Date: September 15, 2010
From: NSF and ONR
To: Dr. Vernon Asper-UNOLS Chair

Subj: 2011 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 2011 Letters of Intent for the Fleet. There are presently 2855 funded days across all agencies as shown in the 2011 Proposed Operating Days table below. There are 1045 pending days of which we are applying a 30% funding success rate to arrive at 314 days (DOE-8, Institution/State-6, BOEMRE (MMS)-4, Navy-38, NOAA-107, NSF-119, USGS-19, Other-13) of proposed shiptime which we anticipate will be funded. This will bring the UNOLS Fleet total days to 3169. The available information indicates the number of proposed Fleet operating days for 2011 is significantly reduced from historical levels. Figures 1-3 illustrate the Fleet utilization trends over the past eleven years and the anticipated use in 2011.

Based on the findings outlined below, several ships in the Fleet will have less than optimum schedules in 2011. 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.

The following findings and recommendations regarding UNOLS ship operations for 2011 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	DOE	EPA	INST/ State	MMS	NASA	NAVY	NOAA	NSF	USGS	Other	Total
Days	5	0	0	175	57	40	618	334	2397	21	556	4203

2010 Operating Days

Agency	ACOE	DOE	EPA	INST/ State	BOEMRE	NASA	NAVY	NOAA	NSF	USGS	Other	Total
Days	5	7	3	181	63	0	509	518	2593	20	213	4112

2011 Proposed Days

Agency	ACOE	DOE	EPA	INST/ State	BOEMRE	NASA	NAVY	NOAA	NSF	USGS	Other	Total
Funded Days	5	31	0	142	44	0	374	205	1978	0	76	2855
Pending Days x 30%		8	0	6	4	0	38	107	119	19	13	314
Total Funded & Pending	5	39	0	148	48	0	412	312	2097	19	89	3169

1. There were 4203 operating days on the 2009 schedules.

2. There are currently 4112 operating days on the 2010 published schedules as of September 9, 2010.

3. The total number of requested operating days for 2011 to be funded by NSF is 2097 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 2011. In 2010, of the total 4112 days, NSF funded 2593 days, or 63%. In 2011, NSF will provide support for 66% of the total days.

4. The Globals, (*Atlantis, Knorr, Langseth, Melville, Revelle*, and *Thompson)* and the Ocean class, (*Kilo Moana*) have reasonable schedules with between 248 and 305 operating days. There are specific home-port maintenance periods planned. The Globals will finish 2011 in optimal operating areas to begin 2012 cruises.

5. The East Coast Intermediates have moderate schedules with the *Oceanus* at 139 days and the *Endeavor* at 183 days. Both ships have contiguous blocks of down time in their home port for maintenance. As has been the norm over the past ten years, the work is concentrated in the mid and North Atlantic in the optimal weather windows from March to October. For both scientific and weather related reasons, the cruises cannot be combined into a one-ship scenario.

6. The *Cape Hatteras* currently has 148 days planned of which 68 days are pending. This is a light schedule. Additional cruises may be funded out of the August 15th NSF proposal deadline.

7. The *Pelican* in the Gulf of Mexico has a strong schedule of 239 days. Historically this ship has added days over the course of the operating year.

8. The *Hugh Sharp* has a strong schedule at 208 operating days.

9. The West Coast Intermediates, *Wecoma* and *New Horizon* both have weak schedules. The *Wecoma* presently has 159 days of which 93 are pending. The *New Horizon* shows 111 days with 32 pending.

10. The *Point Sur* with 105 days of which 51 days are pending and the *Robert Sproul* with 51 days of which 29 are pending have very weak schedules.

11. If no additional work is identified when the final schedules are completed, it may be necessary for NSF to provide funds to support extended maintenance or partial layup periods for NSF-owned ships.

12. There are presently no double-bookings on the ship schedules.

13. Due to unexpected ship repairs in 2010, programs from the *Langseth* have been rescheduled in 2011.

14. In recent years, a decline in ship time request demand has been observed (see Figure 4).

Recommendations

1. Depending on the success of the Montoya cruise in September 2010 which was scheduled on the *Cape Hatteras* and the *Oceanus,* NSF will decide if the 2011 Montoya cruise will also be a two-ship operation or be scheduled on a Global.

