Table 4.1
Basic Oceanographic Technical Services Days Per Agency

Agency	*RV MINNOW*	*RV BOUNTY*	*RV PEQUOD*
NSF	10	100	100
NSF-OOI			
NAVY	50	50	50
NOAA	25	25	25
STATE			
INSTITUTION	10	10	10
BOEM			
DOE			
EPA			
GOMRI			
NASA			
USGS			
OTHER			
Total Days	95	185	185

Table 4.2

Calendar Months Charged to

Basic Oceanographic Technical Services

Technician Name	Title	Total Months	Months At Sea	Months Ashore
Marjorie Manager	Marine Technician Manager	12	1	11
John Tech	Sr. Marine Technician	12	5	7
Sally Skipjack	Marine Technician	10	5	5
Seymor Salmon	Computer Technician	10	4	6
Thomas Tuna	Electronics Technician	10	4	6
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0

NOTE: Be sure to add any expected Tech Exchange and/or Tech Pool usage necessary to support the year's science in Table 6.1.

Explain the formula used to compute calendar Months

Calendar months are computed on a 22-day month. At-sea months reflect the total number of days at sea divided by 22. Time ashore is calculated by subtracting at-sea time from total months; it includes vacation and holiday time.

Explain how many hours/day are worked at sea and ashore

At sea, Marine Technicians work 12 hour shifts/day. On shore, MTs standardly work 8 hours/day. On occasion (eg mob and demob), the technicians will work overtime ashore.

Explain Overtime, Seapay or other compensation

Overtime is paid at 1.5x regular pay for any time over 40 hours per week.

Explain any unusual amounts of overtime or sea-duty

No unusual amounts of overtime or sea-duty are expected.

Explain the Standard Marine Technician Compliment and any technician support above and beyond the standard compliment.

The standard Marine Technician complement is 2 technicians on both the RV Pequod and the RV Bounty. Only one Marine Technician sails on the RV Minnow. The following projects are requiring Marine Technician support above the standard complement:

RV Pequod:
Dr. Sally Scientist. Dr. Scientist's cruise will have 7 different science groups onboard and will be 24 hour operations on deck as well as intense computer/comms and multibeam work. There are not enough skilled technicians within the science party to fulfill the deck duties so we will sail 2 Marine Technicians and 1 Computer technician on this cruise.

RV Minnow
Dr. Brandi Biologist. Dr. Biologist's cruise will be conducting 24 hour deck operations without sufficient science-party expertise. Thus, we will be sailing 2 Marine Technicians on this cruise to each cover the 12hour shifts.

Table 4.3

Proposed Year

Summary 12 Month Budget

Basic Services Support

I. Salaries, Wages, and Fringe Benefits

A.	Total Salaries and Wages	$	300,000	
B.	Overtime and Sea Pay	$	75,000	
C.	Fringe Benefits	$	130,000	
	Total Salaries, Wages, and Fringe Benefits	**$**		**505,000**

II Other Direct Costs

A. Travel

a. Domestic

# Techs	Route	Transport Cost	Per Diem Rate	# Days	Subtotal
2	UNA to Honolulu RT - RV BOUNTY	$ 1,000	$ 177	5	$ 3,770
2	UNA to San Diego, CA RT - MINNOW	$ 500	$ 231	5	$ 3,310
2	UNA to Seattle, WA RT - RV BOUNTY	$ 150	$ 76	5	$ 1,060
					$ -

b. Foreign

# Techs	Route	Transport Cost	Per Diem Rate	# Days	Subtotal
2	UNA to Samoa RT - RV PEQUOD	$ 2,500	$ 71	5	$ 5,710
2	UNA to Japan RT - RV PEQUOD	$ 1,200	$ 75	5	$ 3,150
					$ -
					$ -

Total travel cost[1] $ 17,000

[1] This total only included for NSF reference.

