WORLD METEOROLOGICAL ORGANIZATION

Accomplishments and Current Status of RA II WIGOS Project and the RA V Task Team

(RA II Operating Plan – RA II 17-I-IP-6 Activities 4)

RA II WIGOS Project to Develop Support for NMHSs in Satellite Data, Products and Training

The 4th Joint Meeting of RA II WIGOS Project and RA V TT-SU for RA II and RA V NMHSs
Japan, 18 November 2022
(On-Line Meeting)

Korea Meteorological Administration (KMA)
National Meteorological Satellite Center (NMSC)

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RA II Operating Plan 2021–2024 - Satellite

No.	WMO LTG	Cg /EC	Key Result Areas	Deliverables	KPIs	Related Activities and Timeline
LTG-2/Objective-2.1	LTG-2/Objective-2.1	R51, R52, R53, R54/Cg-18	Improve satellite observations and applications	1. Satellite observations and applications promoted at regional level 2. AOMSUC further promoted 3. VLab Strategy 2020-2024 implemented by hosting VLab activities 4. SWCEM implemented in East Asia 5. Assists NMHSs in RAII to make better use of satellite-related information	1. Number of Members accessing adequate satellite data 2. Number of training events 3. Number of available VLab training materials 4. Number of satellite services supporting Members	1. AOMSUC-11 hosted by China in October2021 (Virtual), together with a VLab training, and a RAII/V coordination meeting(Completed) 2. AOMSUC-12 in 2022 hosted by Japan together with a VLab training, and a RA II/V coordination meeting 3. SG-SWCEM-EAWP annual meetings (2022-2024) 4. RAII WIGOS Project –Develop Support for NMHSs in Satellite Data, Products and Training - Next Phase 5. Training course on satellite meteorology (RTC-Beijing) (2021-2024) (Partially Completed for 2021)

History of Project

Pilot Project to Develop Support for NMHSs in Satellite Data, Products and Training (Adopted at RA II-14, 2008)

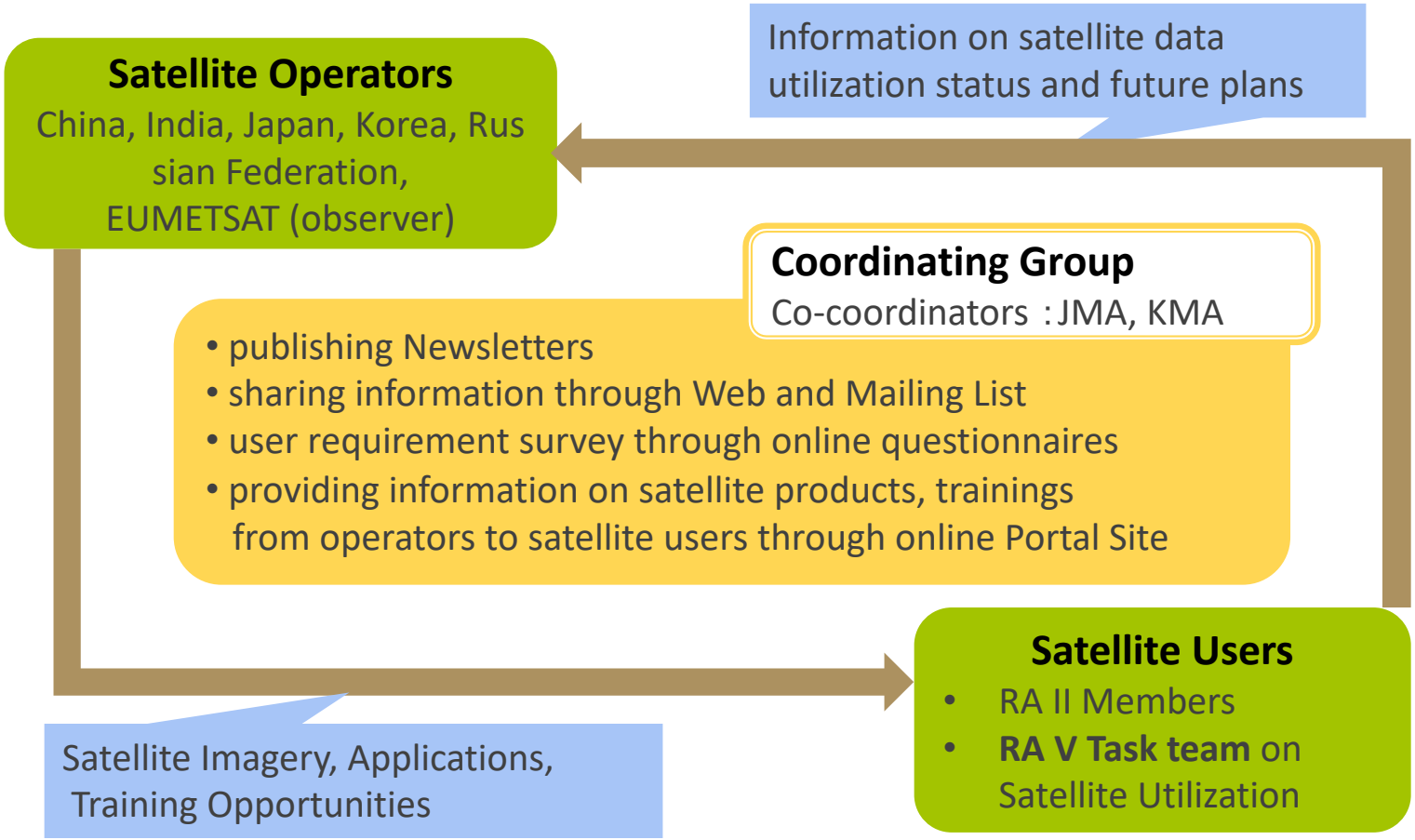
RA II WOGOS Project to Develop Support for NMHSs in Satellite Data, Products and Training from 2013 (Decided at RA II-15, 2012)

