Data Management

1) Basic idea / Current status
2) Data QC

Data Management

YMC adopts “timely release & free/open sharing data policy”.

All QCed data will be opened from YMC data archive centers (web sites). Basically researchers are requested to provide QCed data within 1 year after the campaign.

Data Archive Centers

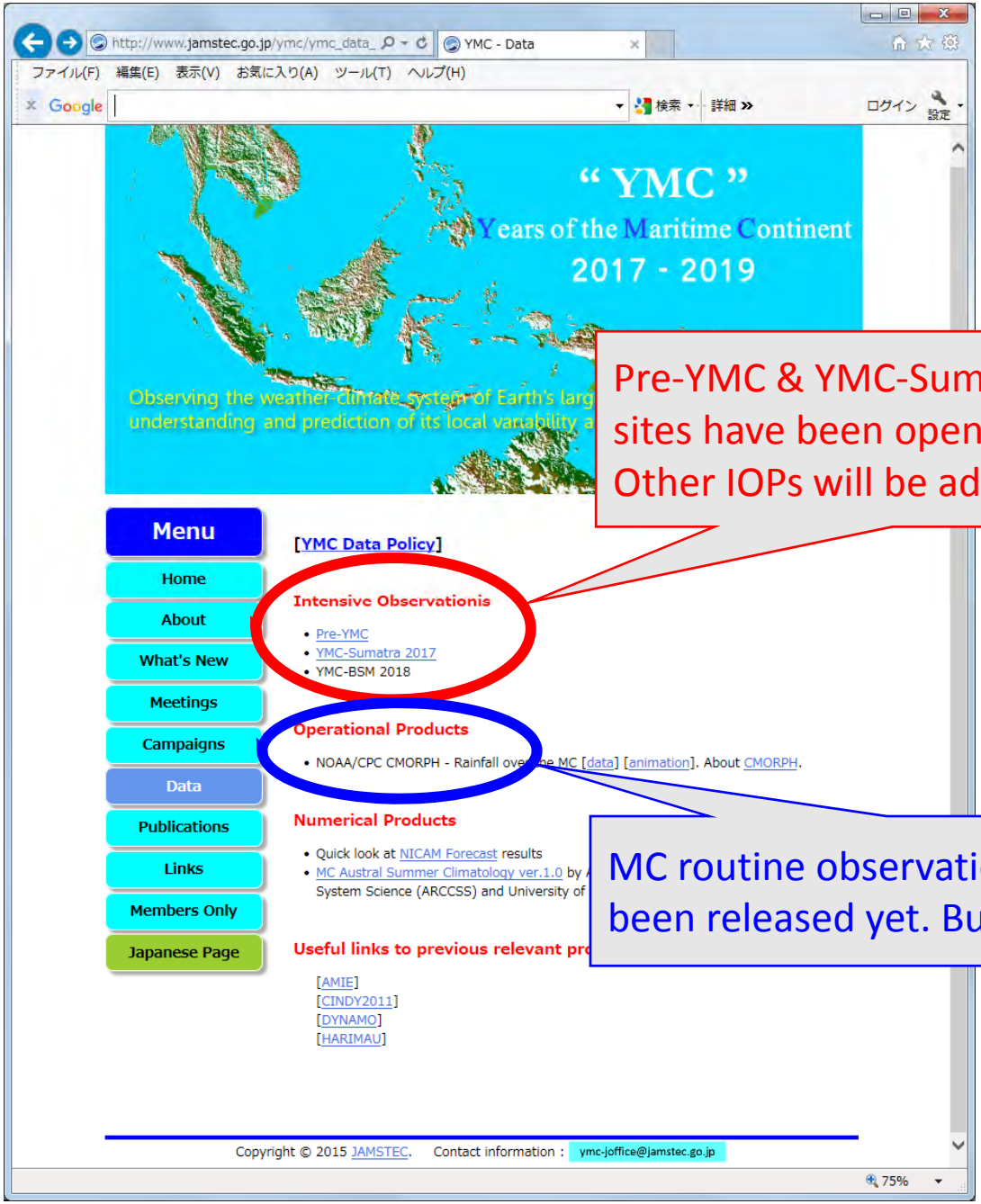
BMKG, Indonesia

http://www.bmkg.go.id/ymc/

JAMSTEC, Japan

http://www.jamstec.go.jp/ymc/

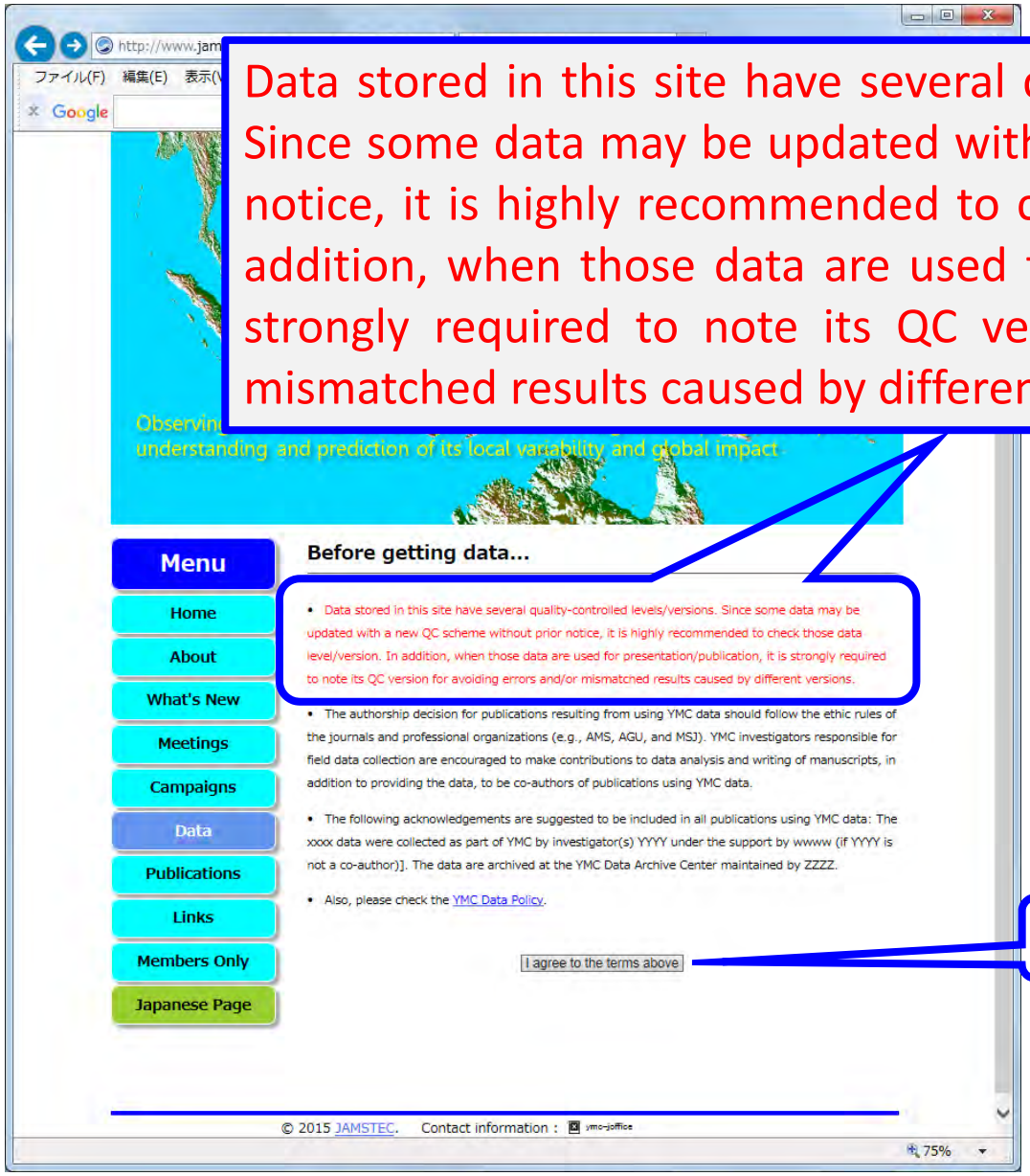
Data Management



Pre-YMC & YMC-Sumatra 2017 data sites have been opened.
Other IOPs will be added hereafter.

MC routine observation data have not been released yet. But, some will soon.

