

# 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.

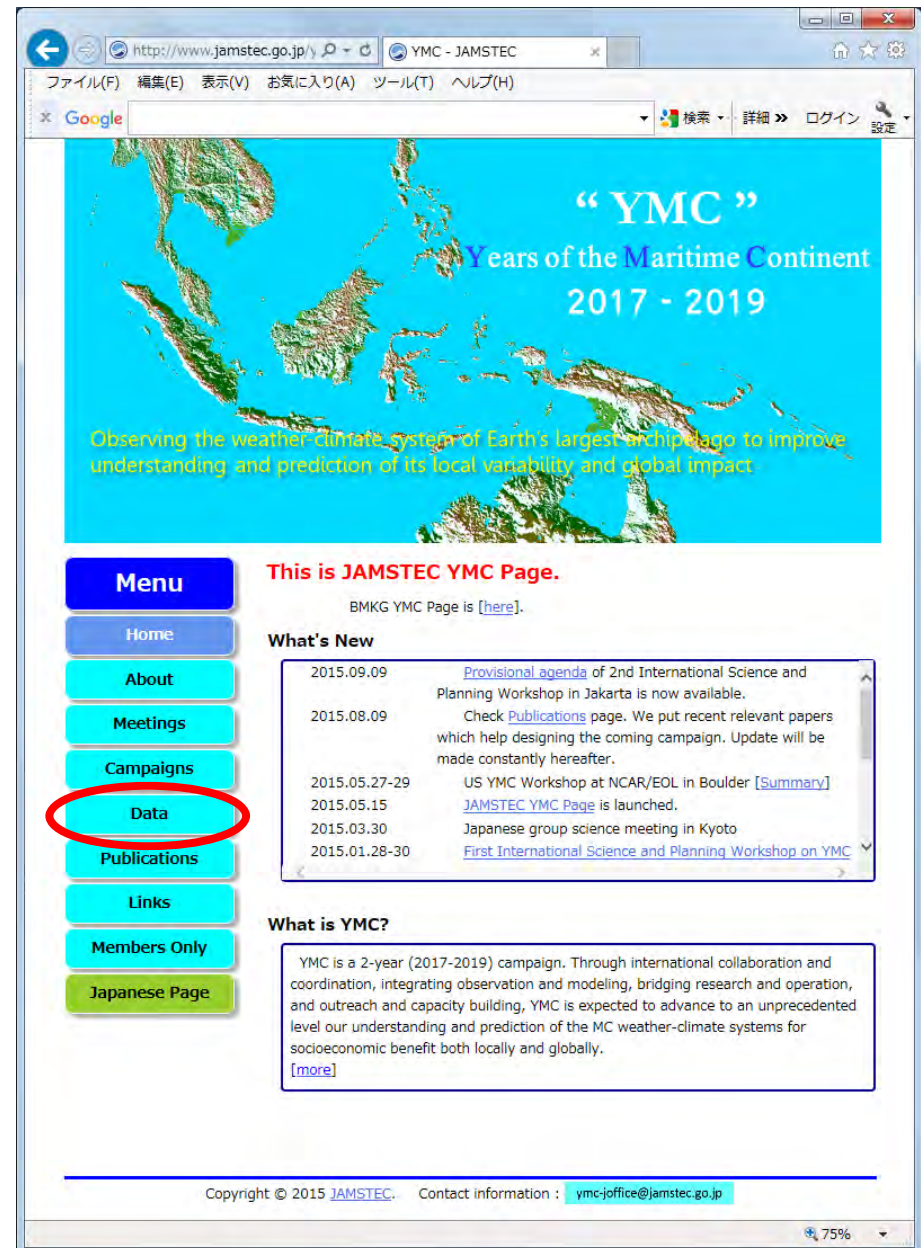
## Data Archive Centers

BMKG, Indonesia

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

JAMSTEC, Japan

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



The screenshot shows a web browser window displaying the JAMSTEC YMC website. The browser address bar shows the URL <http://www.jamstec.go.jp/>. The page features a large banner with a map of the Maritime Continent region, overlaid with the text “YMC” Years of the Maritime Continent 2017 - 2019. Below the banner, there is a navigation menu with buttons for Home, About, Meetings, Campaigns, Data (highlighted with a red circle), Publications, Links, Members Only, and Japanese Page. To the right of the menu, there is a section titled “This is JAMSTEC YMC Page.” with a link to the BMKG YMC Page. Below that is a “What’s New” section with a list of recent events and dates, including a provisional agenda for a workshop in Jakarta, a publications page update, a US YMC workshop at NCAR/EOL in Boulder, the launch of the JAMSTEC YMC Page, a Japanese group science meeting in Kyoto, and the first international science and planning workshop on YMC. At the bottom of the page, there is a footer with copyright information and contact information: Copyright © 2015 JAMSTEC. Contact information : ymc-joffice@jamstec.go.jp. The browser zoom level is set to 75%.

# Data Management

The screenshot shows a web browser window displaying the YMC Data website. The browser's address bar shows the URL [http://www.jamstec.go.jp/ymc/ymc\\_data\\_](http://www.jamstec.go.jp/ymc/ymc_data_). The page features a header with a map of the Maritime Continent and the text "“ YMC ” Years of the Maritime Continent 2017 - 2019". Below the header is a navigation menu with buttons for Home, About, What's New, Meetings, Campaigns, Data, Publications, Links, Members Only, and Japanese Page. The main content area is divided into several sections: [YMC Data Policy], Intensive Observations (with sub-items: Pre-YMC, YMC-Sumatra 2017, YMC-BSM 2018), Operational Products (with sub-item: NOAA/CPC CMORPH - Rainfall over the MC [data] [animation]. About CMORPH.), Numerical Products (with sub-items: Quick look at NICAM Forecast results, MC Austral Summer Climatology ver.1.0 by System Science (ARCCSS) and University of...), and Useful links to previous relevant projects (with sub-items: [AMIE], [CINDY2011], [DYNAMO], [HARIMAU]).

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.

The screenshot shows a web browser window with the URL <http://www.jamstec.go.jp/>. The page features a navigation menu on the left with buttons for Home, About, What's New, Meetings, Campaigns, Data, Publications, Links, Members Only, and Japanese Page. The main content area is titled "Before getting data..." and contains a list of terms and conditions. A blue callout box highlights the first bullet point, which is identical to the text in the top callout box. At the bottom of the terms and conditions, there is a checkbox labeled "I agree to the terms above".

Observing  
understanding and prediction of its local variability and global impact.

**Menu**

- Home
- About
- What's New
- Meetings
- Campaigns
- Data
- Publications
- Links
- Members Only
- Japanese Page

**Before getting data...**

- 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.
- The authorship decision for publications resulting from using YMC data should follow the ethic rules of the journals and professional organizations (e.g., AMS, AGU, and MSJ). YMC investigators responsible for field data collection are encouraged to make contributions to data analysis and writing of manuscripts, in addition to providing the data, to be co-authors of publications using YMC data.
- The following acknowledgements are suggested to be included in all publications using YMC data: The xxxx data were collected as part of YMC by investigator(s) YYYY under the support by www (if YYYY is not a co-author). The data are archived at the YMC Data Archive Center maintained by ZZZZ.
- Also, please check the [YMC Data Policy](#).

I agree to the terms above

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One click is required.



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

Observing the weather climate system of Earth's largest archipelago to improve understanding and prediction of its local variability and global impact.

