

# **Joint RA II/V Workshop on WIGOS for DRR**

**- The Jakarta Declaration -  
(12-14 October, Jakarta, Indonesia)**

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- Enhancement of Member's capabilities for weather forecasts and warnings
  - through the improvement of data sharing and data integration across the Southeast Asia region - WIGOS implementation activities in RA II and RA V.
- Focus on the observing systems that produce data and products most relevant for emergency management
  - such as surface-based remote sensing (Weather Radars, Lightning Detection systems), and integrated satellite systems, considering the data sparse areas of both Regions.

- Create synergies to improve data **availability**, geographic **coverage**, **timeliness** and **quality** of observations in the region
  - primarily those relevant for weather watch and nowcasting activities
- Identify the issues/challenges, as well as the solutions for the effective interoperability of Member's observing systems that enable real-time exchange of meteorological data and products, in the Southeast Asia and surrounding areas.
- Collaboration with and integration of non-NMHSs data sources, for the use and benefit of weather related emergency activities of Members in that sub-region.

# Program of the workshop

## 12 October 2015 (Day 1)

- Opening and Organization of the workshop
- Country reports
  - 14 presentations: Australia, Bangladesh, Brunei Darusallam, Hong Kong, Indonesia, Japan, Korea, Lao, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam
- OSCAR/Surface
  - OSCAR tool (Observing Systems Capability Analysis and Review)

## 13 October 2015 (Day 2)

- Invited Speakers
  - Address the interoperability of observing systems for the real-time exchange of meteorological data and products :
    - Weather forecasts and warnings
    - **Weather radars**
    - **Meteorological satellites** (*three presentations: from CMA, JMA, KMA*)
    - Lightning detection systems
    - Others: GNSS, “rainfall from cell towers”

## **13 October 2015 (Day 2-3)**

- Review, Discussion and Refinement of Common Projects
  - The analysis of gaps and issues in both RAs, and how joint WIGOS projects and agreements for RA II and RA V can enhance relevant data and products for DRR
  - Two sub-sessions:
    - Radars data, to be chaired by Mr. Y.Tanaka
    - Satellites data, to be chaired by Mr. D.Kim
- Conclusions and Recommendations
  - The joint RA II/RA V projects should include specific tasks, timeline/milestones and people involved (members and leaders)
  - Two sub-sessions: radars data, and satellites data,
- Closure of the Workshop

- Overall goal of project
  - All Members in the target region to receive and be able to interpret and use geostationary satellite data as full spatial, spectral and temporal resolution subsets for their national region of interest, including the ability to generate key products
  - To develop a protocol for countries in target area to request and receive and ingest event-driven rapid-scan geostationary satellite data in support of Disaster Risk Reduction



- Purpose of project
  - To improve the utilization of geostationary satellite data by NMHSs in support of services, particularly for Disaster Risk Reduction
- Deliverables
  - 1) Inventory of national capabilities in terms of (i) data access (CMA, JMA, KMA), (ii) data processing capabilities, and (iii) trained staff in using and interpreting satellite data and products
  - 2) Documented requirements for products relevant for DRR (e.g. convective systems, tropical cyclones, and volcanic ash)
  - 3) Adequate capacity in all Members to meet requirements listed under 2)
  - 4) Protocol for NMHS requests to satellite operators for event-driven rapid scan data covering national areas of interest for DRR

- Purpose of project
  - Improvement of data quality of existing radars;
  - Development and expansion of national radar network
  - International exchange of radar data in near real time
- Deliverables
  - Reports of analysis of the surveys results
  - Demonstration project of real time data exchange (regional mosaic)
  - Capacity development activities between Members of both Regions
  - The reports of the outcomes of the cooperative activities concerning the project among Members



- Partners:
  - RA II EG-WIGOS theme leaders for surface-based remote sensing for DRR; Leaders of Project III-2 (Malaysia and Thailand);
  - RA V WG-INFR and TT-WIGOS
  - ASEAN Sub-Committee on Meteorology and Geophysics (SCMG)
  - ESCAP/WMO Typhoon Committee
  
- Supporting partners:
  - CBS ET-SBO
  - CIMO ET on Operational Remote Sensing
  - RA II EG-WIS and its counterpart of RA V

- Implementation steps
  - Establishment of the Coordinating Group;
  - Prepare and circulate the surveys (regarding all the metrics).
  - Analyze and publish the survey results;
  - Identify and prioritize the actions according to the result of the surveys considering capacity development aspects of Members, to cope with the needs of national radar networks in terms of improving radar coverage, performances and data quality;
  - The Coordinating Group will draft an implementation plan for the exchange of radar grid data considering possible sub-regional data centers and procedures.
  - The Coordinating Group will also promote exchange of radar grid data between Members.

## Noting,

The unique meteorological and geophysical nature of the Asia/Oceania region defined by the following WMO Region II and V Members: Australia, Bangladesh, Brunei, Cambodia, East Timor, Hong Kong China, Indonesia, Lao PDR, Malaysia, Myanmar, Papua New Guinea, Philippines, Singapore, Thailand, Vietnam, which is characterised by frequent **high-impact phenomena such as tropical cyclones, severe convective weather and volcanic eruptions,**

The need to protect lives and property in this densely populated region, and the central role played by the National Meteorological and Hydrological Services in **Disaster Risk Reduction,**

## Propose,

**To initiate two regional projects** to be developed under the WIGOS umbrella, involving the following Members: Australia, Bangladesh, Brunei, Cambodia, China, East Timor, Hong Kong China, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, Papua New Guinea, Philippines, Republic of Korea, Singapore, Thailand, Vietnam:

- a. A “**Joint RA-II/RA-V WIGOS Satellite Data Project**” aimed at (i) strengthening the capabilities of all Members to use geostationary satellite images and derived products in support of Disaster Risk Reduction as specified in the Annex to this declaration, and (ii) developing a protocol for the NMHSs in the project countries to request event-driven rapid-scan imagery for their respective national areas of interest,
- b. A “**Joint RA-II/RA-V WIGOS Radar Data Project**” aiming at (i) improvement of data quality of existing radars, (ii) development and expansion of national radar networks, (iii) near real time international exchange of radar data, and (iv) development of «sub-regional» radar data centre(s);

## Further propose,

To establish a close coordination between project **a)** and the ongoing “RA II WIGOS Project to Develop Support for NMHSs in Satellite Data, Products and Training”, and with the RA-V Task Team on Satellite Utilization,

To develop project **b)** based on the existing RA-II and RA-V WIGOS Projects via a proposed joint Coordination Group;



# The Jakarta Declaration (summary)

- Recommends:
  - The WMO SG to support the projects with technical assistance within available resources;
  - Satellite operators provide the necessary support via CGMS.
  
- Encourages:
  - Satellite operators of the Rep. of Korea, China and Japan to make digital data at the full resolution available to all Members involved in the project and to support it in any way they can;
  - All participating Members to freely share their radar data products with other project Members, according to the project plan

# Thank you