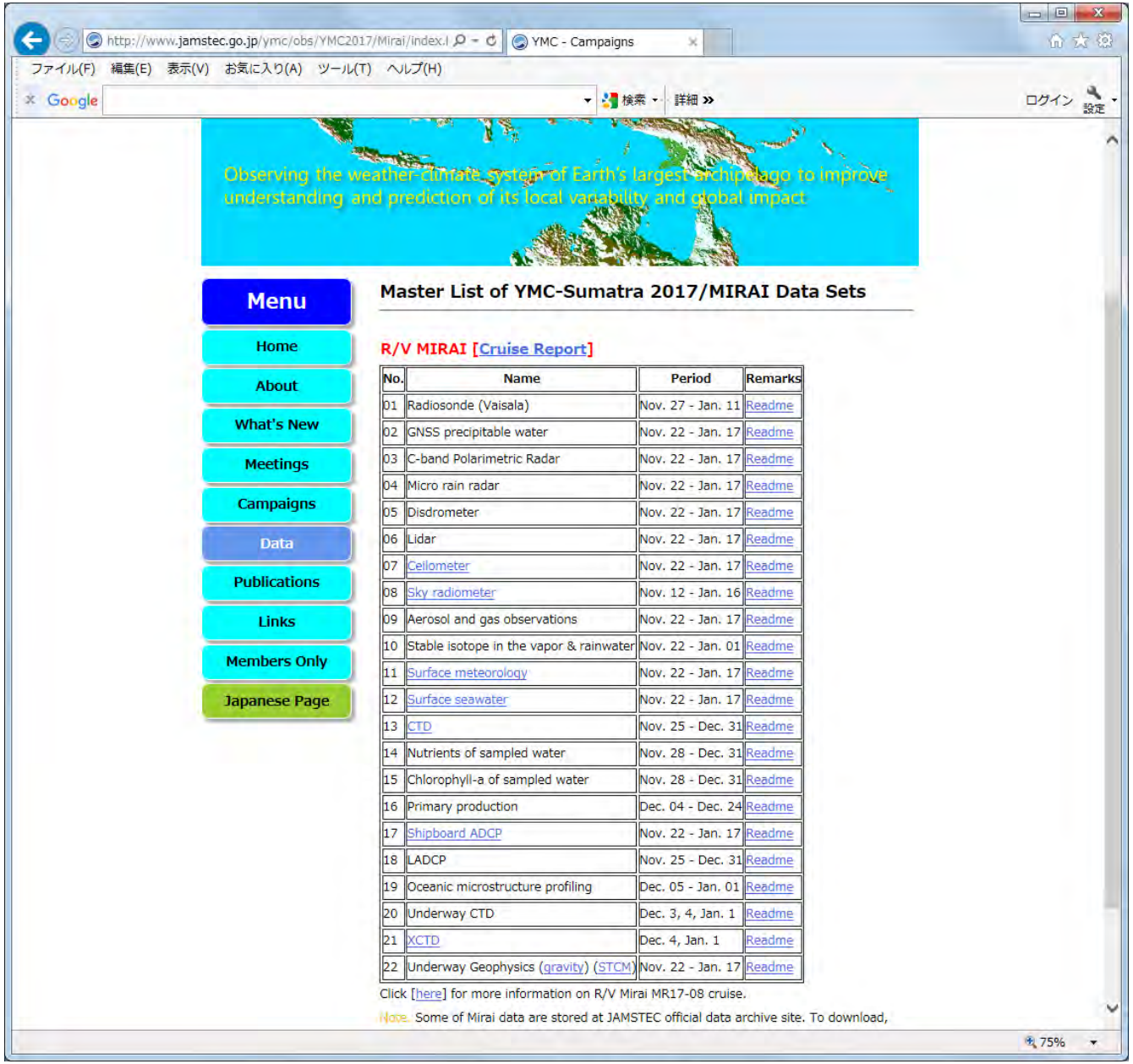
Data Management



Data stored in this site have several quality-controlled levels/versions. Since some data may be updated with a new QC scheme without prior notice, it is highly recommended to check those data level/version. In addition, when those data are used for presentation/publication, it is strongly required to note its QC version for avoiding errors and/or mismatched results caused by different versions.

One click is required.

Data Availability for YMC-Sumatra 2017 is currently limited, but soon updated.



Requests

We request PIs of each IOP to submit the following to YMC data archive centers (currently, JAMSTEC & BMKG);

Option - 1: Original Data

→ some can be converted onto the same format

Option - 2: Inventory

→ Summary page on the YMC site to share infos

Option - 3: IOP's own data site URL for Link

→ At least, one click to all sites

One Question

JAMSTEC plans to assign DOI to JAMSTEC YMC data set (one number).

It is possible to include other YMC data that are available from the same site.
Any request ? or any objection/problem ?

“Availability” : Data Collection

Main Activities

1) Data sharing

   Through collecting, archiving, and sharing data from observing networks in the MC region, satellites, and NWP products, build a two-year comprehensive database for detailed documentation of multi-scale variability and interaction of the MC weather-climate system.

2) Field campaign
3) Modeling
4) Prediction and applications
5) Outreaching and capacity building

“Availability” : Data Collection

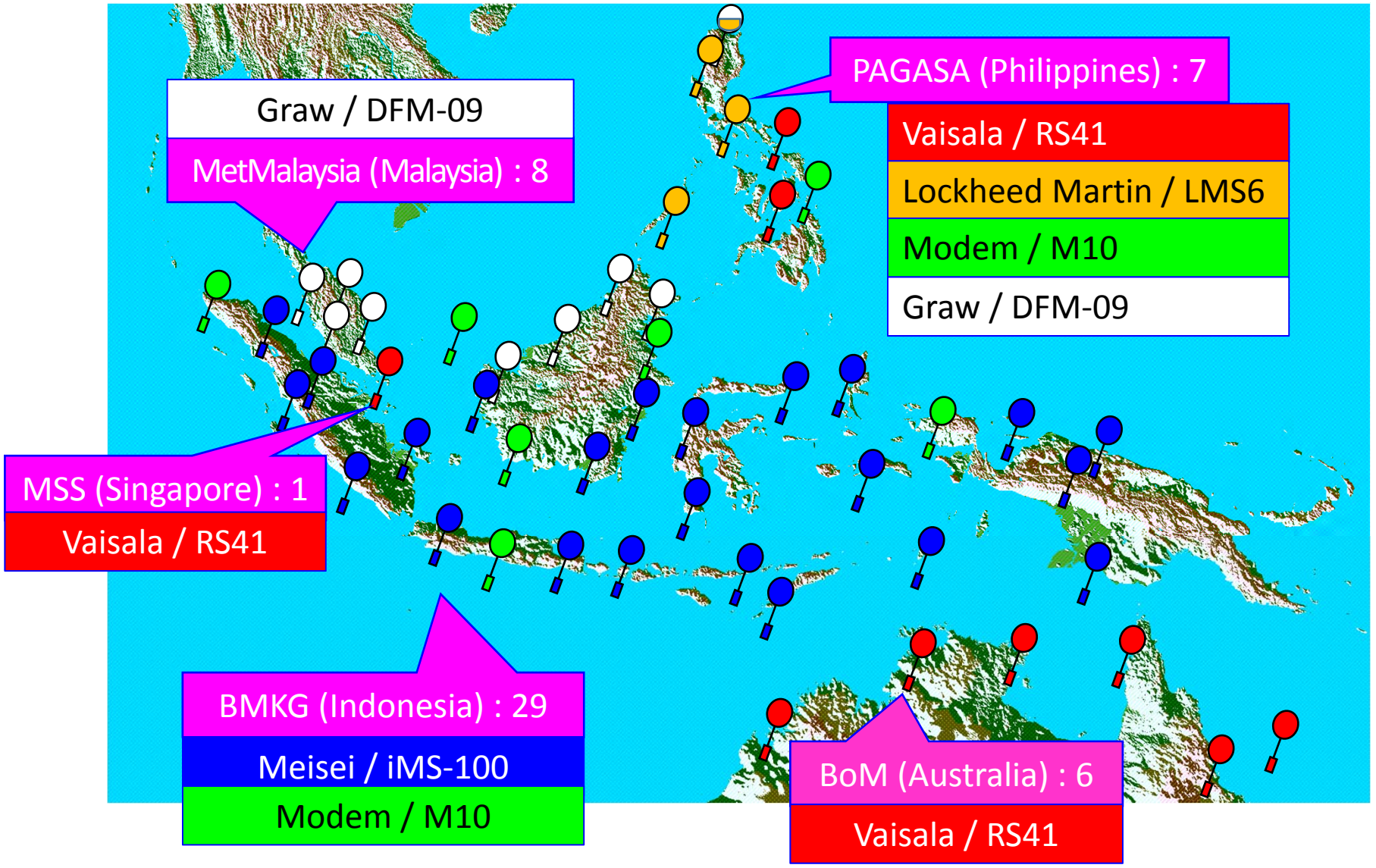
Example. Radar data collection from PAGASA Stations in the Philippines

