APPENDIX VII

NSF Budget Request - FY 1999

(figures in millions)

	FY 1998	FY 1999	Increase	Percent
Research and Related Activities				
Biological Sciences*	370.82	416.52	45.70	12.3%
Computation and Information Sciences	307.17	329.64	22.47	7.3%
Engineering	357.97	400.55	42.58	11.9%
Geosciences	455.11	507.31	52.20	11.5%
Math & Physical Sciences	715.71	792.03	76.32	10.7%
Social & Behavioral Sciences	130.66	150.26	19.60	15.0%
Polar Sciences	228.53	244.96	16.43	7.2%
Critical Tech. Institute	2.73	2.73	0.00	0.0%
	$2,568.70	**$2,844.00**	**$275.30**	**10.7%**
Education & Human Resources	**$632.50**	**$683.00**	**$50.50**	**8.0%**
Major Research Equipment**	**$109.00**	**$94.00**	**($15.00)**	**-13.8%**
Administration/Operations	**$141.80**	**$152.00**	**$10.20**	**7.2%**
NSF Total	**$3,452.00**	**$3,773.00**	**$321.00**	**9.3%**

*BIO includes $40.0M for Plant Genome Research

**MRE includes $31.0M for MPS projects, $42.0M for Polar Sciences projects, and $21.0M for GEO projects

NSF Budget Request - FY 1999

(figures in millions)

	FY 1998	FY 1999	Increase	Percent
Geosciences				
Atmospheric Sciences*	153.82	170.22	16.40	10.7%
Earth Sciences	95.13	106.70	11.57	12.2%
Ocean Sciences	206.16	230.39	24.23	11.8%
	$455.11	**$507.31**	**$52.20**	**11.5%**

	FY 1998	FY 1999	Increase	Percent
Ocean Sciences				
Ocean Sciences Research Support	112.15	127.50	15.35	13.7%
Oceanographic Centers & Facilities	52.26	56.96	4.70	9.0%
Ocean Drilling Program	41.75	45.93	4.18	10.0%
	$206.16	**$230.39**	**$24.23**	**11.8%**

*MRE account includes $21.0M for Polar Cap Observatory

NSF Ocean Sciences Priorities - FY1999

Ocean Sciences Research Support - $127.50 M

- enhanced support for individual investigator research projects
- expanded support for interdisciplinary studies of Life in Extreme Environments (LExEn)
- increased support for coastal ocean process studies
- increased support for field programs in earth system history and ecosystems research
- expanded modeling and data assimilation efforts for ocean circulation and ocean flux studies
- joint effort with Earth Sciences for more focused studies of continental margins
- continue long term process studies of deep ocean systems and amplify efforts to develop new technologies and instrument systems for "seafloor observatory" capabilities
- additional funds for projects of significance to society in partnerships with national consortia such as National Oceanographic Partnership Program (NOPP) or with international funding agencies such as the European Union.

FY1999

Oceanographic Centers and Facilities - $56.96 M

- provide support for academic research fleet at level to ensure required ship time and capabilities are provided to satisfy research project requirements
- enhance technical and shared-use instrumentation support for research projects to reduce burdens on sea-going scientists
- continue maintenance and ship-improvement programs for modern and efficient academic research fleet.

Ocean Drilling Program - $45.93 M

- enhance operational support to ensure research project requirements are met
- complete refit of the JOIDES Resolution
- enhance support for research project awards with focus on earth system history and continental margin studies.

Academic Research Fleet Operations and Management Review

Context

- National Science Board reviewed request for continuation of Oceanographic Research Vessel and Submersible Operations awards for 5 years in November, 1997.
- Operations awards were approved for a shorter duration -- 2 years, 1998 and 1999.
- NSF staff are to review and report back on the cost-effectiveness of the present and possible alternative methods of managing ship operations
- Review procedures will follow principles outlined in NSB Resolution concerning Competition, Recompetition, and Renewal of NSF Awards for facilities operations (NSB 97-224).

AND MANAGEMENT REVIEW

Action

- Establish Academic Research Fleet Operations Review Panel
  - Six to eight members
  - Academic, industry, and government representatives

- Provide a comprehensive and balanced evaluation of science support services and capabilities, ship operations, and size and organizational structure for the support of the academic research fleet.

- Recommend actions by NSF to ensure the most cost-effective means of organizing and managing the research fleet for support of research requirements.

Academic Research Fleet Operations and Management Review

Terms of Reference

1) Review and evaluate the current and projected research vessel fleet required for research sponsored by the National Science Foundation within a national framework that includes research requirements of other federal agencies, state and local governments, and private sources.

   This review should be done in the context of environmental and geoscience research, in general, and the specific contributions the Academic Research Fleet provides to the research enterprise as a whole.

   Specific issues include:

   - Do the capabilities and operating modes of the academic ships meet research requirements?
   - Are the number of ships overall, and distribution within size categories, consistent with the level of research support and type of seagoing research projects expected in the future?
   - Are specialized capabilities required to meet research priorities adequately included in the overall fleet profile?

AND MANAGEMENT REVIEW

Terms of Reference

2) Review and evaluate overall management structure of the Academic Research Fleet; review and evaluate existing capabilities and services provided by the operating organizations; and review and evaluate possible future changes in academic fleet operations to ensure optimal operations of the academic fleet to support research requirements.

The review context should include consideration of the distributed ownership of the fleet, cost sharing for both capital acquisition and operations and requirements of multiple research sponsors who participate in scientific, operational and financial support.

Specific issues include:

