

Date: September 10, 2009
From: NSF and ONR
To: Dr. Vernon Asper-UNOLS Chair

Subj: 2010 U.S. Academic Research Fleet Operations Support Findings and Recommendations
Ref: Criteria and Process for Recommending Non-Operational Periods of Ships in the UNOLS Fleet, UNOLS Council - July 24, 2006.¹

Introduction

The National Science Foundation (NSF), the Office of Naval Research and the UNOLS Executive Secretary have participated in numerous ship scheduling meetings and conducted a thorough review of the 2010 Letters of Intent for the Fleet. The decisions for research cruises to be funded by NSF in 2010 have been made and no additional NSF days are anticipated. There are still 371 days (NOAA-262, Institution-45, State-20, EPA-15, and Navy-29) of proposed shiptime which are pending final decisions by the other agencies. The available information indicates the number of proposed Fleet operating days for 2010 is significantly reduced from historical levels. Figures 1-3 illustrate the fleet utilization trends over the past ten years.

Based on the findings outlined below, several ships in the Fleet will have less than optimum schedules in 2010. As agreed to by the UNOLS Council, the document which will guide the recommended process for making decisions regarding non-operational periods calls for substantive recommendations to be made by the Agencies. This letter provides those recommendations. The link to the reference document is:

http://www.unols.org/publications/reports/budget_impacts/NonOp_Process_Recmd.pdf

Guidelines

The guidelines used to develop these recommendations are outlined below:

- ❖ Ship schedules must be developed to meet the science program requirements while adhering to budgetary constraints.
- ❖ Science program requirements must match the oceanographic outfitting capabilities of the ship on which the program is scheduled.
- ❖ The Funding Agency Program Manager and the Principal Investigator will be consulted when information beyond that listed on the UNOLS Shiptime Request Form is required.
- ❖ Programs may be scheduled as a two ship operation instead of a single Global Class ship if it will be more efficient and cost effective.
- ❖ No funded programs will be left “on the beach” if at all possible within the budgetary constraints.

- ❖ Programs will not be deferred unless it is cost prohibitive to schedule due to the remote nature of the operating area or due to inordinate transit costs to mobilize in that area.
- ❖ Due to unexpected ship repairs in 2009, programs have been rescheduled onto different ships in 2009 which will impact the 2010 schedules.

The following findings and recommendations regarding UNOLS ship operations for 2010 are based on the submitted shiptime requests, posted Letters of Intent (preliminary schedules) and cost estimates provided by the UNOLS ship operators:

Findings

2009 Funded Days

Agency	ACOE	EPA	INST	MMS	NASA	NAVY	NOAA	NSF	Other	State	Total
Days	8	0	143	66	40	687	368	2504	548	67	4431

2010 Proposed Days

Agency	ACOE	EPA	INST	MMS	NASA	NAVY	NOAA	NSF	Other	State	Total
Days	8	15	81	47	4	470	400	2423	24	69	3541

1. There are currently 4431 operating days on the 2009 schedules.
2. There are currently 3541 operating days on the 2010 Letters of Intent as of August 18, 2009.
3. The total number of requested operating days for 2010 to be funded by NSF is 2423 days. In recent years the decrease in ship funding from other agencies has resulted in a larger proportion of the operating days being funded by NSF and this trend continues in 2010. In 2009, of the total 4431 days, NSF funded 2504 days. As of August 18, 2009, there are 890 fewer days proposed in 2010 than were funded in 2009, and of the total 3541 days, NSF will fund 2423 days.
4. With the exception of the *Langseth*, the Global Class ships are at or slightly above capacity.
5. In recent years, the number of requested ship days on the Intermediate Class ships has decreased. This trend continues in 2010. The need to operate two Intermediate Class ships in the Atlantic during the peak summer research season, which capitalizes on the good weather windows, will preclude the lay-up of one ship for an entire year. It will result in weaker schedules for both ships and require some non-operational periods, but will ensure no funded science will be deferred. If no additional work is identified when

the final schedules are completed, it may be necessary for NSF to provide some funds to support extended maintenance or partial layup periods for the NSF-owned ships.

6. The U.S. Navy Ocean Class ship operator selection results, which are expected to be released by the end of the 2009 calendar year, may impact NSF's decision-making process as it relates to the 2010 schedules.

Recommendations

1. Include a maintenance period from January to March 2010 for *Langseth*. Evaluate the five NSF cruises being considered and schedule the three cruises that can be supported based on transit distances, weather considerations (typhoon season), environmental clearance/permitting restrictions, and available funding using revised day rates. Continue to seek opportunities for other funded shiptime to support a stronger schedule.

2. Implement partial-year schedules for *Endeavor* and *Oceanus* of approximately 130 days each. The Montoya cruise will be supported by the *Oceanus* and the *Cape Hatteras* and the Lohmann cruise will be on the *Endeavor*. This provides for an equitable split of the days on the Intermediates.

3. Schedule *Seward Johnson* to support all cruises requiring the unique capabilities of the Johnson Sea-Link submersible. Encourage HBOI to inform UNOLS Council as soon as a decision is reached regarding their pending bid to conduct commercial work and to withdraw from UNOLS, as described in teleconferences with NSF and the UNOLS Executive Secretary on June 16, 2009 and August 13, 2009.

