

# MATE Internship Program Update

*RVTEC Meeting, Woods Hole, MA, Oct 15, 2018*

**Nandita Sarkar**

**Deidre Sullivan – Director & Internship Coordinator  
Marine Advanced Technology Education (MATE) Center**



# Internship Program Overview

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- **Started with a NSF/UNOLS grant in 1999 to fill need for marine technicians.**
- **Since 1999, 300+ community college and university students have been placed in research vessels, labs and industry settings (200+ were placed on UNOLS vessels).**
- **Present funding till 2021**
- **NSF Grant 3-4 year funding cycle:**
  - **Host 12-15 interns in 2-16 week internships each summer; support to lengthen internships beyond one research cruise at each site.**
  - **Host 1 six-month intern on 1-2 host vessels each year.**

# What the community gains

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## Mentors/Hosts:

- **An extra pair of hands - almost free!**
- **Direct involvement in training the next generation of marine technicians**
- **A sneak preview of the best graduates from marine technology programs for hiring!**

## Interns:

- **Job experience essential for employment – often the most important step**
- **Better understand the diversity of ocean careers**
- **Experience with cutting-edge technologies that are not available at their institutions**

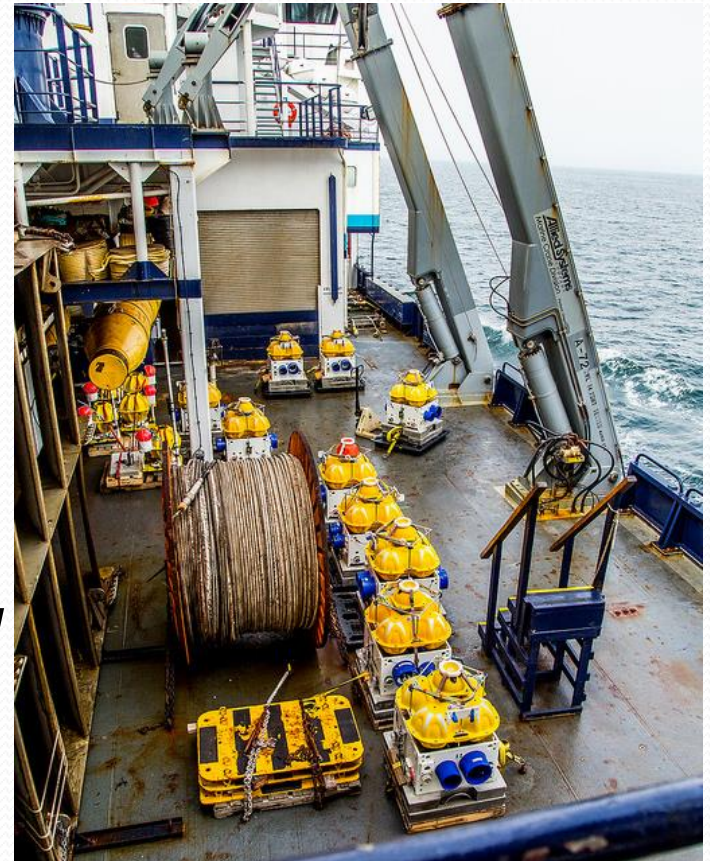
# Intern selection process

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- **Interns' interests, knowledge, and skills are carefully matched to mentor requirements**
  - **Summer internships - Mentor receives the 3-5 resumes that best match their needs**
  - **LT internship - Alice Doyle at UNOLS and Nandita at MATE review applicants and determine top 10-12 finalists**
  - **Mentor(s) are encouraged to interview candidates**
  - **Mentor makes final decision on which student(s) they host**
  - **MATE Coordinator checks references, makes offer, takes care of paperwork and travel logistics**
- **Preference (except for six-month internship) given to technical community college students and marine technology undergraduate students**