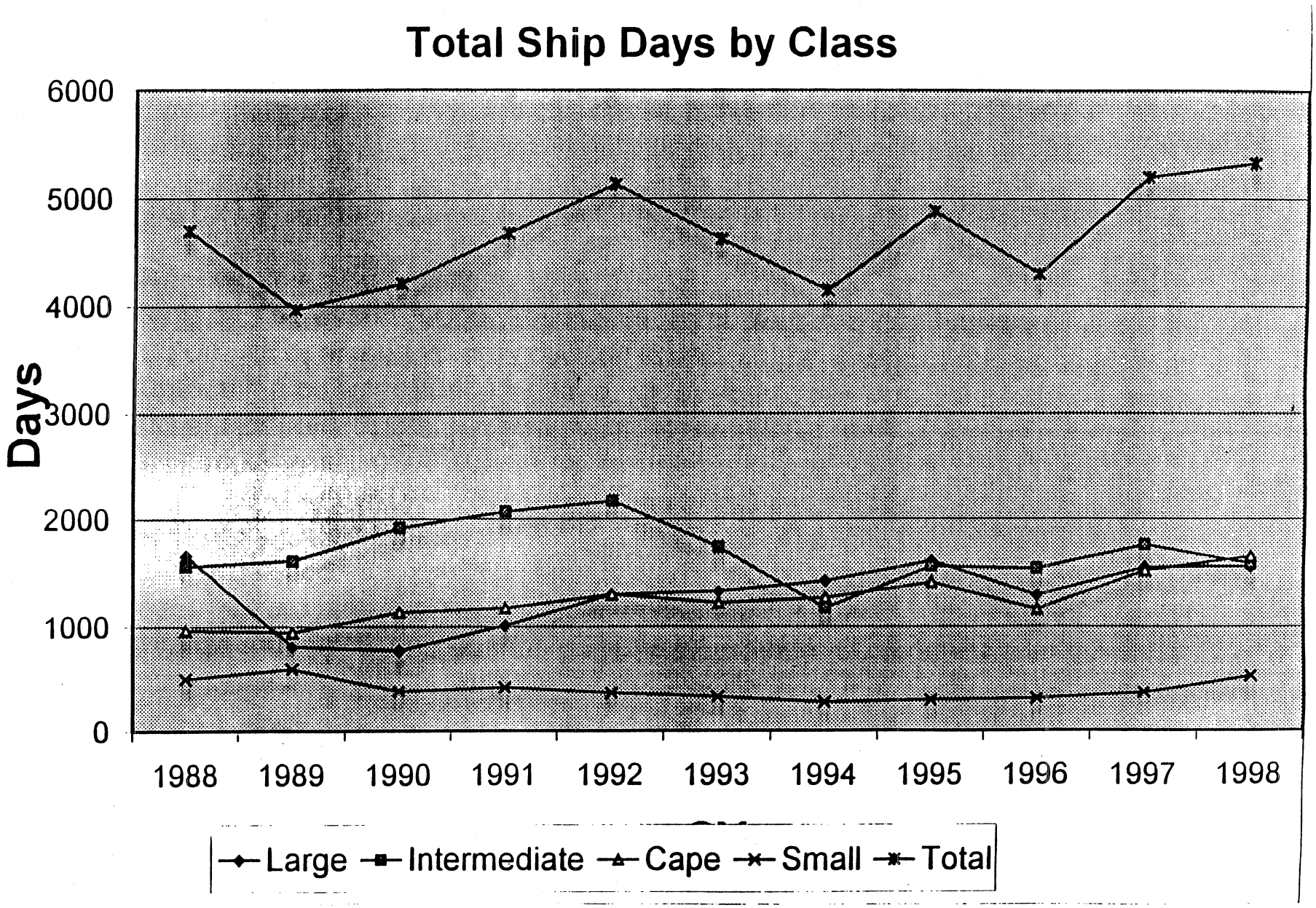
- Are organizational arrangements and structures appropriate?
- Can the Academic Research Fleet system be managed in a more cost-effective manner?
- Should elements of the research fleet be recompeted?

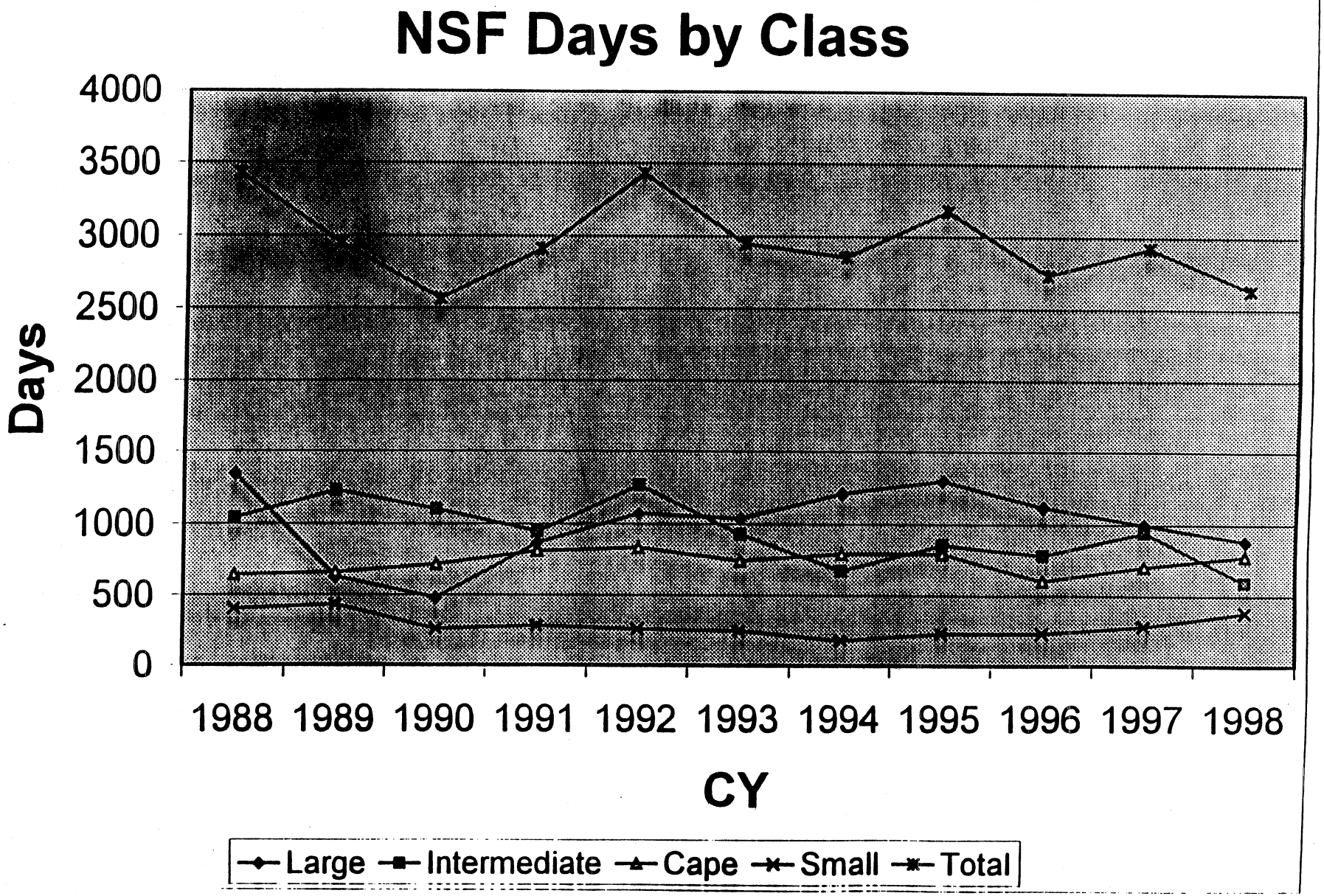
AND MANAGEMENT REVIEW

Terms of Reference

3) Provide recommended actions by NSF to improve the organization, management, and cost effective operation of the Academic Research Fleet in support of scientific capabilities required to maintain world leadership in ocean and environmental science research.