**Menu**

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### Master List of YMC-Sumatra 2017/MIRAI Data Sets

**R/V MIRAI [Cruise Report]**

No.	Name	Period	Remarks
01	Radiosonde (Vaisala)	Nov. 27 - Jan. 11	<a href="#">Readme</a>
02	GNSS precipitable water	Nov. 22 - Jan. 17	<a href="#">Readme</a>
03	C-band Polarimetric Radar	Nov. 22 - Jan. 17	<a href="#">Readme</a>
04	Micro rain radar	Nov. 22 - Jan. 17	<a href="#">Readme</a>
05	Disdrometer	Nov. 22 - Jan. 17	<a href="#">Readme</a>
06	Lidar	Nov. 22 - Jan. 17	<a href="#">Readme</a>
07	<a href="#">Ceilometer</a>	Nov. 22 - Jan. 17	<a href="#">Readme</a>
08	<a href="#">Sky radiometer</a>	Nov. 12 - Jan. 16	<a href="#">Readme</a>
09	Aerosol and gas observations	Nov. 22 - Jan. 17	<a href="#">Readme</a>
10	Stable isotope in the vapor & rainwater	Nov. 22 - Jan. 01	<a href="#">Readme</a>
11	<a href="#">Surface meteorology</a>	Nov. 22 - Jan. 17	<a href="#">Readme</a>
12	<a href="#">Surface seawater</a>	Nov. 22 - Jan. 17	<a href="#">Readme</a>
13	<a href="#">CTD</a>	Nov. 25 - Dec. 31	<a href="#">Readme</a>
14	Nutrients of sampled water	Nov. 28 - Dec. 31	<a href="#">Readme</a>
15	Chlorophyll-a of sampled water	Nov. 28 - Dec. 31	<a href="#">Readme</a>
16	Primary production	Dec. 04 - Dec. 24	<a href="#">Readme</a>
17	<a href="#">Shipboard ADCP</a>	Nov. 22 - Jan. 17	<a href="#">Readme</a>
18	LADCP	Nov. 25 - Dec. 31	<a href="#">Readme</a>
19	Oceanic microstructure profiling	Dec. 05 - Jan. 01	<a href="#">Readme</a>
20	Underway CTD	Dec. 3, 4, Jan. 1	<a href="#">Readme</a>
21	<a href="#">XCTD</a>	Dec. 4, Jan. 1	<a href="#">Readme</a>
22	Underway Geophysics ( <a href="#">gravity</a> ) ( <a href="#">STCM</a> )	Nov. 22 - Jan. 17	<a href="#">Readme</a>

Click [here](#) for more information on R/V Mirai MR17-08 cruise.

Note: Some of Mirai data are stored at JAMSTEC official data archive site. To download,

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# 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

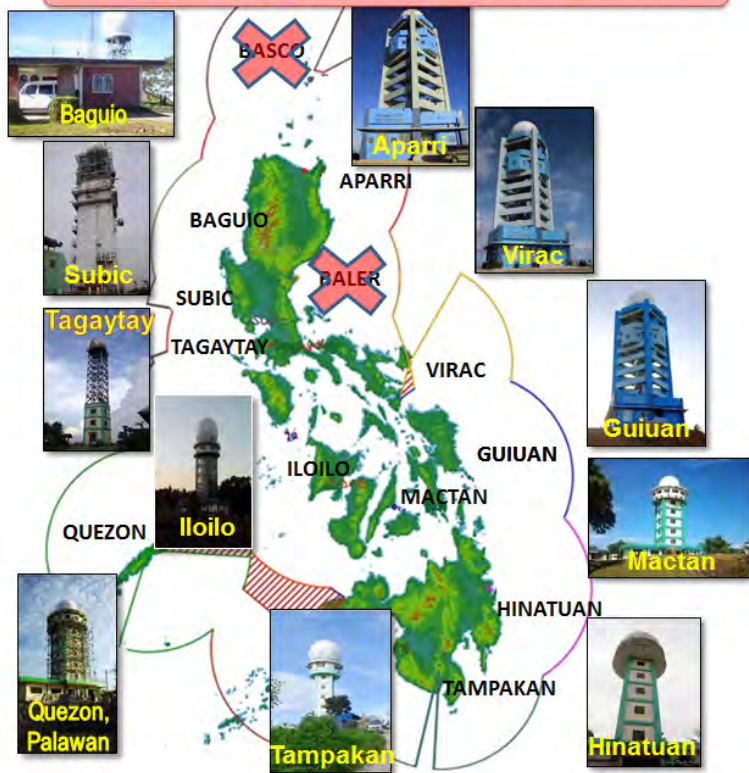
### 5) Outreaching and capacity building



# “Availability” : Data Collection

Example. Radar data collection from PAGASA Stations in the Philippines

## PAGASA RADAR NETWORK

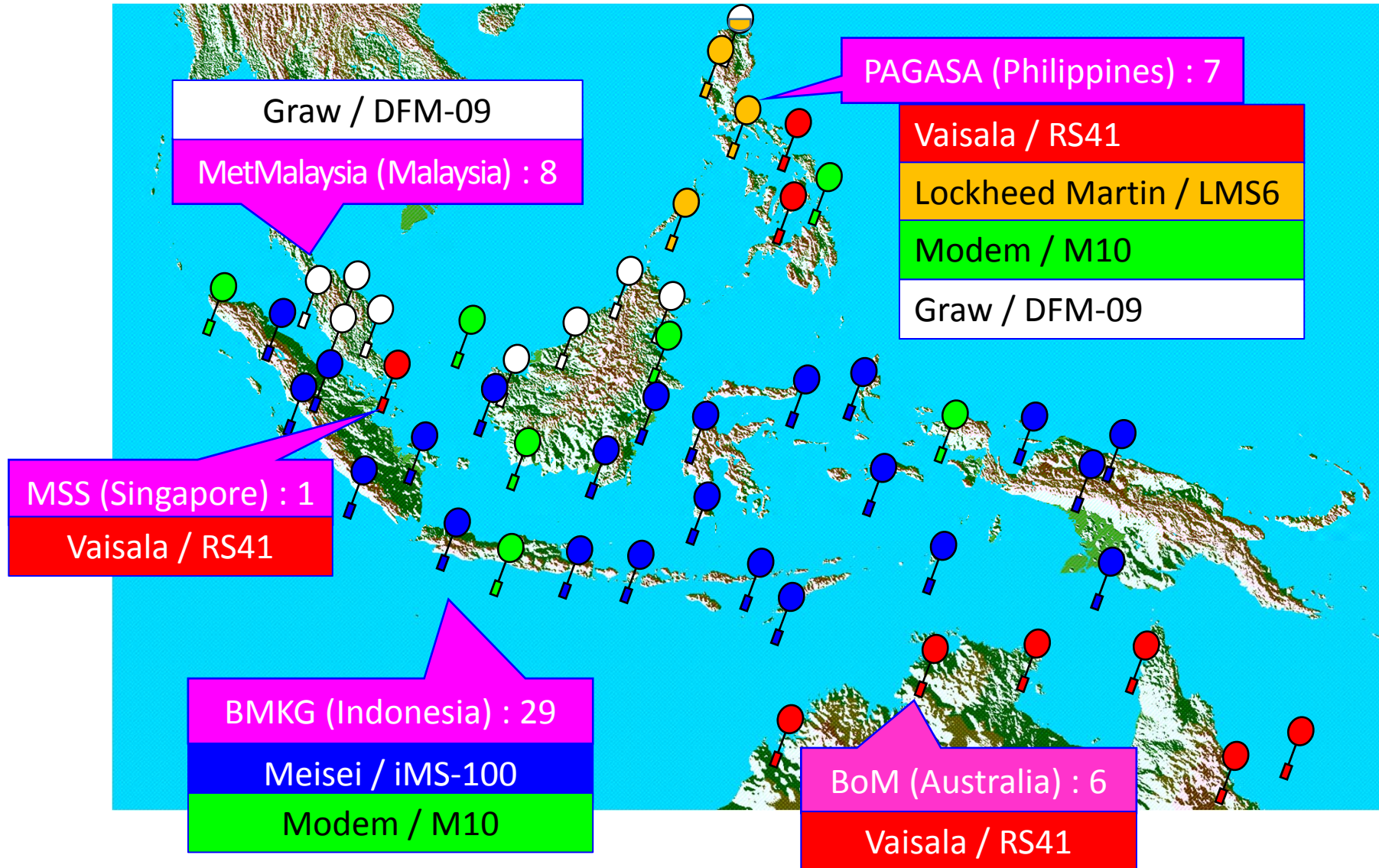


	2017							2018					
	7	8	9	10	11	12	1	2	3	4	5	6	7
Appari	○	○	○	○	○	○	○	○	○	○	○	○	○
Baguio	x	x	x	x	x	x	x	x	x	x	x	○	○
Cebu	○	○	○	○	○	○	○	○	○	○	○	○	x
Guiuan	x	x	x	x	x	x	x	x	x	x	x	x	x
Hinatuan	○	○	○	○	○	○	○	○	○	○	○	○	○
Iloilo	x	x	x	x	○	x	○	○	○	○	○	○	○
Mactan	x	x	x	x	x	x	x	x	x	x	x	○	○
Palawan	x	x	x	x	x	x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

Courtesy of  PAGASA  
The Weather and Climate Authority

# “Availability” : Data Collection

Operational Radiosonde Observations by the MC Meteorological Agencies





# “Availability” : Data Collection

Operational Radiosonde Observations by the MC Meteorological Agencies

Data from BMKG Meisei-sonde sites will be available soon for the period July 2017 - December 2018.

