Fleet Improvement Plan

- Project Website:
  <http://www.unols.org/committees/fic/Fip05/FIP2005_Outline.html>

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Figure 17. Proposed schedule for new construction.

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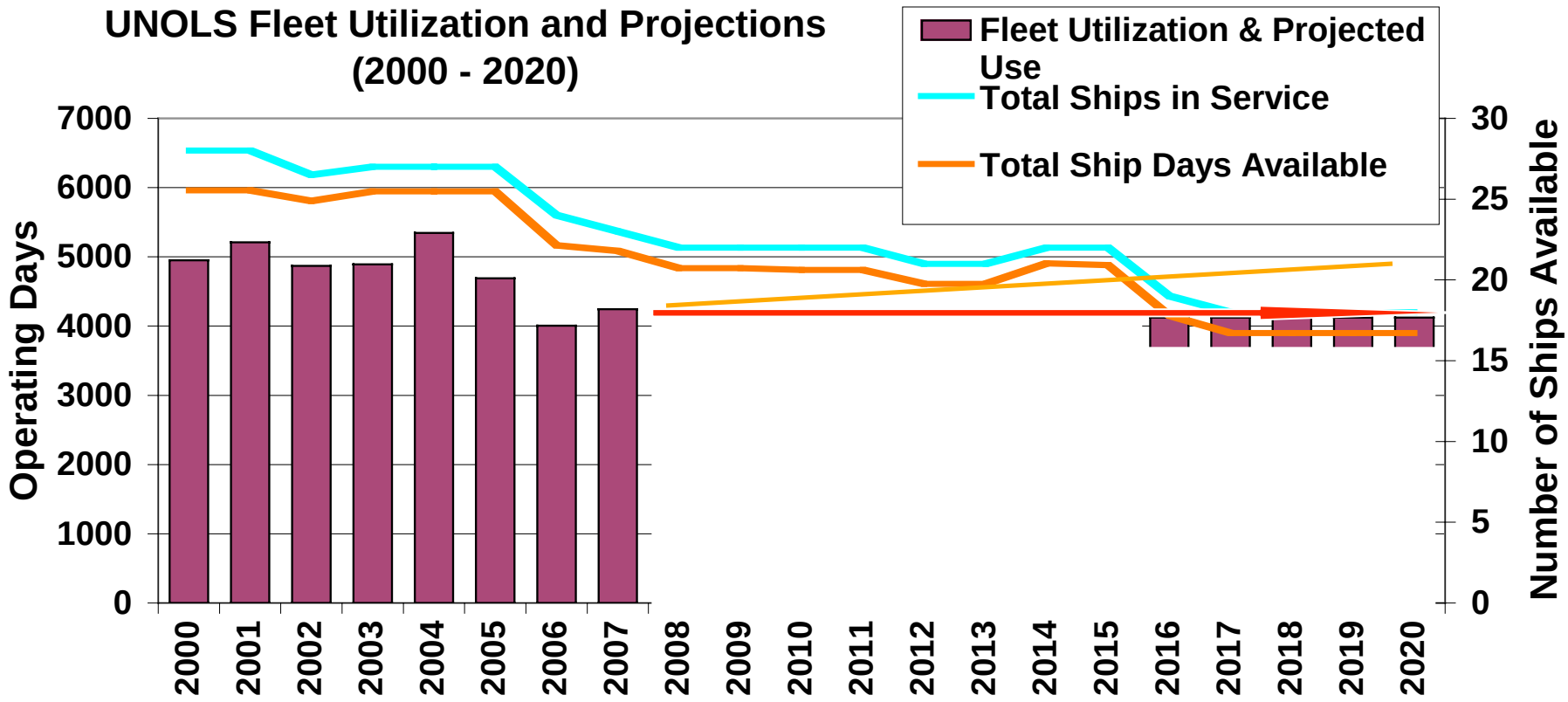
NEW SHIPS 2000-2020
Global Ships ($70M)
Seismic
Ocean Ships ($50M)
Kilo Moana
ARRV
Regional Ships ($25M)
2000
2005
2010
2015
2020

Ship Service Timeline

Fleet Renewal Timeline		
Ships	**IWG-F**	**UNOLS**
NSF:		
Langseth	2007	2007
ARRV	2009	2010
RC #1	2009	2010
RC #2	2011	2012
RC #3	2013	2014
Navy:		
OC #1	2014	2014
OC #2	2015	2015

UNOLS Fleet Projections



Total ships in service is based on all planned ships being built: ARRV, 3 Regional, ARRV, 2 Ocean, and all current Locals are replaced.

