



# NWC SAF Product Assessment Review Workshop

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Madrid, 17th to 19th October 2005





### **NWC SAF User Feedback**



### **Standard user feedback:**

Helpdesk,

SPRs and SMRs procedure

**Email** 



**Strategy for a reinforced user feedback:** 

**Product Assessment Review** 

User Survey + Workshop

**Short Term Missions** 

**Visiting Scientist Activities** 



# **NWC SAF Product Assessment Review Objectives**



Revising the Product Quality and Applicability of the SAF NWC products



Recapping new User Requirements to steer further developments up to finalise *IOP*, and for next *Continuous Development and Operations Phase* planning



## SAFNWC/MSG, SAFNWC/PPS Users

## 30 licenses have been received and signed

**DWD** (Germany)

**FMI (Finland)** 

**SMHI (Sweden)** 

TMS (Turkey)

**OMS (Hungary)** 

**INMH (Romania)** 

**Météo Swiss (Switzerland)** 

**IM (Portugal)** 

**UGM (Italy)** 

RMIB (Belgium)

**HNMS(Greece)** 

**DMHZ(Croatia)** 

**DNMI(Norway)** 

**ARSO(Slovenia)** 

**MetEire(Ireland)** 

**Météo-France (France)** 

**KNMI (The Netherlands)** 

**ZAMG (Austria)** 

**BGIO (Germany)** 

**Met Office (UK)** 

**DMI (Denmark)** 

**SHMU(Slovakia)** 

**MetOffice(United Kingdom)** 

IMGW(Poland)

**NationalUniversityIreland** 

**ARPAL (Italy)** 

ARPA(Italy)

**UniversityFriburgo(Swiss)** 

CIMA (Italy)

**RuderBoskovic Inst.(Croatia)** 

**NIMH(Bulgaria)** 



### **Potential Users**

## 17 Expression of Interest. Process on going

Office National de la Météorologie Algérienne (Algeria)

**CESI (Centro Elettrotecnico Sperimentale italiano (Italy)** 

**CZ CMHI (the Czech Republic)** 

**Meteorological Office of Indian Navy (India)** 

**SAWS South African Weather Service (South Africa)** 

Rhenish Institute for Environmental Research at University Cologne (Germany)

LMD Laboratoire Météorologie Dinamique (France)

**Telespazio (Italy)** 

PMMC Polish Military Meteorological Centre (Poland)



