

GMS Monthly Operations Report

May 2001

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

No Typhoon Special Observation.

1.4 System Maintenance

System maintenance which affects GMS operation were performed on 22 and 23 May.

1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 1,8,15,22 and 29 May 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	867	
Performance in %	99.9	

Summary of Cancelled Observations and S-VISSR Dissemination

Date	Cancelled	Reasons
11 May	V01	Trouble 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	2600	
Performed	2586	
Performance in %	99.5	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
11 May	H/I-01	Trouble of ground subsystem
21 May	H/I-07	Attitude maneuver Spin rate maneuver
22 May	H/I-02	Maintenance of ground subsystem
23 May	H/I-02	Maintenance of ground subsystem
24 May	H/I-07	East-west 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	197	1	0	196
	I07	85	360	11	0	349
	I14	32	143	0	0	143
	I15	0	0	0	0	0
	I16	68	974	18	0	956
ASDAR	I18	22	576	75	0	501
Total		324	2250	105	0	2145

a) Number of IDCPs registered on GMS-5 IDCS as of 31 May 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 (May 2001)

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

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

ch.	23	24	25	26	27	28	29	30	31	32	33
			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 and Spin rate maneuver were performed on 21 May. East-west maneuver was performed on 24 May.

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 June 2001

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42164.11282
	Eccentricity (e)	-	0.00005233
	Inclination (I)	degree	0.85515
	Right ascension of ascending node (Ω)	degree	75.97319
	Argument of perigee (ω)	degree	310.74254
	Mean anomaly (M)	degree	8.91792
Attitude	Right ascension (α)	degree	166.22411
	Declination (δ)	degree	- 89.23062

5. Ground System Status

5.1 Ground System Status

On 11 May, the hardware trouble of the communication equipment at CDAS/MSC occurred and V01 observation lacked.

On 22 May, the maintenance of computer system at DPC/MSC was performed and System Maintenance Operation Schedule was executed on 22 and 23 May for the computer switching.

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