A Comparison of Today's Fleet with the Fleet 2025

University-National Oceanographic Laboratory System

Class	Number of Ships in 2005	Total # Science Berths in 2005	Days Available	Avg Days Used (2003 - 2006)		Number of Ships in 2025	Total # Science Berths in 2025	Available Days
Global	6	199	1800	1483		3	94	900
Ocean	1	30	275	249		4	120	1100
Intermed.	7	147	1750	1431		0	0	0
Regional	3	39	600	420		4	70	800
Fleet Total	17	415	4425	3583		11	284	2800

Note: ARRV and 2 Ocean Class ships will have 30 bunks each

New Regional class ships each have 16 bunks

Some items discussed related to need for additional ships beyond the IWG-F status plan:

Recommendations of Ocean Commission, Pew Commission and Ocean Research Priorities Plan all suggested increased resources for ocean sciences.

New initiatives related to Global Climate Change are on the horizon

Maintain national capabilties and to be competitive with other nations in the area of ocean sciences

Need to consider alternative technologies (gliders, AUVs, observatories) when determining where resources should go. Need to stress that these technologies compliment ship use, not replace it.

Getting a new vessel into the fleet is a 10+ year process. Thus, we need to be considering what is need beyond 2015 - IWG-F cannot do this.

While it is unlikely that the NSF MREFC account will be used for additional vessels in the near future, it maybe be an option beyond 2015.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2007 SLEP Updates

February 2007 – Operators for Endeavor, Oceanus, Wecoma, Point Sur, and Cape Hatteras were polled:

1. How long can you continue operating your vessel with your present maintenance plan before you would need a service life extension program (SLEP)?
2. In 2004, all of the operators were polled regarding SLEP requirements and associated costs. Does the cost and work items identified in the 2004 survey still represent the SLEP requirements for the ship that you operate?

- Reminder: SLEPs are not intended to upgrade the condition or outfitting of the vessel. The purpose of the SLEP is to extend service life.

Intermediate SLEP - Issues

- SLEP extends service life without enhancing science capability
- Intermediate Class ships do not meet Ocean Class SMRs and several Regional Class SMRs
- Intermediate ships lack DP
- Intermediate ships lack hull-mounted full depth multibeam
- Intermediate Ships are within razor edge of remaining within 300 GT threshold for classification
- Despite time and cost put into a SLEP, issues associated with age/use may still lead to increased maintenance cost.
- As machinery ages, risk of failure increases and cost of replacing equipment also increases.

FIC Membership

- **David Hebert, URI (Chair) – [at-large, 9/09] PO**
- **Newell Garfield, SFSU – [Non-op, 9/09] PO**
- **Jim Cochran, LDEO – [At-large, 10/07] MG&G**
- **Terry Whitledge, U Alaska – [Operator, 7/07] BIO/Chem**
- **Clare E. Reimers, OSU – [Operator, 1/09] Chem**
- **Bauer, Jim, VIMS – [Non-Operator, 9/09] Chem/Bio**
- **Maureen Conte, BBSR – [Operator, 9/09] BioGeoChm**
- **Al Hine, USF – [Non-Operator, 9/09] Geology**
- **Marc Willis, RVTEC Rep (ex-officio)**
- **Al Suchy, RVOC Rep (ex-officio)**

Jim Cochran (10/04 – 10/07) Eligible for Second Term
Terry Whitledge (7/00 – 7/07) Second Term Ending

