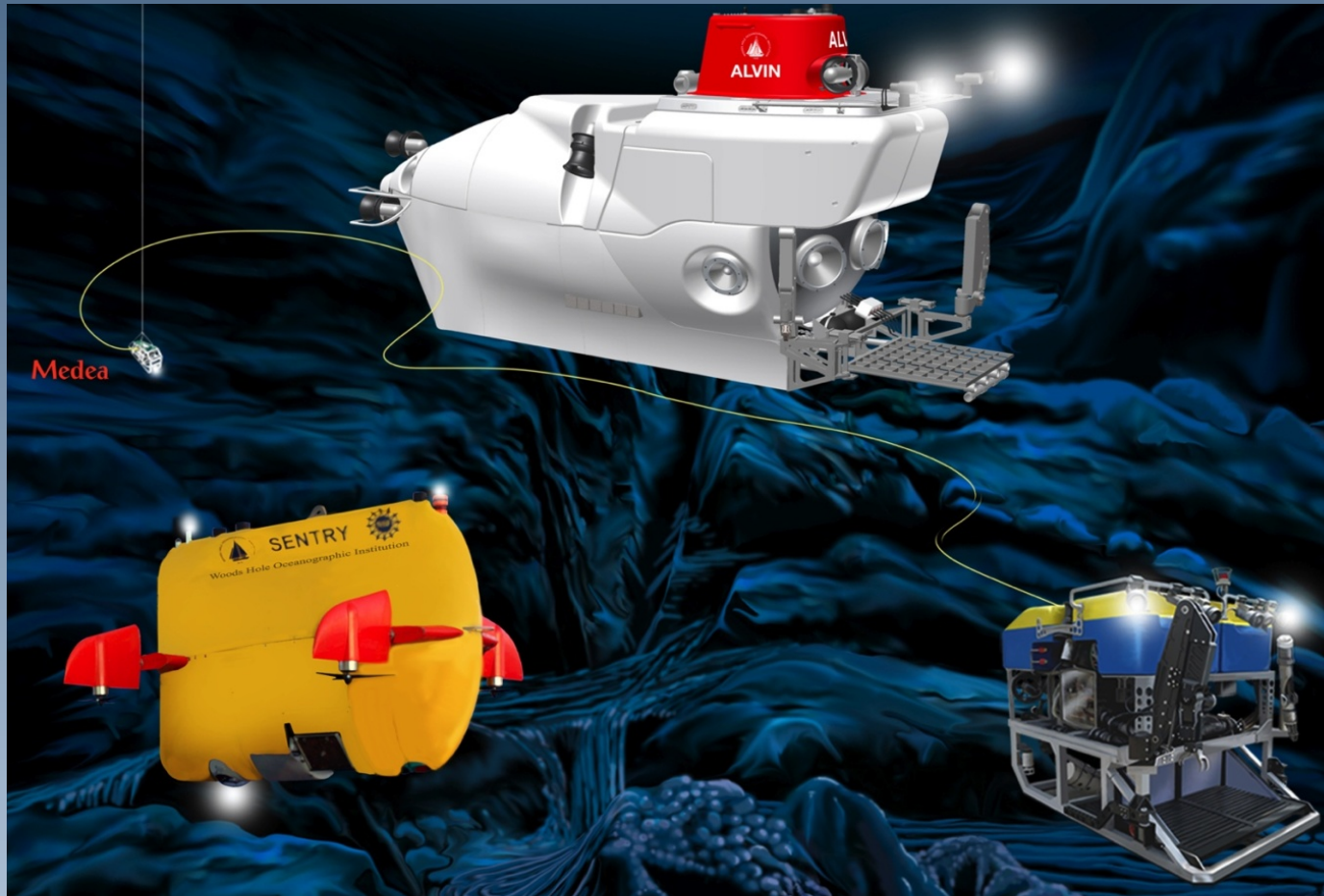


INTRODUCTION TO DEEP SEA RESEARCH

Deb Kelley, Mike Perfit, Karyn Rogers



DeSSC Early Career Scientist Workshop
December 7-8, 2013, San Francisco, CA

Who's Who in Deep Sea Research



NDSF

National Deep Submergence
Facility

DeSSC

Deep Submergence Science
Committee

Who's Who in Deep Sea Research



UNOLS

- *Coordinates access to oceanographic research facilities*
- *Supports existing facilities and future development*
- *20 Research vessels*
- *National Deep Submergence Facility*
- *National Oceanographic Aircraft Facility*
- *National Oceanographic Seismic Facility*
- *Facilities are either owned by one of the Federal agencies or by individual institutions*
- *Runs Ship Time Request System!!!*
- *Information resource for cruise/ship schedules, etc.*
- *Outreach!*

