



# Managing the UNOLS Marine Technician Pool

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# Why have a pool?

- Reduction of academic fleet means potential loss of expertise
- Need to keep experienced technicians
- Complexity of modern instrumentation
- Training of new technicians
- Present day workforce more mobile
- Increase flexibility for technicians and fleet operators
- Reduces problems inherent in short-term contracts



# History

- 2012 Small-scale start of pool (2 techs)
- Jan 2015 NSF issues RFP for 5-year Cooperative Agreement
- Jan 2016 Final agreement between NSF and TAMU
- March 2016 Pool begins operations with 2 members; 7 by year end
- October 2018 Current pool membership 14



# Why TAMU?

- We are a member of UNOLS and ran the *Gyre* for many years; now operate JOIDES Resolution
- Have a large technical group skilled in Physical Oceanography, chemistry and moorings (not including ODP) and have often supplied technicians for other institutions
- Have run the TABS mooring system in GoM for 20 years (currently 10 moorings)
- Now operating gliders and CODAR systems



# How does it work?

- Work closely with UNOLS Technical Support Manager to coordinate deployments with ship operators
- Technicians considered independent contractors
- TAMU establishes individual service agreements with technicians (valid for 12 months) and separate services supplements for each cruise – cover expectations, invoices, payments etc.
- Group insurance scheme for maritime employer's liability and marine general liability insurance; technicians responsible for own medical insurance



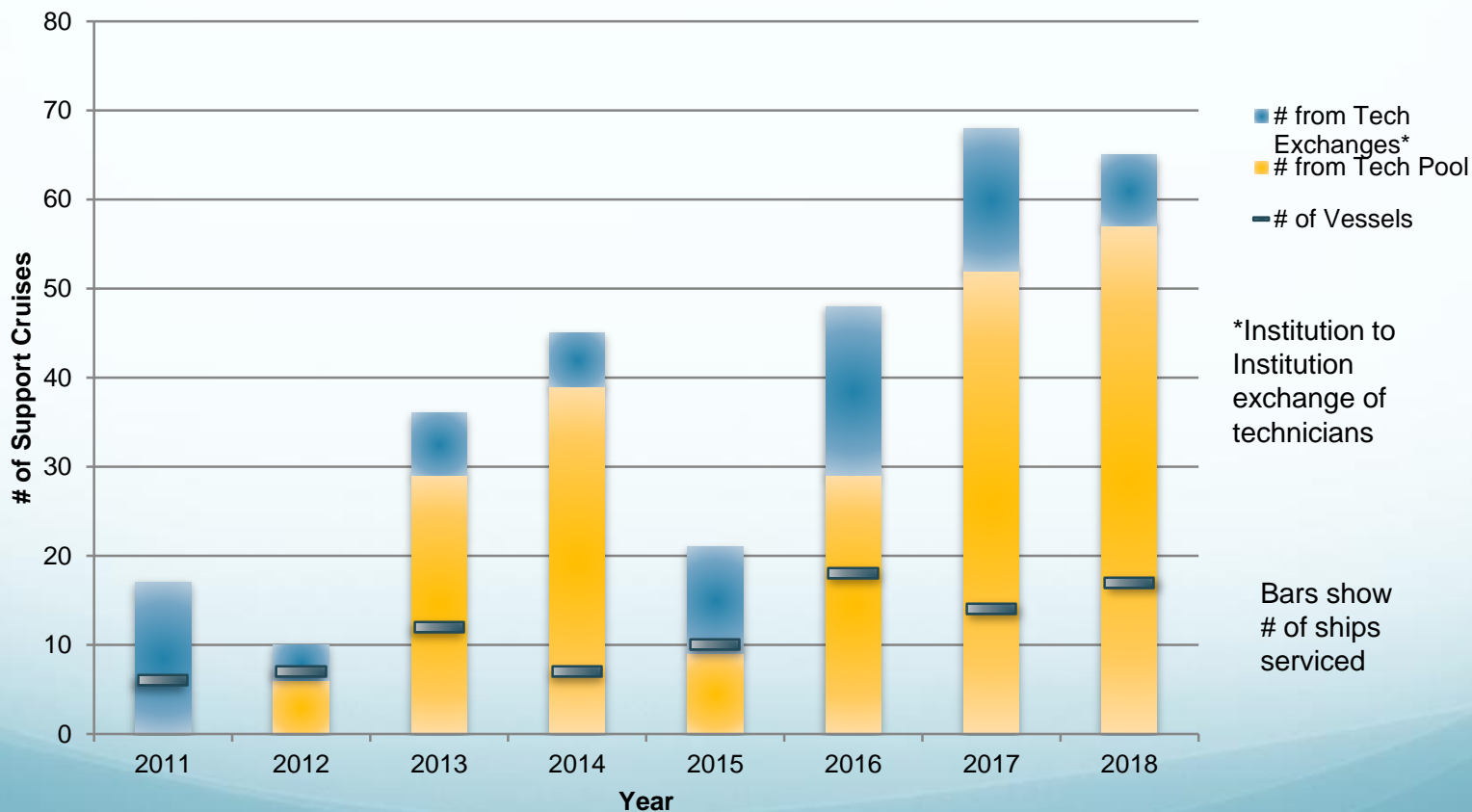
# How does it work? (2)