# 2018 Internships

- **1 long-term intern:**  
Emily Shimada with WHOI and Scripps/STARC
- **10 other interns were placed on UNOLS/USCG/NOAA vessels:**  
*Sharp (1), Healy (2), Atlantis (2), Atlantic Explorer (4), Neil Armstrong (1), Pisces (1)*
- **5 women, 6 men**
- **2 from community colleges**



# 2018 Interns getting hired

- **Royhon Agostine – Intern on *USCGC Healy***
  - Research Technician at Scripps Institution of Oceanography
- **Charles Brooks – Intern on *R/V Sharp***
  - Research Technician at Scripps Institution of Oceanography
- **AND??**

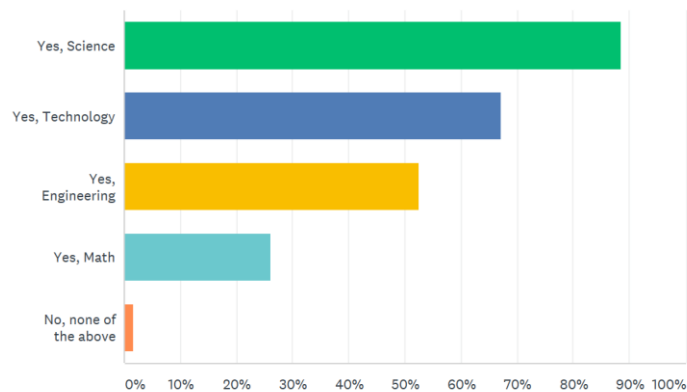


# 2018 Happenings

- **Preliminary results from survey of intern alumni till 2016**
  - **75 responses from approximately 230 contacted**

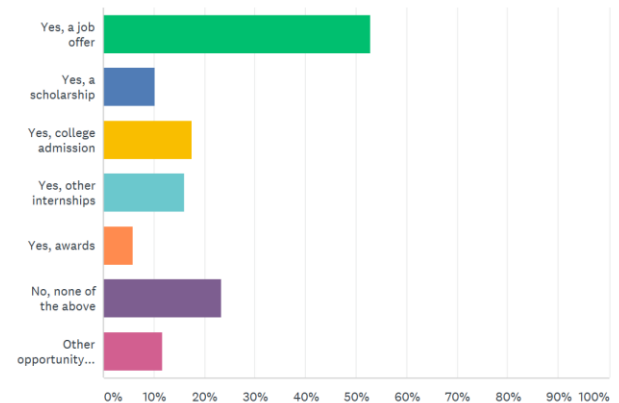
Since your internship, have you ever worked in a science, technology, engineering or math field? (Mark all that apply)

Answered: 61 Skipped: 14



Has your internship contributed to you receiving a job offer, a scholarship, college admission, other internships, or awards? (Mark all that apply)

