

# UNCLASSIFIED

FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET  
Exhibit R-2

DATE: Feb 2006

BUDGET ACTIVITY: 07  
PROGRAM ELEMENT: 0203761N  
PROGRAM ELEMENT TITLE: RAPID TECHNOLOGY TRANSITION (RTT)

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
<b>Total PE</b>	19,516	25,266	39,285	23,295	23,327	23,643	23,969
3126 RAPID TECHNOLOGY TRANSITION (RTT)	14,599	24,266	28,005	23,295	23,327	23,643	23,969
3174 RAPID DEVELOPMENT AND DEPLOYMENT (RDD)	0	0	11,280	0	0	0	0
9999 CONGRESSIONAL PLUS-UPS	4,917	1,000	0	0	0	0	0

**A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:** The mission of the Rapid Technology Transition (RTT) program is to increase the rate that new, innovative, and potentially disruptive technologies are inserted into DON acquisition programs and the hands of the warfighter. A key aspect of the RTT program is its charter to transition technology from any source, including those not traditionally associated with defense technology. An effective and robust integration of commercial and military technologies can reduce costs and improve naval capabilities by keeping pace with the fast moving changes in technologies and operational needs. The RTT program is structured to bring transition efforts to closure quickly, and to provide execution year funding for a rapid start, bridging the gap until the program of record can fund the completion of the technology insertion.

Rapid transition opportunities occur when a sufficiently mature technology is identified that can meet a particular need on a timetable which matches that of an acquisition program, and is supported by a business case which justifies the associated cost and schedule risk. The RTT program is designed to be pro-active in identifying opportunities and to work with resource sponsors, fleet and force users, and Program Managers (PMs) in constructing viable technology transition efforts one at a time.

To ensure the widest possible awareness of emergent commercial technology opportunities, RTT interacts with

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the venture capital community and industry. The RTT program coordinates closely with Program Executive Offices (PEOs) and PMs to maintain awareness of insertion opportunities. Utilizing existing authorities, RTT applies execution year funds where necessary to "jump-start" transitions so they can be inserted and validated by Sea Trial experiments leading directly to deployment and/or demonstrations of high risk/high payoff technologies.

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## B. PROGRAM CHANGE SUMMARY:

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2006 President's Budget Submission	19,493	24,653	24,649
Congressional Action	0	1,000	0
Congressional Undistributed Reductions/Rescissions	-15	-387	0
Execution Adjustments	793	0	0
FY 2005 SBIR	-759	0	0
Program Adjustments	4	0	-1,785
Rapid Development and Deployment	0	0	11,228
Rate Adjustments	0	0	193
Technology Insertion Program Pilot	0	0	5,000
FY 2007 President's Budget Submission	19,516	25,266	39,285

## PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

## C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

## D. ACQUISITION STRATEGY:

Not applicable.

## E. PERFORMANCE METRICS:

The RTT program will, at a minimum, initiate 5-8 new efforts a year that provide for new, innovative, and potentially disruptive technology being inserted into DON acquisition programs. The RTT efforts will have a greater than 80% success rate of insertion and fielding of technology into DON warfighting systems.

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PROJECT NUMBER: 3126      PROJECT TITLE: RAPID TECHNOLOGY TRANSITION (RTT)

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
3126 RAPID TECHNOLOGY TRANSITION (RTT)	14,599	24,266	28,005	23,295	23,327	23,643	23,969

**A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:** The mission of the RTT project is to increase the rate that new, innovative, and potentially disruptive technologies are inserted into DON acquisition programs and the hands of the warfighter. A key aspect of the RTT project is its charter to transition technology from any source, including those not traditionally associated with defense technology. An effective and robust integration of commercial and military technologies can reduce costs and improve naval capabilities by keeping pace with the fast moving changes in technologies and operational needs. The RTT project is structured to bring transition efforts to closure quickly, and to provide execution year funding for a rapid start, bridging the gap until the program of record can fund the completion of the technology insertion.

Rapid transition opportunities occur when a sufficiently mature technology is identified that can meet a particular need on a timetable which matches that of an acquisition program, and is supported by a business case which justifies the associated cost and schedule risk. The RTT project is designed to be pro-active in identifying opportunities and to work with resource sponsors, fleet and force users, and program managers in constructing viable technology transition efforts one at a time.

To ensure the widest possible awareness of emergent commercial technology opportunities, RTT interacts with the venture capital community and industry. The RTT project coordinates closely with Program Executive Offices (PEOs) and Program Managers (PMs) to maintain awareness of insertion opportunities. Utilizing existing authorities, RTT applies execution year funds where necessary to "jump-start" transitions so they can be inserted and validated by Sea Trial experiments leading directly to deployment and/or demonstrations of high risk/high payoff technologies.

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### B. ACCOMPLISHMENTS/PLANNED PROGRAM:

#### FY 2005 Accomplishments:

- Completed all RTT efforts that began in FY 2004 to include Battle Force E-mail for P-3C; Commercial Bandwidth Optimization for Surface Ships; Secure High Frequency (HF) Internet capability for E-2C; Metal Matrix Composite Shaft Seals for DDG-51; and Automated E-2C Air Tasking Order capability for Joint targeting.
- Continued RTT Venture Capital (VC) efforts such as leads generated through the Naval Research Advisory Committee (NRAC) panel on VC, and utilization of leading commercial (non-defense industry) trends identified by the NRAC VC panel to guide development of FY 2005 RTT transition efforts.
- Initiated transformational efforts for High Voltage Gallium Arsenide MMIC, Erosion Blade Resistant Coatings; Enhanced Battlespace Awareness; Technical Control and Analysis Center; Aviation Weapons Information Management System; Oil Content Monitor; Thermobaric Hellfire; and Open Architecture Radar Designated Decoy Launch.
- Initiated efforts with innovative and disruptive technologies that support accelerating achievements of Sea Power 21 objectives.

