Koninklijk Meteorologisch Instituut België

Institut Royal Météorologique Belgique

Königliches Meteorologisches Institut Belgien

Royal Meteorological Institute of Belgium

BRAVO
Progress Meeting PM5

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19 June 2025

Work Package number:	WP3
Work Package Title:	Accuracy assessment of unfiltered radiances L2 BM-RAD product.
Responsible entity:	RMIB
WP responsible person	Aebi
Project phases (0,A,B,C,D,E):	E
Beginning and end dates of WP	01.12.2024 – 31.12.2025
Total FTE allocated to the WP	13 PM (1.08 FTE)

Objectives of the WP: Quantitative evaluation of the L2 BM-RAD radiance product, so establishing input data quality for the BBR flux estimation.

Inputs:
- Tools from WP1.
- L2 BM-RAD data (commissioning and beyond)
- CERES (SSF) and GERB (HR) data

Description of work and schedule:
- Basic, qualitative, evaluation of the BM-RAD product, including visualization (context from MSI images).
- Comparison unfiltered radiances with the Earth targets defined in WP1.
- Comparison with coangular co-incident observations from GERB and CERES to assess absolute level (calibration), and scene type consistency (spectral response/unfiltering).
- Long term stability monitoring of the instrument response will be established using stable Earth targets.

Excluded tasks:

Deliverables and dates:
- Matched databases of coangular radiances for reference and further analysis (30.06.2025).
- BBR L2a quantitative assessment report (31.12.2025).
- Recommendation for BM-RAD processor evolution.

Risks: Availability of co-angular collocated observations from CERES RAPS campaigns

3.1

3.2

3.3

3.4

2

- Continuation of the monitoring of various parameters. Regular report at the IWG. Some parameters now monitord by DISC ICMF.

- Continue the evaluation of the level-2 products BM-RAD and BMA-FLX data.

- Continuation of the analysis with CERES data:

  - Monitoring with CERES FLASHflux data are available until present – 7 days.
  - Analysis with CERES SSF data (finally available until Feb. 2025). Aso FM3/Aqua.

- Automated collection of BBB L1 and L2 files + L1c M-RGR (via EUMETCast) by Pierre de Buyl in view of automated monitoring of BBR with respect to MSI.

Presentations:

  - Edward : B-SNG L1 Gap Analysis
  - Almudena :

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Risks: Availability of co-angular collocated observations from CERES RAPS campaigns

3.1 - ongoing

3.2 – not started

3.3 – CERES

3.4 – monitoring using CERES

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Outlook

- Continuation of the monitoring of various parameters in L1 and L2 (including new baseline-releases).

- Continuation of the analysis of changes per month or even per day.

  - Will there be a reprocessing with the new baseline for all data (e.g. for B-NOM AD)?

- Continuation of the analysis with GERB and CERES data:
  - GERB is out of the sun avoidance season since middle of October 2024, but has issues.
  - CERES SSF data are available until 01/08/2024.

- Participation and poster presentation at the EarthCARE Validation Workshop in March 2025.

- Analysis of the ratio between BBR and MSI-based BBR-like data (open point from WP2).