

# Curriculum Vitae

## Lane J. Abrams

Lane Jordan Abrams  
Senior Engineer  
Applied Ocean Physics and Engineering  
Smith 301N / Mailstop #17  
Woods Hole Oceanographic Institution  
Woods Hole, MA 02543

508-289-2724  
FAX 508-456-2107  
[labrams@whoi.edu](mailto:labrams@whoi.edu)

### Education:

MS: (Electrical and Computer Engineering), Carnegie-Mellon University, 1985  
BS: (Applied and Engineering Physics), Cornell University, 1984

### Professional Experience:

Senior Engineer, WHOI; March 2010 to Present  
Research Engineer, WHOI; July 1991 to March 2010  
Member of Technical Staff, AT&T Bell Laboratories; February 1986 to July 1991  
Teaching Assistant, Carnegie-Mellon University; September 1984 to December 1985  
Computer Programmer, Carnegie-Mellon University; Summer 1985  
Computer Operator, Cornell University; Summer 1984

### Awards:

Granted TWIC credential February 16, 2008  
Granted Secret security clearance September 18, 2002  
Recipient of the 1998 Lucent Technologies Patent Recognition Award, May 1998  
Coauthor of US Patent #5,479,582 - "Message-Oriented Bank Controller Interface"  
Coauthor of US Patent #5,018,184 - "Automated Channel Test Unit"

### Affiliations:

Member of the Cornell Engineering Alumni Association

### Engineering Projects:

*Alvin* Upgrade Project: Electrical Lead Engineer, architecture design, system and electrical design, project management  
DSV *Alvin* Program: Electrical Lead Engineer, data, electrical and electronic systems design and maintenance  
HabCam / Scallop Sled: system and electrical design  
Ocean Cube: system and electrical design, test and deployment  
Various underwater cameras: system and electrical design, construction and test  
Various underwater instrumentation: electrical design, construction and test

### Research and Technical Interests:

Digital electronics & circuit design  
Hardware and software development of real-time control instrumentation  
Data acquisition systems  
System architecture, circuit design, PCB design, microcontroller programming

April 24, 2015

# Curriculum Vitae

## Lane J. Abrams

Digital Loop Carrier System circuit designer, VLSI designer, firmware designer

### Professional Activities:

Trustee Partner: Joe Barr, 2013 to present  
Trustee Partner: Ted Brainard, 2010 to 2012  
Trustee Partner: Jim Orr, 2007 to 2009  
Trustee Partner: Jeff Thompson, 2004 to 2006  
Planning for the WHOI Summer Picnic, 1993 to present  
Member of the AOP&E Technical Staff Recruitment Committee, 2006 to 2009  
Member of the FIRST-LEGO League Game Design Group, 2005  
WHOI Staff Committee, member 1998-2000  
WHOI Staff Committee, recorder 1998-2000

### Participation in Education Program:

Presented "Alvin Power Controller" to the AOPE Tech Talk, July 2013  
Presented "RHOV Project Update" to the Alvin Operations Group – November 2008  
Presented "Video Training" to the Alvin Operations Group – March 2000  
Presented "The Use of Computing Technology in the ALVIN and Jason Programs" to the Boston Chapter of the Association of Computing Machinery – January 1994  
HAZWOPER Training – June 2010  
Microchip USB Programming – October 2008  
Microchip TCP/IP Programming – July 2008  
NDDS Training – November 2003  
OrCAD Capture Training – August 2002  
Performance Evaluation Training – October 1993

### Supervision at WHOI:

Rick Sanger, a Research Engineer, from 2011 into 2012 as a contractor, and from 2012 to present as an employee.  
Devin Mulcahy, an Engineering Assistant I, casual employee during the Summers of 2011 to 2013.  
George Meier, a Senior Engineering Assistant II, from 1993 through his retirement in 2006.  
Kelan Huang, an Information Systems Associate III, from 1993 through 2006.  
Robert Green, an Engineer II, for his entire stay at WHOI, 2001 through 2004.  
Dag Wahlberg, an Engineering Assistant III, in 2000.  
Participation in numerous hiring interviews to fill Alvin Operations Group positions.  
Examiner in numerous Alvin Pilot Review boards.

