Appendix-1

RA V REGIONAL TRAINING COURSE ON SATELLITE APPLICATIONS FOR METEOROLOGY AND CLIMATOLOGY
(PROGRAMS AND LECTURES)
CITEKO, BOGOR – INDONESIA / 19 – 27 SEPTEMBER 2011

Time	MONDAY 19-SEP-2011 (DAY-1)	TUESDAY 20-SEP-2011 (DAY-2)	WEDNESDAY 21-SEP-2011 (DAY-3)	THURSDAY 22-SEP-2011 (DAY-4)	FRIDAY 23-SEP-2011 (DAY-5)
09.00 – 10.00	Participant's arrivals	**Opening Session :** Welcoming Address **(Director General of BMKG / President WMO RA V)**	Introduction to IMAPP **(Kathy Strabala/SSEC, UW-Madison, USA)**	MODIS Applications Weather, Aviation **(Kathy Strabala/SSEC, UW-Madison, USA)**	Lectures Introduction to AIRS **(Allen Huang/SSEC, UW-Madison, USA)**
10.00 - 11.00		Introduction : Guidance and Outline of Training Workshop **(Coordinator)**	Introduction to MODIS data characteristics and uses **(Kathy Strabala/SSEC, UW-Madison, USA)**	MODIS Applications Public Safety, NWP **(Kathy Strabala/SSEC, UW-Madison, USA)**	AIRS & Radiative Transfer **(Allen Huang/SSEC, UW-Madison, USA)**
11.15 – 12.15		Current Status of Operational of Geostationary and Polar-Orbiting Satellites **(Allen Huang/SSEC, UW-Madison, USA)**	Overview of MODIS Land and Ocean and Atmosphere Products **(Kathy Strabala/SSEC, UW-Madison, USA)**	MODIS Applications Fires, Air Quality **(Kathy Strabala/SSEC, UW-Madison, USA)**	AIRS Temperature, Water Vapor and Cloud Retrieval **(Allen Huang/SSEC, UW-Madison, USA)**
12.15 – 13.30		LUNCH - BREAK	LUNCH - BREAK	LUNCH - BREAK	LUNCH - BREAK
13.30 – 14.30		Future Plan Operational of Geostationary and Polar-Orbiting Satellites **(Allen Huang/SSEC, UW-Madison, USA)**	Exercises Exploring MODIS Data and Products in HYDRA Including NDVI & NDSI **(Kathy Strabala/SSEC, UW-Madison, USA)**	Exercises : Exploring Fires and Aerosols **(Huang, Nolin & Strabala/SSEC, UW-Madison, USA)**	Exercises : Exploring AIRS information content **(Huang & Strabala/SSEC, UW-Madison, USA))**
14.30 - 15.30		Participant's Country Reports Presentation			
16.00 – 17.30		Participant's Country Reports Presentation (continued)	Exercises Exploring MODIS Data and Products Over Typhoon "NANMADOL" **(Huang, Nolin & Strabala/SSEC, UW-Madison, USA)**	Exercises : Fog/Low Cloud Detection, NWP **(Huang, Nolin & Strabala/SSEC, UW-Madison, USA)**	Exercises : Online/Offline including Volcano & Trace Gases **(Huang & Strabala/SSEC, UW-Madison, USA)**
19.00 – 21.00		**Welcome Dinner**			

Time	SATURDAY 24-SEP-2011 (DAY-6)	SUNDAY 25-SEP-2011 (DAY-8)	MONDAY 26-SEP-2011 (DAY-7)	TUESDAY 27-SEP-2011 (DAY-9)	WEDNESDAY 28-SEP-2011 (DAY-10)
09.00 – 10.00	Introduction to Rainfall Estimation Using Satellite Data **(Pingping Xie, NOAA-USA)**		Volcanic Ash Monitoring to Support Aviation Safety **(Surono, CVGHM Indonesia)**	Introduction to BMKG Indonesia : Organization and Its Services **(Ms. Nurhayati - Director for Climate Services BMKG)**	
10.15 - 11.15	Rainfall Estimation Algorithms Using Satellite Data **(Pingping Xie, NOAA-USA)**		Meteorological remote sensing techniques for assisting mitigating volcanic hazards **(Andrew Tupper, BoM Australia)**	Development of Monthly SST Prediction System using MODIS Data at BMKG **(Dr. Ardhasena Sopaheluwakan - BMKG)**	
11.15 – 12.15	NOAA CPC Morphing Technique ("CMORPH") for Rainfall Estimation **(Pingping Xie, NOAA-USA)**	Excursion	Case study: Remote sensing and the International Airways Volcano Watch **(Andrew Tupper, BoM Australia)**	Discussion : Future Challenges of Satellite Data Utilization for South-West Pacific Region	Departure
12.15 – 13.30	LUNCH - BREAK		LUNCH - BREAK	LUNCH - BREAK	
13.30 – 15.30	NOAA CPC Morphing Technique ("CMORPH") for Rainfall Estimation (with Exercises) **(Pingping Xie, NOAA-USA)**		Discussion : Challenges in using remote sensing for volcanic hazard mitigation **(Panelist : Tupper, Surono, Juswanto)**	Evaluation / Course Wrap-Up / Conclusion and Recommendation	
16.00 – 17.30	NOAA CPC Morphing Technique ("CMORPH") for Rainfall Estimation (with Exercises) **(Pingping Xie, NOAA-USA)**		Exercise: combining forecasts and observations during a volcanic crisis. **(Andrew Tupper, BoM Australia)**	**Closing**	
19.00 – 21.00				**Farewell Dinner**	

Lecturer/Instructor's Institutions :

1. Space Science Engineering Center (SSEC), University of Wisconsin - Madison, USA
2. Climate Prediction Center (CPC), National Oceanic and Atmospheric Administration (NOAA), USA
3. Australian Bureau of Meteorology (BoM)
4. Center for Volcanology and Geological Hazard Mitigation, Ministry of Energy, Indonesia
5. The Agency for Meteorology, Climatology and Geophysics (BMKG), Indonesia