

December 23, 2013

To,
The Executive Panel
Global Space Based Inter-Calibration System

RE: Promoting the MW FCDR product from Demonstration to Pre-Operational Phase.

Dear Sirs,

In the web meeting of MW subgroup held on 3 Dec 2013, Cheng-Zhi's FCDR product was accepted by GSICS in the demonstration phase. This product can be viewed on the GSICS catalog [here](#).

GCC is now exploring the possibility to take the product into the pre-operational phase. GCC wishes to state that most of the clauses of the GPPA workflow (stated [here](#)) have been satisfied. Below we state a point wise response for each requirement stated in the workflow.

1. Notify the Executive Panel about the Product entering Demonstration Phase.
 - The EP was notified immediately after the meeting on 3rd December 2013 about the product entering Demonstration Phase.
2. Arrange for routine upload of the Product to a GSICS data server and agree on file retention policy.
 - A [link](#) to the data has been provided at the GSICS website
3. Notify GSICS users and invite feedback from them.
 - Feedback/Review from users has been received. The feedback is extremely positive and is summarized in the appendix. The eight individual reviews are provided as attachments.
4. Complete documents associated with GPAF Sections III.1.B (ATBD) and III.1.C (product traceability to standards) and submit them to the GCC Director.
 - The ATBD and related documents have been submitted to GSICS and are uploaded onto the GCC website [here](#) and [here](#)
5. Examine the submitted documents (ATBD and product traceability to standards).
 - The ATBD and related documents have been extensively reviewed by reviewers. The reviews are very positive.
6. Remediate any document issues according to the GPAT and user feedback.
 - The product provider has a plan in place to address user feedback.
7. Complete documents associated with GPAF Sections III.2.A (radiative transfer models) and III.2.B (cal/val supporting measurements).
 - The product ATBD document is a complete document that provides a comprehensive description of the product.

8. Collect and disseminate user feedback regarding product's data usability and format
 - o Routinely done by the provider.
9. Examine the submitted documents (radiative transfer models and cal/val supporting measurements).
 - o Comparisons of CRTM with measurements are presented in the ATBD.
10. Remediate any document or data issues according to the GPAT and user feedback.
 - o N/A
11. **[Major milestone]** Make a consensus decision whether or not to continue the Product acceptance process.
 - o Opinion of GSICS group and subgroup Chairs and Vice Chairs has been taken. They have consented to change the status of this product from Demonstration to Pre-operational status.
12. Notify the Executive Panel on the status of the Product's acceptance process.
 - o EP is herewith notified.
13. Complete and submit Section III.3.A (Product quality) of the GPAF.
 - o Three reviewers have completed this section and all have given highly positive feedback. Their responses are included in the attached reviews.
14. Examine the submitted Product quality document.
 - o The quality of the product is discussed in detail in the ATBD.
15. Remediate any document issues according to the GPAT feedback.
 - o N/A
16. Once all issues are resolved, the Product enters the **Pre-operational Phase**.
 - o Issues have been resolved.

GCC employed a very strict review process for the FCDR product. **We had external (from outside NOAA) and internal (from within NOAA) reviewers. They reviewed the ATBD and data products. Three of the reviewers were direct users of the data and have given great reviews of the product quality (so we have user feedback). Cheng-Zhi and the users of the product have extensively tested the product.**

The six reviewers also reviewed the documents related to the product namely the ATBD, publications etc and have spoken high quality of the documentation. Uncertainty analysis of the method has been performed by Cheng-Zhi and is discussed in the referenced publications and also examined by at least one reviewer.

In addition NCDC is hosting the product in Near Real Time (NRT) mode. They followed a very strict acceptance criterion. This criterion is based on a Maturity Matrix (Details can be found at <http://www.ncdc.noaa.gov/cdr/guidelines.html>.) and this product was able to satisfy all the criterions.

View of the Chair and Vice Chair on the FCDR product.

GCC appraised the chairs Dr. Tim Hewison and Dr. Aleksandar Jelenak and Vice Chair Dr. Fred Wu about the current status of the FCDR product and the comments received from the reviewers and users. After due evaluation, the chairs consented to upgrade the status of this product to Pre-Operational pending EP's final approval.

Based on the user feedback, consent of the Chair and Vice Chair, we request the Executive Panel to kindly allow granting a Pre-Operational status to the MW FCDR product.

Thank you for your attention.

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Dr. LARRY FLYNN
Director GSICS Co-ordination Center.

Attachments:

Review Summary
Individual Reviews
References

The Executive Panel Chair, Mitch Goldberg, agrees with the recommendations of the Chairs, Vice Chairs and the reviewers of the FCDR MW product and consents to its promotion to Pre-Operational phase.



(Dr. MITCH GOLDBERG)

GSICS Executive Panel Chair.

Reviewer comments summary:

Thorsen and Chedley

I consider this the most advanced MSU/AMSU L1 dataset available for climate purposes. This is an important contribution and will be important in helping to understand discrepancies between current MSU/AMSU climate datasets.

Dr. Viju John

This is a great work and served as an example for climate data record development.

Dr. Wenze Yang

The only concern is that the method is quite sensitive to the quality of the input data, so it is important to do some pre-screen before applying the method.

Dr. Chabitha Devraj

The Integrated Microwave Inter-Calibration Approach presented in the ATBD fully serves the intended purpose of creating the FCDR using the MSU/AMSU-A Radiances.

Dr. Suleiman Alswelss

I strongly believe that the method accomplishes its purpose as the authors clearly showed.

Dr. Tanvir Islam

Overall, the product can be recommended for CDR users. The method is very effective, and suitable for climate study, especially for the purpose of maintain a consistent climate data record.

Individual Reviews.

The individual reviews are provided in the attached reviews .zip file.

References

MSU/AMSU Radiance Fundamental Climate Data Record Derived From Integrated Microwave Inter-Calibration Approach CDR Program Document Number: CDRP-0015 Originator Document Number: TBD Version 1.0 / February, 2012

The ATBD is available via www through the GSICS catalog [here](#). This ATBD contains details of method used and list of related publications.