

## CURRICULUM VITAE

### Loral O'Hara

Research Engineer  
Applied Ocean Physics and Engineering  
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### EDUCATION:

M.S. Aeronautics and Astronautics, Purdue University, December 2009

B.S. Aerospace Engineering, University of Kansas, December 2005

### PROFESSIONAL EXPERIENCE:

Research Engineer, Woods Hole Oceanographic Institution, AOPE, May 2012 - present

Engineer II, Woods Hole Oceanographic Institution, AOPE, Nov 2009 - May 2012

Graduate Research Fellow, Purdue University, Aug 2007 - Oct 2009

Associate Engineer, Rocketplane Inc., Jan 2006 - May 2007

Engineering Intern, Lockheed Martin Aeronautics Company, Summer 2005

NASA Academy Research Associate, Goddard Space Flight Center, Summer 2004

Intern, Jet Propulsion Laboratory, Summer 2003

### TRAINING, CERTIFICATIONS, LICENSES:

Emergency Medical Technician – Basic, May 2017

Wilderness First Responder, Jan 2016

Advanced First Aid (WHOI), Nov 2014

Scientific Diver, American Association of Underwater Sciences (AAUS), June 2011

Advanced Open Water, NITROX, National Association of Underwater Instructors (NAUI), Aug 2011

Open Water SCUBA certified, Professional Association of Divers Instructors (PADI), Sept 2008

Private Pilot License, Sept 2000

### AWARDS:

National Science Foundation Graduate Research Fellowship, 2008

Ross Fellowship, Purdue University, 2007

NASA Reduced Gravity Student Flight Opportunities Program, 2005

NASA Academy, Goddard Space Flight Center, 2004

National Merit Scholarship (University of Kansas), 2001-2005

### RESEARCH INTERESTS:

Development of systems used to explore extreme environments. Areas of specialty include mechanical/structural design and analysis, systems engineering, and vehicle test/operations.

### SUPERVISION/MENTORING AT WHOI:

Daniel Kleinman, Engineering Assistant III, Jul-Aug 2014

Marjorie Lucas, Engineering Assistant II, Jun-Aug 2011

### CRUISE PARTICIPATION:

24Feb – 10Mar 2017: R/V Atlantis, Arica, Chile to Arica, Chile. Processed ROV *Jason* data.

08Jul – 15Aug 2016: R/V Sikuliaq, San Diego, CA to Victoria, BC. Supported ROV *Jason* operations as Mechanical Engineer & co-Data Processor to service OOI Cabled Array seafloor equipment and moorings.

### **CRUISE PARTICIPATION (continued)**

27Jun – 07Jul 2016: R/V *Sikuliaq*, San Diego, CA to Victoria, BC. Supported ROV *Jason* operations as Mechanical Engineer & co-Data Processor to deploy seismic instrumentation.

24May – 11Jun 2016: R/V *Sikuliaq*, San Diego, CA to Victoria, BC. Supported ROV *Jason* operations as Mechanical Engineer & co-Data Processor to conduct measurements of volcanic inflation using mobile pressure recorders.

28Sep – 16Oct 2015: R/V *Thompson*, Seattle, WA to Seattle, WA. Supported ROV *Jason* operations as Mechanical Engineer to recover seafloor seismic instrumentation.

9- 30Aug 2015: R/V *Thompson*, Seattle, WA to Seattle, WA. Supported AUV *Sentry* operations to map Axial Seamount on the Juan de Fuca ridge.

17Oct – 11Nov 2013: R/V *Atlantis*, San Diego, CA to San Diego, CA. Supported sea trials of the upgraded DSV *Alvin* submersible. Conducted the inclining experiment to characterize vehicle stability. Engineer/observer on third open ocean dive to 1600m (Dive 4674).

25May – 19Jun 2013: R/V *Falkor*, St. Petersburg, FL to Montego Bay, Jamaica. Supported HROV *Nereus* operations to explore the Cayman Trough for new hydrothermal vents.

15-21Dec 2011: R/V *Atlantis*, Gulfport, MS to Jacksonville, FL. Packed and prepared DSV *Alvin* vehicle and support equipment for shipping to Woods Hole.

4-15Dec 2011: R/V *Atlantis*, Gulfport, MS to Gulfport, MS. Supported HOV *Alvin* operations to assess Deepwater Horizon oil spill effects on corals.

### **PRESENTED TALKS:**

O'Hara, L. "From Space to Seafloor: The Joy in the Journey," TEDx New Bedford, New Bedford, MA, 6 Nov, 2015.

O'Hara, L., "Deepsea Challenger – Mechanical Systems Review," Underwater Intervention, New Orleans, LA, 10-13 Feb, 2014.

O'Hara, L., Yu, Y., Anderson, W.E., Merkle, C., Smith, R., "A Vortex Shedding-Based Combustion Response Model Applied to an Unstable Liquid Rocket Combustor," 45th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, Denver, CO, 2-5 Aug, 2009.

O'Hara, L., Sisco, J. C., Portillo, E., Anderson, W.E., "Measurement of Phase Relationship between Vortex Shedding and an Unsteady Acoustic Field," 44th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, Hartford, CT, 21-23 July, 2008.