### **Potential Users**

## 17 Expression of Interest. Process on going

**CSIR – Satellite Application Centre (South Africa)** 

**CM SAF – DWD (Germany)** 

**Kongsberg Spacetec AS Meterological Applications (Norway)** 

**Lockheed Marting (USA)** 

**Austro Control (Austria)** 

**Austrian Military Weather Service (Austria)** 

**Civil Protection Marche Region (Italy)** 



## **NWC SAF PAR Agenda**

### This afternoon

## **CONSORTIUM PRESENTATIONS** ON PRODUCT VALIDATION RESULTS

MSG Products
PPS Products

Adjournd at 18:30



## **NWC SAF PAR Agenda**

### Tomorrow , start at 09:00

**USER FEEDBACK:** 

USERS EXPERIENCE
USERS SURVEY SUMMARY: PRODUCTS AND
SERVICES

Lunch 14:00

**DISCUSION** ON PRODUCT QUALITY AND APPLICABILITY

Adjournd at 18:30



## **NWC SAF PAR Agenda**

Day after tomorrow, start at 09:00

### **DISCUSION** ON NEW USER REQUIREMENTS,

and

### **PLENARY SESSION FOR CONCLUSIONS**

Adjournd at 14:00



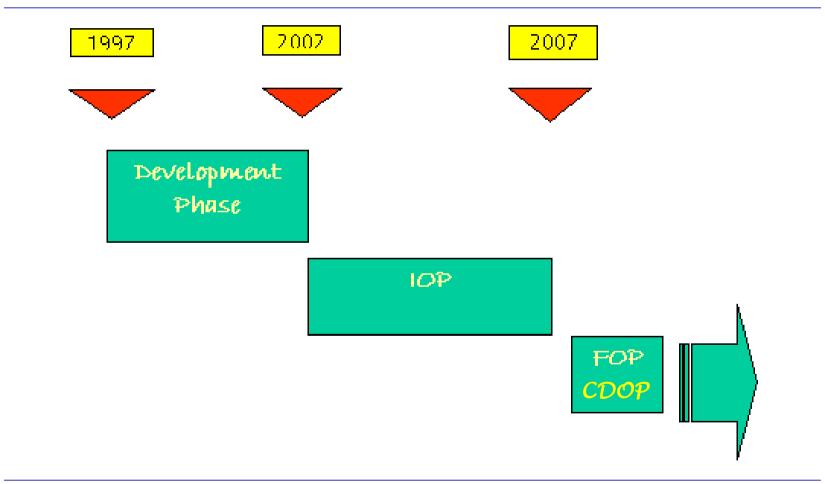
### **NWC SAF PAR Social Event**

Tomorrow, at 20:30

**Taberna del Alabardero In front of the Royal Palace** 



## Background: NWC SAF Phases: the IOP





### ... Background... DEVELOMENT PHASE

- <u>Agreement</u> of *Co-operation of a Satellite Application Facility on support to Nowcasting and Very Short-Range Forecasting* by EUMETSAT and INM signature, <u>December 1996</u>.
- NWC SAF was aimed to produce the <u>Software</u> to deal with the Nowcasting and Very Short Range Forecasting <u>using MSG SEVIRI data</u> the characteristics
- Additionally, SMHI had developed <u>additional Software Modules</u> during the Development Phase to be used by the AVHRR (NOAA and future EPS) data.

**Project kick-off: February 1997** 

**Development Phase End: February 2002** 



## ... Background... The Initial Operations Phase

### **IOP Objectives....**

To mitigate the impact of the real SEVIRI data availability delay

- Complete the development of the MSG products, and tuning using real SEVIRI data, as available from the MSG-1 mission;
- Perform Scientific Product Validation the SAFNWC/MSG products with real SEVIRI data;
- Improve the SAFNWC/MSG products and plans according to the results of the validation activities;



## ... Background... The Initial Operations Phase...

### ...IOP Objectives...

#### To provide initial operations activities:

- Deliver updated SW Packages for SAFNWC/MSG (and SAFNWC/PPS) during IOP as necessary according maintenance activities results, and planned improvements;
- Give support to users by means of a Help Desk (web site) and training activities;



## ... Background... The Initial Operations Phase

### ...IOP Objectives...

#### To complete the not initially planned PPS activities:

- Complete the engineering of the SAFNWC/PPS package: common SW developments and integration into a single package;
- Perform the Validation of the PPS Products using NOAA
   AVHRR/AMSU-B; and EPS data when Metop-1 available;

#### Additionally,

- Collect new User Requirements for further developments;
- Implement new developments according to the upgraded User
   Requirement Document; and
- Be a reference for Nowcasting aspects for EUMETSAT



### ... Background... Responsibilities



MSG Air Mass Products, Convective precipitation, Wind Product, MSG Software common elements, MSG elements integration in a single package.



MSG Clouds and Thunderstorm Products (SW modules).



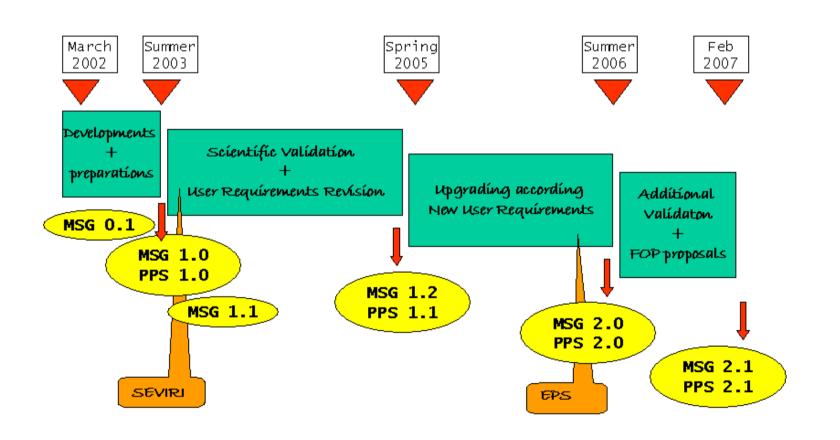
MSG and PPS Precipitation Products, PPS Clouds Products, PPS Software common elements, PPS elements integration in a single package.