2. Maintenance periods in the vessel home-port are strongly encouraged both as a cost saving measure as well as an opportunity to conduct preventative maintenance.

3. If no additional work is identified when the final schedules are completed, it may be necessary for NSF to consider providing some funds to support extended maintenance or partial layup periods for the NSF-owned ships, *Wecoma and Point Sur*.

4. 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.

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

6. An analysis of the possible causes for the recent decline in shiptime request demand is recommended.

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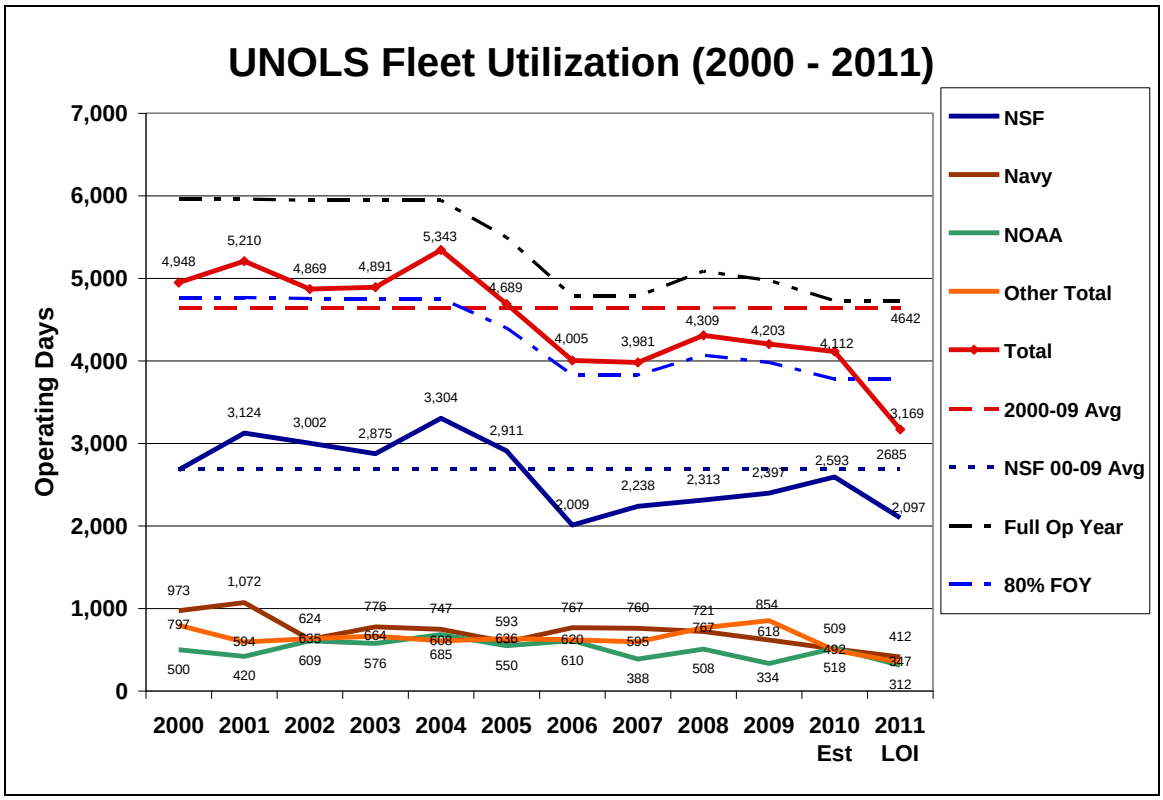

