Science Mission Requirements for Global Class Vessel(s)

FIC Meeting, 31 May 2017

Committee

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Tasks – Establish/define science drivers

- Fleet Improvement Plan
- Evaluation of existing fleet – service life, scheduling, costs
- Existing and future large-individual program needs
- Agency needs and funding

Tasks – Data gathering

- Examine existing SMRs for Global and Ocean Classes

- Survey past Global Chief Scientists – what were desirable and undesirable features, what would be their ideal ship, etc.? Go back as far as 2010 to include retired Globals (Knorr, Melville). Create survey document that provides consistent and usable information.

- Gather information on international Global fleet – size, endurance, berthing, deck/lab facilities, build and maintenance costs, etc. Examples: Discovery 2013 (UK), Investigator (Australia), Meteor (Germany), Pourquois Pas (France), Tan Kah Kee (China)

- Reality check – what could US/UNOLS afford with future fleet?

Tasks – draft strawperson SMR

A. Overview and science drivers
B. Size and cost
C. Accommodations and habitability
D. Operational characteristics – endurance, range, speed, sea keeping, etc. Green?
E. Over-the-side and weight handling systems – winches, A-frames, etc.
F. Science working areas

      Deck

      Labs

      Vans

      Storage

      Workboats, masts

Tasks – draft strawperson SMR (continued)

G. Science and ship systems
- Navigation
- Data networks
- Communications – internal and external, particularly streaming
- Underway data collection and sampling
- Acoustic systems
- Visiting science (PI) systems
- Seismics
- Overboard discharge

H. Construction, operation, and maintenance

Timeline

June 2017   Start process – define science drivers and gather data

October 2017   Draft initial/strawperson SMR

December 2017   Circulate SMR to FIC

January 2018 Circulate SMR to Council

February 2018   Open to community (Wiki, Dropbox, Google doc, forum?):

                     UNOLS web site, email announcement

                     Town Hall at 2018 Ocean Sciences Meeting

                     Meeting that targets marine geology/paleo?

June 2018   Compile all inputs and create "living" SMR, start marketing