PAGASA (Philippines) : 7

Vaisala / RS41

Lockheed Martin / LMS6

Modem / M10

Graw / DFM-09

MSS (Singapore) : 1

Vaisala / RS41

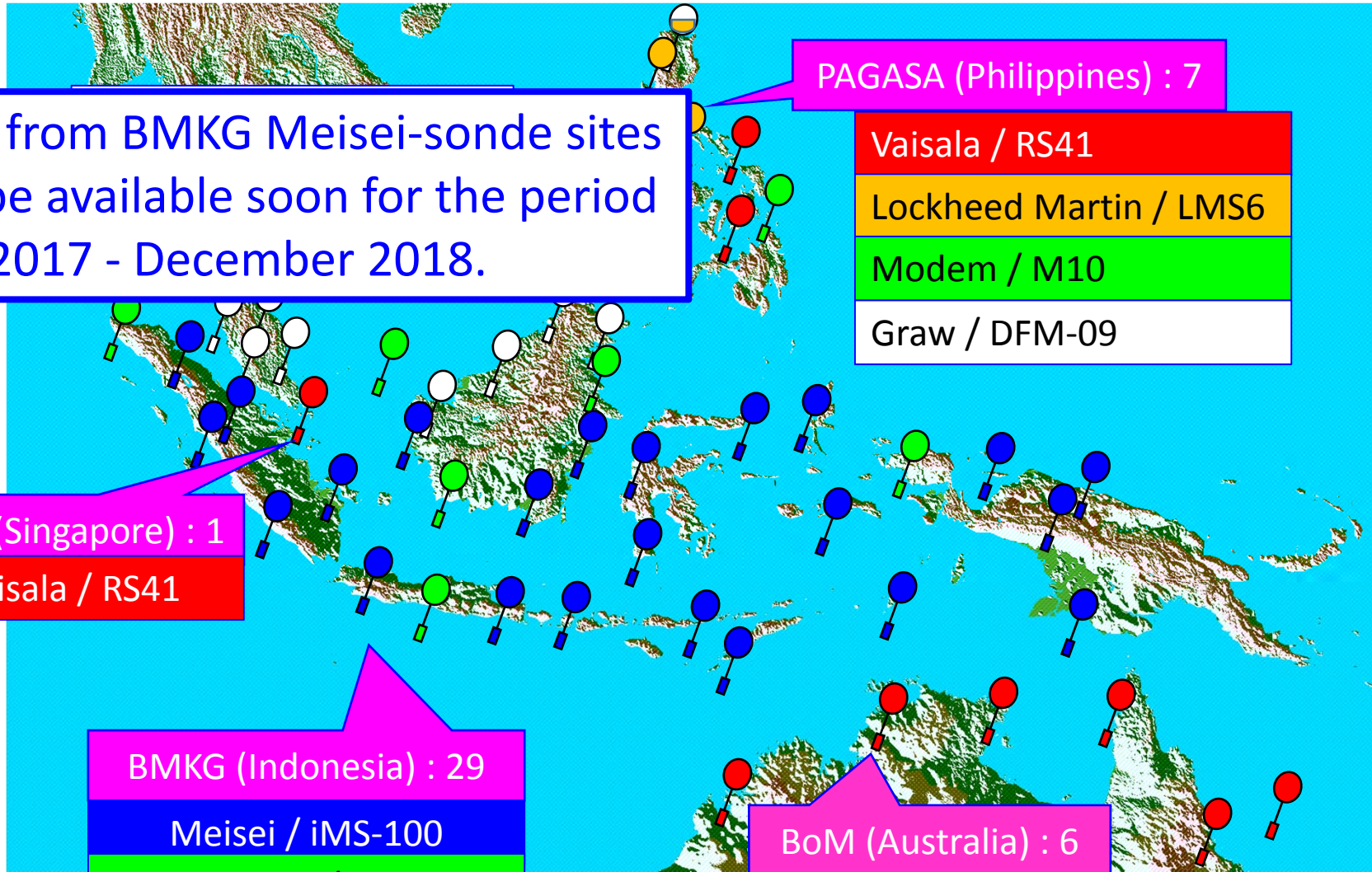
BMKG (Indonesia) : 29

Meisei / iMS-100

Modem / M10

BoM (Australia) : 6

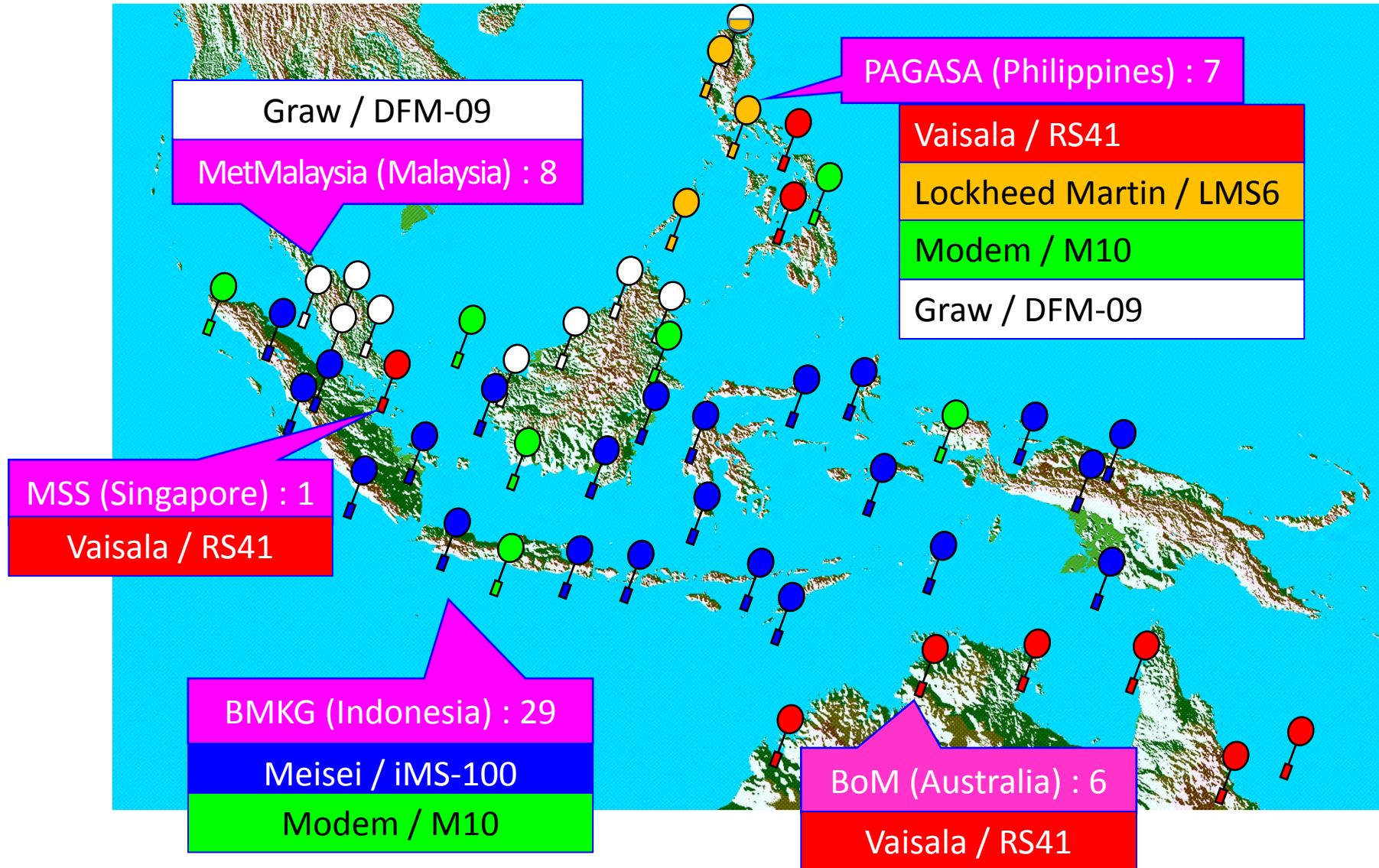
Vaisala / RS41





# "Accuracy" : Data Correction

Operational Radiosonde Observations by the MC Meteorological Agencies



# Intercomparison (Meisei vs. Vaisala) at BMKG Bengkulu Station

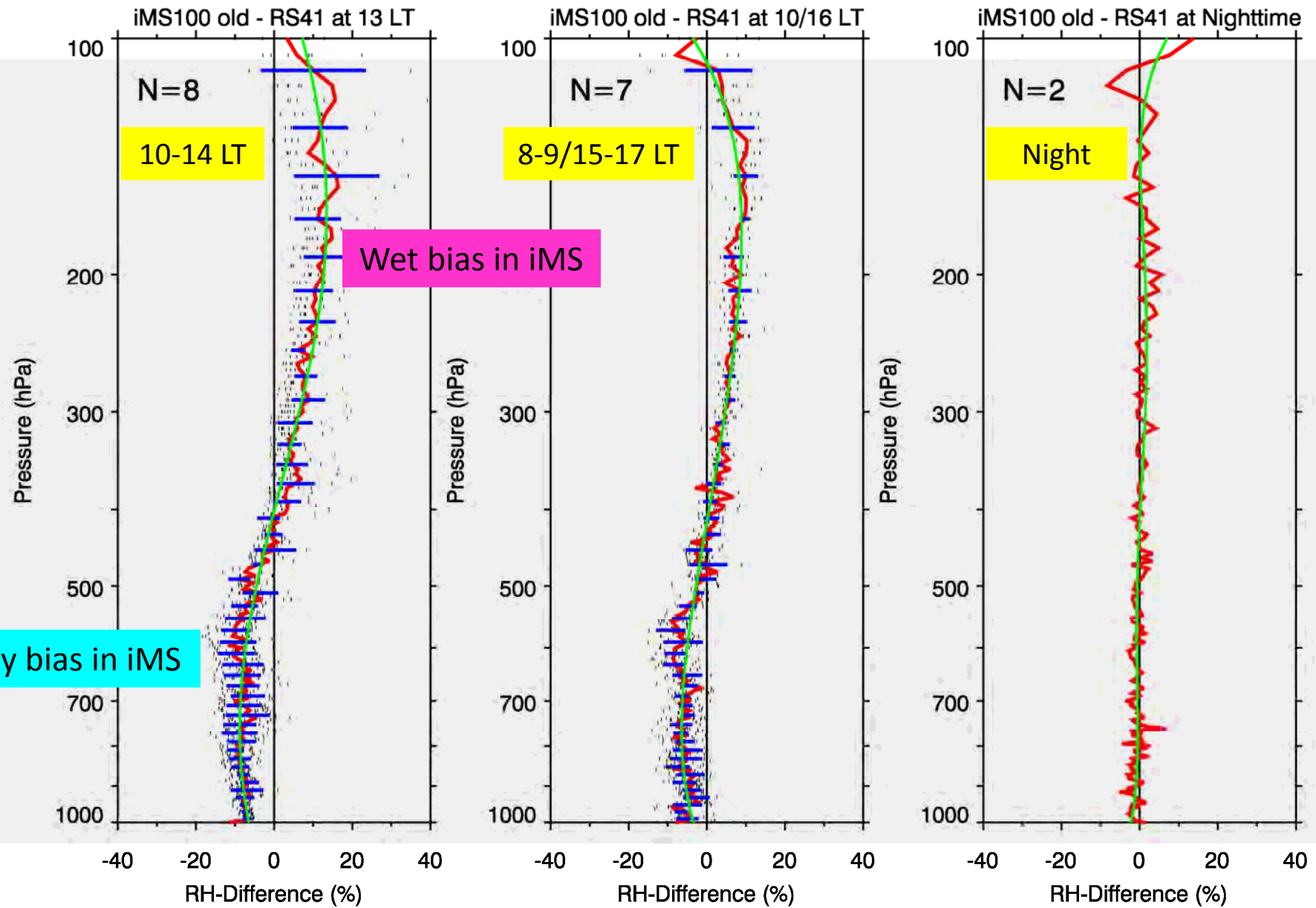


Inter-comparison: ~~18~~ 17 times (15 daytime, ~~3~~ 2 nights)

