

CURRICULUM VITAE

Timothy V. Kane

Sr. Engineering Assistant II

Geology & Geophysics Department

Woods Hole Oceanographic Institution, Woods Hole MA 02543

Work: 508 289-4861 Cell: 781 267-5231 or tkane@whoi.edu

EDUCATION:

Associates Degree in Applied Science of Electronics Technology

- Pascal Instrument Center New Mexico: Guralp 3T seismometer repair
- Guralp factory, England: Guralp seismometer repair. These are the most widely used seismometers in WHOI seismograph instruments

PROFESSIONAL EXPERIENCE:

Current position: Sr. Engineering Assistant II in the OBS (Ocean Bottom Seismograph) group in G&G.

04/24/2018 - Sr. Engineering Assistant II – Promotion date

11/7/2011- Sr. Engineering Assistant I – Promotion date

3/31/2009 - Engineering Assistant III - Promotion date

12/1/2008 - Engineering Assistant II - Hire date

PROFESSIONAL ACTIVITIES:

- Deploy and recover both short period and broadband ocean bottom seismographs at sea.
- Designed and implemented a Fresh Water Release system used successfully to recover 10 seismographs deployed under water for 1 year in Yellowstone Lake.
- Designed and implemented a two part recovery aid system. The remote system transmits GPS coordinates over an unlicensed radio frequency, from the instrument being recovered at sea. The local system plugs into a laptop on the ship where the remote GPS coordinates, distance from the ship, and relative bearing are displayed. This system was successfully used on 15 WHOI ocean bottom seismographs recovered in the Gulf of Alaska.
- Design of test fixtures to support testing and characterization of scientific sensors.
- Test, troubleshoot, and repair Guralp 3T seismometers and Geospace geophones.

- Build, test, troubleshoot and maintain the electronic and mechanical assemblies used in WHOI instruments, and all manner of technical support.
- Proficient in OrCad schematic capture.
- Proficient in use of 3D mechanical design software (RS Mechanical and Cura) for use in 3D printing.
- Extensive use of Arduino Mega 2560 series and programming in the Arduino Integrated Development Environment using C programming.
- Presentation to the Board of Trustees in 2017. Highlighted technical challenges and successes of the WHOI work performed in Yellowstone Lake in 2017.
- Casual work with OOI and the REMUS group building, testing, and wiring.
- Mentoring of new hires within the OBS group.

OUTSIDE WHOI PROFESSIONAL ACTIVITIES:

Smiths Medical North America – Rockland, MA Sept. 2008–Dec. 2008

Contract Engineering Services

- Smiths Medical R&D Critical Care, Thermal Management group.

Haemonetics Corporation, Braintree, MA 1990 – 2008

Electrical Engineer ~ Surgical R&D 2003 – 2008

- Electrical Engineer in an R&D new products development group. Multiple blood apheresis projects.

Associate Engineer ~ Surgical R&D 1998 – 2003

- Design test fixtures, schematic capture. Testing of experimental devices in surgical theater. Extensive blood lab experience at the Naval Blood Research Lab in Boston

Technical Specialist ~ Blood Bank R&D 1990 – 1998

- Component level testing and troubleshooting of prototype devices.

Honeywell Information Systems 1979-1990

Associate Engineer

- Environmental & Safety Engineering - Radiated & conducted emissions testing of computers and peripherals to gain FCC certification.

Test Technician-A

- Component level troubleshooting of high speed disk controllers and peripherals for Honeywell's Level 6 mid-size computers. Held security clearance to work on General Purpose Interface boards for use at Kennedy Space Center.

PROFESSIONAL AFFILIATIONS:

- Member of G&G Annual Review Committee 2015 and 2017
- Member of Graded Marine Personnel Committee 2014-2015

RESEARCH INTERESTS:

Providing electrical and mechanical engineering support for scientific experiments both at sea and on land.

CRUISE PARTICIPATION:

2019 Aug-Sept: Kodiak to Kodiak, Expedition Leader on the ASSCE cruise, R/V Marcus G. Langseth, successfully recovered 30 Broad Band seismographs at sea, chief scientist Geoff Abers.

2019 June-Aug: Hawaii' to Kodiak Alaska, Expedition Leader on Shillington Phase II, successfully deployed and recovered 15 Short Period seismographs at sea, chief scientist Donna Shillington.

2018-2019 Dec-Feb: Ushuaia, Argentina to King George Island, Antarctica. Deploy short period instruments in Antarctic, Chief scientist William Wilcock- Bransford Strait experiment.

