

# UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET  
Exhibit R-2

DATE: February 2007

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
<b>Total PE</b>	26,378	39,326	44,756	34,469	45,782	46,262	41,532	47,668
3126 RAPID TECHNOLOGY TRANSITION (RTT)	25,420	24,104	33,284	28,422	33,786	34,078	34,499	34,935
3174 RAPID DEVELOPMENT AND DEPLOYMENT (RDD)	0	11,237	11,472	6,047	11,996	12,184	7,033	12,733
9999 CONGRESSIONAL PLUS-UPS	958	3,985	0	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 deals 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 combination of circumstances which create such opportunities can appear, and disappear, well inside the Program Objectives Memorandum (POM) cycle. The RTT program is designed to be pro-active in identifying opportunities and to work with resource sponsors,

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fleet and force users, and Program Managers (PMs) in constructing viable technology transition deals 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 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 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY 2007 President's Budget Submission	25,266	39,285	23,295	23,327
Congressional Action	0	4,000	0	0
Congressional Reduction	0	-3,800	0	0
Congressional Undistributed Reductions/Rescissions	4	-159	0	0
Execution Adjustments	1,750	0	0	0
Non-Pay Inflation Adjustments	0	0	-78	35
Program Adjustments	0	0	21,454	11,040
Rate Adjustments	0	0	85	67
SBIR Assessment	-642	0	0	0
FY 2008/FY 2009 President's Budget Submission	26,378	39,326	44,756	34,469

**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 deals a year that provide for new, innovative, and potentially disruptive technology being inserted into DON acquisition programs. The RTT deals will have a greater than 80% success rate of insertion and fielding of technology into DON warfighting systems.

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PROGRAM ELEMENT TITLE: RAPID TECHNOLOGY TRANSITION (RTT)

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COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
3126 RAPID TECHNOLOGY TRANSITION (RTT)	25,420	24,104	33,284	28,422	33,786	34,078	34,499	34,935

**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 deals 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 combination of circumstances which create such opportunities can appear, and disappear, well inside the POM cycle. 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 deals 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 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. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
<b>RTT</b>	25,420	24,104	33,284	28,422

Technology Insertion for Savings Program (TIPS) is a new start in FY 2007.

### FY 2006 Accomplishments:

- Continued High Voltage Gallium Arsenide Monolithic Microwave Integrated Circuit (MMIC) effort.
- Completed: 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.
- Cancelled the Erosion Blade Coating Project and redirected to Wireless Network Integration; AIM 9X Sidewinder Extended Battlelife; and Software Defined Handheld Radio Testset.
- Initiated Sprayable Dielectric Coatings and Induction Based Coating Removals efforts.
- Initiated: Radiant Sunrise; Tactical Control System Digital Video Enhancements; Expanded Maritime Intercept Operations Wireless Reachback; Ground Laser Target Designator Battery Reduction Effort; User-Centric Automated Information Manager; Family of signals intelligence (SIGINT) Systems Data Exchange Improvements; Automatic Identification System (AIS) Integration; Virtual Simulation Training (ViSiT) Toolkit; Hull Search, Inspection, and Neutralization - WETBOT; AN/ALQ-99 Band 4 Traveling Wave Tube Replacement Module (TRM); Low Cost Expendable Small Robotic Platform - BomBot; and BA-5590 Battery with State of Charge Indicator.

### FY 2007 Plans:

- Continue all efforts of FY 2006 less those noted as completed above.
- Complete Sprayable Dielectric Coatings and Induction Based Coating Removals efforts.
- Initiate the following Technology Insertion for Savings (TIPS) projects: No-Skid Coatings; Normal Fuel Oil Tanks; Modified Atmosphere Packaging System for Fresh Fruits and Vegetables; and High Pressure Littoral Electrolytic Chlorine Generator. These projects focus on Operations and Savings costs.
- Initiate the following RTT projects for the September 06 Deal Cycle: Digital RF Memory Jammer; Subnet Relay (SNR) and High Frequency Internet Protocol (HF IP); Communications Time/Frequency Different of Arrive Geo-Location; Submarine Tactical Paging; Deployable Alternative Energy Module; and, Airborne Communications

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PROGRAM ELEMENT: 0203761N

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PROGRAM ELEMENT TITLE: RAPID TECHNOLOGY TRANSITION (RTT)

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Package ADNS Airborne Network Node.

- Initiate 2-3 new deals in the area of affordability to be presented for approval at the March 07 Executive Review Group.

## **FY 2008 Plans:**

- Continue new efforts initiated in FY 2007.
- Complete all efforts of FY 2006 less those noted as completed FY 2007.
- Initiate 4-6 new thrusts in support of the TIPS program.
- Initiate 6-12 new technology transition deals based on topic areas approved by the Deputy Assistant Secretary of the Navy (RDT&E).

## **FY 2009 Plans:**

- Continue new efforts initiated in FY 2008.
- Complete all efforts of FY 2007 less those noted as completed FY 2008.
- Initiate 4-6 new thrusts in support of the TIPS program.
- Initiate 6-10 new technology transition deals based on topic areas approved by the Deputy Assistant Secretary of the Navy (RDT&E).

## **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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 PROGRAM ELEMENT: 0203761N      PROGRAM ELEMENT TITLE: RAPID TECHNOLOGY TRANSITION (RTT)  
 PROJECT NUMBER: 3174      PROJECT TITLE: RAPID DEVELOPMENT AND DEPLOYMENT (RDD)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
3174 RAPID DEVELOPMENT AND DEPLOYMENT (RDD)	0	11,237	0	0	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 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 2006	FY 2007	FY 2008	FY 2009
<b>RDD</b>	0	11,237	11,472	6,047

RDD is a new start in FY 2007.

**FY 2007 Plans:**

Initiate and complete 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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PROGRAM ELEMENT: 0203761N

PROJECT NUMBER: 3174

PROGRAM ELEMENT TITLE: RAPID TECHNOLOGY TRANSITION (RTT)

PROJECT TITLE: RAPID DEVELOPMENT AND DEPLOYMENT (RDD)

## **FY 2008 Plans:**

- Continue new efforts initiated in FY 2007.
- Initiate and complete multiple projects within RDD for urgent warfighter requirements that meet the RDD selection and execution criteria. RDD will initiate 3 to 6 projects.

## **FY 2009 Plans:**

- Continue new efforts initiated in FY 2008.
- Complete all efforts of FY 2007 less those noted as completed in FY 2008.
- Initiate and complete multiple projects within RDD for urgent warfighter requirements that meet the RDD selection and execution criteria. RDD will initiate 3 projects.

## **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, the virtual Naval Innovation Laboratory (NaIL) is used 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

PROJECT NUMBER: 9999

PROGRAM ELEMENT TITLE: RAPID TECHNOLOGY TRANSITION (RTT)

PROJECT TITLE: Congressional Plus-Ups

## CONGRESSIONAL PLUS-UPS:

	FY 2006	FY 2007
120MM TANK HIGH EXPLOSIVE PLASTIC (HEP) CARTRIDGE	958	3,985

This effort supported development of the 120MM high explosive plastic ammunition to be used specifically for breaching structures in the urban warfare environment. This effort supported the USMC solution planning directive for the M1A1 Breaching Round Universal Need Statement.