

GMS Monthly Operations Report

April 2001

1. Events of Special Operation

1.1 Eclipse Operation

Eclipse Operation was performed from 24 February to 10 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 17 and 18 April.

1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 10,12,17 and 24 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	820	
Performed	820	
Performance in %	100.0	

Summary of Cancelled Observations and S-VISSR Dissemination

Date	Cancelled	Reasons
	None	

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	1000	
Performed	994	
Performance in %	99.4	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
17 April	H/I-02	Maintenance of ground subsystem
18 April	H/I-02	Maintenance of ground subsystem
26 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 ^{a)}	Registered ^{b)}	Received messages	Format errors ^{b)}	Non WMO code ^{c)}	Disseminated messages to the GTS
SHIP including ASAP	I06	78	209	0	0	209
	I07	85	420	24	97	299
	I14	32	190	0	0	190
	I15	39	175	1	145	29
	I16	68	1333	22	0	1311
ASDAR	I18	22	609	80	0	529
Total		324	2936	127	242	2567

a) Number of IDCPs registered on GMS-5 IDCS as of 30 April 2001

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 (April 2001)

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

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

ch.	23	24	25	26	27	28	29	30	31	32	33
			W					W	W	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 was performed on 26 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, 1 May 2001

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42166.46026
	Eccentricity (e)	-	0.00010694
	Inclination (I)	degree	0.76148
	Right ascension of ascending node (Ω)	degree	75.83202
	Argument of perigee (ω)	degree	244.81637
	Mean anomaly (M)	degree	38.61241
Attitude	Right ascension (α)	degree	163.30014
	Declination (δ)	degree	- 89.17359

5. Ground System Status

5.1 Ground System Status

On 17 and 18 April, the communication equipment maintenance was performed and System Maintenance Operation Schedule was executed both days. The operation for the ground system was satisfactory except for above maintenance.

6. Others

At V12 observation on 13 April, about 450 error lines occurred intermittently for the problem of satellite communication link.