

# GMS Monthly Operations Report

## August 2001

### 1. Events of Special Operation

#### 1.1 Eclipse Operation

Eclipse Operation began from 28 August and will be finished on 13 October.

#### 1.2 Solar-interference Operation

No Solar-interference Operation.

#### 1.3 Typhoon Special Observation

From 3 to 9 August, from 15 to 22 August, from 28 to 31 August, 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 17 August.

#### 1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 7,14,21 and 28 August 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	860	
Performed	853	
Performance in %	99.2	

Summary of Cancelled Observations and S-VISSR Dissemination

Date	Cancelled	Reasons
17 August	V01,V02	Maintenance of ground subsystem
28 August	V17,V18,V19,V20,V21	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	2553	
Performed	2524	
Performance in %	98.9	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
2 August	H/I-07	Attitude control maneuver
17 August	H/I-01 H/I-02	Maintenance of ground subsystem
28 August	H/J-16 H-17 H/J-18,A/B/C/D-18 H/J-19 H/J-20 H/J-21,AB/C/D-21 H/I-22	Trouble 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	214	0	0	214
	I07	85	395	52	0	343
	I14	32	0	0	0	0
	I15	39	69	3	57	9
	I16	68	0	0	0	0
ASDAR	I18	22	1084	143	0	941
Total		324	1762	198	57	1507

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

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

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

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

Attitude maneuver was performed on 2 August.

### 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 September 2001

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42166.78616
	Eccentricity (e)	-	0.00015952
	Inclination (I)	degree	0.76733
	Right ascension of ascending node ( $\Omega$ )	degree	79.35213
	Argument of perigee ( $\omega$ )	degree	185.16126
	Mean anomaly (M)	degree	220.63596
Attitude	Right ascension ( $\alpha$ )	degree	158.97569
	Declination ( $\delta$ )	degree	- 89.27336

## 5. Ground System Status

### 5.1 Ground System Status

On 17 August, the software maintenance of the computer system at DPC/MSC was performed and V01 and V02 observations were cancelled.

On 28 August, the trouble of the Microwave Link between CDAS/MSC and DPC/MSC had been continued from 1600UTC to 2048UTC. VISSR observations from V17 to V21 lacked and

WEFAX H/J-16 and H/J-22 has not been disseminated.

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