

John Nordlie

Curriculum Vitae

John Nordlie

Education:

- December 1992 Master of Science, Space Studies
University of North Dakota, Grand Forks, North Dakota
- May 1990 Bachelor of Science, Computer Science & Geography
University of North Dakota, Grand Forks, North Dakota

Professional Experience:

- Aug 2009 - present Instructor, Department of Computer Science,
University of North Dakota
- Mar 1996 - present Faculty Research Assistant / Systems Administrator
Regional Weather Information Center, University of North Dakota
- Oct. 1994 - Jan. 1996 Microcomputer Administrator, MIS Department, Grand Forks City Hall
- July 1993 - Jan. 1996 Technician, Department of Space Studies, University of North Dakota
- Jan. 1993 - July 1993 Programmer, Atmospherium, University of North Dakota
- Apr. 1992 - Aug. 1992 Programmer, EROS Data Center, Sioux Falls, South Dakota
- July 1991 - Dec. 1992 Programmer / Assistant, Atmospherium, University of North Dakota
- Jan. 1991 - June 1991 Research Assistant, Space Studies Department, University of North Dakota
- Apr. 1987 - May 1990 Consultant, Department of Biochemistry, University of North Dakota
- Apr. 1986 - Sept. 1986 Tutor, Disabled Student Services, University of North Dakota
- Apr. 1984 - Sept. 1984 Research Assistant, Department of Biochemistry, University of North Dakota
- Apr. 1985 - Sept. 1985 Research Assistant, Department of Biochemistry, University North Dakota

Selected Publications:

John Nordlie, Jeremy Straub, Chris Theisen, Ronald Marsh, "Solar Ballooning: A Low-Cost Alternative to Helium Balloons for Small Spacecraft Testing," The American Institute of Aeronautics and Astronautics (AIAA) SciTech 2014 conference, National Harbor, Maryland, January, 2014.

Ronald Marsh, John Nordlie, Chris Theisen, Nate Kimber, and Mark Askelson, "Aerospace Aircraft Information Display System for Flight Operations in North Dakota," IEEE Aerospace Conference, Bozeman, Mt, March, 2014.

John Nordlie, Jeremy Straub, Chris Theisen, and Ronald Marsh, "The Use of Solar Balloons at UND as a Lo-Cost Alternative to Helium Balloons for Small Spacecraft Testing and STEM Education," UND Scholarly Forum, March, 2014.

<http://www.stratoballooning.org/presentation/evaluation-materials-suitability-construction-solar-powered-unmanned-hot-air-balloons>

Straub, Jeremy, Joe Vacek, and John Nordlie. "Considering Regulation of Small Unmanned Aerial Systems in the United States." *Air and Space Law* 39.4/5 (2014).

Askelson, M., Dreschel, P., Nordlie, J., Theisen, C., Carlson, C., Woods, T., Forsyth, R., and Heitman, R., *MQ-9 Unmanned Aircraft Responsiveness to Air Traffic Controller Commanded Maneuvers: Implications for Integration into the National Airspace System*. Air Traffic Control Quarterly, Vol 21, Number 1, 2013, pg 79 – 92.

Straub, J., Nordlie, J., and Anderson, E., *A Need for Operating Standards in the Academic and Research High Altitude Balloon Community*. Issues in Aviation Law and Policy, Vol 12, Number 3, Spring 2013, pg 483 – 503.

Marsh, R., K. Ogaard, M. Kary, J. Nordlie, and C. Theisen, 2011: Development of an Information Display System for UAS Operations in North Dakota. *International Journal of Computer Information Systems and Industrial Management Applications*, ISSN 2150-7988, Volume 3, pp. 435-443.

Ronald Marsh, Kirk Ogaard, Micah Kary, John Nordlie and Chris Theisen. *Development of a Mobile Information Display System for UAS Operations in North Dakota*, *International Journal of Computer Information Systems and Industrial Management Applications*, Volume 3, pg 435 – 443, 2011, www.mirlabs.net/ijcisim/index.html

Marsh, Ronald, et al. "Development of a mobile information display system for UAS operations in North Dakota." *International Journal of Computer Information Systems and Industrial Management Applications* 3 (2011): 435-443.

Tilley, J.S., D. J. Delene, J. Nordlie, P. Tselios, D. Boura, K. Strang, R. Johnson, C. Taylor, B. Gunvalson, G. Sever and M. A. Askelson, 2011: On the use of low-cost unmanned aircraft platforms as part of a system to determine short-term electromagnetic propagation characteristics in the surface and boundary layers. *Second Aviation, Range and Aerospace Meteorology Special Symposium on Weather-Air Traffic Management Integration*. Amer. Met. Soc., Seattle, WA, 23-27 January.

Marsh, R., M. Kary, K. Ogaard, and J. Nordlie, 2010: Development of a Mobile Ganged Phase Array Radar – Risk Mitigation System System for UAS Operations in North Dakota. WorldComp SERP, Las Vegas, NV.

Marsh, R., M. Kary, K. Ogaard, J. Nordlie, and C Thesien, 2010: Development of an Information Display System for UAS Operations in North Dakota. IADIS Computer Graphics, Visualization, Computer Vision and Image Processing (CGVCVIP), Friburg, Germany.

Marsh, R., K. Ogaard, M. Kary, and J. Nordlie, 2009: Development of a Range Control Center Information Display System For UAS Operations in North Dakota. Worldcomp, Las Vegas, NV. Refereed.

