

Contact Information:

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Education:

B.S. in METEOROLOGY, May 2003, Florida State University, Tallahassee, Florida

MINOR in MATHEMATICS

Florida State University (2000 – 2003)

Santa Fe Community College (1999 – 2000)

Valencia Community College (1998 – 1999)

University of Central Florida (1997 – 1998)

Manatee Community College (dual enrollment) (1995 – 1996)

Professional Experience:

Center for Ocean Atmospheric Prediction Studies, Florida State University: Meteorologist, 19 May
2003 - current.

Responsibilities:

Manage FSU atmospheric instrumentation at USAF tower N7– deploy, inventory, calibrate
Plan and coordinate crew assembly and marine/atmospheric forecasts for instrumentation
maintenance/deployment missions

Install onshore/offshore meteorological instrumentation and communications networks
Monitor and evaluate FSU met/ocean station data
Program data logger for FSU environmental stations (Campbell Loggernet)
Supervise production of in-situ FSU Winds and Fluxes - oversee monthly data acquisition, assist in QC of FSU Winds products (Quicklook and Research), perform code testing
Perform Quality Control on FSU Winds and Fluxes
Train others in QC of FSU Winds and Fluxes
Train Others in QC of R/V Data
Update Monthly JMA-Index on COAPS web/ftp server
Manage and Process Incoming Research Vessel Data/metadata
Perform Quality Control (automated and visual) of all Research Vessel Data released by the Data Center at COAPS
Write Technical Research Vessel Quality Control Reports
Lead and direct students in FSU Young Scholars Program research project
SAMOS science and electronics research vessel technician liaison for NOAA, Woods Hole Oceanographic Institution, SCRIPPS Institute of Oceanography, Bermuda Institute of Ocean Sciences, UNOLS, USCG, Raytheon Polar Services, Bureau of Meteorology (Australia), New Zealand.

Duties:

Monitor SAMOS contributing vessels' data/metadata and notify operators or any issues
Research Meteorological Topics Assigned by Senior Science Staff and Write Associated Reports
Member of High Resolution Marine Meteorology Initiative Planning Committee - plan and design new procedures for near real-time shipboard meteorological data quality control (SAMOS)
Preparation of scientific graphics for use in data analysis, processing and management using IDL and Matlab
Assist students with IDL and Matlab
Instruct and assist others on the use of Quality Control tools and procedures
Supply Research Vessel data and Quality Control expertise to other researchers at COAPS and beyond

Computer skills:

IDL, Matlab, UNIX, Linux, Mac OS-X, Windows, C, html, Microsoft Word and EXCEL and Power Point, Adobe Illustrator and Photoshop, FORTRAN, GARP, GEMPAK, perl, Loggernet, NOAA SCS DAS

Data Skills:

Data plotting, analysis, interpretation, manipulation, quality assurance, archival, and distribution. Ability to produce marine and atmospheric forecasts using remote and in-situ surface, upper air, satellite, radar, and model output data.

Special Training:

NOAA Scientific Computing Software Data Acquisition System Training – 3-6 December 2013. Virginia Beach, VA.

Educational Outreach:

NOAA/UNOLS Marine Technician Professional Development Short Course on Automated Underway Meteorological Observations; Co-facilitator (Dan Wolfe – NOAA/CIRES) – 9 December 2013. Virginia Beach, VA.

DART Engineering: Meteorological Consultant, November 2008 - current

Responsibilities and Duties:

Acquire, plot, evaluate, interpret and report situation/storm specific data for use in evaluation of insurance claims.

Expert witness during court proceedings.

Surflines.com: Forecaster/Coordinator, Consultant, February 2013 – current

Responsibilities and Duties:

Marine/atmospheric/surf reports and forecasts for the Atlantic basin (US East Coast, Gulf Coast, Caribbean, Barbados, Brazil, Europe, Canary Islands)

Analysis of atmospheric and marine observations together with model output for use in subjective weather and surf reports/forecasts

Honors:

Dean's List, Valencia Community College

President's List, Santa Fe Community College

Publications

Peer Reviewed

Bourassa, M.A., S.R. Smith, P.J. Hughes, and J.J. Rolph, 2006, ATLANTIC MONTHLY AIR-SEA FLUXES AND THE 2005 HURRICANES, State of the Climate in 2005, *Bull. Amer. Meteor. Soc.*, **87**, 535 pp.

