

GMS Monthly Operations Report

August 2002

1. Events of Special Operation

1.1 Eclipse Operation

Eclipse Operation began from 27 August and will be finished on 12 October.

1.2 Solar-interference Operation

No Solar-interference Operation.

1.3 Typhoon Special Observation

From 4 to 5 August, from 12 to 20 August, from 24 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 22 and 23 August.

1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 6, 13, 19 and 27 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	858	
Performed	856	
Performance in %	99.8	

Summary of Cancelled Observations and S-VISSR Dissemination

Date	Cancelled	Reasons
8 August	V01,V02	Maintenance 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	2545	
Performed	2525	
Performance in %	99.2	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
8 August	H/I-01,02 K/L/M/N-00	Maintenance of ground subsystem
12 August	H/I-07	Attitude maneuver
15 August	H/I-07	East-West maneuver
20 August	H/I-07	Spin rate maneuver
22 and 23 August	H/I-02	Maintenance of ground subsystem
28 August	H/I-07	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	Number of IDCPs ^{a)}	Received messages	Format errors ^{b)}	Non WMO code ^{c)}	Disseminated messages to the GTS
I06	78	161	1	0	160
I07	86	343	1	0	342
I10	3	0	0	0	0
I12	20	0	0	0	0
I14	26	208	0	0	208
I15	40	139	0	0	139
I16	5	0	0	0	0
I18 (ASDAR)	10	415	103	0	312
I20	3	0	0	0	0
Total	271	1266	105	0	1161

a) Number of DCPs registered on GMS-5 IDCS as of 30 June 2002.

b) Format error was caused by the radio telecommunication interference.

c) 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

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 2002)

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

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

ch.	23	24	25	26	27	28	29	30	31	32	33
			W				S		S	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 control maneuver was performed on 12 August. East and West control maneuver was performed on 15 August. Spin rate control maneuver was performed on 20 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, 5 September 2002

	Element	Unit	Value
Orbit	Semi-major axis (a)	Km	42166.31206
	Eccentricity (e)	-	0.00010024
	Inclination (I)	Degree	1.37944
	Right ascension of ascending node (Ω)	Degree	83.68088
	Argument of perigee (ω)	Degree	24.65327
	Mean anomaly (M)	Degree	15.83240
Attitude	Right ascension (α)	Degree	174.64472
	Declination (δ)	Degree	- 88.66868

5. Ground System Status

On 8 August, the maintenance of ground subsystem at DPC/MSC was performed. WEFAX-(H/I-01,K/L/M/N-00,H/I-02) and DCP communications (from 0030-0230 UTC) were canceled.

On 22 August, the maintenance of the computer system at DPC/MSC was performed. System Maintenance Operation Schedule was executed on 22 and 23 August for the computer switching. The operation for the ground system was satisfactory except for above maintenance.

6. Others

On 28 August, the following GMS-5 operations was canceled due to the trouble of ground subsystem at CDAS/MSC.

WEFAX-(H/I-07)

DCP communications (from 06:49UTC to 08:00UTC)