Backup Slides

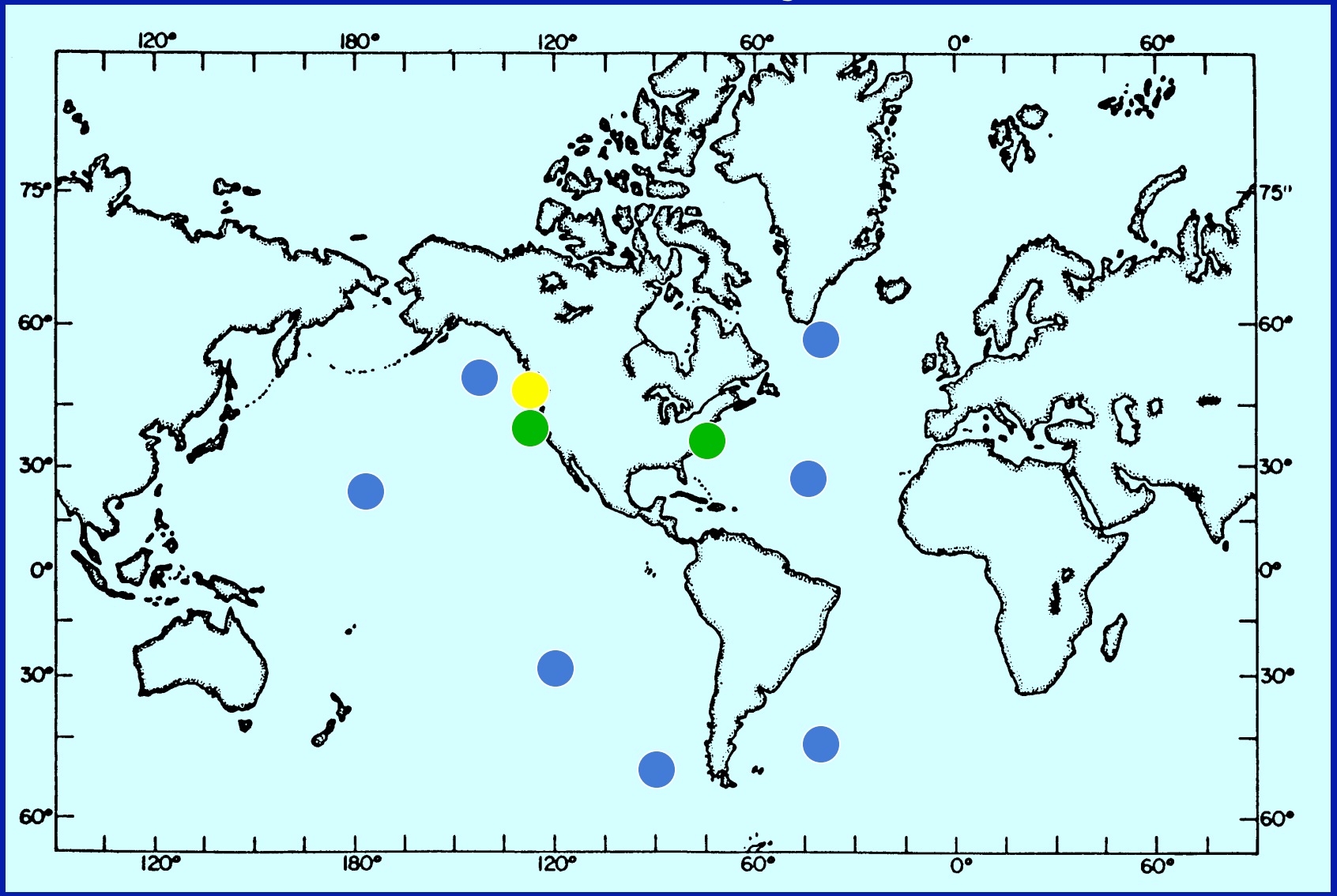
Global Scale Observatory Ship use and ROV use Requirements

	Loc'tn	Ship Class	Install days	ROV	Maint .Days	ROV
Station Papa, N Pacific	50N, 145W	Global	16	no	19	no
Irminger Sea, N Atl	60N, 39W	Global	20	no	23	no
Mid-Atl Ridge spar buoy	23N, 44W	Global	24	yes	27	yes
SW Chile	55S, 90W	Global	20	no	23	no
Argentine Basin, S Atl	42S, 42W	Intmed	15	no	18	no
S Pacific Gyre	28S, 120W	Intmed	23	no	26	no
Hawaii acoustic source	23N, 158W	Global	3	yes	4	yes
Total Global Ship days			**83**		**96**	
Total Intermediate Ship days			**38**		**44**	
Total Global Observatory Ship Days			**121**		**140**	