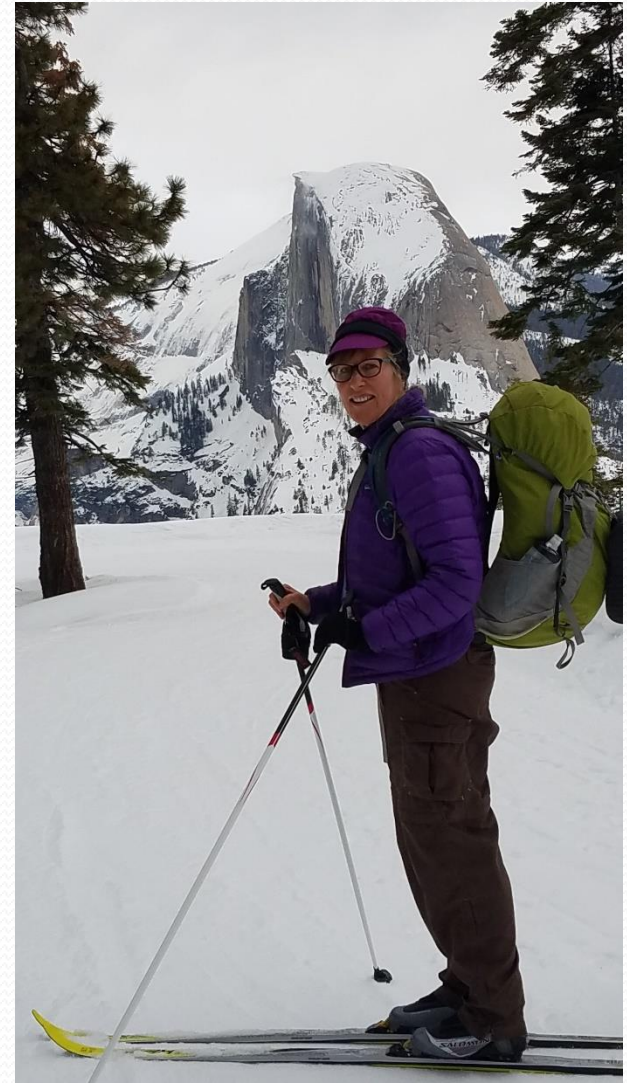
Answered: 68 Skipped: 7



# New Internship Coordinator

- **Ms. Deidre Sullivan**

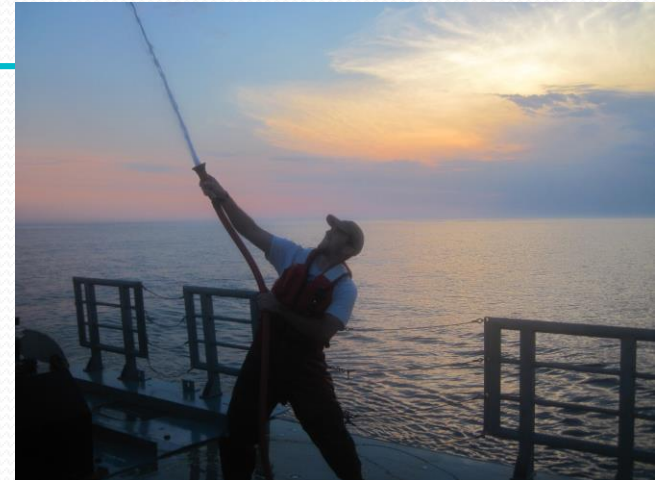
- Director of MATE Center and faculty at MPC
- Marine Geologist with over a year of sea time that includes time on the Pt Sur.
- Mapped Marine Protected Areas off California in the 1990s.
- A graduate of UCSB, MLML and OSU
- Avid Scuba Diver and Instructor
- Inducted into the Women Diver's Hall of Fame in 2014
- Former World Record Holder in Underwater Tricycling





# What is happening in 2019?

- LT internship – 6 mths starting Spring 2019
- 2019 summer internships – 2-16 weeks, May-Dec 2019
- Visiting community colleges to discuss changing skill requirements
- KSGs & guidelines update
- Intern survey analysis



# Some requests!

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- **Help to update the KSGs and internship guidelines**

[www.marinetech.org/files/marine/files/Workforce/KSG.OITfinal.9.10.10lr.pdf](http://www.marinetech.org/files/marine/files/Workforce/KSG.OITfinal.9.10.10lr.pdf)

[www.marinetech.org/files/marine/files/Internships/Internship%20Guidelines\\_final.pdf](http://www.marinetech.org/files/marine/files/Internships/Internship%20Guidelines_final.pdf)

- **Post-internship mentor surveys**
- **Commit to providing internship opportunities ASAP**
- **Use the internship to promote marine technical careers— you are great mentors and role models. THANK YOU!**



**For more information visit:  
[www.marinetech.org/internships](http://www.marinetech.org/internships)**

**Or contact:  
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# 2018 Long-Term Internship

**Emily Shimada**

**4 ships, 6 months, 10 science cruises**

Hi, I'm the Intern!



