SALP STATUS

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SOMMAIRE

1. SALP and SARAL

2. Status on the current processing versions

3. Foreseen evolutions

SALP and SARAL

■ Altika is one of the altimeter mission processed on SALP side. SALP is also involved in past, current and future altimeter missions, starting with Topex, with Jason-1&2 or ENVISAT, up to Jason-3 and Sentinel3.

■ SALP mainly activities are : manages the DORIS network (with IGN), insures the maintenance of the ground processing software (TM_NRT, SPA, …) installed in several processing sites, the production of auxiliary data and orbits (MOE and POE), generation/validation/user_services/expertise/ of the off line level2 products, expertise support (geophysical and instrument processing studies), reprocessing, …

■ For SARAL, SALP also manages any payload TC generation, X Band acquisition network, payload monitoring, …

■ The processing standard used on SARAL is close to the one currently applied on Jason-2 mission ('GDR_D'), few specificities have been added to support the Ka band mission (mainly Matching Pursuit and obviously the ice processing algorithms)

■ **Everything is fully operational** (staff, facilities, procedures, …)

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Production Key event

SARAL Launch : 2013/02/25 12:31 UTC

Activation of the altimetry processing chain

- First OGDR processed by CNES on February, 26th early morning – just a few hours after launch
- First IGDR processed by CNES on March, 6th
- Automatic processing of OGDR at EUMETSAT and ISRO started on March, 19[th.] OGDR processing durations at EUMETSAT and ISRO meet the requirement (see next slide)
- Automatic processing of IGDR at CNES started on March, 19th
- Start of the GDR processing on July, 12th after the integration of Patch V1.

- OGDRs and IGDRs have been included in SALP/DUACS products since early July. SARAL products quality is fully satisfactory.

Focus on OGDR processing

● **OGDR processing durations at EUMETSAT and ISRO (NRSC) meet the requirement**

✦ **SYS-4.4-170-A : 20 minutes are allocated for operational processing**

ISRO		EUMETSAT	
Min	11:09	Min	11:13
Max	15:51	Max	15:55
Mean	12:06	Mean	12:06

● **Comparison of OGDR generated at EUMETSAT and at ISRO**

✦ **No difference (except some header lines that depend on the generation site and time)**

Excellent processing duration
No difference between OGDR

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Focus on IGDR processing

- **IGDR processing is monitored routinely – processing duration meets mission requirement – some processing delays due to Xband acquisition troubles (Xband station outages).**
  - ✦ **SYS-4.4-40-R : An Interim Geophysical Data Record (IGDR) shall be delivered in less than 3 days (objective 1.5 days)**
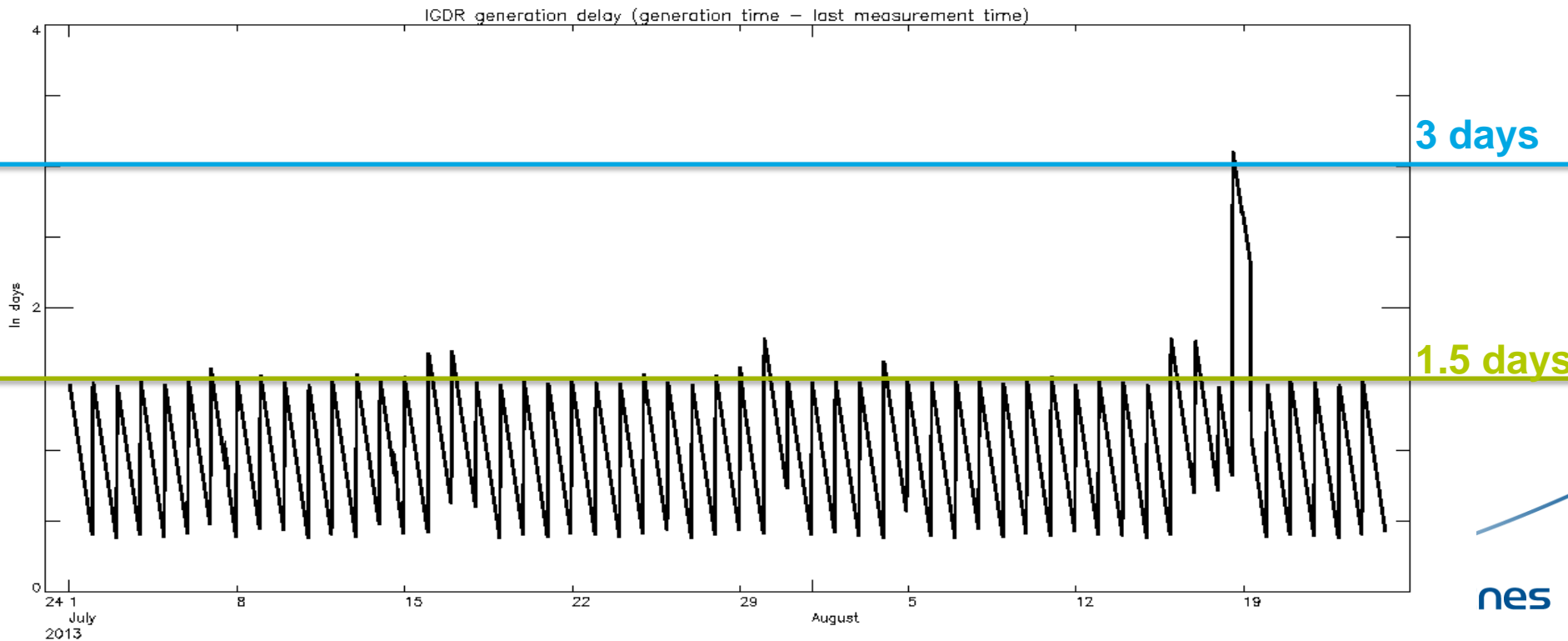
IGDR generation delay (generation time – last measurement time)

