NSF Report, including NSF's role towards implementing the FOFC Plan for renewal of the Academic Fleet.

Presentation to UNOLS Joint Session:
Council and FIC

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Outline

- Budget in relation to 2004/2005 ship schedule and NSF-funded days.
- Overview of NSF funding for academic fleet renewal.
- MREFC account in relation to funding for OCE major equipment, including ARRV.
- Regional ship update.
- Deep submergence (as presented to DESSC).

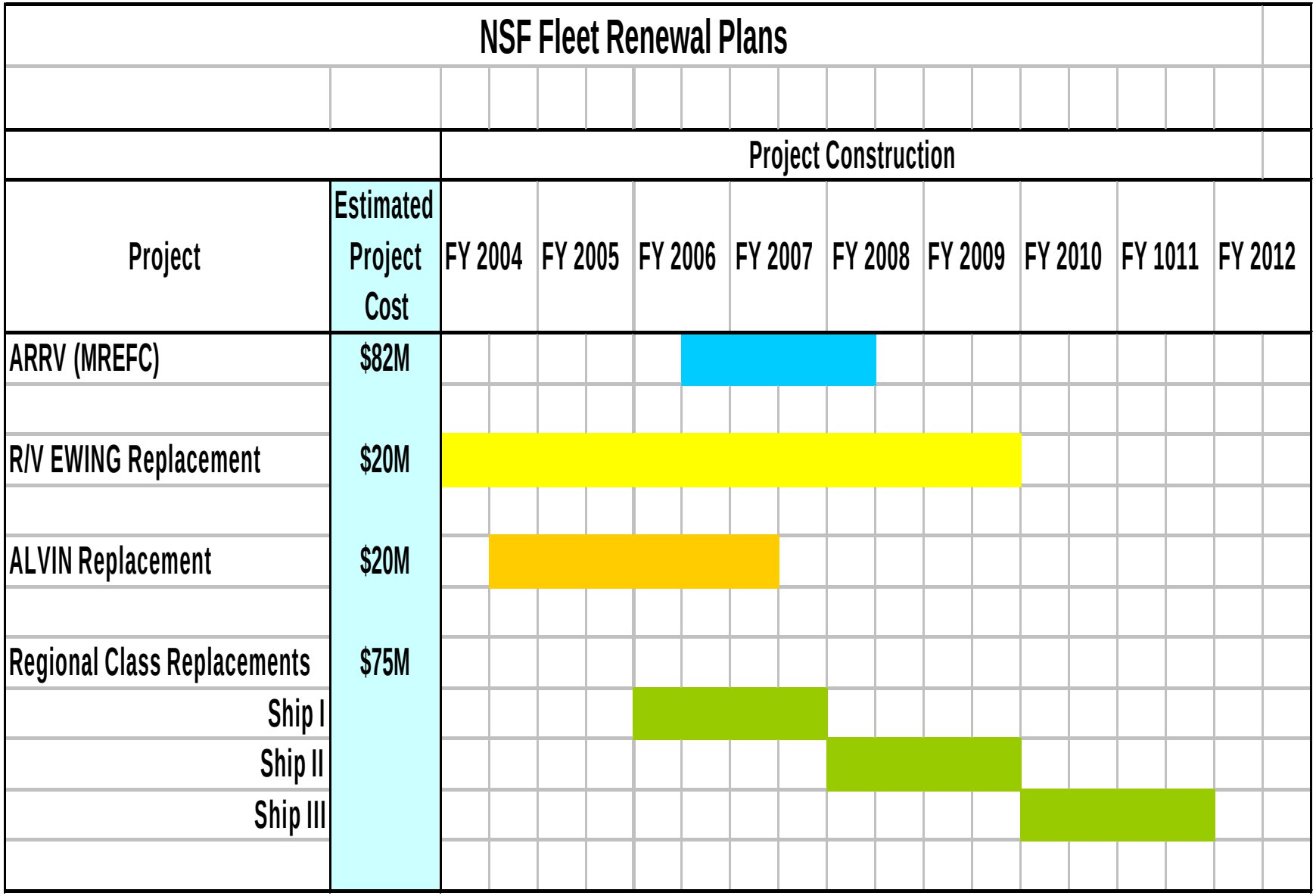
Division of Ocean Sciences

Budget Increments ($M) in Research and Facilities Accounts

	FY01 Incre.	FY02 Incre.	FY03 Incre.	FY04 Incre.	**Total FY01-04**
Research Programs	5.1	7.8	20.3	-6.0	**27.2**
Facilities (Approx.)*	11.6	3.7	12.0	6.0	**33.3**
Total	18.7	11.5	32.3	0.0	**60.5**

*includes ships, marine techs, deep submergence and other.

