

Ancillary Measurements (TTAM)

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The EUMETSAT
Network of
Satellite Application
Facilities



Deutscher Wetterdienst
Wetter und Klima aus einer Hand



The GEWEX water vapor assessment (G-VAP)

Marc Schröder, Maarit Lockhoff

Special thanks goes to

Ralf Bennartz, Frank Fell, John Forsythe, Antonia Gambacorta, Anthony Reale, Remy Roca, Noelle Scott, Lei Shi, Tim Trent, Andi Walther, June Wang, Qiong Yang

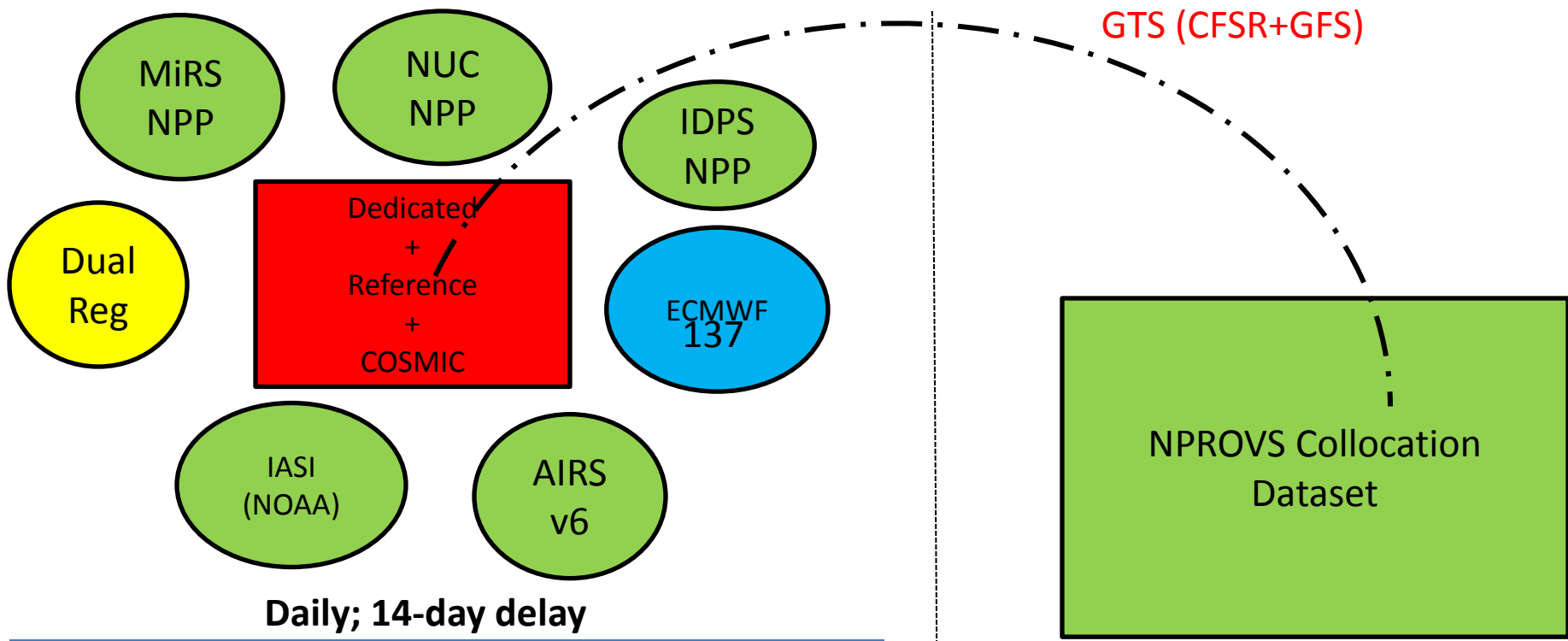


Candidate data records

- Candidate satellite data records (to be evaluated): **36 (23)**
- Candidate data records (for comparison): **32**

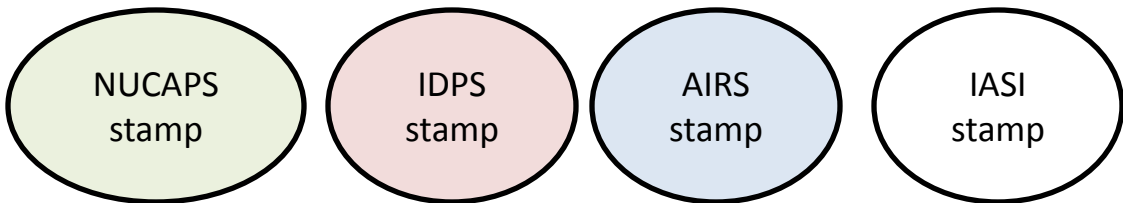
Instrument(s)/Technique	Data set	Parameters	Temporal coverage	Anticipated use in G-VAP
AIRS	NASA NOAA	TCWV, WV TCWV, WV	2002-present	To be evaluated
AIRS, AMSU, CloudSat, MODIS	NASA		2006-2011	To be evaluated
AMSR-E	RSS/NASA JAXA	TCWV TCWV	2002-2011	To be evaluated
AMSR-2	JAXA	TCWV	2012-present	To be evaluated
AMSU-B/MHS	UKMO	TCWV, UTH	1999-2011	To be evaluated
ATMS	NOAA	TCWV, WV	2011-present	To be evaluated
ATOVS	CM SAF	TCWV, WV	1999-2011	To be evaluated

- See assessment plan for full tables.



