

## GMS Monthly Operations Report

### February 2002

#### 1. Events of Special Operation

##### 1.1 Eclipse Operation

Special Eclipse Operation began from 23 February and will be finished on 9 April.

##### 1.2 Solar-interference Operation

Solar-interference Operation began from 28 February and will be finished on 7 March.

##### 1.3 Typhoon Special Observation

No Typhoon Special Observation.

##### 1.4 System Maintenance

System maintenance which affects GMS operation was performed on 19 and 20 February.

##### 1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 5,12,19 and 26 February 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	771	
Performed	771	
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	2302	
Performed	2296	
Performance in %	99.7	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
19 February	H/I-02	Maintenance of ground subsystem
20 February	H/I-02	Maintenance of ground subsystem
21 February	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 <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	60	0	0	60
	I07	85	315	4	0	311
	I14	32	33	0	0	33
	I15	39	0	0	0	0
	I16	68	0	0	0	0
ASDAR	I18	22	274	72	0	202
Total		324	682	76	0	606

a) Number of IDCPs registered on GMS-5 IDCS as of 30 January 2002

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 (February 2002)

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

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

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

East-west maneuver was performed on 21 February.

##### 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 February 2002

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42168.19542
	Eccentricity (e)	-	0.00014394
	Inclination (I)	degree	0.90238
	Right ascension of ascending node ( $\Omega$ )	degree	79.07450
	Argument of perigee ( $\omega$ )	degree	291.76550
	Mean anomaly (M)	degree	266.20903
Attitude	Right ascension ( $\alpha$ )	degree	170.34517
	Declination ( $\delta$ )	degree	- 88.98664

#### 5. Ground System Status

##### 5.1 Ground System Status

On 19 February, the maintenance of the computer system at DPC/MSC was performed. System Maintenance Operation Schedule was executed on 19 and 20 February for the computer switching.