### Cruise Participation:

Where not noted, cruise participation is for services with the Alvin Operations Group.  
November 2013: Atlantis, San Diego, *Alvin* Sea Trials  
December 2010: Atlantis, Gulfport to Jacksonville, Fisher cruise  
June 2009: Atlantis, Astoria to Seattle, Holden cruise  
November 2008: Atlantis, Manzanillo to Guaymas, Cary cruise  
September 2008: Atlantis, Astoria to San Diego, transit

April 24, 2015

## Curriculum Vitae Lane J. Abrams

June 2007: Atlantis, San Diego to San Diego, Alvin sea trials  
November 2006: Atlantis, Manzanillo to Manzanillo, von Damm cruise  
May 2006: Atlantis, Key West to Galveston, NOAA cruise  
September 2005: Atlantis, Seattle to Seattle, Becker cruise  
May 2004: Atlantis, San Diego to Seattle, Strick cruise  
September 2002: Atlantis, Newport OR to Newport OR, Huyer cruise  
September 2001: Atlantis, Bermuda to Woods Hole  
June 2001: Atlantis, Woods Hole to Bermuda, Alvin sea trials  
October 2000: Atlantis, Galveston to Key West, MacDonald cruise  
March 1999: Atlantis, Manzanillo to Manzanillo, Karson cruise, SSSG technician  
August 1997: Oceanus, Woods Hole to Woods Hole, SSSG technician  
June 1997: Atlantis, Woods Hole to Bermuda, Alvin sea trials  
June 1996: Atlantis II, Woods Hole to Woods Hole, Martin cruise, SSSG technician  
April 1995: Atlantis II, San Diego to San Diego, Smith cruise  
June 1994: Knorr, Barbados to Woods Hole, Kleinrock cruise, Argo/AMS120  
November 1993: Atlantis II, San Diego to San Diego, Engineering cruise  
May 1993: Atlantis II, Azores to Azores, Langmuir cruise  
March 1993: Atlantis II, Woods Hole to Bermuda, Alvin sea trials  
February 1992: Atlantis II, San Diego to San Diego, Engineering cruise  
August 1991: Atlantis II, Astoria to Astoria, Embley cruise

### **Cruise Mob/Demob:**

Mobilization and demobilization for Alvin cruises also includes installation and maintenance of equipment, and engineering/test dives.

March, 2014: Atlantis, New Orleans  
June 2012: R/V Sharp (HabCam), Lewes, DE  
April 2008: Atlantis, San Diego  
January 2004: Atlantis, San Diego  
June 2002: Atlantis, Astoria  
April 2002: Atlantis, San Diego  
March 2002: Atlantis, San Diego  
July 2001: Atlantis, Azores  
March 2000: Atlantis, San Diego  
October 1999: Atlantis, San Diego  
June 1999: Atlantis, San Diego  
May 1999: Atlantis, Manzanillo  
August 1998: Boston, Magellan camera gear mobilization  
June 1998: Atlantis, Astoria  
March 1998: Atlantis, San Diego  
September 1997: Knorr INSURV inspection  
March 1997: Atlantis, Moss Point  
October 1995: Atlantis II, San Diego  
June 1994: Atlantis II, San Diego  
October 1993: Atlantis II, Astoria  
April 1993: Atlantis II, Bermuda  
November 1991: Atlantis II, San Diego

April 24, 2015

## **Curriculum Vitae Lane J. Abrams**

September 1991: Atlantis II, San Diego

### **Publications:**

Abrams, L., "The N456 Navigator System," Woods Hole Oceanographic Institution, Woods Hole, MA, Tech. Rep. WHOI-2009-01, Jan. 2009.

Howland, J.; Gallagher, S.; Singh, H.; Girard, A.; Abrams, L.; Griner, C.; Taylor, R.; Vine, N., "Development of a Towed Survey System for Deployment by the Fishing Industry," OCEANS 2006, Sept. 2006. doi: 10.1109/OCEANS.2006.307098.

Cited on a poster presented by Scott Gallagher at the Ocean Sciences meeting, 2006.