B. Materials and Supplies

a.	Shipboard Deck Supplies	$ 15,000
b.	Shipboard Lab Supplies	$ 14,000
c.	Underway seawater system calibrations	$ 17,500
d.	coring supplies & repair	$ 13,750
e.	dredging supplies and repair	$ 15,500
f.	computer hardware	$ 14,000
g.	CTD supplies	$ 9,000
h.	CTD/Sensor Calibration	$ 10,000
i.	ADCP supplies	$ 12,000
j.	Echosounder Supplies	$ 15,000
k.	Magnetometer supplies	$ 12,500
l.	Multibeam Consumables and spares	$ 7,600
m.	Radioisotope swipe supplies	$ 5,400
n.	printer & copier consumables	$ 3,500

C. Repair and Maintenance

a.	Machine Shop charges	$ 12,000
b.	POS/MV & IMU Maintenance	$ 12,000
c.	CTD Frame repair	$ 10,700

D. Consultant Services

a.	UNA computer network consultant services	$ 12,000
b.		
c.		

E. Sub awards

a.		
b.		
c.		
d.		

F. Other

a.	Technician Training	$ 50,000
b.		
c.		
d.		

G. HiSeasNet Communication System

	Vessel	Total	Ku / C	Rate/day	
a.	RV MINNOW	95	Ku	$ 300	$ 28,500
b.	RV BOUNTY	185	C	$ 400	$ 74,000
c.	RV PEQUOD	185	C	$ 400	$ 74,000

Explanation of HiSeasNet charges:

RV Minnow - Ku Band - 95 days * $300
RV BOUNTY - C-Band - 185 days * $400
RV PEQUOD - C-Band - 185 days * $400

II. Total Other Direct Costs $ 454,950

III Indirect Costs

A. Indirect Costs

Applicable Direct Cost	$ 947,950
Indirect Cost Rate (%)	17.00%

Please Explain Indirect Cost Charge Structure (i.e. what is included/excluded):

Indirect costs do not apply to item IIDa "UNA computer network consultant services" $12,000

III. Total Indirect Costs $ 161,152

IV Total Basic Services Program Budget

A. Total Program Costs (I+II+III) **$ 1,121,102**

B. Dayrate Calculator

Ship	# of Days	Basic Services Dayrate	Income
RV MINNOW	95	$ 1,480	$ 140,600
RV BOUNTY	185	$ 2,450	$ 453,250
RV PEQUOD	185	$ 2,850	$ 527,250

NOTE:
- The sum of the number of operating days * day rate for each ship should equal the total budget

C. **Total Program Budget** **$ 1,121,100**

V. Reductions/Additions to NSF Request

A. Funds from Other Sources

RV MINNOW	days	rate	Total
NSF-OOI	0	1480	$ -
NAVY	50	1480	$ 74,000
NOAA	25	1480	$ 37,000
STATE	0	1480	$ -
INSTITUTION	10	1480	$ 14,800
BOEM	0	1480	$ -
DOE	0	1480	$ -
EPA	0	1480	$ -
GOMRI	0	1480	$ -
NASA	0	1480	$ -
USGS	0	1480	$ -
OTHER	0	1480	$ -
	0	1480	$ -
	0	1480	$ -

RV BOUNTY	days	rate	Total
NSF-OOI	0	1480	$ -
NAVY	50	1480	$ 74,000
NOAA	25	1480	$ 37,000
STATE	0	1480	$ -
INSTITUTION	10	1480	$ 14,800
BOEM	0	1480	$ -
DOE	0	1480	$ -
EPA	0	1480	$ -
GOMRI	0	1480	$ -
NASA	0	1480	$ -
USGS	0	1480	$ -
OTHER	0	1480	$ -
	0	1480	$ -
	0	1480	$ -

RV PEQUOD	days	rate	Total
NSF-OOI	0	1480	$ -
NAVY	50	1480	$ 74,000
NOAA	25	1480	$ 37,000
STATE	0	1480	$ -
INSTITUTION	10	1480	$ 14,800
BOEM	0	1480	$ -
DOE	0	1480	$ -
EPA	0	1480	$ -
GOMRI	0	1480	$ -
NASA	0	1480	$ -
USGS	0	1480	$ -
OTHER	0	1480	$ -
	0	1480	$ -
	0	1480	$ -

Funds from Other Sources $ **(377,400)**

B HiSeasNet Deduction

a. NSF Share of HiSeasNet

	# NSF Days	Ku / C	Rate/day	Total
RV MINNOW	10	Ku	$ 300	$ (3,000)
RV BOUNTY	100	C	$ 400	$ (40,000)
RV PEQUOD	100	C	$ 400	$ (40,000)
b.	Indirect HSN cost at IDC rate:		17%	$ (14,110)