- Technicians appointed to pool at a standard day rate based on experience and abilities (based on 8 h/day ashore, 12 h/day at sea)
- Technicians eligible for training workshops/meetings if work >100 days/yr at sea
- Work not guaranteed, and technicians can refuse a cruise and opt out of the pool if they wish



# Cruises supported 2012-2018

## Cruises Supported by Tech Exchanges & Tech Transfers





# Deployments 2016-2018

Technician #	2016	2017	2018
1	1	3	3
2	1	2	2
3	1	6	6
4	7	6	4
5	6	8	4
6		5	5
7		1	
8			
9		1	4
10	1	2	2
11		1	4
12			1
13		7	6
14			1
15*	1		
16*		1	
17*		1	
Total	18	44	42 (thru Oct)

\* Technician  
has left pool





# Technicians' feedback

- Enjoy contributing to the fleet
- Enjoy the flexibility
- Enjoy the ability to stay involved in supporting science without having to give up additional pursuits
- Find technology transfer rewarding



# Operators' feedback

- “X was a tremendous asset on this cruise. He brought a calm, seasoned aspect which was much appreciated...He developed a fantastic rapport with the science team on his shift” (*From Antarctic Support Performance Feedback*)
- “Everything under the ship’s control worked fine, the crew and the Techs [2 from the pool] were excellent.” (*From LDEO post-cruise report*)
- “Y is terrific – motivated, capable, friendly, cheerful, helpful.” (*Personal comment from CS*)
- “Outstanding support from technicians A, B, C & D” (*From OOI post cruise report; C&D were pool techs*)



# Operators' feedback (2)

- “X was exceptional as the lead technician....His familiarity with the various instruments and systems was beneficial....He went out of his way to ensure the various objectives of the science party were met safely and efficiently. [His] skills, dedication and hard work were a significant reason for the success of the cruise. Y also provided excellent support, despite having little experience on global-class vessels.” *(From post cruise report; both techs were pool members)*
- “I wanted to let you know how valuable it has been to have X working with us on the R/V Oceanus. [He] is a hard worker who’s dedicated to getting the job done...[He] has identified multiple areas of concern related to the technical systems...and has helped us implement solutions to those problems... I look forward to working more with him again in the future” *(From OSU technicians group)*



# Lessons learned

- Need for flexibility and ability to hire quickly as deployments can be at the last minute
- Good communication is vital
- Centralized schedules and point of contact make things much easier
- Need knowledge of technicians' skills and needs of ship operators (some institutions request particular technicians)



# Outcomes



- Interest has grown within the community as people become more used to the system; host institutions were wary initially but seem more comfortable now
- The pool continues to grow, both as regards the number of technicians and the number of deployments
- Increase in informal technology transfer as technicians move from ship to ship
- Addition of non-UNOLS cruises to plan



# Conclusions

- Is it a success? **Yes!**

But

- **It's not for everyone** – four pool members have left since we started