- 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

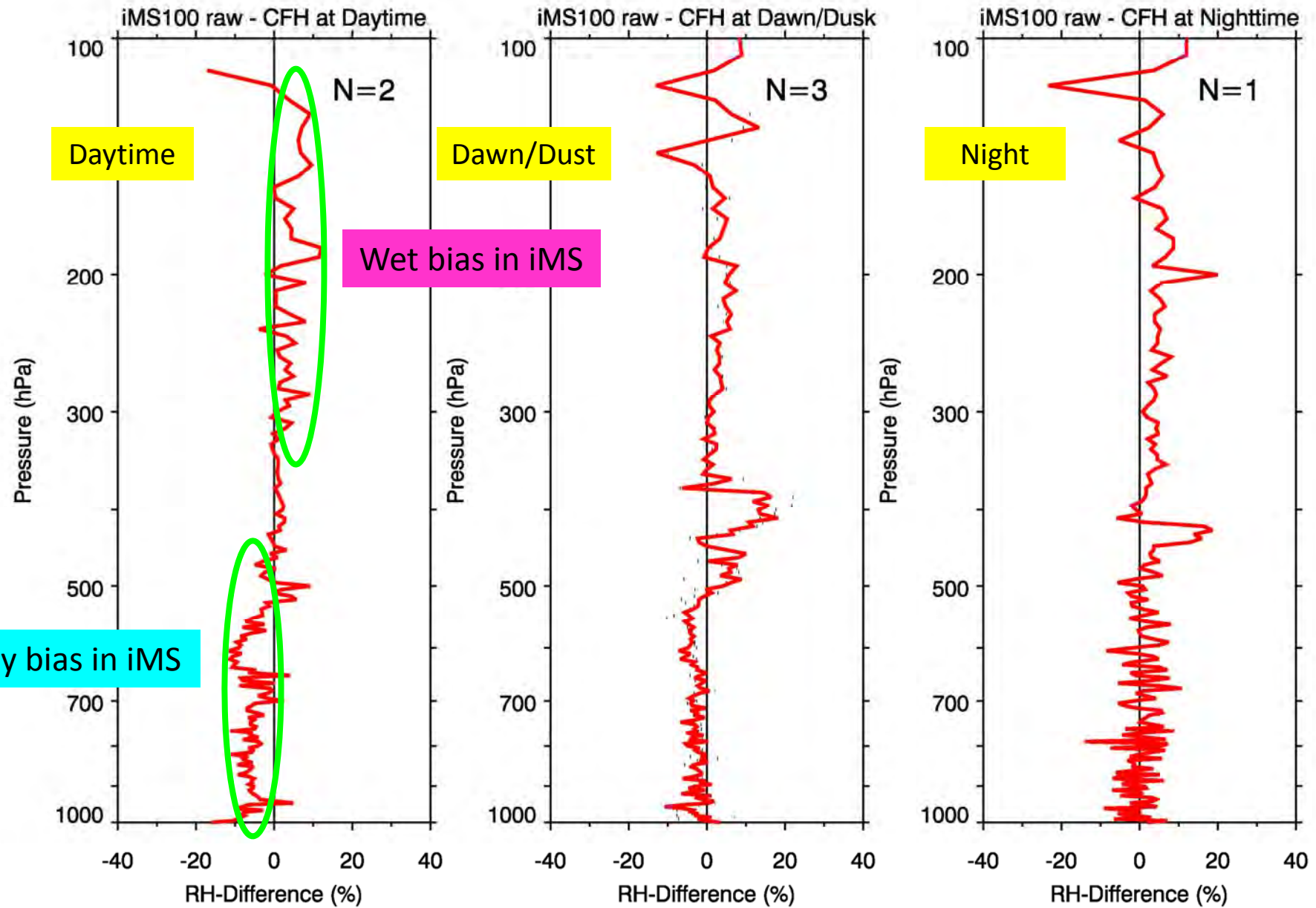


# Intercomparison (Meisei iMS100 vs. Vaisala RS41) - RH

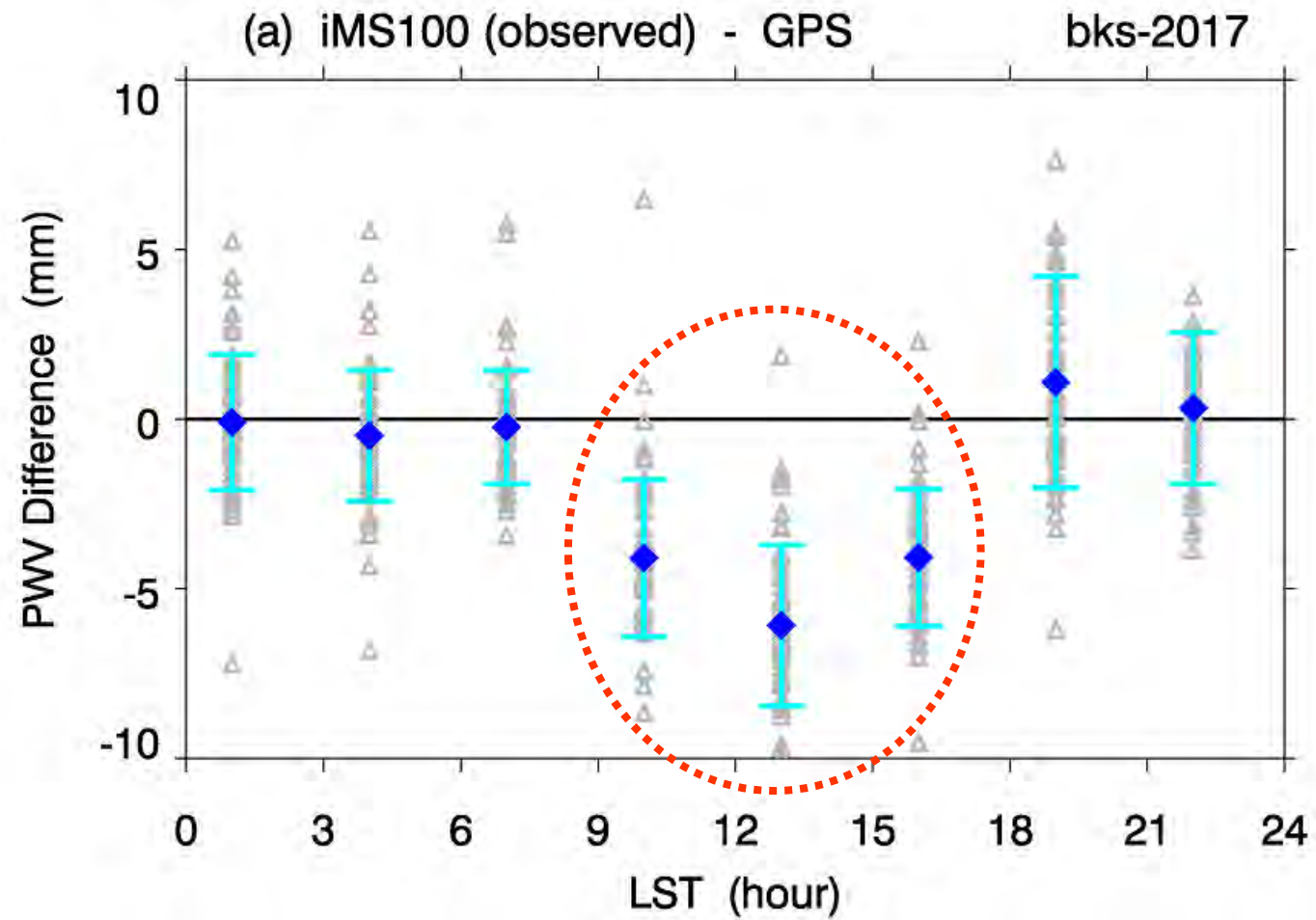




# Intercomparison (Meisei iMS100 vs. CFH) - RH

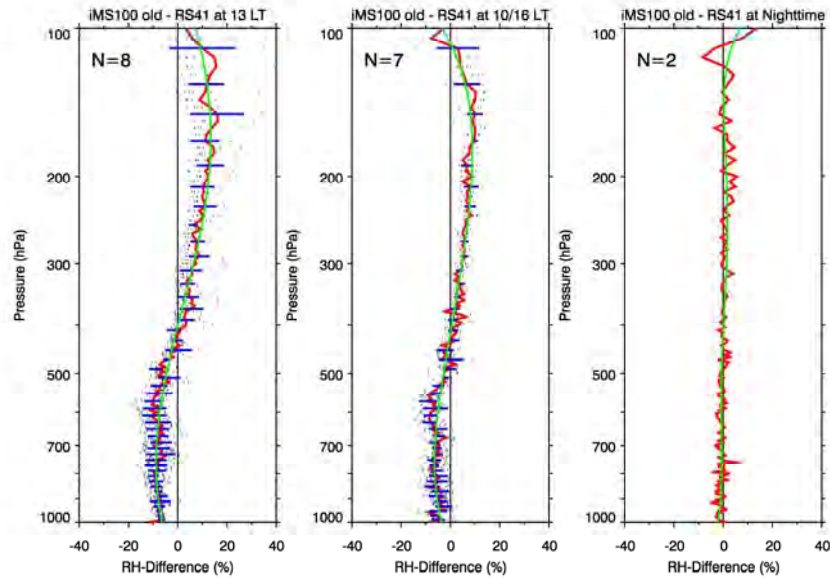


# Intercomparison (Meisei iMS100 vs. GPS-derived) - PWV



# Data Correction by Cumulative Distribution