Total HiSeasNet Deduction $ (97,110)

C. Basic Services Carry-Forward (CF)

Ship	Previous Year NSF Days Funded	Previous Year NSF Days Completed	Previous Year Day Rate
RV MINNOW	190	185	$ 1,000
RV BOUNTY	190	195	$ 2,000
RV PEQUOD	120	120	$ 2,500

Ship	CF Balance	Ku / C	HSN CF	HSN IDC	Total Basic Srves CF
RV MINNOW	$ (5,000)	Ku	$ 1,500	$ 255	$ (3,245)
RV BOUNTY	$ 10,000	C	$ (2,000)	$ (340)	$ 7,660
RV PEQUOD	$ -	C	$ -	$ -	$ -

Total Carry-Forward

(Days Completed previous year - Days Funded previous year)*Previous year Day Rate

Total Basic Services Carry-Forward $ 4,415

D **Total Reductions/Additions to NSF Request (A+B+C)**

Funds from Other Sources (V.A)	**$ (377,400)**
HiSeasNet Deduction (V.B)	**$ (97,110)**
Basic Services Carry-Forward (CF) (V.C)	**$ 4,415**
Total	**$ (470,095)**

VI. Final NSF Basic Services Request (IV.C + V.D)

Total Program costs (I+II+III)	$ 1,121,102
Total Reductions/Additions to NSF Budget	$ (470,095)

NOTE: Final Basic Services Request is calculate by the following formula:
Total Program Budget (IV.C) + Total Reductions/Additions to NSF Request (V.D)

Total $ 651,007

Table 5.1
Summary of Specialized Services Support

Budget Summary Table[1]	Specialized Service	Total Annual Cost	Total Days	NSF Days	NSF Request	Day Rate (if applicable)
5.2.1	Scanfish	$ 46,589	60	30	$ 23,280	$ 776
5.2.2	Multichannel Seismic	$ 56,519	30	15	$ 28,259	$ 1,884
			Total NSF SS Request		$ 51,539	

[1]A separate budget summary table, each numbered separately (e.g. 5.2.1, 5.2.2, 5.2.3, etc) must be submitted for each separate Specialized Support Service.

Table 5.2.1

12 Month Budget Summary for Specialized Service

Scanfish

I. Operating Days

NSF Projects	Ship	# Operating Days	# of Techs
Dr Doe/USD	RV Bounty	30	2
PI Last Name, PI Institution			
PI Last Name, PI Institution			
	Total NSF Days	30	

non-NSF Projects	Ship	# Operating Days	# of Techs
Dr. Jane Biologist	RV Bounty	30	2
PI Last Name, PI Institution			
PI Last Name, PI Institution			
	Total non-NSF Days	30	
	Total Usage (NSF + Non-NSF)	60	

II. Salaries and Wages

Name	Title	Months Ashore	Months at Sea	Total Months		
Sam Scan	Sr. Tech	1	2	3		
Florence Fish	Sr. Tech	1	2	3		
			Total Salaries		$	14,556
			Overtime and Sea Pay		$	8,700
			Fringe Benefits		$	3,959
			Total Salaries, Wages, and Fringe Benefits		**$**	**27,215**

III Other Direct Costs

A. Travel

a.

# Techs	Route	Transport Cost	Per Diem Rate	# Days		Total Cost
					$	-
					$	-
				Total Domestic	$	-

2. Foreign

# Techs	Route	Transport Cost	Per Diem Rate	# Days		Total Cost
2	UNA to Japan RT - RV Bounty	$ 2,500	$ 75	5	$	5,750
					$	-
				Total Foreign	$	5,750
				Total Travel Cost	$	5,750

B. Materials and Supplies

a.	General materials and supplies	$	1,000
b.	Equipment	$	1,000
c.	Calibrations	$	1,000
d.	Freight, Shipping Customs & Agency Fees	$	1,000
e.	Machine Shop Fees	$	1,000
f.	UNA IT Support	$	1,000
g.	Streamer winch repair	$	1,000
h.		$	-

Total Materials & Supplies	$	7,000
II. Total Other Direct Costs (A +B)	**$**	**12,750**
Total Direct Costs (I+II)	**$**	**39,965**

IV. Indirect Costs

Indirect Cost Item	Amount	Rate	Total
Direct Cost	$ 38,965	17%	$ 6,624

Please explain Indirect Cost Charge Structure (i.e. what is included/not included

The indirect cost rate does not apply to the machine shop fees (item III.B.e) because it was already included in their rates.