Global Class



Ocean Class Vessel:



Kilo Moana

Marcus G. Langseth



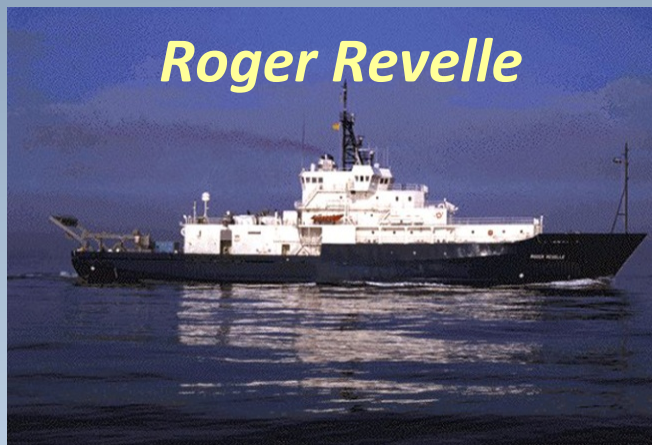
Atlantis



Thomas G. Thompson



Roger Revelle



Melville



Knorr



Who's Who in Deep Sea Research

The new kid on the block



UNOLS National Facilities

National Deep Submergence Facility



Exploring the Deep Ocean

NATIONAL DEEP SUBMERGENCE FACILITY VEHICLES

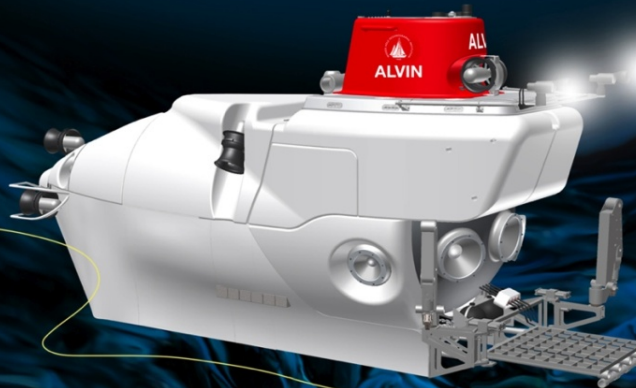


Alvin

Human Occupied Vehicle

Accommodates:
1 Pilot and 2 Scientists

Depth Capability:
Phase 1: 4500m
Phase 2: 6500m



Medea

Sentry

Autonomous Underwater Vehicle

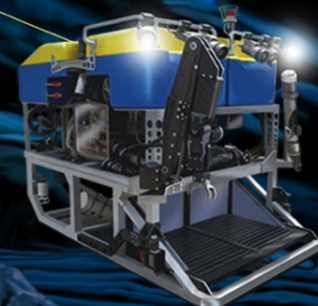
Depth Capability:
6000m (20,000 feet)



Jason

Remotely Operated Vehicle

Depth Capability:
6500m (21,450 feet)

