



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

Program Expectations for FY17 Prospective NRP PIs

Excellence Through Knowledge
The Nation's Premier Defense Research University

Monterey, California
WWW.NPS.EDU



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

Agenda

- NRP Overview
- FY17 Overview
- FY17 PI Expectations/History
- Discussion

NPS Naval Research Program

\$12M annually across the Future Years
Defense Program (FY16-20)

~10% of the NPS research portfolio

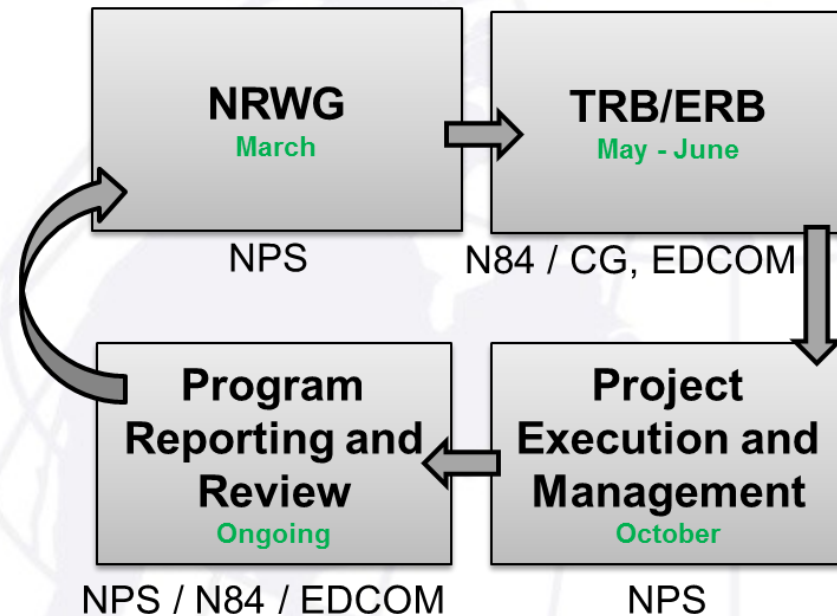
Another opportunity to support
operational requirements

Synchronize faculty with current Navy
and Marine Corps issues

Educates Naval leadership about
NPS capabilities

Investment in intellectual capital of the
Navy and Marine Corps

Annual Process





NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

FY17 Topic & IREF Statistics

	Topics	Organizations
Total	375	62
USN	244	40
USMC	107	21
Faculty	24	1

	IREFs	Budget Requested*	Avg Budget / IREF
Total	201	\$24,289,249	\$120,842
USN	128	\$15,724,727	\$122,849
USMC	73	\$8,564,522	\$117,322

Avg FY16 \$ / Awarded Project

\$127,000

*for prioritized IREFs



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

FY17 Budget

	(in \$M)
Total FY17 NPS NRP Budget	\$13.261
FY17 SBIR Tax (6%)	\$0.796
Difference	\$12.465
NPS Operating costs (5%)	\$0.62
Funding available for new FY17 starts	\$11.842
Funding req'd to complete FY16 projects	\$3.700
Funding shifted from FY18	\$3.700
FY17 Navy (85%)	\$10.066
FY17 Marine Corps (15%)	\$1.776



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

FY17 Budget

Topic Sponsor	IREFs Received	TOTAL USN TOPIC DATA	
		Sum of IREFs Total Est Budget	Average Budget / IREF
N1	35	\$ 4,454,083	\$ 127,260
N2/N6	12	\$ 1,608,980	\$ 134,082
N3/N5	3	\$ 523,364	\$ 174,455
N4	8	\$ 741,300	\$ 92,663
N8	2	\$ 330,000	\$ 165,000
N9	15	\$ 1,814,500	\$ 120,967
FFC	25	\$ 3,217,500	\$ 128,700
ASN (M&RA)	8	\$ 745,000	\$ 93,125
ASN (RDA)	20	\$ 2,290,000	\$ 114,500
	128	\$ 15,724,727	



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

Proposed Allocation Methods

<u>Allocation Method</u>	<u>Definition</u>
Equal Share	Service allocation divided equally by the number of sponsor organizations.
Proportional (\$)	Service allocation distributed proportionally based on the amount of money requested by each sponsor organization.
Proportional (IREFs)	Service allocation distributed proportionally based on the number of prioritized IREFs from each sponsor organization.
Equal Share Remaining	First, service allocation divided equally by the number of sponsor organizations. Then, those organizations whose equal share exceeds their budget request, make the excess available to those organizations whose budget request exceeds their initial equal share.