III. Total Indirect Costs	**$**	**6,624**
Total Program Budget (Total Direct Costs + Indirect Costs)	$	46,589
Daily Rate for System (if applicable)	$	776
Total Request from NSF	**$**	**23,295**

IV. Project Summary and Budget Explanation

Provide an explanation of what the project entails and a thorough justification of the budget requested.

Table 5.2.2

12 Month Budget Summary for Specialized Service

Multi-channel Seismics

I. Operating Days

NSF Projects	Ship	# Operating Days	# of Techs
Dr. Rocks	R/V PEQUOD	15	2
PI Last Name, PI Institution			
	Total NSF Days	15	

non-NSF Projects	Ship	# Operating Days	# of Techs
Dr. Jane Geologist	R/V Bounty	15	2
PI Last Name, PI Institution			
	Total non-NSF Days	15	
	Total Usage (NSF + Non-NSF)	30	

II. Salaries and Wages

Name	Title	Months Ashore	Months at Sea	Total Months		
Mac Multi	Sr. Tech	1	1	2		
Chanel Channel	Sr. Tech	1	1	2		
			Total Salaries		$	16,000
			Overtime and Sea Pay		$	9,600
			Fringe Benefits		$	4,352
			Total Salaries, Wages, and Fringe Benefits		**$**	**29,952**

III. Other Direct Costs

A. Travel

1. Domestic

# Techs	Route	Transport Cost	Per Diem Rate	# Days		Total Cost
					$	-
					$	-
				Total Domestic	$	-

2. Foreign

# Techs	Route	Transport Cost	Per Diem Rate	# Days		Total Cost
2	UNA to Samoa	$ 2,500	$ 75	5	$	5,750
2	UNA to Saipan	$ 2,500	$ 75	5	$	5,750
					$	-
				Total Foreign	$	11,500
				Total Travel Cost	$	11,500

B. Materials and Supplies

a.	General materials and supplies	$	1,000
b.	Equipment	$	1,000
c.	Calibrations	$	1,000
d.	Freight, Shipping Customs & Agency Fees	$	1,000
e.	Machine Shop Fees	$	1,000
f.	Streamer Winch Repair	$	1,000
g.	UNA IT Support	$	1,000

h.		$	-
	Total Materials & Supplies	$	7,000
	II. Total Other Direct Costs (A +B)	**$**	**18,500**
	Total Direct Costs (I+II)	**$**	**48,452**

IV. Indirect Costs

Indirect Cost Item	Amount	Rate	Total
Direct Cost	$ 47,452	17%	$ 8,067

Please explain Indirect Cost Charge Structure (i.e. what is included/not included

The indirect cost rate does not apply to the machine shop fees (item III.B.e) because it was already included in their rates.

	IV. Total Indirect Costs	**$ 8,067**

Total Program Budget (Total Direct Costs + Indirect Costs)	$	56,519
Daily Rate for System (if applicable)	$	1,884
Total Request from NSF	**$**	**28,259**

V. Project Summary and Budget Explanation

Provide an explanation of what the project entails and a thorough justification of the budget requested.

Table 5.3

Specialized Support Services NSF Carry-Forward (CF)

Specialized Service (Previous Year)	**NSF Days Funded**	**NSF Days Completed**	**Day Rate** (if applicable)	**Balance**
Scanfish	30	40	$ 750	$ 7,500
Multichannel seismics	40	30	$ 1,775	$ (17,750)
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
			Total Specialized Services CF	$ (10,250)

Provide a brief narrative describing the service, any substantive changes from the original award and its outcome.