4. The Hawaii Ocean Time Series ("HOTS") cruises are currently scheduled with six cruises accommodated by the *Kilo Moana*, two cruises on the *Wecoma* and two cruises on the *Ka'imikai-O-Kanaloa*.

5. Support the Scripps decision to schedule non-operational periods at the beginning and the end of the 2010 operating year for *New Horizon*, utilizing the crew on other ships and leaving open the possibility of supporting additional work during the year.

6. As has been in recent years, schedule *Cape Hatteras* to work in the Gulf of Mexico, to support the Montoya cruise and be available to pick up additional work during the year.

7. Encourage operators of all ships to find ways to reduce costs and seek appropriate opportunities to support research and education programs supported by other funding sources.

8. Emphasize to operators of institution-owned ships that they must decide if their planned schedule can support the cost to operate.

UNOLS Fleet Utilization (2000 - 2010)

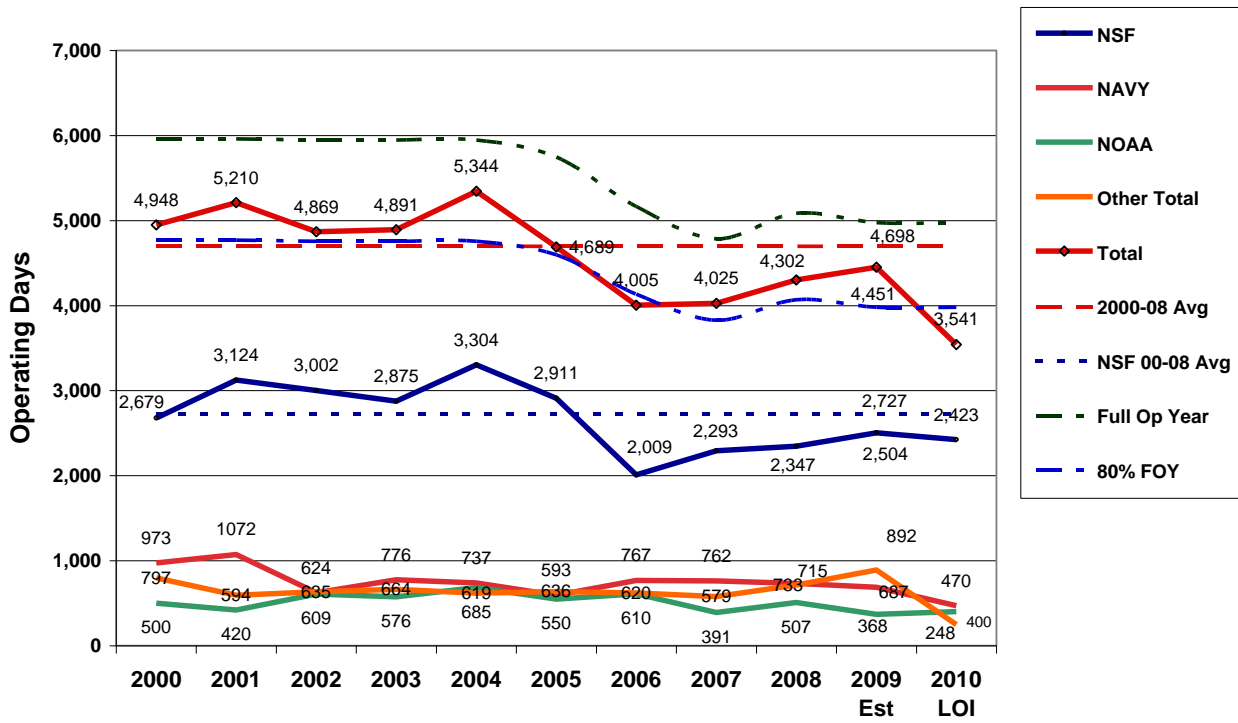


Figure 1

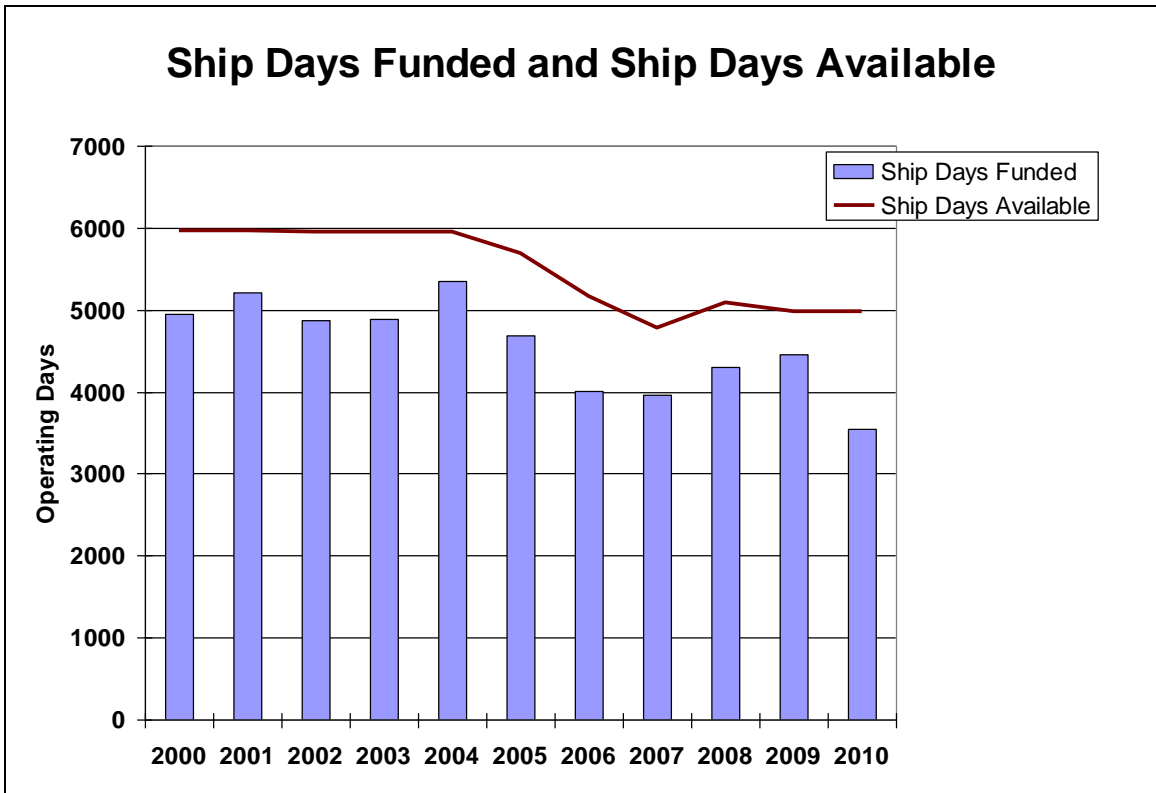


Figure 2

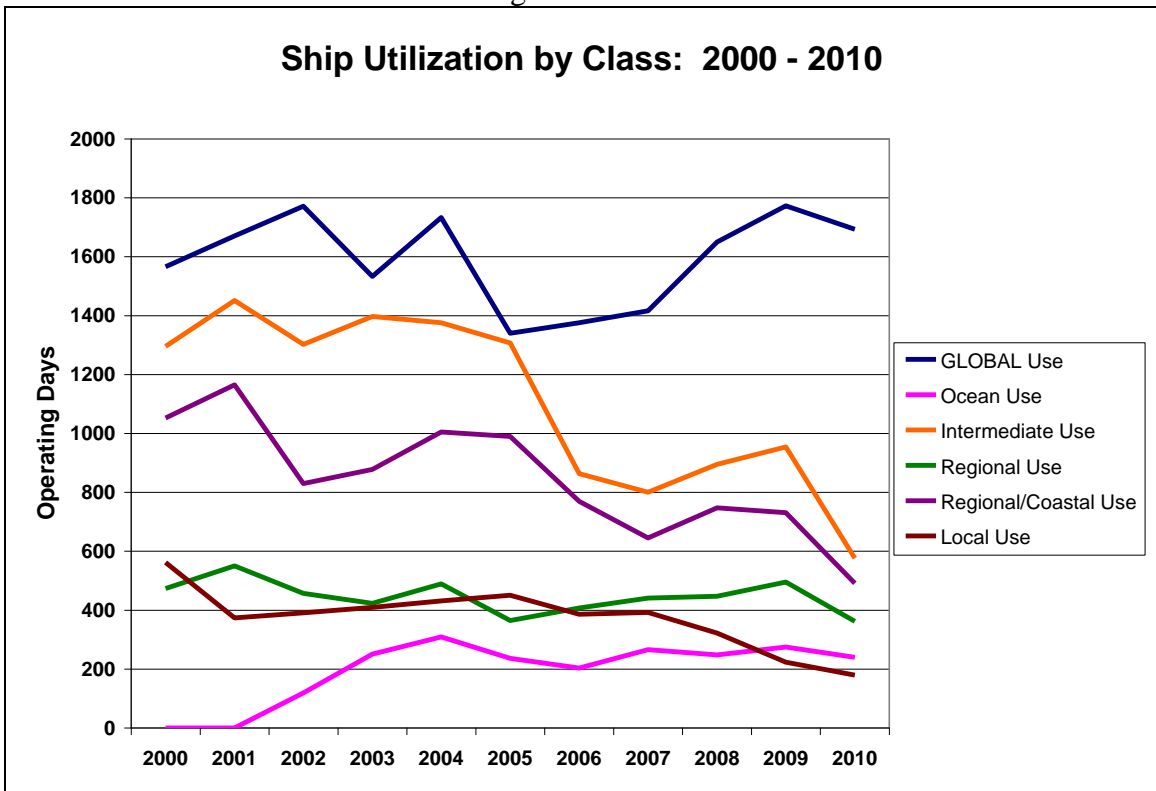


Figure 3