Australian Government
Bureau of Meteorology

A Review of the Australian VLab Centre of Excellence National Himawari-8 Training Campaign

AOMSUC-6 Conference Session

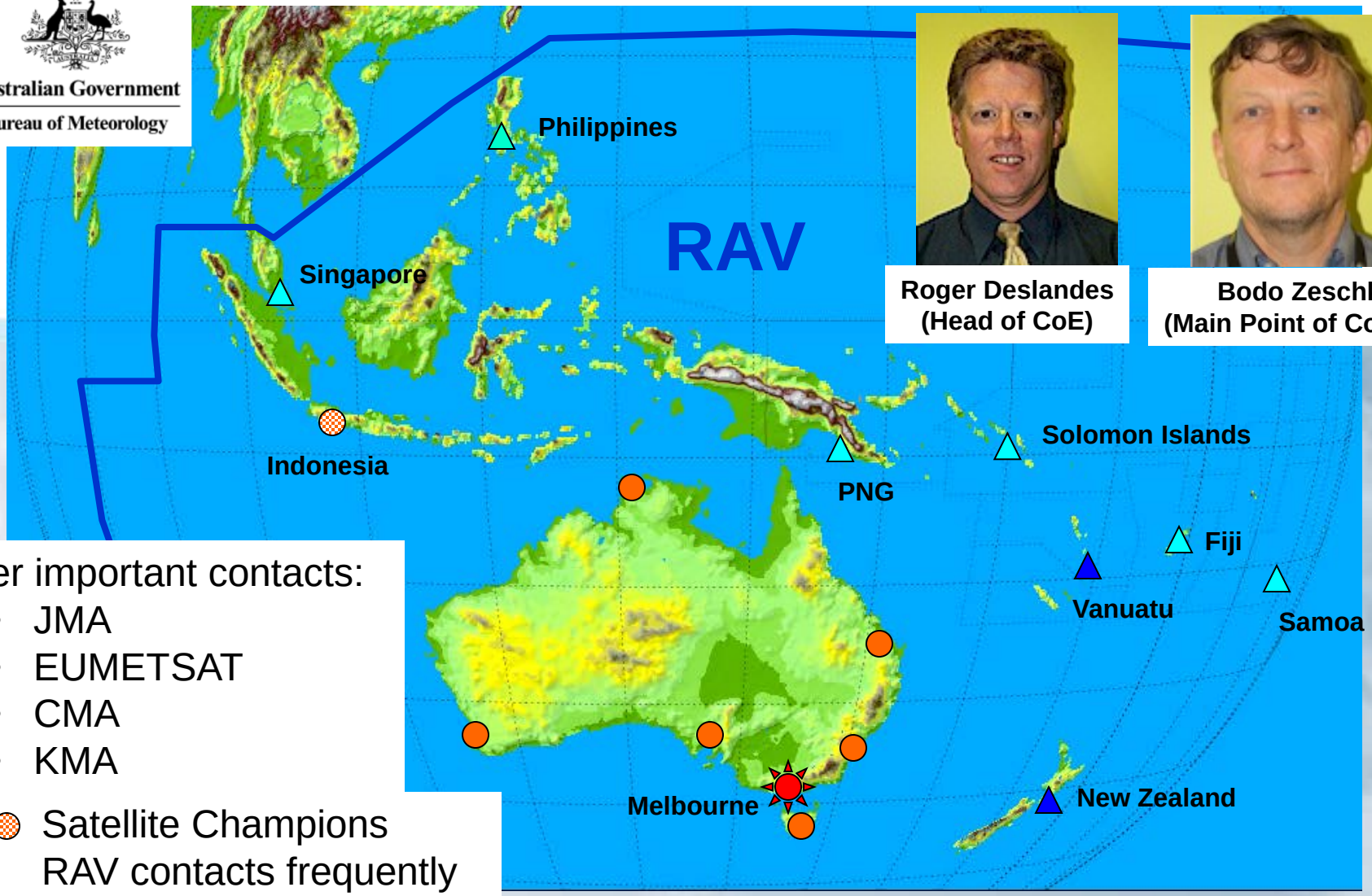
Bodo Zeschke
Australian Bureau of Meteorology Training Centre
Australian VLab Centre of Excellence

Content

- The National Himawari-8 Training Campaign, including mapping the activities to WMO-1083 capabilities and the BMTC/EUMETSAT Satellite Enabling Skills.
- How existing satellite resources were utilised to simulate Himawari-8 data before July 2015.
- Collaboration with and gaining stakeholder engagement
- The training within the context of the WMO Global Campus concept.
- A summary of the achievements of the Campaign to date, and plans for the future.

Australian VLab Centre of Excellence and RAV contacts (from September 2013)

Australian Government
Bureau of Meteorology



Roger Deslandes
(Head of CoE)

Bodo Zeschke
(Main Point of Contact)

Other important contacts:

