

GMS Monthly Operations Report

October 2002

1. Events of Special Operation

1.1 Eclipse Operation

Eclipse Operation was performed from 27 August to 12 October.

1.2 Solar-interference Operation

Solar-interference Operation was performed from 30 September to 7 October.

1.3 Typhoon Special Observation

On 1 October , from 10 to 13 October , from 28 to 29 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 performed on 17 October.

1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 1, 8, 15, 22 and 28 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	837	
Performed	837	
Performance in %	100	

Summary of Cancelled Observations and S-VISSR Dissemination

Date	Cancelled	Reasons
17 October	V01,V02	Maintenance of ground subsystem
17 October	V03	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	2485	
Performed	2468	
Performance in %	99.3	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
11 October	H -07	Trouble of ground subsystem
17 October	H/I-03, A/B/C/D-03	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	18	8	0	10
I07	86	338	2	0	336
I10	3	0	0	0	0
I12	20	0	0	0	0
I14	26	212	0	0	212
I15	40	157	0	0	157
I16	5	0	0	0	0
I18 (ASDAR)	10	355	80	0	275
I20	3	0	0	0	0
Total	271	1080	90	0	990

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 (October 2002)

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

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

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

East and West control maneuver was performed on 10 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, 31 October 2002

	Element	Unit	Value
Orbit	Semi-major axis (a)	Km	42165.44607
	Eccentricity (e)	-	0.00013420
	Inclination (I)	Degree	1.48159
	Right ascension of ascending node (Ω)	Degree	83.34014
	Argument of perigee (ω)	Degree	59.90406
	Mean anomaly (M)	Degree	36.12719
Attitude	Right ascension (α)	Degree	172.05330
	Declination (δ)	Degree	-88.66144

5. Ground System Status

On 17 October, the maintenance of computer system at DPC/MSC was performed. WEFAX-(H/I-01, K/L/M/N-00, H/I-02) and DCP communications(from 0040UTC to 0120UTC) were canceled.

6. Others

On 11 October, WEFAX-(H-07), On 17 October, WEFAX-(H/I-03, A/B/C/D-03) were canceled due to the trouble of ground subsystem at DPC/MSC.