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

Allocation Methods Cont...

				(in \$M)
Topic Sponsor	Equal Share	Proportional (\$)	Proportional (IREFs)	Equal Share Remaining
N1	\$1.001	\$2.514	\$2.268	\$1.333
N2/N6	\$1.001	\$0.908	\$0.778	\$1.333
N3/N5	\$1.001	\$0.295	\$0.194	\$0.523
N4	\$1.001	\$0.418	\$0.518	\$0.741
N8	\$1.001	\$0.186	\$0.130	\$0.330
N9	\$1.001	\$1.024	\$0.972	\$1.333
FFC	\$1.001	\$1.816	\$1.620	\$1.333
ASN (M&RA)	\$1.001	\$0.421	\$0.518	\$0.745
ASN (RDA)	\$1.001	\$1.422	\$2.009	\$1.333
Total	\$9.006	\$9.006	\$9.006	\$9.006
Denotes a fully funded organization				

FY17 PI Expectations/History

Identify FY17 Prospective PI Performance Expectations

1. NRP External Report Requirements

- Project Burn Rates, by PI name

2. Internal Report Requirements

- Updated Burn rate plans (if more than 20% behind), Executive Summary, Poster, Survey

3. FY18 Program Package Impacts

- FY18 TRB/ERB Assessment



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

Monthly Report Issues

Recipients: N1 (BSO), N84 (Resource Sponsor)

1. NRP is required to provide detailed spending information / burn rate execution by PI name.
2. These details were originally requested by N1, as BSO and resource sponsor, and have continued with N84 as resource sponsor.
3. Precedent



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

Example Monthly Report

Project Year	JON	Department	FY16 Commitment	Spend Plan to to March 31	Expended (Apr 1 2016)	On Schedule = 100%	Comments
FY15	W6A02	GSBPP	52,290.00	52,289.00	51,838.08	99%	
FY16	W6A72	GSBPP	119,485.00	45,241.00	45,473.65	101%	
FY16	W6A80	GSBPP	27,935.00	-	-	n/a	Scheduled to begin work in Qtr 3
FY16	W6A20	GSOIS	151,575.00	79,099.00	76,233.53	96%	
FY16	W6A66	GSOIS	66,300.00	19,900.00	15,786.29	79%	
FY15	W6A04	GSEAS	100,000.00	64,000.00	33,161.50	52%	Will be caught up this quarter.
FY16	W6A31	GSOIS	132,520.00	49,336.00	46,805.51	95%	
FY16	W6A40	MOVES	40,000.00	20,000.00	16,886.54	84%	
FY16	TBD	GSOIS	-	-	-	n/a	OK. Deferred until FY17
FY16	W6A26	GSEAS	22,000.00	22,000.00	10,040.71	46%	Will have remaining \$11,959 spent by 6/30/16
FY16	W6A28	GSOIS	47,000.00	26,599.00	18,638.65	70%	
FY16	W6A53	GSOIS	60,000.00	59,834.00	32,201.99	54%	
FY16	W6A21	GSEAS	141,890.00	48,717.60	63,323.08	130%	
FY16	W6A56	GSEAS	126,840.00	45,080.00	84,188.52	187%	
FY16	W6A22	GSBPP	49,025.00	31,840.00	22,731.36	71%	
FY16	W6A49	GSEAS	59,000.00	33,472.00	33,767.22	101%	
FY16	W6A17	GSOIS	187,425.00	109,422.86	80,477.81	74%	
FY16	W6A36	GSOIS	183,500.00	101,000.00	103,649.11	103%	
FY16	W6A89	GSEAS	55,600.00	18,752.56	23,472.02	125%	
FY16	W6A27	GSOIS	100,000.00	55,000.00	42,735.43	78%	
FY16	W6A58	GSOIS	82,500.00	43,000.00	63,550.81	148%	
FY16	W6A64	GSOIS	66,000.00	25,000.00	34,088.56	136%	
FY16	W6A82	SIGS	33,400.00	20,964.00	21,152.41	101%	
FY16	W6A38	GSEAS	66,420.00	46,351.00	49,213.05	106%	
FY16	W6A41	GSEAS	60,000.00	26,000.00	11,041.24	42%	Will catch up in the Spring.
FY16	W6A73	CEBROWSKI	82,500.00	62,676.00	55,199.52	88%	
FY16	W6A77	CEBROWSKI	82,500.00	32,500.00	37,099.02	114%	
FY16	W6A51	GSEAS	29,000.00	29,000.00	-	0%	Will provide a revised spend plan.
FY16	W6A30	GSEAS	199,460.00	132,458.00	89,336.89	67%	
FY15	W6A81	GSEAS	21,000.00	11,000.00	9,471.40	86%	
FY16	W6A42	GSOIS	85,000.00	20,000.00	17,365.79	87%	
FY15	W6A06	GSOIS	41,000.00	37,000.00	26,789.12	72%	
FY16	W6A39	GSOIS	83,300.00	41,600.00	49,318.08	119%	
FY16	W6A63	GSOIS	60,000.00	30,000.00	17,354.40	58%	
FY16	W6A33	GSOIS	150,000.00	74,000.00	79,293.36	107%	