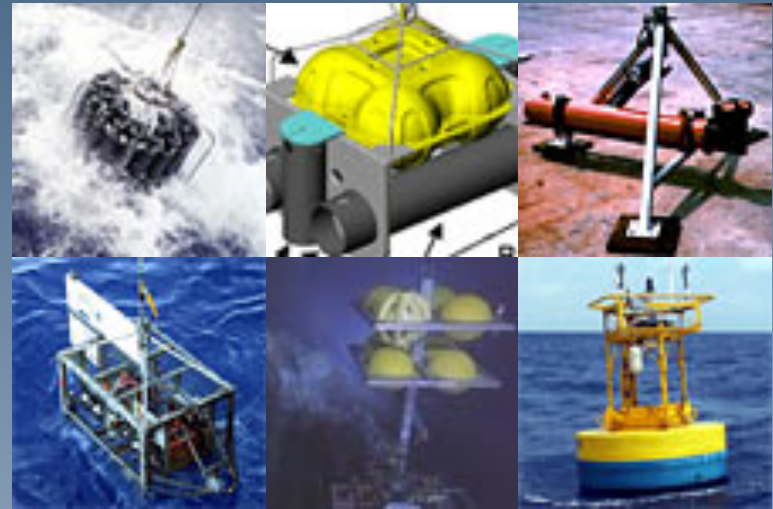


National Deep Submergence Facility

Vehicles



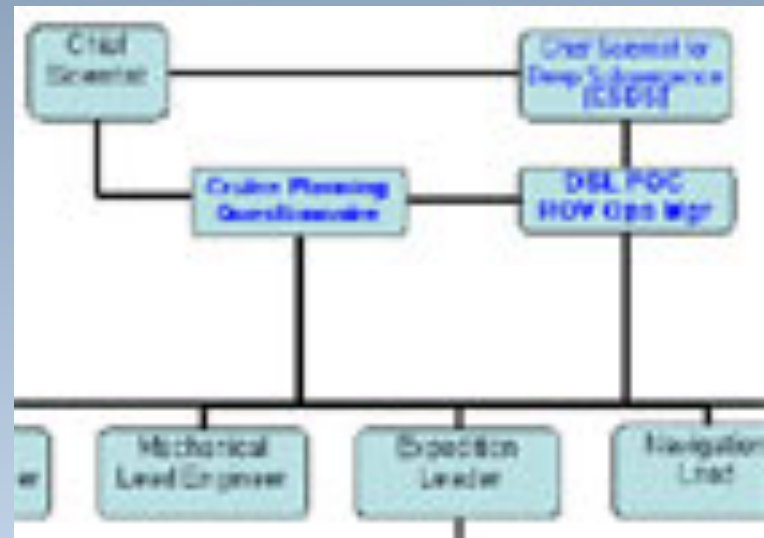
Tools



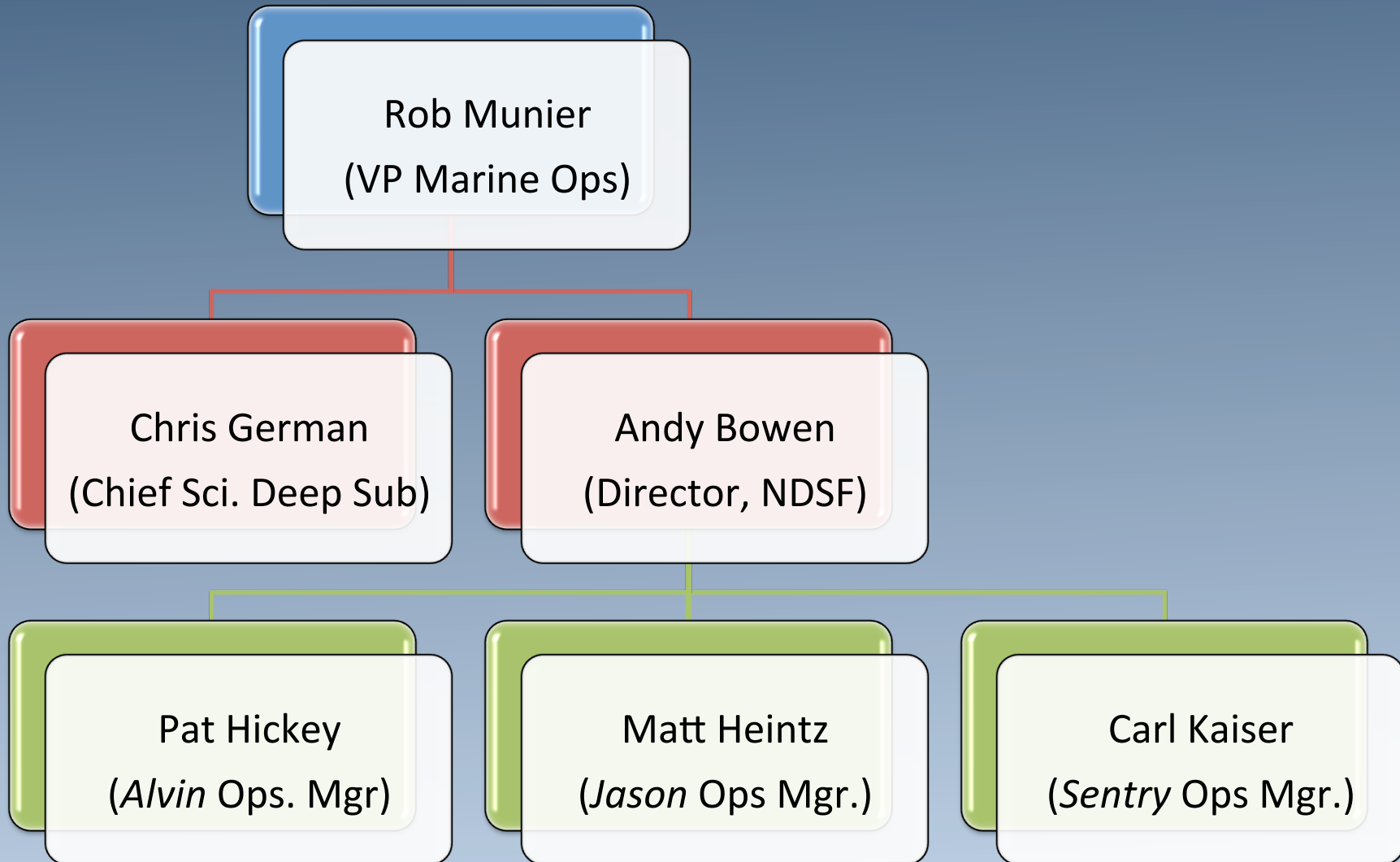
Personnel



Operations



National Deep Submergence Facility *Organization Structure*



*So, you've got an