The recommendations should be formulated in the context of the results of the review and evaluations of the first two terms of reference. Key elements include providing a perspective on Academic Research Fleet operations within a national context, relevance and quality of scientific, educational, and technical support; and benefits and added value of any recommended actions for peer reviewed competition or recompetition of research fleet components.


Total Ship Days by Class
6000
5000
4000
3000
2000
1000
0
Days
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
Large
Intermediate
Cape
Small
Total


NSF Days by Class
Days
4000
3500
3000
2500
2000
1500
1000
500
0
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
CY
Large
Intermediate
Cape
Small
Total

NSF TOTAL DAYS

Ship	Length		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Melville	279		145	148 m/l	m/l		137	241	302	256	291	200	154
Knorr	279		280 m/l	m/l	m/l		271	167	218	350	267	153	190
Thompso	274	-				0	231	223	146	215	171	62	131
Revelle	274	-									1	233	128
Atlantis	274	-										157	202
Ewing	239	-			111	300	190	221	292	180	311	192	76
A II	210		254	194	147	247	146	183	253	296	78 o/s		
Conrad	208		275	58 o/s									
Thompso	208		121 o/s										
Washingt	208		269	229	224	320	94 o/s						
		Sub Total	1344	629	482	867	1069	1035	1211	1297	1119	997	881
Vickers	220				10	86	55	115 o/s					
M.Wave	210		281	285	166	218	223	183	142	171	105	179	111
Johnson	204		12	0	12	12	36	31	50	81	208	179	124
Wecoma	185		169	157	190	154	229	135	75	70	103	116	70
Endeavor	184		144	193	134	67	150 m/l		127	191	78	117	0
Gyre	182		10	91	118	7	51	23	49	0	0	9	31
Oceanus	177		148	227	96	51	171	87 m/l		124	71	155	161
N.Horizon	170		104	67	105	89	130	170	175	193	148	143	60
Iselin	170		164	172	271	228	197	159	4 o/s				
Link	168		7	37	0	34	24	21	51	22	68	43	37
		Sub Total	1039	1229	1102	946	1266	924	673	852	781	941	594
P.Sur	135		41	60	79	49	79	93	119	110	46	81	121
Hatteras	135		137	178	146	187	168	168	130	133 l/u		120	111
Helix	133		194	115	105	109	102	129	145	89	27	71	139
Sproul	125		121	83	101	121	96	30	64	78	79	118	65
Henlopen	120		30	101	35	136	125	128	117	167	158	84	106
Wbird II	115	--			225	193	215	99	140	151	144	130	134
Sea.Diver	113	--							8	30	57	6	18
Warfield	106		111	107 o/s									
Pelican	105		9	16	28	0	34	56	29	0	23	54	62
Longhorn	105		0	0	0	15	14	39	39	36	70	4	6
Urraca	96	-						-			0	38	15
		Sub Total	643	660	719	810	833	742	791	794	604	706	777
Laurentia	80		46	46	25	50	28	56	59	79	46	35	140
BlueFin	72		51	37	51	25	72	53	26	72	94	68	76
Calanus	68		116	94	55	72	85	91	50	22	28	76	90
Barnes	66		60	70	129	139	75	46	46	57	61	101	72
WBI	65		130	186 o/s									
		Sub Total	403	433	260	286	260	246	181	230	229	280	378
		Total	3429	2951	2563	2909	3428	2947	2856	3173	2733	2924	2630

TOTAL DAYS

Ship	Length		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Melville	279		207	224	m/l	m/l	170	306	303	297	297	308	216
Knorr	279		303	m/l	m/l	m/l	271	278	253	350	269	284	266
Thompso	274					83	277	282	255	333	246	214	277
Revelle	274										71	288	316
Atlantis	274											185	272
Ewing	239				198	300	299	221	310	310	315	273	215
A II	210		343	223	281	292	179	247	306	319	93	o/s	
Conrad	208		352	103	o/s								
Thompso	208		128	o/s									
Washingt	208		331	260	293	336	105	o/s					
		Sub Total	**1664**	**810**	**772**	**1011**	**1301**	**1334**	**1427**	**1609**	**1291**	**1552**	**1562**
Vickers	220				10	86	226	203	o/s				
M.Wave	210		300	295	283	269	278	249	215	195	144	202	169
Johnson	204		12	0	177	220	211	136	88	271	305	290	281
Wecoma	185		226	218	239	212	270	220	84	145	198	199	226
Endeavor	184		224	259	220	196	201	m/l	130	228	147	201	158
Gyre	182		133	163	212	220	129	159	148	122	219	184	144
Oceanus	177		230	252	157	213	313	189	m/l	187	168	209	245
N.Horizon	170		216	169	233	207	175	239	241	240	174	259	221
Iselin	170		217	222	279	239	206	221	21	o/s			
Link	168		7	37	107	206	157	122	247	175	186	214	141
		Sub Total	**1565**	**1615**	**1917**	**2068**	**2166**	**1738**	**1174**	**1563**	**1541**	**1758**	**1585**
P Sur	135		141	163	177	155	177	174	185	164	118	188	193
Hatteras	135		204	190	180	228	216	194	173	175	l/u	221	205
Helix	133		198	155	109	112	146	167	163	144	73	118	172
Sproul	125		159	117	135	181	140	146	111	145	155	182	164
Henlopen	120		57	121	64	159	170	157	170	198	185	195	195
Wbird II	115				238	204	225	109	144	154	167	153	134
Sea.Diver	113								138	180	134	105	133
Warfield	106		112	107	o/s								
Pelican	105		93	89	121	93	168	224	134	182	201	203	244
Longhorn	105		0	0	111	44	58	53	53	72	130	46	63
Urraca	96											112	147
		Sub Total	**964**	**942**	**1135**	**1176**	**1300**	**1224**	**1271**	**1414**	**1163**	**1523**	**1650**
Laurentia	80		58	57	53	83	59	62	83	91	72	44	148
BlueFin	72		72	61	71	49	108	96	59	75	96	82	95
Calanus	68		137	160	101	127	110	106	54	48	50	111	167
Barnes	66		80	108	154	157	87	60	72	77	86	126	119
WBI	65		154	211	0/s								
		Sub Total	**501**	**597**	**379**	**416**	**364**	**324**	**268**	**291**	**304**	**363**	**529**
			4694	3964	4203	4671	5131	4620	4140	4877	4299	5196	5326
		Total											

RESULTS FROM SHIP DATA QUERIES

Overview:

Data were queried from two separate data bases the IBM/NSF data base and the Access/OCE panel data bases for the four disciplinary OCE programs (BO, CO, MGG, and PO). The IBM system was queried based on SPDE code entered under the subsection I. Data with codes containing A (Large Ship-primary user) and C (Small Ship-primary user) were returned under this query. Data for the overall number of proposal for each fiscal year, as well as, success rate were gathered using the Executive Information System (EIS). The data covers the period between fiscal year 1988 to fiscal year 1996.