Internal Reporting Requirements

NRP Program Office requirements:

1. Quarterly Topic Sponsor In-Progress Reports (IPRs)
 - a. The IPR format is at the discretion of the PI.
2. Annual Report executive summary input
 - a. Use NRP template.
3. Project Completion Research Poster
 - a. Use NRP template.
4. Topic Sponsor survey



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

FY16 Topic Sponsor End of Project Survey Part 1

NPS Naval Research Program(NRP) Topic Sponsor Satisfaction Survey

NPS Naval Research Program Topic Sponsor assessment survey to be completed at the end of the project period of performance in an effort to improve the execution of NRP research projects as well as to better serve our Navy and Marine Corps sponsors at large through NRP process improvement.

Welcome to the NPS Naval Research Program(NRP) Topic Sponsor Satisfaction Survey!

Thank you for agreeing to take part in this important survey measuring NPS NRP research customer satisfaction.

The NRP will take note of your answers to the questions below, including your comments and opinions, in order to both improve the execution of the NRP research projects as well as better serve our Navy and Marine Corps sponsors at large through improving the NRP process.

The survey should only take 5-10 minutes to complete.

Be assured that all answers you provide will be used only to improve the quality and execution of the NRP processes.

All sections/questions with a * are required. Be assured that any answers you provide will be used only to improve the quality and execution of the NRP processes.

There are 9 questions in this survey.

*
Please respond by circling the number that corresponds with the extent to which you agree with the following statements on a scale from 1 = strongly disagree to 7 = strongly agree.

	1: Strongly disagree	2: Disagree	3: Somewhat disagree	4: Neither disagree or agree	5: Somewhat agree	6: Agree	7: Strongly agree
Overall, I have been satisfied with the frequency of communication provided by the NPS researcher(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, I have been satisfied with the quality of the communication provided by the NPS researcher(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The NPS researcher(s) have met all planned communication requirements during the execution of the project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The NPS researcher(s) have completed the project as scoped in the statement of work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The NPS project resulted in execution of the agreed upon deliverables.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have been completely satisfied with my experience on this NPS project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

FY16 Topic Sponsor End of Project Survey Part 2

• Have you changed the scope of the NPS project agreed to at the beginning of the study year? If "yes", is this change expanding or limiting the original study parameters?

• At what staff level of your organization do you expect the results to be briefed?

Do you have any comments regarding student participation on this project?

Additional comments or remarks regarding this project and/or researcher(s)?

• Sponsor name

• Sponsor organization

• NPS NRP project title

• Sponsor POC info (phone, email address)

[Load unfinished survey](#)

[Resume later](#)

[Submit](#)

[Exit and clear survey](#)

