TECH RECRUITMENT & RETENTION PILOT PROGRAM PROGRESS REPORT

Alice Doyle
RVTEC Annual Meeting
15-18 Nov 10
Recommendations from Austin Workshop
Feb 2009

- Internship Programs for Technicians and licensed crew positions
- Training Scholarship to provide opportunities for advanced technical skills and license upgrades.
- Crew and Technician Relief Pool Process that will better utilize existing personnel and to better identify qualified and available temporary personnel.
- Available Berths Policy and Procedures to more effectively provide opportunities for training, experience and research or educational opportunities, including outreach to potential employees.
- Addition of a UNOLS Personnel Coordinator that will oversee, coordinate and facilitate these related issues on a fleet wide basis making them more effective and providing relief to smaller ship operations staff.
Tech Recruitment & Retention Pilot Program Progress Report

- Collecting Information
- Finding Technicians
- UNOLS/MATE 6 month Internship
- Training & Education
- Technician Pool
- Technician Augmentation
- Recruitment/Outreach
Collecting Information

- Further contact with Tech Managers to learn about their programs.
- Conversations with full-time and contract technicians within UNOLS & other at-sea programs
- Visits to WHOI, LDEO, URI, UDEL, OSU, SCRIPPS
- Conversations with scientists
- Conversations with private companies who supply technicians
Collecting Information

- Investigated other Shipboard Technical Support Models
  - National Oceanographic Center – Southampton, UK
  - WHOI Jason Program
  - NOAA
  - NOAA OER – OKEANOS EXPLORER
  - IODP
  - USAP
  - SEA
Finding Technicians

- **UNOLS Technician Transfers**
  - SCRIPPS technicians to the *Sharp*
  - SCRIPPS technician to the *Atlantic Explorer*
  - Miami Technician worked on the *Thompson* and *Atlantic Explorer*

- **Contract Technicians**
  - Connected UW with contract technicians (independent and commercial)
  - Contract technician to the *Oceanus* and *Kilo Moana* (Dec 2010)

- **UNOLS/USAP exchange**
  - Set up an easy means of exchanging technicians between the fleets
  - USAP/RPSC technician to the *Atlantic Explorer*
Finding Technicians

- **Results:**
  - Great experiences for full time technicians
    - “I enjoyed seeing how another institution’s operations run.”
    - “I enjoyed seeing something new.”
    - “The experience increased my confidence in my skill-set.”
  - Great experience for the host institutions:
    - “I was expecting at least a few headaches and did not have any”
    - “The process of getting a qualified technician to fill-in was painless.”
    - “It was great training for my technician.”
    - “The technician’s IT experience was very helpful. He made several good recommendations to improve our network, one of which he implemented before he left.”
  - New appreciation for fill-in and contract technicians
UNOLS/MATE internship

- Worked with the MATE program to set up the 6 month internship to run from January – June 2011
  - WHOI ~ Jan – Mar 2010
  - DUKE ~ Apr – Jun 2010

- Advertised through all the UNOLS email lists, MATE infrastructure, COL, web. Emphasis was placed on
  - Already completed or almost completed studies
  - Previous sea-time
  - Candidates interested in a career as an MT
UNOLS/MATE internship

- Subcommittee of RVTEC members
  - Help develop the Internship Guidelines
  - Assist in narrowing down the applicant pool

- Internship Schedule
  - 80-90 Days at Sea
  - 80-90 Days ashore

- On-Set Shore Housing
UNOLS/MATE internship

- Applications Received:
  - 30 complete applications
    - 13% ethnic minority
    - 37% female
    - 43% from MATE Partner colleges
    - 27% from community colleges
    - 10% previous MATE interns

- The Future
  - 1 intern proposed for the next 3 years
  - We will need further host institutions!
Training/Education

Investigating MT Training/Education

- Developed a survey on training within the fleet to:
  - Review the current training models within the fleet
  - Begin to develop a database of beneficial and not-beneficial courses for the fleet so current and future technicians can benefit from past technicians' training and education experiences
  - Find out if there is any opportunity for future group training/education
Training/Education Survey

Results

- 54 Total responses
- 47 Responses from current UNOLS MTs/Tech Mgrs
  - Approximately 55-60% return
- 5 Responses from MTs outside UNOLS
- 2 Responses from folks in the Marine Industry (nonMTs)
Results

Years as an MT/Tech Mgr in UNOLS

- 53% - <1-5yrs
- 40.0% - 1-5 years
- 15.0% - 6-10 years
- 20.0% - 11-20 years
- 10.0% - >20 years
Results

Post Secondary Education
All Survey Results

- Engineering: 5%
- MT: 21%
- Science: 56%
- IT: 12%
- Electronics: 7%

# of Responses

- <1 year: 5
- 1-5 years: 16
- 6-10 years: 12
- 11-20 years: 6
- >20 years: 2

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University National Oceanographic Laboratory System
Results

Training/Education Survey

Sufficient Training/Education to Optimally carry-out duties as a Marine Technician?