**MSG** Air Mass Analysis and Conceptual Model products.



# ... Background ... IOP Sub-phases as planned at IOP-KOM



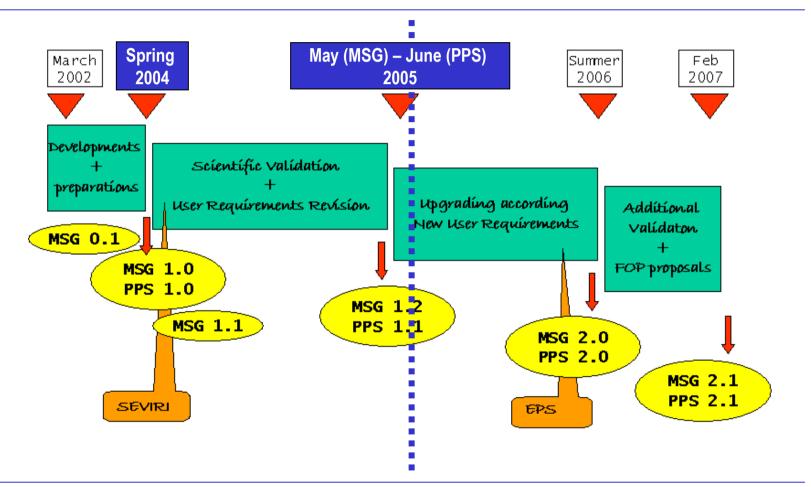


## ... Background ... Real SEVIRI data impact on the NWC SAF schedule

- Planned MSG data availability at IOP Kick-off: April 2003
  - Planed SAFNWC/MSG 1.0 delivery date: September 2003
- Stable, calibrated data: October 2003
  - Final SAFNWC/MSG 1.0 delivery date: June 2004



## ... Background ... updated IOP Sub-phases





### ... Background ... MSG Beta versions

### **SAFNWC/MSG v0.0:**

- First SW package to be tested for engineering purposes
- HRIT image like output format
- Supported on SUN

### **SAFNWC/MSG v0.1:**

- Tested with real SEVIRI images in a pre-operational environment
- New output image like products format: HDF5
- Supported on SUN
- MSG Launch delay impact

Very positive feedback from the Beta tester obtained (both releases)



### ... Background ... PPS Beta versions

### **SAFNWC/PPS v0.0 modules:**

- End Development Phase,
- Not integrated into a single SW module

### **SAFNWC/PPS v0.X:**

- Along 2002 2003 2004,
- Up to 6 deliveries,
- Upgraded according new developments and integration into a single
   SW Package

Very positive feedback from the Beta tester / Dedicated users obtained



# ... Background ... First operational SAFNWC/MSG version delivery

### **SAFNWC/MSG v1.0:**

- First operational SW package
- Output image like products format: HDF5
- Supported on SUN
- SW and documentation available through the helpdesk
- June 2004



# ... Background ... SAFNWC/PPS First Operational version

### **SAFNWC/PPS v1.0:**

- First operational PPS SW package
- Output image like products format: HDF5
- Supported on Sun and Linux (RedHat on Intel)
- Tested with NOAA data locally received at SMHI (Norrköping) and at Bundeswehr Geoinformation Office (BGIO), Germany
- Compatible with AAPP 4.2
- SW and documentation available through the helpdesk
- <u>June 2004</u>



# ... Background ... SAFNWC/MSG further Operational versions

### **SAFNWC/MSG v1.1:**

Portable on agreed platforms.

#### **PORTABILITY STRATEGY**

- •Initial Committed Platforms: SUN, HP, DEC-Alpha, SGI
- Users requirement: Linux
- •New strategy:
  - •Primary Supported Platforms: SUN Unix / PC Linux
  - Secondary Supported Platforms: (SGI, ...).

### SAFNWC/MSG v1.2:

- Product validation with real SEVIRI images
- Portable on committed Platforms
- Delivery 17th May 2005



## ...Background ... SAFNWC/MSG planned versions

### **SAFNWC/MSG v2.0:**

According updated Users Requirements

### **SAFNWC/MSG v2.1:**

Checked, preliminary Validation



# ...Background ... SAFNWC/PPS further operational versions

### **SAFNWC/PPS v1.1:**

- Product validation
- Delivered on 17<sup>th</sup> June 2005

### **Planned:**

### **SAFNWC/PPS v2.0:**

According updated Users Requirements and Metop-1 data

### **SAFNWC/PPS v2.1:**

Validated



## ... Background ... Delivery schedule

SAFNWC/MSG v.1.0	2004	SAFNWC/PPS v.1.0
SAFNWC/MSG v.1.1	2004	
SAFNWC/MSG v.1.2	2005	SAFNWC/ PPS v.1.1
SAFNWC/MSG v.2.0	2006	SAFNWC/ PPS v.2.0
SAFNWC/MSG v.2.1	2007	SAFNWC/ PPS v.2.1



## **Conclusions** (only for this speech, of course)

**Interest for the NWC SAF (number of users), satisfactory** 

**NWC SAF adopted flexible approach to users requirements: Linux and Visualisation tool (Output format)...** 

Importance of the PAR for the IOP NWC SAF life cycle >> SAFNWC v.2.0

User feedback completion only after PAR User Survey Analysis and PAR Workshop Conclusions >> updated URD v.2.0

**Expectation on positive outputs from PAR** 

Wishes for a nice stay in Madrid







# NWC SAF Product Assessment Review Workshop

THANK YOU!