For the Access data bases, data were queried from each separate access file for each program and panel. Data from the various panels, both special panels (e.g. GLOBEC, JGOFS, MESH) and core panels, were combined under one spreadsheet for each program. Data for ship time were based on the information entered under the ship request form in the Access data base. Program Managers provided a detailed list of proposals which have been awarded or declined over the last three to four years. These two data bases were then combined to determine the success rates of proposal with and without ship request, as well as, trends in the number of ship request. Access data covers the period between fiscal year 1996 (1995 for some programs) to fiscal year 1998. In all graphs, data retrieved from the IBM system (1988-1995) are indicated by filled symbols and solid lines. Data retrieved from the Access data base (1996-1998) are indicated by unfilled symbols and dashed lines.

The major difference between the two data bases is that the IBM uses proposals, where as, Access uses projects (treats collaborative proposals as one project) as the basic unit. Generally, the number of projects is 10 – 15 % lower than the number of proposals.

NOTE:

The proposal, award and success rate data in this report only track the four large disciplinary program areas in the Ocean Sciences Research Section -- Physical Oceanography, Biological Oceanography, Marine Geology and Geophysics and Chemical Oceanography. Collectively these programs represent approximately 85% of the "research funds" in the division.

The Oceanographic Technology and Interdisciplinary Cooperation (OTIC) program and Education and Human Resources (EHR) program in the research section and the Ocean Drilling Program (ODP) grants program are not included. OTIC was transfered to the research section from the facilities section in 1993 with an expansion of scope and the EHR program was established from ongoing distributed activities in 1997. They and the ODP grants program do not have historical "data bases" equivalent to those used for these statistics.

Figure 1: Overall trends in ship requests-total number of proposals with ship requests (Total), number of awards with ship requests (Awards), and number of declines with ship requests (Declines). Data retrieved from the IBM system (1988-1995) are indicated by filled symbols. Data retrieved from the Access data base (1996-1998) are indicated by unfilled symbols.

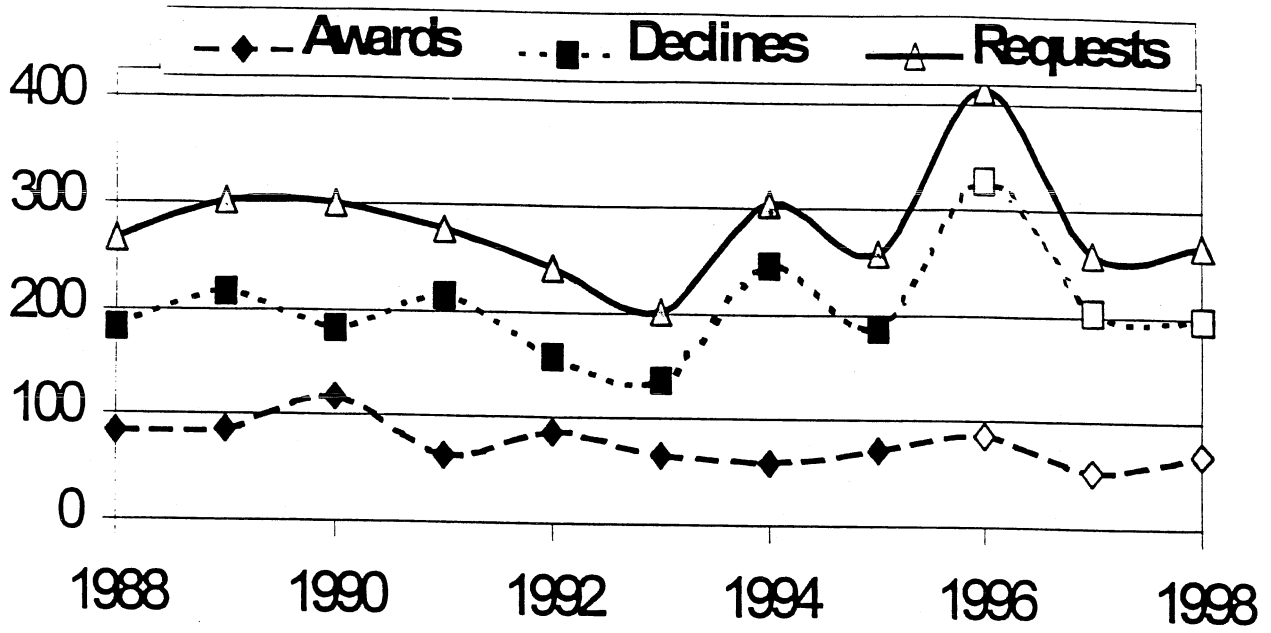


Fig 2. Number of proposals with ship request by program. Data retrieved from the IBM system (1988-1995) are indicated by filled symbols. Data retrieved from the Access data base (1996-1998) are indicated by unfilled symbols.

