

UNCLASSIFIED

FY 2004/2005 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2003

BUDGET ACTIVITY: 1 PROGRAM ELEMENT: 0601103N
PROGRAM ELEMENT TITLE: University Research Initiatives

COST: (Dollars in Thousands)

PROJECT NUMBER/ TITLE	FY 2002 ACTUAL	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	FY 2008 ESTIMATE	FY 2009 ESTIMATE
University Research Initiatives	0	0	70,669	76,843	72,229	68,167	69,730	70,978

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The program includes support for multidisciplinary basic research in a wide range of scientific and engineering disciplines that are important for maintaining the technological superiority for the U.S. Navy and for university research infrastructure by acquiring research instrumentation needed to maintain and improve the quality of university research important to the Navy. Multidisciplinary research efforts involve teams of researchers investigating high priority topics that intersect more than one traditional technical discipline. For many military problems, this multidisciplinary approach serves to stimulate innovations, accelerate research progress and expedite transition of results to naval applications. The defense university research instrumentation program supports university research infrastructure essential to high quality Navy relevant research. The instrumentation program complements the research program by supporting the purchase of high cost research instrumentation that is necessary to carry out cutting-edge research. In addition, the program also supports Presidential Early Career Awards for Scientists and Engineers (PECASE), which are single investigator research efforts performed by outstanding academic scientists and engineers early in their research careers. The program provides the knowledge base, scientific concepts, and technological advances for the maintenance of naval power and national security.

B. PROGRAM CHANGE SUMMARY: The program was transferred from the RDT&E, Defense Wide University Research Initiative, PE 0601103D8Z.

PROGRAM CHANGE SUMMARY:

	FY 2002	FY 2003	FY 2004	FY 2005
FY 2003 President's Submission:	0	0	0	0
Transfer into Navy S & T:	0	0	72,300	78,500
Payraise/Inflation Adjustment			-1,631	-1,657
FY 2004/2005 President's Budget Submission:	0	0	70,669	76,843

PROGRAM CHANGE SUMMARY EXPLANATION:

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Schedule: As applicable
Technical: As applicable

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Exhibit R-2a

BUDGET ACTIVITY: 1 PROGRAM ELEMENT: 0601103N Project Title: University Research Initiatives
PROGRAM ELEMENT TITLE: University Research Initiatives

COST: (Dollars in Thousands)

PROJECT NUMBER/ TITLE	FY 2002 ACTUAL	FY2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	FY 2008 ESTIMATE	FY 2009 ESTIMATE
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University Research Initiatives	0	0	70,669	76,843	72,229	68,167	69,730	70,978
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A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The project includes support for multidisciplinary basic research in a wide range of scientific and engineering disciplines that are important for maintaining the technological superiority for the U.S. Navy and for university research infrastructure by acquiring research instrumentation needed to maintain and improve the quality of university research important to the Navy. Multidisciplinary research efforts involve teams of researchers investigating high priority topics that intersect more than one traditional technical discipline. For many military problems, this multidisciplinary approach serves to stimulate innovations, accelerate research progress and expedite transition of results to naval applications. The defense university research instrumentation program supports university research infrastructure essential to high quality Navy relevant research. The instrumentation program complements the research program by supporting the purchase of high cost research instrumentation that is necessary to carry out cutting-edge research. In addition, the project also supports Presidential Early Career Awards for Scientists and Engineers (PECASE), which are single investigator research efforts performed by outstanding academic scientists and engineers early in their research careers. The program provides the knowledge base, scientific concepts, and technological advances for the maintenance of naval power and national security.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 02	FY 03	FY 04	FY 05
Multidisciplinary University Research	0	0	55,658	55,827

Research efforts include high priority topics that intersect more than one traditional discipline. Multidisciplinary University Research Initiative (MURI) topics are selected to address high priority science and technology directions of the Department of the Navy, including the four ONR Grand Challenges (Naval Battlespace Awareness, Electric Power Sources for the Navy and Marine Corps, Naval Materials by Design, and Multifunctional Electronics for Intelligent Naval Sensors).

FY 2002 ACCOMPLISHMENTS:

- Not applicable. Efforts funded within RDT&E, Defense Wide University Research Initiative, PE 0601103D8Z.

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FY 2003 PLANS:

- Not applicable. Efforts funded within RDT&E, Defense Wide University Research Initiative, PE 0601103D8Z.

FY 2004 PLANS:

- Conduct competition for new multidisciplinary research awards to address selected high priority naval science and technology areas, transformational initiatives, and grand challenges, including strategically important DoD research areas, such as bioengineering sciences, nanoscience, multifunctional materials and structures, information dominance, propulsion and energetic sciences, human performance sciences, advanced surveillance and knowledge architectures, and power and energy technologies. Continue MURI programs begun in prior years.

FY 2005 PLANS:

- A competition for multidisciplinary basic research awards will focus on capability-based topical areas to provide enhanced capabilities for future Navy and Marine Corps warfighting needs, including the war on terrorism. Continue MURI programs begun in prior years.

	FY 02	FY 03	FY 04	FY 05
Defense University Research Instrumentation	0	0	13,901	19,906

Funds are provided to universities to purchase relatively high cost research instrumentation that is normally not included in single-investigator type research grants, such as radio propagation measurement systems, instrument for fabrication and characterization of advanced electronic devices, sensor arrays for oceanography, ocean flow measurement systems, autonomous ocean profiling systems, hydrodynamic sound source localization systems, tunable lasers for near field microscopy, and instruments for material characterization.

FY 2002 ACCOMPLISHMENTS:

- Not applicable. Efforts funded within RDT&E, Defense Wide University Research Initiative, PE 0601103D8Z.

FY 2003 PLANS:

- Not applicable. Efforts funded within RDT&E, Defense Wide University Research Initiative, PE 0601103D8Z.

FY 2004 PLANS:

- Conduct competition for approximately 80 research instrumentation awards to universities.

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FY 2005 PLANS:

- Conduct competition for research instrumentation awards.

	FY 02	FY 03	FY 04	FY 05
Presidential Early Career Awards	0	0	1,110	1,110

Extremely prestigious, presidential-rank, single-investigator research awards in areas of importance to the Navy, to recognize and encourage outstanding academic scientists and engineers early in their research career.

FY 2002 ACCOMPLISHMENTS:

- Not applicable. Efforts funded within RDT&E, Defense Wide University Research Initiative, PE 0601103D8Z..

FY 2003 PLANS:

- Not applicable. Efforts funded within RDT&E, Defense Wide University Research Initiative, PE 0601103D8Z.

FY 2004 PLANS:

- Select two outstanding university researchers to receive the five-year PECASE research award to conduct research of importance to the Navy. Continue PECASE programs begun in earlier years.

FY 2005 PLANS:

- Select two outstanding university researchers to receive the five-year PECASE research award to conduct research of importance to the Navy. Continue PECASE programs begun in earlier years.

C. OTHER PROGRAM FUNDING SUMMARY: Not applicable.

NAVY RELATED RDT&E:

PE 0601153N Defense Research Sciences

NON-NAVY RELATED RDT&E:

PE 0601103A University Research Initiative (Army)
PE 0601103F University Research Initiative (Air Force)
PE 0601102A Defense Research Sciences (Army)
PE 0601102F Defense Research Sciences (Air Force)

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D. ACQUISITION STRATEGY: Not applicable.

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