Yes: 50.0%
No: 50.0%
Results

Attend More Training?
UNOLS Tech/Tech Mgrs

Yes: 90.0%
No: 10.0%
Results

Time Since Attending Training
UNOLS Techs/Tech Mgrs

Years in UNOLS
- <1 year
- 1-5 years
- 6-10 years
- 11-20 years
- >20 years
Results

Hurdles to Attending Training
UNOLS MTs/Tech Mgrs

- Your availability/schedule: 90.0%
- Funding support for training/education: 30.0%
- Limited course offerings: 40.0%
- No interest in attending training/education: 10.0%
- Other: 5.0%
Worthwhile Courses

- A few courses specifically stood out:
  - Seabird
  - HiSeasNet
  - Multibeam – both Kongsberg and UNH
  - Rigging
  - Winches & Wires
  - Fish Philosophy! course

- Others Listed:
  Marine Safety, Hazmat, Electronics, Computer Networking, RVTEC, INMARTEC, Small Boat Operations
Courses Interested in Taking

- Many of the same courses as listed above
  - Network Administration
  - ADCP
  - HiSeasNet
  - Software programming
  - Multibeam
  - Electronics
  - Rigging
Comments

- “Troubleshooting and fault location is becoming a lost art and upcoming techs could benefit from exposure to these topics.
- “(It) would be worthwhile to provide a Rigging/Back Deck Training session to keep consistency and safety high within UNOLS fleet.”
- “I think that conflict management and stress management are also important topics for education and retention of technicians.”
- “If an institution purchases a new piece of gear the technicians should get formal training on proper maintenance and operation of the equipment.”
Cross-training of techs on other vessels to expose all to the various systems would be beneficial.

“… Training should augment their workload, not add to it.”

“The more training the better!”
What next?

- Create a list of good courses and providers as a resource for the fleet.
- Investigate further community training sessions
- Training matrix?
- Investigate different models for funding training
- Find good online training?
- Develop UNOLS specific courses (e.g. electronics, rigging?)
- Investigating finding ship days (transit or other) to conduct full-scale MT training onboard a UNOLS RV
Technician Pool

- Investigating means of hosting the Technician Pool
  - Provide flexibility to the Tech Managers within the fleet
  - Augment the current support on particular cruises
  - The tech pool will consist of sea-going only technicians either contract employees or independent contractors

- Investigating how the various systems within the fleet and the skill sets required per boat.
- Investigating the various pay structures within the fleet.
### How Paid?

<table>
<thead>
<tr>
<th>Institution</th>
<th>At-Sea pay</th>
</tr>
</thead>
</table>
| 1           | 5 x (8hrs straight time for weekdays at sea + 1.25hours of 1.5x/hr)  
2 x (3 days of comp time for each weekend at sea) |
| 2           | 1.5x/hr over 40hr/wk  
+ 15% sea bonus per day at sea |
| 3           | 7x8hr straight time +  
Either 4hrs extra straight time per day at sea OR 4 hours of comp time per day at sea |
| 4           | 7x8hrs straight time  
+ 4 hours of comp time per day at sea |
| 5           | 7x8hr straight time  
+ 1.5x/hr over 8 hr/day at sea |
| 6           | 7x8hr/day straight time  
+ 1.5x/hr over 40hrs/wk  
+seapay/day (seapay=fixed rate dependent on exp) |
| 7           | 7x8hr/day straight time  
+ 1.5x/hr over 40hrs/wk |
| 8           | 7x8hr/day straight time  
+ 1.5x/hr over 40hrs/wk |
### How Paid?

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| 9           | 7x8hr/day straight time  
+ 1.5x/hr over 40hr/wk  
+ 8hr comp time per 14 days at sea |
| 10          | 7x8hr/day straight time  
+ 1.5x/hr over 40hrs/wk |
| 11          | 7x8hr/day straight time  
+ 35% seapay bonus/day after 3 days at sea |
| 12          | 7x8hr/day straight time  
+ 1.5x/hr over 40hrs/wk |
| 13          | 60% -140% of regular pay/day |
| 14          | 7x8hr/day straight time  
+ Either 1.5x/hr over 40hrs/wk OR ~16hr comp time per week |
| 15          | 7x8hr/day straight time  
+ Either 1.5x/hr over 40hrs/wk OR 6 hr comp time per day at sea |
| 16          | 5x8hr/day straight time  
+ $70/day sea-pay bonus per day at sea |
Budgeted Pre-tax Take-home/day at sea (Salary+Seapay/OT)

