

Minutes of Meeting

Meeting Name	:	OSI SAF Operation Review 9
Meeting Reference	:	EUM/PPS/MIN/13/700259, v2
Date(s) of Meeting	:	23 April 2013
Place of Meeting	:	DMI
Minute Taker	:	Dominique Faucher
Participants	:	See in section 1
Distribution	:	Participants, Steering Group
Attachments	:	<Att>

Conclusion:

The Board thanks the Project Team for its support during this review process.

Regarding Objective 1: *To assess the provided quality of the distributed products against the Service Specification*, the Board noted that although most of the Products have been made available to the users within the Service Specifications, some exceptions were identified such as:

- The availability of OSCAT wind product in November 2012 were below the specification;
- The availability of the products related to GOES 13 during September and October 2013 were far below the specification;
- The availability of Global low resolution Sea Ice in October was around 90 %;

The latest is the only one whose responsibility is of the OSI SAF, the other were due to lack of input data.

Most of the Product Quality was in line with requirement with some minor exception such as AHL SST during night time (day time products are correct). The AHL SSI in October and November were below requirement due to shadowing effect (as well as January to March). The Project Team indicated it was working to improve the situation. It is however recognized that the absolute value of the fluxes are very low in winter, and therefore the relative bias looks very high in proportion. The Board believes that the Project Team could consider absolute criteria.

The AHL DLI bias in July and August is also higher than the requirement due to cloud masking reasons. The Board will check at the next OR if the situation has improved.

Regarding Objective 2: *Committed Services to Users: confirm that the committed Services were provided according to the Service Specifications (including requests for archived products)*. The Board agreed that the service provided to users is of a high quality. A few problems were noted in the retrieval of products from the IFREMER archive. The Board also noted the usefulness of the new METAMOD tool for product browsing and ordering from met.no.

Regarding Objective 3: *Interfaces with EUMETSAT*, the Board had some difficulty to independently assess that such interfaces are properly implemented (see OR-9 action 10).

1. Introduction

The Operational Review 9 (OR-9) of the Ocean and Sea Ice (Satellite Application Facility (OSI SAF) has been held on 23rd April 2013 at the Danish Meteorological Institute (DMI) as per the organisation note referenced SAF/OSI/CDOP2/M-F/MGT/ON/029.

The objectives of the OR-9 are recalled hereafter:

- **Objective 1:** *To assess the provided quality of the distributed products against the Service Specification.*
- **Objective 2:** *Committed Services to Users: confirm that the committed Services were provided according to the Service Specifications (including requests for archived products).*
- **Objective 3:** *Interfaces with EUMETSAT: confirm that Operations Interfaces have been performed in line with approved JOP/OICD, Operations Procedures and Operation Interface Specifications*

The participants of this OR-9 included:

- *Review Board Membership (see annex 1)*
 - Phil Hwang, Scottish Association for Marine Science, **chairman**
 - Laurent Bertino, Nansen Environmental and Remote Sensing Center (NERSC)
 - Laurence Crosnier, Mercator-Ocean (excused)
- *EUMETSAT Secretariat Support*
 - Dominique Faucher
 - Susanne Dieterle
 - Julia Figa Saldana (by teleconference)
- *OSI SAF Project Team*
 - Thibaut Laffineur, Météo-France, OSI SAF Project Manager,
 - Philippe Labrot, Météo-France, Météo-France local manager,
 - Steinar Eastwood, met.no, met.no local manager,
 - Anton Verhoef, KNMI, KNMI local manager,
 - Rasmus Tage Tonboe, DMI, DMI local manager.
 - Rune Larsen (DMI)
 - Esben Nielsen (DMI)

The baseline document for this OR-9 is the Service Specification version 2-0, referenced SAF/OSI/CDOP2/M-F/MGT/PL/003.

The datapack included:

- The status of last Operation Reviews actions,
- The last 4 Quarterly Operations Reports:
 - 2012 Q1,
 - 2012 Q2,
 - 2012 Q3,
 - 2012 Half Year 2,

2. Project Team presentation

The Project Team made 2 presentations:

a) Presentation on the closure of OR-8_action6 on *Intra-monthly variations in availability of “ice-type” products* and OR-8_action-16 *Accuracy specification of the Sea Ice Type product*. (see annex 4)

Based on the presentation regarding NH ice type product (OSI-403), the Project Team indicated that it will start monitoring the quality of the product based on using the standard deviation from 11 days running means. Other issues raised during the presentation led to the following actions:

- **OR-9_action-1:** the Project Team will update the PRD and the SeSp to propose to Steering Group a target value of 100 000 km² for the multi-year ice area (and threshold value: 150 000 km²). This requirement is applicable outside the May-September period (1st May to 30 September). Inside this May to September period, the product will not be provided due to ambiguous measurement. **Due date: next SG.**
- **OR-9_action-2:** the Operation report will be modified to include Standard Deviation of the multi-year ice area (variability) for each month (figure and table). **Due date: next Operation Report (Aug 2013).**
- **OR-9_action-3:** regarding Ice type (OSI-403), Project Team to assess the feasibility to provide a ice type map (map with several colours: multi-year, first year, ambiguous) on the web site with October and March means (or better at one date, e.g. 15 Nov and 15 March, to be confirmed after assessing the best stable period), as well as the time series of running mean multi-year ice area and implement if feasible. **Due date: next OR.**

b) Metadata Catalogue Search (METAMOD)

A presentation of the Metadata Catalogue Search (METAMOD) has been made by met.no. It is accessible in: <http://osisaf.met.no/metamod/>

The tool also includes visualisation capabilities. The tool is considered useful and user friendly by the Review Board.

Accessing the search and a limited number of data can be done without login. For ordering data via the basket, only the e-mail address is requested for getting a link which indicates where the data have been made available. The data remain available one week after the notification has been sent.

It is presently based on product in netcdf format. More formats may be envisaged.

It does not yet allow user to access re-processed products but this will be added prior to the formal announcement to users. The Board considers that there is no reason to block the formal announcement of this service to the users even before adding re-processed products.

3. Status of previous ORs actions

The status of OR-7 and OR-8 actions is provided in annex 2.

Some actions are remaining open.

To improve assessment of seasonal effects, and bearing in mind that it was agreed that the Project Team does not provide anymore the “*Synthesis report on product quality and availability*”, the following action has been agreed:

- OR-9 action 4: Provide in the report at least one year data (running window) covering the new 6 months report and the previous one, to enable assessment of trend and seasonal effects. If possible, a longer interannual variability display would be useful and very much appreciated for product quality assessment, but the table containing data can limit itself to the last 6 month period (reporting period).

Due date: next report end of august 2013.

4. Assessment of RIDs: major action and recommendation

The Board have identified several issues (RID) prior to the review, which the Project Team answered. They led to some actions listed in annex 3. The most important actions are:

- OR-9 action 5: Sea Ice Concentration data set (product OSI-409): met.no to contact EUMETSAT to verify the proper recognition of this reprocessed dataset in the Product Navigator. **Due date: July 2013.**
- OR-9 action 6: propose to Steering Group a Visiting Scientist Activity (VSA) to compare OSI SAF Sea Ice concentration products (OSI-401) with the products from other organizations (e.g. NSIDC), *bearing in mind that there has been an activity to compare different SIC products/algorithms by a person in NERSC (information obtained after the review)*. Therefore, the first part of the action would be for the Project Team to check the existing activities in this field. **Due date: SG_meeting end of 2013.**
- OR-9 action 7: EUMETSAT Secretariat to clarify the policy / approach for products that are not anymore active (operational) but kept available to users (and used by users) such as Quikscat data or MAP products and discuss it with Steering Group. The policy should clarify how this service shall be identified in the SeSp, and what associated documentation should be made available. **Due date: SG meeting end of 2013.**
- OR-9 action 8: **Project Team to check if the PRD and SeSp properly specify over which temporal averaging the requirements are defined (monthly or daily).** Update SeSp and PRD table if appropriate. **Due date: SG meeting end of 2013.**
- OR-9 action 9: Remove also in the SeSp and in the PRD the TBC. Define values where there is a TBD. **Due date: SG meeting end of 2013.**

It has been noted by the reviewers that objective 3 of the organisation note referring to *Interfaces with EUMETSAT* could not be easily addressed by the Board. Although the JOP/OICD defining this interface is available as a referenced document, it is agreed that the Operation Reports do not provide the following information which would be necessary to fully address the objective 3:

- Interface regarding exchange of information between operators;
- Interface regarding exchange of information between helpdesks;
- The information regarding users registered on EUMETCast was not provided (but a specific RID has been raised on the matter);
- The information regarding retrieval from UMARF was provided to the OSI SAF but not included in the report;

The Board raised the following action:

- OR-9 action 10: Project Team and EUMETSAT to identify indicators enabling to demonstrate that the JOP/OICD is properly implemented (e.g exchange of mails between EUMETSAT and the relevant SubSystem). **Due date: next OR.**

OR-9 recommendation 1:

It was noted that the EUMETCast service notification does not exist in case of anomaly for the SSMI/S data (since it is a third party data). This is a problem for an operational system (data missing/outage during ½ day, without any message) such as the OSI SAF SubSystem2.

The Board recommends that EUMETSAT find a way to inform its EUMETCast user, and if necessary escalate the issue to the original data provider.

This issue may be extended to all other 3rd Party data.

5. Conclusions

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Annex 1: Reviewers directory

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Annex 2: Status of Operation Reviews actions

Reference	Description	Responsible	Status as of 15/06/2012	Board decision	Status as of 26/03/2013	Board decision / Status at OR9
OR-7_action-1	Include information on SeaWinds and Sea Ice Concentration Dataset usage in Operation Reports. This can be generalised in the future to all discontinued but available products.		open. See also OR-8 RIRs on product usage reporting	Done for sea ice – still to be done for SeaWind. See OR 8 action 1 in body text	Done, SeaWinds usage is reported now in the Quarterly Reports. Can be closed	closed
OR-7_action-2	The Service Specification needs to be updated to include:					
OR-7_action-2-a	- The information regarding products available via IFREMER (mainly for winds, product OSI-102) (see OR 6 action 1, OR 6 action 2);		done.	closed	closed	closed
OR-7_action-2-b	- Sea Ice product requirements: specify in SeSp that the requirement includes total performance and is not limited to ice and water specific performances (see OR 6 Action 12);		Done. (OSI-SS-PRO-203)	closed	closed	closed
OR-7_action-2-c	- Identify products provided via GTS (see OR 6 Action 13). Note that this affects a priori only the 25 km ASCAT OSI-102;		Done. Table 3.4 updated (OSI-102 via GTS)	closed	closed	closed
OR-7_action-2-d	- HL Sea Ice products OSI-411, -412 and -413 have been removed from the web site but are still available in the FTP. They have been superseded by the global products. The Project Team intends to remove it from all archives. Remove these products from the Service Specification.		Done. HL Sea Ice products OSI-411,-412,-413 removed from table 3.3	closed	closed	To be checked by met no for the archive
OR-7_action-3	Product Requirement Documents needs to be updated to include					
OR-7_action-3-a	- The information regarding products available via IFREMER (mainly for winds, product OSI-102);		Done.	closed	closed	Closed
OR-7_action-3-b	- Sea Ice product requirements: clarify in PRD that the requirement includes total performance and be not limited to ice and water specific performances (see OR 6 Action 12).		Done.	closed	closed	closed

Reference	Description	Responsible	Status as of 15/06/2012	Board decision	Status as of 26/03/2013	Board decision / Status at OR9
OR-7_action-4	IFREMER to clarify if the use of NAIAD is reported from the FTP statistics provided in the Operation Reports.		The use of NAIAD is not reported in the QR.	OR 8 action 3: to assess the possibility to provide information on OSI SAF products provided to users via NAIAD	This information is still not yet reported in the QR. However the feasibility has been investigated for O&SI SAF and other similar demands. It requires modification of the software that will be performed this year. Reporting will be possible starting from next year.	OPEN
OR-7_action-5	Steering Group to decide on the way forward regarding user login for the OSI SAF. <i>EUM/PPS/MIN/11/0090</i> v1B, 31 May 2011 OSI SAF Operation Review 7 Page 4 of 34		Open	It is proposed to close it at OR level since it is managed via SG action OSI-CDOP-SG08-15	closed	Closed – addressed at SG level
OR-7_action-6	Triple collocation for SST comparison for error estimation. The OR 6 recommendation 1 to “address triple collocation at the next improvement of the product requiring a validation exercise” has not been implemented yet due to resource limitation. The action remains open and affects SS1 and SS2 and should be addressed.		Open	See section 3 a in body text. Action remains open.	The triple collocation technique has been applied to drifting buoy, OSI SAF METOP/AVHRR and EUMETSAT METOP/IASI SSTs, in the context of a study led by EUMETSAT in cooperation with OSI SAF. The results have been published in a RSE paper (A. O'Carroll et al., 2012 : the accuracy of SST retrievals from METOP-A IASI and AVHRR using the EUMETSAT OSI SAF Matchup dataset). It will be possible to routinely apply this triple collocation technique in the future, when a routine Match-Up Data Base for EUMETSAT METOP/IASI SSTs is developed and produced routinely by the OSI SAF at M-F/CMS. This development, which is part of OSI SAF CDOP-2 commitments, is just starting now.	For SS1 work started. SS2 to be done but not as priority. It is agreed that it is a “nice to have” complementary validation of the product.