Bourassa, M.A., R.N. Maue, S. R. Smith, P.J. Hughes, and J. Rolph, 2007: Global Winds. State of the Climate in 2006. A. Arguez, H.J. Diamond, F. Fetterer, A. Horvitz, and M.J. Levy, Eds., *Bull Amer. Meteor. Soc.*, **88**, S25 – S 27.

Smith, S. R., J. Rettig, J. Rolph, J. Hu, E. C. Kent, E. Schulz, R. Verein, S. Rutz, and C. Paver, 2010: The Data Management System for the Shipboard Automated Meteorological and Oceanographic System (SAMOS) Initiative. In *Proceedings of the "OceanObs '09: Sustained Ocean Observations and Information for Society" Conference (Vol. 2)*, Venice, Italy, 21-25 September 2009, Hall, J., Harrison D.E. and Stammer, D., Eds., ESA Publication WPP-306.

Hughes, P., and M. A. Bourassa, J. Rolph, and S. R. Smith, 2012: Averaging-Related Biases in Monthly Averaged Latent Heat Fluxes. *J. Atmos. Oceanic Technol.*, Vol. **29** (7), 974-986 pp.

Non-peer Reviewed

Hughes, P.J., M.A. Bourassa, J.J. Rolph, and S.R. Smith, 2006. Interdecadal Variability of Surface Heat Fluxes Over the Atlantic Ocean. *CAS/JSC Working Group on Numerical Experimentation, Research Activities in Atmospheric and Oceanic Modeling*, 2:17-18pp., World Meteorological Organization, ed. J. Côté.

Hughes, P., M. A. Bourassa, J. Rolph, and S. R. Smith, 2009: Objectively derived in-situ turbulent flux climatology: application to tropical Atlantic variability. *Proceedings of the OceanObs '09: Sustained Ocean Observations and Information for Society Conference (Vol. 2)*, Venice, Italy, eds. J. Hall, D.E. Harrison and D. Stammer, ESA Publication WPP-306.

Rettig, J. T., M. A. Bourassa, J. Hu, E. M. McDonald, J. J. Rolph, and S. R. Smith, 2009: Data management system to collect, quality control, distribute, and archive near real-time marine data. *E-journal of Data Integration and Management on the Gulf of Mexico*, 4 pp. Available from <http://cs.tamucc.edu/dim/docs/papers/Jacob%20Rettig.doc>.

Briggs, K., S. R. Smith, and J. J. Rolph, 2010: *2009 SAMOS Data Quality Report*. Available from Center for Ocean-Atmospheric Prediction Studies, Florida State University, Tallahassee, FL, 32306-2840, USA, 126 pp.

Briggs, K., S. R. Smith, and J. J. Rolph, 2011: *2010 SAMOS Data Quality Report*. Available from Center for Ocean-Atmospheric Prediction Studies, Florida State University, Tallahassee, FL, 32306-2840, USA, 126 pp.
[http://samos.coaps.fsu.edu/html/docs/2010SAMOSAnnualReport_final.pdf]

Briggs, K., S.R. Smith, and J.J. Rolph, 2012: *2011 SAMOS Data Quality Report*. Available from Center for Ocean-Atmospheric Prediction Studies, Florida State University, Tallahassee, FL, 32306-2840, USA, 140 pp.

Technical Reports:

Rolph, J.J., and S.R. Smith, 2003: Ronald H. Brown IMET Data Quality Control Report: 1999 & 2000. RVSMDC Report 03-01, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, Tallahassee, FL 32306-2840.

Rolph, J.J., and S.R. Smith, 2003: Ka' Imimoana IMET Data Quality Control Report: 1999, 2000, and 2001. RVSMDC Report 03-02, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, Tallahassee, FL 32306-2840.