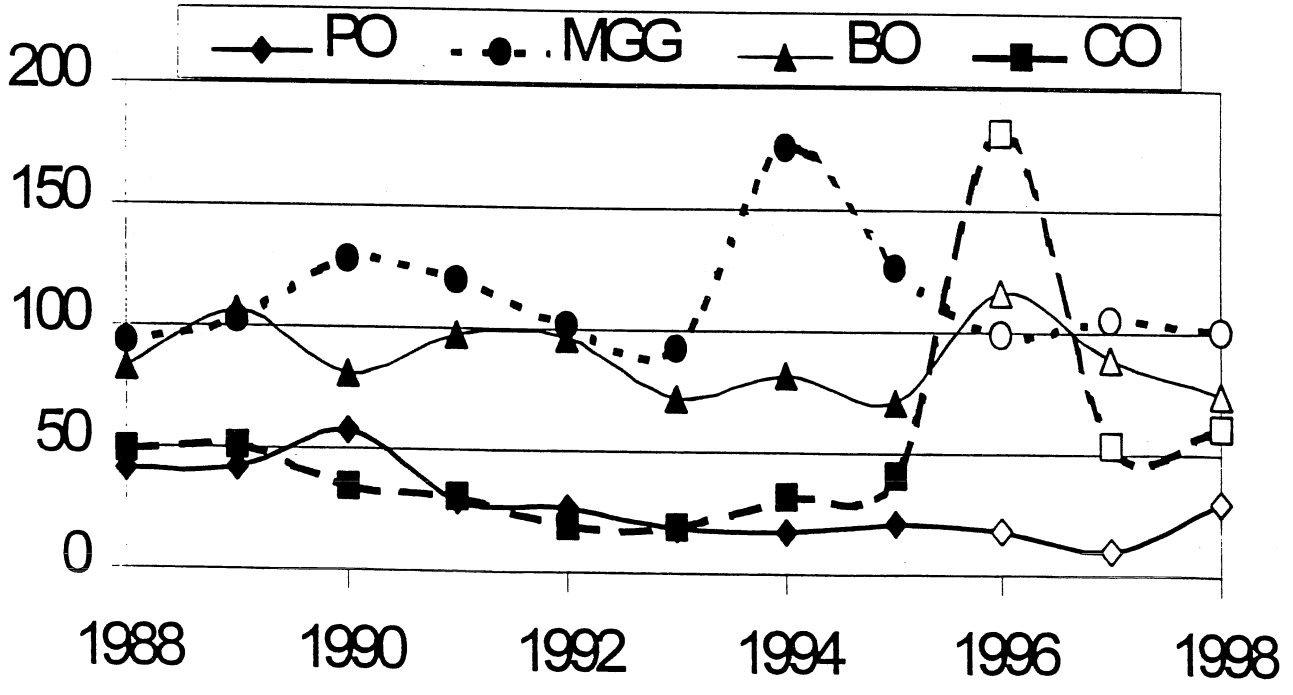


Fig 3. Overall success rates for the four disciplinary programs and success rates for proposal with ship requests. Data retrieved from the IBM system (1988-1995) are indicated by filled symbols. Data retrieved from the Access data base (1996-1998) are indicated by unfilled symbols.

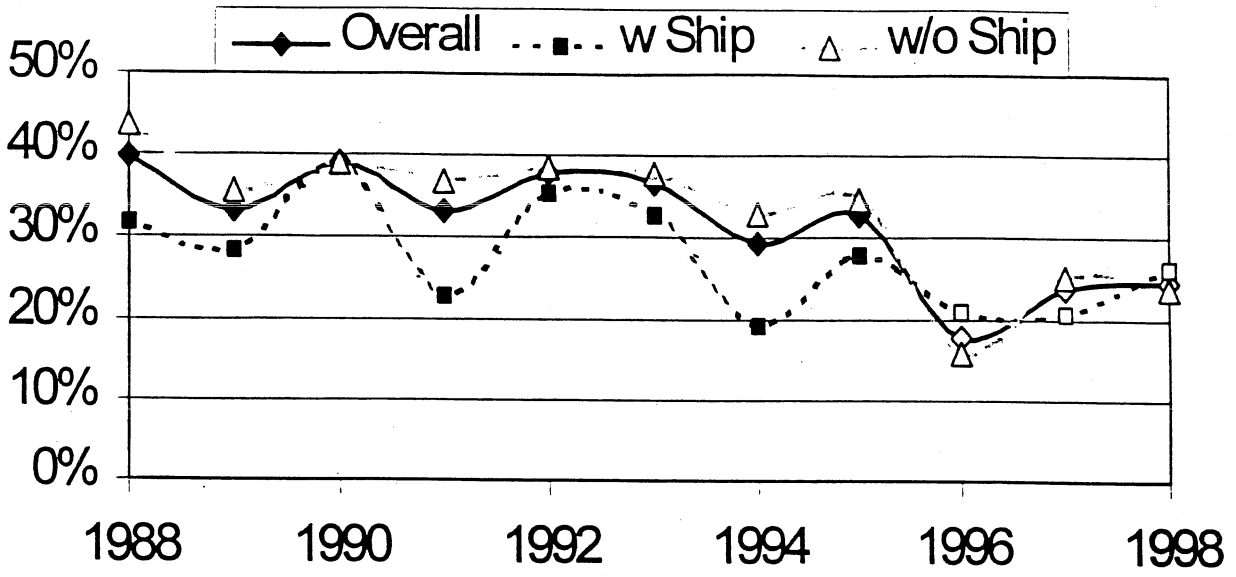


Fig 4. Total number of OSRS proposals and the percent of those proposals requesting ship time. Data retrieved from the IBM system (1988-1995) are indicated by filled symbols. Data retrieved from the Access data base (1996-1998) are indicated by unfilled symbols.

