

Tides and Waves for the National Weather Service River Forecast System
Report for the Period Spanning June 1 – November 30, 2006

Submitted to: NOAA/NWS
Office of Hydrologic Development
Silver Spring, MD

Submitted by: Scott C. Hagen, Ph.D., P.E. & Yuji Funakoshi
University of Central Florida
Dept. of Civil and Environmental Engineering
4000 Central Florida Blvd.
Orlando, FL 32816-2450

The reporting period that spans June 1 – November 30, 2006 resulted in the following journal publications/manuscripts to-date.

1. S.C. Hagen, A. Zundel and S. Kojima, "Automatic, Unstructured Mesh Generation for Tidal Calculations in a Large Domain," *International Journal of Computational Fluid Dynamics*, **20 (8)**, 593-608 (2006).
2. Salisbury, M.B. and S.C. Hagen, "The Effect of Tidal Inlets on Open Coast Storm Surge Hydrographs," *Coastal Engineering*, In Press.
3. Dietsche, D., S.C. Hagen, and P. Bacopoulos, "Storm Surge Simulations for Hurricane Hugo (1989): On the Significance of Inundation Areas," *Journal of Waterways, Port, Coastal, and Ocean Engineering*, In Press.
4. Funakoshi, Y. and S.C. Hagen, "Uni-Coupling of Hydrodynamic and Wave Models: A Case Study for a Hurricane Floyd Hindcast," *Journal of Waterway, Port, Coastal, and Ocean Engineering*, Revised and resubmitted.
5. Funakoshi, Y. and S.C. Hagen, "Two-Way Coupling of Hydrodynamic and Wave Models for Storm Tide Simulations: A Case Study for Hurricane Floyd (1999)," *Journal of Waterway, Port, Coastal, and Ocean Engineering*, In Review.
6. Funakoshi, Y. and S.C. Hagen, "Evaluation of Two Numerical Wave Models for Coupling with a Hydrodynamic Model to Simulate Hurricane Storm Tides," *Coastal Engineering Journal*, In Review.
7. Hagen, S.C., Bacopoulos, P., Funakoshi, Y., A.T. Cox, and V.J. Cardone, "The Role of Meteorological Forcing on the St. Johns River," *Journal of Hydrometeorology*, In Preparation.
8. Funakoshi, Y., "Coupling of Hydrodynamic and Wave Models for Storm Tide Simulations: A Case Study for Hurricane Floyd (1999)," Ph.D. Dissertation Department of Civil and Environmental Engineering, University of Central Florida, Orlando.