

## Kevin Oberg

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### EXPERIENCE

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*U.S. Geological Survey, Office of Surface Water, Reston, VA*  
**Hydrologist – USGS OSW Hydroacoustics program.** **1998 - Present**

- Coordinate OSW's National Hydroacoustics program
- Develop and evaluate methods for application of hydroacoustic instruments for hydrologic and hydraulic measurements
- Lead USGS training program program on hydroacoustics
- Develop and implement quality assurance programs for application of hydroacoustics within USGS and international standards organizations
- Technical assistance for hydroacoustics for USGS and other agencies

*U.S. Geological Survey, Office of Water Information, Reston, VA*  
**Chief, National Water Information Systems Web Development Team** **1996 – 1998**

- Led development of national system for disseminating hydrologic data via the Web

*U.S. Geological Survey, Illinois Water Science Center, Urbana, IL*  
**Chief, Hydrologic Data Collection and Analysis Section** **1990-1996**

- Managed hydrologic data collection and analysis program for Illinois
- Developed application for disseminating Illinois streamflow data in real time using the Web

*U.S. Geological Survey, Illinois Water Science Center, Urbana, IL*  
**Hydrologist – Investigations Section** **1982-1990**

- Flood frequency analysis, rainfall-runoff modeling, hydraulic modeling, network analysis

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### AWARDS

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- IAGLR Chandler-Misener Award for Most Notable Paper in Journal **2012**
- ofGreat Lakes Research for 2012
- USGS Superior Service Award **2004**
- USGS Special Achievement Award **1998, 1995, 1992**
- Corps of Engineers Commendation for Technical Assistance during 1993 Mississippi River Flood **1993**
- Corps of Engineers Commander's Award For Public Service, 1992 Chicago Tunnel Flood **1992**

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### INVITED LECTURES/PRESENTATIONS

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British Hydrological Society Meeting, London, England – "*Application of hydroacoustics within the U.S. Geological Survey's Surface Water Program*" **2003**

American Society of Civil Engineers Symposium on Fundamentals and Advancements in Hydraulic Measurements and Experimentation – "*Recent Application of Acoustic Doppler Current Profilers*" **1994**

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### SELECTED PUBLICATIONS AND JOURNAL ARTICLES

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- Levesque, V.A., and Oberg, K.A., 2012. Computing Discharge Using the Index-Velocity Method: U.S. Geological Survey Techniques and Methods Rep. 3-A23, 160 pp.
  - García, C.M., Tarrab, L., Oberg, K., Szupiany, R., and Cantero, M., 2012, Variance of Discharge Estimates Sampled Using Acoustic Doppler Current Profilers from Moving Boats. J. Hydraul. Eng.
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138(8).