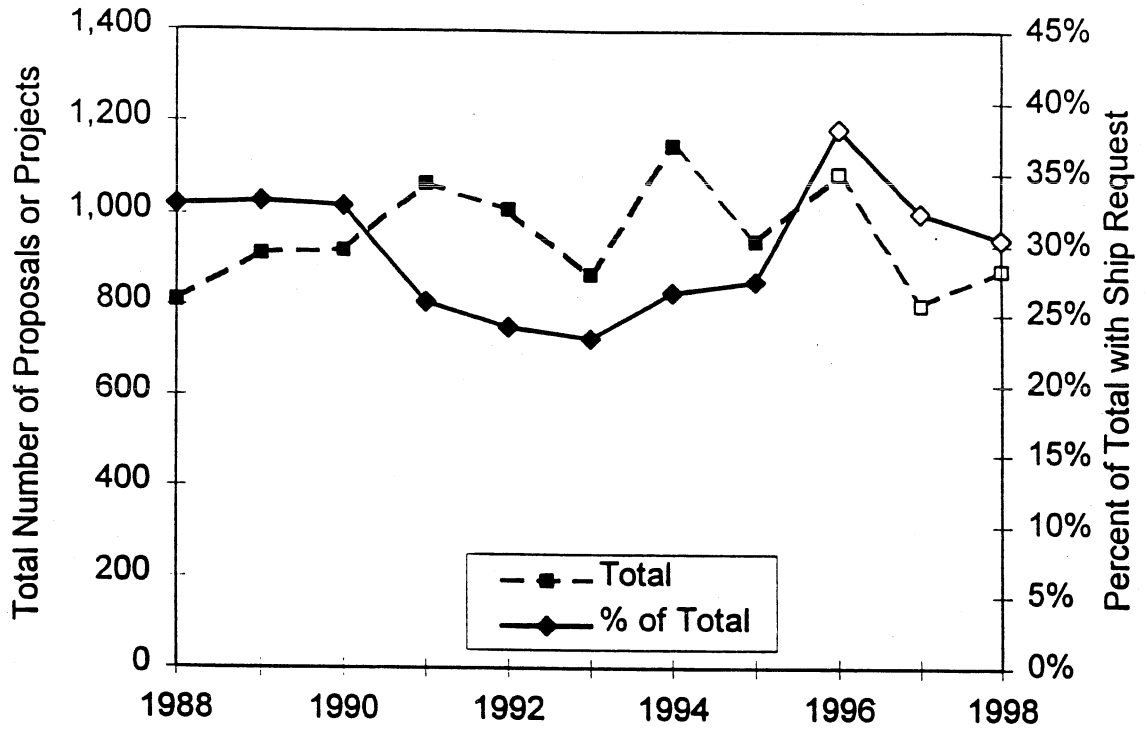


Fig. 5. Total number of OSRS awards and the percent of those awards requesting ship time. Data retrieved from the IBM system (1988-1995) are indicated by filled symbols. Data retrieved from the Access data base (1996-1998) are indicated by unfilled symbols.

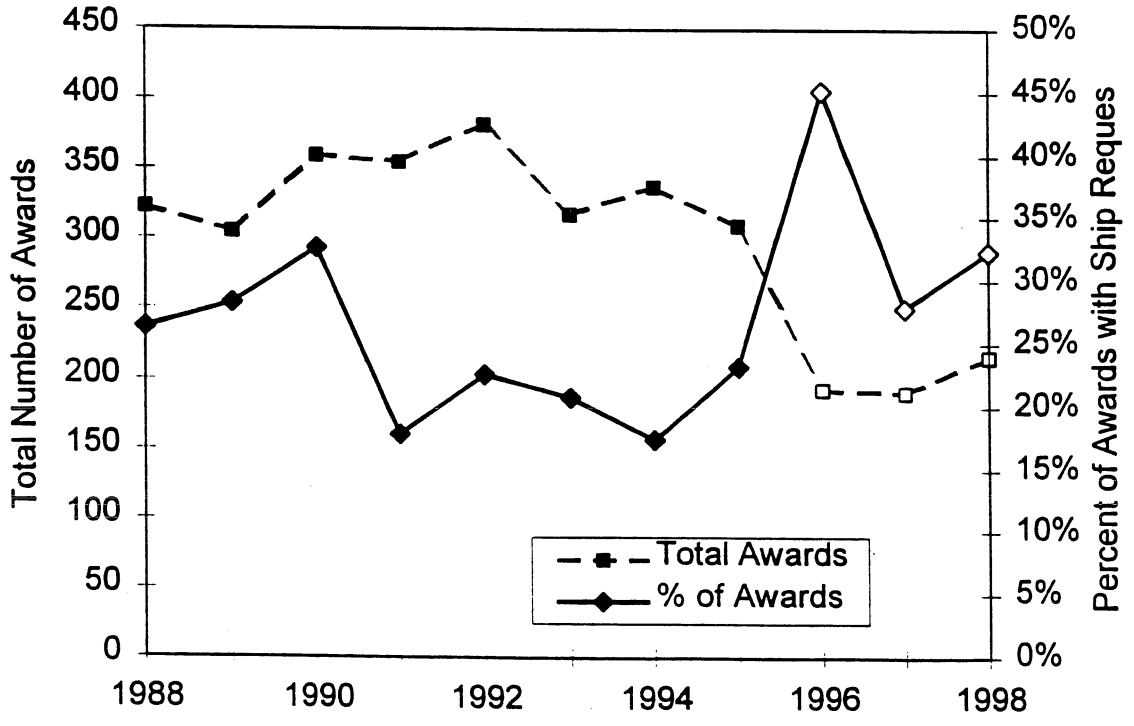


Table 1: Summary of ship request data used in this analysis. Difference refers to the difference between the success rate of projects with ship time and projects without ship time (a + number indicates projects with ship time had a higher success rate then those without ship time). Bold type indicates data retrieved from the Access system; all other data are from the IBM system.

