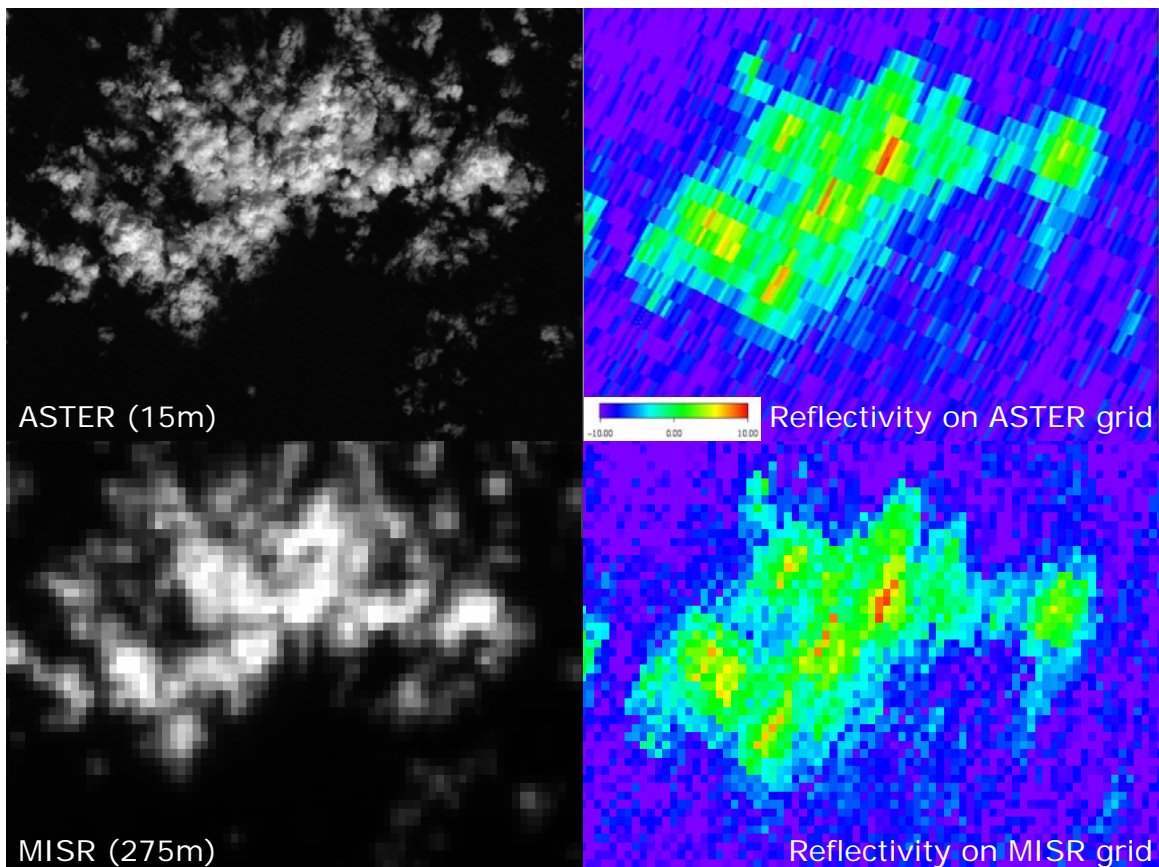


Synergizing High-Resolution EOS Terra Satellite Data and S-POLKa Radar Reflectivity to Assess Trade Wind Cumuli Precipitation

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During the RICO field campaign, the EOS Terra Spacecraft and NCAR's S-POLKa radar collected coincident high-resolution visible and near-IR satellite data and dual-polarization S-band radar reflectivity data to understand trade wind cumuli cloud distribution and precipitation. In this presentation the precipitation characteristics of trade winds clouds observed by co-locating these data sets are presented. Results from this study focus on the relationship between precipitation sensed by the S-POLKa radar and cloud sensed by MISR (Multiangle Imaging SpectroRadiometer) at the pixel level. Specifically, findings on the percentage of raining and non-raining clouds reveal the amount of water these clouds return to the ocean and how much latent heat energy they release due to precipitation. The potential application of these results to the estimation of the trade wind cumuli's role in returning water to the ocean through precipitation will be discussed.



Above is an example of co-located SPOLKa reflectivity re-sampled to the ASTER (top right) and MISR (bottom right) grids, from Nov. 28, 2004 about 50 miles southeast of Barbuda.