

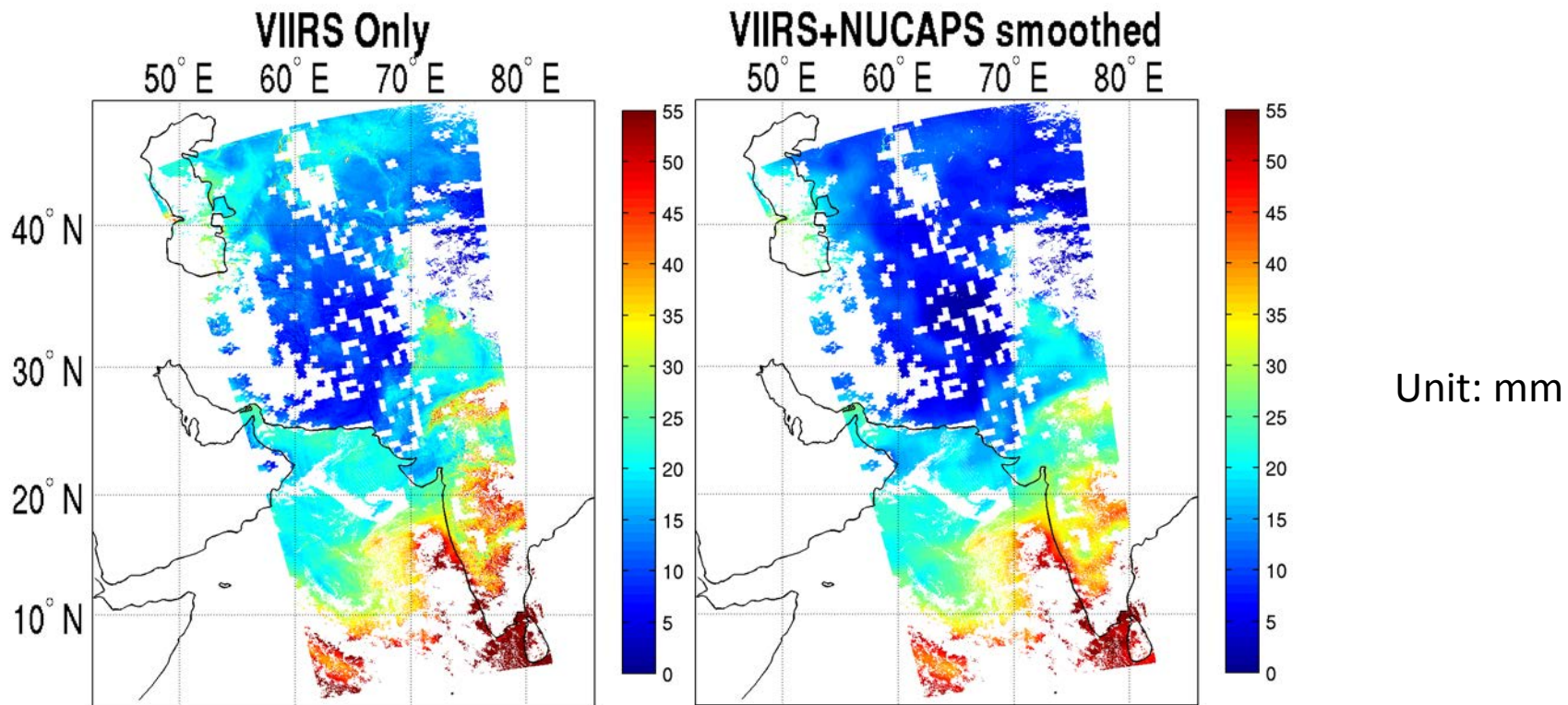
VIIRS TPW Status report

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Dobor

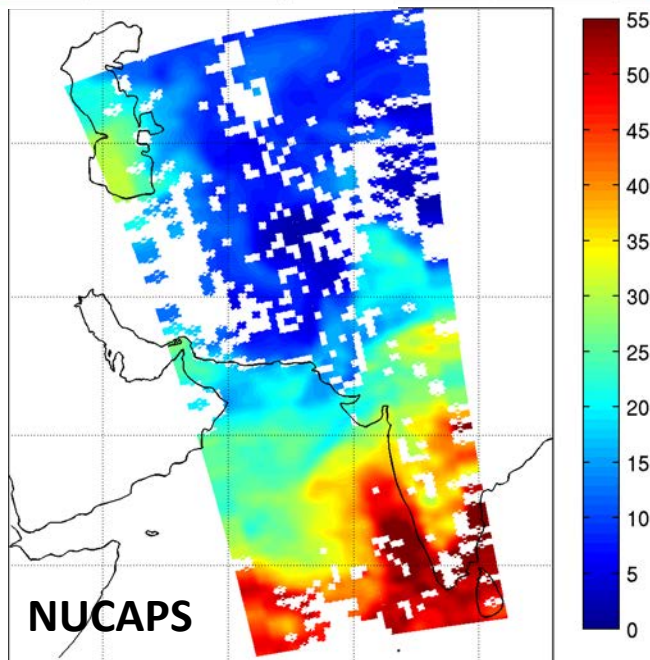
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Overview