idea and you want to
go to sea?*

So, you've got an idea and you want to go to sea?

1. Pre-submission discussions (NDSF)
(choice of vehicle; technical feasibility; cruise duration)

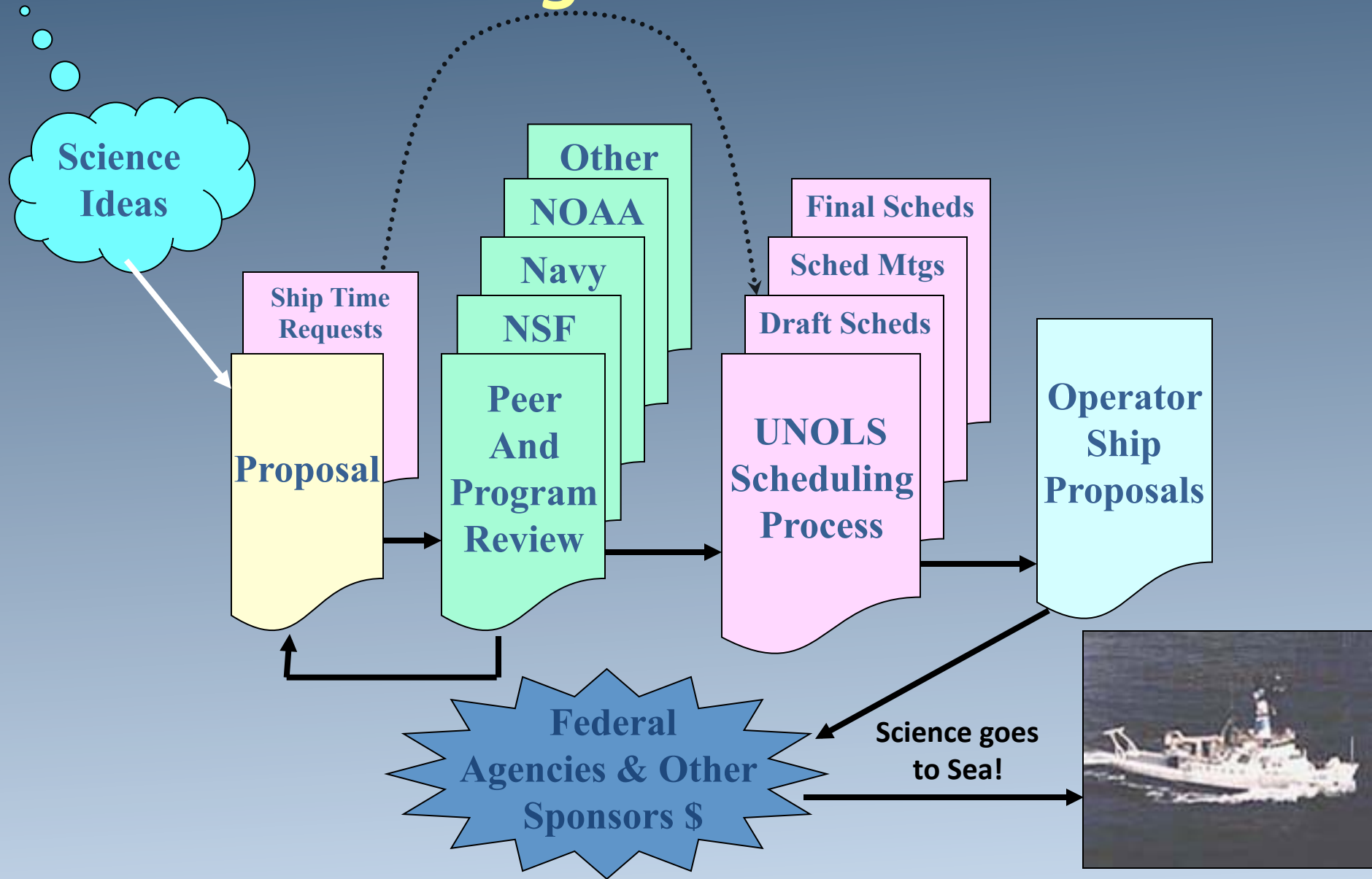
2. Grant submission (UNOLS)
(UNOLS Ship Time Request)