- JMA
- EUMETSAT
- CMA
- KMA

Satellite Champions

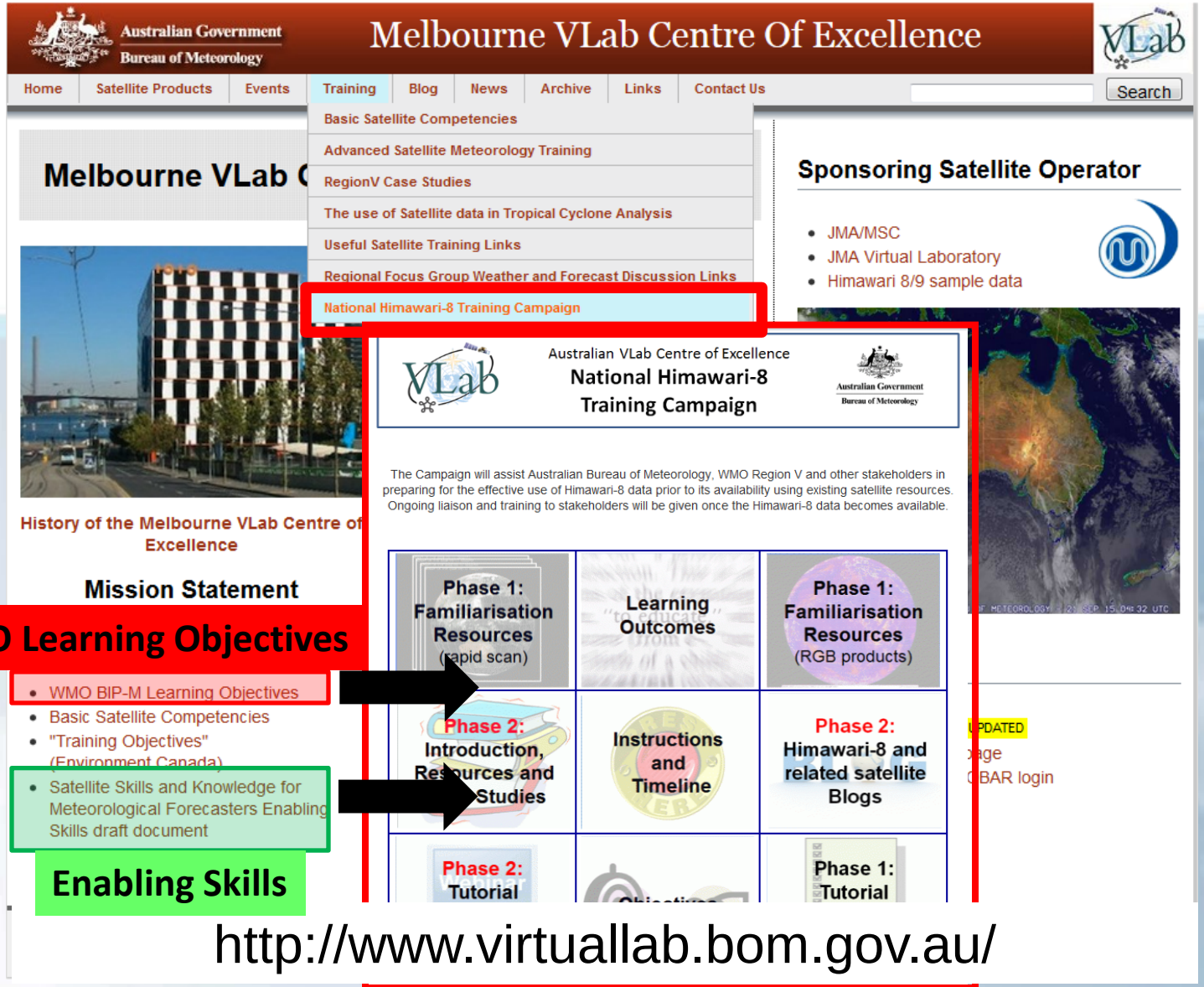
RAV contacts frequently attending our training

Other RAV contacts

Integrating WMO-1083 Capabilities and EUMETSAT/BMTC Enabling Skills into the training

http://www.virtuallab.bom.gov.au/

Integrating WMO-1083 Capabilities and EUMETSAT/BMTC Enabling Skills into the training

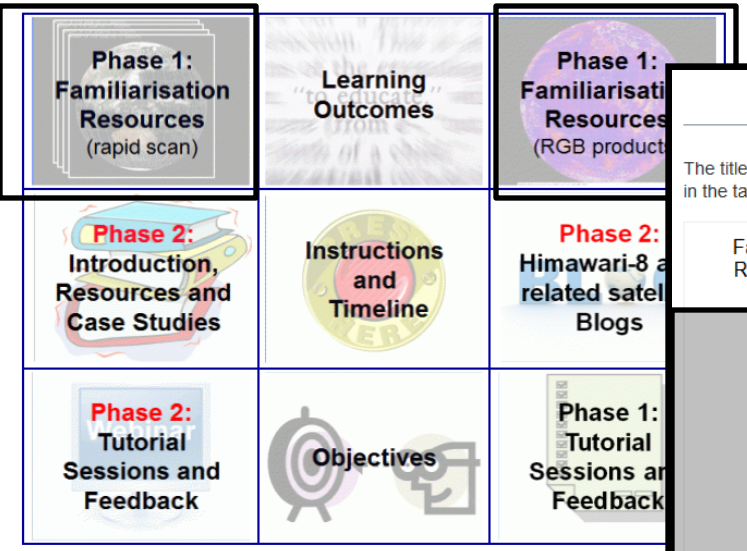


http://www.virtuallab.bom.gov.au/

Australian VLab Centre of Excellence
National Himawari-8 Training Campaign

Australian Government
Bureau of Meteorology

The Campaign will assist Australian Bureau of Meteorology, WMO Region V and other stakeholders in preparing for the effective use of Himawari-8 data prior to its availability using existing satellite resources. Ongoing liaison and training to stakeholders will be given once the Himawari-8 data becomes available.