Courtesy of PAGASA

	2017									2018			
	7	8	9	10	11	12	1	2	3	4	5	6	7
Appari	o	o	o	o	o	o	o	o	o	o	o	o	o
Baguio	x	x	x	x	x	x	x	x	x	x	x	o	o
Cebu	o	o	o	o	o	o	o	o	o	o	o	o	x
Guiuan	x	x	x	x	x	x	x	x	x	x	x	x	x
Hinatuan	o	o	o	o	o	o	o	o	o	o	o	o	o
Iloilo	x	x	x	x	o	x	o	o	o	o	o	o	o
Mactan	x	x	x	x	x	x	x	x	x	x	x	o	o
Palawan	x	x	x	x	x	x	x	x	x	x	x	x	x
Subic	o	o	o	o	o	o	o	o	o	o	o	o	o
Tagaytay	o	x	o	o	x	x	o	o	o	o	o	o	o
Tampakan	x	x	x	x	x	x	x	x	o	o	o	o	x

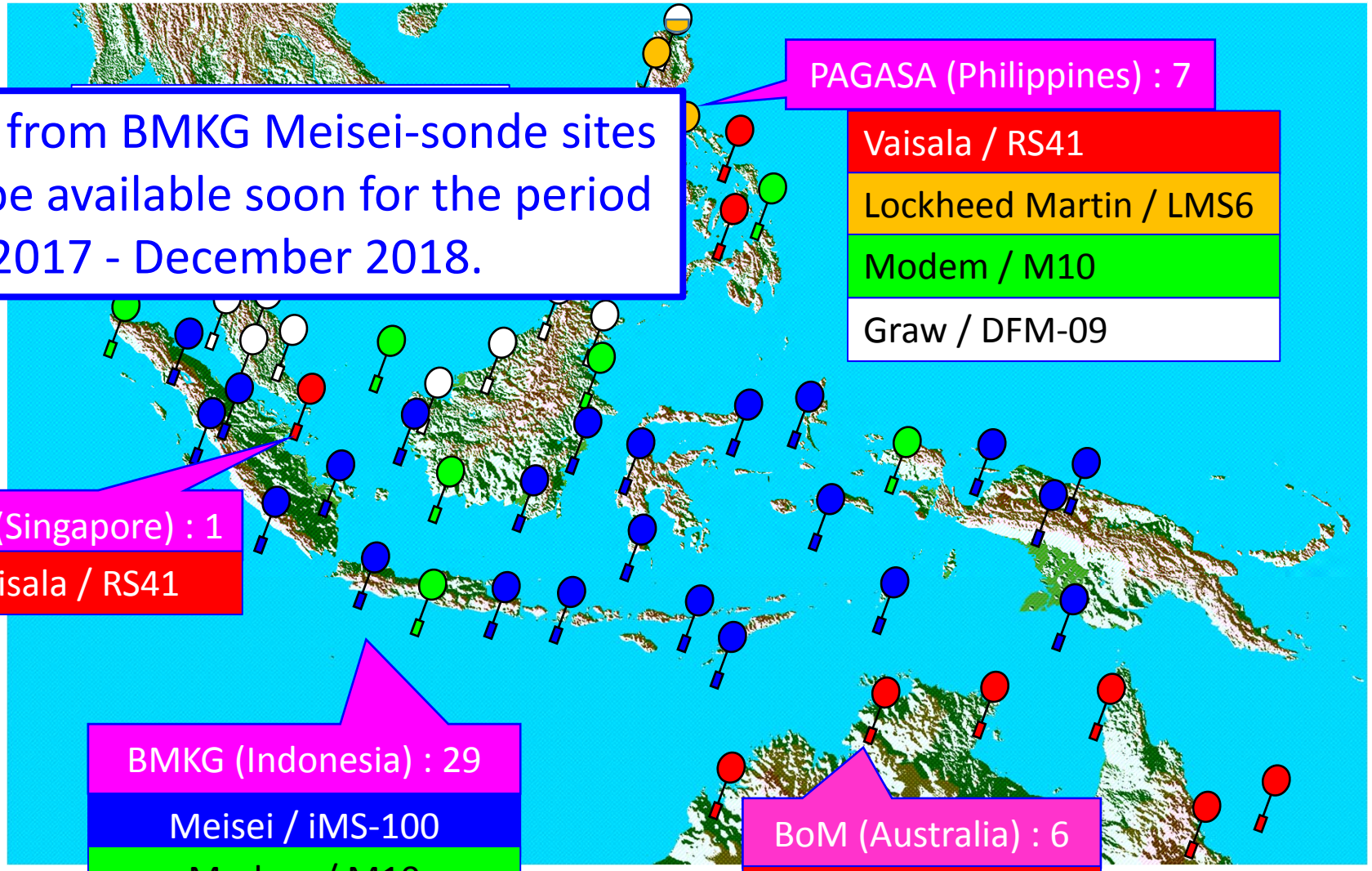
“Availability” : Data Collection

Operational Radiosonde Observations by the MC Meteorological Agencies