#### FY 2006 Plans:

- Complete the following FY 2005 efforts: Erosion Blade Resistant Coatings; Enhanced Battlespace Awareness; Technical Control and Analysis Center; Aviation Weapons Information Management System; Oil Content Monitor; Thermobaric Hellfire; and Open Architecture Radar Designated Decoy Launch.
- Continue High Voltage Gallium Arsenide MMIC effort.
- Initiate J-IED efforts as approved by the Joint-Service committee.
- Initiate 5-8 new transition efforts for the Global War on Terrorism, FORCEnet, and other emergent needs.

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### **FY 2007 Plans:**

- Complete all efforts that began in FY 2006.
- Initiate 5-8 new technology transition efforts.

### **C. OTHER PROGRAM FUNDING SUMMARY:**

NAVY RELATED RDT&E: All technology investments in DON.

NON-NAVY RELATED RDT&E: All technology investments outside DON.

### **D. ACQUISITION STRATEGY:**

Utilize existing authorities on a case-specific basis to exploit rapid technology transition opportunities.

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BUDGET ACTIVITY: 07  
PROGRAM ELEMENT: 0203761N PROGRAM ELEMENT TITLE: RAPID TECHNOLOGY TRANSITION (RTT)  
PROJECT NUMBER: 3174 PROJECT TITLE: RAPID DEVELOPMENT AND DEPLOYMENT (RDD)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
3174 RAPID DEVELOPMENT AND DEPLOYMENT (RDD)	0	0	11,280	0	0	0	0

**A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:** Rapid Development and Deployment (RDD) provides an environment and process for rapid development and fielding of prototype solutions to meet urgent needs in the Global War on Terrorism (GWOT). The RDD process applies when existing Department of the Navy (DON) processes cannot meet urgent operational needs. GWOT has generated rapidly evolving military needs that require responsive materiel solutions. RDD is a fast track process for application, by exception, to Navy and USMC capability needs and materiel solutions that meet the following criteria: (1) Need identified during active or incipient combat or contingency operation, or (2) Need derived from combat survivability of the warfighter or impacts the success of the mission. RDD initiates projects to deliver prototype solutions that are not readily available off-the-shelf and that can be developed, integrated with other components and systems (as necessary), tested, and fielded within 270 days of need approval. RDD provides startup funds to initiate projects that meet the above criteria while other funding is made available within the year of execution.

## B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007
RDD	0	0	11,280

RDD is a new start in FY 2007.

## FY 2007 Plans:

Initiate multiple projects within RDD for urgent warfighter requirements that meet the RDD selection and execution criteria. RDD will initiate 3 to 6 projects.

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PROJECT NUMBER: 3174      PROJECT TITLE: RAPID DEVELOPMENT AND DEPLOYMENT (RDD)

### C. OTHER PROGRAM FUNDING SUMMARY:

NAVY RELATED RDT&E: All RDT&E in DON.

### D. ACQUISITION STRATEGY:

For RDD requirements that meet the selection criteria, use the virtual Naval Innovation Laboratory (NaIL) to initiate projects. The NaIL is a virtual organization operating across Naval Laboratories and Warfare Centers, with interfaces and/or contractual agreements with other Military Services, Industry, Academia and the National Laboratory community. The NaIL will bring together, on demand, multi-disciplinary teams to develop and deliver rapid, innovative solutions. The NaIL will maintain an inventory of specialized RDT&E capabilities within the community, and will maintain visibility of available and emerging technologies from all sources that may serve as enablers to the success of RDD initiatives. The NaIL will review Urgent Combat Needs, identify and evaluate alternative solutions and provide recommendations. The NaIL will include a rapid acquisition channel, consistent with all applicable procurement regulations, for access to industry products and services as needed. For approved projects, the NaIL will select appropriate technologies, and develop, integrate, test, and deliver fieldable prototypes with the essential logistics for use by the warfighter. End users will be involved throughout the process as part of the virtual team.

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PROGRAM ELEMENT: 0203761N      PROGRAM ELEMENT TITLE: RAPID TECHNOLOGY TRANSITION (RTT)  
PROJECT NUMBER: 9999      PROJECT TITLE: Congressional Plus-Ups

## CONGRESSIONAL PLUS-UPS:

	FY 2005	FY 2006
DISRUPTIVE TECHNOLOGY OPPORTUNITIES FUNDS (DOTF)	4,917	0

Initiated a Navy partnership with the Defense Advanced Research Projects Agency (DARPA) on a portfolio of high-risk, high-payoff projects to address pressing naval challenges. Specific areas to be funded are "Wasp" Micro Air Vehicles; Fast Connectivity for Coalitions and Agents; Improving Warfighter Information Intake Under Stress; and Translingual Information Detection, Extraction and Summarization.

	FY 2005	FY 2006
120 MM HIGH EXPLOSIVE PLASTIC AMMUNITION PROGRAM	0	1,000

This effort supports 120MM high explosive plastic ammunition research.

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