Integrating WMO-1083 Capabilities and EUMETSAT/BMTC Enabling Skills into the training

Topic

Relevant WMO 1083 Capabilities

Relevant EUMETSAT/BOM Enabling Skills

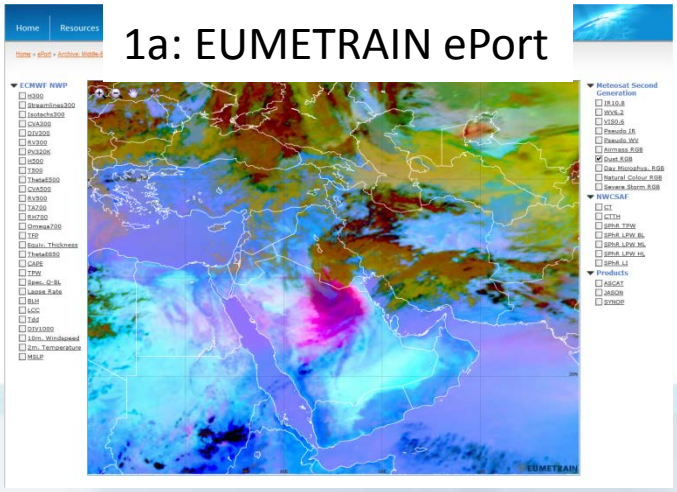
Learning Outcomes

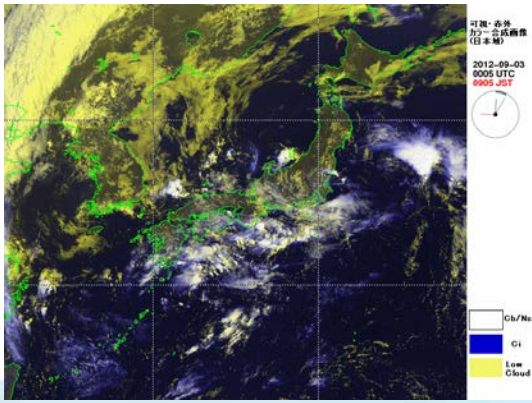
The titles of the Familiarisation Resources are mapped against the underpinning Learning Outcomes, WMO-1083 Capabilities and BOM Enabling Skills in the table below. Components of the WMO-1083 Capabilities and BOM Enabling Skills covered in these Resources are highlighted in bold.

Familiarisation Resource Title	Underpinning Learning Outcomes, WMO-1083 Capabilities and BOM Enabling Skills
Forecaster Feedback on the use of Rapid Scan Data (Part A)	At the end of this exercise you will: • Have a better knowledge how 10 minute rapid scan data is an advantage to the Operational Forecaster in monitoring and nowcasting and short term forecasting of tropical cyclone development, thunderstorm development and volcanic ash eruptions WMO 1083 2.3.3 – **Monitor and observe the weather situation, and use real-time or historic data, including satellite** and radar **data, to prepare analyses** and **basic forecasts**; WMO 1083 2.3.3.4 – **Interpreting satellite imagery: Interpret satellite images, including use of** common wavelengths (**infrared, visible**, water vapour and near infrared) **and enhancements and animated imagery, to identify cloud types and patterns, synoptic and mesoscale systems**, **and** special features (fog, sand, **volcanic ash**, dust, fires, etc.); WMO 1083 2.3.3.2 – **Tropical cyclones**: **Apply** physical and **dynamical reasoning to explain** the structure and **characteristics of tropical cyclones**, the main dynamical processes involved in their development, **and the techniques used to forecast the development and evolution of tropical storms;** WMO 1083 2.3.3.3 – Convective systems: **Apply** physical and **dynamical reasoning to explain the** structure and **formation of isolated convective systems such as thunderstorms** and convective storms (including single cell, multicell and supercell storms); Enabling Skills Document Element 2, Performance Component 2 - **Identify Cumulonimbus clouds**, their intensity **and their stage of development.** Enabling Skills Document Element 3, Performance Component 2 - Anticyclones and cyclones (including rapid cyclogenesis**),** including **tropical cyclones** and depressions, extratropical and polar lows and cyclones, at upper and lower levels Enabling Skills Document Element 3, Performance Component 3 - **Convective cells and cloud systems** (including pulse convection, multicells, supercells, squall lines, mesoscale convective complexes and systems) and associated mesoscale features **including** outflow boundaries and **storm top features**. Mesoscale boundaries **and** interactions, **dry lines** Enabling Skills Document Element 4, Skills, **Performance component pertaining to "Volcanic Ash particulates"**

How existing satellite resources were utilised to simulate Himawari-8 data prior to the availability of this data.

