

Name: Hae-Jeong Kim

shout@apcc21.org

APEC Climate Center

APEC Climate Center, 12 Centum 7-ro, Haeundae-gu, Busan, 612-020, South Korea

Country: South Korea

Title: Forecasting Activities on Intraseasonal Variability at APEC Climate Center

Additional authors: 1 Matthew C. Wheeler, 2 June-Yi Lee, 3 Jon C. Gottschalck

Additional Affiliations: 1 Centre for Australian Weather and Climate Research Bureau of Meteorology, Melbourne, Australia, 2 Global Monsoon Climate Laboratory, Pusan National University, Busan, Korea, 3 Climate Prediction Center, NOAA/National Weather Service, Washington D. C., USA

Abstract:

The boreal summer intraseasonal oscillation (BSISO) is one of the dominant phenomena of summertime atmospheric variability in the tropics. The BSISO influences summer monsoon onsets (e.g. Wang and Xie, 1997) and interacts with a wide range of atmospheric circulation and associated weather (e.g. Lee et al., 2011; Wang et al., 2012). In addition, the wet and dry spells of the BSISO strongly can influence extreme hydro-meteorological events, major driving forces of natural disasters (Lau and Waliser 2005). Thus, it is important to monitor and predict the BSISO. As the occurrence of and concern over extreme climate events rises, moreover, the provision of high-quality BSISO forecasts will become increasingly relevant.

APCC has recently begun to provide the BSISO forecast information service at <http://www.apcc21.org/eng/service/bsiso/fore/japcc030601.jsp>. The forecast is contributed by the Australian Bureau of Meteorology, the US National Centers for Environmental Prediction, the European Center for Medium Range Weather Forecasts and UK Meteorology Office in cooperation with the CAS/WCRP Working Group on Numerical Experimentation (WGNE) Madden Julian Oscillation (MJO) Task Force. The APCC BSISO forecasts are displayed by newly developed indices proposed by Lee et al. (2013) that are able to represent BSISO activity with northward propagation over off-equatorial monsoon domain.

The BSISO forecast information can be useful for predicting summer monsoon onset and activity over the East Asia region and can help mitigate the agricultural and socioeconomic impacts of natural disasters. This activity is expected to improve our understanding on the model shortcomings and forecast ability of the BSISO.

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