Function (CDF) Matching

## Vaisala RS41 vs Meisei iMS100

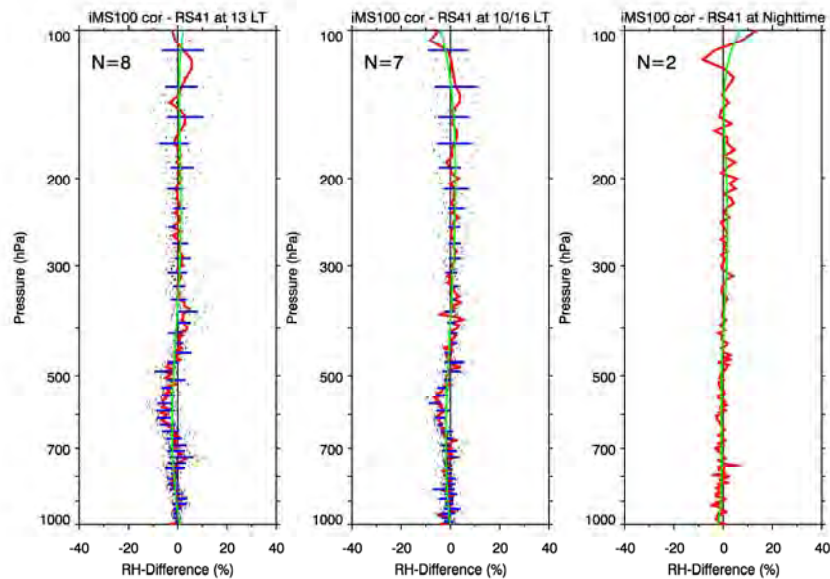


Daytime

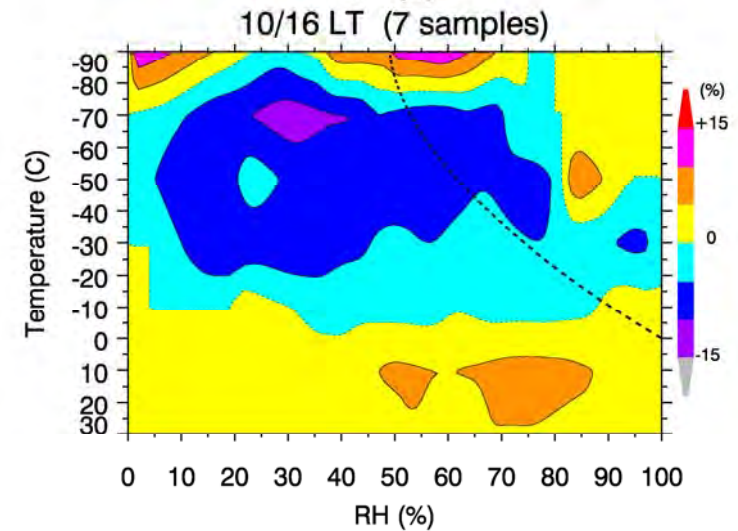
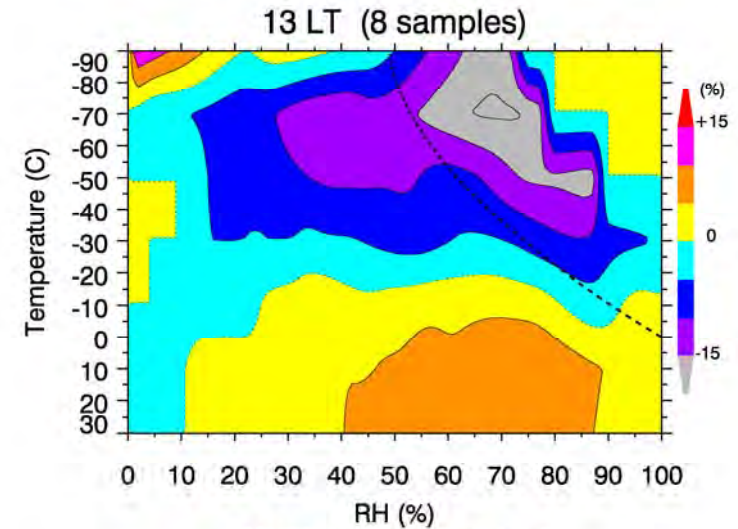
10/16 LT

Night

Before



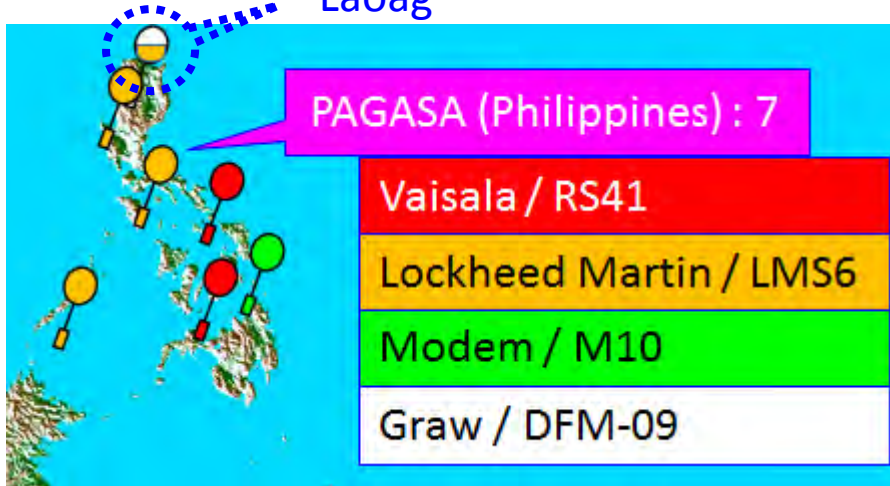
After





# Intercomparison at Laoag during YMC-BSM 2018

Laoag



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.

