

GMS Monthly Operations Report

July 2001

1. Events of Special Operation

1.1 Eclipse Operation

No Eclipse Operation.

1.2 Solar-interference Operation

No Solar-interference Operation.

1.3 Typhoon Special Observation

From 1 to 6 July, from 10 to 11 July and from 22 to 30 July, 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.

1.5 VISSR Expanded Frame Operation

VISSR Expanded Frame Operation was performed on 2,11,17,24 and 30 July 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	868	
Performed	864	
Performance in %	99.5	

Summary of Cancelled Observations and S-VISSR Dissemination

Date	Cancelled	Reasons
16 July	V13	East-west maneuver Spin rate maneuver
18 July	V07	Thunderbolt near CDAS/MSC
20 July	V16	lunar eclipse
30 July	V10	Interference of satellite link

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	2587	
Performed	2567	
Performance in %	99.2	

Summary of Cancelled WEFAX Dissemination

Date	Cancelled	Reasons
3 July	H/I-07	Attitude maneuver
10 July	H/I-07	East-west maneuver
16 July	H/J-13,K/L/M/N-13	North-south maneuver Spin rate maneuver
18 July	H/I-07	Thunderbolt near CDAS/MSC
19 July	H/I-07	Attitude maneuver
20 July	H/J-16	Lunar eclipse
26 July	H/I-07	East-west maneuver
30 July	H/J-10	Interference of satellite link

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	101	0	0	101
	I07	85	225	11	0	214
	I14	32	0	0	0	0
	I15	39	23	1	17	5
	I16	68	0	0	0	0
ASDAR	I18	22	927	123	0	804
Total		324	1276	135	17	1124

a) Number of IDCPs registered on GMS-5 IDCS as of 31 July 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 (July 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	W	W				

Ch.	23	24	25	26	27	28	29	30	31	32	33
			W							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 maneuver was performed on 3 and 19 July. North-south maneuver and spin rate maneuver were performed on 16 July. East-west maneuver was performed on 10 and 26 July.

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, 6 August 2001

	Element	Unit	Value
Orbit	Semi-major axis (a)	km	42163.81054
	Eccentricity (e)	-	0.00004594
	Inclination (I)	degree	0.71904
	Right ascension of ascending node (Ω)	degree	76.56608
	Argument of perigee (ω)	degree	207.20744
	Mean anomaly (M)	degree	170.85762
Attitude	Right ascension (α)	degree	169.31845
	Declination (δ)	degree	- 89.22697

5. Ground System Status

5.1 Ground System Status

On 18 July, the trouble of Microwave Link between CDAS/MSC and DPC/MSC occurred by the thunderbolt near CDAS/MSC and V07 observation lacked. The operation for the ground system was satisfactory except for the trouble.

6. Others

As from 0100UTC on 4 July, the observation area was reduced further in the south end latitudes and the observation frequency for the southern hemisphere was also decreased as follows.

a) Full disk picture

Full disk picture is 16 times (V00,V03,V05,W06,V06,V09,V11,W12,V12,V15,V17,W18,V18,V21,V23,W23) . The south end of the observation area is around 49 degree South.

b) Northern hemisphere picture

Northern hemisphere picture is 12 times (V01,V02,V04,V07,V08,V10,V13,V14,V16,V19,V20,V22). The south end of the observation area is around 10 degree South. The finish time of observation is about HH:47.