Table 6.1

Tech Pool and Institutional Technician Exchanges

Please include exchanges from the previous year to account for any Carry forward

I. Technicians borrowed (received from either the Pool or another institution)

Year	Ship/Project/PI	Technician Last Name (if known)	Funding Agency	Home Port(s)? Yes/No	Days Used / Proposed (mob, demob, at-sea, ashore & travel days[1])	Previously Funded Days (mob, demob, at-sea, ashore & travel days[2])	Loaded Salary /Day (Salary, OT, Fringe, IDC)	Total Salary	Est. Travel Costs[3] (Travel + IDC)	Total Cost[4]
2998	Pequod/Squids/Sciman	Frank	NSF	No	25		$ 500	$ 12,500	$ 2,500	$ (15,000)
2998	Bounty/Chem Drone/Jones	Smithson	NSF	No	10	15	$ 500	$ (2,500)	$ -	$ 2,500
2999	Minnow/Solar/Doe	Allen	NSF	Yes	5		$ 500	$ 2,500	$ -	$ (2,500)
							$ -	$ -	$ -	$ -
							$ -	$ -	$ -	$ -
							$ -	$ -	$ -	$ -
							$ -	$ -	$ -	$ -
							$ -	$ -	$ -	$ -
							$ -	$ -	$ -	$ -
							$ -	$ -	$ -	$ -
							$ -	$ -	$ -	$ -
									Total Borrowed	**$ (15,000)**

II. Technicians loaned (sent to another institution)

Year	Ship/Project/PI	Technician Last Name	Funding Agency	Days Used / Proposed (mob, demob, at-sea, ashore & travel days[1])	Previously Funded Days (mob, demob, at-sea, ashore & travel days[2])	Loaded Salary /Day (Salary, OT, Fringe, IDC)	Total Salary	Travel Costs	Total Cost[5]
2999	Boatface/Geochem/Jekyll	Tech	NSF	25		$ 525	$ 13,125	$ 1,500	$ 14,625
2999	Surprise/ProjectA/Neda	Tech	NSF	30		$ 525	$ 15,750	$ 2,875	$ 18,625
							$ -	$ -	$ -
							$ -	$ -	$ -
							$ -	$ -	$ -
							$ -	$ -	$ -
							$ -	$ -	$ -
							$ -	$ -	$ -
								Total Lent	**$ 33,250**

Total Technician Exchange $ 18,250

Please Explain the Tech-Exchanges and Tech Pool Usage

For borrowed technicians a loaded salary was calculated from the averaged salaries of our own technicians. $500 is the average rate per day per technician for our institution.
- 2998 Squids project aboard R/V Pequod was an unplanned substitution when one of our own techs suffered an injury and thankfully Frank was able to help us out from Other Institute. The cruise did not take place out of our own port and estimated travel costs of sending our own technician are included.
- 2998 Chem Drone project aboard R/V Bounty was previously funded in last year's budget to include a Pool technician, but was shortened due to unscheduled ship maintenance. The project did not take place out of our home port so estimated travel costs as if one of our technicians had sailed were already included in the previous year's budget and are not included here.
- 2999 Solar project aboard R/V Minnow will require a Pool technician to cover a staffing shortage. The project will utilize our home port so travel costs are not included.
Technician Johns will be loaned during our slow season for the following projects, Johns actual loaded salary is used for calculate totals
- 2999 Geochem project for Other Institution aboard R/V
- 2999 ProjectA project for Thisaway Ocean Observatory aboard R/V Surprise

[1] The total number of days the technician is required, for past cruises use the actual number of days used, for future cruises, use the number of days proposed.

[2] If the exchange/pool request was made in the previous budget, please include the number of days that have already been funded.

[3] If the project takes place away from the borrowing institution's home port, include estimated travel costs as if sending your own technican.

[4] When an exchange includes more days than previously funded, the total will be negative. When an exchange used fewer days than previously funded the total will be positive.

[5] When a loan includes more days than have been previously funded, the total will be positive. When a loan used fewer days than previously funded, the total will be negative.

NOTE: If your institution loaned a technician, the Tech Exchange CF should generally be positive and if your institution received a technician, the Tech Exchange CF should generally be negative. There may be minor variations in this when correcting for previously funded days.

Table 7.1

Total NSF Request Summary

NSF Basic Services Request (Table 4.3.VI)	**$**	**651,007**
NSF Specialized Services Request (Table 5.1)	**$**	**51,539**
NSF Specialized Services CF (Table 5.3)	**$**	**(10,250)**
NSF Tech Exchange & Tech Pool Use CF (Table 6.1)	**$**	**18,250**
Other		

Total NSF Request $ 710,546