0730 LT - 1 time  
1030 LT - 7 times  
1330 LT - 6 times  
1630 LT - 5 times  
1930 LT - 1 time

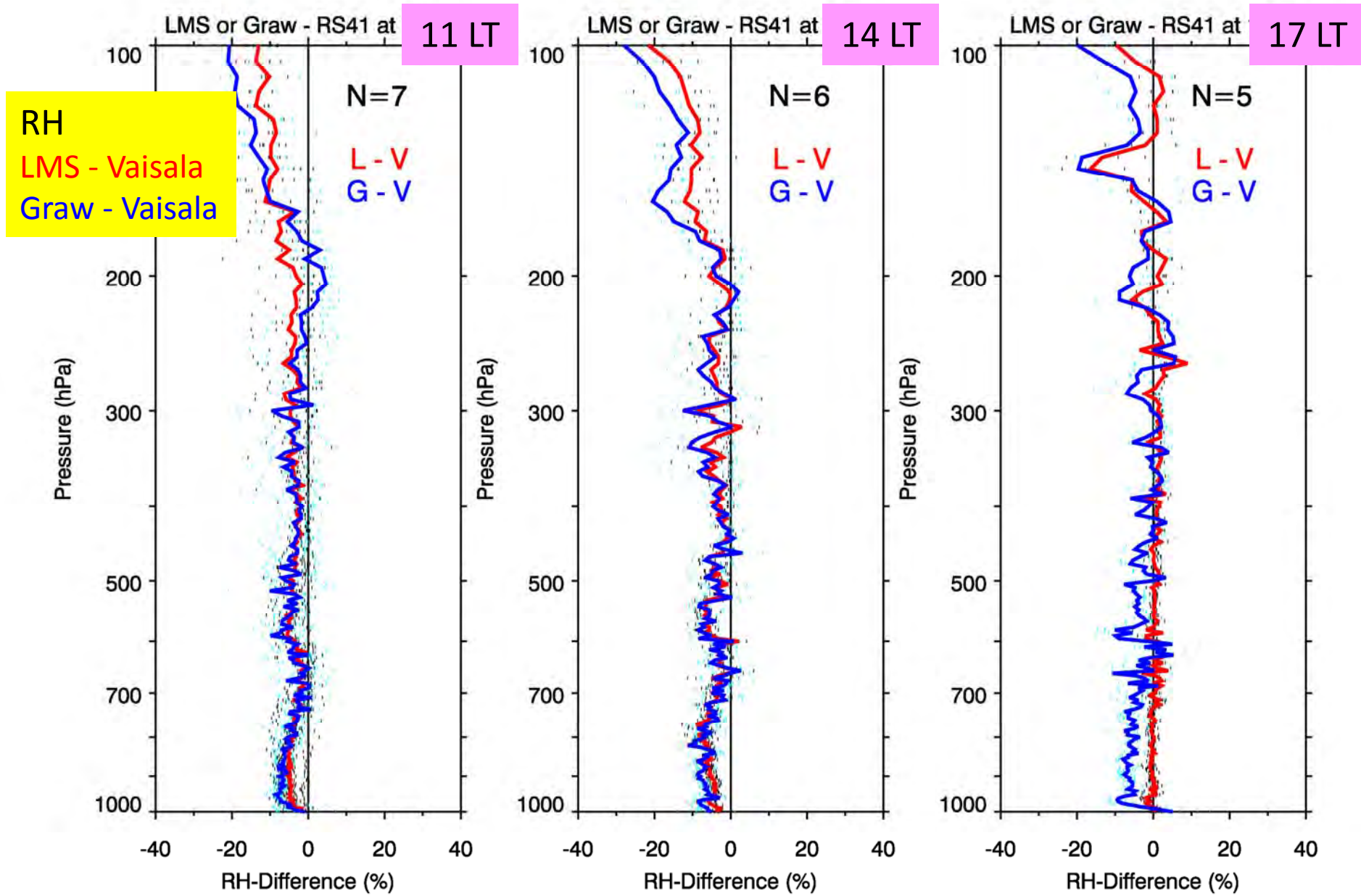


Method:

- 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)

