KMA and CMA training activities

Jinho Shin in KMA
Jingmian Deng in CMA

The 12th Asia-Oceania Meteorological Satellite Users’ Conference
Joint RA II - RA V coordination Meeting
18 November, 2022. Japan
KMA training activities

◆ KMA Reported on training activities conducted by KMA since 2007.

Participants in the **WMO VLab program** and contributed to the WMO Vlab Technical Support Officer initiative since 2012

- Online joint regional focus group meeting with CoE- Australia in August and December, 2021
- Attending total 133 people from 28 countries during 2019~2022

◆ KMA training event activities in **AOMSUC**: 8 times during 2018~2022

◆ Related to **KOICA/ODA program**, run RA II region program for NMHS forecasters since 2010s: Bangladesh, Cambodia, Vietnam, Laos etc

- Geo-Kompsat 2A data receiving and analysis system developed in Bangladesh and Cambodia until 2023
- Attending total 82 people from 3 countries during 2021~2022

◆ 30 **Domestic forecaster training courses** participated by total 400 forecasters/aviation experts/volcano experts in KMA etc
## KMA training activity in WMO Vlab

<table>
<thead>
<tr>
<th>Num</th>
<th>Activity title</th>
<th>Date</th>
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<td>1</td>
<td>Application of Geo-Kompasat data for severe weather detection</td>
<td>31 Oct., 2021</td>
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<td>2</td>
<td>Autumn Heatwave in Korea</td>
<td>4~5 Oct., 2021</td>
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<tr>
<td>3</td>
<td>Satellite analysis for tropical cyclone over KMA</td>
<td>13 Aug., 2020</td>
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</tbody>
</table>

### Application of GEO-KOMPSAT-2A Data for Severe Weather Detection

2021.8.31
KMA/NMSC
Okyee Kim

7. Trough analysis using Water Vapor Image and Chart

1) Trough Comparison in chart
   - Wind-changing areas in 500 hPa wind field / the lowest areas in 500 hPa height
   - Relative vorticity: Maximum area / Just behind relative vorticity: Maximum area

### Autumn Heatwave in Korea

GEO-KOMPSAT-2A 6.9 micron band and 500hPa height
4th - 5th October 2021
Example provided by Ok Hee Kim, Korea Meteorological Administration

### Satellite Analysis for Tropical Cyclone over KMA

Surface temperatures over South Korea

- 3 October
- 4 October
- 5 October

Abnormally high temperatures over Korea due to the northward expansion of subtropical high-pressure system from the south ocean.
KMA training activity in AOMSUC

Application of GEO–KOMPSAT–2A Data for Severe Weather Detection

2021, 10, 28, NMSC/KMA
Okhee KIM

1. Satellite products for heavy rain analysis

- Products for heavy rain analysis: IR, VIS, WV, and composite images, Rain rate, total precipitable water

   Enhanced IR
   CTP
   CTH

   Convective initiation
   BDI (Deep developing circulation)
   Heavy rain index

   The products provide information of cloud top temp. & height. It is difficult to identify cloud development situations on the ground.

Satellite Analysis for Tropical Cyclone over KMA

October 28, 2021
Jun Park (jun.park@kma.go.kr)
Satellite Analysis Division
National Meteorological Satellite Center
Korea Meteorological Administration

Tropical Cyclone Analysis

Main Window
- Data selection (time, area, type, etc.)
- Layer display
- Analysis tools/palettes, effect, video, contour, distribution, editing, etc.
- Phenomena (cyclone, cloud, fire, volcanic, etc.)

Secondary Window
- SFD Analysis (intensity, center position, etc.)
- Automated analysis (ADP, MAD, GMD, Archer, etc.)

Introduction to KMA’s Satellite Data Service

NMSC/KMA
Taekyu Jang
## KMA training activity in KOICA/ODA

<table>
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<tr>
<th>No.</th>
<th>Program</th>
<th>Date</th>
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<tr>
<td>1</td>
<td>2022 Invitational Training Course for Cambodia (12 forecasters)</td>
<td>31 Oct. ~ 18 Nov., 2022</td>
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<tr>
<td>2</td>
<td>KOICA Training Course for Vietnam (30 officials)</td>
<td>17 Oct. ~ 28 Oct., 2022</td>
</tr>
<tr>
<td>3</td>
<td>Real-time Online Training Course for Cambodia (11 forecasters )</td>
<td>23 Nov. ~ 26 Nov., 2021</td>
</tr>
<tr>
<td>4</td>
<td>Online training course of capacity building for Bangladesh (30 forecasters)</td>
<td>30 Nov. ~ 10 Dec, 2021</td>
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</table>
The CMA Training Centre (CMATC) holds both international trainings and domestic trainings for satellite meteorologists, offering training opportunities for around 1000 meteorologists per year. In 2021, CMATC co-organized AOMSUC-11 2-day Training events, inviting experts from CMA, JMA, KMA, BOM, BMKG, and NOAA etc., training over 100 international participants virtually.
Thank you for your attention!