Included in the Regional WIGOS Implementation Plan 2017-2020 decided at RA II-16, Feb. 2017

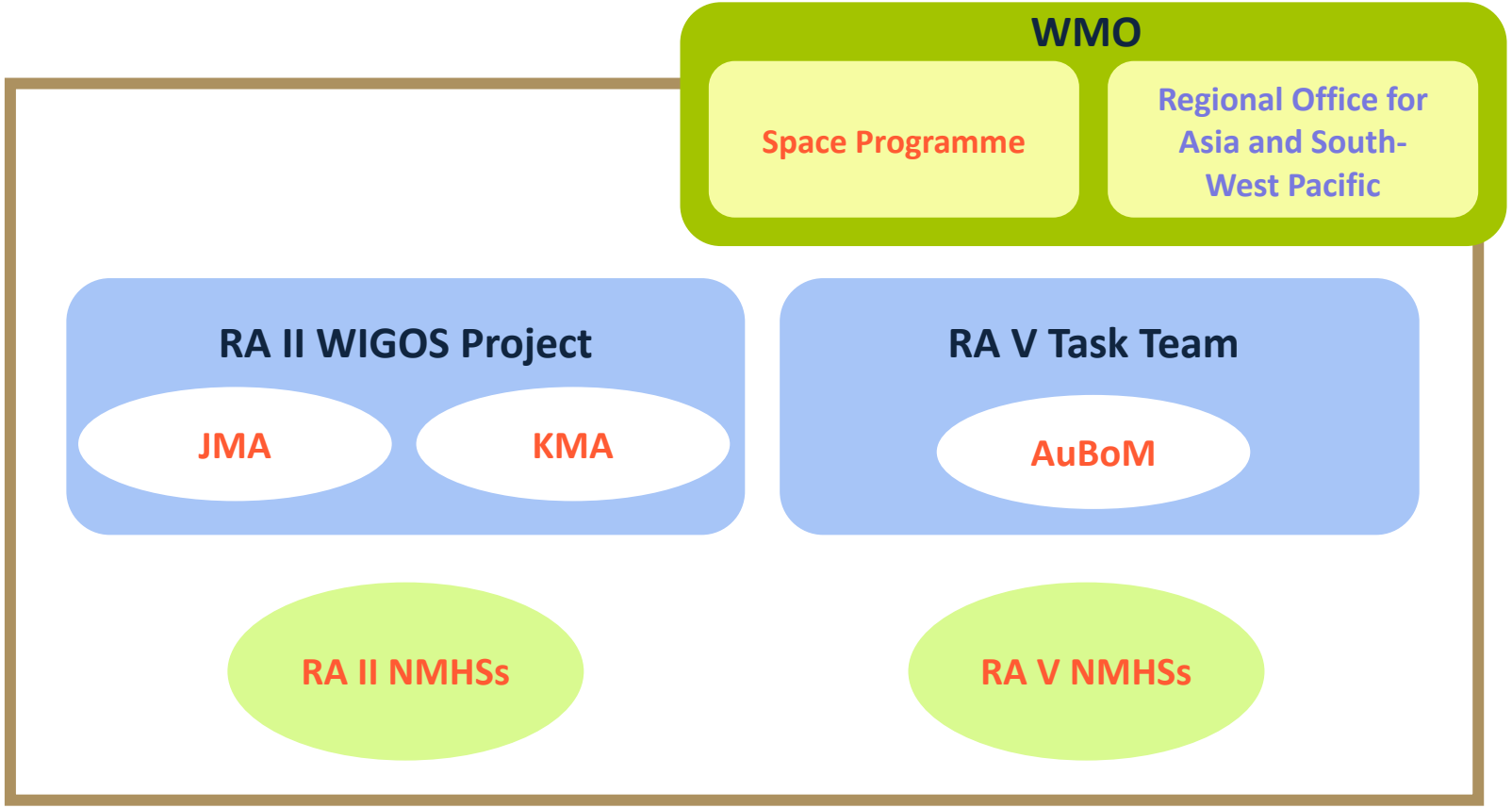
RA II Operating Plan 2021-2024

Included in RA II Operating Plan 2021-2024 at RA II-17, Apr. 2022

Mechanism of the Project



RA II / RA V joint coordination



Coordinating Group Meetings

- 1st Meeting , Tokyo, Japan (Feb. 2011)
- 2nd Meeting, Jeju Island, Republic of Korea (Oct. 2012)
- 3rd Meeting, Tokyo, Japan (Nov. 2015)
- 4th Meeting, Songdo (Incheon), Republic of Korea (Oct. 2016)
- Intersessional Web Meeting 2017 (27 Jul. 2017)
- 5th Meeting, Vladivostok, Russia (Oct. 2017)
- Web Meeting (13 times) 2018 for Questionnaire and agenda of user survey
- 1st Joint Meeting RA II and RA V, Jakarta, Indonesia (Oct. 2018)
- 2nd Joint Meeting RA II and RA V, Melbourne, Australia (Dec. 2019)
- 3rd Joint Meeting RA II and RA V, Beijing, China (Nov. 2021) (on-Line Meeting)

3rd Joint meeting of RA II WIGOS Project and RA V TT-SU

- Held Online meeting (5 Nov. 2021) in conjunction with AOMSUC-11, China

- Attended by about 80 participants
  - Coordinating Group members (Korea, Japan, China and Russia)
  - RA II Members (9 countries)
  - RA V TT-SU members (5 countries)
  - RA IV Members (1 country)
  - WMO Secretariats
  - Chair of the AOMSUC International Conference Steering Committee (as an observer)

- To be Reported from 14 country of the NMHSs in RA II and RA V
  - 9 from the RA II (Hong Kong (China), Iran, Kingdom of Saudi Arabia, Maldives, Mongolia, Myanmar, Pakistan, Thailand, United Arab Emirates)
  - 5 form the RA V (Federated States of Micronesia, French Polynesia, Indonesia, Malaysia, Sri Lanka)

