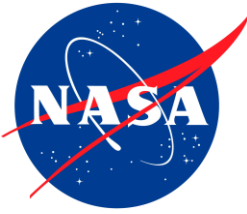
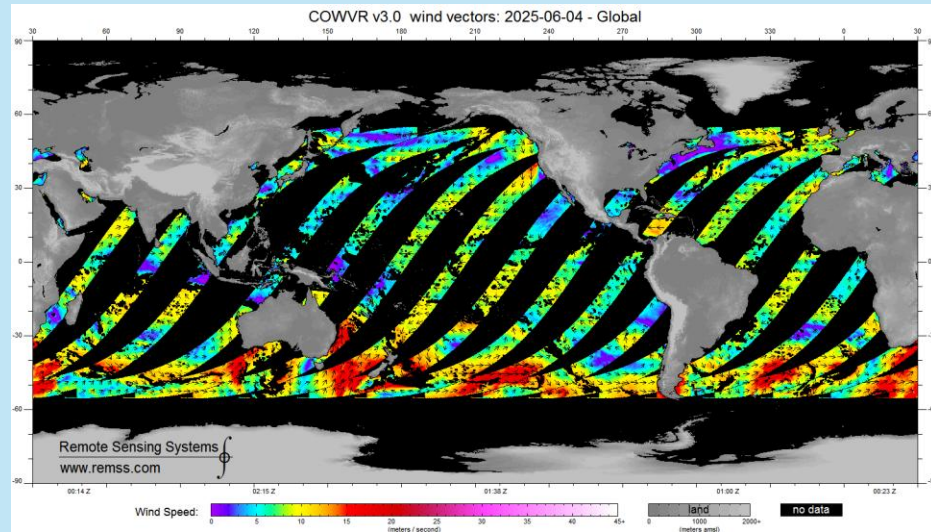


# COWVR Calibration to GMI & Wind Direction Performance

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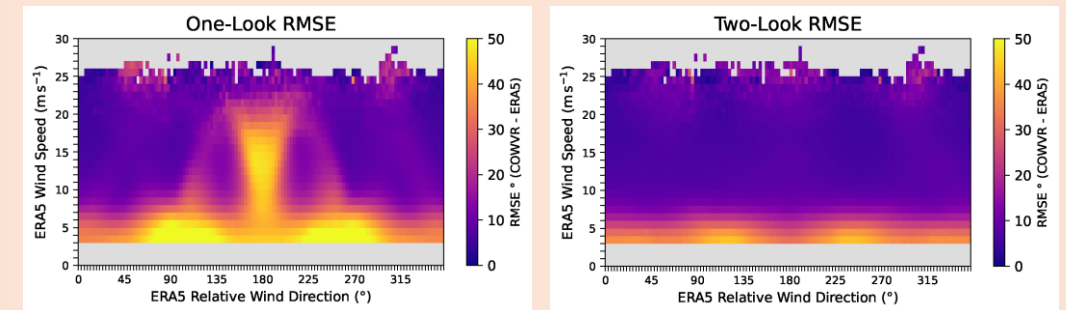
COWVR is a fully polarimetric microwave radiometer on the ISS that can retrieve wind speed and direction over the oceans.



Before wind retrieval, we cross-calibrate COWVR TB measurements using the GMI radiometer to estimate and remove residual biases.

The conical scanning geometry of COWVR enables two-look (both fore and aft) observations for wind retrieval.

We compare the performance of one-look and two-look wind retrievals. The additional view is an important advantage over the conventional one-look configuration.



The performance is consistent across all relative wind directions and the direction ambiguities do not need to be “nudged” with an ancillary dataset.