Reference	Description	Responsible	Status as of 15/06/2012	Board decision	Status as of 26/03/2013	Board decision / Status at OR9
OR-7_action-7	<p>using day time drifting buoys measurement at high latitude for global SST. The action OR 6 Action 11 was to investigate the possibility to use day time drifting buoys measurement at high latitude for global SST and document it in quarterly reports. Project Team recognised that this should be useful but cannot be done as a priority. The Board re-iterates that this activity be performed, either via a Visiting Scientists activity or during CDOP 2.</p> <p>It is however also recalled that it has been done for HL (see validation rep p 7 to 11 of OSI 203 of April 2011, doc Met.no /TEC/RT/117), but this action OR 6 action 11, renamed OR 7 action 7 concerns the validation of the Global Metop SST product at high latitudes (standard procedure is to use night time data in validation but at high latitude during summer there is no night due to midnight sun conditions).</p>		M-F CMS team should be able to implement this action this year.	To be done in 2012	Not done but M-F CMS should implement this action for the next HYRs.	It should be done for the 1 st semester 2013 report, available in august
OR-7_action-8	<p>Mechanism to report information from EUMETSAT Data Centre (retrieval of products): The mechanism to be set up between EUMETSAT and SAF to report information from EUMETSAT Data Centre (retrieval of products) is still open and require the JOP/OICD to be updated (see OR 6 Action 14, and JOP/OICD section 5.2).</p>		To be checked in JOP-OICD issue 6	JOP OICD draft addresses it closed	closed	closed
OR-7_action-9	<p>Comparison between “Synthesis report on product quality and availability”, OSI-SAF webpage and LEO SST PUM (see Obj2 O” Carroll 01) . Table 1 of the Synthesis report on product quality and availability shows some inconsistencies when compared to OSI-SAF webpage and LEO SST PUM. There is also some missing information. Items to address: SST products provided in GHRSSST format e.g. L2P/L3PorC should be stated; SST bias and accuracy stated as acquired for night-time data only; NAR generation frequency.</p> <p>Project Team to verify these inconsistencies and explain /correct them if confirmed. EUM/PPS/MIN/11/0090 v1B, 31 May 2011 OSI SAF Operation Review 7 Page 7 of 34 .</p>		The synthesis reports for Ors are not mandatory reports, but provided as a plus. Synthesis report for OR-7 was not updated due to lack of time.	To be done for OR 9 (see OR 8 recommendation 1)	???	Replaced by action =R-9: See OR-9 action 4

Reference	Description	Responsible	Status as of 15/06/2012	Board decision	Status as of 26/03/2013	Board decision / Status at OR9
OR-7_action-10	<p>Web site improvement for LEO SST products (see Obj2 O'Carroll 03). From the OSI-SAF webpage under "LEO SST" and "presentation of the products", the list of products appears to miss some important information. The information could be linked more closely to that included in the product report and PUM e.g. clearly defining where Metop and/or NOAA AVHRR used:</p> <p>OSI-SAF web-page -> products presentation -> SST Project Team to check with EUMETSAT (Anne O' Caroll) on the improvement to be carried out on the web site.</p>		<p>The Web site has been updated since. For instance on OSI-SAF web-page -> products presentation -> SST/range of products, it is explained where Metop and or NOAA are used.</p>	<p>Closed see other new rids</p>	<p>closed</p>	<p>closed</p>

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OR-7_action-11	<p>update of “Synthesis Report on Product Quality and Availability” .Due to minor errors in some figures provided, it is agreed that the “Synthesis Report on Product Quality and Availability” be updated to version 1.1, and be used also for future report (due date: end of July 2011). Other corrections should include:</p> <ul style="list-style-type: none"> - In Table 1, dissemination type states “off-line”, but then timeliness is 3 h 30 min: set timeliness value to “n/a”; - Page 12, comment on SeaWinds timeliness is obsolete (Seawinds products are archived products): delete comments on SeaWinds timeliness; - The caption for figure 74 refers to 3 plots: speed bias (top), “u component stdv” (middle) and “v component stdv” (bottom), but the bottom plot is missing. Plot is correct in the quarterly reports however; - In the sentence “The buoy winds are converted to 10m equivalent neutral winds using the LKB model”, provide a reference for the LKB model - The following link does not work: http://www.osisaf.org/production/cms/validation_dli_lml_map.php?safosi_session_id=ce91434519da8706d0f95e19d8748e62 . <p>It should be http://www.osi-saf.org/production/cms/validation_dli_lml_map.php?safosi_session_id=ce91434519da8706d0f95e19d8748e62 . A second option would be to add the figure with the pyrgometer station to the document.</p> <ul style="list-style-type: none"> - “Instituto Nacional de Pesquisas Espaciais”(INPE) is not a Spanish institution, but Brazilian; - Headlines 3.3.2 and 3.3.3 interleaved with text; - Clarify what is “N.A.”: “Not available” or “Not applicable”. Define „N.A.” and “N/A” in acronyms list. Explain the abbreviation in context of tables; - Table 8 is entitled „Metop NAR SST” but caption is „Metop GLB SST” . Correct title; - Seasonal variability in DLI: LML DLI quality metrics show a clear annual variation. Keep the explanation regarding seasonal effects in all future reports; - Diagram showing columns should be clearer instead of being “based” on 95% in spite of the y axis starting at a lower value. Try to have columns drawn from the x axis, starting at a value of 80%; - Please update/correct the acronym list: <p>EUM/PPS/MIN/11/0090 v1B, 31 May 2011 OSI SAF Operation Review 7 Page 8 of 34</p> <ul style="list-style-type: none"> - EPS: EUMETSAT Polar System - Replace NPOESS by JPSS (Joint Polar Satellite System) - The „percentage availability” values for LML DLI (Jan-11) and LML SSI (Oct-10) given in table 2 (100 %) do not match with the corresponding bars in Figures 8 and 10. 		<p>The synthesis reports for Ors are not mandatory reports, but provided as a plus. Synthesis report for OR-7 was not updated due to lack of time.</p>	<p>The synthesis reports for Ors are not mandatory reports, but provided as a plus. Synthesis report for OR 7 was not updated due to lack of time. To be done for OR 9 (see OR 8 recommendation 1)</p>	<p>not done</p>	<p>Closed by reference to OR-9 action 4 above, regarding providing 1 year trend analysis for product quality assessment.</p>

Reference	Description	Responsible	Status as of 15/06/2012	Board decision	Status as of 26/03/2013	Board decision / Status at OR9
OR-7_action-12	assessment of Product Quality for SS1 and archived products: - For SS1, Project Team to provide the information as per the template given. - Regarding archived products in IFREMER, as well as in the other archives (KNMI, EUMETSAT), Project Team to verify if there is a checksum control on retrieval (this is not done today for archive at met.no).		Done by message sent to DF on 14 11 1011	Done and see RID of met no	done	closed
OR-7_rec_1	maintenance activities reporting (see Obj 2 faucher 02) . During the discussion on messages news and information provided in Operation Report, it has been noted that there is no reporting on performed maintenance activities, neither in the Operation Reports nor in the progress report. The Board recommends that it is reported, but leaves the decision to Steering Group where it should be documented.		addressed in section 4 of the QRs "Main events and modifications, maintenance activities"	done	done	closed
OR-7_rec_2	policy for message news (see Obj 2 faucher 03). The Board noted that the policy for providing messages or/and news to users varies between SS1 on one hand (regular weekly message news), and SS2 and SS3 on the other hand (news only when event occur). The Board recommends that the Project Team addresses this issue at the next project team meeting, but Steering Group is invited to provide guidance. EUM/PPS/MIN/11/0090 v1B, 31 May 2011 OSI SAF Operation Review 7 Page 5 of 34 .		Open	It is addressed at SG level Action OSI-CDOP-SG08-15. It was further discussed and agreed that users being quite different, it is not necessary to have a consistent approach throughout the consortium. It is proposed to consider it as CLOSED and inform the SG (see section 3b in main body of these minutes)	closed	closed

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OR-7_rec_3	<p>Computing of max and min monthly values for LEO products (see obj1_offiler_08). Although data are available for mean, bias & stdev for all products, the max/min values are not calculated nor provided for EPS products (see Synthesis Report on Product Quality and Availability p34 onwards) , while they are provided for GEO products.</p> <p>The rationale is that the computing of this parameter (min and max) is not done on the LEO SST chain, but still performed on the old chain (GOES and MSG).</p> <p>The Board does not consider these min/max values as essential, since no clear usage for such values is done. It is recommended that the Steering Group confirms if it should be done, and ensure that the same approach be implemented for SS1 and SS2.</p>		The min/max values are not any more provided for GEO, LEO and AHL SST products.	closed	closed	closed
	Status of OR-8 actions					
Reference	Description	Responsible		Due Date	Status as of 26/03/2013	
OR-8_rec_1	Availability of such Synthesis Report for next Operation Review. The Board recommends that the Project Team confirms the availability of such Synthesis Report for next Operation Review			SG issue	Still open	Closed by reference to OR-9 action 4
OR-8_rec_2	Operations Report and quality monitoring reporting. It is recommended that the Project Team re-assesses the content and the frequency of the Operations Reports and considers for all products a web reporting as presently done and easily accessible for SS3 (KNMI winds).			SG issue	Done	closed
OR-8_rec_3	Users and dissemination means. It is recommended that Project Team assesses the users lists in line with the dissemination means proposed by the SAF.			SG issue	Still open	open
OR-8_action-1	To report on users request for SeaWinds data set. Project Team to provide information if there are users requesting a part of, or the entire SeaWinds data set, and to document it in the next Operations Report (s).			To be checked at next OR	Done, see OR 7_action-1. Can be closed	closed

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OR-8_action-2	Visibility of Sea Ice Concentration off-line dataset and SeaWinds off-line data set on web site. To update the web site to include the Sea Ice Concentration dataset and SeaWinds off-line dataset at a similar level with NRT products. In this update, the ProjectTeam will also bear in mind the arrival of more products (such as the OSCAT Wind, or more CDOP-2 products and datasets).			To be checked at next OR	Now the page is changed and there is a clear statement that the table only contains current near real time products. Can be closed.	closed
OR-8_action-3	Information from NAIAD users. To assess the possibility to provide information on OSI SAF products provided to users via NAIAD.			To be checked at next OR	Open	open
OR-8_action-4	Graph on complementary statistics on SST quality. Provide a legend in next report for the figures /graph.			4th Q Operations Report at the latest	not done	To be done for next report
OR-8_action-5	Units in table 1. PT to add units in the table (for example table 11 and 12 in QR 113) when there are only percentage and to add the bias and std deviation in physical units (absolute value).			4th Q Operations Report at the latest	not done	To be done for next report
OR-8_action-6	Intra-monthly variations in availability of "ice-type" products. Refer in that section 2. to anomaly / change listed in section 3 and 4.			4th Q Operations Report at the latest	???	See presentation joined in annex 4 - closed
OR-8_action-7	Buoy comparisons for ASCAT coastal product. Add a comment on the different collocation figures in the next report.			4th Q Operations Report at the latest	Comment on the different numbers of buoy collocations is now in the Quarterly Reports. Can be closed.	closed

Reference	Description	Responsible	Status as of 15/06/2012	Board decision	Status as of 26/03/2013	Board decision / Status at OR9
OR-8_action-8	Buoy comparisons for ASCAT coastal product in 2010. Investigate / clarify the different v component standard deviation in fig. 52 occurring in December 2010 (if not requiring too much effort).			To be checked at next OR	AV, 26-3-2013: I dug a bit further into the Coastal and 12.5 km buoy collocations from December 2010. I removed 7 out of the 2569 collocations of the 12.5 km product which were obviously wrong due to (most probably) a 180 degrees ambiguity error in the scatterometer wind. By removing those 7 collocations, the standard deviation of the v component reduced from 1.93 to 1.65 m/s. So a very small fraction of the collocations can have a relatively large influence on the statistics.	Issue closed by answer but add an extra disclaimer in the future operation report about the sensitivity of statistics on individual collocation
OR-8_action-9	Sea Ice validation results for 2011 Q4. The validation results for Sea Ice products for 2011 Q4 seem to be a cut and paste from Q3. Update the report for the fourth quarter 2011 in edition 1.1 and redistribute it.			ASAP	done	New report is available on the web site. closed
OR-8_action-10	Plot provided for figure 57. Plot provided for figure 57 corresponds to the bias, it should show the STD. provide an updated report at new revision qr_12_1_v1_1.			ASAP	done	New report is available on the web site. closed
OR-8_action-11	Limitation of ice charts. Add in the product user manual a sentence regarding the limitation of ice charts for the SH.			To be checked at next OR	???	Open, to be done on PUM
OR-8_action-12	Table 9, section 5.3. Clarify in one sentence in the Ops Report that we use conventional bias and standard deviation.			4th Q Operations Report at the latest	not done	open
OR-8_action-13	Section 5.6.4/5/6/7. Add "comment" in document (and in template).			4th Q Operations Report at the latest	done	closed
OR-8_action-14	Blacklisted buoys. Add in the template and in future report the reference / link to the blacklisted buoys.			4th Q Operations Report at the latest	not done	It would be simpler to add the link of blacklisted buoys in the report.