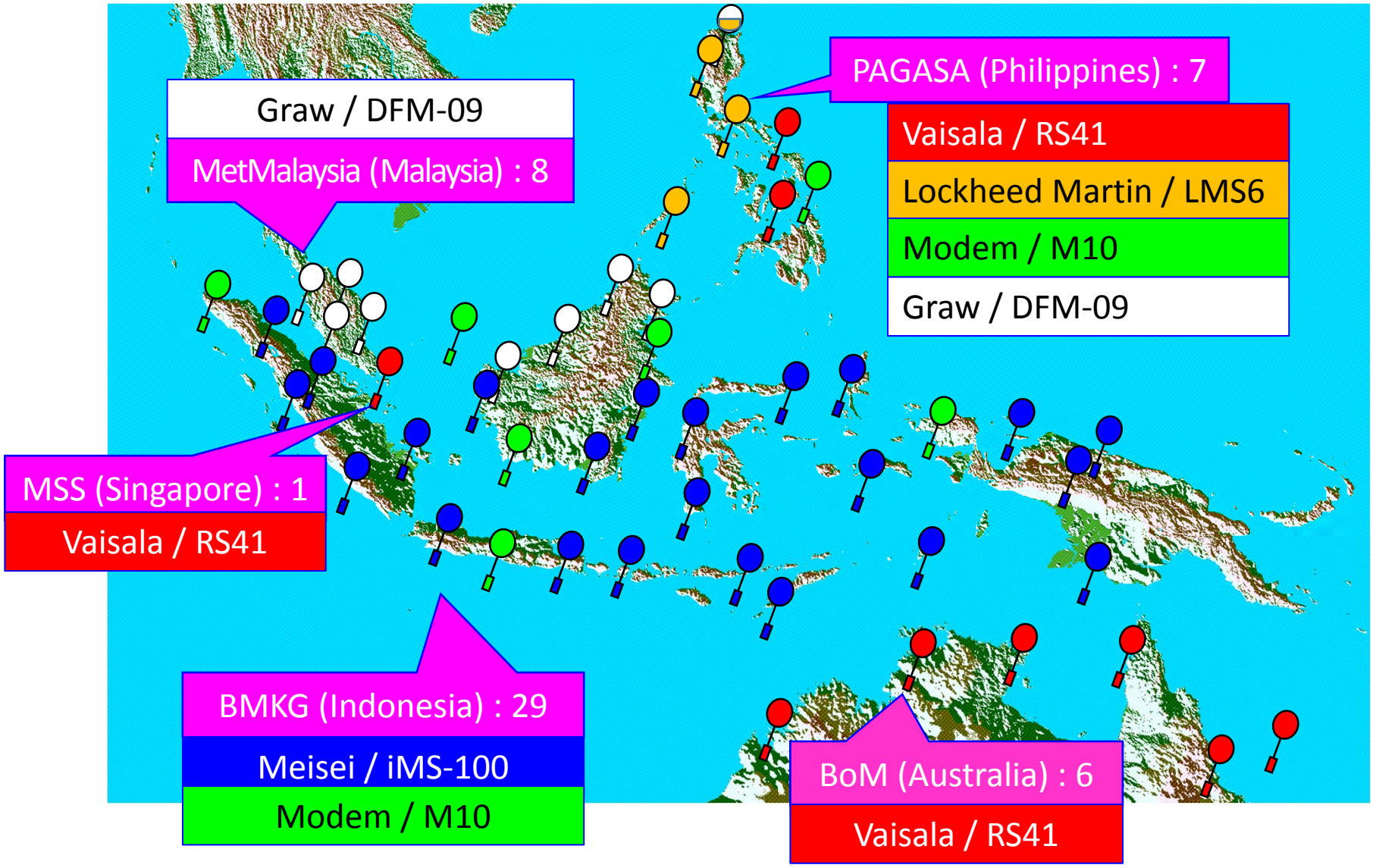
“Availability” : Data Collection

Operational Radiosonde Observations by the MC Meteorological Agencies



“Accuracy” : Data Correction

Operational Radiosonde Observations by the MC Meteorological Agencies



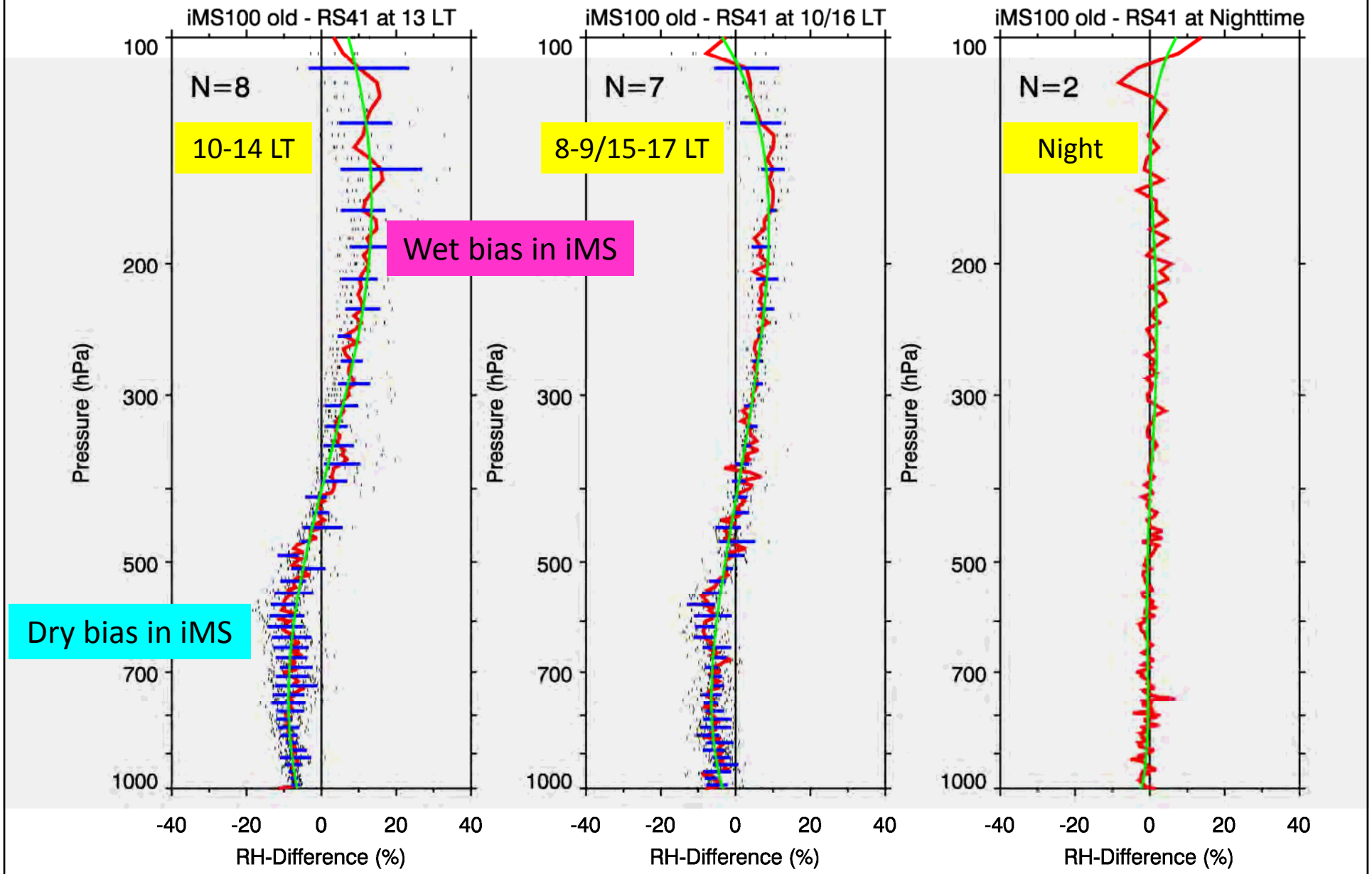
Intercomparison (Meisei vs. Vaisala) at BMKG Bengkulu Station

Inter-comparison: ~~18~~ 17 times (15 daytime, ~~3~~ 2 nights)

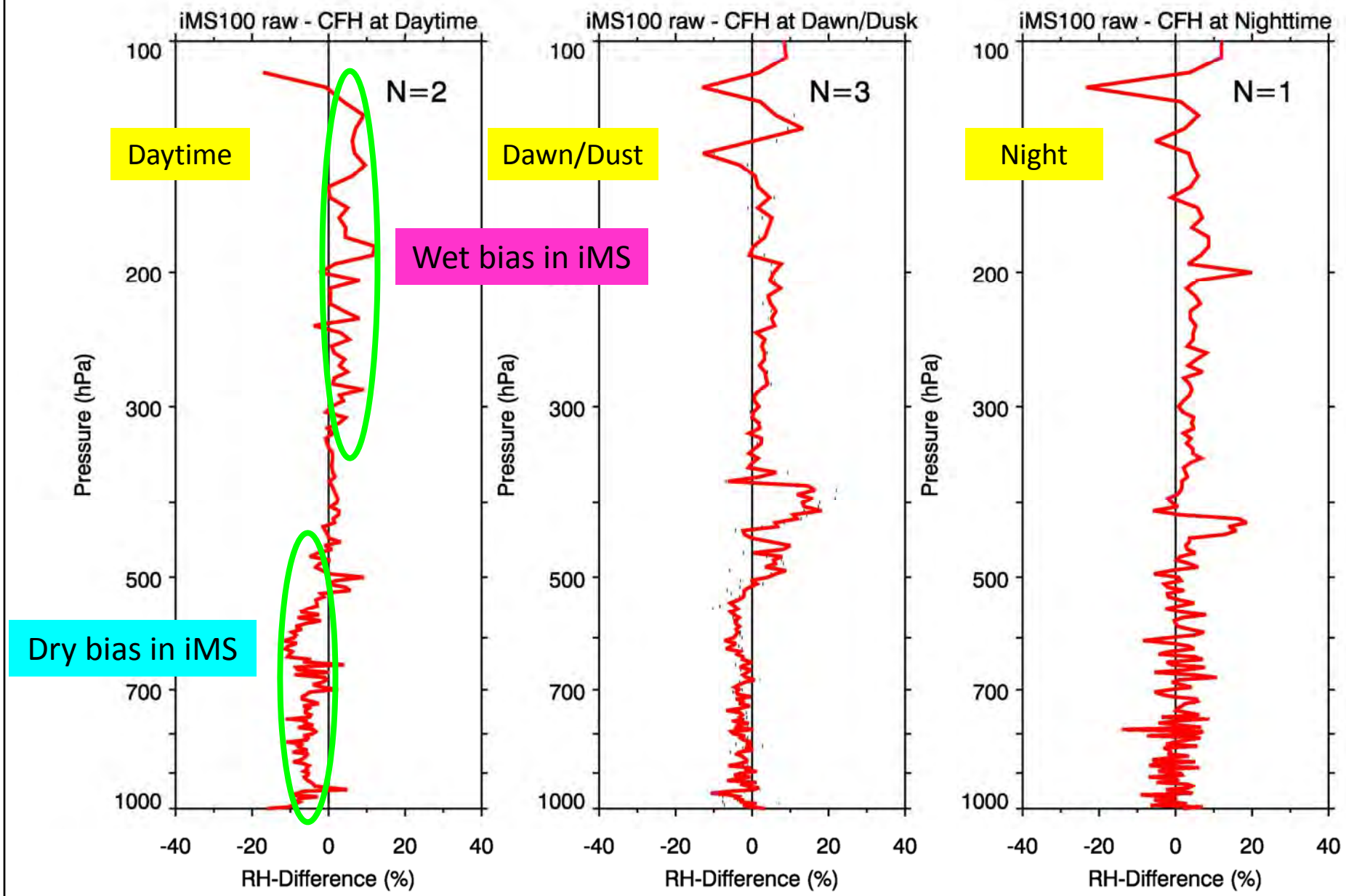
1) Meisei (iMS-100) … BMKG Routine observations + IOP
2) Vaisala (RS41-SGDP) … onboard the R/V MIRAI