Marsh, R., K. Ogaard, M. Kary, and J. Nordlie, 2009: A Data Manager to Multicast UAS IDS Data to Multiple IDSs. Midwest Instruction and Computing Symposium: MICS, Rapid City, SD.

Marsh, Ron, et al. "A Data Manager to Multicast UAS IDS Data to Multiple IDSs." *Proceedings of the Midwest Instruction and Computing Symposium: MICS, Rapid City, South Dakota, USA*. 2009.

Marsh, R., S. Buettner, K. Ogaard, and J. Nordlie, 2008: Simulation of & Development of a Range Control Center Information Display System for UAS Operations in North Dakota. MICS, La Crosse, WI.

Lendway, M., Trandem, S., Goodell, P., Nordlie, J., Berseth, B.L., Rhoads, A., Martel, F., Wang, Y., Camargo, A., Semke, W.H., and Schultz, R.R., *Integration and Flight of a University-Designed UAV Payload in an Industry-Designed Airframe*. In Proceedings of Association for Unmanned Vehicle Systems International (AUVSI) Unmanned Systems North America 2007, Washington, DC, August 6-9, 2007.

Matthew Lendway, Samuel Trandem, Patrick Goodell, John Nordlie, Brian L. Berseth, Aaron Rhoads, Florent Martel, Yi Wang, Aldo Camargo, William H. Semke, and Richard R. Schultz, *Integration and Flight of a University-Designed UAV Payload in an Industry Designed Airframe*. In Proceedings of Association for Unmanned Vehicle Systems International (AUVSI) Unmanned Systems North America 2007, Washington, DC, August 6-9, 2007.

Wood, Charles A.; Fevig, Ron; Nordlie, John . *An Asteroid Family Among the NEAs?*. Proceedings of the twenty-fifth Lunar and Planetary Science Conference, March, 1994.

Presentations:

Invited talk: Visiting Scientist Series: “Stratospheric Flying on a Budget: Unmanned High-Altitude Ballooning”. February 28, 2017, University of Mary, Bismarck, North Dakota.

J. Nordlie, R. Marsh, J Straub, “Evaluation of Materials for Suitability in the Construction of Solar-Powered Unmanned Hot-Air Balloons,” Academic High Altitude Conference, July, 2014.

R. Marsh, K. Ogaard, M. Kary, J. Nordlie, and C. Theisen, “Development of an Information Display System for UAS Operations in North Dakota,” International Journal of Computer Information Systems and Industrial Management Applications (IJCISIM). Submitted January, 2011.

R. Marsh, M. Kary, K. Ogaard, and J. Nordlie, “Development of a Mobile Ganged Phase Array Radar – Risk Mitigation System System for UAS Operations in North Dakota,” WorldComp SERP 2010. Las Vegas, NV.

R. Marsh, M. Kary, K. Ogaard, J. Nordlie, and C Thesien, “An Information Display System for UAS Operations in North Dakota,” IADIS Computer Graphics, Visualization, Computer Vision and Image Processing (CGVCVIP) 2010 conference. Frieburg, Germany.

Ron Marsh, K. Ogaard, M. Kary, and J. Nordlie, “Development of a Range Control Center Information Display System For UAS Operations in North Dakota”, SERP’09, Las Vegas, Nv., June, 2009.

R. Marsh, K. Ogaard, and M. Kary and J. Nordlie, “A Data Manager to Multicast UAS IDS Data to Multiple IDSs,” MICS, Rapid City, SD. April 2009.

Invited Talk, High Altitude Balloon Group. Dickenson State University faculty, Bismarck North Dakota, April 2009.

R. Marsh, S. Buettner, K. Ogaard, and J. Nordlie, “Simulation of & Development of a Range Control Center Information Display System For UAS Operations in North Dakota,” MICS, La Crosse, WI, April, 2008.

Invited Talk, High Altitude Balloon Group. Space Studies Department, University of North Dakota, November 2006.

Poster Presentation, High Altitude Balloon Group. “Space on the Prairie”, NASA Workforce Development Grant Conference, University of North Dakota, August 2004.

Poster Presentation. *Design and construction of a subsurface temperature profiling probe.* University of North Dakota Graduate School Scholarly Forum, UND, March 2004.

Poster Presentation. *On the use of a Linux Beowulf Computing Cluster for Meteorological Ensemble Modelling.* University of North Dakota Graduate School Scholarly Forum, UND, March 2004.

Poster Presentation, High Altitude Balloon Group. “Space on the Prairie”, NASA Workforce Development Grant Conference, University of North Dakota, August 2003.

Invited Talk, High Altitude Balloon Group. Sinte Gleska Univeristy, Rosebud, South Dakota, May 2000.

Graham, J.; Nordlie, J.; Mibeck, B.A.F.; Milford, C.R. *Scientific Ballooning on the Northern Plains.* 2nd Biennial Joint EPSCoR Conference on Stimulating Competitive Research, North Dakota State University, Fargo, North Dakota, September 1999.

Wood, C.; Fevig, R.; Nordlie, J. *An Asteroid Family Among the NEAs?.* 25th Lunar and Planetary Science Conference, March 1994.

Professional Society Memberships:

2001 – present Sigma Xi Scientific Research Society

2010 - present Association for Computing Machinery