**Daily; 14-day delay
(NetCDF / HDF5)**

Daily; NRT



g r a n u l e s

SDRs: *CrIS, ATMS, VIIRS, AIRS, MODIS, IASI, AVHRR...*

NPROVS+



NOAA Products Validation System (NPROVS)

2278 (13) available out of 2278

CoastLandIsland (Coast)Island (Inland)ShipDropsonde



July 14, 2013 to January 19, 2014

378 dedicated , 1900 GRUAN

Task (7): SASBE at Satellite Overpass

Main Contact: Dykema /Reale

Due Date: April, 2014

Status:

Ongoing

Milestone: Routine SASBE in at each site at time of satellite overpass for T and H2O vapor for use in satellite product validation; weather

Progress: SASBE (from Tobin) compared to various RAOB combinations and differences analysed using satellite averaging kernels computed for 6 month test data set from SGP

Issues:

Task (8): Generic SASBE

Main Contact: Dykema

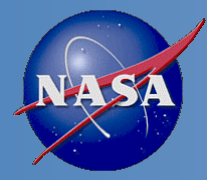
Due Date: Dec 2016

Status:

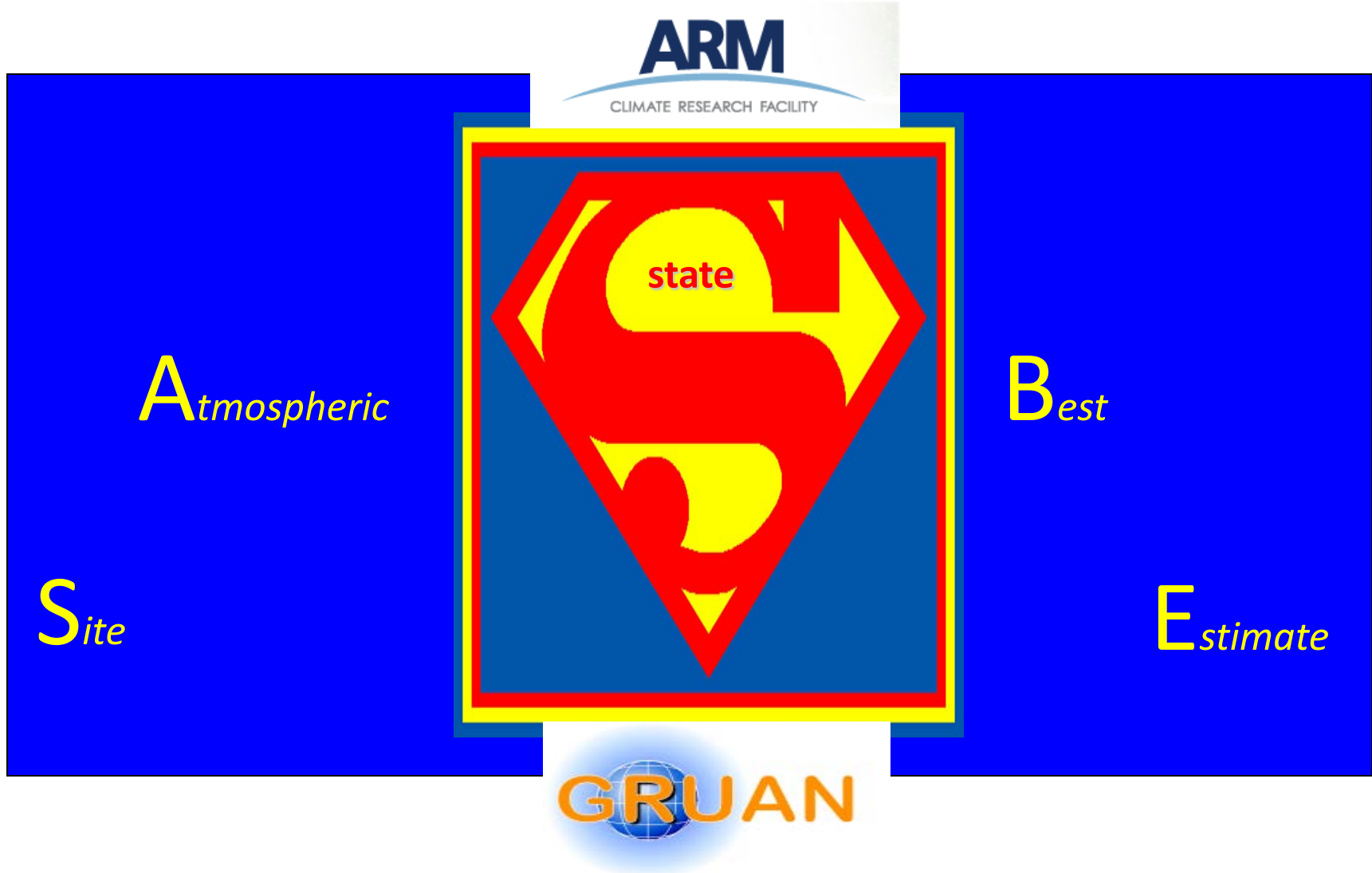
Milestone: Routine SASBE at each site for climate monitoring

