

GMS Monthly Operations Report

April 2003

1. Events of Special Operation

1.1 Eclipse Operation

Eclipse Operation was performed from 21 February to 7 April.

1.2 Solar-interference Operation

There was not performed Solar-interference Operation.

1.3 Typhoon Special Observation

From 11 to 25 April, 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 not performed this month.

1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 1, 8, 15, 22 and 28 April 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	S-VISSR Dissemination	Remarks
Scheduled	826	826	
Performed	825	825	
Performance in %	99.9	99.9	

Summary of Cancelled Observations

Date	Cancelled	Reasons
6 April	V16E	Trouble of ground subsystem

Summary of Cancelled S-VISSR Dissemination

Date	Cancelled	Reasons
6 April	V16E	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	2449	
Performed	2443	
Performance in %	99.8	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
6 April	H/J-16E	Trouble of ground subsystem
7 April	H/J-10	East-west maneuver
17 April	H/I-07	Attitude 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	Number of IDCPs ^{a)}	Received messages	Format errors ^{b)}	Non WMO code ^{c)}	Disseminated messages to the GTS
I06	14	0	0	0	0
I07	22	226	0	0	226
I10	3	0	0	0	0
I14	3	75	4	0	71
I15	7	135	0	0	135
I16	5	0	0	0	0
I18 (ASDAR)	10	488	96	0	392
I20	3	0	0	0	0
Total	67	924	100	0	824

a) Number of DCPs registered on GMS-5 IDCS as of 30 November 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 (April 2003)

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

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

ch.	23	24	25	26	27	28	29	30	31	32	33
Apr.									W	W	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-west maneuver was performed on 7 April. Attitude maneuver was performed on 17 April.

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, 22 May 2003

	Element	Unit	Value
Orbit	Semi-major axis (a)	Km	42166.71573
	Eccentricity (e)	-	0.00012441
	Inclination (I)	Degree	1.98572
	Right ascension of ascending node (Ω)	Degree	83.03744
	Argument of perigee (ω)	Degree	358.43735
	Mean anomaly (M)	Degree	297.93383
Attitude	Right ascension (α)	Degree	173.69435
	Declination (δ)	Degree	-88.03549

5. Ground System Status

On 6 April, The trouble occurred in the ground subsystem of CDAS/MS. V16E observation and WEFAX-(H/J-16E) were canceled. The operation of ground system was satisfactory except for above trouble.