

GMS Monthly Operations Report

October 2001

1. Events of Special Operation

1.1 Eclipse Operation

Eclipse Operation was performed from 28 August to 13 October.

1.2 Solar-interference Operation

Solar-interference Operation was performed from 2 to 9 October.

1.3 Typhoon Special Observation

From 5 to 9 October, from 13 to 18 October and from 20 to 27 October, 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 not performed this month.

1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 2,9,16,22,24 and 30 October 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	834	
Performed	833	
Performance in %	99.9	

Summary of Cancelled Observations and S-VISSR Dissemination

Date	Cancelled	Reasons
23 October	V07	North-south maneuver Spin rate maneuver

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	2465	
Performed	2460	
Performance in %	99.8	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
9 October	C-06	Trouble of ground subsystem
23 October	H/I-07	North-south maneuver Spin rate maneuver
25 October	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	28	4	0	24
	I07	85	190	3	0	187
	I14	32	0	0	0	0
	I15	39	129	1	0	128
	I16	68	0	0	0	0
ASDAR	I18	22	526	80	0	446
Total		324	873	88	0	785

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

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

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

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

Attitude maneuver was performed on 25 October. North-south maneuver and spin rate maneuver were performed on 23 October.

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 November 2001

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42168.54806
	Eccentricity (e)	-	0.00019623
	Inclination (I)	degree	0.63756
	Right ascension of ascending node (Ω)	degree	73.99602
	Argument of perigee (ω)	degree	205.07968
	Mean anomaly (M)	degree	261.14725
Attitude	Right ascension (α)	degree	160.28299
	Declination (δ)	degree	- 89.35558

5. Ground System Status

5.1 Ground System Status

Duo to the computer trouble at CDAS/MSC, the image control information (orbit and attitude data block of the documentation sectors) in the S-VISSR had been corrupted from V16 on 31 October to V10 on 2 November.

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