

Proposed Southern China Monsoon Heavy Rainfall RDPT

An initiative by CMA to conduct a WWRP RDP (Research and Development Project) to study the heavy rainfall systems in southern China during the East Asian summer monsoon is being discussed by the Monsoon Panel. These heavy rainfall systems are the primary cause of high-impact weather that often led to floods and major life and economical losses. The purpose of the project is to use enhanced mesoscale observations to study the heavy rainfall processes, their influence by the large-scale monsoon circulation, and to conduct numerical weather prediction experiments. The heavy rainfall events are closely associated with the southwest monsoon winds in the South China Sea and Bay of Bengal, which undergoes synoptic and intraseasonal time scale variations especially associated with the MJO. Thus, the period of the observational and numerical experiment will cover a substantial portion of a summer monsoon season, within which intensive observing periods for mesoscale observations will be conducted. An intraseasonal forecast experiment as a component of the project will be useful both for guidance to the selection of IPOs and for evaluating recently proposed MJO forecast methodology. In particular, the project will allow development and evaluation of forecasts of impacts of the MJO on severe weather in the monsoon, which is a natural extension of the existing WWRP/WCRP MJO forecast intercomparison.

The WWRP Monsoon Panel will convene a workshop in Beijing in middle October 2011 during the meeting of WGTMR (Working Group for Tropical Meteorology Research) to discuss the initiative.