

GMS Monthly Operations Report

September 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 1 to 2 September, from 4 to 29 September, 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 5 and 6 September.

1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 4,11,18 and 25 September. 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	780	
Performed	780	
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	1000	
Performed	996	
Performance in %	99.6	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
5 September	H/I-02	Maintenance of ground subsystem
6 September	H/I-02	Maintenance of ground subsystem
17 September	H/I-07	Attitude maneuver 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 ^{a)}	Registered ^{b)}	Received messages	Format errors ^{b)}	Non WMO code ^{c)}	Disseminated messages to the GTS
SHIP including ASAP	I06	78	169	1	0	168
	I07	85	109	7	0	102
	I14	32	0	0	0	0
	I15	39	0	0	0	0
	I16	68	0	0	0	0
ASDAR	I18	22	869	111	0	758
Total		324	1147	119	0	1028

a) Number of IDCPs registered on GMS-5 IDCS as of 30 September 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 (September 2001)

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

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							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

Attitude maneuver and East-west maneuver were performed on 17 September.

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, 4 October 2001

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42164.49649
	Eccentricity (e)	-	0.00010783
	Inclination (I)	degree	0.80861
	Right ascension of ascending node (Ω)	degree	80.19059
	Argument of perigee (ω)	degree	204.40032
	Mean anomaly (M)	degree	228.23612
Attitude	Right ascension (α)	degree	178.17374
	Declination (δ)	degree	- 89.24951

5. Ground System Status

5.1 Ground System Status

On 5 September, the maintenance of the computer system at DPC/MSK was performed and System Maintenance Operation Schedule was executed on 5 and 6 September for the computer switching. The operation for the ground system was satisfactory except for above maintenance.