- Validation for 2012-2015 with TPW from ground-based GPS network, MWR, and RAOB (poster)
- VIIRS TPW L2 algorithm/products based on 6 min granules
 - Hole filling
 - Smoothing
 - Algorithm delivered
- Granule and one day global validation using MYD07
- Ready for comprehensive validation
- Working on L3 algorithm as well as ATBD



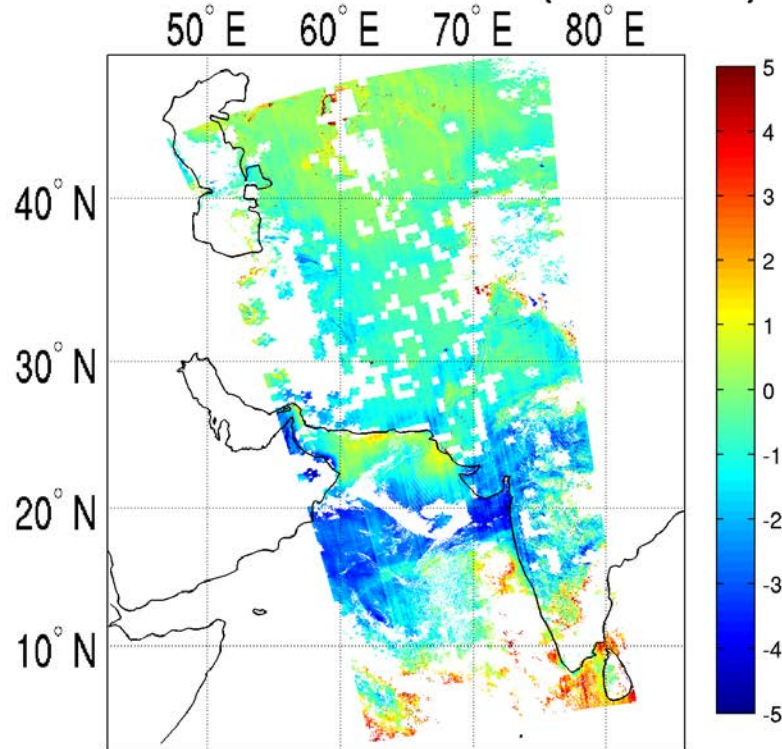
0842~0854 UTC
10/15/2014



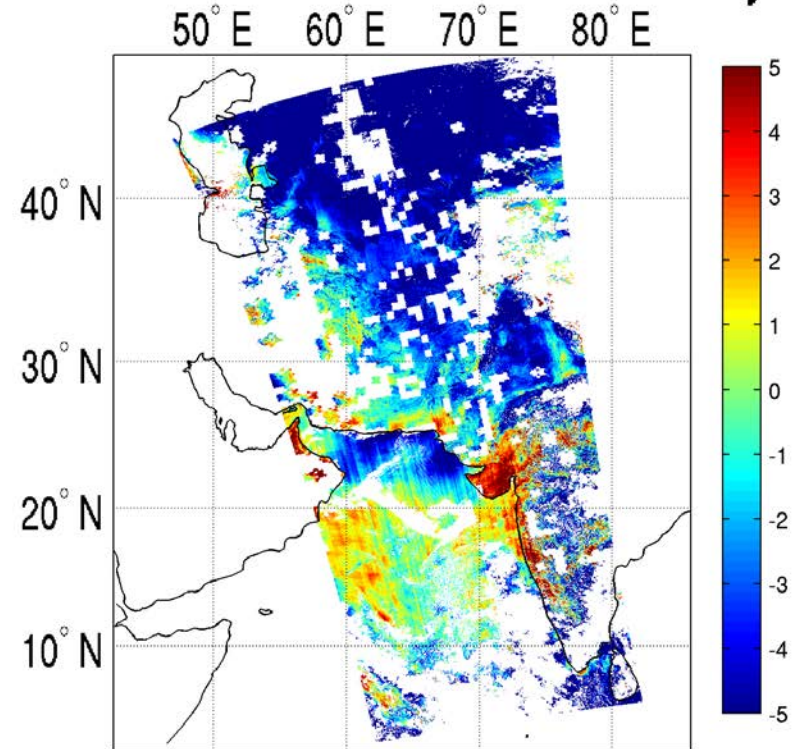
Retrieval Comparison

Difference Images

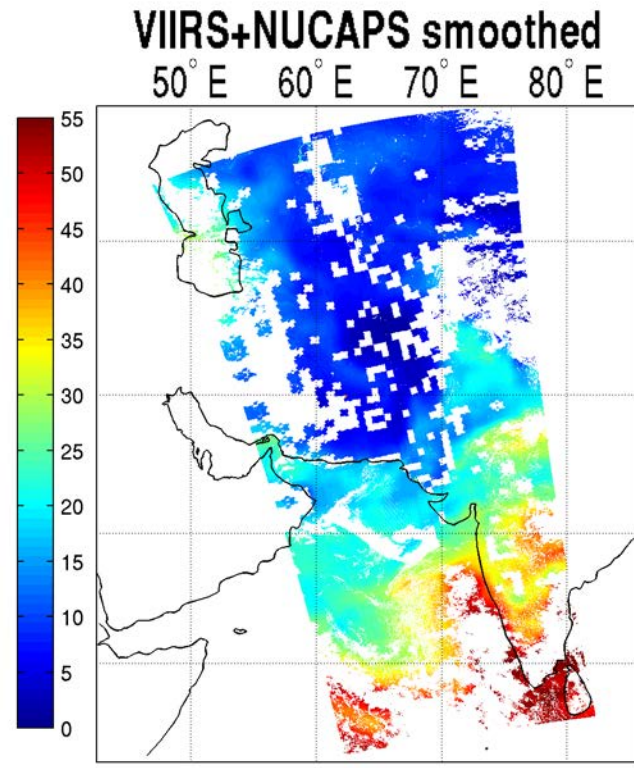
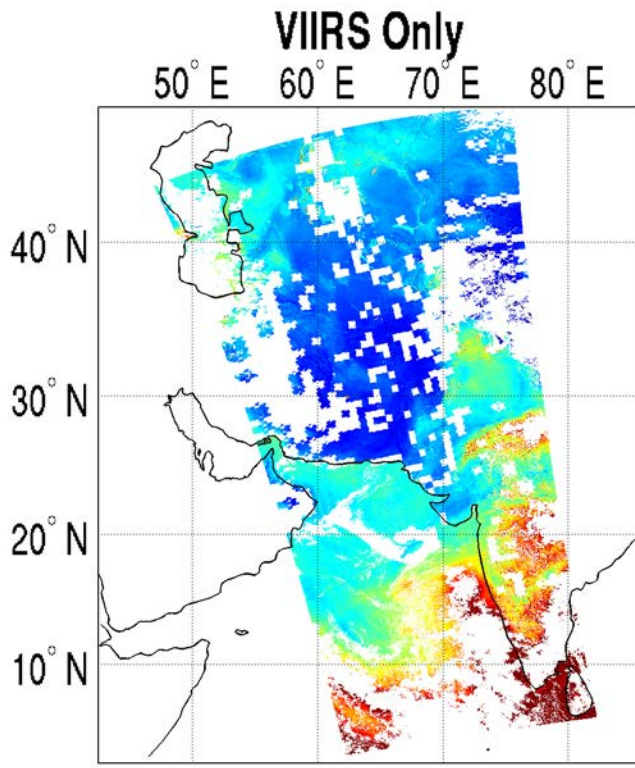
VIIRS+NUCAPS - NUCAPS (smoothed)