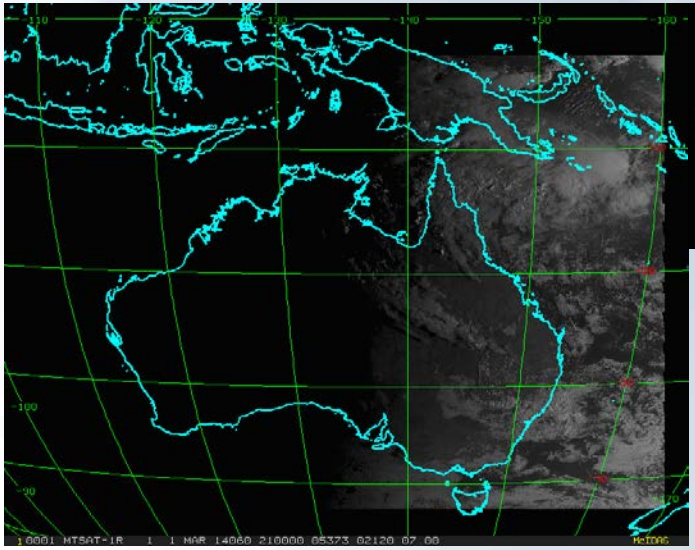
1a: EUMETRAIN ePort

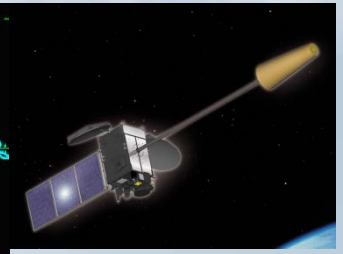




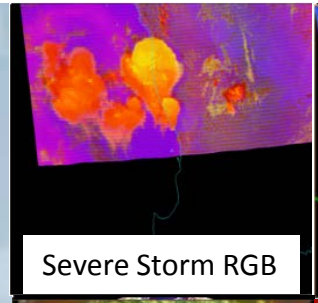
1b: DVD's of case studies from JMA

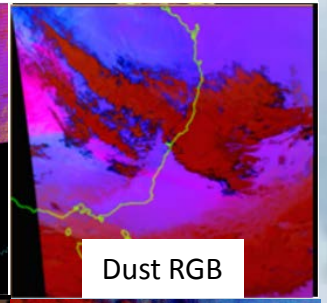
2a: MTSAT-1R Rapid Scan (HIWC Experiment)

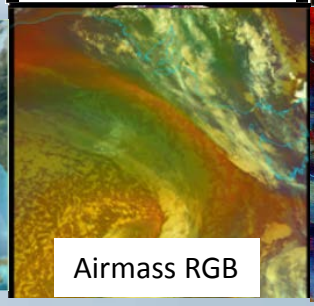


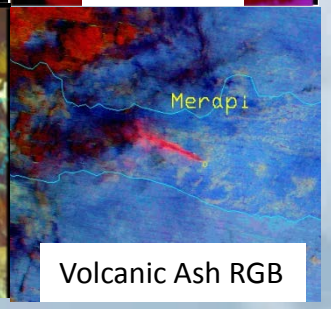


2b: RGB products from MODIS data

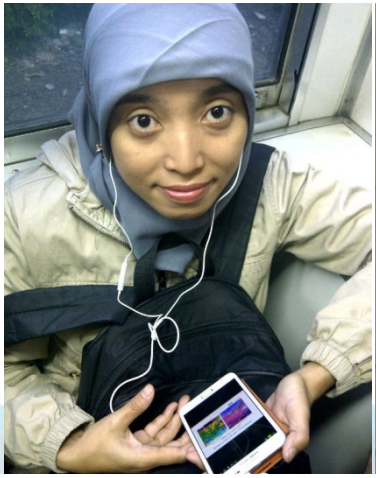




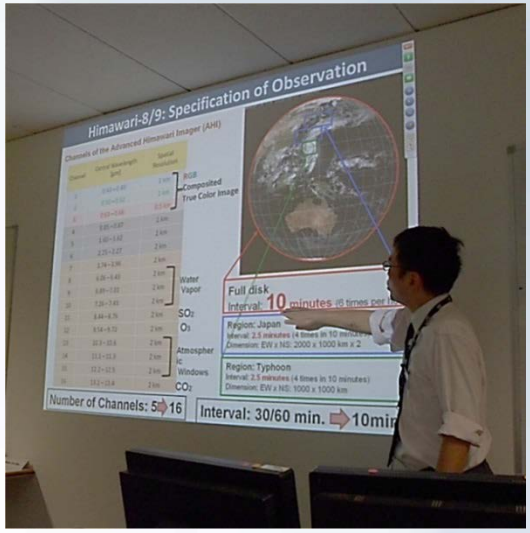




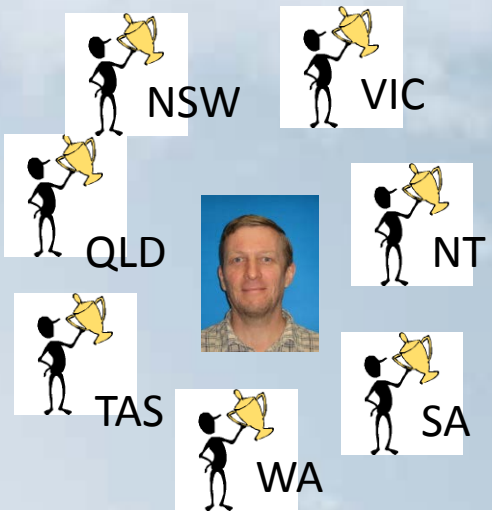
Collaboration with and gaining stakeholder engagement (prior to the availability of the Himawari-8 data)



1: Classroom and remote training (AFC, AOMSUC-4, RFG meetings)



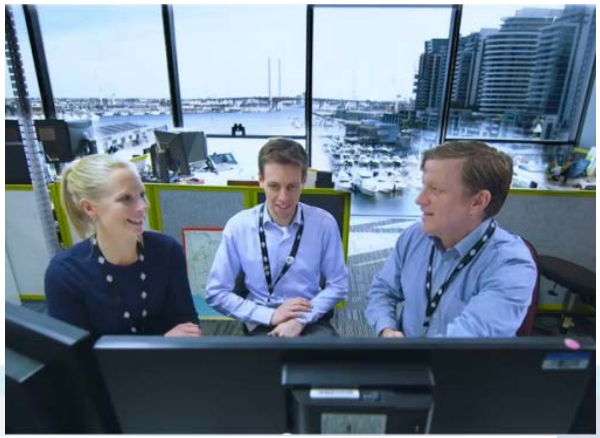
2: Guest Experts



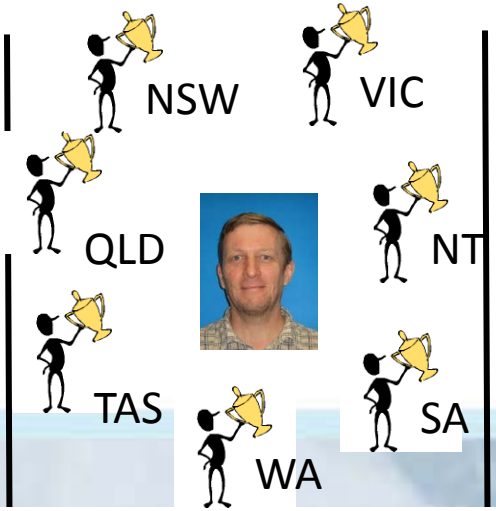
3: Communication with Champions/stakeholders

