

## **Preface to the Special Issue on Severe Weather Research in Taiwan**

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The special section of “Severe Weather Research in Taiwan” is printed in this volume. There are total of 5 papers in this special section. The call-for-paper for this special section started on 2002 right after the “International Conference on Mesoscale Meteorology and Typhoon in East Asia” held at Taiwan in September 2001 and organized by Taiwan Weather Research Program Office and the Chinese Geoscience Union. It was a lengthy process. Totally there were 9 papers submitted and only 5 of them got accepted through the review processes. The papers published consist of a wide spectrum, from summertime hailstorm in the Taipei basin (Chen and Chou) to Mei-Yu rainfall estimation by using satellite (Hu and Chen) and to typhoon studies. There are 3 papers related to typhoon research, i.e., the simulation of discontinuous track of Typhoon Dot (1990) while passing by the Taiwan Island by using MM5 (Jian et al.), formation of Typhoon Robyn (1993) by numerical simulation (Cheung and Elsberry), and concentric eyewall formation study by using simple axis-symmetric model (Peng et al.).

The severe weather research in Taiwan has a long history. The papers included in this special section just represent a small sample of this whole research subject. This special section could be treated as a continuation of the group effort of TAMEX (Taiwan Area Mesoscale Experiment 1987). A special issue of TAMEX has been published in Monthly Weather Review of American Meteorological Society in 1991 and a special section of TAMEX has also been published in TAO in June Issue of 1994. In recent years, the disasters related to severe weather increased dramatically. Flooding related to typhoons is no longer the only issue. Last year (2005) a severe flood over the central and southern plain areas of Taiwan (Flood 612) caused by the southwesterly flows from tropical ocean has drawn great attention not only from the research community but also the government. A dropsonde observation field program over the South China Sea was proposed and is to be executed starting this May and June (SoWFEX: Southwesterly Flow Experiment). It will be a multi-year effort to take soundings over the upstream ocean and to improve the initial data of the mesoscale prediction model currently heavily used in our meteorological research community. We are anticipated that there will be another group effort of paper publication on severe weather research in Taiwan in the near future.

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