VIIRS+NUCAPS smoothed - VIIRS only



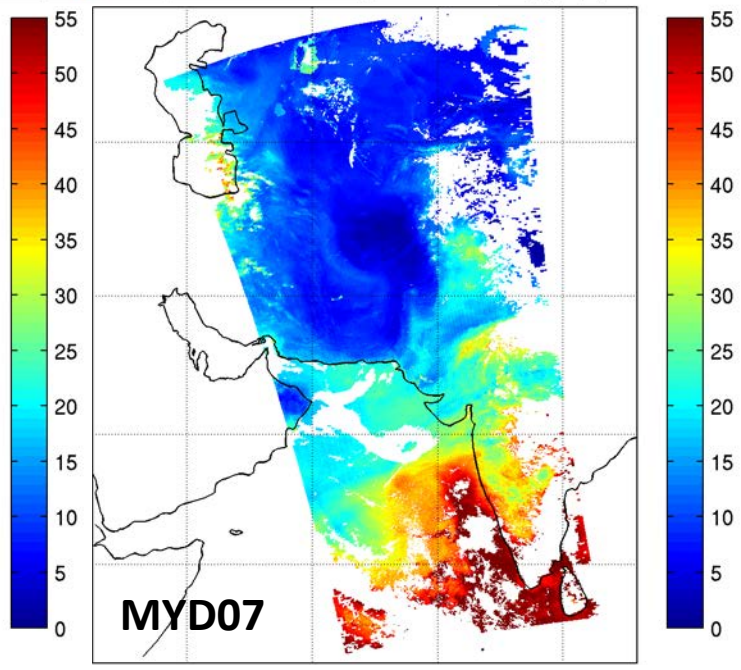
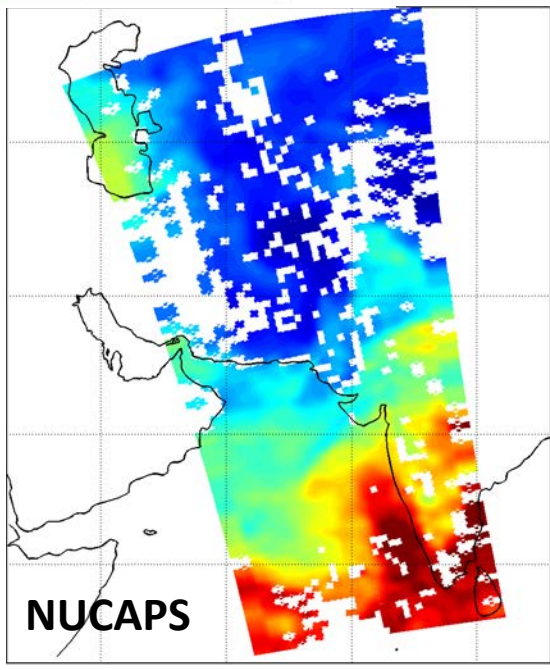
Unit: mm