4: Presentations by stakeholders

Collaboration with and gaining stakeholder engagement (after Himawari-8 data has become available)



2: Talking to Forecasters



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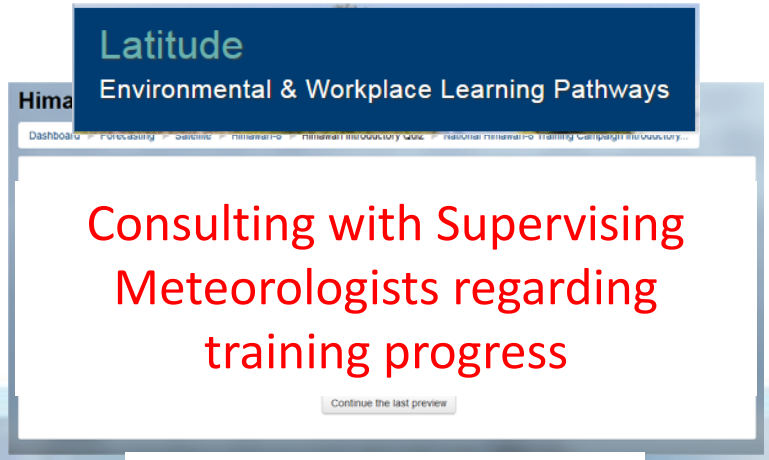
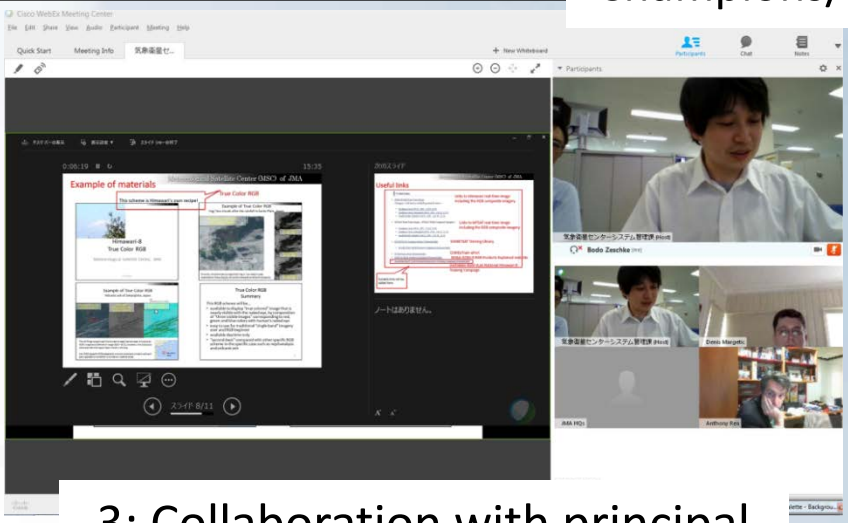
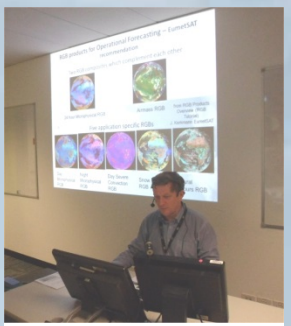


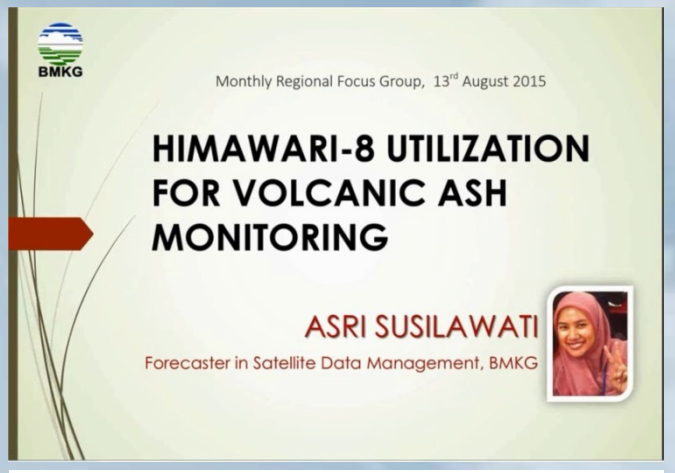
6: Internal Bureau Quiz



3: Collaboration with principal Satellite Operator (JMA)



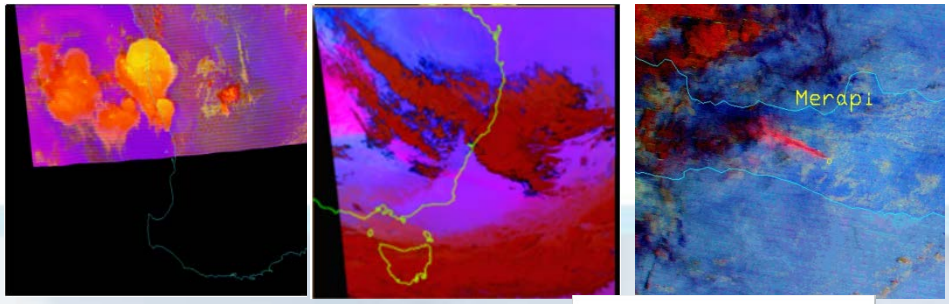
4: Ongoing Tutorial Sessions



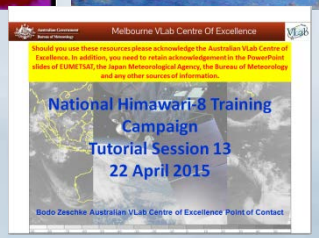
5: Himawari-8 presentations by stakeholders