3) CFH (Cryogenic Frost-point Hygrometer) … 7 times
4) GNSS-derived Water Vapor

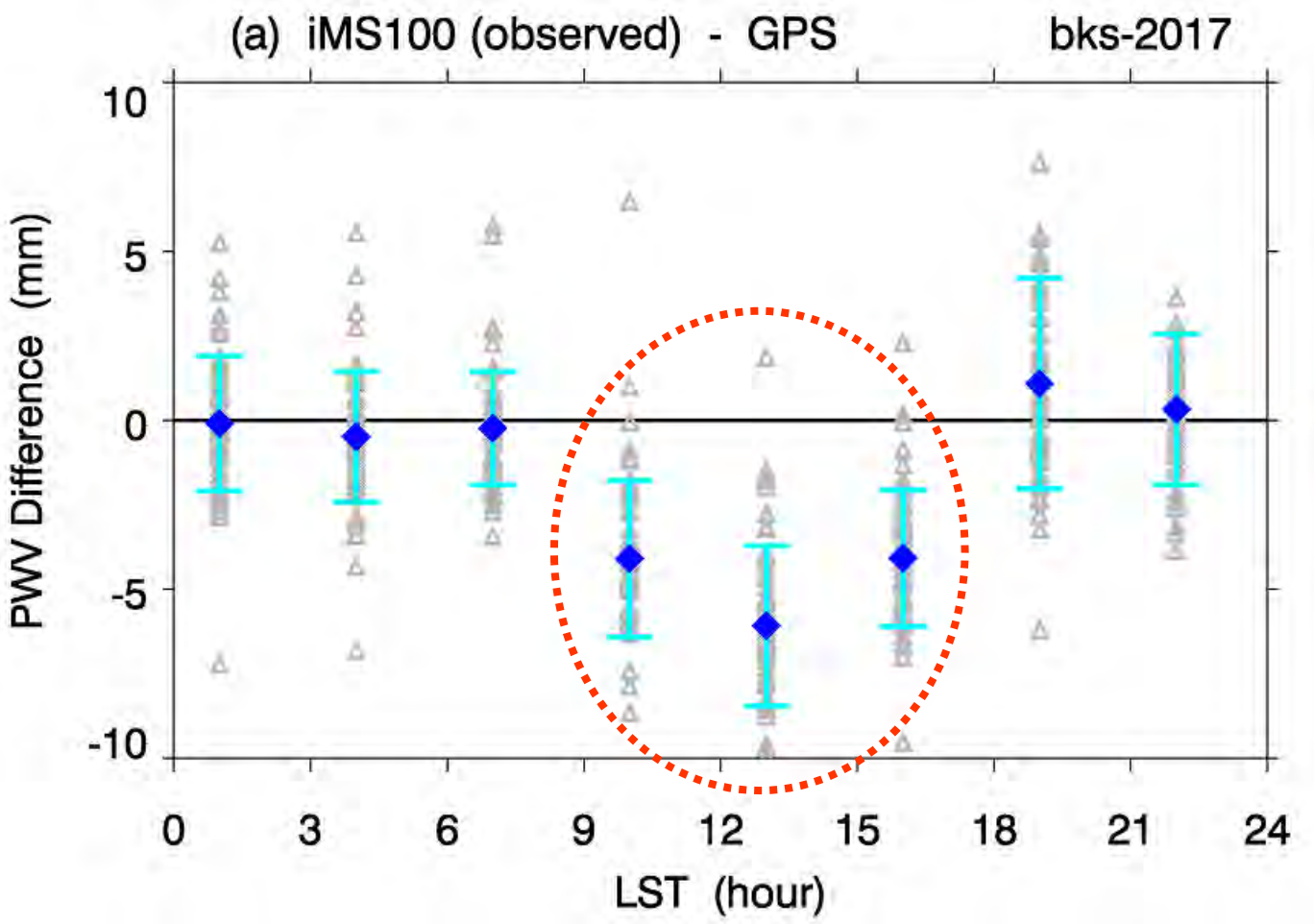
Intercomparison (Meisei iMS100 vs. Vaisala RS41) - RH



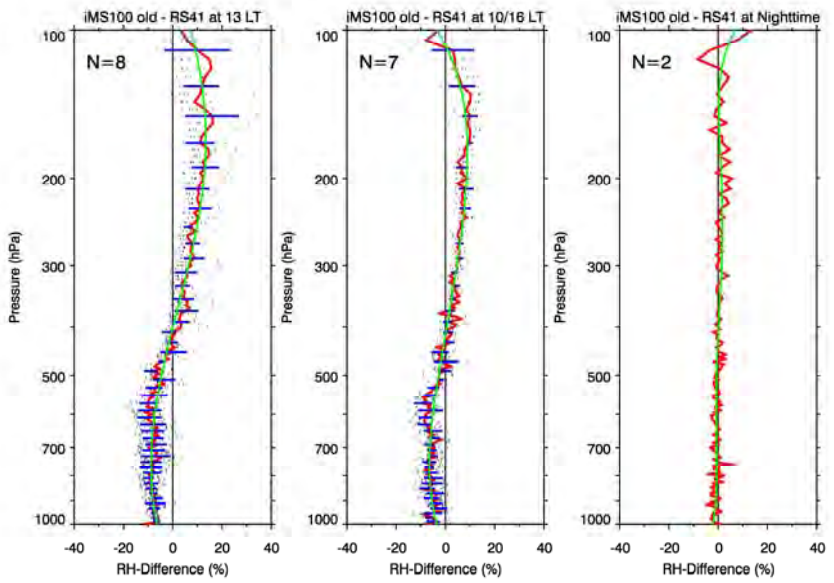
Intercomparison (Meisei iMS100 vs. CFH) - RH



Intercomparison (Meisei iMS100 vs. GPS-derived) - PWV



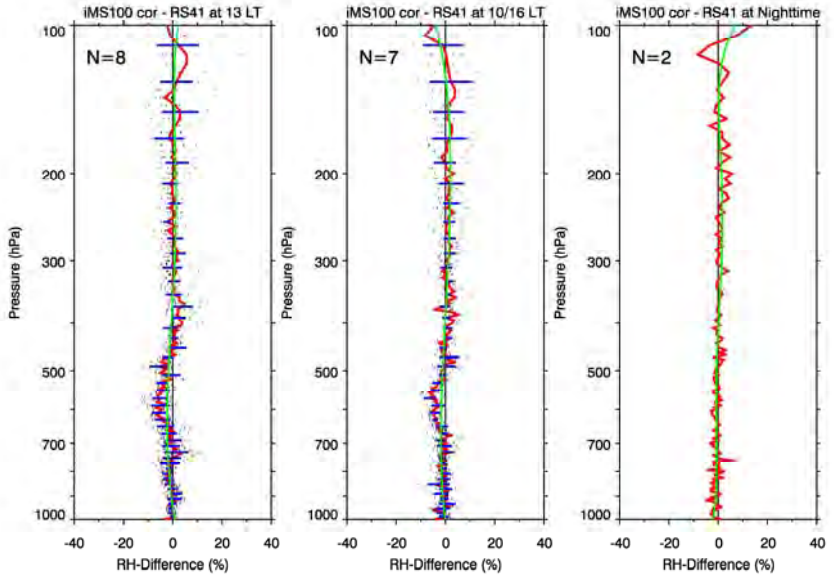
Data Correction by Cumulative Distribution Function (CDF) Matching