Retrieval Comparison

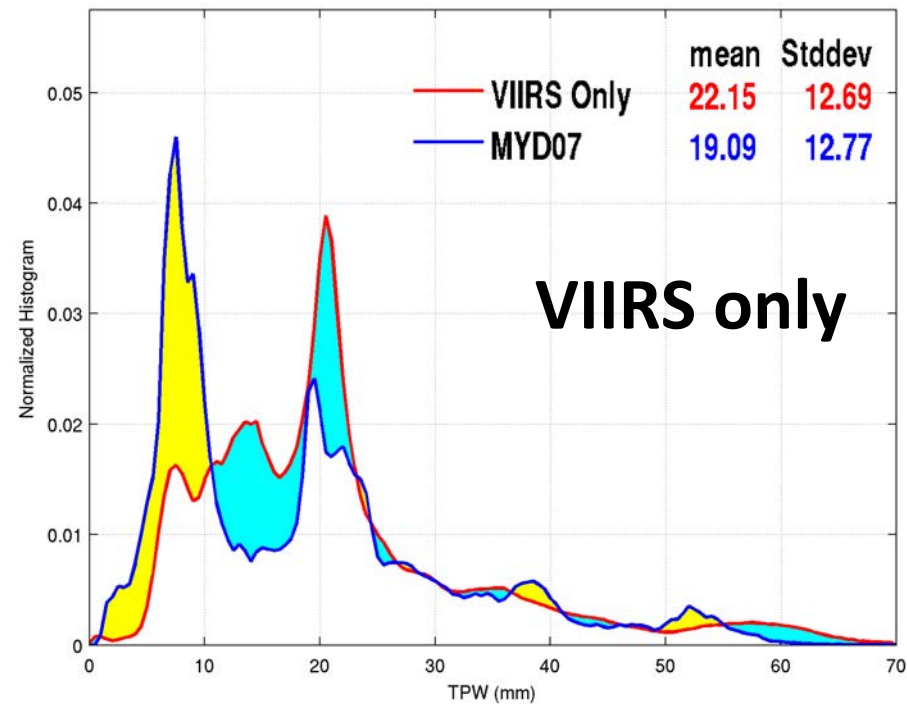
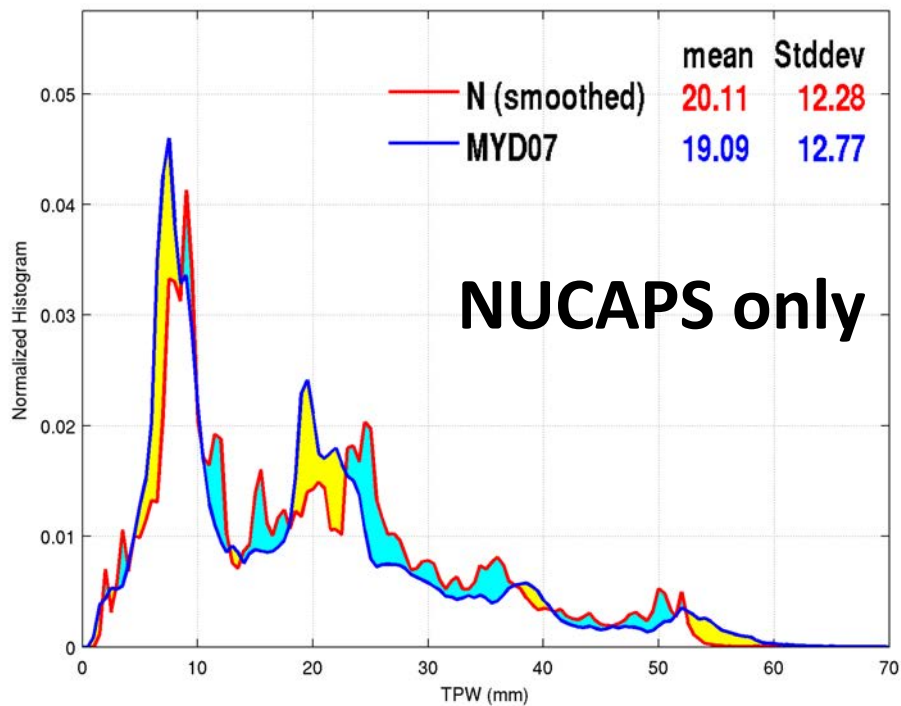
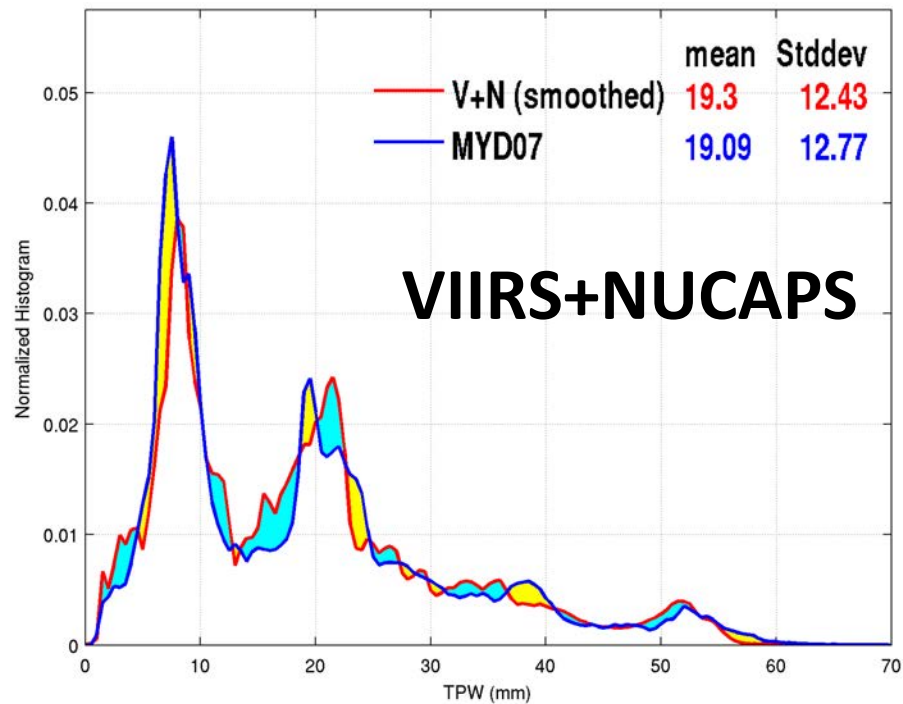
Unit: mm

0842~0854 UTC
10/15/2014



80° E

Histograms (smoothed)



Summary

- L2 algorithm/products based on 6 min granules
- NUCAPS holes filled and smoothed;
- VIIRS+NUCAPS adjusts both NUCAPS alone and VIIRS alone, information from both is a better product
- VIIRS+NUCAPS less affected by cloud and surface features
- Apply STG software to build the global daily, and monthly VIIRS/NUCAPS L3 gridded TPW products
- Compare VIIRS/NUCAPS TPW L3 global products to MOD07 L3, AIRS L3, and SSMI
- Finalize ATBDs