Sourcing, utilising, compiling and disseminating satellite meteorology training resources to stakeholders within the context of the WMO Global Campus concept

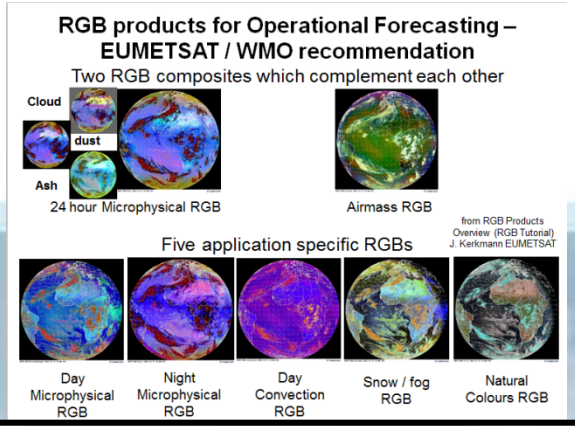
2: Training on RGB products with special emphasis on RAV



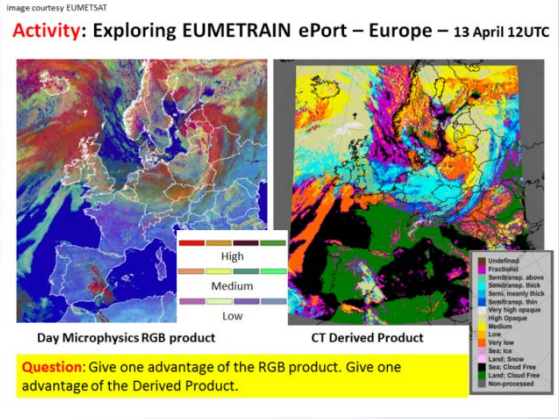
Sharing resources

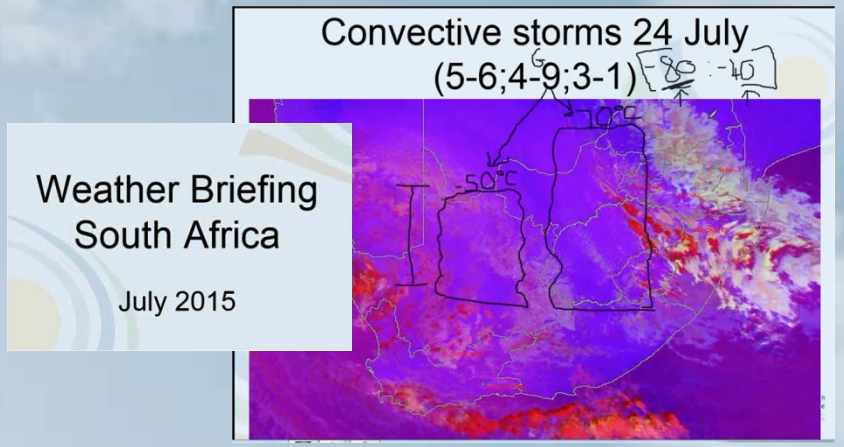