3. Once you are funded (NDSF)
(Pre-cruise planning; ~6 months lead; Expedition Leader)

4. Once you are at sea
(Dive planning; responding to “events”)

5. Post cruise
(NDSF debrief, cruise report, data management)

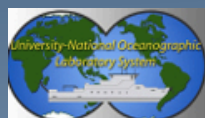
So, you've got an idea and you want to go to sea?





Access the UNOLS STRS system portal:

https://strs.unols.org/Public/diu_login.aspx



University-National Oceanographic Laboratory System

SEARCH PUBLIC RECORDS

LOG IN

[Suggestions/Request Help](#)

[Frequently Asked Questions](#)

Welcome to the UNOLS Ship Time Request & Scheduling System

Log In for Member Activities

User Name:

Password:

☐ Store my credentials so I don't have to login next time
(unless I logout)

[Forgot Your User Name Or Password?](#)

New Member?

Log in or create account for these activities

- [Facility Requests \(ship time requests\)](#)
- [Research Vessel & Facility Scheduling](#)
- [Technical Service Denominations](#)
- [Facility Specifications](#)
- [Reports](#)
- [System Administration](#)

Public Information

Login not required for these activities

- [Research Vessel & Facility Schedules](#)
- [Research Vessel & Facility Specifications](#)
- [Technical Services Information for Research Cruises](#)
- [Funded Projects](#)
- [Cruise Reports \(Ship Utilization\)](#)
- [Post Cruise Assessment](#)
- [UNOLS Web Site Home Page](#)

Submit your STR form with your proposal in Fastlane

A word about budgets...

- *Don't panic!*
- *Ship time and vehicle costs are not part of the regular NSF budget*
- *Ship time and vehicle costs do come out of a separate NSF fund, not the program budget*
- *If your proposal is going to an agency other than NSF, then ship time and vehicle costs must be paid by that agency*

A word about budgets...