Figure 1

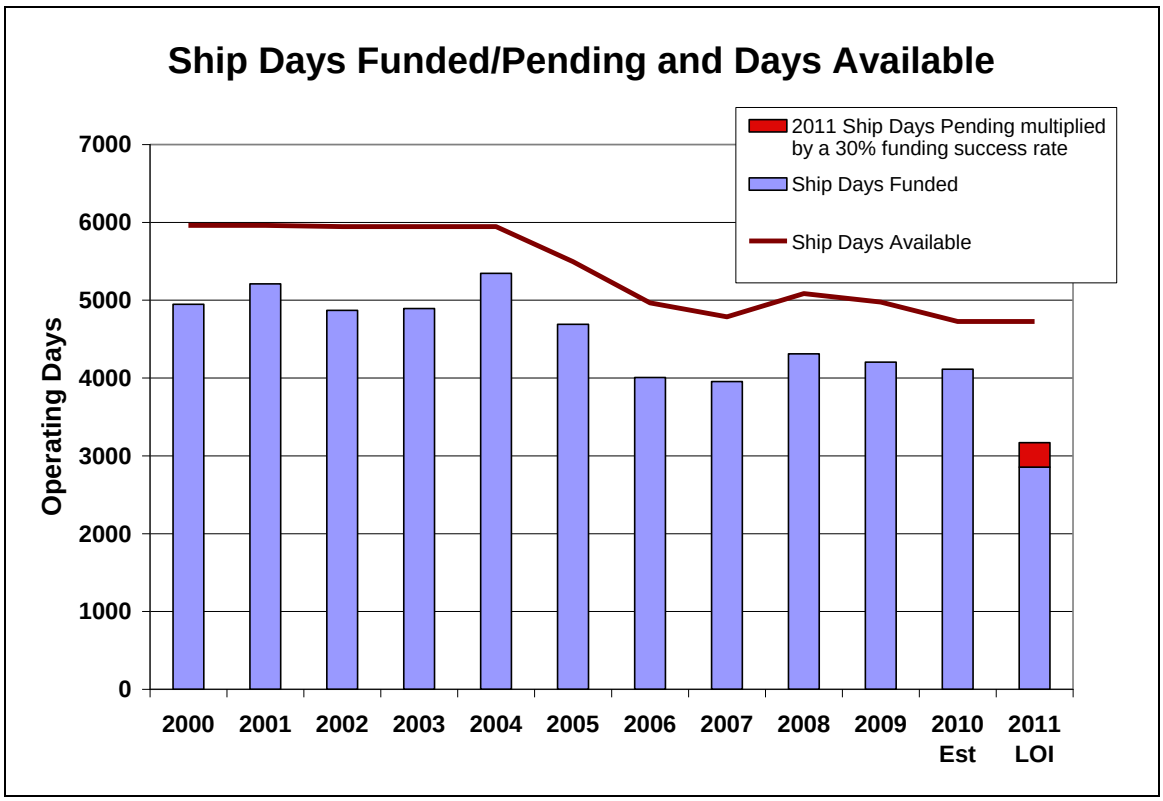

Figure 2

