



NWC SAF
CDOP Operations Report
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Rolling User Survey

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1.1 ROLLING USER SURVEY

1.1.1 SW Status

Table 1 and Table 2 summarize the NWC SAF MSG SW packages downloaded and installed by the SUG. We do not have a tool available to monitor downloads, and therefore we depend on users to let us know whether the SAFNWC SW package has been downloaded. The information has hence been obtained from the 13 replies to a questionnaire sent by e-mail to all users on 22nd June 2007, keeping the information of previous surveys when no new inputs received. The Mail Box has also been checked in order to detect the messages related to the SAFNWC v2.0, updating the SW status tables accordingly.

As a matter of summary, 15 users downloaded the SAFNWC/MSG v2.0 SW, 12 of them running the package. SAFNWC/MSG v1.2 is apparently being used in 12 sites but the only confirmation that we have is from CM-SAF (Germany) (see section 1.1.4). Please note that only the last version is fully maintained and that the previous version maintenance will only be based on best effort. On the PPS part, 7 users downloaded the SAFNWC/PPS v2.0 SW which is running in 4 sites being v1.1 and v1.0 running in 4 and 2 sites respectively.

Several users complained the lack of manpower for running the SAFNWC SW operationally.

MSG USER	SW Status				SAFNWC/MSG Platform
	v1.0	v1.1	v1.2	v2.0	
TMS (Turkey)	RU			RU	SUN Blade 100 SUN Solaris 9
FMI (Finland)			IN		LINUX Red Hat
HMS (Hungary)	RU	RU	RU		SUN Blade 2000 &
HMS (Hungary)			IN		Silicon Graphics Origin 2000
ANM (Romania)	IN	RU	RU		SunOS 5.9 Generic_118558-11 sun4u sparc SUNW, Ultra-Enterprise
KNMI (The Netherlands)	RU	RU	RU	RU	sun4u sparc SUNW,Sun-Fire-V440
DWD (Germany)	RU	RU	RU	RU	SUSE Linux 9.2
CM-SAF, DWD (Germany)	RU	RU	RU		SUSE Linux 9.0 & IBM AIX 5.3
Météo Swiss (Switzerland)			IN		SGI Origin 3200 C
Météo-France (France)	RU	RU	RU	RU	SunOS 5.9 Generic_112233-11 sun4u sparc SUNW,SunFire-880
SMHI (Sweden)	IN	IN	RU		LINUX, Red Hat 3.7
ZAMG (Austria)	IN	RU	RU	RU	SUN Solaris
BGIO (Germany)	RU	RU	RU	RU	SUN Solaris
DMI (Denmark)	DO	RU		RU	SUN Solaris 8 SPARC processor
IM (Portugal)	RU	RU	RU		LINUX RedHat 7.3
UGM (Italy)	IN	RU	RU		SUN Blade 2000 2 CPU: Ultra SPARC III Cu 900 MHz - 2 GB RAM
RMIB (Belgium)		IN	RU	RU	PC Linux and HP Unix
HNMS (Greece)	RU				LINUX Red Hat 7.3
DMHZ (Croatia)				DO	LINUX (on HP)
METNO (Norway)			IN	RU	Debian Woody
ARSO (Slovenia)	IN	IN			LINUX
Met Eireann (Ireland)		RU	RU		Red Hat Enterprise Ed
SHMU (Slovak Republic)	DO	RU			
Met Office (United Kingdom)	DO				-
IMGW (Poland)	RU	RU	RU		SUN Blade 2000 SUN Solaris 8
INM (Spain)	RU	RU	RU	RU	SunOS 5.8 Generic_108528-20 sun4u sparc SUNW, Sun-Fire480R, 900 MH
CMR (Croatia)					
CIMA (Italy)					LINUX
ARPA (Italy)		RU			LINUX
ARPAL (Italy)					LINUX
NUI (Ireland)			RU		Dell Power edge 1850, Red Hat Enterprise
NIMHB (Bulgaria)			IN	IN	Red Hat Enterprise Ed
LMD (France)			RU		LINUX, Red Hat
Köln University (Germany)			RU		LINUX
ISAC-CNR (Italy)					
CSIR (South Africa)					
CCNY (USA)			RU		Xeon 64-bit machine, RedHat Enterprise Linux WS V3
PC Regione Marche (Italy)					
RHMS (Serbia)			IN		SuSE Linux 8.0
Bern University (Switzerland)			RU	RU	LINUX, Red Hat
LHMS (Lithuania)				IN	no information available
ULPGC (Spain)					
Imperial College (UK)			DO		
CHMI (Czech Republic)					
Armed Forces (Austria)					
ENAV S.p.A. (Italy)					
SAWS (South Africa)					
IAP (Switzerland)			IN		Linux (kubuntu 6.06 dapper or debian etch)
EUMETSAT (Germany)					
DMN (Morocco)					
INM Izaña (Spain)					
MeteoConsult (The Netherlands)				RU	Intel(R) Pentium(R) 4 CPU 3.00GHz,1GB RAM, Red Hat Enterprise 4, gcc v
TU Dresden (Germany)					
Austro Control (Austria)					
Uni. Bonn (Germany)					