Rolph, J.J., and S.R. Smith, 2003: Ronald Brown IMET Data Quality Control Report: 2002. RVSMDC Report 03-03, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, Tallahassee, FL 32306-2840.

Rolph, J.J., and S.R. Smith, 2003: Recommendations for the Elimination of the Stack Exhaust Problem on the R/V Meteor. RVSMDC Report 03-04, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, Tallahassee, FL 32306-2840.

Rolph, J.J., and S.R. Smith, 2003: Ronald Brown IMET Data Quality Control Report: August 2002 - September 2003. RVSMDC Report 03-05, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, Tallahassee, FL 32306-2840.

Rolph, J.J., and S.R. Smith, 2004: Ronald Brown IMET Data Quality Control Report: September - November 2003. RVSMDC Report 04-01, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, Tallahassee, FL 32306-2840.

Rolph, J.J., and S.R. Smith, 2004: Polarstern AWS Data Quality Control Report: May 2003 - June 2004. RVSMDC Report 04-02, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, Tallahassee, FL 32306-2840.

Rolph, J.J., and S.R. Smith, 2005: Ronald Brown IMET Data Quality Control Report: February – May 2004. RVSMDC Report 05-01, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, Tallahassee, FL 32306-2840.

Rolph, J.J., and S.R. Smith, 2005: R/V Meteor IMET Data Quality Control Report: 11 June – 4 May 2004. RVSMDC Report 05-02, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, Tallahassee, FL 32306-2840.

Rolph, J.J., and S.R. Smith, 2005: SAMOS netCDF Code Manual for Quality Controlled Surface Meteorological Data. RVSMDC Report 05-03, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, Tallahassee, FL 32306-2840.

Rolph, J.J., and S.R. Smith, 2005: Ronald Brown IMET Data Quality Control Report: May 2004 – March 2005. RVSMDC Report 05-04, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, Tallahassee, FL 32306-2840.

Rolph, J.J., and S.R. Smith, 2006: Ronald Brown IMET Data Quality Control Report: July 2005 – November 2005. RVSMDC Report 06-02, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, Tallahassee, FL 32306-2840.

Science Meeting Talks:

Bourassa, M.A., P.J. Hughes, J.J. Rolph, S.R. Smith, 2006: Tropical cyclone activity and North Atlantic decadal variability of ocean surface fluxes. *NOAA Climate Observation Program 4th Annual System Review*, May, Silver Spring, MD.

Rettig, J. T., M. A. Bourassa, J. Hu, E. M. McDonald, J. J. Rolph, and S. R. Smith, 2009: Data management system to collect, quality control, distribute, and archive near real-time marine data. Presentation, *Data Integration and Management on the Gulf of Mexico*, Corpus Christi, TX, 15-16 May 2009.

Science Meeting Posters:

Rolph, J. J., S.R. Smith, and M. A Bourassa, 2004: Quality of NOAA Vessel Underway Marine Meteorology. *NOAA Office of Climate Observation Annual System Review*, April, Silver Spring, MD, CDROM.

Smith, S.R., M. A. Bourassa, J. J. O'Brien, and J. J. Rolph, 2004: Ocean Surface Data and Products from COAPS. *NOAA Office of Climate Observation Annual System Review*, Silver Spring, MD, CDROM.

Smith, S.R., M.A. Bourassa, J.J. Rolph, and P. Hughes, 2006: The FSU fluxes for the Atlantic and Indian Oceans. *NOAA Climate Observation Program 4th Annual System Review*, Silver Spring, MD, USA, NOAA, CDROM.