Reference	Description	Responsible	Status as of 15/06/2012	Board decision	Status as of 26/03/2013	Board decision / Status at OR9
OR-8_action-15	Table 1. Remove “underskin” off the table from the QR and instead indicate the link on the SESP			4th Q Operations Report at the latest	done	closed
OR-8_action-16	Accuracy specification of the Sea Ice Type product. Approach of accuracy specification of the Sea Ice Type product will be presented at the next OR.			To be checked at next OR	???	See presentation annex 4 - closed
OR-8_action-17	Structure of section 5. Re-organise chapter 5.3 according to products instead of validation sources.			4th Q Operations Report at the latest	done	done
OR-8_action-18	Validation results of GBL LR SID meeting the target accuracy. In Section: 5.6.12, add comments in the next Ops Reports where we do not meet the threshold (especially early/late in the season)			4th Q Operations Report at the latest	done	done
OR-8_action-19	Update the map of stations in the website. Provide the link as identified in RID in the Ops report.			4th Q Operations Report at the latest	done	closed
OR-8_action-20	Update the map of stations in the website. Provide the link as identified in RID in the PUMs			To be checked at next OR	not done	open
OR-8_action-21	Figures 3 and 4. Figures 3 and 4 don't correspond to table 4. Update the report with corrected figures.			4th Q Operations Report at the latest	done	closed
OR-8_action-22	Availability of the SST metagranule and the 25 km wind which are obtained via NAIAD. PT to propose an approach to measure availability of the SST metagranule and the 25 km wind which are obtained via NAIAD, and, according to the SeSp, are to be provided with a timeliness of 2 h 45 for the wind and 4 hours for the Full resolution MetOp Sea Surface Temperature metagranules. As part of the assessment, confirm the timeliness value.			To be checked at next OR	The complete archive of SST metagranules is now available through Naiad. The ingestion (and availability) through Naiad is performed in NRT as soon as the metagranules are received. Data are kept online on a internal massive storage system. The 25 km winds will be added very soon and available through Naiad too at the next reporting period.	To be done (archive available for SST, not yet for wind – availability to be provided)

Reference	Description	Responsible	Status as of 15/06/2012	Board decision	Status as of 26/03/2013	Board decision / Status at OR9
OR-8_action-23	Gap size for the SZF and SFR product. EUM (JF) to check the gap size for the SZF and SFR product (level 1 b products) and provide the answer to KNMI, and clarify with KNMI the point 2 of the answer by PT. NB: for completeness of the OPS report, all changes including hardware should be identified.			Aug 2012	Still open, did not contact Julia about this issue. However, EUMETSAT has made progress on the work on the new SZF data format and operational introduction is foreseen soon. This will make this issue obsolete.	Action to remain up to end of June 2013. It should be closed after the technical change of the ASCAT data level 1 update. It will be checked in the next OPS report
OR-8_action-24	Unit for ice drift statistics. Modify in next Ops Report (clarify / add unit (tables 18/19 Q2, tables 22/23 Q1)).			4th Q Operations Report at the latest	done	closed
OR-8_action-25	AWDP version for ASCAT winds in Products configuration (osi-saf website). Update the web site. Ensure that the whole CM process at KNMI includes web upgrade task.			To be checked at next OR	AWDP version on central website is correct now.	closed
OR-8_action-26	Link to the web site on the validation coverage area. PT to provide in the Ops Report a link to the web site on the validation coverage area.			4th Q Operations Report at the latest	Normally done. Check that with met.no	To be done
OR-8_action-27	"weekly" title. Update the Ops report accordingly (The "weekly" title is a leftover - NH comparison is performed twice per week).			4th Q Operations Report at the latest	not done	To be done in the template
OR-8_action-28	1-* and 2-* products. Modify future reports by removing this 1-x and 2-x nomenclature.			4th Q Operations Report at the latest	done	closed
OR-8_action-29	Figure 61 caption. Update the report with correct figure.			4th Q Operations Report at the latest	done	closed
OR-8_action-30	Acronym MGR. Update for next report (define the acronym MGR in table of section 1.4).			4th Q Operations Report at the latest	not done	Done - closed
OR-8_action-31	High number of orders for BUFR 12.5 km product in a 3 month period. PM to contact EUM to get explanations on the 2551 orders for BUFR 12.5 km product in a 3 month period identified via the EUM data centre.			Aug 2012	not done. Contact EUM to get explanations on that.	Closed
OR-8_action-32	Valid users. PM to check the users list, and to remove from the list all users with a non valid mail address.			4th Q Operations Report at the latest	not done	open

Reference	Description	Responsible	Status as of 15/06/2012	Board decision	Status as of 26/03/2013	Board decision / Status at OR9
OR-8_action-33	Private users. PT to try finding another expression regarding "private users".			4th Q Operations Report at the latest	done	closed
OR-8_action-34	Statistics on FTP site. PM to reach within the PT a consensus on how to present in an homogeneous way the products download from FTP in the Ops Report.			4th Q Operations Report at the latest	not done. Discussions are still open because the different entities of the SAF have a different approach on that.	To be done
OR-8_action-35	Product configuration in the web site. Implement solution as proposed in RID answer to trace the product version.			To be checked at next OR	done	closed
OR-8_action-36	Main web site minor issues or questions. Point 1: correct the web site Point 3: Several solutions to be discussed by the PT: change the tile "user enquiry" to "please send us some feedback" or clarify the use of this page, simplify the page with the log in one, do not make it mandatory at the first log in etc. Point 4, 5 and 6: implement as requested in RID			To be checked at next OR	not done. Could be done for the next OR	closed
OR-8_action-37	Training activity. A section on training to be included in the OPS report.			4th Q Operations Report at the latest	done	closed
OR-8_action-38	Identification of major HW changes in the report. For completeness of the OPS report, all changes including hardware to be identified (eg upgrade).			4th Q Operations Report at the latest	done	closed

Annex 3 RIDs and answers

If not otherwise identified, all actions affecting the Operation report shall be closed for next Operation Report (end of August 2013).

RIDs regarding SubSystem 1

Reviewer: Laurence Crosnier

Brief title of comment: definition for quality index to be recalled

Comment: all reports, for SST quality parts
Could you recall in each document the short definition for the quality indexes 1 2 3 4 5 ?
As well as a reminder of the palette values: from blue to red, what does that mean ?

Recommendation (if any):

Suggested importance (major, minor)

If the comment relates to a specific review document, please give details below:

Name and Institute Respondent from SAF: SS1

Response:

1) The quality index or Proximity confidence value (PCV) is indicated in the LEO SST PUM 2.1.2 page 12 and GEO SST PUM 2.5 page 11.

We can recall in the § 5.1 SST quality the two definitions if requested.

2) As you can see in each figure on the top, the palette values is given, in order to give the value of the comparison between SST products and Match up data bases (MDB) - see 5.1 page 19 HYR12-H2 -.

Review Board Decision:

OR-9 Action 10: We can recall in the § 5.1 SST quality the two definitions

OR-9 Action 11: assess the possibility make the palette value larger and implement if easy

Reviewer: Laurence Crosnier

Brief title of comment: **legend missing in figure**

Comment: **For all documents, for quality results on SST,**
There no legend for the dotted, dashed and solid line on “Complementary validation statistics ...”;

For example page 29, figure 16, qr12_2_v_1_0.pdf for GOES-E SST.

Recommendation (if any):

Suggested importance (major, minor)

Name and Institute Respondent from SAF: **SS1**

Response:

The legends will be added for the next HYR13_h1.

Action already opened within OR-8_action-4.

Review Board Decision:

OR-9 Action 12: modify accordingly

Reviewer: Laurence Crosnier

Brief title of comment: **Would be nice to display Interannual variability for SST and Radiative flux (as done for Sea Ice)**

Comment:

Recommendation (if any):

Suggested importance (major, minor)

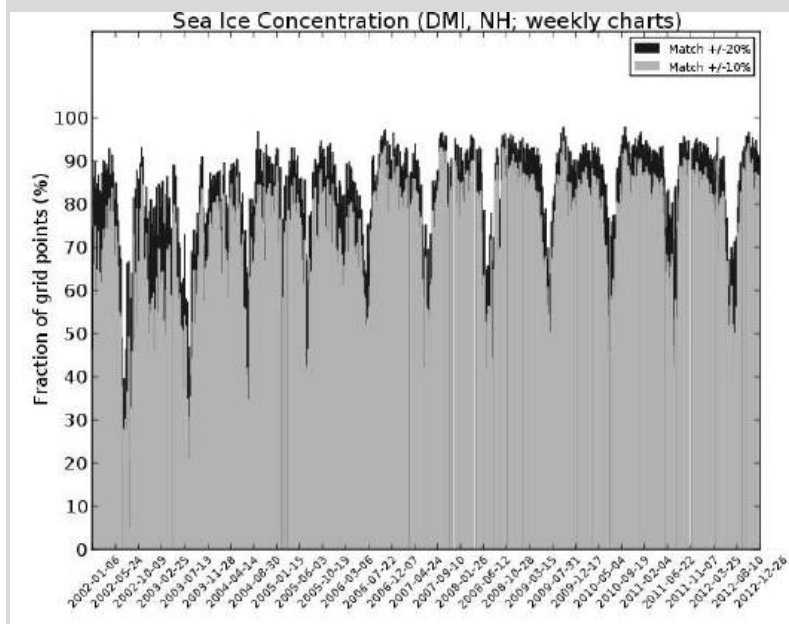
If the comment relates to a specific review document, please give details below:

Name and Institute Respondent from SAF: **SS1**

Response:

This can be assessed waiting for specifications on what is needed.

Is the graph below the one given in example of the request ?



Note that a lot of information is already given in ops reports and ressources are not stretchable.

Review Board Decision:

Se action **OR-9 Action 4** in main body of text

Reviewer: **Laurence Crosnier**

Brief title of comment: **FTP server availability**

Comment: **hyr12_h2_1_0.pdf, page 9, table2**

Availability for FTP servers on November 2012 for GOES SST DU and SSI is very low (45%). Same comment for availability for Eumetcast server for same time period for same product (table3, page 12).

Any explanation for this?

Recommendation (if any):

Suggested importance (major, minor)

If the comment relates to a specific review document, please give details below:

Name and Institute Respondent from SAF: **SS1**

Response:

In 3.1 of the HYR12-H2 (p16), you can find this information on this low performance in October. There is no low performance in November.

Between 24/09/2012 and 18/10/2012, due to failure of imager on GOES-E satellite, GOES-E hourly SST, hourly and daily Fluxes (DLI, SSI) products were not produced.

So the performance were impacted mainly in November.

OSI SAF Service Message 736, 738, 739, 740, 742 and 744 have been sent to informed the users.

The last OSI SAF Service Message 744 have informed that "GOES-13 satellite in GOES-E position would be back to nominal today 2012/10/18 at 1445UTC. The OSI SAF chain at CMS is starting to process the data. First products will be available an the end of the day. However their status on the Web Site Home page remains "degraded" till quality control to be carried Out coming days is successful."

For each new satellite, all the concerned OSISAF products (SST and Fluxes) needs a validation campaign of, generally, one month of duration, before declaring the products operational. During the GOES-13 outage, the use of GOES-12 data was then not possible.

CMS teams have closely followed the information coming from NOAA on the status of GOES-13 in order to decide to start the validation campaign for OSISAF production in case of definitive failure.

See also DF-10

Review Board Decision: closed by explanations

Reviewer: **Laurence Crosnier**

Brief title of comment: **L1 granule at SS1**

Comment: **qr12_2_v_1_0.pdf, page 17, at SS1:**

it is said "Occasionally the chronology of L1 granule files may be lost, which does not allow the chain to process the L2 product. Actions have been undertaken both at EUMETSAT CAF and CMS for solving the problem. The problem is not closed."

Is the problem now closed? Where to find this info in the report?

Recommendation (if any):

Suggested importance (major, minor)

If the comment relates to a specific review document, please give details below:

Name and Institute Respondent from SAF: **SS1**

Response:

The problem raised was some losses of MGR SST products but is not an anomaly because the performance are still good. As you can see in QR or HYR, the performance in 2012 meet the target since the beginning, even with some occasionally problems.

The METOP L1 granule are sent by EUMETSAT on EUMETCast in an chronology mode, and need to be processed in this way by the processing chain.

Sometimes this chronology is lost due to :

1 - no dissemination on EUMETCast

2 - dissemination on EUMETCast without chronology

3- loss of the chronology during internal CMS transfer

Even if the performance were good, we have investigated to mitigate the problem, for example with Eumetsat in June. Eumetsat answered us (26/06/12) that "The PDU are processed in chronological order, however we do not guarantee in the operational service specification or applicable documentation that the files are disseminated in chronological order"

However, Eumetsat has made a preventive action (08/08/12) : "A fix was installed yesterday around lunchtime that should prevent the data being sent out of order. We will monitor it here but we would be grateful if they could report any further occurrences if they see them."

At CMS, an investigation was also made and no action was planned because the losses of chronology have decreased consequently and the performance remains well above the target.

See also DF-12.

Review Board Decision: closed by discussion. It is noted that now the PDU are processed in chronological order, and disseminated in chronological order"

Reviewer: Laurence Crosnier

Brief title of comment: **FTP down for 3 days**

Comment: **qr12_1_v_1_1.pdf, page 17**

"The access to IFREMER ftp server was down between 10 February at 18 UTC and 13 February at 0830 UTC, because all possible sessions were opened simultaneously by a user. Investigations are being made to prevent from this problem. »

this is not the first time this is happening, which solution has been found to prevent from this problem occurring again ?

Recommendation (if any):

Suggested importance (major, minor)

If the comment relates to a specific review document, please give details below:

Name and Institute Respondent from SAF: **SS1**

Response:

This anomaly has been fixed and correctives actions taken.