2018 California Maritime Academy Graduate

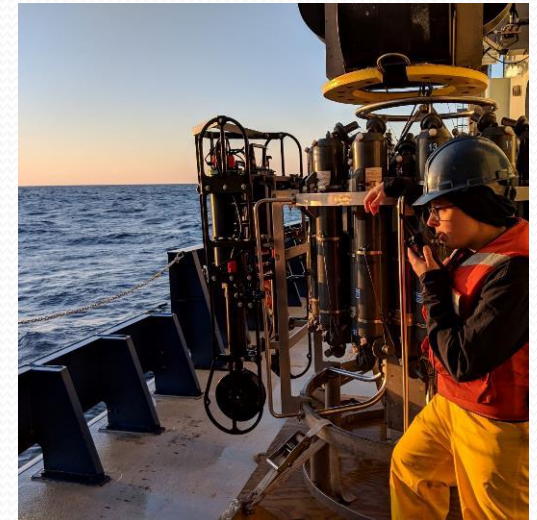
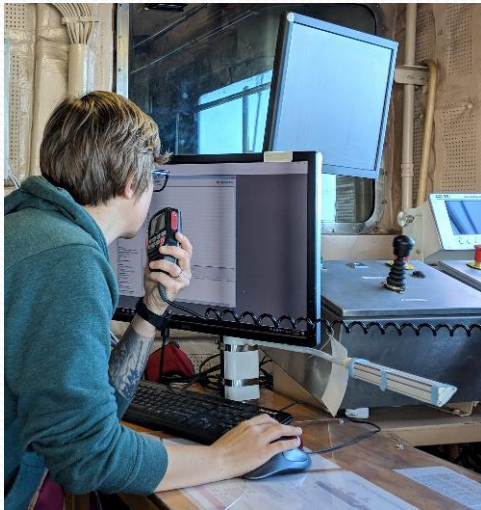
- Majored in Marine Engineering Technology and Marine Science
- 3<sup>rd</sup> Asst. Engineer's License
- Over 200 days at sea prior to this internship

Previous work with USGS and various research centers at UCLA and Cambridge

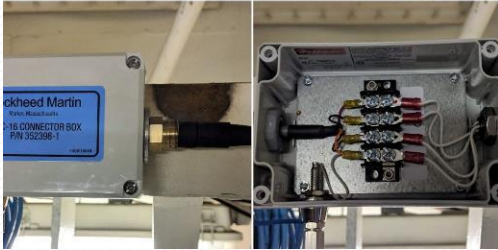
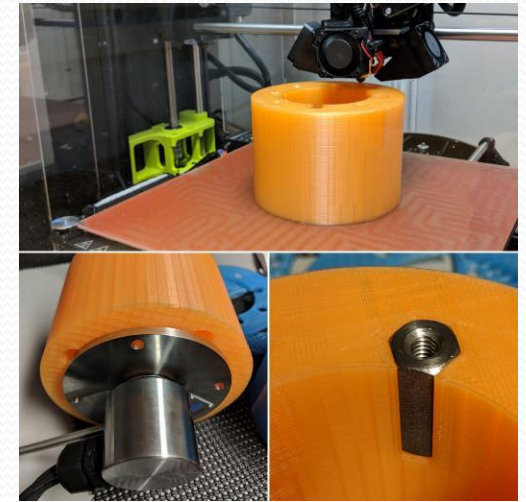
# Developing New Skills



