

CGMS-XXXI JMA-WP-03

Prepared by JMA

Agenda Item: B.2

Discussed in Plenary

**Status~~TATUS~~ of~~OF~~ Backup~~ACKUP~~ Operation~~PERATION~~ of GMS-5  
with~~WITH~~ GOES-9**

This paper reports on the status of the backup operation of GMS-5 with GOES-9, that was started on 22 May 2003 in cooperation with NOAA/NESDIS.

~~No action is required on this subject.~~

## Status of Backup Operation of GMS-5 with GOES-9 ~~STATUS OF BACKUP OPERATION OF GMS-5 WITH GOES-9~~

JMA started backup operation ~~of~~ GMS-5 with GOES-9 on 22 May 2003 in cooperation with NOAA/NESDIS ~~as the measure for continuation of the~~ to ensure continuous earth observations over the western pacific. JMA discontinued the observations with GMS-5 and initiated the utilization of GVAR data obtained ~~with~~ from GOES-9 operated by NOAA/NESDIS at 155E degrees above the equator. ~~Since then~~ Thanks to this backup operation, JMA ~~has produced~~ could continue to provide satellite cloud images and ~~related~~ the meteorological products such as Aatmospheric Motion Vectors (AMVs) from the GVAR data, ~~wind as ever~~ and provided users with the WEFAX pictures and the Stretched-VISSR (S-VISSR) data converted from the GVAR data ~~to users.~~ The backup operation with GOES-9 will be continued until MTSAT-1R, the successor to GMS-5, will start its normal operation. ~~GOES-9 is operated at 155E degrees above the equator by NOAA/NESDIS.~~ The daily observation schedule of GOES-9 Imager is shown in Attachment 1.

Upon reception ~~JMA converts each GOES-9 GVAR data to GMS-5 S-VISSR format then the converted data are processed and various satellite products are produced and distributed to users. In the conversion process, each image data undergo re-projection, i.e. pixels are re-arrayed so as to make an image that fits into grid frame viewed from GMS-5 stationed at nominal point of 140E degrees above the equator.~~

JMA transmits WEFAX pictures for SDUSs and S-VISSR data for MDUSs continuously during backup operation with GOES-9. However as for both WEFAX and S-VISSR services, ~~only hourly full disk observation data are utilized.~~ The WEFAX pictures converted from GVAR data are disseminated to Small-scale Data Utilization Stations (SDUSs) via GMS-5 stationed at 140E degrees above the equator. Users of WEFAX are able to obtain those pictures with use of existing facilities without any modification. The dissemination schedule for the WEFAX converted from GOES-9 GVAR data is the same as that of the GMS-5's service. ~~(The WEFAX dissemination schedule is shown in Attachment 2.)~~

~~The~~ Broadcasting service of S-VISSR data via GMS-5 was ~~suspended~~ discontinued ~~after~~ when the backup operation started. In place of S-VISSR dissemination via GMS-5, S-VISSR type data files are being disseminated to registered National Meteorological and Hydrological Services (NMHSs) vi through ~~landline~~ (the Internet/FTP) with the RSMC (Regional Specialized Meteorological Center (RSM)MSC) data server of JMA (refer to JMA-WP-11). At present, only IR1 (10.5-11.5 $\mu$ m) channel data are is being provided, and registered NMHSs are permitted to access to the server is restricted to one station of NMHS for each country because of limited capacity of the Internet bandwidth. S-VISSR type data

files are posted on the ~~RSMC data~~ server in ~~about~~ 10-15 minutes after ~~the end finishing~~ observation from of each GOES-9 ~~observation~~.

Performance of dissemination of WEFAX and S-VISSR of JMA from May through August ~~this year~~2003 are shown in the following tables.

Table 1: WEFAX Dissemination Performance

	PLANS	OMISSIONS	OUTPUTS	PERFORMANCE
MAY-2003	817	0	779	95.3%
JUNE-2003	2520	0	2485	98.6%
JULY-2003	2604	0	2582	99.2%
AUG-2003	2604	184	2414	99.8%

\*PLANS – Number of routine WEFAX dissemination.

\*OMISSIONS – Number of canceled WEFAX dissemination. (GOES-9 Eclipse etc.)

\*OUTPUTS – Number of WEFAX dissemination.

\*PERFORMANCE –  $OUTPUTS / (PLANS - OMISSIONS)$

Table 2: S-VISSR Dissemination Performance

	PLANS	OMISSIONS	OUTPUTS	PERFORMANCE
MAY-2003	234	0	227	97.0%
JUNE-2003	720	0	714	99.2%
JULY-2003	744	0	736	98.9%
AUG-2003	744	54	686	99.4%

\*PLANS -- Number of GOES-9 routine full disk observation

\*OMISSIONS -- Number of GOES-9 canceled observation. (GOES-9 Eclipse etc.)

\*PLANS — Number of routine S-VISSR ~~GOES-9 routine full disk observation dissemination.~~

\*OMISSIONS — Number of ~~GOES-9 canceled S-VISSR dissemination.~~ ~~observation.~~ (GOES-9 Eclipse etc.)

\*OUTPUTS – Number of ~~WEFAX or~~ S-VISSR dissemination.