A dedicated pool of connexion have been reserved for this dissemination from CMS to IFREMER. A first test period was planned till end of September 2012 but extended finally to end of November. However, a new outage was noticed (5/11/12), due to a single user which has saturated the eftp server mainly the automounter at IFREMER with having opened too many connexion. A limitation of their number has been put in place by IFREMER IT. So, the test period has been extended for 6 months till end of May 2013. Currently, with the last action taken in November, the service is, at this time, nominal and we should close this anomaly in due time.

See also DF-11

Review Board Decision: closed by answer and discussion. The next year OR will check the proper elimination of this problem.

Reviewer: Laurence Crosnier

Brief title of comment: typo error

Comment: qr12_1_v_1_1.pdf, page 4

"This version of the quarterly report over the first quarter of 2012 **if** is the final one."

Recommendation (if any):

Suggested importance (major, minor)

If the comment relates to a specific review document, please give details below:

Name and Institute Respondent from SAF: **SS1**

Response:

This is a typo error, which is corrected.
The new version (qr12_q1_1_2.pdf) is available on the web site.

Review Board Decision: closed by answer.

Reviewer: Laurence Crosnier

Brief title of comment: **problem in the table name**

Comment: **qr12_1_v_1_1.pdf, page 11:**
reference to "Table 2" made in the text, but no table 2 found.
Recommendation (if any):

Suggested importance (major, minor)

If the comment relates to a specific review document, please give details below:

Name and Institute Respondent from SAF: **SS1**

Response:

The corrections have been made in the two documents concerned in the period of this OR9.
The new versions are available on the osisaf web site : qr12_q1_1_2.pdf and qr12_q2_1_1.pdf.

Review Board Decision: closed by answer.

Name-FAUCHER-09

Reviewer: D. Faucher

Brief title of comment: configuration management issue (message news 756)
The message news OSI SAF Service Message #756 indicated:

o Title :interruption on 2012-11-22

o Product :NAR, GLB, MGR Metop SST

o Date :2012-11-23

o From : M-F/CMS Operations team

o Message :Due to software configuration management issue:

- *MGR SST weren't available for Ifremer and Eumetsat from 22/11 at 1449utc(sensing time) to 23/11 at 0746utc(sensing time).*
- *GLB SST dated 22/11 at 1200utc,*
- *NAR METOP dated 22/11 at 2000utc*
- *NAR NOAA19 dated 23/11 at 0300utc*
- *weren't available for IFREMER*

Recommendation (if any):

The report is clearly indicating the root cause (thanks good job). By curiosity, was it an operator error? What is the procedure to modify operational software?

Suggested importance (normal)

Name and Institute Respondent from SAF: **SS1**

Response:

In 3.1 of the HYR12-H2 (p16), you can find this information on the issue :

"Between 22/11/2012 at 1449 UTC (sensing time) and 23/11/2012 at 0746 UTC (sensing time), due to software configuration management issue, MGR SST were unavailable on both FTP server and EUMETCast. GLB and NAR SST were just delayed on FTP server. The main cause was due to the fact that the software have been unfortunately built and distributed in a dynamic way and netCDF4 library based instead of a static way and netCDF3 library based."

All the software is managed by a dedicated team at CMS (LOG). The distribution of it is regularly made in order to maintain the configuration. This distribution is not only concerning the OSISAF software.

The concerned issue was identified after investigation and then corrected, and is clearly due to a human error.

Review Board Decision: closed by answer

Name-FAUCHER-10

Reviewer: D. Faucher

Brief title of comment: product when GOES 13 had a problem:

What was done at OSI SAF when EUMETSAT decided : *“Due to a problem with GOES-13, hourly GOES-East data are currently not available. 3-hourly GOES-12 data are being disseminated instead, relabelled as GOES-13 with a rectification point of 60° West.”*

Why did you not try to use GOES 12 re-projected data?

Recommendation (if any): clarify

Suggested importance (normal)

Name and Institute Respondent from SAF: **SS1**

Response :

In 3.1 of the HYR12-H2 (p16), you can find this information on the issue :

Between 24/09/2012 and 18/10/2012, due to failure of imager on GOES-E satellite, GOES-E hourly SST, hourly and daily Fluxes (DLI, SSI) products were not produced.

OSI SAF Service Message 736, 738, 739, 740, 742 and 744 have been sent to inform the users.

The last OSI SAF Service Message 744 have informed that “GOES-13 satellite in GOES-E position would be back to nominal today 2012/10/18 at 1445UTC. The OSI SAF chain at CMS is starting to process the data. First products will be available at the end of the day. However their status on the Web Site Home page remains “degraded” till quality control to be carried Out coming days is successful.”

The message sent by EUMETSAT concerns the FSDS imagery production which doesn’t need a validation campaign such as for the OSISAF products. Note GOES-12 have been used for GOES-E position only some days. Remember that during the outage of GOES-13, GOES-14 was used for the GOES-E mission from 26/09 at 1300UTC to 16/10 at 1500UTC.

For each new satellite, all the concerned OSISAF products (SST and Fluxes) needs a validation campaign of, generally, one month of duration, before declaring the products operational. During the GOES-13 outage, the use of GOES-12 data was then not possible.

CMS teams have closely followed the information coming from NOAA on the status of GOES-13 in order to decide to start the validation campaign for OSISAF production in case of definitive failure.

Review Board Decision: closed by answer and other rid

Name-FAUCHER-11

Reviewer: D. Faucher

Brief title of comment: In the previous report and in the news we had the following information:

From 16 May to 21 May the IFREMER FTP server was out of service. The missing archive was completed following days. The IFREMER FTP server has undergone several outages leading to corrective actions and preventive ones that are under testing till September.

What is the result? Have all tests been finalised? What is the new configuration?

Recommendation (if any):

- 1) Clarify the status of this anomaly.
- 2) An anomaly open at the previous report MUST be kept in the following report, explaining if it has been closed and how. Implement this approach systematically. Describe the anomaly process in the CMP or in the Project plan, Ensure it is implemented throughout the consortium.
- 3) The anomaly should be numbered and properly traced (independently of the report). I understood that Météo_France Lannion was ISO9001 certified: please provide me your procedure on how you process anomalies

Suggested importance (normal)

Document: QR12-2 Page 17 of 101²

Name and Institute Respondent from SAF: **SS1**

Response:

- 1) This anomaly has been fixed and correctives actions taken. A dedicated pool of connexion have been reserved for this dissemination from CMS to IFREMER. A first test period was planned till end of September 2012 but extended finally to end of November. However, a new outage was noticed (5/11/12), due to a single user which has saturated the eftp server mainly the automounter at IFREMER with having opened too many connexion. A limitation of their number has been put in place by IFREMER IT. So, the test period has been extended for 6 months till end of may 2013. Currently, with the last action taken in november, the service is, at this time, nominal and we should close this anomaly in due time.
- 2) Noticed for the reporting. Concerning the management of the anomaly, as already said in previous OR, this is made under the quality system of MF which ISO9001 certified. The description of the anomaly process will be introduced in the CMP or PP for the next OR.
- 3) As said during the last OR, an anomaly number was affected to this issue but it was told that the number doesn't need to be given, since this anomaly is processed. Every documentation of the Quality system of Meteo-France is internal and confidential.

Review Board Decision: closed by answer and other rid

Name-FAUCHER-12

Reviewer: D. Faucher

Brief title of comment: status of the following anomaly:

Occasionally the chronology of L1 granule files may be lost, which does not allow the chain to process the L2 product. Actions have been undertaken both at EUMETSAT CAF and CMS for solving the problem. The problem is not closed.

- Clarify the issue
- Who is doing what? What is the investigation approach etc.?

Recommendation (if any):

- 1) Clarify the anomaly
- 2) same issue as previously regarding anomaly management
- 3) if there is a EUM involvement there should likely be a EUMETSAT anomaly raised: have you asked for the reference of it?

Suggested importance (normal)

Document: QR12-2 Page 17 of 101

Name and Institute Respondent from SAF: **SS1**

Response:

1) The problem raised was some losses of MGR SST products but is not an anomaly because the performance meet the target in 2012, as you can see in QR or HYR, even with some occasionally problems.

The METOP L1 granule are sent by EUMETSAT on EUMETCast in an chronology mode, and need to be processed in this way by the processing chain.

Sometimes this chronology is lost due to :

- 1 - no dissemination on EUMETCast
- 2 - dissemination on EUMETCast without chronology
- 3- loss of the chronology during internal CMS transfer

Even if the performance were good, we have investigated to mitigate the problem, for example with Eumetsat in june. Eumetsat answered us (26/06/12) that "The PDU are processed in chronological order, however we do not guarantee in the operational service specification or applicable documentation that the files are disseminated in chronological order"

However, Eumetsat has made a preventive action (08/08/12) : "A fix was installed yesterday around lunchtime that should prevent the data being sent out of order. We will monitor it here but we would be grateful if they could report any further occurrences if they see them."

At CMS, an investigation was also made and no action was planned because the losses of chronology have decreased consequently and the performance remain well above the target.

2) This issue is not an management one. No answer to give.

3) In case of problem at EUMETSAT, it is not mandatory to ask for the reference of the anomaly in EUMETSAT if existing. How this regular dissemination is managed at EUMETSAT ?

Review Board Decision: closed by answer and other rid

Name-FAUCHER-13

Reviewer: D. Faucher

Brief title of comment: interface EUM/OSI SAF

- 1) **JOP/ OICD requires:** *List of SAF users identified by EUMETSAT*
The EUMETSAT users receiving SAF product via EUMETCast can be identified by EUMETSAT and the list will be provided every 6 months (tbc), in line with the drafting of the SAF Operation Report (by 31 January and 31 July), to the contact point identified in Table 17

Why it is not included in the report? The report template should systematically include a section which identifies this input, and therefore trigger question if the information is not available.

- 2) **JOP OICD requires:** *The OSI SAF products are archived in the EUMETSAT data centre (UMARF). Reporting to the OSI SAF Leading Entity is done as follows:*
A regular report is provided to the OSI-SAF on a quarterly basis, covering each 3 month period of a calendar year.

This reporting should have been included in the Operation Report. Where is it? Why it is not included in the report? The report template should systematically include a section which identifies this input, and therefore trigger question if the information is not available on time.

Recommendation (if any):

- **Provide the information for the review**
- Include 2 sections in the report, for the list of OSI SAF users obtained from EUMETCast identified user, and for the list of retrieved products/users

Suggested importance (normal)

Document: JOP/OICD section 5 and 6

Name and Institute Respondent from SAF: **PM**

Response:

- 1) **EUMETSAT has never sent this information to the PM, this is why it is not included (according to Guénolé).**
- 2) **To be done when information available from EUMETSAT.**

Review Board Decision:

- 1) Information was provided 14 January. Issue closed
- 2) **OR-9 Action 13: In the future, add in the OPS report a section requiring EU inputs, and remind EUM to provide these inputs:**
- a. **Users from EUMETCast**
 - b. **Users and retrievals from UMARF**

Name-FAUCHER-14

Reviewer: D. Faucher

Brief title of comment: usage of the web site

What is “network” ad “unresolved/unknown” in the statistics per hit? (See graph below)

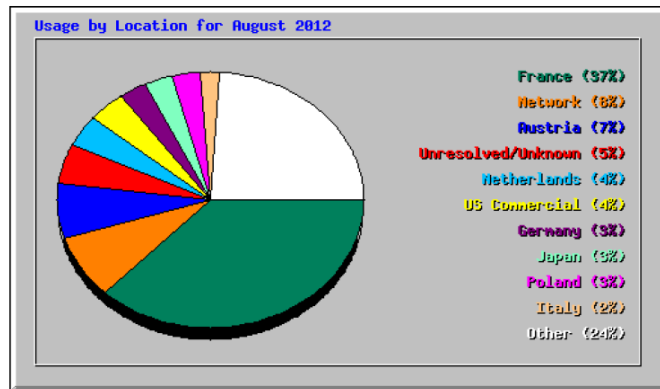


Figure 83 : Usage of the OSI SAF central Web Site by country in AUGUST 2012.

Does the “*int*” in table 30 corresponds to people hitting at the web site from an international agency (such as EUMETSAT for example?)

Recommendation (if any): clarify

Suggested importance (minor)

Document: HYR12-H2 Page 98 of 117 but in many other places

Name and Institute Respondent from SAF: **SS1**

Response:

Theses informations are given automatically by the host, based the extension (if exists) of the connection address.

1) “network” corresponds to an extension .net, for example 128.73.120.106.static.bjtelecom.net

“unresolved/unknown” corresponds to Unresolved IP Address

“others” corresponds to all non referenced domains/countries of the graph.

2) “int” means international and corresponds to an extension .int, for example 195-169-141-54.estec.esa.int

Review Board Decision: closed

Name-FAUCHER-15

Reviewer: D. Faucher

Brief title of comment: **status of user enquiry**

1) Why are the 2 following user enquiries without a status? What was the problem?

reference	Date	subject	status
120012	17/07/2012	Data not available in NRT on IFREMER FTP server	
120013	17/07/2012	Data not available in NRT on IFREMER FTP server	
120014	18/07/2012	Request for combined ASCAT wind product	Closed

2) What is the problem with the user issue: *120032 - 13/12/2012 - User report on problem with SAF OSI file processing - Acknowledged*

3) Correct “*Acknowledged by*” by “*Acknowledged by*” in all the user helpdesk exchange.