- Tarrab, L., García, C. M., Cantero, M. I., and Oberg K. A., 2012, Role of turbulence fluctuations on uncertainties of acoustic Doppler current profiler discharge measurements, *Water Resour. Res.*, 48, W06507, doi:10.1029/2011WR011185.
  - Mueller, D.S., and Oberg, K.A., 2011, Discussion of "Near-Transducer Errors in ADCP Measurements: Experimental Findings" by Marian Muste, Dongsu Kim, and Juan A. González-Castro, *Journal of Hydraulic Engineering*, v. 137, No. 8, p. 863-866.
  - Czuba, J.A., Oberg, K.A., Best, J.L., and Parsons, D.R., 2011, Coherent Channel-Scale Secondary Flow and Sediment Transport Pathways in the Upper Saint Clair River: *J. Great Lakes Res.*, 37-3, p. 480-493, doi: 10.1016/j.jglr.2011.05.011.
  - Best, J.L., Simmons, S.M., Parsons, D.R., Oberg, Czuba, J.A., Malzone, C., 2010, A New Methodology for the Quantitative Visualization of Coherent Flow Structures in Alluvial Channels Using Multibeam Echo-sounding (MBES): *Geophysical Research Letters*, v. 37. L06405, doi:10.1029/2009GL041852.
  - Oberg, K.A., and Mueller, D.S., 2007, Validation of Streamflow Measurements Made with Acoustic Doppler Current Profilers: *Journal of Hydraulic Engineering*, v. 133, No. 12, p. 1421-1432
  - Mueller, D.S., Abad, J.D., Garcia, C.M., Gartner, J.A., Garcia, M.H., and Oberg, K.A., 2006, Errors in Acoustic Doppler Profiler Velocity Measurements Caused by Flow Disturbance: *Journal of Hydraulic Engineering*, v. 133, No. 12, p. 1411-1420
  - Garcia, C.M., Oberg, K.A., and Garcia, M.H., 2007, ADCP Measurements of Gravity Currents in the Chicago River, Illinois: *Journal of Hydraulic Engineering*, v. 133, No. 12, p. 1356-1366
  - Nystrom, E.A., Oberg, K.A., and Rehmann, C.R., 2007, Evaluation of mean velocity and turbulence measurements with ADCP's: *Journal of Hydraulic Engineering*, v. 133, No. 12, p. 1310-1318
  - Oberg, K.A., Morlock, S.E., and Caldwell, W.S. 2005, Quality-assurance plan for discharge measurements using acoustic Doppler current profilers: U.S. Geological Survey Scientific Investigations Rep. 2005-5183, 44 pp.
  - Jacobson, R.B., and Oberg, K.A., 1997, Geomorphic Changes of the Mississippi River Floodplain at Miller City, Illinois, as a Result of the Flood of 1993: U.S. Geological Survey Circular 1120-J, p. 22
  - Oberg, K.A., and Schmidt, A.R., 1994, Measurements of leakage from Lake Michigan at three control structures near Chicago, Illinois, April-October 1993, U.S. Geological Survey Water-Resources Investigations Report 94-4112, 48 p.
  - Melching, C. S., and Oberg, K.A., 1993, Comparison, analysis, and estimation of discharge data from two acoustic velocity meters on the Chicago Sanitary and Ship Canal at Romeoville, Illinois, U.S. Geological Survey Water-Resources Investigations Report 93-4048, 61 p.
  - Oberg, K.A., and Mades, D.M., 1987, Estimating generalized skew of the log-Pearson Type III distribution for annual peak floods in Illinois: U.S. Geological Survey Water-Resources Investigations Report 86-4008, 42 p.
  - Mades, D.M., and Oberg, K.A., 1986, Evaluation of the U.S. Geological Survey's gaging-station network in Illinois: U.S. Geological Survey Water-Resources Investigations Report 86-4072, 88 p.
  - Garklavs, George, and Oberg, K.A., 1986, Effect of rainfall excess calculations on modeled hydrograph accuracy and unit-hydrograph parameters: *Water Resources Bulletin*, v. 22, no. 4, p. 565-572.
  - Mades, D.M., and Oberg, K.A., 1984, Cost effectiveness of the U.S. Geological Survey's stream-gaging program in Illinois: U.S. Geological Survey Water-Resources Investigations Report 84-4123, 107 p.
  - Graf, J.B., Garklavs, George, and Oberg, K.A., 1982, A technique for estimating time of concentration and storage coefficient values for Illinois streams: U.S. Geological Survey Water-Resources Investigations Report 82-22, 16 p.
  - Graf, J.B., Garklavs, George, and Oberg, K.A., 1982, Time of concentration and storage coefficient values for Illinois streams: U.S. Geological Survey Water-Resources Investigations Report 82-13, 40 p.
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EDUCATION

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*University of Illinois at Urbana-Champaign*

**Bachelor of Science**

**1982**

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LANGUAGES

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- English – native language
  - German – speak with moderate fluency and read with moderate proficiency
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PROFESSIONAL ACTIVITIES

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- Member and Past Chair, ASCE Technical Committee "Hydraulic Measurements and Experimentation"
- Member ASCE Task Committee "New Developments in Velocity and Discharge Measurements in Hydraulic Engineering"
- Peer Reviewer for Journal of Hydraulic Engineering, U.S. Geological Survey, Limnology and Oceanography: Methods