Progress: Defined as routine SASBE any time RAOB in launched for use in climate monitoring, focused on temperature and H2O vapor profile

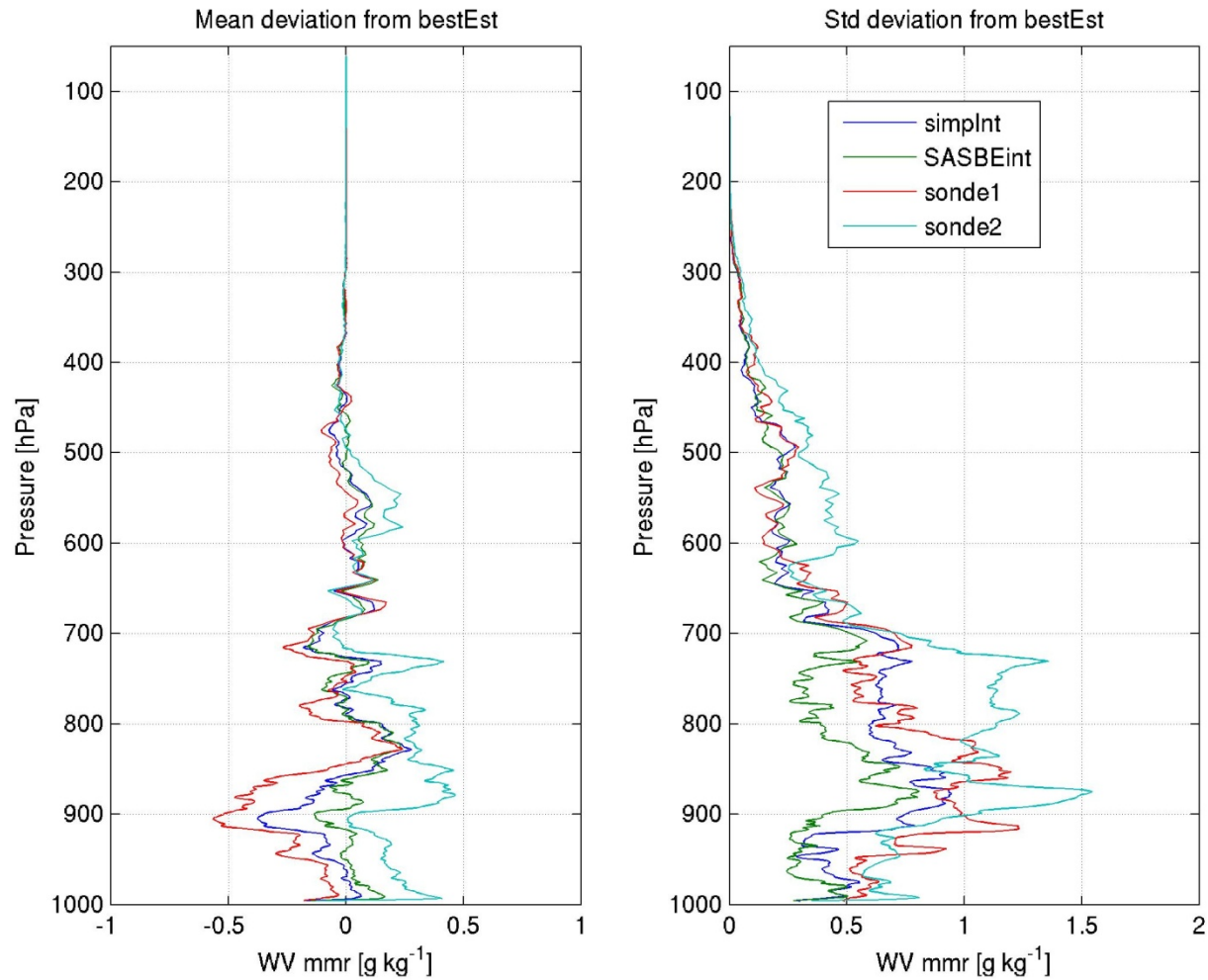
Issues: Reference processing of dedicated sonde desired



Site Atmospheric State Best Estimate (SASBE)



Using raman lidar for water vapor



Task (10): Feedback to LC on RS92 storage, performance

Main Contact: Sommer / Reale

Due Date: Feb, 2013

Status: Ongoing

Milestone: Set up mechanism for routine feedback to LC

Progress: Interaction among LC and NOAA STAR staff established, issues identified, routine program under development

Issues: Various sources of data from ARM sites, ie synoptic vs dedicated RAOB, are ambiguous