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ABSTRACT TITLE:

Flood Mapping over the Asian Continent during the 1999 Summer Monsoon Season

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ABSTRACT TEXT:

Text block boundaries are fixed. Abstract cannot exceed boundaries.

Dramatic floods observed from earth-orbiting satellite radar over the Asian continent together with wind field over ocean and topography over land are presented in an evolutionary daily time-series during the 1999 Summer Monsoon season. Unprecedented frequent coverage on the continental scale was made possible by the launch of the wideswath Ku-band scatterometer SeaWinds on the QuikSCAT satellite last June (1999). SeaWinds data began at the time when strong cyclones and severe widespread floods started to occur over various countries in the Asian summer monsoon region. QuikSCAT backscatter data show extensive floods in Anhui, Zhejiang, Jiangsu, and other provinces in the Yangtze river basin, affecting 100 million people in China [United Nations]. QuikSCAT data over India reveal the North Bihar flood. Triggered by torrential monsoon rains, this flood was the worst in more than a decade and it affected 5 million people and inundated more than 2700 villages over 21 districts [Agence France-Presse]. Since July, the scatterometer flood mapping indicates the flood situation in India has been worsened and spanned extensive regions from West Bengal, through Bihar, across Orissa, to Uttar Pradesh, and up to Himachal Pradesh. Monsoon floods are also observed over many Asian countries including Bangladesh, Nepal, Pakistan, Vietnam, Laos, Thailand, and Cambodia with the worst flooding in 20 years. Timely flood mapping can provide crucial information for flood relief efforts.

TOPIC PREFERENCE: Topics A.18: Hydrology