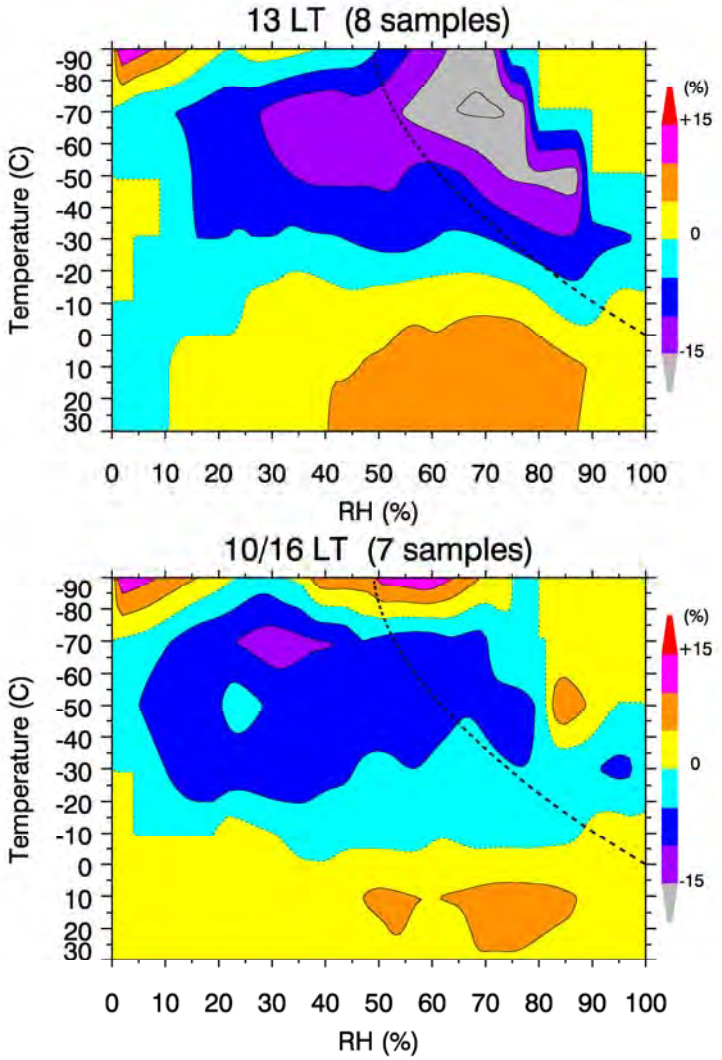
Daytime | 10/16 LT | Night

Before

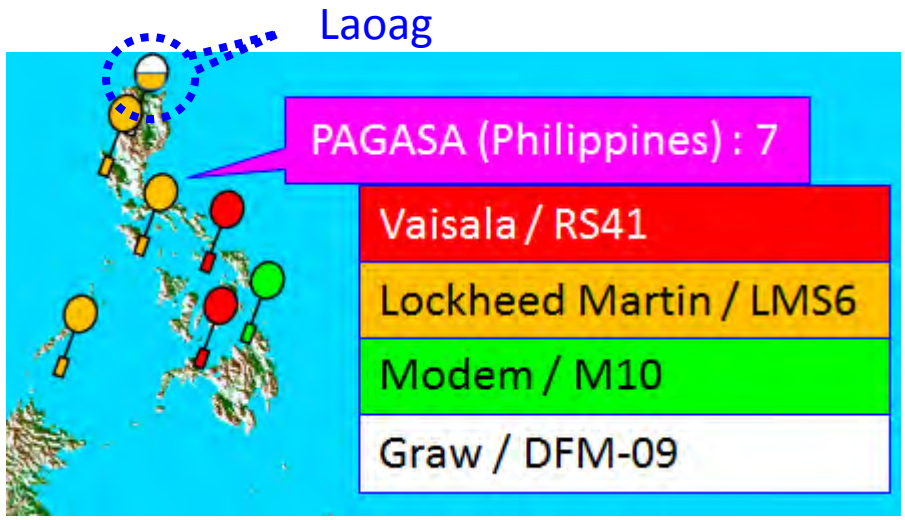
After



Vaisala RS41 vs Meisei iMS100



Intercomparison at Laoag during YMC-BSM 2018



Period: July 27 - August 2, 2018

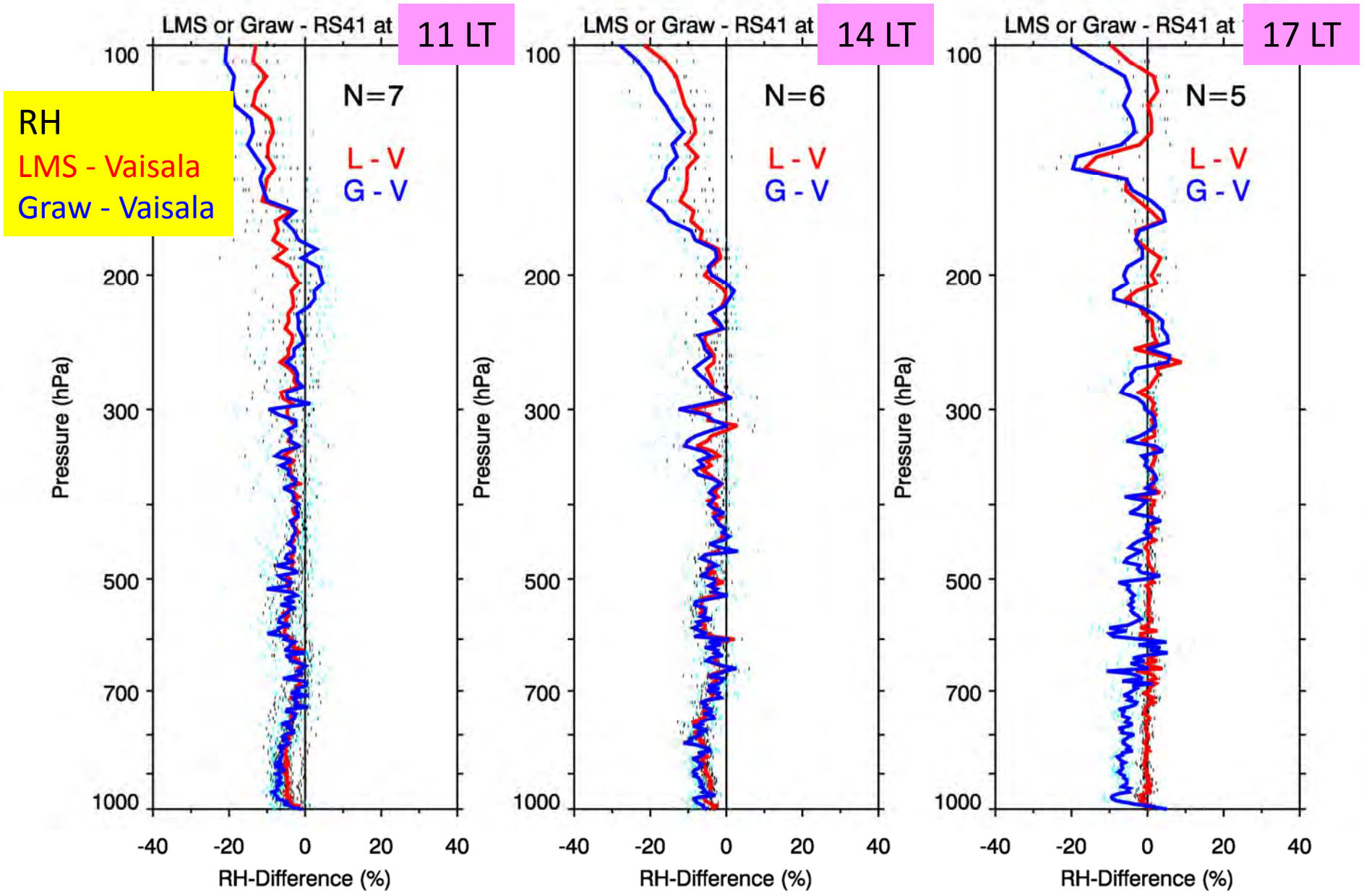
Location: Laoag Synop-Airport-Upper Air Station

Remarks: Usually PAGASA conduct twice daily sounding using two types of radiosonde (LMS and Graw). During the IOP, only LMS was adopted and conducted 6-hourly.