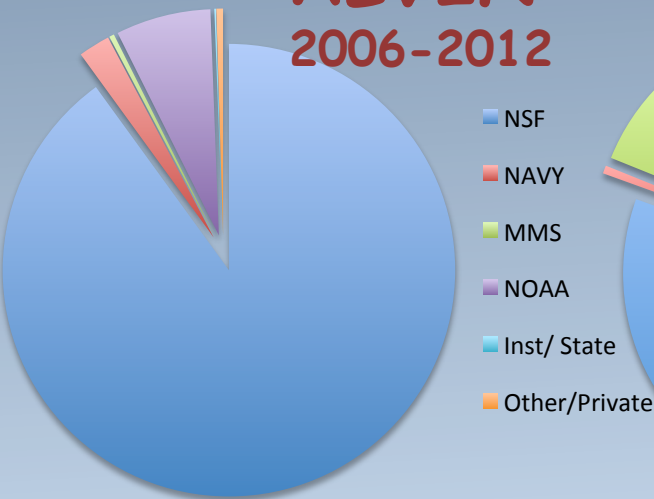
NSF is the primary funding source for UNOLS/NDSF vehicles and facilities

- OCE-CO; OCE-BIO; OCE-MGG
- OCE-ODP, OCE-OTIC, BIO-DEB, BIO-MCB
- OCE-PO, BIO-EF, ESI

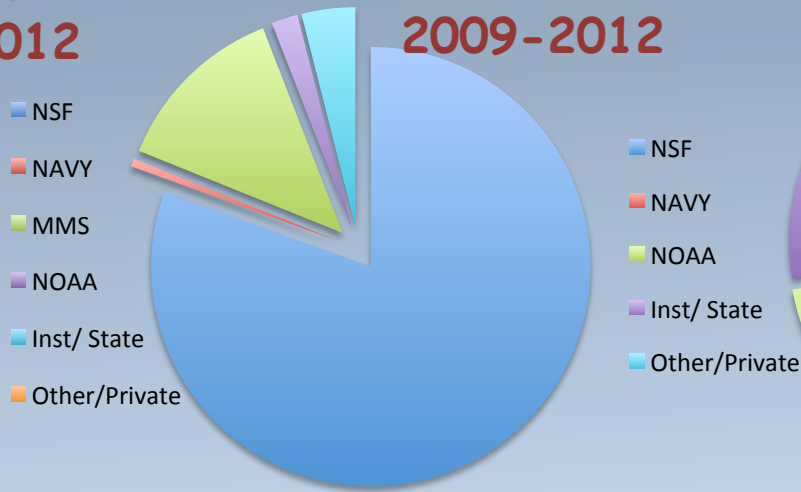
Other sources:

