

## GMS Monthly Operations Report

November 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

From 7 to 12 November, 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 20,21 and 28 November.

#### 1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 6,13,20 and 27 November 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	840	
Performed	840	
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	2520	
Performed	2512	
Performance in %	99.7	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
7 November	H/I-07	East and west maneuver
20 November	H/I-02	Maintenance of ground subsystem
21 November	H/I-02	Maintenance of ground subsystem
28 November	H/I-02	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 <sup>a)</sup>	Registered <sup>b)</sup>	Received messages	Format errors <sup>b)</sup>	Non WMO code <sup>c)</sup>	Disseminated messages to the GTS
SHIP including ASAP	I06	78	155	1	0	154
	I07	85	174	8	0	166
	I14	32	0	0	0	0
	I15	39	0	0	0	0
	I16	68	0	0	0	0
ASDAR	I18	22	456	54	0	402
Total		324	785	63	0	722

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

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

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

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

#### 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 13 November. East-west maneuver was performed on 20 November.

##### 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, 6 December 2001

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42165.21362
	Eccentricity (e)	-	0.00013777
	Inclination (I)	degree	0.73760
	Right ascension of ascending node ( $\Omega$ )	degree	74.52154
	Argument of perigee ( $\omega$ )	degree	253.85972
	Mean anomaly (M)	degree	246.56269
Attitude	Right ascension ( $\alpha$ )	degree	160.50679
	Declination ( $\delta$ )	degree	- 89.33563

#### 5. Ground System Status

##### 5.1 Ground System Status

Due 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.

On 20 November, the maintenance of the computer system at DPC/MSC was performed and System Maintenance Operation Schedule was executed on 20 and 21 November for the computer switching.

On 28 November, the maintenance of the communication equipment was performed and System Maintenance Operation Schedule was executed.

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