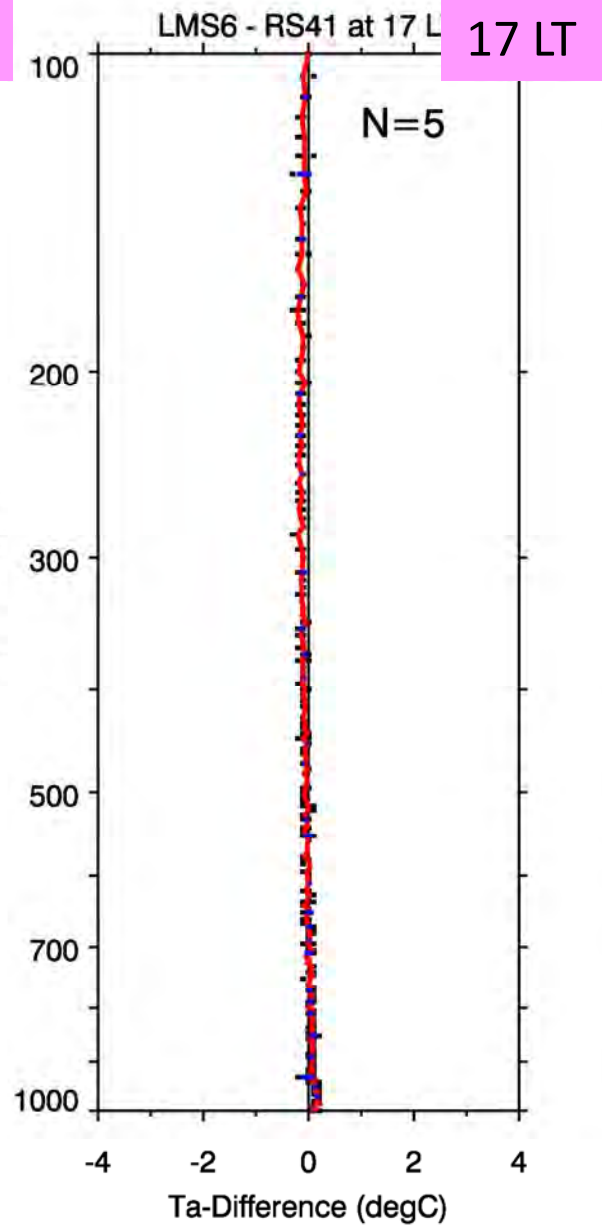
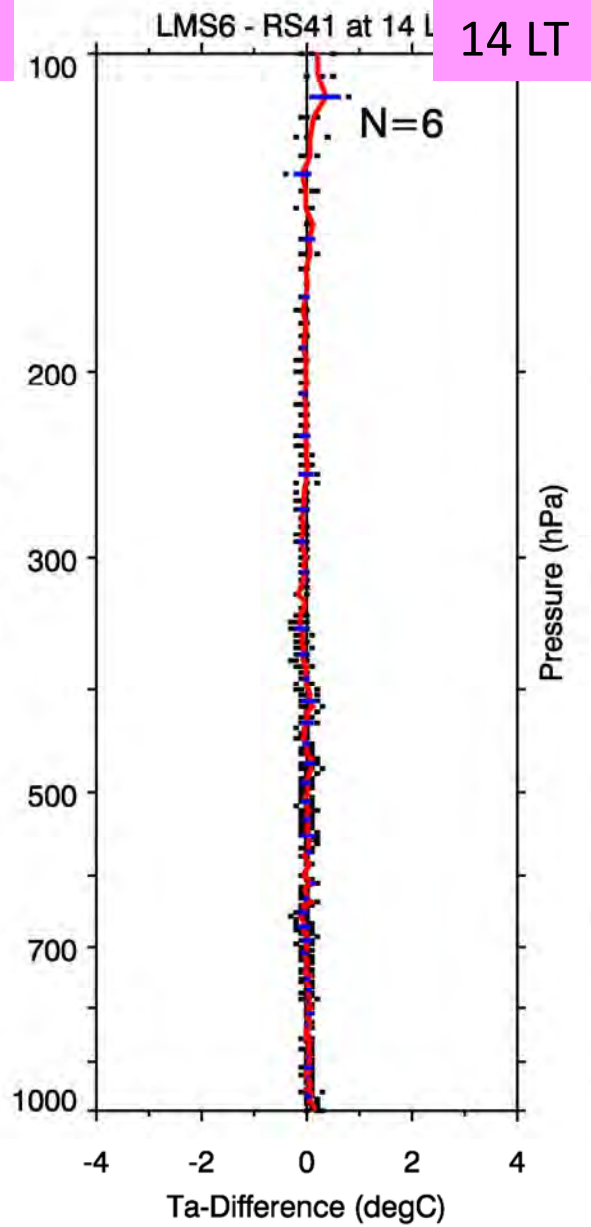
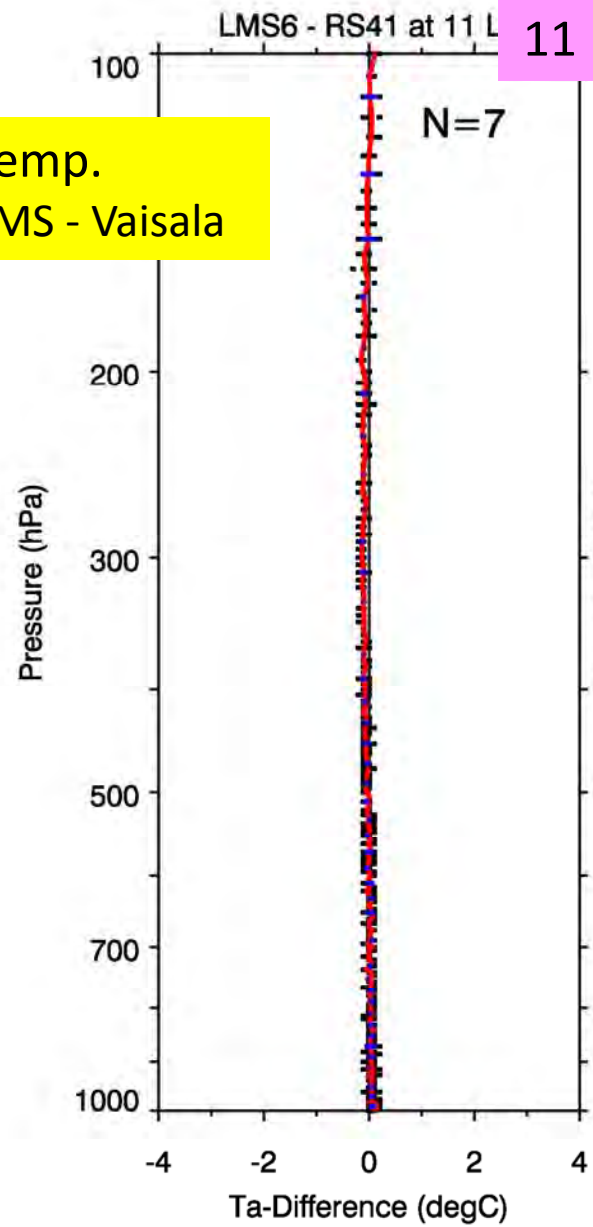


