Integration of GOES-R/ABI data in Flood Mapping Software for Flood Monitoring and Forecasting

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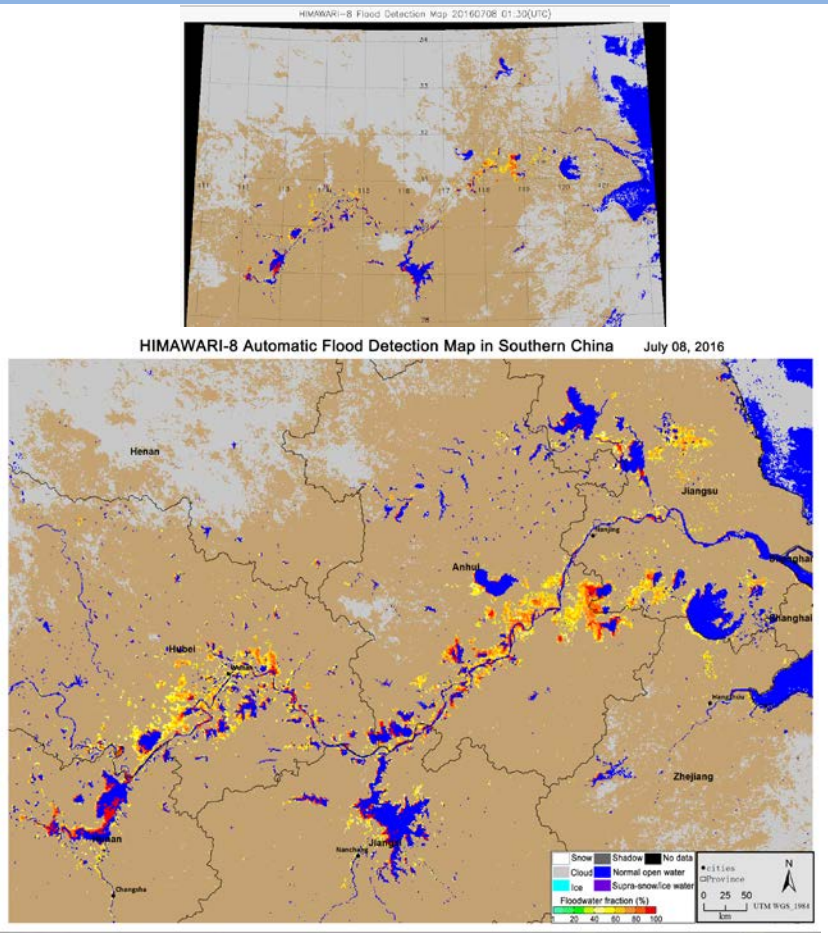
The project aims to develop a GOES-R/ABI 1-km flood product and a blended 30-m flood product from GOES-R/ABI and SNPP/VIIRS imagery. These products will be distributed to assist National Weather Service's River Forecast Centers and National Water Center, and other agencies such as FEMA in flood forecasting, monitoring and mitigation activities.

- **Satellite-derived flood maps in near real-time are invaluable to stake holders and policy makers for disaster monitoring and relief efforts.**
- **With frequent observations, GOES-R/ABI imagery provide more clear-sky data. Integration of GOES-R/ABI data in the existing software based on SNPP/VIIRS imagery will help improve the quality of flood products with shorter latency and better clear-sky coverage.**
- **This project will produce a GOES-R/ABI 1-km flood product by developing a series of algorithms on water detection, shadow removal and floodwater fraction retrieval. The developed 1-km flood product will be applied in the downscaling model along with SNPP/VIIRS flood product to produce a blended 30-m flood extent product. The final products will be distributed through AWIPS-II and a proposed website to end users for assistance in flood forecasting, monitoring and mitigation activities.**



HIMAWARI-8 flood animation (top) and daily composited flood map (bottom) in China on 8 July 2016