- Hughes, P.J., M.A. Bourassa, J. Rolph, and S.R. Smith, 2006: North Atlantic decadal variability of latent and sensible heat fluxes. *Fall AGU Meeting*, Dec., CA.
- Smith, S.R., J.J. Rolph, and M.A. Bourassa, 2007: Progress of the Shipboard Automated Meteorological and Oceanographic System (SAMOS) Initiative Data Assembly Center. Short Abstract, climate Observation Division 5th Annual System Review, Silver Spring, MD, USA, NOAA, in press.
- Bourassa, M.A., J. Rolph, P. Hughes, and S.R. Smith, 2007: An Update of the FSU3 Winds and Fluxes. Short Abstract, Climate Observation Division 5th Annual System Review, Silver Spring, MD, USA, NOAA.
- Smith, S. R., and J. Rolph, 2008: SAMOS Metadata: Architecture and Lessons Learned. Presentation, NSF Legacy of Ocean Exploration Project Data Management Meeting, LDEO, Palisades, NY, 3-5 September 2008.
- Smith, S. R., J. Rolph, and M. A. Bourassa, 2008: Activities of the Shipboard Automated Meteorological and Oceanographic System (SAMOS) Initiative Data Assembly Center. Short Abstract, NOAA Climate Observation Division 6th Annual System Review, Silver Spring, MD, 3-5 September 2008.
- Bourassa, M. A., P. J. Hughes, S. R. Smith, and J. Rolph, 2008: Recent Air/Sea Flux Activities and FSU. Short Abstract, NOAA Climate Observation Division 6th Annual System Review, Silver Spring, MD, 3-5 September 2008.
- Rolph, J., S. R. Smith, and M. A. Bourassa, 2008: Quality evaluation of marine meteorological observations. Short Abstract, 2nd Joint GOSUD/SAMOS Workshop, Seattle, WA, 10-12 June 2008.
- Smith, S. R., M. A. Bourassa, and J. R. Rolph, 2008: Data flow through the Shipboard Automated Meteorological and Oceanographic Systems (SAMOS) Data Assembly Center. Short Abstract, 2nd Joint GOSUD/SAMOS Workshop, Seattle, WA, 10-12 June 2008.
- Rolph, J., S. R. Smith, and M. A. Bourassa, 2008: Quality evaluation of marine meteorological observations. Short Abstract, 2008 Northern Gulf Institute Annual Conference, Biloxi, MS, 13-14 May 2008.
- Smith, S. R., M. A. Bourassa, and J. R. Rolph, 2008: The Shipboard Automated Meteorological and Oceanographic Systems (SAMOS) Initiative. Short Abstract, Third JCOMM Workshop on Advances in Marine Climatology (CLIMAR-III), Gdynia, Poland, 6-9 May 2008.
- Smith, S. R., J. Rolph, and M. A. Bourassa, 2008: The Shipboard Automated Meteorological and Oceanographic System (SAMOS) Initiative. Short Abstract, 2008 Ocean Sciences Meeting, Orlando, FL. 2-7 March 2008.

Smith, S. R., J. Rolph, and K. Briggs, 2008: SAMOS status. Presentation, *UNOLS Research Vessel Technical Enhancement Committee 2008 Annual Meeting*, Tallahassee, FL, 28-30 October 2008.

Rolph, J.J., J. T. Rettig, M. A. Bourassa, J. Hu, E. M. McDonald, and S. R. Smith, 2009: Data management system to collect, quality control, distribute, and archive near real-time marine data. Poster, *Northern Gulf of Mexico Cooperative Institute Annual Meeting*, Mobile, AL, 20-21 May 2009.

Rettig, J. T., M. A. Bourassa, J. Hu, E. M. McDonald, J. J. Rolph, and S. R. Smith, 2009: Data management system to collect, quality control, distribute, and archive near real-time marine data. Presentation, *Data Integration and Management on the Gulf of Mexico*, Corpus Christi, TX, 15-16 May 2009.

Dukhovskoy, D., D. Van Dyke, S. Morey, and J.J. Rolph, 2009: Modeling Wave Characteristics in the Northeastern Gulf of Mexico. Poster, *Northern Gulf of Mexico Cooperative Institute Annual Meeting*, Mobile, AL, 20-21 May 2009.

Smith, S. R., J. Rettig, J. Rolph, J. Hu, E. C. Kent, E. Schulz, R. Verein, S. Rutz, and C. Paver, 2009: The Data Management System for the Shipboard Automated Meteorological and Oceanographic System (SAMOS) Initiative. Poster, *"OceanObs '09: Sustained Ocean Observations and Information for Society" Conference*, Venice, Italy, 21-25 September 2009.