4) How recent are the recent publications (HYR12-H2 Page 117 of 117)? Are they all available on the web?

Recommendation (if any): 1) and 2): clarify why it takes so long to address the user question – 3) correct (it looks really stupid...) 4) keep only the recent one (corresponding to the reporting period /or the calendar year), **and check they are in the web. I cannot find them.**

Suggested importance (normal)

Document: table 35 of HYR12-H2 and p112 and other places

Name and Institute Respondent from SAF: **SS1**

Response:

- 1) The two request (the same in fact) are closed (action taken) but a web issue doesn't allow us to close them quickly. Investigation ongoing.
- 2) The 120032 request is concerning effectively processing. We are waiting for an answer of the user, to indicate the products concerned in order to properly address it.
- 3) Minor.
- 4) These references of documentation are given as indication for users which are used of these publications. They don't have to be on the web site and if not relevant can be removed from the next operational report.

Review Board Decision:

- 1) Closed
- 2) Clarified by answer
- 3) Closed on web site
- 4)

OR-9 Action 14: Limit the list of article to those of the past year on the OPS report

Action: list articles and papers in the web site, by chronological orders (more recent first).

Reviewer: Phil Hwang

Brief title of comment: **Complementary validation graphs - Figure 10, 16, 24, 30, 36 – provide explanation.**

Comment: **Please provide legends or explanation for the graph in Figure 10. Not sure what those lines represent.**

Recommendation (if any):

Suggested importance (major, minor) minor

If the comment relates to a specific review document, please give details below:

Document: **QR12-1,2,3 & HYR12-H2**

Response:

See DF, Lac

Review Board Decision: closed by other rid

Reviewer: Phil Hwang

Brief title of comment: **SYNOP**

Comment: **What SYNOP represent?**

Recommendation (if any):

Suggested importance (major, minor) minor

If the comment relates to a specific review document, please give details below:

Document: **QR12-3**

Reference and Issue Number:

Page: **45**

Name and Institute Respondent from SAF:

Response:

SYNOP (surface synoptic observations) is a numerical [code](#) (called FM-12 by [WMO](#)) used for reporting [weather](#) observations describing general weather information, such as the temperature, barometric pressure and visibility at a weather station.

Review Board Decision:

OR-9 Action 15: put explanation in the OPS report or rephrase

Reviewer: Phil Hwang

Brief title of comment: **Statistics of OSI SAF central website**

Comment: **Is there any specific reason why high sessions during 2009/10 and then drop off later?**

Recommendation (if any):

Suggested importance (major, minor) minor

If the comment relates to a specific review document, please give details below:

Page:HYR12-H2 & QR12

Section:

Name and Institute Respondent from SAF:

Response:

No idea at this time.

Review Board Decision:

OR-9 action 16: although an old issue, it would be useful to understand what has been the problem. PT to try to find the reason for the drop

Reviewer: Phil Hwang

Brief title of comment: **SSI and DLI product download via SSI ftp site**

Comment: **What is the SSI MAP+LML and DLI MAP+LML products? They haven't listed in the Table 1 in OR note. It seems they are the ones regularly downloaded, but the individual product (e.g. METEOSAT DLI) hardly downloaded.**

Recommendation (if any):

Suggested importance (major, minor) minor

If the comment relates to a specific review document, please give details below:

Name and Institute Respondent from SAF:

Response:

Review Board Decision:

Action: identify who are the users downloading **SSI MAP+LML and DLI MAP+LML products** (see p 108 report second semester 2012).

See OR-9 Action 7 in main body of the MoM

Reviewer: Phil Hwang

Brief title of comment: **MGR SST availability in polar regions**

Comment: **MGR SST is by far the most popular product. Just question about the limits of the data availability in the polar regions. How do you limit the SST retrieval in the presence of sea ice?**

Recommendation (if any):

Suggested importance (major, minor) minor

If the comment relates to a specific review document, please give details below:

Document:

Reference and Issue Number:

Page:

Section:

Name and Institute Respondent from SAF: **SS1**

Response:

Please refer to the LEO SST PUM ss1_pum_leo_sst_2_2.pdf.

We detect the ice using a "ice probability" method developed by MetNo (Eastwood and Andersen, 2004).

Review Board Decision: closed by answer

Reviewer: Phil Hwang

Brief title of comment: **Status updates**

Comment: **No status updates in table 29. Is it just a typo?**

Recommendation (if any):

Suggested importance (major, minor) minor

If the comment relates to a specific review document, please give details below:

Document: QR12_3

Reference and Issue Number:

Page: 87

Section:

Name and Institute Respondent from SAF:

Response:

Review Board Decision: closed by ref to other rid

RIDs regarding SubSystem 2

(JF1) on Half-Yearly report. Medium. HL DLI/SSI validation: In section 5.2.1.2, I don't know what figure 1 and table 1 refer to, perhaps fig 57 and tab 14 instead? In any case, it seems that all validation stations are over Norway. Has it been tried to collect validation data from other countries in the relevant geographical area, such as Sweden, Denmark

PT answer:

Yes, quite extensive work has been done to retrieve data from other nations. It should be noted that not all stations are over Norwegian mainland, but rather Norwegian territory. That being said, SMHI is distributing relevant data on GTS. Downloading of these data has started, decoding is still pending but these data are due for inclusion in 2013. Contact has also been established with FMI (during the last annual meeting in the Ozone and UV working group under NORDMET. During the same meeting a preliminary contact was made with DMI as well. Furthermore, contact is established with AWI and Norwegian Polar Institute in order to get data close to Fram Strait, but it has proven hard to get the actual data.

Board decision:

OR-9 Action 17: Met.no to report on the progress of the inclusion of new validation station for fluxes products.

OR-9 Action 18: update the 1/2 year report with the correct reference

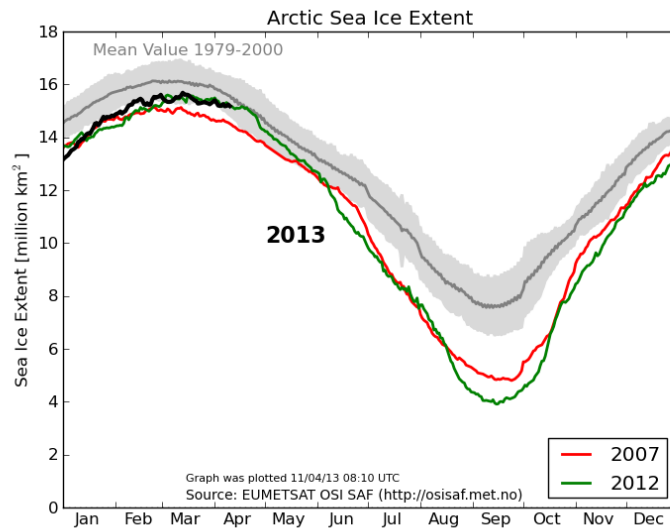
Name-FAUCHER-01

Reviewer: D. Faucher

Brief title of comment: Artic Sea ice extent: to be extended to ... Antarctic?

Recommendation (if any): The message news OSI SAF Service Message #737 indicated "The OSI SAF Sea Ice Team is happy to introduce daily updated sea ice extent graphs from the OSI SAF High Latitude web portal: http://osisaf.met.no/p/ice_extent_graphs.php "

The result is a very nice graph:



Will/ can something equivalent be done for antarctic?

Suggested importance (minor)

Name and Institute Respondent from SAF:

Thomas Lavergne, met.no

Response:

Thank you for noting these “very nice” graphs. Although displayed daily on OSISAF website, and processed from OSISAF data, these indicators and graphs are not an OSISAF CDOP product per se. Developments leading to these graphs were conducted through various parallel projects such as EU MyOcean and ESA CryoClim, both of which had more focus on Arctic or “European” regions. Arctic sea ice is anyway what has focus these days, since the trend in Antarctic sea ice extent is very limited (no records). So there is generally less interest from public. Note CDOP2 WP 22310 (“Continuous sea ice concentration re-processing”) holds 2 “R&D Feasibility study” to: produce derived ice concentration parameters (extent, area), and to establish continuous climate and season indicators, based on ice concentration reanalysis and daily ice concentration production. Extension to SH might thus come as a result of WP22310 if feasibility study concludes positively. We thus propose to reconsider this question later in CDOP2, when WP22310 is performed.

Review Board Decision: closed by answer

Name-FAUCHER-02

Reviewer: D. Faucher

Brief title of comment: uncompressed files in archive:

The following message news was provided to users:

OSISAF Service Message #741

o uncompressing OSISAF Sea Ice FTP archive

o Product :Sea Ice

o Date :2012-10-10

o From : Met.no local manager

o Message :

Parts of the OSISAF FTP archive of sea ice products is currently compressed with gzip. The compressed files will be uncompressed on Tuesday 16th October. This is to make the files directly available in a THREDDS and WMS server.

The files in question are stored at this location:

<ftp://osisaf.met.no/archive/ice>

This message was misleading since it was not referring to the archive, but to the FTP.

1. Is the FTP only used for the downloading or ordered product, or as a quick way for users to get the products?
2. What part of the data in the FTP has been uncompressed: the whole of it?
3. Is it for all sea ice product, including the dataset?
4. Does it need an update of the PUM?

Recommendation (if any): clarify

Suggested importance (minor)

Name and Institute Respondent from SAF:

Steinar Eastwood, met.no

Response:

We understand that the service message should have been more precise to avoid confusion about which archive this was, and which files files were affected.

- There are two directories for operational osisaf sea ice products on the FTP server; one with the last 30 days of data (called “prod”) and one with all products produced since the product were defined pre-operational or operational (called “archive”). So this “archive” is a quick way for the users to access all products produced, in addition to the EUMETSAT Data Archive. In addition there is an third directory for reprocessed data set (called “reprocessed”).
- The uncompression was done for all netcdf files in the FTP archive. This was so that tools like THREDDS, WMS and METSIS could access the content of the files more quickly.
- Only the sea ice products on netcdf format in the FTP archive area were uncompressed, not the data set in the reprocessed area.
- The current PUM states that the netcdf are uncompressed, so no update is needed. In fact, the files in the archive should not have been compressed in the first place, according to the PUM.

Review Board Decision: closed by answer

Name-FAUCHER-03

Reviewer: D. Faucher

Brief title of comment: OSI SAF Service Message #758 dated 27 November 2012 on OSI SAF High Latitude servers unavailable: there have been several network breaks: *"This affects the availability of OSI SAF Sea Ice products, AHL SST product and AHL Flux products through FTP, as well as the OSI SAF HL web portal"* However the table 2 Page 9 of 117 HYR12-H2 : Percentage of OSI SAF products available on the FTP servers within the specified time over 2nd half 2012 shows 100% of availability to the FTP.
So there were no impacts (around 1 hour of break)?

Recommendation (if any):

- In the report, in the frame of anomaly processing, provide a few words on what has broken down and what was the repair (hardware, software, operator error, etc.)
- clarify what where the impacts.
- what is the redundancy scheme for the network at met.no

Suggested importance (minor)

Document: table 2 Page 9 of 117 HYR12-H2

Name and Institute Respondent from SAF:

Steinar Eastwood, met.no

Response:

met.no has been using a cluster setup of virtual machines for many of our project FTP and web portals. This setup experienced problems with internal network and internet connection. The osisaf server were one of these virtual servers that suffered from this problem. It has affected the availability of the servers from a user point of view, as the server was unavailable for periods up to a couple of hours. It has not affected distribution of osisaf products to EUMETSAT, and to less extent internal distribution from production machine to the osisaf data disks. After lots of debugging, testing and improvements, the osisaf server is now much more stable. In addition, met.no has chosen to purchase new a new cluster to secure the stability needed.

The clusters of virtual machines should in it self provide the redundancy needed. Unfortunately, this did not work as expected, and we had no other solution as long as they tried to fix the problem.

In the QR/HYR report we only report timeliness of the products, measured by the time the products were put on the data disks that the FTP server access. We do not report on the "uptime" of the FTP server. The products were usually placed on the data disks in time, except in December (service message 764).

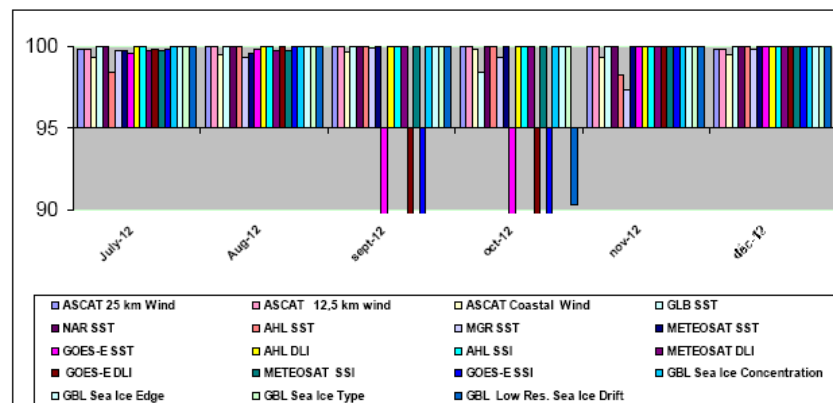
Review Board Decision: problem fixed. closed

Name-FAUCHER-04

Reviewer: D. Faucher

Brief title of comment: global low resolution sea ice drift in October:

According to the graph Figure 2 : Products availability on FTP servers over the past six months.:



The Global sea ice drift low resolution is out of spec in October.
 I cannot find the result in:

Percentage of OSI SAF products available on the FTP servers within the specified time over 2 nd half 2012																		
Month	ASCAT 25 km Wind	ASCAT 12.5 km Wind	ASCAT Coastal Wind	OSCAT 50 km wind	GLB SST	NAR SST	AHL SST	MGR SST	METEOSAT SST	GOES-E SST	AHL DJI	AHL SSI	METEOSAT DJI	GOES-E DJI	METEOSAT SSI	GOES-E SSI	GBL Sea Ice Concentration	GBL Sea Ice Edge
July 2012	99.9	99.9	99.3	-	100	99.19	98.40	99.48	100	100	100	98.80	98.32	98.32	98.32	98.32	100	100
Aug. 2012	100	100	99.5	-	100	100	100	99.63	100	100	100	100	100	100	100	100	100	100
Sept. 2012	100	100	99.7	-	100	100	100	99.76	100	78.11	100	100	100	74.88	100	74.88	100	100
Oct. 2012	100	100	99.9	96.0	100	100	100	99.23	100	43.15	100	100	100	44.22	100	44.22	100	100
Nov. 2012	100	100	99.3	92.5	96.67	98.33	100	97.35	100	100	100	100	100	100	100	100	100	100
Dec. 2012	99.9	99.9	99.5	97.5	100	100	98.67	99.89	100	100	100	100	100	100	100	100	98.67	98.67

table 2 : Percentage of OSI SAF products available on the FTP servers within the specified time over 2nd half 2012.