Method:

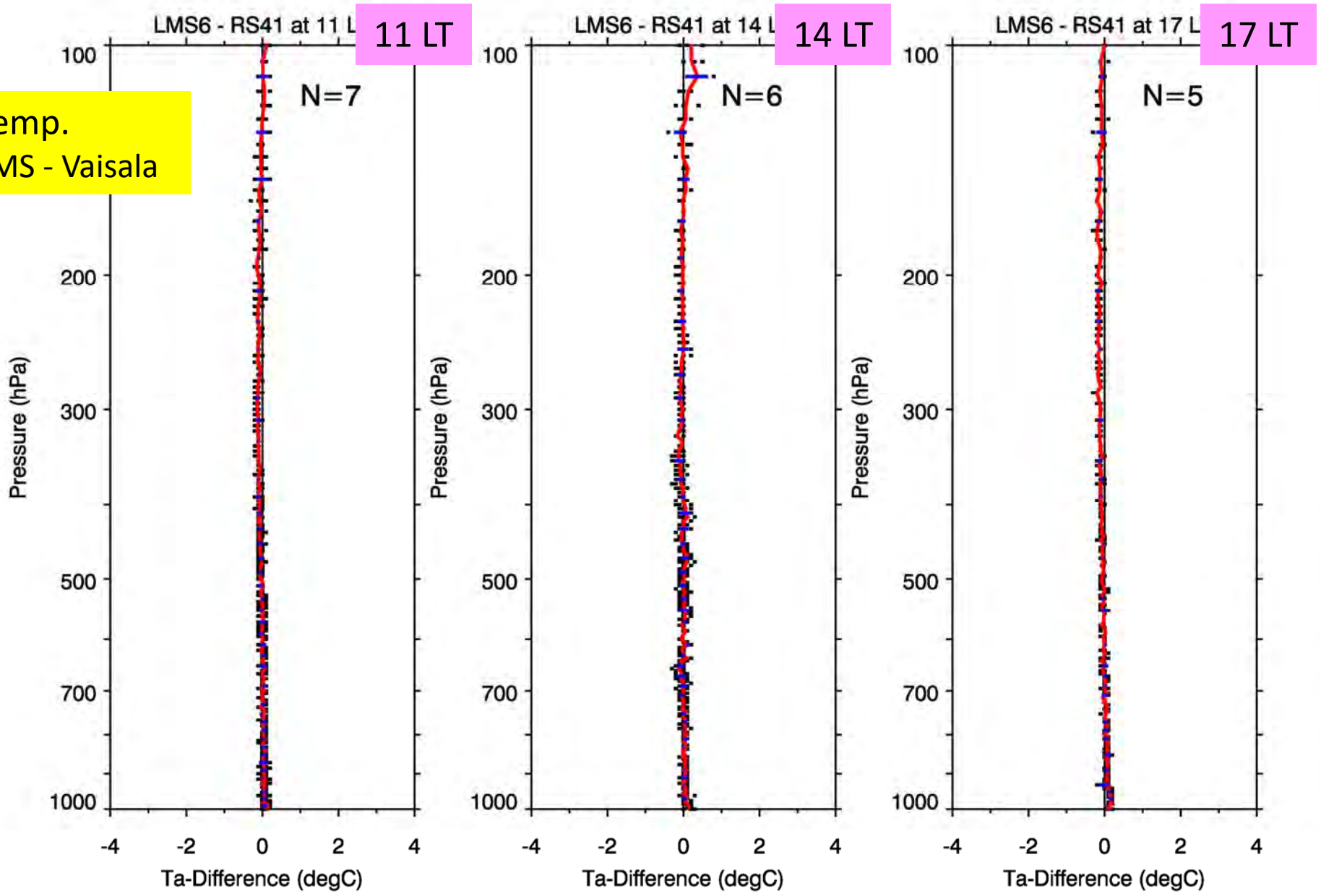
1) Simultaneous launch of Vaisala, LMS, and Graw for 20 times. (LMS was launched separately from other two for 0730/1330/1930 LT sounding.)
2) GNSS-derived PWV (July 27 - Aug 31）