- NOAA - OER; NAVY/ONR, MMS, Interior, Private

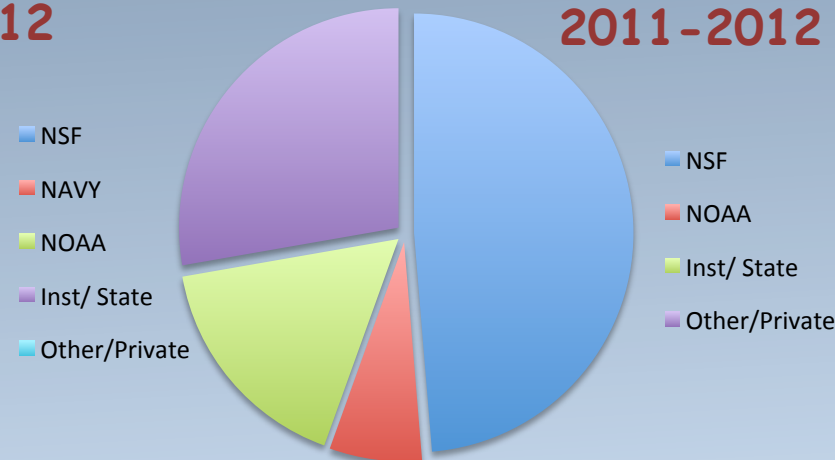
ALVIN
2006-2012



JASON
2009-2012

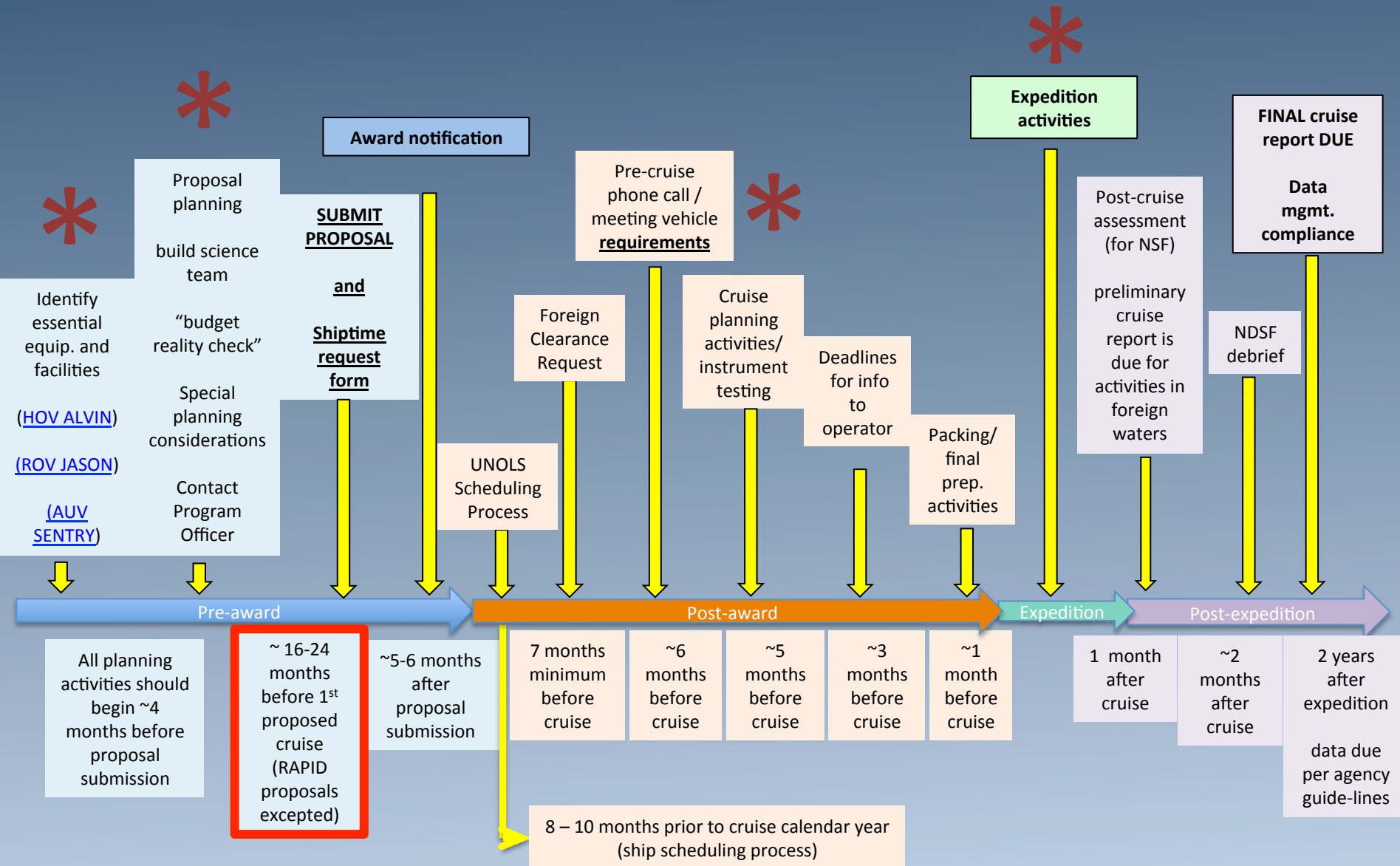


ABE/SENTRY
2011-2012



Data courtesy Scott Wankel

UNOLS Expedition Workflow



So, what should you do now?

- *Go to sea!*
- *Talk to folks at this meeting!*
- *Get a mentor through DeSSC*
- *Write a proposal, support the fleet and facilities!*
- *Talk to your program managers*
- *Talk to NDSF folks*
- *Get involved with UNOLS – lot's of outreach!*
- *Contact any of us for more info!*



UNOLS Outreach Activities

- *Chief Scientist Cruise Training*
- *DeSSC SVC Opportunity*
- *UNOLS Speaker Series*
- *UNOLS On-line resources – Poster, Brochures, Slide packages*
- *UNOLS Meetings*
- *Cruise opportunities*
- *DeSSC Early Career Workshop*