But it was showing pb on the EUMETCast dissemination statistics:

Percentage of OSI SAF products available via EUMETCast within the specified time over 2 nd half 2012																		
Month	ASCAT 25 km Wind	ASCAT 12.5 km Wind	ASCAT Coastal Wind	OSCAT 50 km wind	GLB SST	NAR SST	AHL SST	MGR SST	METEOSAT SST	GOES-E SST	AHL DJI	AHL SSI	METEOSAT DJI	GOES-E DJI	METEOSAT SSI	GOES-E SSI	GBL Sea Ice Concentration	GBL Sea Ice Edge
July 2012	99.9	99.9	99.3	-	100	100	98.40	99.74	99.73	99.80	100	100	99.74	99.87	99.74	99.87	100	100
Aug. 2012	100	100	99.5	-	100	100	100	99.33	99.60	99.87	100	100	99.74	100	99.74	100	100	100
Sept. 2012	100	100	99.7	-	100	100	100	99.96	100	78.39	100	100	100	78.53	100	78.53	100	100
Oct. 2012	100	100	99.9	96.0	98.39	100	100	99.27	100	43.15	100	100	100	43.35	100	43.35	100	90.32
Nov. 2012	100	100	99.3	92.5	100	100	98.30	97.36	100	100	100	100	100	100	100	100	100	100
Dec. 2012	99.9	99.9	99.5	97.5	100	100	100	99.89	100	100	100	100	100	100	100	100	100	100

table 3 : Percentage of OSI SAF products delivered via EUMETCast within the specified time over 2nd half 2012.

Recommendation (if any):

- clarify the issue
- why is there no anomaly reported in section 3.2?

Suggested importance (normal)

Document: HYR12-H2 Page 9 and 11 and 12 of 117

Name and Institute Respondent from SAF: **Steinar Eastwood, met.no**

Response: Must be an error in the figure, which is based on the tables. To be checked by PM.

Review Board Decision:

OR-9 Action 19: remove graph fig 1 , 2 , 3 and 4 in the future, but highlight figures in the table when out of spec.

Name-FAUCHER-05

Reviewer: D. Faucher

Brief title of comment: metadata browser:

We have exchanged a few mails on the metadata browser. Would it be possible to have a demo? Have you corrected the web site regarding my comments (in green below)?

Here is the thread:

Hi Dominique,

The product /2012/06/ice_conc_sh_polstere-100_multi_201206301200.nc consists only of a single date, that's why animations don't work and no date-selection is possible. Only the 'aggr' products in osisaf-metamod are aggregated and contain several dates.

At the moment we only have one aggregated product set up for test, you can see it here:

http://osisaf.met.no/metamod/search/page/1/result?active_criteria=&freetext_13=ice_conc

We will add aggregated products for all the data sets soon.

There are two + signs on the godiva page, one for the scale and the other one below the little hand. Changing projection is the one below the little hand. And yes, changing the projection to polar-stereographic requires a powerful browser since some lines are drawn from the browser. Please try it with firefox/chrome/safari or opera. Newer version of IE (>=9) should also work better, but we haven't tested it.

Best regards,
Steinar ++

Hi everybody,

Regarding <http://osisaf.met.no/metamod>, I could use [Godiva2 \(browser-based\)](#), but after choosing some products, for example once arriving at

http://thredds.met.no/thredds/godiva2/godiva2.html?server=http://thredds.met.no/thredds/wms/osisaf_test/met.no/ice/drift_lr/single_sensor/amsr-aqua/2011/03/ice_drift_nh_polstere-625_amsr-aqua_201103011200-201103031200.nc

the little calendar on the right did not accept any date to create an animation. When clicking on + or -, it did not change projection, but the scale. The change of projection seemed to come from the access to the little "hand", but very quickly, I had a message "stop running this script? : a script on this page is causing Internet explorer to run slowly ...". I had to terminate the internet browser.

I believe I may need some help using it J

Thanks and regards,

Happy new year 2013.

Df

Nb:

A few comments on your pages <http://osisaf.met.no/> (I will check further at OR):

- In the page OSI SAF Sea Ice product status, do you have to keep AMSR-E? It will be off for a looonnnng time.
- And in page <http://osisaf.met.no/p/download.html> the link does not work at: Some of the upcoming OSI SAF products are available as demonstration products:



Ice Concentration using AMSR-E (last 31 days) (<ftp://osisaf.met.no/testprod/ice/conc/>)

- After running an arctic sea ice motion, you are returned to a choice of 9 videos (not present previously) which I doubt are SAF related, for example, a commentary such as "Evidence for a New Ice Age Already Beginning". Would there be a way to avoid this? And then, there are google advertisements going on your motion: pity.
- Why are 2013 messages/news not included (example: OSI SAF Service Message #772)
- I could not find the daily updated sea ice extent graphs from the OSI SAF High Latitude web portal: http://osisaf.met.no/p/ice_extent_graphs.php
- To be updated: http://osisaf.met.no/stories/skaggerak_Feb_2010/index.html

Upcoming OSI SAF product

The upcoming Regional Sea Ice Edge product of the OSI SAF is based on this algorithm.

Operational processing and dissemination are scheduled for **Summer 2010**.

-----Original Message-----

From: Steinar Eastwood [<mailto:s.eastwood@met.no>]

Sent: Monday, January 14, 2013 9:39 AM

To: Dominique Faucher

Cc: Thomas Laverigne; Heiko Klein; Egil Støren; Øystein Torget

Subject: osisaf: testing the meta data browser

Dear Dominique

Happy new year to you!

I promised you this link a long time ago, but I forgot all about it. But finally, here it is, the link to the osisaf Metadata Catalogue Search:

<http://osisaf.met.no/metamod>

To view images of the fields, there are two ways:

- press Visualize in the Metadata search result
- follow the file name link to the THREDDS server and select Godiva2 under Viewers. Here you can use the blue/white '+' sign to change projection.

Any comments are welcome.

Best regards,

Steinar

Recommendation (if any):

1. Perform a demo.
2. Confirm the correction of the web site

Suggested importance (minor)

Document: browser / web site

Name and Institute Respondent from SAF:

Steinar Eastwood, met.no

Response:

Yes, a demonstration can be given.

The proposed corrections have been made.

Review Board Decision: closed by answer. Demo made at the end of the meeting see in meeting minutes

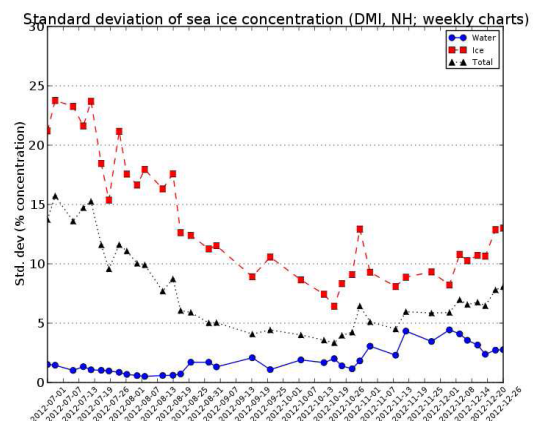
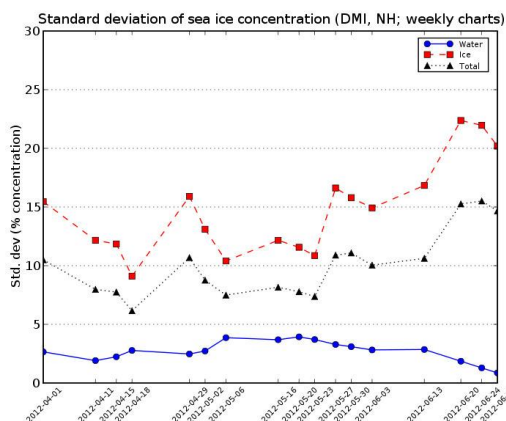
Name-FAUCHER-06

Reviewer: D. Faucher

Brief title of comment: bias and standard deviation of sea ice concentration:

There seems to be slight jumps the jump between end of June 2012 (page 59 fig 51 here below) and 1st July 2012 (Figure 60 p67 of the HYR12-H2)? Could it be possible to have a running window, as this was performed in the past (and requested in other reviews)?

I have put both graphs beside each other, same scale:



Recommendation (if any):

- a) I suppose the jump is due to the measurements made with a few days, and therefore perfectly acceptable
- b) try to provide a window over one year for helping assessing seasonal trends

Name and Institute Respondent from SAF:

Esben Nielsen, DMI

Response:

- 1.
2. The bias and standard deviation of the ice chart validation can vary significantly between consecutive ice charts which is due to ice charting being a manual procedure. This means the ice charts will be subject to variations due to individual differences in experience and interpretation skill of the ice charters as well as manual registration errors.
3. Figures of bias and standard deviation will be modified to provide a one year window.

Review Board Decision:

- 1) closed by answer
- 2) one year window has been agreed for the product quality monitoring. closed

Name-FAUCHER-07

Reviewer: D. Faucher

 Brief title of comment: **download of products:**

- i. download of the reprocessed ice concentration dataset

The stat table 46 of HYR12-H2 shows:

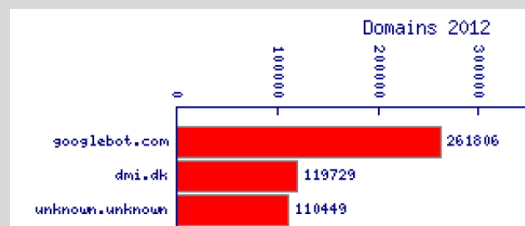
Month	Operational				Reprocessed Ice Conc
	Ice Conc	Ice Drift	Ice Edge	Ice Type	
July 2012	7408	1903	2638	3309	28755
Aug. 2012	30015	2388	3302	10836	23775
Sept. 2012	11922	3236	6206	5760	10448
Oct. 2012	15882	1551	5480	10158	13670
Nov. 2012	18824	1017	3885	14425	43051
Dec. 2012	13898	1597	5093	7016	49200

table 46 : Number of products downloaded from OSI SAF Sea Ice FTP server (ftp://osisaf.met.no).

Does the figures regarding the reprocess Ice Conc corresponds to the number of datasets downloaded, or of files? Would the interest of the users not to get the whole serie?

- ii. googlebot

(p112 of report) For a long time the first biggest downloader was a Danish university. Who is now the googlebot?, or the unknown.unknown?



Recommendation (if any): clarify who are the users of this reprocessed data set.

Suggested importance (minor)

Document: table 46 of HYR12-H2 and p112

Name and Institute Respondent from SAF:

Steinar Eastwood, met.no

Response:

- 1) The number do indeed correspond to number of files downloaded, to be in accordance with the numbers of downloaded operational product files. We do expect that most users collect the whole data set, or for one hemisphere. The data set is also provided in two different projections.
- 2) googleboot is the search engine for google. Unknown.unknown is IP addresses not automatically recognized by the web report analysis software we use.

Review Board Decision: Closed. It is understood that met.no will try to improve search engine to avoid the googlebot request. Me.no indicates that it is not a security issue.

Name-FAUCHER-08

Reviewer: D. Faucher

 Brief title of comment: **speed to provide news to users**

The SeSp targets a 6 hours time for informing the users. With 6 days you definitely miss the target!

Sea Ice	Met.no	2013-04-03	Missing OSI SAF sea ice products
	During Easter there was a problem with the production of sea ice products at OSI SAF. No products		

were produced for the dates 24th and 25th March. Norminal production was resumed on the 26th. The sea ice concentration, edge, type and drift products have been recovered, but based on SSM/I data instead of SSMIS data (no change in file structure or file naming). The sea ice drift products will not be reproduced. The missing products are now available on our ftp server in the usual directories (<ftp://osisaf.met.no/prod/ice> and <ftp://osisaf.met.no/archive/ice>).

Recommendation (if any): clarify who is supposed to monitor the product at met.no? What is the internal process to inform users?