1: Ideas – common standards and products



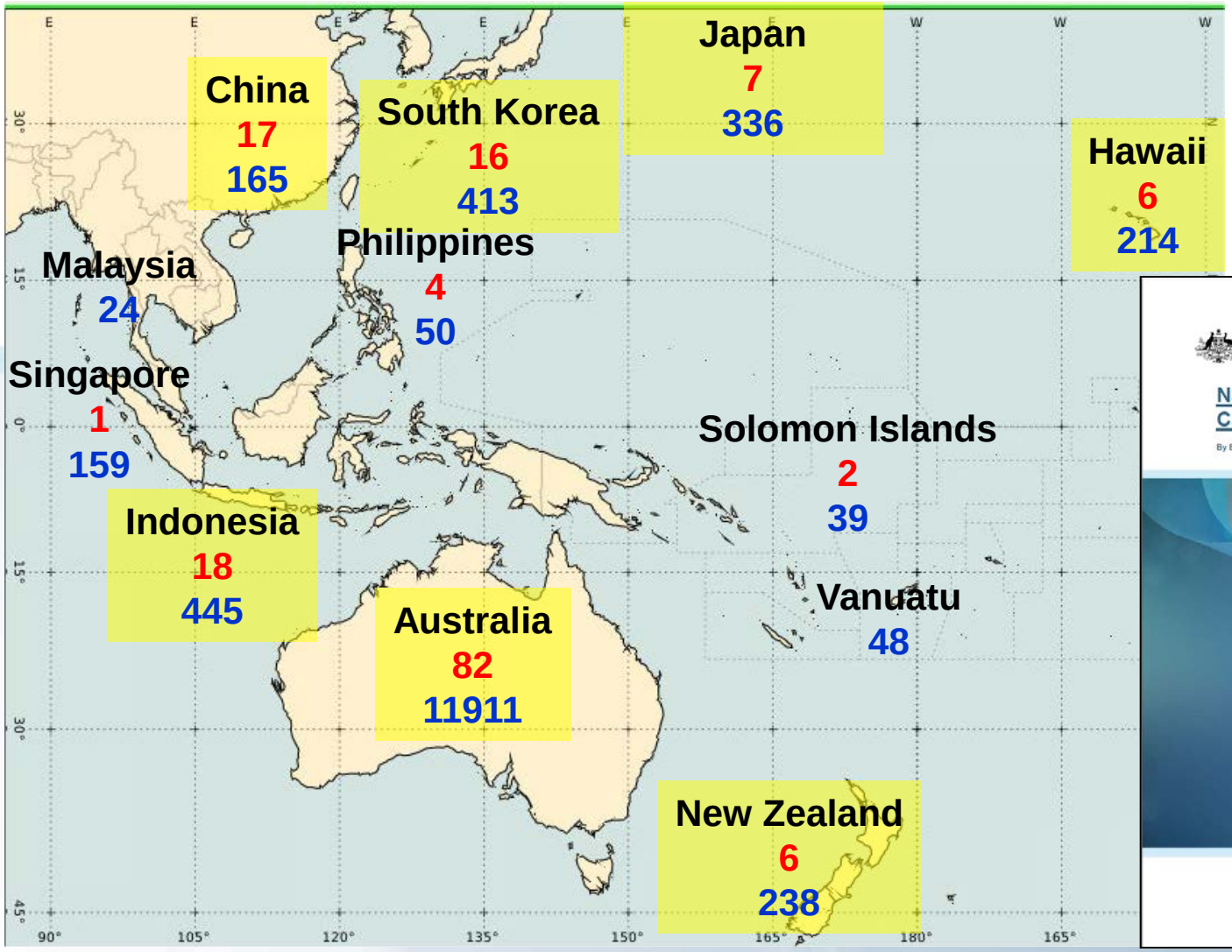
3: Leveraging off EUMETSAT

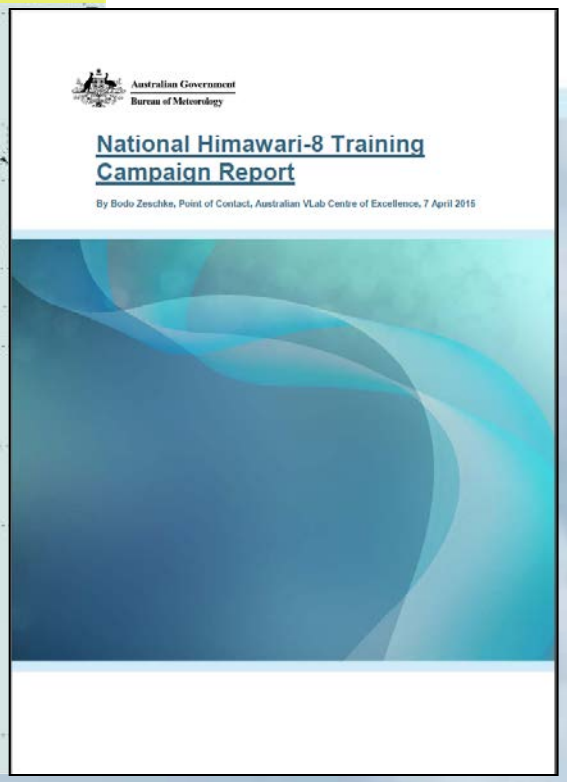




4: CoE's participating in each others training sessions

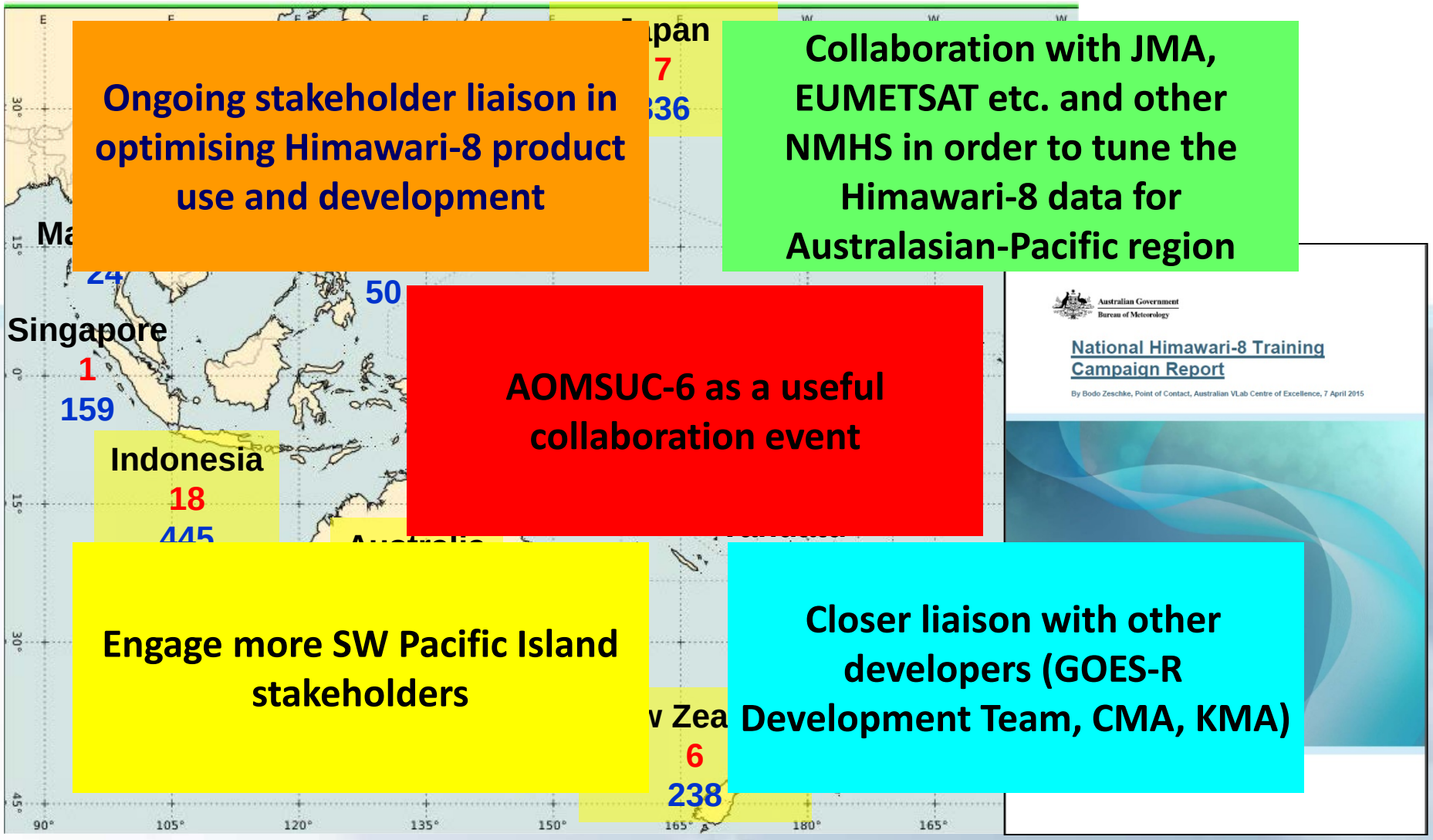
A summary of the achievements of the Campaign to date, and plans for the future. (January to 27th October 2015 – Google Analytics)