Table 1: Summary of the SW Status SAFNWC/MSG

PPS USER	SW Status			SAFNWC/PPS Platform
	v1.0	v1.1	v2.0	
TMS (Turkey)		RU		SUN Blade 100 SUN Solaris 9
FMI (Finland)	RU			LINUX/Mandrake and Red Hat
HMS (Hungary)		DO		not decided yet
ANM (Romania)				
KNMI (The Netherlands)				
DWD (Germany)		RU	DO	SUSE Linux 9.2
CM-SAF, DWD (Germany)	RU	RU		IBM AIX 5.3
Météo Swiss (Switzerland)	RU			SGI Origin 3200 C
Météo-France (France)				
SMHI (Sweden)		RU	RU	Linux Red Hat Enterprise 3
ZAMG (Austria)			DO	not decided yet
BGIO (Germany)			RU	SUN Solaris 8 (SPARC processor)
DMI (Denmark)		RU	RU	SUN Solaris 8 (SPARC processor)
IM (Portugal)		DO	RU	Fedora Core 3 and 5
UGM (Italy)				
RMI B (Belgium)		DO		HP / LINUX (Red Hat)
HNMS (Greece)				
DMHZ (Croatia)				
METNO (Norway)		RU		Debian Woody Fedora Core 3 FC5 and Debian S
ARSO (Slovenia)				
Met Eireann (Ireland)				
SHMU (Slovak Republic)				
Met Office (United Kingdom)				
IMGW (Poland)	DO			not decided yet
INM (Spain)		DO	DO	not decided yet
CMR (Croatia)				
CIMA (Italy)				
ARPA (Italy)				
ARPAL (Italy)				
NUI (Ireland)				
NIMHB (Bulgaria)				
LMD (France)				
Köln University (Germany)				
ISAC-CNR (Italy)				
CSIR (South Africa)				
CCNY (USA)				
PC Regione Marche (Italy)				
RHMS (Serbia)				
Bern University (Switzerland)				
LHMS (Lithuania)				
ULPGC (Spain)				
Imperial College (UK)				
CHMI (Czech Republic)				
Armed Forces (Austria)				
ENAV S.p.A. (Italy)				
SAWS (South Africa)				
IAP (Switzerland)				
EUMETSAT (Germany)				
DMN (Morocco)				
INM Izaña (Spain)				
MeteoConsult (The Netherlands)				
TU Dresden (Germany)				
Austro Control (Austria)				
Uni. Bonn (Germany)				

Table 2: Summary of the SW Status SAFNWC/PPS

1.1.2 SW Use

This new section was proposed by the Review Board during the OR-2006 held in Madrid at INM HQ on 29th November 2006. The aim of the Table 3 is to inform on the PGEs being used, whether their use is operational and/or for research/study purposes and whether if products are delivered to secondary users. Please note that the tables below include the input provided by the users in both the current questionnaire and the corresponding to the last semester.