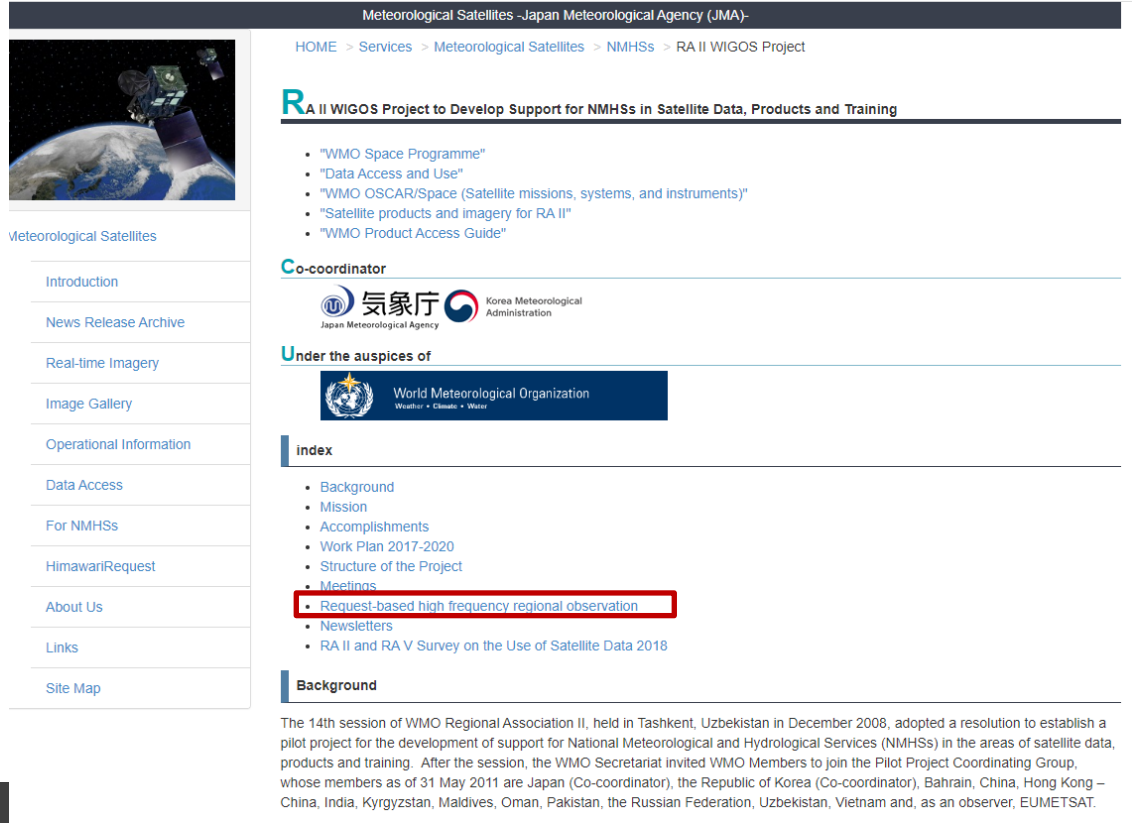
Summary of Country Reports from RA II / RA V

- The main challenges delivering capacity building activities :
  - Insufficiency of the infrastructure (e.g. weather Radar or slow internet)
  - Image interpretation references for satellite data analysis
  - Satellite data access
  - Computation skill for data processing
  - Validation method
  - Expert lecturer

- Training Requirements:
  - Basic of satellite and it interpretation for weather forecasters, observers and technical staff
  - Using satellite data for rainfall estimation, Nowcasting, Typhoon monitoring
  - Training on data manipulation (RGB techniques) and conduct research activities using satellite data.
  - Training on imagery analysis of tropical cyclones and for satellite-based products for climatology
  - Climate Services- Satellite interpretation

