April 28 due to taking over meteorological communication function of GMS-5 by MTSAT-1R.

Except 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	2262	
Performed	2259	
Performance in %	99.9	

Summary of anomalous WEFAX dissemination

Date	Product	Remarks
	None	

Summary of cancelled WEFAX dissemination

Date	Product	Reasons
April 17	02UTC (I-02)	Ground system trouble at MSC
April 28	04UTC	Dissemination schedule change of WEFAX

4. Data Collection System

4.1 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	713	0	713	0
I16	5	0	0	0	0
I18 (ASDAR)	7	377	44	0	333
I20	3	0	0	0	0
Total	64	1090	44	713	333

a) Number of DCPs registered to GMS-5 IDCS as of March 1, 2005.
b) Format error was caused by 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."

4.2 Interference on IDCP channels

The following table shows the interference on GMS International Data Collection System(IDCS) channels.

Interference on GMS IDCS channels

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

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

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

S: severe interference
W: weak interference

5. Satellite system status

5.1 Satellite status (Station change)

In order to move the orbital location of GMS-5 and MTSAT-1R, the drift maneuver was performed from 1350 UTC to 2233 UTC on April 26.

5.2 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

6. Ground system status

Ground system operations were performed successfully.