Patch 1 on the processing baseline

A patch has been installed to include the following evolutions :

● **Altimeter calibration file :**
  ✦ **The altimeter flight calibration stability has been analyzed : based on the flight data, the calibrations shall be averaged over a 7 days window for the low pass filter (identical to Jason-2) and 3 days for the internal path delay and total power (not used on Jason-2). This will slightly decrease the daily noise observed in the altimeter calibration data**

● **Altimeter characterization file :**
  ✦ **The altimeter characterization file has been updated using the flight calibration of the gain values (4 calibrations performed). The impact is very small (of the order of 0.01 dB).**

● **Retracking look-up tables :**
  ✦ **The ocean retracking look-up tables have been updated using the flight calibration data (PTR).**

● **MQE :**
  ✦ **Based on the observed MQE values over ocean, the threshold has been determined and set to 2.3E-3 (Jason-2 value is 8E-3).**

● **Neural network :**
  ✦ **A first linear relation has been computed between the measured BT and the simulated one. This linear relation has been applied on the 23.8 GHz only – the same analysis will be conducted on the 37 GHz and sigma0.**

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Patch 1 on the processing baseline

A patch has been installed to include the following evolutions :

- **Atmospheric attenuation :**
  - ✦ **The value outputted by the neural algorithm is recorded in the level2 products**

- **Rad_water_vapor and rad_liquid_water:**
  - ✦ **The values have been corrected to comply with the actual unit in the level2 products (**"kg/m^2"**)**
  - ✦ **But the rad_liquid_water remains not reliable as an anomaly has been noticed in the neural network.**

- **SSHA :**
  - ✦ **The radiometer wet tropospheric correction is now used to compute this value (the model value was is used :** model_wet_tropo_corr **)**

- **Controls parameters :**
  - ✦ **The threshold values have been updated with the flight data. This is a first tuning – additional work is necessary.**

- **Update of the documentation (Handbook, …) to account for :**
  - ✦ **Update of the Disclaimers**
  - ✦ **Update of the Calval editing criteria**
  - ✦ **Etc**

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SARAL inside SALP

SARAL is fully operational on SALP side for the OGDRs and IGDRs

- Status on this mission is available on the AVISO web server :
  http://www.aviso.oceanobs.com/en/data/operational-news/operational-status.html
- Operational news include SARAL:
  http://www.aviso.oceanobs.com//en/data/operational-news.html

- GDR routinely processed, available only to PIs.

SSALTO Status : Friday, August 23, 2013

All operations are nominal.

Missions

SPOT5	Nothing to report	
JASON-2	GDR cycle 185 completed	
CRYOSAT-2	Nothing to report	
HY-2A	Maneuver executed OK on 23th of August	
SARAL	Maneuver planned on 26th of August	

DORIS Master Beacons

TLSE	Nothing to report	
KOUROU	Nothing to report	
HBK	Nothing to report	
PAPEETE	Nothing to report	

Color		Meaning
GREEN	=	Operational
YELLOW	=	Operational with limitations
ORANGE	=	Operational with Degraded Performance
RED	=	Not Operational

Questions or comments to aviso@oceanobs.com

Foreseen evolutions

We have started to define the perimeter of the evolutions for next versions – this has been provided prior to this meeting (38_SARAL_update_processing) and will be discussed Thursday afternoon.

We shall stress that SALP is involved in a lot of activities – we should make any effort in order to define the perimeter of the next version.

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