<https://my.nps.edu/nrp/>



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

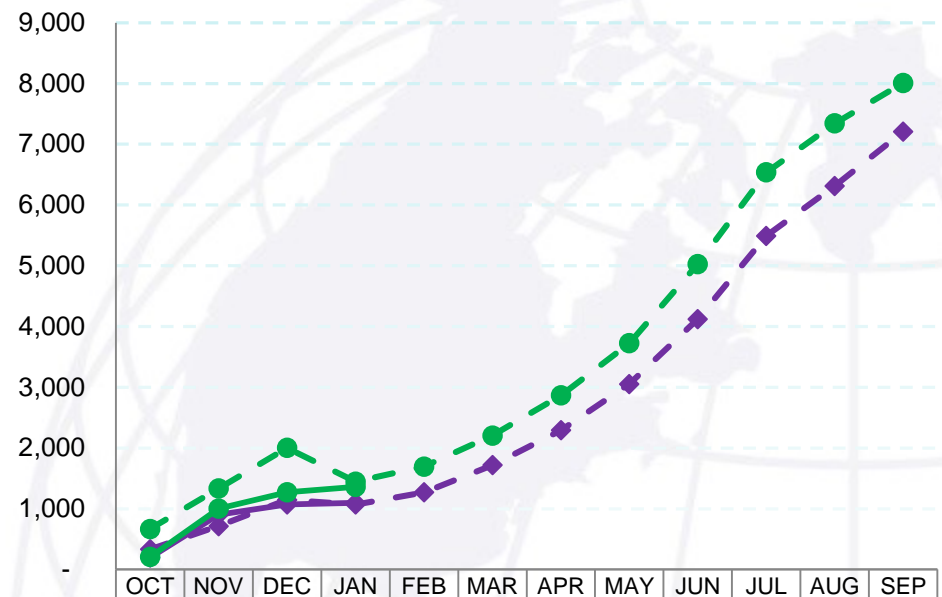
The Spend Plan

The Burn Rate

- NRP burn rate monitored by both N1 and N84.
- Phasing Chart (at right) created with data from PI's quarterly spend plan.
- Deviations beyond 10% put NRP at risk of penalty.

BUPERS-7, PE 0605853N, NPS Faculty and Student Research

\$K



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Planned Expenditures	334	716	1,147	1,072	1,272	1,719	2,292	3,054	4,124	5,491	6,314	7,209
Planned Obligations	668	1,335	2,003	1,448	1,695	2,204	2,865	3,725	5,029	6,537	7,342	8,010
Actual Expenditures	200	901	1,071	1,096								
Actual Obligations	210	1,003	1,274	1,361								



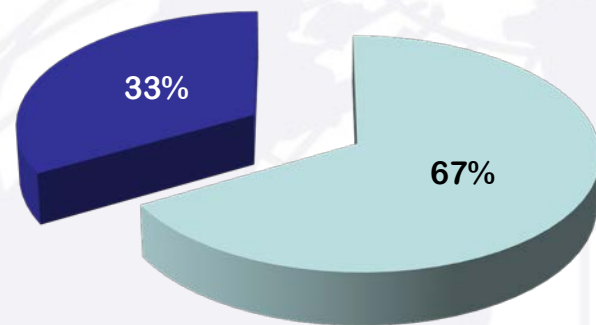
NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL



The Spend Plan Cont...

The 2/3rd – 1/3rd Spend Plan

- Year 1 Period of Performance: 10/1/16 – 9/30/17
 - Burn rate requirements do not support extensions beyond September 30th.
 - If Year 1 funds need to be shifted to Year 2, the program can consider these requests up to Feb 28th. The NRP needs enough time to these execute funds elsewhere before 9/30.
- Year 2 Period of Performance: 10/1/17 – 1/31/18
 - 4 months (or 1/3 of the year) to complete the FY17 project.



■ Year 1
POP: 10/1/16- 9/30/17

■ Year 2 (new account)
POP: 10/1/17- 1/31/18

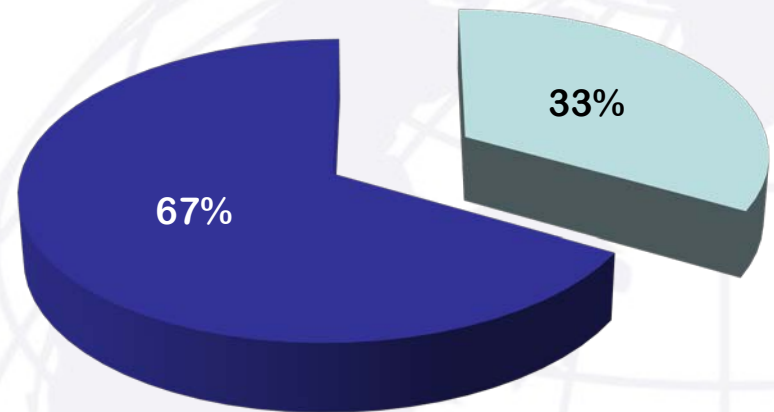


NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

The Spend Plan Cont...

Federal Budget and Continuing Resolution

1. The NRP is subject to active Continuing Resolutions (CR).
2. Incremental funds will be provided to accommodate research up to the date that the CR expires.
3. An “up to CR expiration” estimate is created based on the PI’s quarterly spend plans. If we ask for too much, we are subject to penalty.
4. In FY16 the NRP requested 67% more funding than was executed during the CR stage.