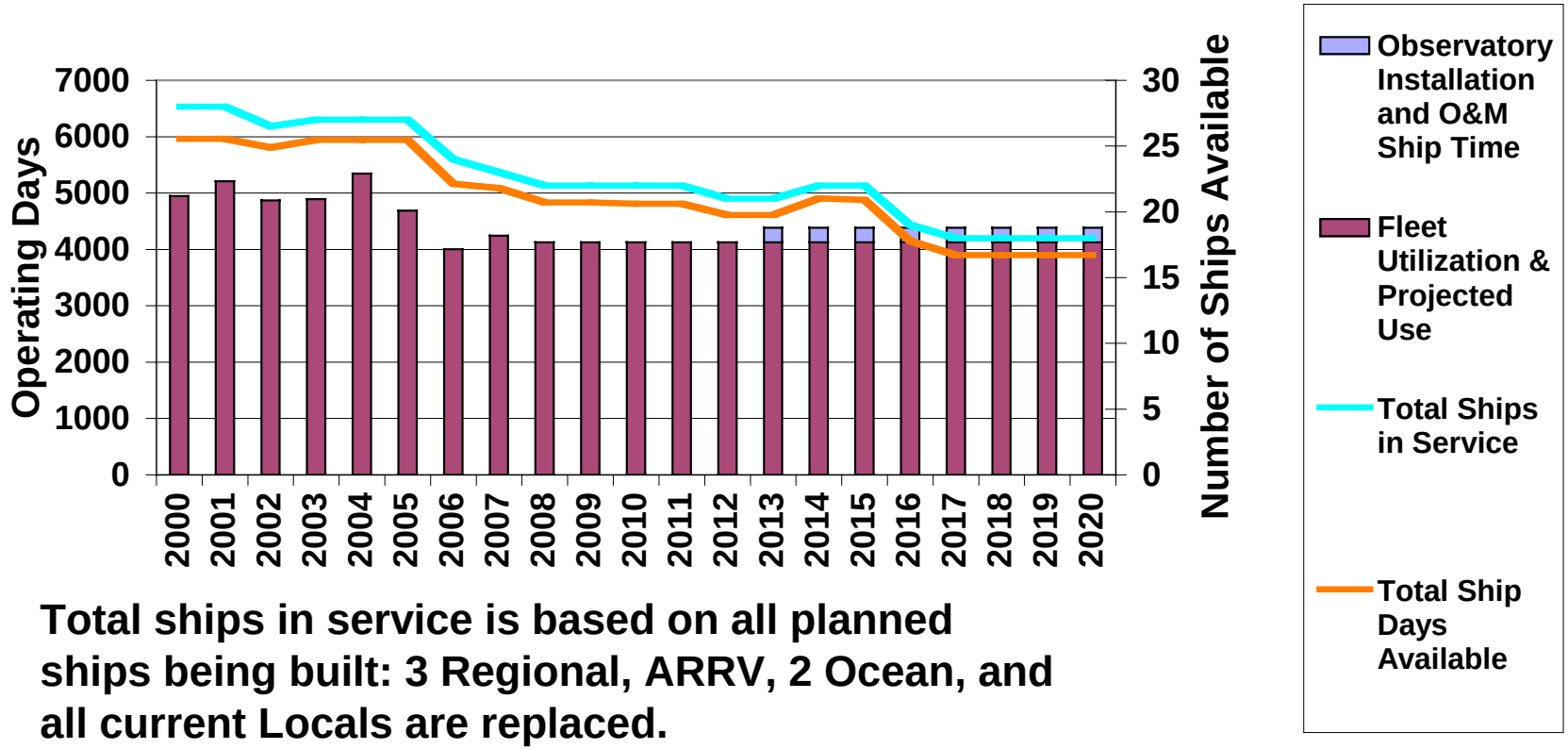
Regional and Coastal Observatory Ship Requirements

	Install days	ROV	O&M. Days	ROV
Regional Cable Observatory (Global Vessels) [based on science indicated in the RFA, up to ~160 ship days annually may be required to service RCO]	4.5	Yes (4)	32	Yes (6)
Pacific NW Endurance Array (Regional and Coastal Vessels)	29	Yes (11)	53	Yes (13)
Pioneer Array – Mid-Atl Bight (Coastal Vessels)	26	Yes (12)	34	Yes (12)
Total Regional and Coastal Observatory Ship days	**59.5**	**27**	**119**	31
Total Global Observatory Ship Days (from previous slide)	**121**		**140**	
TOTAL Observatory Ship Days	**180.5**		**259**	

Ocean Observatory Locations



UNOLS Fleet Projections with Observatory Facility Needs



Total ships in service is based on all planned ships being built: 3 Regional, ARRV, 2 Ocean, and all current Locals are replaced.

Past Nominees

- UNOLS Operator Representative:
  - Kenneth Coale (MLML) - BioGeoChem
- Non-Operator Representative from any Institution:
  - Raphael Kudela (UC, Santa Cruz) – Biol O
  - Jim Moffett (move to U. of S. Cal in 2007) – Chem O