\*PERFORMANCE –  $OUTPUTS / (PLANS - OMISSIONS)$

## GOES-9 IMAGER OBSERVATION SCHEDULE

UTC	0	10	20	30	40	50	60
00	01	17	25	52			
	SHORT FULL DISK		FULL DISK (G01)				
01	01	11	25	52			
	PAC9		FULL DISK (G02)				
02	01	17	25	52			
	SHORT FULL DISK		FULL DISK (G03)				
03	01	17	25	52			
	SHORT FULL DISK		FULL DISK (G04)				
04		13	40	49			
	FULL DISK (G05)				FULL DISK		
05		16	25	52			
	(WIND OBSERVATION)		FULL DISK (G06)				
06	01	17	25	52			
	SHORT FULL DISK		FULL DISK (G07)				
07	01	11	25	52			
	PAC9		FULL DISK (G08)				
08	01	17	25	52			
	SHORT FULL DISK		FULL DISK (G09)				
09	01	17	25	52			
	SHORT FULL DISK		FULL DISK (G10)				
10		13	40	49			
	FULL DISK (G11)				FULL DISK		
11		16	25	52			
	(WIND OBSERVATION)		FULL DISK (G12)				
12	01	17	25	52			
	SHORT FULL DISK		FULL DISK (G13)				
13	0	17	5	52			
	SHORT FULL DISK		FULL DISK (G14)				
14	01	17	25	52			
	SHORT FULL DISK		FULL DISK (G15)				
15	01	17	25	52			
	SHORT FULL DISK		FULL DISK (G16)				
16		13	40	49			
	FULL DISK (G17)				FULL DISK		
17		16	25	52			
	(WIND OBSERVATION)		FULL DISK (G18)				
18	01	17	25	52			
	SHORT FULL DISK		FULL DISK (G19)				
19	01	11	25	52			
	PAC9		FULL DISK (G20)				
20	01	17	25	5			
	SHORT FULL DISK		FULL DISK (G21)				
21	01	17	25	52			
	SHORT FULL DISK		FULL DISK (G22)				
22		13	40	49			
	FULL DISK (G23)				FULL DISK		
23		16	25	52			
	(WIND OBSERVATION)		FULL DISK				

SHORT FULL DISK : Northern hemisphere observation

PAC9 : East Asia observation

\*This table was made by JMA based on information from NOAA/NESDIS.

WEFAX DISSEMINATION SCHEDULE

UTC	0	10	20	30	40	50	60
00				GOES-9 FULL DISK OBSERVATION (G01)			
	H, I-00		A, B, C, D-00				
01				GOES-9 FULL DISK OBSERVATION (G02)			
	H, I-01		K, L, M, N-00				
02				GOES-9 FULL DISK OBSERVATION (G03)			
	H, I-02		M/T				
03				GOES-9 FULL DISK OBSERVATION (G04)			
	H, I-03		A, B, C, D-03				
04			GOES-9 FULL DISK OBSERVATION (G05)				
	H, I-04					H-05	
05				GOES-9 FULL DISK OBSERVATION (G06)			
06				GOES-9 FULL DISK OBSERVATION (G07)			
	H, I-06		A, B, C, D-06				
07				GOES-9 FULL DISK OBSERVATION (G08)			
	H, I-07						
08				GOES-9 FULL DISK OBSERVATION (G09)			
	H, I or J-08		M/T				
09				GOES-9 FULL DISK OBSERVATION (G10)			
	H, I or J-09		A, B, C, D-09				
10			GOES-9 FULL DISK OBSERVATION (G11)				
	H, J-10					H-11	
11				GOES-9 FULL DISK OBSERVATION (G12)			
12				GOES-9 FULL DISK OBSERVATION (G13)			
	H, J-12		A, B, C, D-12				
13				GOES-9 FULL DISK OBSERVATION (G14)			
	H, J-13		K, L, M, N-12				
14				GOES-9 FULL DISK OBSERVATION (G15)			
	H, J-14						
15				GOES-9 FULL DISK OBSERVATION (G16)			
	H, J-15		A, B, C, D-15				
16			GOES-9 FULL DISK OBSERVATION (G17)				
	H, J-16					H-17	
17				GOES-9 FULL DISK OBSERVATION (G18)			
18				GOES-9 FULL DISK OBSERVATION (G19)			
	H, J-18		A, B, C, D-18				
19				GOES-9 FULL DISK OBSERVATION (G20)			
	H, J-19						
20				GOES-9 FULL DISK OBSERVATION (G21)			
	H, J-20						
21				GOES-9 FULL DISK OBSERVATION (G22)			
	H, I or J-21		A, B, C, D-21				
22			GOES-9 FULL DISK OBSERVATION (G23)				
	H, I or J-22					H-23	
23				GOES-9 FULL DISK OBSERVATION (G00)			

Image A, B, C and D : Four-Sectrized full disk picture (IR1)  
 Image K, L, M and N : Four-Sectrized full disk picture (IR3)  
 Image H : Polar stereographic picture covering the Far East Area (IR1)  
 Image I : Polar stereographic picture covering the Far East Area (VIS)  
 Image J : Polar stereographic picture covering the Far East Area (Enhanced IR1)