Suggested importance (major)

Document: user service message and user request 130005

Name and Institute Respondent from SAF:
Steinar Eastwood, met.no

Response:

This problems experienced during Easter break were indeed unfortunate. We should have responded much earlier. Issuing of service messages are at present performed by three key persons. All of them were at holiday and not able to log on to the system to send service messages. For such occasions we normally organize so that one person is available to react in case we need to inform users, but this failed in this situation. We are now looking at a new solution for including the service desk at met.no in the process of issuing service messages.

Review Board Decision:

OR-9 Action 20: met.no and DMI to present the new service messages at next OR

Name: JF1

Reviewer: Julia Figa

Brief title of comment:

Recommendation (if any):

In Half-Yearly report. HL DLI/SSI validation: In section 5.2.1.2, I don't know what figure 1 and table 1 refer to, perhaps fig 57 and tab 14 instead? In any case, it seems that all validation stations are over Norway. Has it been tried to collect validation data from other countries in the relevant geographical area, such as Sweden, Denmark or Finland?

Suggested importance: Medium

Name and Institute Respondent from SAF:
Øystein Godøy, met.no

Response:

Yes, quite extensive work has been done to retrieve data from other nations. It should be noted that not all stations are over Norwegian mainland, but rather Norwegian territory. That being said, SMHI is distributing relevant data on GTS. Downloading of these data has started, decoding is still pending but these data are due for inclusion in 2013. Contact has also been established with FMI (during the last annual meeting in the Ozone and UV working group under NORDMET. During the same meeting a preliminary contact was made with DMI as well. Furthermore, contact is established with AWI and Norwegian Polar Institute in order to get data close to Fram Strait, but it has proven hard to get the actual data.

Review Board Decision:

OR-9 Action 21: met.no and DMI to present the status of the data availability at next OR

Reviewer: Laurence Crosnier

Brief title of comment: **AHL SST quality: requirement not fulfilled**

In qr12_1_v_1_1.pdf, page 42, it is said: "A figure with buoy location will be included, starting with the next Quarterly Report."

I have not found this figure in the next qr (namely qr12_2_v_1_0.pdf or qr12_3). This figure is only found in the hyr12 report.

Comment:

Recommendation (if any):

Suggested importance (major, minor)

If the comment relates to a specific review document, please give details below:

Name and Institute Respondent from SAF:
Steinar Eastwood, met.no

Response:

We have not produced this figure for the mentioned QR reports, the first report to include such a figure was the HYR12 report. We do not intend to update the mentioned QR reports.

Review Board Decision: closed by answer

Reviewer: Laurence Crosnier

Brief title of comment: **AHL SST quality: typos in text**

Comment:

Hyr12 report, page 58

For the AHL SST product, results for the whole of 2012 are shown. This is because the ~~selection~~ **selection** of observations to be used for the validation have been improved. Previously too many observations were used due to a too large time window between observation time and satellite product time.

For comparison, results are split between the nighttime product (centered at 00 UTC) and the daytime product (centered at 12 UTC). The daytime product is usually within specifications (except bias in January and December). For nighttime there are several months where the product is outside requirement, especially for the bias. There is a significant negative bias. When only quality index 4 and 5 are used in the comparison (not shown), the bias is within requirements for all months and for 10 of 12 months for std.dev.

Recommendation (if any):

Suggested importance (major, minor)

If the comment relates to a specific review document, please give details below:

Name and Institute Respondent from SAF:
Steinar Eastwood, met.no

Response:

Thanks for notifying us of these typos. If needed, we can update the HYR report.

Review Board Decision: closed

Reviewer: Laurence Crosnier

Brief title of comment: **Greenland area definition needed**

Comment:

**For Sea Ice quality, in all documents, figures refer to “Greenland area”.
What is the definition for this region?**

If the comment relates to a specific review document, please give details below:

Reference and Issue Number:
Rasmus Tonboe, DMI

Page:
This area refers to the area included in the Greenland Ice charts used for comparison to the OSI SAF product.

Section:
OR-9 Action 22: add this definition in the ops report or the link to the web site where the definition will be found

Reviewer: Laurence Crosnier

Brief title of comment: **More text needed to explain std deviation for Sea Ice in NH and SH**

Comment: **hyr12_h2_1_0.pdf figure 60 and 64. Those figures are very nice, but I have a hard time interpreting the differences between OSISAF products in the NS and SH with DMI and NIC charts respectively.
Hence I would suggest to write some text explanations about those 2 figures, explaining why the OSISAF product differs from NIC and DMI, and why the differences seems to vary with the season.**

Name and Institute Respondent from SAF:
Rasmus Tonboe, DMI

Response:
We will update the figure text.

Review Board Decision:
OR-9 Action 23: add more text regarding the meaning of these 2 figures 60 and 64

Reviewer: LAURENT BERTINO

Brief title of comment: Sea ice bias

Comment: **Sea ice quality, the bias figures are somewhat counter-intuitive. I would expect the bias in ice concentration and the bias in water to compensate each other (too little ice = too much water). Also how should we interpret the “total bias”? An explanatory note would be welcome.**

Recommendation (if any): add explanation or formula how the ice, water and total biases are computed.

Suggested importance (minor)

If the comment relates to a specific review document, please give

details below: All of them.

Document:

Reference and Issue Number:

Page:

Section: 5.3

Name and Institute Respondent from SAF:

Rasmus Toboe, DMI

Response:

The OSI SAF concentration products are compared to areas of open water and of ice in the ice charts. Since this is not clear we will update the text/ explanation.

Review Board Decision:

OR-9 Action 24: add more text regarding the meaning of these 2 figures 59 and 63

Reviewer: Phil Hwang

Brief title of comment: **daily Ice extent map as well**

Comment: **OSI SAF sea ice extent graphs is excellent idea! Just suggest to include daily ice extent map as well.**

Suggested importance (major, minor) minor

If the comment relates to a specific review document, please give details below:

Document: **QR12-3**

Reference and Issue Number:

Page: **16**

Name and Institute Respondent from SAF:

Steinar Eastwood, met.no

Response:

We do provide daily ice concentration maps, which should be sufficient for this purpose. There is a link at the front page of the web portal.

Review Board Decision: closed by discussion and answer

Reviewer: Phil Hwang

Brief title of comment: **AHL SST issue**

Comment: **Notice that this issue continue to exist from 1st quarter report. Graph is available in HYR12-H2 report. Q1: in table 1 of ORR note AHL SST is from both AVHRR and NPP/VIIRS. But in HYR12-H2 I notice AHL SST is produced only from AVHRR. Please confirm.**

Q2: negative bias (AHL SST – buoy) means underestimation of SST by AHL SST?

Q3: what types of buoys used for the validation?

Q4: Is there any reason why AHL SST has to be 5 km? Can it be 1 km resolution as in MGR SST?

Recommendation (if any): **I think obtaining accurate SST in near ice edge important issue and thus suggest to have some dedicated investigation on this issue (e.g. visiting scientist scheme).**

Suggested importance (major, minor)

Name and Institute Respondent from SAF:

Steinar Eastwood, met.no

Response:

- 1) Yes, AHL SST is currently only based on AVHRR. We have not access to VIIRS data from EUMETCast yet.
- 2) Yes, the AHL SST estimates are too cold.
- 3) Drifting buoys received through the GTS are used for this validation.
- 4) This is mainly to be in accordance with the L3 gridded 5km global METOP SST product (GLB SST) and the gridded Meteosat 0.05 degree SST product produced at CMS/SS1. Be aware that this is a L3 12 hourly average, and not a swath product like the MGR SST.

Review Board Decision:

- 1) closed by answer
- 2) closed by answer
- 3) closed by answer
- 4) closed by answer

Reviewer: Phil Hwang

Brief title of comment: **Bias in AHL DLI bias**

Comment: **I think that the error is calculated as DLI-pyrgeometer. I notice DLI was slightly negatively biased, but positively based in AHL DLI. Does this mean that AHL DLI tends to overestimation what is observed in station? This was attributed to cloud masking issue. I am not quite sure purely maritime station would give favor in terms of cloud masking, relative to land-based stations. Is it because these are coastal regions? Please explain?**

Recommendation (if any):

Suggested importance (major, minor) minor

If the comment relates to a specific review document, please give details below:

Document: **QR12-3 & HYR12-H2**

Name and Institute Respondent from SAF:

Øystein Godøy, met.no

Response:

The AHL DLI bias is estimated using observation minus estimate. This is not clearly reflected in the current documentation. For internal use this is illustrated in the illustrations generated. This information will be included in the text. It seems like the cloudmask sometimes overestimates the cloud cover. The reason is not known and the performance of the cloudmask is examined in federated activity between OSISAF and NWCSAF. It should further be noted that the cloudmask used at METNO for quite some time was an old version. A better regime for updating this is now established. If the cloudmask fails to detect clouds this affects the DLI estimates. Reasons can be the specific composition of some Arctic clouds, it could be effects of the surface or other effects. It will interesting to further examine the cloutypes generated in relation with the extensive meteorological observations being performed at the Arctic stations (Jan Mayen, Hopen and Bjørnøya).

Review Board Decision: closed by answer

Reviewer: Phil Hwang

Brief title of comment: **stations for AHL DLI or SSI validation**

Comment: **It seems like stations used for AHL DLI and SSI validation are not the same if I read correctly. Any reason for that?**

Suggested importance (major, minor) minor

If the comment relates to a specific review document, please give details below:

Document: **QR12-3**

Reference and Issue Number:

Page: **49**

Name and Institute Respondent from SAF:

Øystein Godøy, met.no

Response:

Some stations are used for both DLI and SSI validation, but the issue is that more stations observe SSI than DLI. E.g. the network covering the Norwegian mainland is a network for biological stations. They are concerned with longwave radiation. In some situation shadow effects may also influence the SSI more than DLI at specific stations, effectively reducing the number of collocated validation stations for SSI and DLI.

Review Board Decision: closed by answer

Reviewer: Phil Hwang

Brief title of comment: **Arctic flux station maintenance**

Comment: **How usually Arctic flux stations maintained?**

Recommendation (if any):

Suggested importance (major, minor) minor

If the comment relates to a specific review document, please give details below:

Document: **QR12-3 & HYR12-H2**

Name and Institute Respondent from SAF:

Øystein Godøy, met.no

Response:

These stations are located at the manned Arctic stations of METNO. They have 24/7/365 operation and do regular maintenance on a weekly basis according to a maintenance scheme developed (basically checking cables, cleaning of dome, replacing silica gel etc). On a yearly basis instruments are checked to see that they still are level. The instrumentation at Jan Mayen was replaced in March, instrumentation at the other stations will be changed later this year (if nothing unexpected happens). Jan Mayen has the roughest conditions concerning wear of the dome (due to sand), but this does not seem to affect observations. Intercomparison of the time series before and after instrument switch are currently being done.

Review Board Decision: closed by answer

Reviewer: Phil Hwang

Brief title of comment: **Sea ice concentration against DMI and Greenland charts**

Comment: **It says bias and standard deviation of 10% (Arctic) or 15% (Antarctic) for the requirement. The doc contains some graphs showing the errors, but found no tables or comments how their statistics were met for the requirement. For example statistics were summarized for met.no ice chart, in which the errors seem to be higher than the requirements. Can you produce the same table for other validation data sets to have more clear idea of the errors?**

Recommendation (if any):

Suggested importance (major, minor) minor

If the comment relates to a specific review document, please give details below:

Document: **QR12-1,2,3 & HYR12-H2**

Section: **5.3**

Name and Institute Respondent from SAF: **Rasmus Tonboe, DMI**

Response: PT has no table but present as a figure.

Review Board Decision:

OR-9 Action 25: add a comment/conclusion indicating if requirement are met or not, for all products (SS1, SS2 and SS3)

Reviewer: Phil Hwang

Brief title of comment: **Sea ice concentration comparison with other products**

Comment: **Have ever OSI SAF ice concentration products been compared with the products from other organizations (e.g. NSIDC)? It may be interesting how they are different or so.**

Suggested importance (major, minor) minor

If the comment relates to a specific review document, please give details below:

Name and Institute Respondent from SAF:

Steinar Eastwood, met.no

Response:

We have discussed this, but have not had the time to do so. This is something that could be done by a Visiting Scientist.

Review Board Decision:

OR-9 Action 26: set up a VSA to compare **OSI SAF ice concentration products with the products from other organizations (e.g. NSIDC)**

RIDs regarding SubSystem 3

(JF2) on Half-Yearly report. Minor. SS3 validation, section 5.4.1. It would be interesting to put the ECMWF comparison statistics plots (wind speed bias and component rms, figures 71-78) for the different products together. I find it very useful for the buoy validation plots in the next section to have all the products together, it provides a nice overview and also an interesting comparison.

PT answer: *Answer by KNMI, AV: yes, this could be considered. In that case, we would need to condense the daily results in the current plots to monthly results but I agree that this could provide very useful information. To be further discussed at the meeting.*

Board decision:

OR-9 Action 27: present the ECMWF statistics in the report on a monthly basis rather than on a daily basis for all winds products as it is done for the buoys validation .

(JF3) on Half-Yearly report. Medium,

a) Use statistics mentioned at the end of paragraph 6.2.3 are puzzling. 500+, 300+ users? Where does this come from? In the registered users list in the previous section there are about 150 listed. I understand that there is not a one to one correspondence between registered users and downloading users, but the figures are too far apart, I am not sure what to conclude from this numbers and the document does not provide any analysis.

b) I notice also a big difference between the apparent interest in 12.5 km and coastal products. What is the analysis on this?