# Running Deck Operations



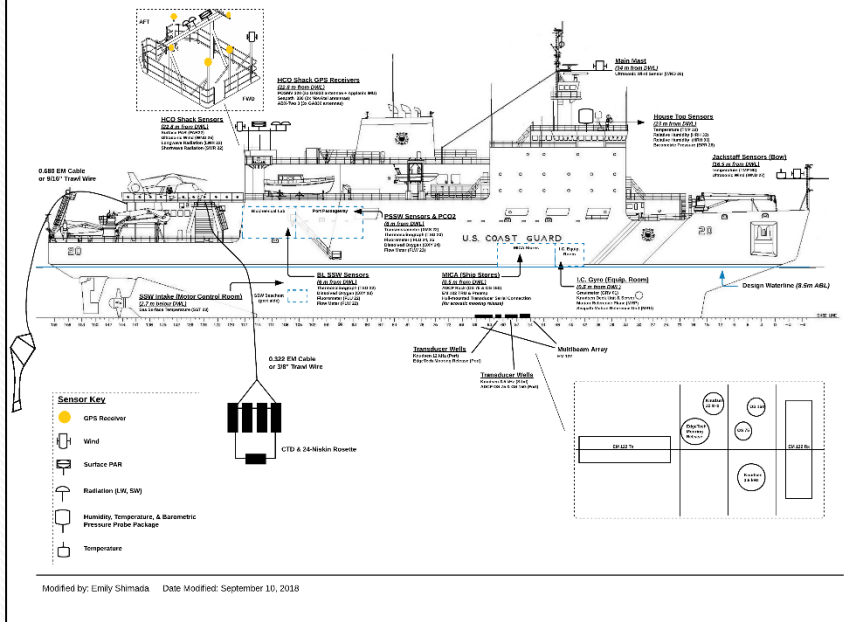
# Troubleshooting and Fabrication





# Documentation

## USCG HEALY SHIPBOARD SCIENCE DATA COLLECTION MAP



## UNCONTAMINATED SCIENCE SEAWATER SYSTEM

Emily Shimada | September 6, 2018

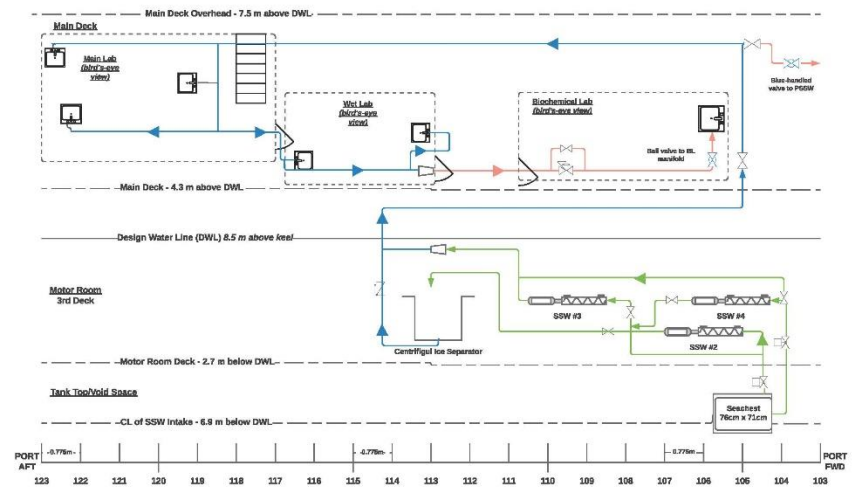
ELEVATION VIEW LOOKING AT PORT OUTBOARD BULKHEAD

### NOTES:

- Healy LGA is 228 m, maximum breadth is 28 m
- 2.2 - 2.5 LPM average flow to HL and PSW manifolds throttled by 2 ball valves shown.
- All piping is lagged for thermal protection and straining and debailer are sealed from light penetration.
- Pumps are Monoflo progressive cavity type (consult GE screen in AltCom for current VFD % to GPM).
  - 30% = 22 GPM
  - 20% = 44 GPM
  - 40% = 88 GPM

### Piping Size Key:

- 4" ID
- 3" ID
- 2" ID
- Connections to HL and WL sinks are 3/2".
- Connections to PSW and HL manifolds are 3/4" SCH 80 PVC.
- Overboard drainage piping not shown.



# Building a Community