# Radiosonde Intercomparison at Laoag



# Radiosonde Intercomparison at Laoag

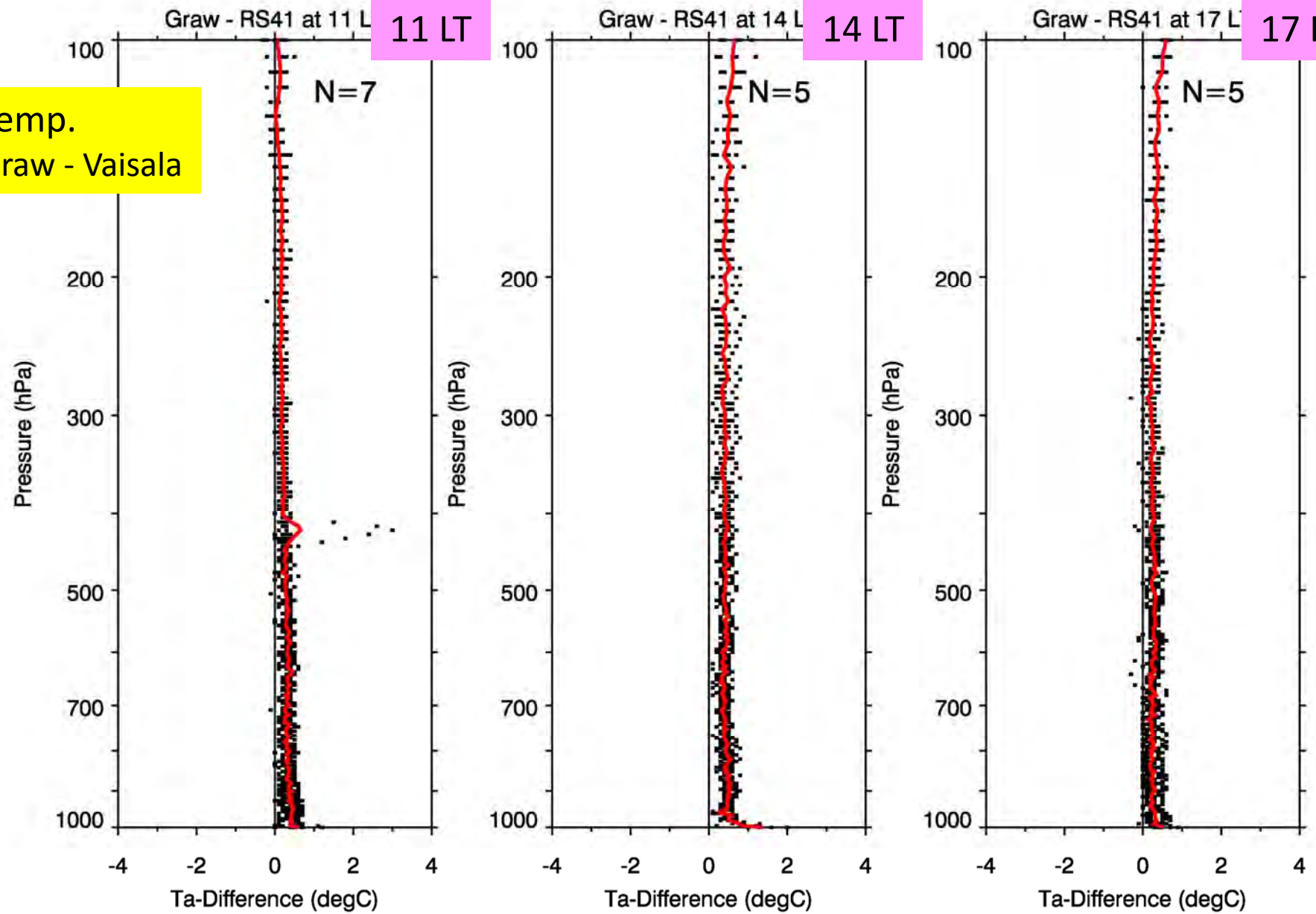
Temp.  
LMS - Vaisala



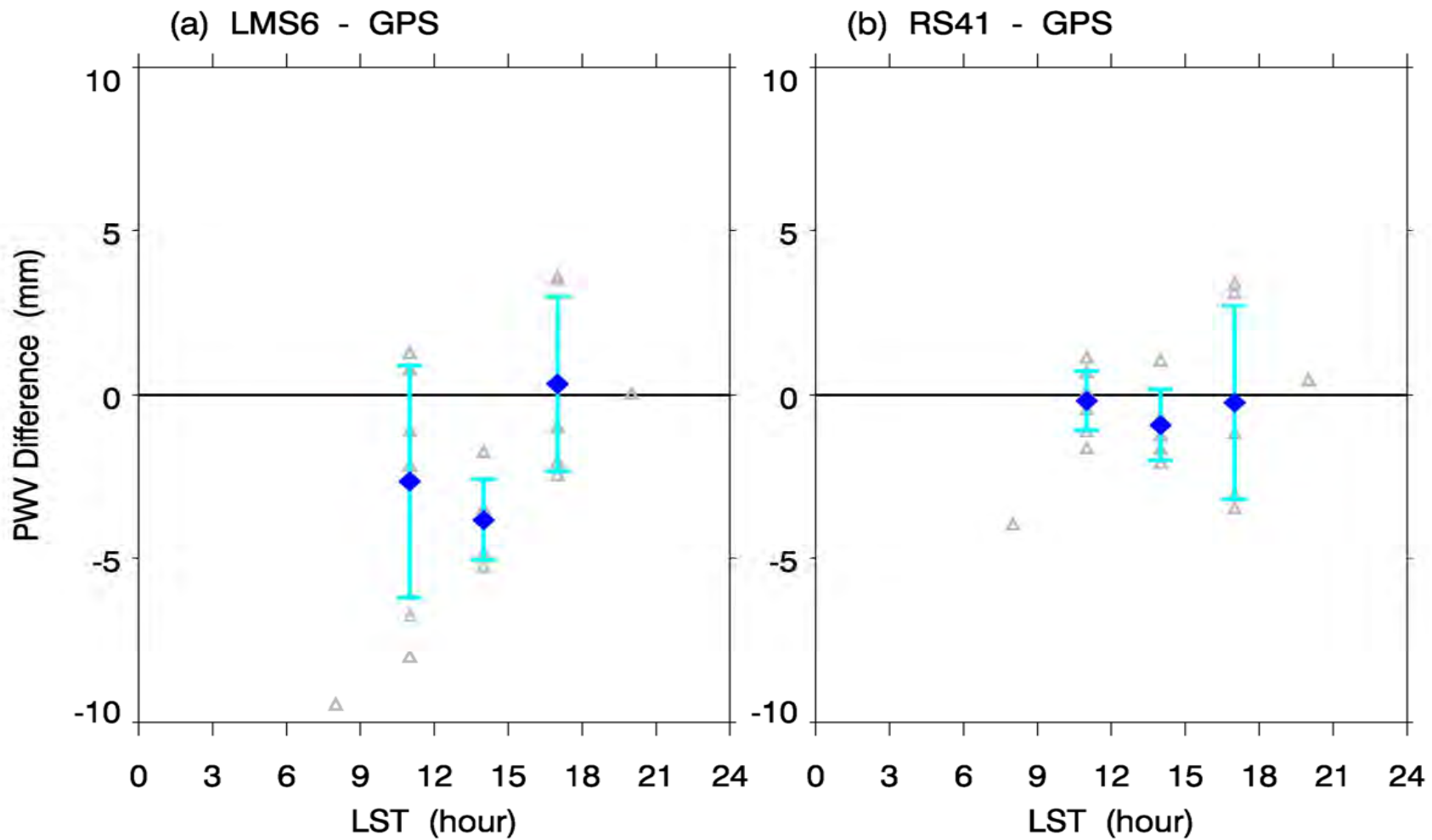


# Radiosonde Intercomparison at Laoag

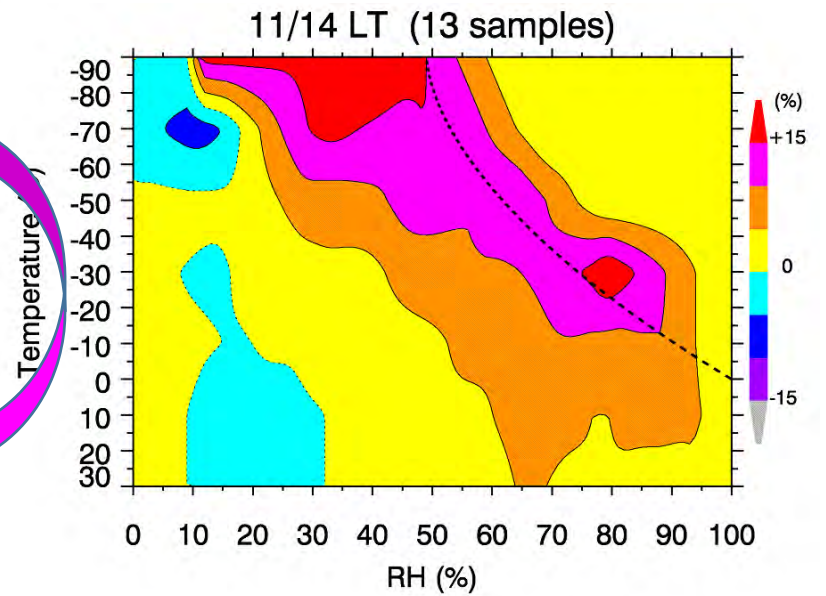
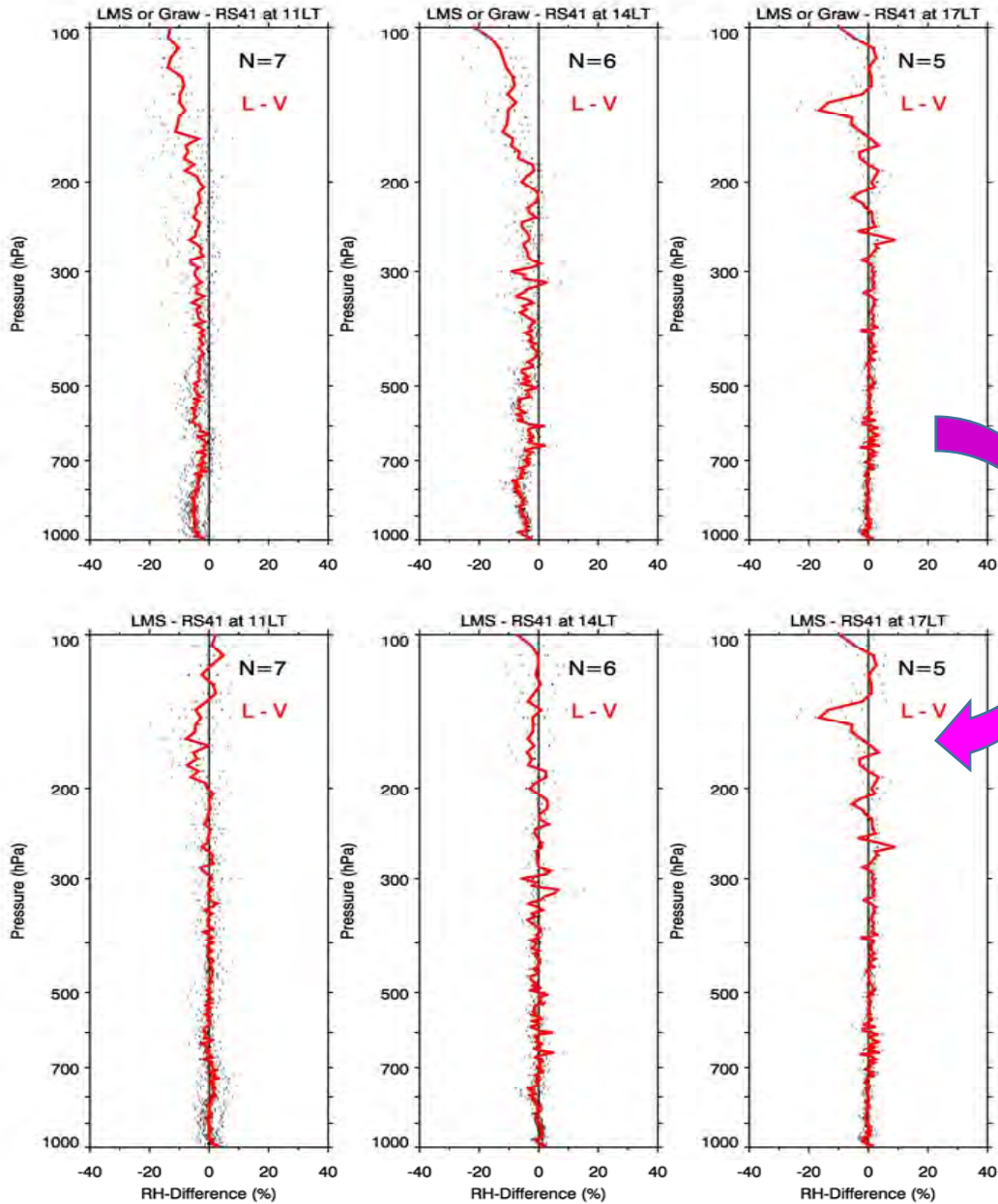
Temp.  
Graw - Vaisala



# Intercomparison of PWV between Sondes and GPS-derived



# CDF Matching for LMS6 RH Data



## Summary & Discussion

- 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 ?