■ Executed by 12/3/15
■ Behind Schedule at Nov 30, 2015



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

NRP RD TEN Funding Description

Budget Activity 6, RDT&E Management Support.

This budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation. Test ranges, military construction, maintenance support of laboratories, operation and maintenance of test aircraft and ships, and studies and analyses in support of the RDT&E program are funded in this budget activity. Costs of laboratory personnel, either in-house or contractor operated, would be assigned to appropriate projects or as a line item in the Basic Research, Applied Research, or ATD program areas, as appropriate. Military construction costs directly related to major development programs are included.



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

The Proposal Package

- Located on the NRP website at: <https://my.nps.edu/nrp/research>
- Consists of:
 1. Proposal
 - a. Topic Sponsors signature required on proposal.
 2. NPS Budget Spreadsheet
 - a. NRP is using a FY16 Budget Template.
 - b. Populate 6 tabs for the expenditures (Y1_Q1 to Y2_Q2).
 - c. More detail for equipment, travel and employees is better than less.
 - d. Review the “summary tab” to check work.
 3. Proposal Routing Form.
 - a. Standard throughout NPS but changes often.
 - b. Do NOT use an old template.
 - c. Don't forget the NSF Data at the top of page 2!



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL



The Proposal Package Cont...

1. Submit proposal packages to
NPS_NRP_POC@NPS.edu by 15 August 2016
2. Annual PI Training
 - a. Fiscal Law: 9/10
 - b. Human Subjects: 7/8
 - c. Stewardship: 12.67/14
3. FY17 funds generally show up the first week of October.



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

Former FY14-FY15 NRP ERB/TRB PI IREF Assessment Format

Category	+0	+1	+2
Student Participation	none	1	>1
Flag/SES Support	none	By name	R3B /MROC
Interdisciplinary	1	>1	n/a
Suitability of Research	Not suitable	Pairing Concerns	No concerns
Previous NRP Execution	Complications	Neutral	Consistent

ISSUES WITH ABOVE APPROACH:

1. Lack of early PI knowledge on student participation.
2. Flag/SES support legitimacy
3. Use of “interdisciplinary” standard
4. “Suitability” definition-link to strategic plans
5. “Previous NRP execution” metric definition



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

NPS NRP Research Board Academic IREF Review - FY15 and FY16 Execution

Approved by Topic Sponsor

Research Board Member Adjudication

Topic IREF ID	Title	IREF Ranking		Recommended Rankings Comments	
		0 - Strong Reservations	Inappropriate Researcher/Research pairing		
		1 - Some Reservations	NPS Research Board should discuss		
		2 - No Reservations	Board Member's Discretion		
NPS-N16-N316-A	Feature and activity recommendations to support outcomes of VW training	1		NPS Research Board should discuss	
NPS-N16-N134-A	An Analysis of Electronic Social Support and the Retention and Engagement of U.S. Navy Women	1		NPS Research Board should discuss	
NPS-N16-M109-A	Analysis of Fuel Connector Usage	2			
NPS-N16-M252-A	Optimal Fuel Mix	2			
NPS-N16-N413-A	Certifying Adaptive Autonomous UUVs/UMSs	2			
NPS-N16-N393-A	Open Systems Architecture	2			
NPS-N16-N409-A	UUV Homeport Operations Center Communications	2			
NPS-N16-N124-C	Adaptive NOC	2			
NPS-N16-N472-C	Unconventional Networking Solutions for HF Communications in Support of Arctic Operations	2			
NPS-T16-M053-A	Improving Security Cooperation & Security Force Assistance: Theory, Policy and Practice	1		NPS Research Board should discuss	
NPS-N16-N319-A	Analysis of Alternatives for a Disconnected Learning Network			No history	
NPS-N16-N446-A	Analysis of Blended Learning Models for Application to Graduate Education of Military of Officers			No history	
NPS-N16-N472-B	VERTICAL COMMS (VCOMMS) using Optical Signalling	0		NPS Research Board should discuss	
NPS-N16-N464-A	Data Compression and Tactical WAN Optimization with XML/EXI	0		NPS Research Board should discuss	
NPS-N16-M164-A	Evaluation and Documentation of Marine Corps Manpower Simulation Model			No History	
NPS-N16-N314-A	Marriage Algorithms and Assignments for Naval Personnel	2			
NPS-N16-N128-A	Ocean Model Dependence on Foreign Environmental Satellites			No history	
NPS-N16-N213-A	NETC Acquisition Planning Framework for Managing Training Delivery Requirements	1		NPS Research Board should discuss	
NPS-N16-M291-A	"Big Data" – Logistics Master Data Management Within the Context of a Fully Integrated Logistics IT Portfolio Environment	1		NPS Research Board should discuss	
NPS-N16-N124-B	Network Performance Measurement & Analysis	1		NPS Research Board should discuss	
NPS-N16-M147-A	Cost Analysis – Broad Area Study	1		NPS Research Board should discuss	
NPS-N16-N585-A	Nalcomis - A Broad Study	1		NPS Research Board should discuss	
NPS-N16-M139-A	USMC Air Traffic Control (ATC) Training Database (fleet wide). Identify Success Criteria Early on in a Marine's Career.	1		NPS Research Board should discuss	
NPS-N16-N146-B	Data Exploitation Tools - A Broad Study	1		NPS Research Board should discuss	
NPS-N16-N319-B	Analysis of Alternatives for a Disconnected Learning Network	1		NPS Research Board should discuss	
NPS-T16-M061-A	Virtualization as a Practical Solution for Browser Agnosticism	1		NPS Research Board should discuss	
NPS-N16-M148-B	CSAAC - A Broad Study	1		NPS Research Board should discuss	
NPS-N16-N317-A	J7 LMS (A Total DoD Solution)	1		NPS Research Board should discuss	