2018: Nov: WHOI to WHOI, Deploy 6 Broad Band Seismometers from R/V Connecticut for USGS scientists Scientists Uri Ten-Brink and Nathan Miller.

2018: Sept-Oct: Hawaii to Hawaii', Technical lead on Shillington experiment, R/V M.G. Langseth. Successfully deployed and recovered 15 short period seismographs during this active seismic cruise for chief Scientist Donna Shillington.

2018 Aug: Yellowstone Lake, Yellowstone National Park. Recover 10 seismometer on the lake bottom. Chief Scientist Rob Sohn.

2018: Jul: Alaska, Sensor preparation for Broad Band OBS's. Preparing Guralp sensors for chief scientist Doug Weins experiment in Alaska.

2017 Aug: Yellowstone Lake, Yellowstone National Park. Deploy 10 OBS. Chief Scientist Rob Sohn.

2016 Aug: Yellowstone Lake, Yellowstone National Park. Recover 2 OBS. Chief Scientist Rob Sohn.

2016 Jul: Yellowstone Lake, Yellowstone National Park. Technical lead, deployment of 3 short period OBS, recover 1. Chief Scientist Rob Sohn.

2016 Nov – Dec: R/V Marcus Langseth; Piraeus, Greece to Heraklion, Greece. Deployment and recovery of 30 short period OBS. Chief Scientist Emily Hooft.

2015 Dec 29 – Feb 28, 2016: R/V Langseth (Columbia University)

2015 Aug: R/V Oceanus; Newport, OR to Newport. Recover 24 OBS.

2015 Apr - May: USCGC Oak; San Juan, PR to Charleston, SC. Deployment of 6 OBS.

2015 Apr: R/V Endeavor; N Kingstown, RI to N Kingstown, RI. Recovery of 30 OBS.

2014 Jul: R/V Oceanus; Newport, OR to Newport. Deployment of 24 OBS.

2014 May: R/V Oceanus; Newport, OR to Newport. Recovery of 21 OBS.

2014 Apr: R/V Endeavor; N Kingstown, RI to Narragansett, RI. Deployment of 30 OBS.

2013 Sep: R/V Oceanus; Newport, OR to Newport. Recovery of 30 OBS.

2013 May - Jun: R/V Oceanus; Newport, OR to Newport. Recovery of 23 OBS.

2013 Jul - Aug: R/V Oceanus; Newport, OR to Newport, OR. Deployment of 23 OBS.

2013 Dec: R/V Connecticut; Woods Hole to Woods Hole. Recovery of 12 and redeployment of 5 OBS.

2013 Sep: R/V Tioga WHOI to WHOI. Recover 4 short period OBS instruments.

2012 Jan – Feb: R/V Thompson (WU) Guam to Guam. Technical Lead, deploy 28 short period OBS instruments, 15 instruments were moored/tethered.

2012 Nov – Dec: R/V Connecticut (UCONN) WHOI to WHOI. Technical Lead, recover 12 and deploy an additional 5 short period OBS instruments.

2012 Sep - Oct: R/V Melville; San Diego to San Diego. Deployment of 30 OBS.

2012 Aug - Sep: R/V Oceanus; Newport, OR to Newport. Deployment of 25 OBS.

2012 May: R/V Oceanus; Newport to Newport. Recovery of 25 OBS.

2011 Nov: R/V Wecoma; Newport to Newport. Deployment of 25 OBS.

2011 Jul – Aug: R/V Kilo Moana (UHMC) Oahu Hawaii to Oahu Hawaii. Technical Lead, survey and recover 12 short period OBS instruments.

2011 Jul: Norsemen II, Kodiak Alaska to Kodiak Alaska. Technical lead, deployment of 12 short period OBS

2011 Jun – Jul: R/V Wecoma (OSU). Newport to Newport. Recover 10 broadband OBS instruments.

2011 Jun: R/V Wecoma; Newport to Newport. Recovery of 10 OBS.

2010 Nov – Dec: R/V Kilo Moana (UHMC), Oahu, Hawaii to Oahu, Hawaii. Recover 30 broadband OBS instruments.

2010 Sep: R/V Kilo Moana (UHMC) Technical Lead. Oahu, Hawaii to Oahu, Hawaii. Deploy 12 short period OBS instruments.

2009 Oct – Nov: R/V Roger Revelle; Tonga to Fiji. Deploy 31 OBS.

2009 Jan – Mar: R/V Marcus Langseth; Fiji to Tonga. Deployment and recovery of 60 short period OBS