

GMS Monthly Operations Report

January 2002

1. Events of Special Operation

1.1 Eclipse Operation

No Eclipse Operation.

1.2 Solar-interference Operation

No Solar-interference Operation.

1.3 Typhoon Special Observation

From 12 to 13 January, the fifteen minutes interval observations were performed for the extraction of Atmospheric Motion Vector around typhoons.

1.4 System Maintenance

System maintenance which affects GMS operation was performed on 16,22,23 and 25 January.

1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 1,8,15,22 and 29 January in order to prevent the lubricant buildup of VISSR. This operation has no influence on the GMS operation schedule.

2. Image Observations and Dissemination

2.1 Image Observations and Stretched VISSR (S-VISSR) Dissemination

VISSR image observations and S-VISSR dissemination were satisfactory as scheduled except for the cancelled observations during this month. The following table shows performance and summary of image observation and S-VISSR dissemination.

Performance of Image Observations and S-VISSR Dissemination

GMS-5	Observations	Remarks
Scheduled	868	
Performed	864	
Performance in %	99.5	

Summary of Cancelled Observations and S-VISSR Dissemination

Date	Cancelled	Reasons
13 January	V15	Lunar eclipse
22 January	V01/V02	Maintenance of ground subsystem
23 January	V01	Maintenance of ground subsystem

2.2 WEFAX Dissemination

WEFAX dissemination was satisfactory except for the cancelled observations during this month. The following table shows performance and summary of WEFAX dissemination.

WEFAX Dissemination Performance

GMS-5	Disseminated	Remarks
Scheduled	2603	
Performed	2565	
Performance in %	98.5	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
13 January	H-12	Trouble of ground subsystem
13 January	H/J-14 H/J-15,A/B/C/D-15	Lunar eclipse
16 January	H/I-02	Maintenance of ground subsystem
21 January	H/I-07	Attitude maneuver Spin rate maneuver
22 January	K/L/M/N-00 H/I-01 H/I-02 H/I-03,A/B/C/D-03 H/I-04	Maintenance of ground subsystem
23 January	K/L/M/N-00 H/I-01 H/I-02 H-05	Maintenance of ground subsystem

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 ^{a)}	Registered ^{b)}	Received messages	Format errors ^{b)}	Non WMO code ^{c)}	Disseminated messages to the GTS
SHIP including ASAP	I06	78	62	0	0	62
	I07	85	193	7	0	186
	I14	32	0	0	0	0
	I15	39	95	0	0	94
	I16	68	0	0	0	0
ASDAR	I18	22	501	83	0	418
Total		324	851	90	0	760

a) Number of IDCPs registered on GMS-5 IDCS as of 30 January 2002

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

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 (January 2002)

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

ch.	12	13	14	15	16	17	18	19	20	21	22
					W	S					

ch.	23	24	25	26	27	28	29	30	31	32	33
										S	S

S: severe interference

W: week interference

4. Satellite System Status

4.1 Satellite Status

GMS-5 was located at 140 degree East and continued to provide its operational services.

4.2 Maneuver

Attitude maneuver and spin rate maneuver were performed on 21 January.

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, 7 February 2002

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42168.19542
	Eccentricity (e)	-	0.00014394
	Inclination (I)	degree	0.90238
	Right ascension of ascending node (Ω)	degree	79.07450
	Argument of perigee (ω)	degree	291.76550
	Mean anomaly (M)	degree	266.20903
Attitude	Right ascension (α)	degree	170.34517
	Declination (δ)	degree	- 88.98664

5. Ground System Status

5.1 Ground System Status

On 16 January, the maintenance of communication equipment was performed and System Maintenance Operation Schedule was executed.

On 22,23 and 25 January, maintenance of the Microwave-Link between CDAS/MS and

DPC/MSC was performed. V01 and V02 observations on 22 January and V01 observation on 23 January were cancelled. From 0030UTC to 0410UTC on 22 and 23 January, the operation of GMS-5 Data Collection System was cancelled.

The operation of the ground system was satisfactory except for above maintenance.

6. Others

On 13 January, the Lunar Eclipse occurred from 1402UTC to 1434UTC. H/J-14 dissemination and V15 observation were cancelled.