Smith, S. R., R. Arko, M. A. Bourassa, J. Hu, M. McDonald, J. Rettig, and J. Rolph, 2009: The data management system for the Shipboard Automated Meteorological and Oceanographic System (SAMOS) initiative. Poster, Annual Meeting of the American Geophysical Union, San Francisco, CA, 14-17 December 2009.

Smith, S. R., R. A. Arko, M. A. Bourassa, J. Hu, M. McDonald, J. Rettig, and J. J. Rolph, 2010: The Shipboard Automated Meteorological and Oceanographic System (SAMOS) Initiative data management system. Poster, *International Conference on Marine Data and Information Systems 2010*, Paris, France, 29-31 March 2010.

Smith, S.R., M. A. Bourassa, J. J. Rolph, and K. Briggs, 2010: High-quality surface meteorological and oceanographic observations from research vessels to support flux applications. Poster, *Surface Fluxes: Challenges for High Latitudes*, Boulder, CO, 17-19 March 2010.

Smith, S. R., J. Rolph, K. Briggs, M. A. Bourassa, and J. May, 2010: Activities of the Shipboard Automated Meteorological and Oceanographic System Initiative Data Assembly Center. Short abstract and poster, *NOAA Ocean Climate Observation 7th Annual System Review*, Silver Spring, MD, 27-29 October 2010.

- Bourassa, M. A., P. J. Hughes, J. Rolph, J. P. Scott, and S. R. Smith, 2010: Recent air/sea flux activities at FSU. *NOAA Climate Observations Division 8th Annual Review*, Sept., Silver Spring, Maryland.
- Smith, S. R., J. Rolph, K. Briggs, M. A. Bourassa, and J. May, 2010: Activities of the Shipboard Automated Meteorological and Oceanographic System Initiative Data Assembly Center. *NOAA Climate Observations Division 8th Annual Review*, Sept., Silver Spring, Maryland.
- Montee, G., J. J. Rolph, M. A. Bourassa, and S R. Smith, 2011: Raw data processing in SAMOS 2.0. *Northern Gulf Institute Annual Conference 2011*, May, Mobile, Alabama.
- Smith, S.R., J. Rolph, K. Briggs, and M. A. Bourassa, 2011: Research Vessel Observations: A modern data record for marine climatology. Poster, *Third International Workshop on Advances in the Use of Historical Marine Climate Data (MARCDAT-III)*, Frascati, Italy, 2-6 May 2011.
- Smith, S. R., M. A. Bourassa, J. Rolph, K. Briggs, and D. Jackson, 2011: Observations for climate: Shipboard automated meteorological and oceanographic systems on research vessels. Poster, WCRP Open Science Conference, Denver, CO, 24-28 October 2011.
- Hughes, P. J., M. A. Bourassa, S. R. Smith, and J. J. Rolph, 2011: Observations for climate: importance of submonthly variability on monthly mean latent heat flux estimates and impacts on the oceanic mixed layer. WCRP Open Science Conference, October, Denver, CO.
- Smith, S. R., M. A Bourassa, J. Rolph, K. Briggs, and D. Jackson, 2012: SAMOS – Supporting marine atmosphere-ocean research. Poster, 2012 *Ocean Sciences Meeting*, Salt Lake City UT, 20-24 February 2012.
- Smith, S. R., M. A Bourassa, J. Rolph, K. Briggs, and D. Jackson, 2012: SAMOS – Supporting marine atmosphere-ocean research. Poster, *NOAA Ocean Climate Observation 8th Annual PI Meeting*, Silver Spring, MD, 25-27 June 2012.
- Smith, S. R., N. Lopez, M. A Bourassa, J. Rolph, and K. Briggs, 2012: Research Vessel Meteorological and Oceanographic Systems Support Satellite and Model Validation. *Fall American Geophysical Union Meeting*, San Francisco, CA, 3-7 Dec 2012.