BRAVO
Progress Meeting PM6

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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

- Re-do the validation plots and analysis using latest version of the processing (baseline BA):
  - Level 1 (WP2) evaluations have been updated (e.g. see presentation of Almudena)
  - Level 2 BM-RAD (WP3) and BMA-FLX (WP4) evaluations still to be done (reprocessed data are just available)

- BMA-FLX fluxes comparison with MTG implementated and run for 2 months (strictly this is part of WP4). Comparison with EUMETSAT OLR products presented at EUMETSAT conference.

- Continuation of the analysis with CERES data extended and reported at IWG and QWG.

- 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:
  - Almudena : «Update of BBR validation results with baseline BA»
  - Pierre de Buyl : «EarthCARE data access»
  - Nicolas Clerbaux : «BMA-FLX comparison with MTG RSF and OLR»

Next steps

- Finalize the update of all analysis with baseline BA

- Continuation of the monitoring of various parameters in L1 and L2, addition of new parameters to be monitored

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

- Finalize the WP3 activities:
  - Use of Earth targets for BM-RAD calibration validation
  - Long term stability with Earth targets

- Participation and posters presentation at the EarthCARE Validation Workshop in December 2025.

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