Answer by KNMI, AV: These statistics are downloads from the PO.DAAC archive. There is no direct link to the OSI SAF user list since products can be downloaded from the PO.DAAC archive without registration at the OSI SAF (by the way, the same is true for downloads from the EUM Data Centre).

The main conclusion from these numbers in my view is that the products are quite popular. My analysis about the bigger interest in 12.5 km data is that they have a longer history (available since March 2009 vs. availability since April 2011 of the coastal product).

Board decision:

a) OR-9 Action 28: *KNMI to try to obtain from PO.DAAC an explanation for this number of users for download, and the comparison with number of users of other wind products.*

b) OR-9 Action 29: *KNMI to add a statement in the Ops report that PO.DAAC users are using the products mainly for climate studies.*

Reviewer: LAURENT BERTINO

Brief title of comment: Temporal definition of target accuracy

Comment: **Some products indicate “monthly” bias and RMS error targets, some others don’t. Without indication on the temporal resolution of these statistics (and assuming the spatial resolution is that of the product) the target values are meaningless.**

Recommendation (if any): add time resolution for the target accuracy where it is missing.

Suggested importance (minor)

If the comment relates to a specific review document, please give details below: All of them.

Name and Institute Respondent from SAF:

Response:

KNMI, AV: The precision or significance of bias or RMS values scales with one over the square root of the number of observations ($1/\sqrt{N}$). For 100 observations/collocations, you will get a precision of the RMS value in the order of 1%. So the period of time that we need to compute reliable bias or RMS values, strongly depends on the number of observations/collocations that we get per time unit. For wind products, when we compute the bias/RMS against ECMWF model wind data, we only need a few orbits (= a few hours) of data since we have a model wind available for every scatterometer wind to compare with. However, when we compare with buoy winds, we get only approximately 100 collocations per day. In this case, we really need to have at least one month of data to get reliable numbers. So in my view, indeed it is good to indicate the period and number of observations that is used together with the bias/RMS, but it is difficult to specify this with the product characteristics since it depends on the source and nature of the reference that is used for comparison.

Review Board Decision:

See OR-9 action 8 and 9

Name-FAUCHER-16

Reviewer: D. Faucher

Brief title of comment: Implementation of Bayesian ice screening

Would this change, which is clarified in the PUM dated august 2012, not need a validation to be documented in an updated validation report?

Recommendation (if any): to be discussed with competent people (e.g., not me)

Suggested importance (either major, or to be withdrawn)

Name and Institute Respondent from SAF:

Response:

KNMI, AV: The ice screening algorithm including its validation is extensively described in Belmonte, M., J. Verspeek, A. Verhoef and A. Stoffelen, Bayesian sea ice detection with the Advanced Scatterometer, IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 7, 2649-2657, doi:10.1109/TGRS.2011.2182356.

In the ATBD, we refer to this paper. We think that this provides sufficient information and we think that in this case a separate OSI SAF validation report would not be necessary.

Review Board Decision: **The improvement of the wind product via the ice screening (which is an internal product), is shown in the operation report.**

OR-9 Action 30: Add a short paragraph in the validation report with information related to the Bayesian ice screening. (to be done for each wind validation report)

Reviewer: Phil Hwang

Brief title of comment: **No enough material for Obj 3**

Comment: **Not enough information available to review interface with EUMETSAT**

Recommendation (if any):

Suggested importance (major, minor)

If the comment relates to a specific review document, please give details below:

Document:

Reference and Issue Number:

Page:

Section:

Name and Institute Respondent from SAF:

Response:

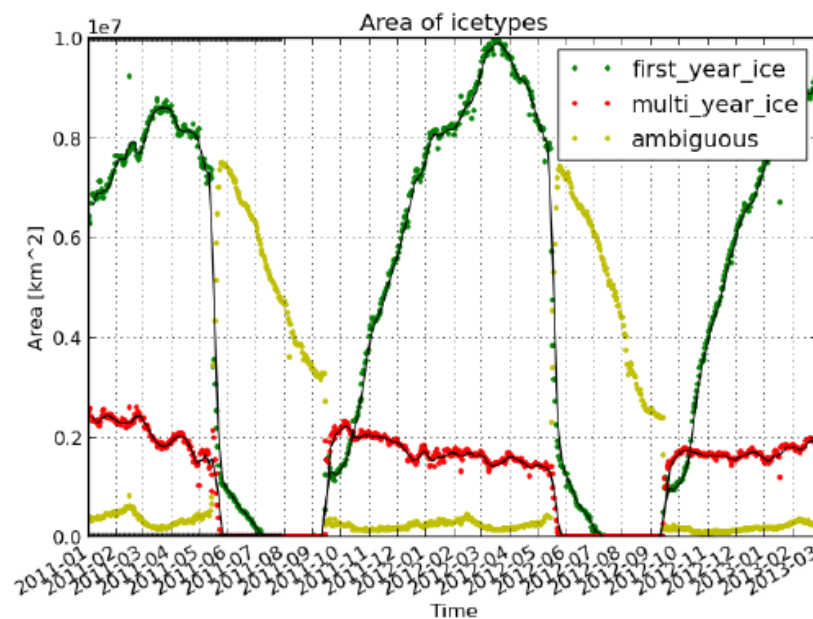
Review Board Decision:

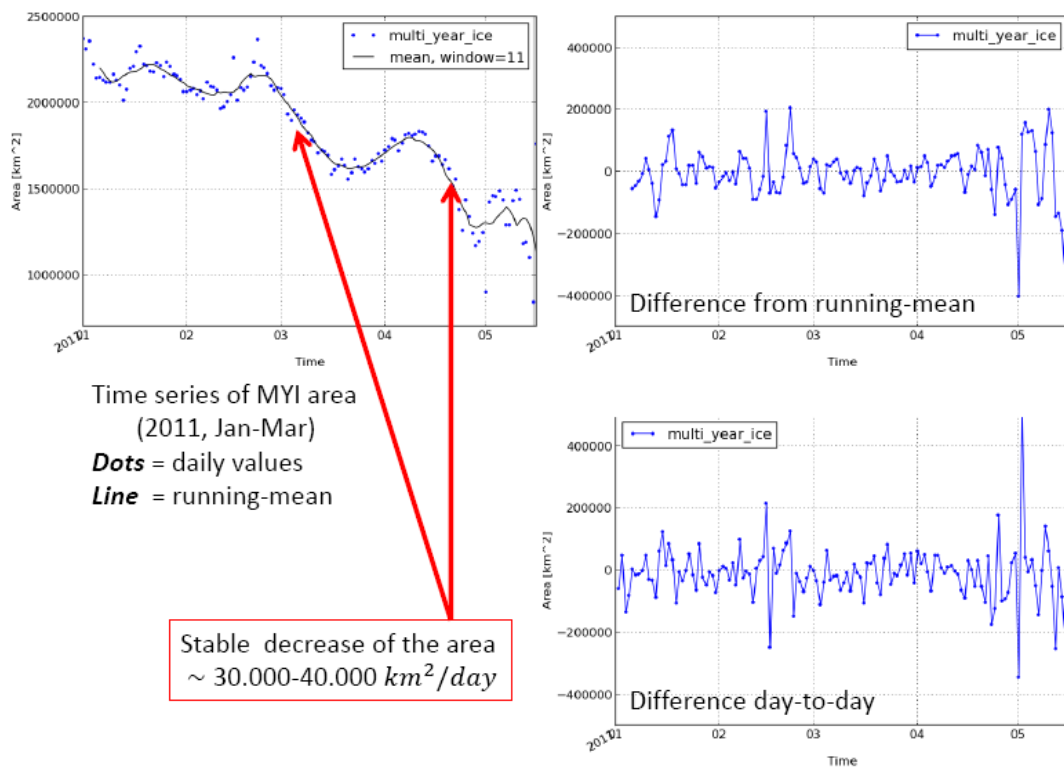
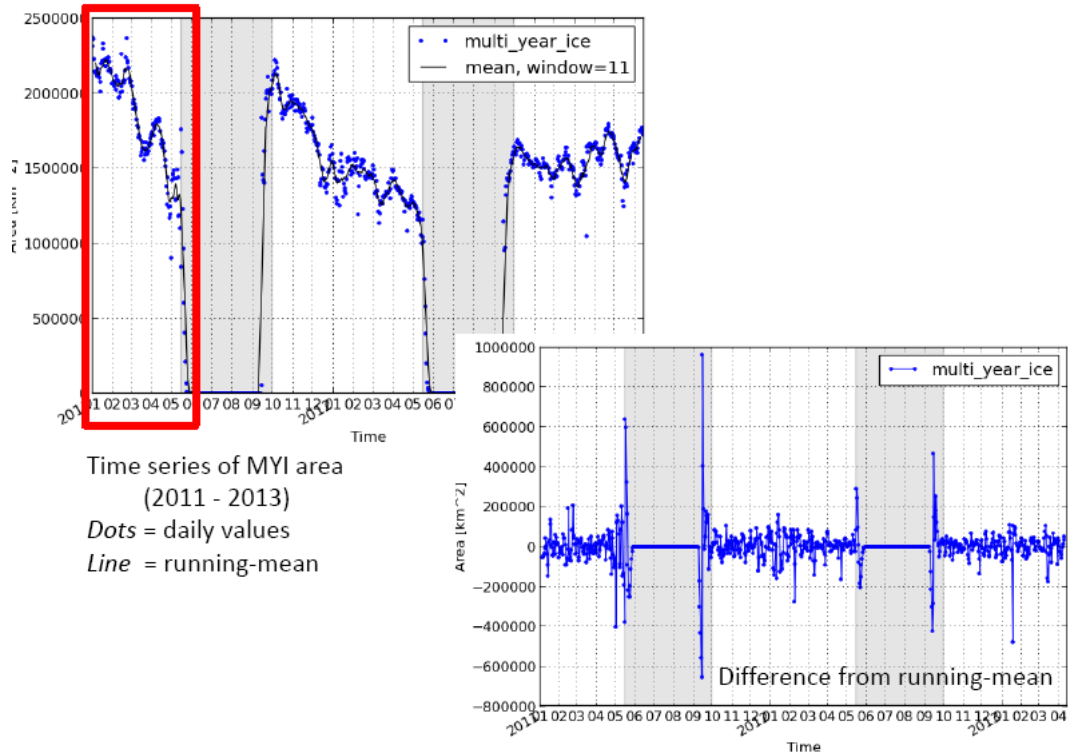
- Information regarding interface Eum/OSI SAF should partly be available through the OPS report (interface for archiving)
- Interface regarding helpdesk or exchange of operators mail is not available
- It is noted that regarding SSM/I/S data (third party data) the EUMETCast service notification does not exist. This is a problem for an operational system (data missing/outage during ½ day, without any message)

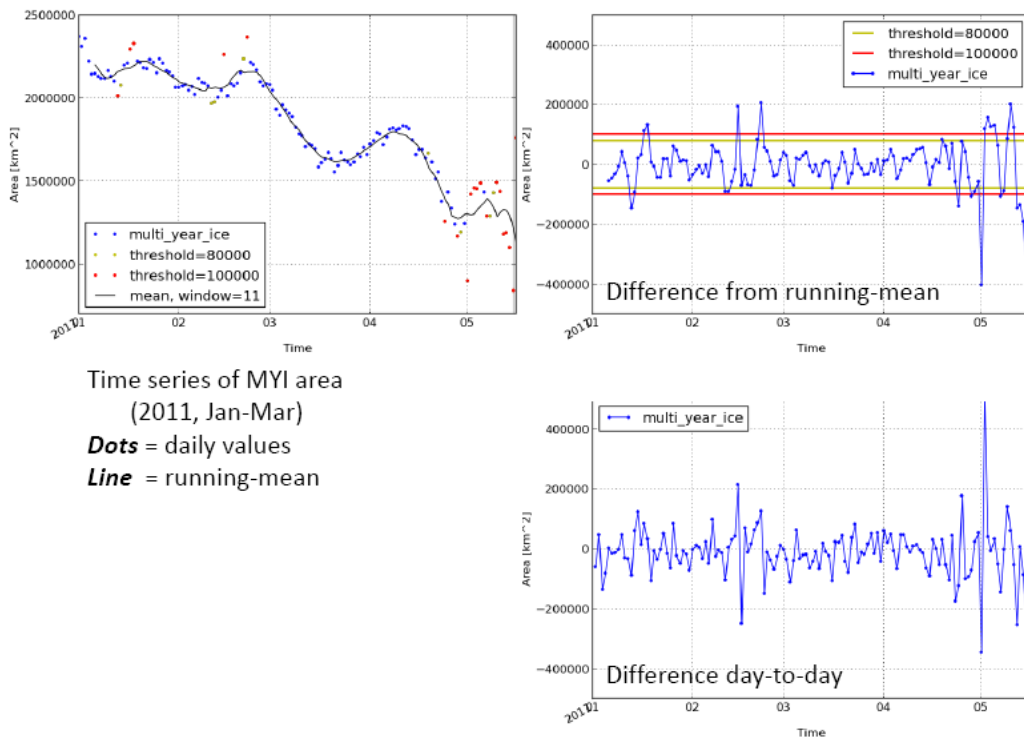
See OR-9 action 10

Annex 4: • Presentation on the closure of OR-8_action6 on Intra-monthly variations in availability of “ice-type” products and OR-8_action-16 Accuracy specification of the Sea Ice Type product. (see annex 4)

Time series of the area of different ice types







Standard deviation of the variability within each month

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Okt	Nov	Dec
84	60	50	46	179	0	0	0	228	37	40	49

[thousands km²]