Project Construction and Funding



Runout of MREFC Account

From: NSF FY05 Budget Request to Congress (on p. 374).

New Starts	2005	2006	2007	2008	2009
NEON	$12M	16M	20M	20M	20M
Drill Ship*	**$41M**	**60M**			
RSVP	$30M	43M	44M	20M	8M
OOI*		**25M**	**63M**	**65M**	**47M**
ARRV*		**49M**	**33M**		
Total MREFC Account	$213M	326M	270M	188M	144M

* denotes OCE project

Regional Class Ships

- NSF is working to complete an MOU with Navy by summer, 2004, to build lead Regional Class ship, with options for 2 or 3 more. NSF management will have to approve the terms of the MOU. Upper management has been briefed; NSB will be briefed later this month.

- Assuming signed MOU, NSF will independently issue a solicitation for Regional Class operators in 2004/2005.

UNOLS and Regional Class Ships.

- NSF needs UNOLS' SMR priorities by summer, 2004. Note: NSF does **not** intend to build 175 ft. "regional class" vessels. Thus, SMR priorities are needed!
- Based on UNOLS input, Navy and NSF will develop draft "Operational Requirements" in preparation for RFP.
- By summer, 2004, we need UNOLS to recommend a point-person to interact in NSF/Navy meetings beginning with the program definition phase. If this activity requires a major expenditure of time on the part of the UNOLS rep, NSF will consider salary compensation.
- UNOLS representatives will be involved in the entire process. UNOLS reps will serve on: program definition phase, panel to select among competing design proposals, government's Integrated Product Team; panel to select construction awardee; and construction oversight.

Background for DESSC Presentation

- This response was discussed within OCE and with NOAA and ONR representatives.
- Important to distinguish between OCE science/facility operations accounts, and those funds we are required to set aside within OCE budget to fund midsize infrastructure projects (loosely defined as projects costing on order of $20-25M).
- Comparatively small infrastructure projects such as Jason-2 and HROV are funded through science/facility accounts.
- Report points out that NSF and other NDSF sponsors will need to increase funding for deep submergence operations at 10-15 percent over the next 3 years – Not likely to happen.

NSF should establish a small pool of funds on the order of 10% of the annual NDSF budget that could be specifically used to support the use of non-NDSF vehicles for funded research when legitimate barriers to the use of NDSF assets can be demonstrated.

- We accept this recommendation and with the following caveats:
  - Emphasis on the phrase “on the order of 10% of annual NDSF budget”
  - Emphasis on the phrase “when legitimate barriers can be demonstrated”
  - When operated on a UNOLS vessel.
  - When OCE and other agency budgets are back in a growth mode, i.e. not this year and possibly not next year.
  - For human-occupied vehicles, when inspection/safety requirements are developed (Dolly will discuss).

NSF/OCE should construct an additional scientific ROV system dedicated to expeditionary research.

- Not in the near future (next couple of years), because
  - We cannot yet afford to operate a second vehicle.
  - Surge capability (up to 60 days per year) is available through ISIS barter, and this should handle short-term needs
  - We want to determine what type of ROVs will be required for ORION, as there may be cost savings if NSF purchased and then operated more than 1 new vehicle.
  - We are also evaluating options to enhance Jason II, along the lines recommended by the report.

NSF/OCE should consider basing a second ROV system at a second location [probably on the West Coast].

- Reasonable recommendation, and we will consider this at the appropriate time.

NSF/OCE should construct a new, more capable HOV (with improved visibility, neutral buoyancy capability, increased payload, extended time at working depth, and other design features).

Thus, constructing an HOV capable of operating at significantly greater depths (6000+ meters) should only be undertaken if additional design studies demonstrate that this capability can be delivered for a relatively small increase in cost and risk.

- Accept these recommendations with the following caveats
  - New HOV is a **replacement** for ALVIN, not an **addition** to the fleet.
  - Owing to the risks discussed in the report (and to take advantage of funds OCE sets aside for midsize infrastructure projects) NSF may start sphere development before we make a decision on a new ROV.