MSG USER	SW Use											P	
	PGE01	PGE02	PGE03	PGE04	PGE05	PGE06	PGE07	PGE08	PGE09	PGE10	PGE11		
HMS (Hungary)	O	R	O	R	R	R				O	O	R	
KNMI (The Netherlands)	O	R	O	R	R	R	R	R	R	O	O	R	
DWD (Germany)	O	O	R	O	O	R	O	O	O				
CM-SAF, DWD (Germany)	O	O	O										
Météo-France (France)	O	O	O								R	O	
SMHI (Sweden)	O	O	D	O									
ZAMG (Austria)	D	O	D	O	R	O	D	D	D		O	R	O
BGIO (Germany)	O	O	D	O	O	O	O	O	O	O	O	O	O
IM (Portugal)	O	O	O	R	O	R	R	R	R				R
UGM (Italy)	O	O	O	O	O	O	O	O	O				
RMIB (Belgium)	O	R	O	O	O	R	R	R	R	R	R	R	R
DMHZ (Croatia)	O	O	O	O	O	O	O	O	O	O	O	O	O
Met Eireann (Ireland)	O	O	O	O	O	O	O	O	O	O	O	O	O
INM (Spain)	O	O	O	O	O	O	R	R	R	O	R	O	
NIMHB (Bulgaria)	R	O	R	O	O	R	R	R	O	O	O	O	
Köln University (Germany)					R						R	R	
ISAC-CNR (Italy)	R	R	R	R	R	R	R	R	R	R	R	R	
CCNY (USA)												R	
ULPGC (Spain)	R												
Imperial College (UK)	R	R	R										
MeteoConsult (The Netherlands)	R	R	R	R	R	R	R	R	R	R	R	R	

Table 3: Summary of the SW Use questionnaire for SAFNWC/MSG

PPS USER	SW Use			
	PGE01	PGE02	PGE03	PGE04
DWD (Germany)	O	O	O	O
CM-SAF, DWD (Germany)	O	O	O	O
SMHI (Sweden)	O	O	O	O
BGIO (Germany)	O	O	O	O
IM (Portugal)	R			
RMIB (Belgium)	R	R	R	R
INM (Spain)	O	O	O	O
ULPGC (Spain)	R			

Table 4: Summary of the SW Use questionnaire for SAFNWC/PPS

Legend:

O->Operational use for forecasting purposes or as input for other operational products

R->Research/Study using the NWC SAF products

D->Distribution of selected products to secondary users

GREEN -> SW not running yet

1.1.3 SW Use Benefits

The 11th IOP Steering Group meeting held in Norrköping (Sweden) at SMHI HQ on 7th February 2007, recommended to complete the survey to user (using SAFNWC operationally) with the information concerning the benefits of the SAFNWC SW packages provides on their operational tasks. To this end, the new section was added to the rolling user survey and the results with the answers received are displayed in the following Table 5 and Table 6.

MSG USER	SW Benefits											
	PGE01	PGE02	PGE03	PGE04	PGE05	PGE06	PGE07	PGE08	PGE09	PGE10	PGE11	PG
KNMI (The Netherlands)	0	3	2									4
DWD (Germany)	4	4	3	2	4	2	2	2				3
Météo-France (France)	4	4	4							1	4	
SMHI (Sweden)	0	4	3	0								
ZAMG (Austria)	2	4	4	3	4	0	0	0		4	1	
BGIO (Germany)	2	4	4	3	2	2	2	2	2	3	3	
Met Eireann (Ireland)	0	3	3	3	2	2	2	2	0	0	0	
INM (Spain)	3	4	2	2	3	3	4	4	4	1	3	

Table 5: Summary of the SW Benefits questionnaire for SAFNWC/MSG

PPS USER	SW Benefits			
	PGE01	PGE02	PGE03	PGE04
DWD (Germany)	4	4	1	1
SMHI (Sweden)	0	4	3	
BGIO (Germany)	0	4	2	2

Table 6: Summary of the SW Benefits questionnaire for SAFNWC/PPS

Legend:

- 0 -> Product not used operationally
- 1 -> Product use does not impact the normal operations
- 2 -> Product use in operational tasks has an impact but not relevant
- 3 -> Product use has a relevant impact on operational tasks
- 4 -> Product is fully used and related tasks are improved

Some comments (*italics*) were added by the users to the SW use benefits which are displayed below:

- *PGE01: Use of dust detection flag is to become soon operational.*
- *PGE03 & PGE04: Use of CTTH and PC increases, but activities are still at a preoperational or development status.*
- *PGE10 & PGE12: As indicated under SW use questionnaire, these products are not yet fully available for operations. (INM, Spain)*

- *The products are converted from buffer table to xml files and presented as graphs to the forecasters on the meteorological work stations. The use of PGE10 is not wide spread among the forecasters and the PGE12 is hardly used (close to zero). To promote the operational use of new products used, a process of re-iteration is necessary. The end users have to be familiarized with the products and that process takes time. (KNMI, the Netherlands)*