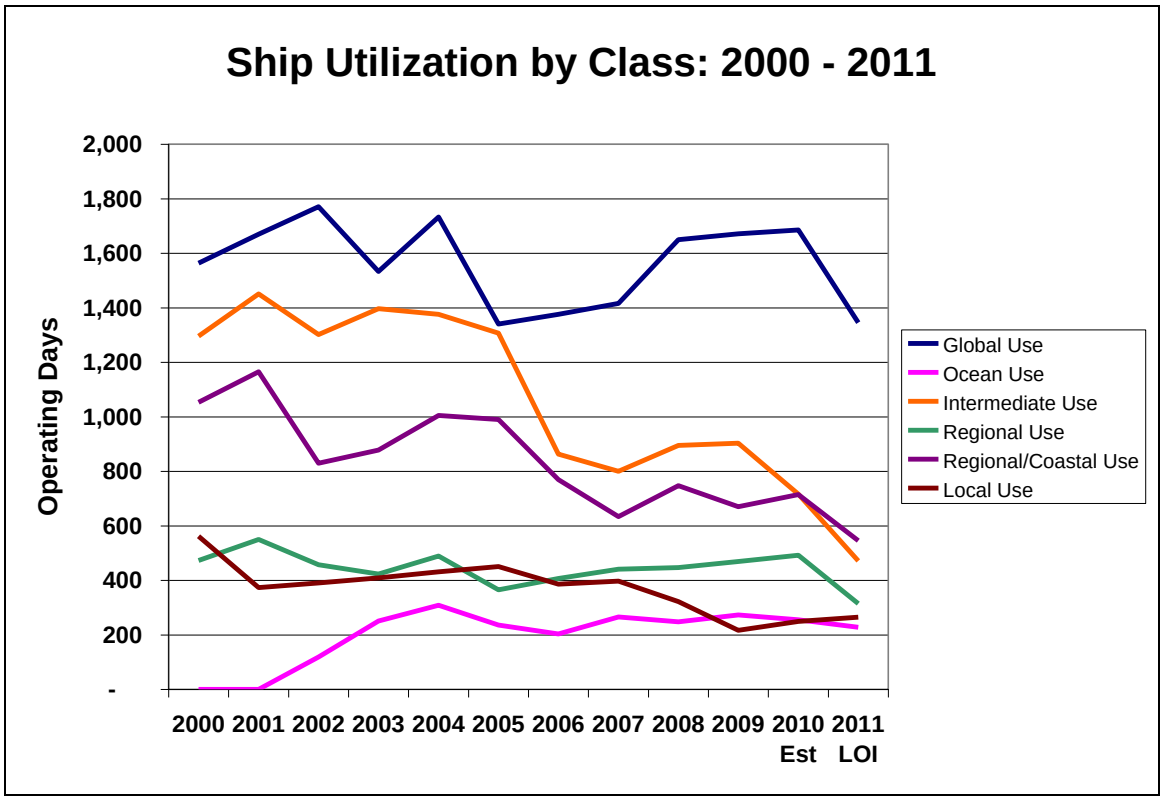

Figure 3

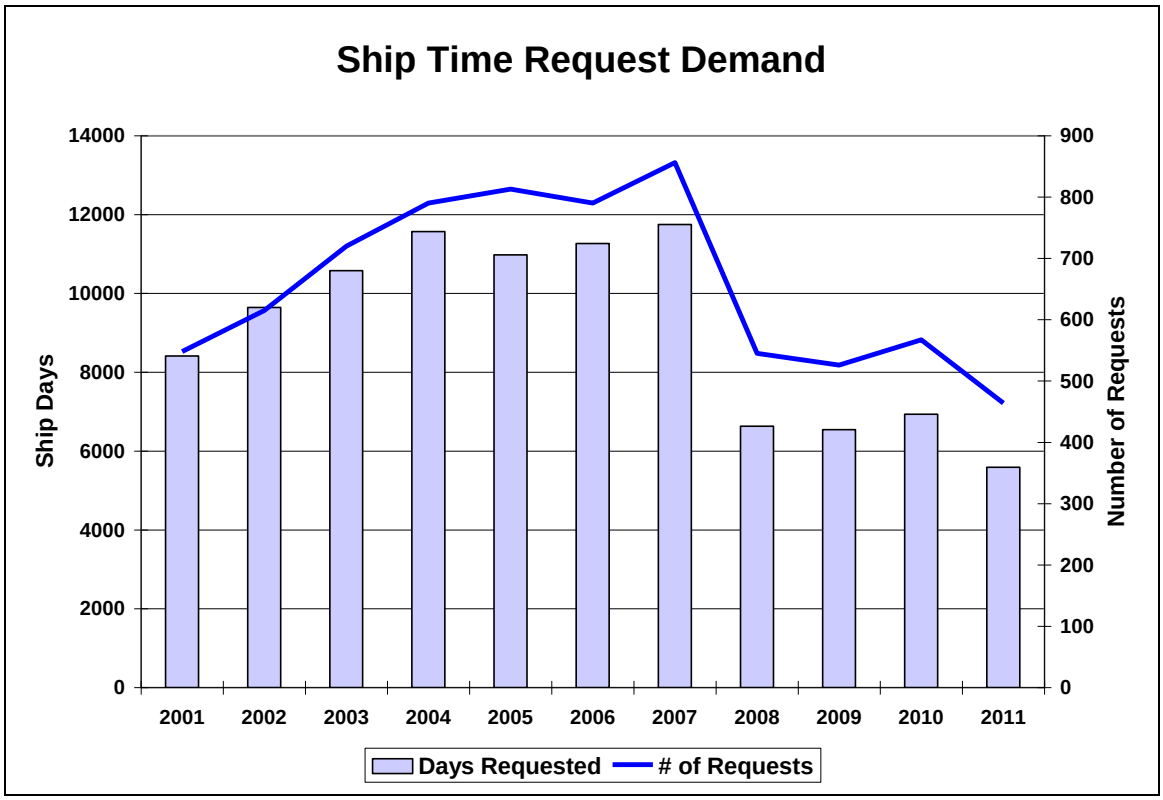

Figure 4