Radiosonde Intercomparison at Laoag



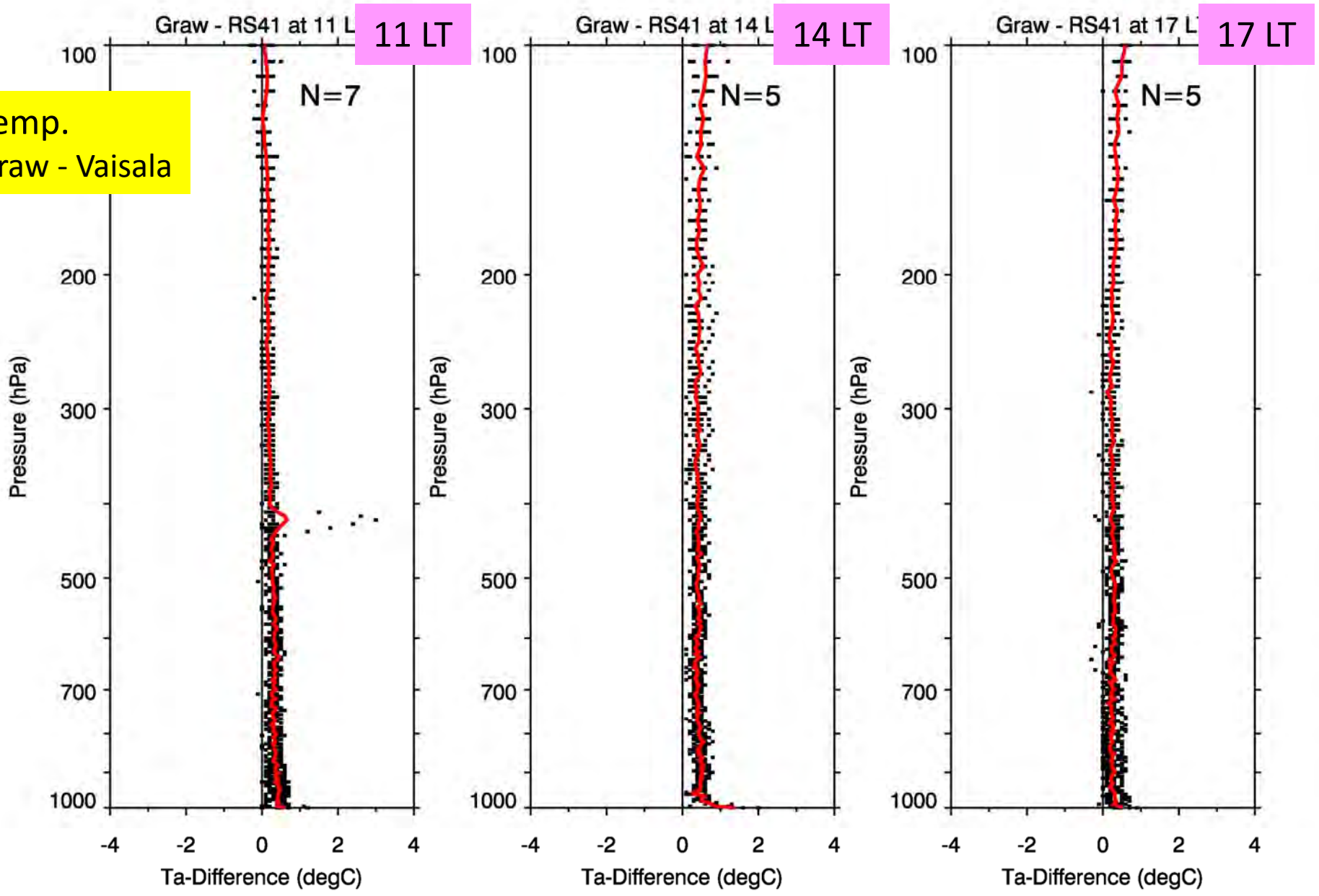
Radiosonde Intercomparison at Laoag

Temp.
LMS - Vaisala

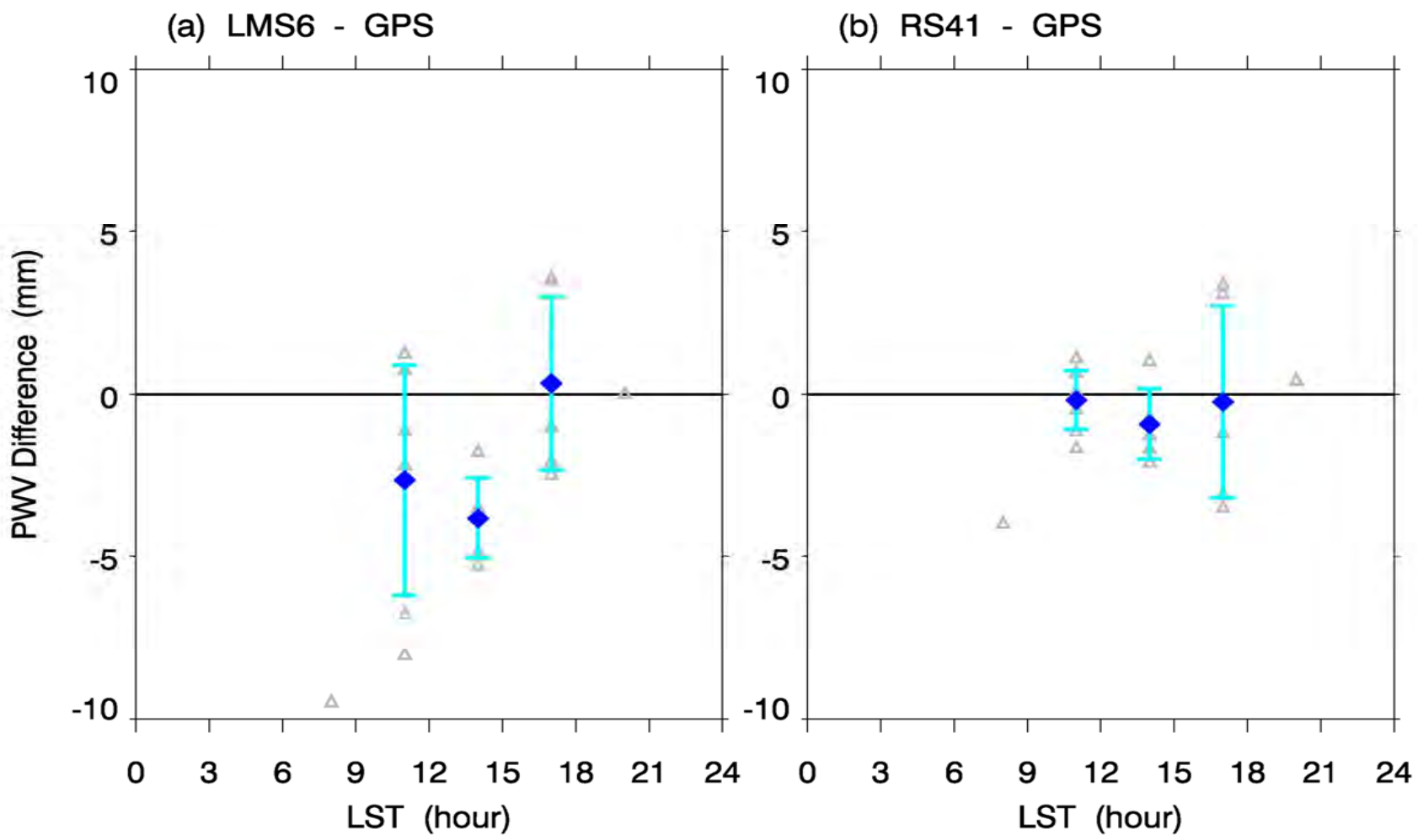


Radiosonde Intercomparison at Laoag

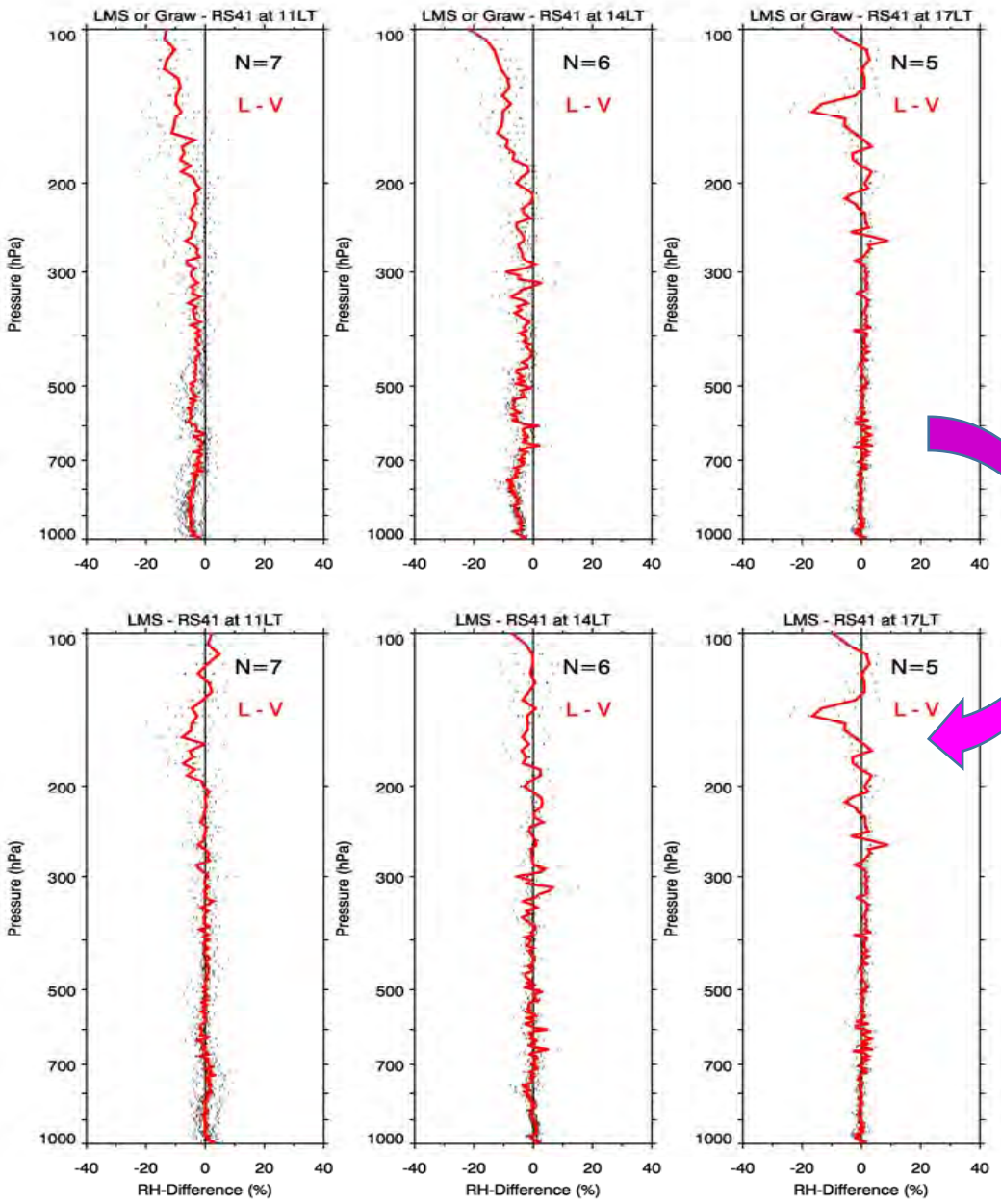
Temp.
Graw - Vaisala

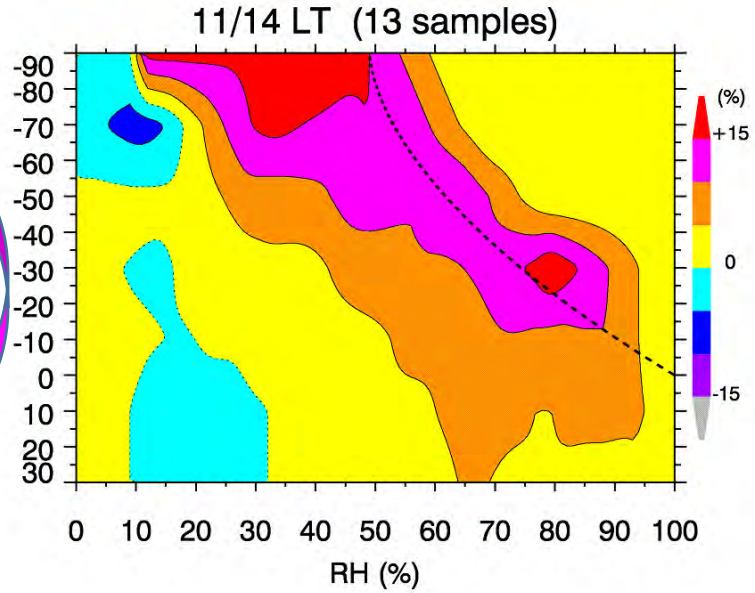


Intercomparison of PWV between Sondes and GPS-derived



CDF Matching for LMS6 RH Data





Summary & Dicussion

1) Correction scheme has been developed based on the inter-comparison during 2 IOPs for Meisei (iMS-100) and LMS (LMS9).
2) By considering inter-comparison with CFH and GNSS-derived PWV, Vaisala (RS41) is used as a reference.
3) Still under consideration for Graw sonde.
4) How about Modem ? At this moment, no special plan is set.
5) Since the manufactures have developed new versions, we need to follow which are used at each sites.

Requests

1) Submission the following from PIs of IOP

   Original data and/or Inventory and/or URL

2) Data collection of routine data from MC agencies

   a) Indonesia (BMKG) and Philippines (PAGASA) have been established.
   b) Singapore (MSS) has already agreed, but no action from YMC (JAMSTEC).
   c) Australia (BoM) and Malaysia (MMD) ?
   d) Other countries ?