- Attendees to the 15 Tutorial Sessions
- Hits on the National Himawari-8 Training Campaign web page

A summary of the achievements of the Campaign to date, and plans for the future. (January to 27th October 2015 – Google Analytics)



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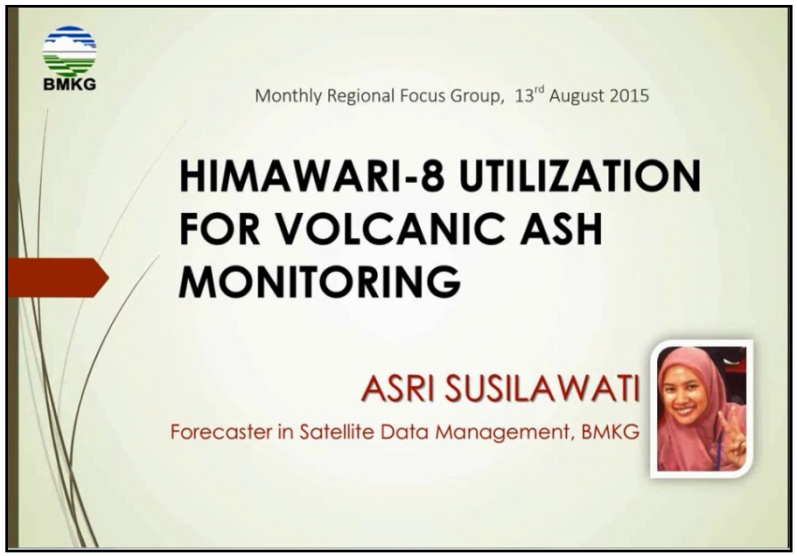
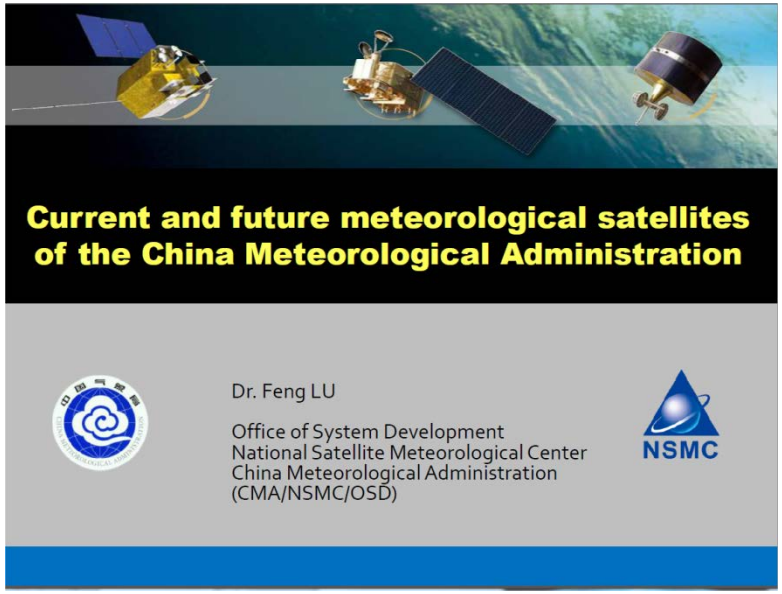
- Hits on the National Himawari-8 Training Campaign web page


Introduction of the HimawariCast service
Japan Meteorological Agency


BMKG
Monthly Regional Focus Group, 13rd August 2015
HIMAWARI-8 UTILIZATION FOR VOLCANIC ASH MONITORING
ASRI SUSILAWATI
Forecaster in Satellite Data Management, BMKG

Thank you…


Current and future meteorological satellites of the China Meteorological Administration
Dr. Feng LU
Office of System Development
National Satellite Meteorological Center
China Meteorological Administration
(CMA/NSMC/OSD)
NSMC


Regional Training Workshop on Preparation for Advanced Meteorological Imagers (2012. 10. 7)
Current and future satellite mission, related products, and user support
Dohyeong Kim
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