Year	Program	Ship Request			Total Proposals			Success Rate			
		Awards	Declines	Total	Awards	Declines	Total	Overall	w/Ship	w/o Ship	Difference
1988	PO	12	29	41	72	78	150	48%	29%	55%	-26%
1989	PO	14	28	42	52	87	139	37%	33%	39%	-6%
1990	PO	29	28	57	96	114	210	46%	51%	44%	7%
1991	PO	11	18	29	70	102	172	41%	38%	41%	-3%
1992	PO	20	6	26	82	102	184	45%	77%	39%	38%
1993	PO	9	9	18	68	87	155	44%	50%	43%	7%
1994	PO	6	11	17	69	125	194	36%	35%	36%	0%
1995	PO	6	15	21	75	97	172	44%	29%	46%	-17%
1996	**PO**	**4**	**14**	**18**	**35**	**121**	**156**	**22%**	**22%**	**22%**	**0%**
1997	**PO**	**2**	**8**	**10**	**40**	**61**	**101**	**40%**	**20%**	**42%**	**-22%**
1998	**PO**	**8**	**22**	**30**	**59**	**125**	**184**	**32%**	**27%**	**33%**	**-6%**
1988	MGG	26	68	94	105	161	266	39%	28%	46%	-18%
1989	MGG	24	79	103	95	184	279	34%	23%	40%	-17%
1990	MGG	43	85	128	128	193	321	40%	34%	44%	-10%
1991	MGG	27	93	120	118	250	368	32%	23%	37%	-14%
1992	MGG	23	79	102	101	219	320	32%	23%	36%	-13%
1993	MGG	22	71	93	98	210	308	32%	24%	35%	-12%
1994	MGG	30	145	175	122	305	427	29%	17%	37%	-19%
1995	MGG	34	92	126	102	227	329	31%	27%	33%	-7%
1996	**MGG**	**15**	**84**	**99**	**64**	**351**	**415**	**15%**	**15%**	**16%**	**0%**
1997	**MGG**	**14**	**91**	**105**	**69**	**248**	**317**	**22%**	**13%**	**26%**	**-13%**
1998	**MGG**	**19**	**82**	**101**	**67**	**208**	**275**	**24%**	**19%**	**28%**	**-9%**
1988	BO	24	59	83	74	160	234	32%	29%	33%	-4%
1989	BO	30	76	106	94	224	318	30%	28%	30%	-2%
1990	BO	26	55	81	89	195	284	31%	32%	31%	1%
1991	BO	12	85	97	91	266	357	25%	12%	30%	-18%
1992	BO	30	66	96	127	262	389	33%	31%	33%	-2%
1993	BO	27	45	72	91	189	280	33%	38%	31%	7%
1994	BO	14	68	82	92	268	360	26%	17%	28%	-11%
1995	BO	20	51	71	80	191	271	30%	28%	30%	-2%
1996	**BO**	**37**	**79**	**116**	**55**	**211**	**266**	**21%**	**32%**	**12%**	**20%**
1997	**BO**	**16**	**73**	**89**	**52**	**208**	**260**	**20%**	**18%**	**21%**	**-3%**
1998	**BO**	**29**	**46**	**75**	**62**	**198**	**260**	**24%**	**39%**	**18%**	**21%**
1988	CO	23	26	49	72	90	162	44%	47%	43%	4%
1989	CO	18	33	51	64	114	178	36%	35%	36%	-1%
1990	CO	19	16	35	46	60	106	43%	54%	38%	16%
1991	CO	13	18	31	76	96	172	44%	42%	45%	-3%
1992	CO	13	6	19	71	45	116	61%	68%	60%	9%
1993	CO	8	11	19	61	64	125	49%	42%	50%	-8%
1994	CO	9	23	32	55	114	169	33%	28%	34%	-5%
1995	CO	12	29	41	53	118	171	31%	29%	32%	-2%
1996	**CO**	**31**	**151**	**182**	**39**	**213**	**252**	**15%**	**17%**	**11%**	**6%**
1997	**CO**	**21**	**33**	**54**	**29**	**93**	**122**	**24%**	**39%**	**12%**	**27%**
1998	**CO**	**14**	**47**	**61**	**28**	**132**	**160**	**18%**	**23%**	**14%**	**9%**
1988	OSRS	85	182	267	323	489	812	40%	32%	44%	-12%
1989	OSRS	86	216	302	305	609	914	33%	28%	36%	-7%
1990	OSRS	117	184	301	359	562	921	39%	39%	39%	0%
1991	OSRS	63	214	277	355	714	1069	33%	23%	37%	-14%
1992	OSRS	86	157	243	381	628	1009	38%	35%	39%	-3%
1993	OSRS	66	136	202	318	550	868	37%	33%	38%	-5%
1994	OSRS	59	247	306	338	812	1150	29%	19%	33%	-14%
1995	OSRS	72	187	259	310	633	943	33%	28%	35%	-7%
1996	**OSRS**	**87**	**328**	**415**	**193**	**896**	**1089**	**18%**	**21%**	**16%**	**5%**
1997	**OSRS**	**53**	**205**	**258**	**190**	**610**	**800**	**24%**	**21%**	**25%**	**-5%**
1998	**OSRS**	**70**	**197**	**267**	**216**	**663**	**879**	**25%**	**26%**	**24%**	**2%**

UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

An association of institutions for the coordination and support of university oceanographic facilities.

DATE: 10/9/98

TO: Distribution

FROM: Bob Knox, UNOLS Chair

SUBJECT: Success rates of NSF proposals, ship and non-ship

At the September UNOLS Council meeting there was some discussion about the interpretation of a chart of historical proposal success rates (*Enclosure 1*) presented by Don Heinrichs. Don has kindly provided the underlying data to UNOLS, and I have done a small amount of additional analysis (*Enclosure 2*).

The table lists awards, declines, and the sum of these, by year and by NSF/OCE science program, broken into categories of proposals requesting ship use, proposals not requesting ship use, and the total. The fifth block on pg. 2 sums across the four disciplinary programs. A success is an award of any size, not necessarily the amount proposed, as Don has noted.

The only numbers I have added are "success ratio," i.e., the chance of getting a seagoing proposal funded as compared to a non-seagoing one. The algebra is just [(sum of seagoing awards)/(sum of seagoing awards and declines)]/[(sum of nonseagoing awards)/(sum of nonseagoing awards and declines)] using the data in the table. "Sum" in all cases is over the 11 years tabulated.

The overall success ratio, thus defined, is 82%, i.e. on average a seagoing proposer had 4/5 the prospect of success that a non-seagoer did. This varies significantly by program: it is a nearly even chance in PO and BO, a 7/8 shot in CO, and a 2/3 shot in MG&G. One also sees that MG&G has been fairly consistent over time in this pattern; the other programs show larger year-to year variations. I suppose these have to do with random statistics of proposal submissions and quality, and with time scales of major field programs like WOCE, JGOFS, etc.

Don has noted in providing these data that the NSF data system changed between 1995 and 1996. The main difference is that in the earlier years individual proposals were counted, whereas in the recent years a set of collaborative proposals is counted as one. It is estimated that this may shift the overall proposal count down by 10-15% in the later years compared to what the previous system would have counted. It seems unlikely that it would change the ship vs. non-ship comparison in any signficant way.

Distribution: UNOLS Council, current and immediate past
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Enclosures:
1. NSF Overall Proposal Success Rate Chart (Fig. 3)
2. Bob Knox's Table - NSF Ship/non-ship proposal success data

