**GPAT Reviewer comments on DCC product for acceptance in Demo Phase**

**Product was reviewed first by Masaya @JMA and then by Manik Bali @ NOAA**

1. **Review of DCC product by Masaya Takahashi to help in acceptance of the product in Demo**

Masaya Takahashi ( Chair GDWG) iterated the review of the product with the producer. He has recommended the product entry into Demo phase.

**Recommendation: Product be accepted in Demo phase**

1. **Review of DCC product by Manik Bali to help in acceptance of the product in Demo**

The reviewer has been tracking the progress of this product for the last six months. Reviewer has observed that its production has now been stabilized at the EUMETSAT server. As of 30 June 2016 the product is produced daily on the EUMETSAT server and can be visualized by the GSICS plotting tool.

Several questions were asked by the reviewer about how to use the product and the variables in the product. Review is satisfied with the reply of the producer. Producer has promised to address minor issues as the product moves ahead in the maturity and is made available to a wider audience through the GSICs Product Catalog.

Reviewer gets the impression that the Product is based on theories that are published in journals, discussed in GSICS workshops and accepted by the VIS-DCC group. In Tokyo an entire session was dedicated to DCC product generation and the reviewer is impressed by the acceptance of the product in the GSICS community.

As of now several members in the VIS subgroup of GCC have agreed to review this product if it is accepted by the GSICS in Demo phase.

The Author has also promised to provide the following reports at the Pre-Op stage which would help the product reach the final Operational stage of the GPPA.

1. [**GSICS\_Impact\_on\_DCC\_Products\_Report**](https://gsics.nesdis.noaa.gov/pub/Development/ProductReviewEumetsatSeviri2n3Iasi/GSICS_Impact_on_MTP_Products_Report.doc)
2. [**GSICS**](https://gsics.nesdis.noaa.gov/pub/Development/ProductReviewEumetsatSeviri2n3Iasi/GSICS_Meteosat-IASI_Inter-calibration_Validation_Report_for_Meteosat-9_and_-10.docx)  **SEVIRI**-**MODIS Inter-calibration Validation Report**
3. [**MPEF Alternative Calibration Coefficients from GSICS - Validation Report**](https://gsics.nesdis.noaa.gov/pub/Development/ProductReviewEumetsatSeviri2n3Iasi/MPEF_Alternative_Calibration_Coefficients_from_GSICS_-_Validation_Report.docx)

These are reports are a part of EUMETSAT internal documentation to support the creation of this product.

Reviewer suggested several improvements too would be taken care of once the product is accepted in Demo phase.

**Recommendation: Under the above stated conditions Product be accepted in Demo phase ( See the Author response below)**

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Manik

Thanks for taking the time to do the DCC product review. Here are my answers to your comments/questions.

1.       Correct, the product is now sent automatically to the GSICS server for the SEVIRI instrument that is operated full-disc (currently aboard MSG3/Meteosat-9)

2.       Thanks.

3.       The link towards the DCC work area will be updated in the ATBD as the GSICS wiki server has changed. I would expect the GSICS wiki to be stable from now on.. By the way I have noticed that the links towards the reviews did not survive the move to the new server…

4.       The GSICS product is supposed to simplify users’life. So the DCC archive is there for EUMETSAT internal purposes only. I wrote the concept down to show that it could be useful for other  to have such an approach.

Using the product:

1.       This terminology was agreed with Masaya and presented in web-meetings + annual meetings. The official calibration for the monitored instrument is the calibration provided by the operating agency using their own capabilities (not GSICS-stamped).

2.       The WMO convention is part of the standard format defined by the Data Working Group in support to the GSICS Research Working Group. I just followed what is done in the IR. The title of the product (which is a global attribute) indicates which instruments (monitored + reference) that we are dealing with.

3.       Indeed for the GSICS product, only the slope is provide as the offset is 0. Should be updated or explained in the product user’s manual in pre-op phase I guess.

4.       The product that I deliver is a GSICS VNIR product as we envisaged it in the Research Working Group: a product which provides the results of each individual methods and the result of the blend. This is why in the file you have checked you have systematically 2 values given for the variables. Those values are equal as there is only one method at the moment. So the blend is simple. However, this format is a strawman for users to check if it is useful or not. In the near future we will have also the Moon inter-calibration results. And the format will be strictly the same.

5.       Might be a bug. I will check.

I will prepare in the coming weeks a user manual for the product to avoid misunderstanding. As soon as it is ready I will submit it to review even if it is not part of the demo phase.

Cheers,

Seb

**From:** Manik Bali - NOAA Affiliate [mailto:manik.bali@noaa.gov]
**Sent:** Monday, May 30, 2016 3:52 AM
**To:** Sebastien Wagner; Tim Hewison; Masaya Takahashi
**Subject:** DCC Review

Hi Tim, Seb, Masaya

I had a look at the DCC data to enable it to enter the Demo phase. Here is my review.

1. I notice that the product has been created consistently for the past three months.

2. The ATBD are well done. Most importantly the ATBD is generic and scalable to other instruments and channels. In fact can be used as a reference for contemporary DCC products created at other agencies some of which were presented recently in the Annual Meeting at Tokyo.

3. The ATBD also has a link to the DCC workspace. I assume that the authors of this product would maintain this page to help users of this product in the coming future.

4. In addition the product also produces a DCC archive of high scientific value. It would help if authors are able to let members know if a deseasonalized or raw datasets can be made available to the community.

**Using the Product**

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In the past two years Masaya has engaged with EUMETSAT very well in adapting the IR and existing VIS Metadata standards onto the DCC VIS standards. So what has been decided as a standard for DCC product has been probably agreed. However when one looks at the finished products certain things come to mind as a user.

Two of these are

1. Mon\_official\_bias/offset. I am not sure if the use of the word official is very GSICS like. What is official for you, only you know and an external user might get confused or at least distracted because the other variable is mon\_bias.

2. Use of WMO code number.( I should be there). For eg when I saw :reference\_instrument\_wmo\_code = "784 389"  it meant nothing to me till i retrieved the wmo coding standards file and grepped to check if this number actually refers to AQUA MODIS. The name of the reference instrument is in the filename. Since the name of the monitored instrument is in the metadata the reference instrument could also be placed in the metadata (in addition) to bring harmony. So we can say AQUA MODIS instead of just MODIS.

However this is  aesthetics and in no way comes in the way of acceptance a product in the demo phase and how aproducer wishes to present the product is really upto the producer.

I am sure you would address these points either at the pre-op stage via the user guide or beefing up the metadata.

3.I could not plot the actual bias. I have the offset value and a blank mon\_offset.

Can you please let me know how I plot the SEVIRI-MODIS.*In the IR one can know the bias by plotting the the standard scene bias variable.Lastly can we plot this product in the plotting tool ?*

4.  method\_name =

  "DCC",

  "BLEND" ;

What is the blend here? I thought we have only the DCC method here.

mon\_slope = 0.5868232, 0.5868232 ; Two values, we have only 1 channel?

5. window\_period = "P-15D+0D" ; What does this represent ? I got confused because the validity period is of the last 1 month (1460592000.00004, 1463184000.00004 corresponds to last 1 month)

Summary,

**Product should make it to the Demo.**

Rgds

Manik Bali

NOAA