Overview

- What: Evaluation of IMERG V07
- Where: Alaskan and tropical oceans
- When: GPM Era (June 2014 to October 2022)
- Why: First IMERG V07 oceanic validation; Understanding of IMERG performance over ocean is limited to date
- How: GPM Validation Network Version 2.3 (comparison with ground radars)

The GPM Validation Network

The GPM VN geometrically matches 3D precipitation retrievals from GPM Core sensors to 118 ground-based radars (GRs), including 6 island-based radars.

Alaskan High-Latitude Oceanic Results

- IMERG V07 overestimates Alaskan oceanic precipitation by +43% on average.
- IMERG V07 outperforms V06.
- Each successive step in the IMERG algorithm degrades in performance.

Tropical Oceanic Results

- IMERG V07 overestimates tropical oceanic precipitation by +111% on average.
- GPROF-CLIM (PMW) bias is higher in V07 than V06.
- IMERG V07 improves random errors and correlations over the tropical ocean.

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