- *MSG SW products are not yet running operationally. (NIMHB, Bulgaria)*

- *I would say shortly that the benefits for the forecasters of our national meteorological institute have not yet been clearly delineated. It's one of the reasons for us to ask for a qualitative evaluation of the products to our forecasters. I hope it will be done this summer.*

As far as I am concerned I would say that we need a conjunction of different products as radar, composite RGB images (severe convection, instability indices,...), lightning detection, synops, temps, ... with the SAFNWC/MSG products to gain first more diagnostic information. Furthermore more developments are needed to get very short term operational forecast products (as used by the forecasters in their "nowcasting" reports) e.g. on the cloudiness (type (stratiform, convective), evolution of their spatial distribution), the probability of fog and precipitation (with an estimation of the precipitation type), the severity and the displacement / evolution of the mesoscale convective systems, the wind field at different levels esp. for precipitation clouds ... It appears also up to now that the RDT product is not reliable enough to be used operationally. The CRR product seems to be underestimated (no quantitative validation): it means that some convective patterns have no intense signature in the CRR field. The ASII product used for SATREPS is very useful (esp. the regional SATREPS issued by KNMI+ZAMG+FMI) and has been used by our forecasters for a few years. The air mass products have not yet really be tested to estimate e.g. the risk of potential development of convective patterns or cells in a clear air atmosphere.

PPS: There are of course daily only a few products which is not very helpful for the operational forecasts. Furthermore could we find more information on the advantages of new sensors (AMSU...) for the precipitating clouds (e.g.; on the Help Desk). The advantages for the cloud products (against MSG products and despite the gain of resolution) are also not clear for us. (RMIB, Belgium)

1.1.4 Summary of the Questionnaire

The answers (*italics*) to the questionnaire sent to all users the 22nd June 2007 are displayed below.

Questionnaire:

1. In case of SAFNWC SW not downloaded/used,

Can you please explain the problems found?

- *Due to the lack of technical personnel we were able to download but not to install and run the software yet. We were not able to ask Kongsberg Spacetec (the provider of our reception station for MSG data) because they are apparently not allowed to see the SAFNWC software.(DMHZ, Croatia)*
- *When testing MSG 2.0 we found strange content in temporary files. We had high attention on this SPR/SMR at SAF Help Desk. It was not possible to test the patch in the SMR enough before the MSG-2 operational start.(SMHI, Sweden)*
- *PPS software is rather cumbersome to install, but we may succeed in near future...(ZAMG, Austria)*

Do you need additional help to the provided through the Help Desk facility?

- *We would appreciate having a specialist come to our institute and make the installation (we would, of course, pay for his work here). (DMHZ, Croatia)*
- *To have a PPS installation script (similar to the one for MSG) would be advantageous. (ZAMG, Austria)*

Other reasons (i.e. only interested on PPS or MSG, no manpower available,..)

- *The main reason for this delay is the critical lack of staff/time. (DMHZ, Croatia)*
- *SAFNWC v2.0 not running yet because upgrade cycles of CM-SAF differ from those of the NWC-SAF. We are interested in climate issues and we therefore are interested in running a stable version for a longer time regardless the one or the other improvement. It's better to know a bias rather than to have jumps in time series of a certain geophysical parameter, just for the reason of having exchanged the retrieval code. (CM-SAF, Germany)*

2. In case of old versions running,

Have you found additional problems to update the new versions? (Please note that only the last version is fully maintained).

- *NONE*

Other reasons

- *NONE*

3. Distribution of the output products to secondary users (users not belonging to the Met Service using the products). Is your Met Service currently distributing selected NWC SAF products to secondary users?

If YES, which users are currently receiving such information?

- *Some products distributed to the US Military in Germany. (BGIO, Germany)*
- *National Road Administration, National Television, Commercial Television and Military Service. (SMHI, Sweden)*
- *Yes. To "storm chasers". (ZAMG, Austria)*

If NOT, Is your Met Service interested on providing the NWC SAF products to secondary users?

- *There is currently no operational provision of NWCSAF products to users outside DWD. Within the scope of a modelling study we provided CTH data to University of Bonn. What we are going to do is to post a geographical subset of some products – images - covering Germany on the internet (DWD, Germany).*
- *Yes – probably Universities but do demand at present. (Met Eireann, Ireland)*
- *At this moment, we do not have any plans to provide these products to secondary users. (MeteoConsult, the Netherlands)*