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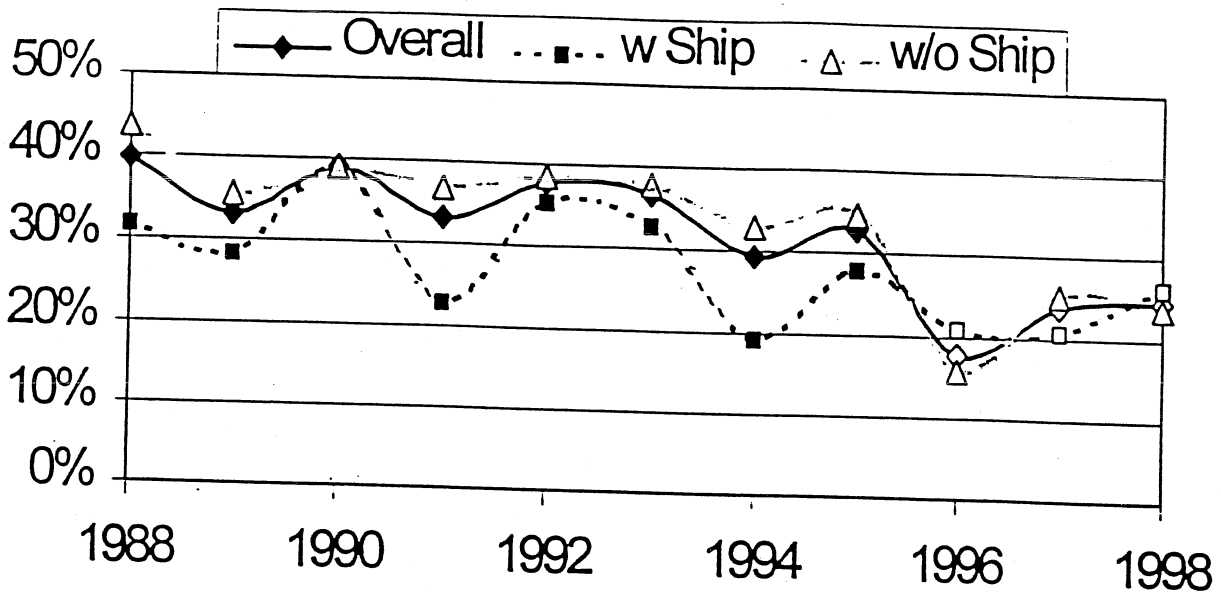
Fig 3. Overall success rates for the four disciplinary programs and success rates for proposal with ship requests. Data retrieved from the IBM system (1988-1995) are indicated by filled symbols. Data retrieved from the Access data base (1996-1998) are indicated by unfilled symbols.



		Ship		Non-Ship			Ship and Non-Ship			Success Rates			Diff.
	Awd.	Decl.	Tot.	Awd.	Decl.	Tot	Awd.	Decl.	Tot.	All	Ship	Non-Ship	S - NS
PO88	12	29	41	60	49	109	72	78	150	48%	29%	55%	-26%
89	14	28	42	38	59	97	52	87	139	37%	33%	39%	-6%
90	29	28	57	67	86	153	96	114	210	46%	51%	44%	7%
91	11	18	29	59	84	143	70	102	172	41%	38%	41%	-3%
92	20	6	26	62	96	158	82	102	184	45%	77%	39%	38%
93	9	9	18	59	78	137	68	87	155	44%	50%	43%	7%
94	6	11	17	63	114	177	69	125	194	36%	35%	36%	0%
95	6	15	21	69	82	151	75	97	172	44%	29%	46%	-17%
96	4	14	18	31	107	138	35	121	156	22%	22%	22%	0%
97	2	8	10	38	53	91	40	61	101	40%	20%	42%	-22%
98	8	22	30	51	103	154	59	125	184	32%	27%	33%	-6%
										PO Success Ratio			99%
GG 88	26	68	94	79	93	172	105	161	266	39%	28%	46%	-18%
89	24	79	103	71	105	176	95	184	279	34%	23%	40%	-17%
90	43	85	128	85	108	193	128	193	321	40%	34%	44%	-10%
91	27	93	120	91	157	248	118	250	368	32%	23%	37%	-14%
92	23	79	102	78	140	218	101	219	320	32%	23%	36%	-13%
93	22	71	93	76	139	215	98	210	308	32%	24%	35%	-12%
94	30	145	175	92	160	252	122	305	427	29%	17%	37%	-19%
95	34	92	126	68	135	203	102	227	329	31%	27%	33%	-7%
96	15	84	99	49	267	316	64	351	415	15%	15%	16%	0%
97	14	91	105	55	157	212	69	248	317	22%	13%	26%	-13%
98	19	82	101	48	126	174	67	208	275	24%	19%	28%	-9%
										MG&G Success Ratio			67%
BO 88	24	59	83	50	101	151	74	160	234	32%	29%	33%	-4%
89	30	76	106	64	148	212	94	224	318	30%	28%	30%	-2%
90	26	55	81	63	140	203	89	195	284	31%	32%	31%	1%
91	12	85	97	79	181	260	91	266	357	25%	12%	30%	-18%
92	30	66	96	97	196	293	127	262	389	33%	31%	33%	-2%
93	27	45	72	64	144	208	91	189	280	33%	38%	31%	7%
94	14	68	82	78	200	278	92	268	360	26%	17%	28%	-11%
95	20	51	71	60	140	200	80	191	271	30%	28%	30%	-2%
96	37	79	116	18	132	150	55	211	266	21%	32%	12%	20%
97	16	73	89	36	135	171	52	208	260	20%	18%	21%	-3%
98	29	46	75	33	152	185	62	198	260	24%	39%	18%	21%
										BO Success Ratio			99%

		Ship		Non-Ship			Ship and Non-Ship			Success Rates			Diff.
	Awd.	Decl.	Tot.	Awd.	Decl.	Tot	Awd.	Decl.	Tot.	All	Ship	Non-Ship	S - NS
CO 88	23	26	49	49	64	113	72	90	162	44%	47%	43%	4%
89	18	33	51	46	81	127	64	114	178	36%	35%	36%	-1%
90	16	16	32	30	44	74	46	60	106	43%	50%	41%	9%
91	13	18	31	63	78	141	76	96	172	44%	42%	45%	-3%
92	13	6	19	58	39	97	71	45	116	61%	68%	60%	9%
93	8	11	19	53	53	106	61	64	125	49%	42%	50%	-8%
94	9	23	32	46	91	137	55	114	169	33%	28%	34%	-5%
95	12	29	41	41	89	130	53	118	171	31%	29%	32%	-2%
96	31	151	182	8	62	70	39	213	252	15%	17%	11%	6%
97	21	33	54	8	60	68	29	93	122	24%	39%	12%	27%
98	14	47	61	14	85	99	28	132	160	18%	23%	14%	9%
										CO Success Ratio			87%
ALL 88	85	182	267	238	307	545	323	489	812	40%	32%	44%	-12%
89	86	216	302	219	393	612	305	609	914	33%	28%	36%	-7%
90	117	184	301	242	378	620	359	562	921	39%	39%	39%	0%
91	63	214	277	292	500	792	355	714	1069	33%	23%	37%	-14%
92	86	157	243	295	471	766	381	628	1009	38%	35%	39%	-3%
93	66	136	202	252	414	666	318	550	868	37%	33%	38%	-5%
94	59	247	306	279	565	844	338	812	1150	29%	19%	33%	-14%
95	72	187	259	238	446	684	310	633	943	33%	28%	35%	-7%
96	87	328	415	106	568	674	193	896	1089	18%	21%	16%	5%
97	53	205	258	137	405	542	190	610	800	24%	21%	25%	-5%
98	70	197	267	146	466	612	216	663	879	25%	26%	24%	2%
										All OSRS Success Ratio			82%