

GMS Monthly Operations Report

October 2004

1. Events of Special Operation

1.1 Eclipse Operation

The Autumn Eclipse Operation of GMS-5 was performed from October 1 to 7.

1.2 Solar-interference Operation

The Solar-interference Operation of GMS-5 was performed on October 1.

1.3 System Maintenance

System maintenance, which affects GMS operation, was not performed in this month.

2. Image Observations and Dissemination

2.1 S-VISSR type data disseminations

The Autumn Eclipse Operation of GOES-9 was continued in this month. Therefore, the S-VISSR type data disseminations were changed as follows:

G13 was canceled from October 1 to 10 and was changed into northern hemisphere data from October 11 to 31.

G14 was canceled from October 1 to 13 and was changed into northern hemisphere data from October 14 to 31.

G15 was canceled from October 1 to 7 and was changed into northern hemisphere data from October 8 to 24.

The Solar-interference Operation of MSC - GOES-9 link was ended on October 15. Therefore, S-VISSR type data dissemination was changed as follows:

G02 was canceled from October 1 to 15.

The GOES-9 image of G02 was canceled at October 28, due to East-West Station Keeping Manuver of GOES-9.

Except for the scheduled cancellation, the data disseminations were performed in satisfactory. The following table shows the performance and summary of the S-VISSR type data disseminations in this month.

Performance of S-VISSR type data disseminations

	S-VISSR type data Disseminations	Remarks
Scheduled	698	
Performed	697	
Performance in %	99.9	

Summary of anomaly S-VISSR type data disseminations

Date	Product	Remarks
October 20	23UTC	The 2213UTC image was lost from 21N to 18N.
October 27	16UTC	The 1525UTC image was lost at 67N and northern latitude.
October 27	21UTC 22UTC	The 2025UTC and 2125UTC images were shifting to east about 130 or 140 km.
October 30	00UTC 01UTC	Infrared images: The brightness temperature is about 5 degrees higher than normal temperature.
October 31	01UTC	Water Vapor images: The brightness temperature is 10 to 15 degrees lower than normal temperature.

Summary of canceled S-VISSR type data disseminations

Date	Product	Reasons
October 3	16UTC	Ground equipment problems at FCDAS/NOAA

2.2 WEFAX Dissemination

The Autumn Eclipse Operation of GOES-9 was continued in this month. Therefore, the WEFAX disseminations were changed as follows:

H/J-13 were canceled from October 1 to 10.

H/J-14 were canceled from October 1 to 13.

H/J-15 and A/B/C/D-15 were canceled from October 1 to 7, and C/D-15 were canceled from October 8 to 24.

The Solar-interference Operation of MSC - GOES-9 link was ended on October 15. Therefore, the WEFAX dissemination was changed as follows:

H/I-02 were canceled from October 1 to 15.

WEFAX disseminations were canceled at H/I-02 on October 28, due to East-West Station Keeping Manuver of GOES-9.

Expect for the scheduled cancellation, the data disseminations were preformed in satisfactory. The following table shows the performance and summary of WEFAX disseminations in this month.

Performance of WEFAX Disseminations

GMS-5	Disseminated	Remarks
Scheduled	2450	
Performed	2438	
Performance in %	99.5	

Summary of anomaly WEFAX disseminations

Date	Product	Remarks
October 27	21UTC 22UTC	The 2025UTC and 2125UTC images were shifting to east about 130 or 140 km.
October 30	00UTC 01UTC	H-00, A/B/C/D-00 and H-01: The brightness temperature is about 5 degrees higher than normal temperature.
October 31	01UTC	K/L/M/N-00: The brightness temperature is 10 to 15 degrees lower than normal temperature.

Summary of Cancelled WEFAX Dissemination

Date	Product	Reasons
October 3	16UTC	Ground equipment problems at FCDAS/NOAA
October 20	12UTC	Trouble of ground system in JMA

3. Data Collection System

3.1 International Data Collection System (IDCS)

The following table shows the IDCP messages are 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 code ^{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	849	0	738	111
I16	5	0	0	0	0
I18 (ASDAR)	8	280	40	0	240
I20	3	0	0	0	0
Total	65	1129	40	738	351

a) Number of DCPs registered on GMS-5 IDCS as of 1 May 2003.

b) Format error was caused by the radio telecommunication interference.

c) The messages were none or unsuited to the WMO codes and "DATA BUFFER EMPTY" or "NO MESSAGE was detected by the DCP data processing software at MSC

3.2 Interference on IDCP Channels

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

Interference on GMS IDCS Channels (Oct 2004)

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

S: severe interference

W: weak interference

4. Satellite System Status

4.1 Satellite Status

GMS-5 was located at longitude 140 degrees east and continued to provide its operational services.

4.2 Maneuver

East-West Station keeping maneuver of GMS-5 was performed on October 13.

4.3 Orbit and Attitude Elements of GMS-5

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

Epoch 00:00:00 UTC, 20 January 2005

	Element	Unit	Value
Orbit	Semi-major axis (a)	Km	42167.98103
	Eccentricity (e)	-	0.00012201
	Inclination (I)	Degree	3.52587
	Right ascension of ascending node (Ω)	Degree	79.79078
	Argument of perigee (ω)	Degree	262.38751
	Mean anomaly (M)	Degree	277.36975
Attitude	Right ascension (α)	Degree	168.45189
	Declination (δ)	Degree	-86.42802

5. Ground System Status

The operation for the ground system was satisfactory.