Website of the Project

- **RA II WIGOS Project webpage**
  - http://www.jma.go.jp/jma/jma-eng/satellite/ra2wigosproject/ra2wigosproject- intro_en_jma.html



High Frequency Regional Observation

- Portal of the Request-based high frequency regional observation on RA-II WOGOS Project web page
  - https://www.jma.go.jp/jma/jma-eng/satellite/ra2wigosproject/ra2wigosproject-intro_en_jma.html

Request-based high frequency regional observation

Emergency Support Mechanism of FENGYUN Satellite (FY ESM) [CMA]

China Meteorological Administration (CMA) introduced the Emergency Support Mechanism of FENGYUN (FY) Satellite (FY ESM) in 2018, open to international users who made a request once visited by such extreme events as typhoon, heavy rain, severe convection, forest or grassland fire and sand and dust storm. In this case, the on-duty FY satellite is activated to initiate highly frequent observation of a given area at an interval of up to 5 minutes, processing and generating images and quantitative products, which are provided through such channels as CMACast, Internet and direct satellite broadcasting, to inform the processes of disaster preparedness, mitigation and relief in a timely fashion.

URL: https://fy4.nsmc.org.cn/service/en/emergency/index.html

HimawariRequest [JMA]

The HimawariRequest service enables registered NMHS users to request particular Target Area observations in order to leverage this flexibility on an international scale. The service stems from a WMO RA II (Asia) regional project to develop support for NMHSs in satellite data, products and training in collaboration with WMO RA V (South-West Pacific) Members.

JMA expects the HimawariRequest service to support disaster risk reduction activities in the region based on the monitoring of extreme events such as tropical cyclones and volcanic eruptions.

URL: https://www.jma.go.jp/jma/jma-eng/satellite/HimawariRequest.html

Geo-Kompsat-2A AMI Rapid Scan (ARS) Service[KMA]

The Advanced Meteorological Imager (AMI) on board Geo-Kompsat-2A (GK2A) is capable of frequent and flexible observation, providing full disk images of the Earth every 10 minutes and regional images at shorter intervals. Full disk and other regional observations have spatial resolutions of 0.5 to 2 km and spectral coverage incorporating 16 channels.

The GK2A AMI Rapid-Scan (ARS) service allows National Meteorological and Hydrological Services (NMHSs) to request particular Target Area observations by leveraging the location flexibility on an international scale.

URL: http://datasvc.nmsc.kma.go.kr/datasvc/html/special/specialReqMain.do#

High Frequency Regional Observation

- ET-SSU-5 Action item
  - In order to maximize the benefits of high frequency regional observation services of CMA, JMA and KMA for users, it would be important to work further towards cooperation of these services.

A5.15	CMA, JMA, and KMA: to consider enhanced cooperation in terms of request-based high frequency regional observations implemented by each agency, for example, observation locations from three satellite operators to be visualized on the map in real-time and to report back at the next face-to-face ET-SSU meeting	Q. Lu (CMA) K. Bessho (JMA) D. Kim (KMA)

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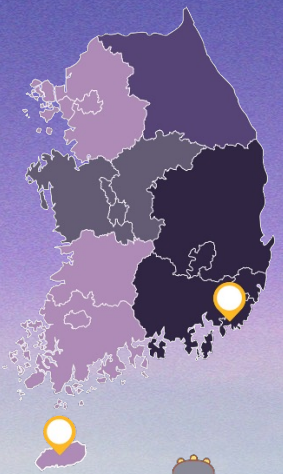
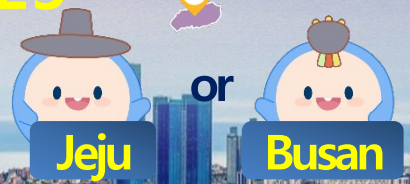
NOTIFICATION

- **KMA is happy to host of**
  - Training Event
  - AOMSUC-13
  - Joint coordination meeting of RA II and RA V
- **AOMSUC-13 will be held on 3-10 November 2023**
- **We look forward to see you at AOMSUC-13 in Korea**





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Thank you

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