Calculated using the #of hours worked/day at sea and comp time as simply time off.
Salary Survey

Normalized Pre-Tax Take-home/day at sea
(salary+Seapay/OT)

(What they would take home if everyone worked 12hr/day at sea and was paid instead of receiving comp time)
Salary Survey

Normalized Compensation/day at sea (Salary+Seapay/OT+Fringe)

Compensation/day at Sea

Institution

Normalized to 12hr/dy at sea and Comp time as additional pay
Salary Survey

Normalized
Compensation/day at sea
(salary+Seapay/OT+Fringe) +
Cost of Living Adjustment

Normalized to 12hr/day at sea, comp time as added salary plus Cost of Living Adjustment
Technician Pool

- Hosted by a single institution who would employ all tech pool technicians
- Hope to develop a consistent pool
- UNOLS office sent out a Letter of Interest earlier this year
- Developing a Letter of Guidance to potential bidders
  - 3 tiered Marine Technician structure (MT I, MT II, MT III)
  - Salary Structure
  - Number of technicians, what type & how many days
- NSF plans to fund a pilot program to implement the concept.
Tech Augmentation-“Increasing the Technical Footprint”

- What does this mean?

- How are we going to do this?
  - Early season planning
  - Non-fully utilized full time technicians
  - Contract/Tech Pool Technicians

- How will the $$ work?
  - Carry-forward
  - Direct funding of the Tech Pool
Recruitment/Outreach

- Developed a UNOLS flier focused on Vessel Support jobs.
- Sent UNOLS fliers to the Oceans 2010 conference & UNOLS Annual meeting.
- Constantly looking for mechanisms to inform people about and promote UNOLS.
- Always looking for better mechanisms for recruiting and outreach.
Scorecard

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<tr>
<th>The 2009 RVTEC Plan</th>
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<tbody>
<tr>
<td><strong>Evaluate all Institution’s Technical Operations</strong> in order to better understand shipboard and shore side duties and operation.</td>
<td>Ongoing. Including discussions with most if not all tech managers, technicians and PIs.</td>
</tr>
<tr>
<td><strong>Create a better system for exchange/sharing of full-time technicians</strong></td>
<td>Complete including possibility to exchange with the USAP Marine Program.</td>
</tr>
<tr>
<td><strong>Establish a data base of contract technicians</strong> not currently working within the fleet that could sail of cruises as needed (tech Pool) and a mechanism to hire them</td>
<td>Currently a list of names that continues to grow.</td>
</tr>
</tbody>
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<td><strong>Evaluate ship schedules</strong> for potential problems with staffing and <strong>recognize opportunities to increase the level of technical support</strong> when possible</td>
<td>Preliminary work completed, needs verification by Technical Managers</td>
</tr>
<tr>
<td><strong>Develop and implement a training program</strong> for technicians with a focus on increasing versatility and skill level</td>
<td>Ongoing, discussed</td>
</tr>
<tr>
<td><strong>Create standard job titles</strong> and job descriptions throughout the Fleet (?)</td>
<td>Complete. Decided this was not required, necessary or really possible.</td>
</tr>
<tr>
<td><strong>Work with UNOLS office and Institutions to get an accurate representation on-line for the Fleet’s shared-use equipment.</strong></td>
<td>Investigations started and then tabled (but not dead). R2R vessel profiles and R2R Event Log will significantly improve this.</td>
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<td><strong>Visit the UNOLS Institutions</strong> … establish working relationships with the Technical Managers of the fleet.</td>
<td>Ongoing. Visits to OSU, LDEO, DE, SCRIPPS, WHOI, URI completed. Discussions with all the tech managers.</td>
</tr>
<tr>
<td>Establish <strong>mechanism for better documentation</strong> throughout the fleet</td>
<td>Started – to be discussed this afternoon</td>
</tr>
<tr>
<td><strong>Develop</strong> a template for a <strong>Cruise Support Plan</strong> …</td>
<td>Started – to be discussed this afternoon</td>
</tr>
<tr>
<td><strong>Increase the visibility</strong> and information about jobs on Academic Research Vessels and <strong>explore establishment of an internship program</strong></td>
<td>Internship – created \nIncreasing visibility - ongoing</td>
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<td>Provide the fleet a resource that was heretofore unavailable</td>
<td>Attempting to on a daily basis</td>
</tr>
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### OTHER

- Assisting Tech Manager to find Technicians
- Cadet Placement
- UNOLS website Job Posting & Personnel Page cleanup
Tech Recruitment & Retention Program Progress Report

QUESTIONS?

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