

GMS Monthly Operations Report

April 2002

1. Events of Special Operation

1.1 Eclipse Operation

Eclipse Operation was performed from 24 February to 9 April.

1.2 Solar-interference Operation

No Solar-interference Operation.

1.3 Typhoon Special Observation

No Typhoon Special Observation.

1.4 System Maintenance

System maintenance which affects GMS operation was performed on 9, 10, 23 and 25 April.

1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 2,9,16,23 and 30 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	822	
Performed	821	
Performance in %	99.9	

Summary of Cancelled Observations and S-VISSR Dissemination

Date	Cancelled	Reasons
5 April	V12	the trouble with line error under the influence of ionospheric scintillation

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	2448	
Performed	2426	
Performance in %	99.1	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
5 April	H/J-12 A,B,C,D-12 K,L,M,N-12	the trouble with line error under the influence of ionospheric scintillation
9,10,23,25 April	H/I-02	Maintenance of ground subsystem
18 April	H/I-07	East-west maneuver
25 April	H/I-07	Attitude maneuver

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	Registered ^{a)}	Received messages	Format errors ^{b)}	Non WMO code	Disseminated messages to the GTS
SHIP including ASAP	I06	78	184	0	0	184
	I07	85	266	7	0	259
	I14	32	93	0	0	93
	I15	39	80	0	0	80
	I16	68	0	0	0	0
ASDAR	I18	22	276	80	0	196
Total		324	899	87	0	812

a) Number of IDCPs registered on GMS-5 IDCS as of 30 April 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.

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 (April 2002)

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

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

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

S: severe interference

W: weak 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

East-west maneuver was performed on 18 April. Attitude maneuver and spin rate maneuver was performed on 25 April.

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, 9 May 2002

	Element	Unit	Value
Orbit	Semi-major axis (a)	Km	42166.05697
	Eccentricity (e)	-	0.00013885
	Inclination (I)	Degree	1.07213
	Right ascension of ascending node (Ω)	Degree	80.96112
	Argument of perigee (ω)	Degree	333.88615
	Mean anomaly (M)	Degree	312.07182
Attitude	Right ascension (α)	Degree	173.63451
	Declination (δ)	Degree	- 88.97127

5. Ground System Status

5.1 Ground System Status

On 9 and from 23 to 25 April, the maintenance of computer system at DPC/MSC was performed and System Maintenance Operation Schedule was executed on 9,10,23 and 25 April for the computer switching.

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

6. Others

Except for S-VISSR dissemination, the following GMS FAX schedule was canceled due to the trouble with line error under the influence of ionospheric scintillation between 1120 and 1150 UTC on 5 April.

V12-WEFAX(H/J/A/B/C/D-12 and K/L/M/N-12)