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

Research Board IREF Review Issues

1. Research Board familiarity with faculty members work
2. Time constraints for adequate review



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL



FY16 NRP Prospective PI Assessment

NRP Office	
<u>IREF Ranking</u>	<u>Recommended Rankings Comments</u>
0 - Strong Reservations	Inappropriate Researcher/Research pairing
1 - Some Reservations	NPS Research Board should discuss
2 - No Reservations	Board Member's Discretion
1	Pattern of spending down
1	Pattern of spending down
2	
2	
2	
2	
2	
2	
2	
2	
1	50% behind spend plan after agreeing to spend on schedule, unresponsive to m
	No history
	No history
	No History
2	
	No history
1	Pattern of spending down
1	Pattern of spending down

Issues:

- Relationship of “spend down” to sponsor product deliverables?
- What does the sponsor/customer care about?

FY17 NRP PI Academic Assessment

Change requested by all NPS School Deans

1. Replace Research Board IREF review by “normal” research proposal review

- a. Implemented into NRP portal work flow process for FY17 IREFs.
- b. Issue: Deans and Chairs don't review faculty “white papers” - why IREFS?
Answer: IREFS can get funded.

2. Request for maximum ceiling on IREF submissions

- a. Rejected in favor of unlimited IREFs with reassessment after funding awarded
- b. NRP to recommended number of projects based on program history and PI performance
- c. Maximum number of active projects is likely 4
- d. This allows faculty to propose ALL ideas but lets ERB/TRB make final decisions



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

Current FY17 ERB/TRB PI Assessment

Researcher Name	IREF Ranking in for FY17 Projects	REF Ranking in for FY16 Projects	FY16 Projects (Year 2 budget)	Recommended Rankings Comments
	n/h - No Recent History			
	0 - Strong Reservation	0 - Strong Reservation		Inappropriate Researcher/Research Pairing
	1 - Some Reservation	1 - Some Reservation		Discuss with Dean of Research
	2 - No Reservation	2 - No Reservation		Board Member's Discretion
	n/h			
	n/h			
	n/h			
	2	1	Prj #1: \$40,520	
	2	2		
	n/h			
	n/h			
	n/h			
	2	2		
	n/h			
	2			
	2			
	2			
	1	1		TRB/ERB should allow maximum of two additional projects
	n/h			
	2			* Entire FY16 project is deferred to FY17
	n/h			
	1		Prj #1: \$178,000	* FY16/Q1: 100% behind schedule, TRB/ERB should allow maximum of two additional projects
	1	1	Prj #1: \$30,000	* FY16/Q1: 66% behind schedule, TRB/ERB should allow maximum of two additional projects



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL



PI Assessment Issues/Constraints

- **Efficient Transparency**

192 FY17 Prospective PIs. How to discuss individually?

- **Prospective sponsor requests**

Sponsor/customer wants to know more about the performance of who they are dealing with.

- **Academic Reputation**

Known program execution difficulty vs. need-to-know?

- **Objectivity**

What unique NRP factors impact project deliverables?



NAVAL RESEARCH PROGRAM
NAVAL POSTGRADUATE SCHOOL

Questions?

nps_nrp_poc@nps.edu

<https://my.nps.edu/nrp/>