



## **Monsoon rainfall in a complex terrain environment: SoWMEX/TiMREX introduction**

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Taiwan and United States are going to conduct a joint field experiment during the period of May 15 to June 30, 2008 at the western plain and mountain slope region of southern Taiwan. It is called Southwest Monsoon Experiment/Terrain-influenced Monsoon Rainfall Experiment (SoWMEX/TiMREX). The goal of the program is to improve the capability of quantitative precipitation estimation and forecasting (QPE/QPF) during the Asian Summer Monsoon season. The localized heavy rainfall events frequently lead to floods and landslides resulted in casualty and heavy property damage in the Taiwan area. SoWMEX/TiMREX provides a unique opportunity to advance our basic understanding of physical processes leading to development of heavy orographic precipitation through intensive field observation campaign. SoWMEX/TiMREX provides an unprecedented opportunity for complementing the science of previous investigations in the general area of orographic precipitation. The primary observational facilities to be deployed at southern Taiwan include: NCAR S-pol (S-band polarimetric Doppler radar system), TEAM-Rad (X-band mobile polarimetric Doppler radar system), and MRR (Micro rain radar systems). In addition to these advanced radar systems, Taiwan will provide upstream soundings by operating dropsonde and ship soundings over the northern boundary of South China Sea. The major expectation and contribution of SoWMEX/TiMREX is to provide better rainfall prediction products under the Asian monsoon environment and to provide valuable information for flooding disaster reduction and water resource management in this region. A pilot experiment has been conducted in May-June 2007. In the presentation, preliminary results from SoWMEX-07 will be discussed.