

UNCLASSIFIED

FY 2010 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: May 2009

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

COST: (Dollars in Millions)

Project Number & Title	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate
Total PE	38.796	34.326	39.125
3126 RAPID TECHNOLOGY TRANSITION (RTT)	28.692	28.295	30.254
3174 RAPID DEVELOPMENT & DEPLOYMENT	9.333	6.031	8.871
9999 CONGRESSIONAL PLUS-UPS	0.771	0.000	0.000

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The mission of the Rapid Technology Transition (RTT) program and the Technology Insertion Program for Savings (TIPS) is to increase the rate that new, innovative, and potentially disruptive technologies are inserted into DON acquisition programs and the hands of the warfighter. The RTT program transitions technology from any source, including those not traditionally associated with defense technology. TIPS increases the rate that new cutting edge technologies are inserted into DON acquisition programs in order to significantly reduce operations and maintenance support costs. 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. These programs are 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. These programs are 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, these programs interact with the venture capital community and industry. These programs coordinate 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. This Program Element is the only Navy program that addresses current, urgent requirements that are required by the fleet within a 18-24 month period. As such, planning and execution are accomplished within the same fiscal year, which causes a non-traditional financial execution profile for the program. The program therefore does not meet traditional execution benchmarks.

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B. PROGRAM CHANGE SUMMARY:

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
President's Budget 2009	39.778	34.469	45.592
Congressional Program Reductions	0.000	-0.098	0.000
Program Adjustments	0.000	0.000	-6.484
Rate/Misc Adjustments	-0.014	-0.045	0.017
SBIR/STTR Transfer	-0.296	0.000	0.000
Total Reprogrammings	-0.672	0.000	0.000
President's Budget 2010	38.796	34.326	39.125

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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COST: (Dollars in Millions)

Project Number & Title	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate
3126 RAPID TECHNOLOGY TRANSITION (RTT)	28.692	28.295	30.254

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.

The mission of the Technology Insertion Program for Savings (TIPS) is to increase the rate that new cutting edge technologies are inserted into DON acquisition programs in order to significantly reduce operations and maintenance support costs. The program is structured to rapidly transition applicable commercial off-the-shelf solutions and late-stage development technologies from any source to meet an immediate need. TIPS provides execution year funding for a rapid start, bridging the gap until the program of record can fund the completion of the technology insertion.

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B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2008	FY 2009	FY 2010
RTT	28.692	28.295	30.254

FY 2008 Accomplishments:

- Continued the following RTT projects: Digital RF Memory (DRFM) Jammer; Subnet Relay (SNR) and High Frequency Internet Protocol (HF IP); Communications T/FDOA (Time / Frequency Difference of Arrival) Geo-location; Submarine Tactical Paging at Speed and Depth; Deployable Alternative Energy Module (DAEM); Airborne Communications Package Automated Digital Network System (ADNS) Airborne Network Node; Expedient Airfield Damage Repair (ADR); Sparsely Populated Volumetric Array Acoustic Intercept Sensor Enhancing Submarine Passive Broadband Detection and Localization (SPVA PBB); Joint Mission Planning System Expeditionary SPF (JMPS-E); CLUSTER BIGHT Optical Subsystem (CBOS); Cryogenic Filters; MPU with Commercial Stirling Cooler; and Littoral Combat Ship Mission Package Networked Tactical Training System (LCS NTTS).
- Continued the following TIPS projects: Sprayable Dielectric Shield Coatings effort; and Normal Fuel Oil Tanks and Littoral Combat Ship Virtual Maintenance Performance Aid in collaboration with RTT LCS - Network Transition Training System. Primary objectives of these projects are cost savings and reducing Operations and Support costs.
- Completed the following TIPS projects: Non-Skid Coatings, Modified Atmosphere Packaging System and Heat Induction Based Coating Removals TIPS projects.
- Completed the following RTT projects: Hawkeye 2000 Open Architecture Mission Computer; Airborne Networking Architecture; BA-5590 Battery with State of Charge Indicator; Virtual Simulation Training (ViSiT) Toolkit; Automatic Identification System (AIS) Integration; Expanded Maritime Intercept Operations (EMIO) Wireless Reachback Effort; Ground Laser Target Designator (GLTD-II) Battery Reduction Effort; and Software Defined Hand-Held Radio Test Set (SDHHTS).
- Initiated the following RTT projects: Riverine Patrol Boat Protection; Wireless Networks for Embarked Forces; Joint Standoff Weapon (JSOW-C) Target of Opportunity (TOO) Mode Employment; Ku/Ka-band SATCOM On-The-Move (OTM) Antenna Capability for CONDOR; Pocket Charger; Multistatic Active Capability Enhancements (MACE); Interim Surface Ship ASW Trainer For Surface Warfare Enterprise (SWE) Participation In Fleet Synthetic Training (FST) Events; Dismounted Infantry Simulation Interface (DISI); Non-Organic Over the Horizon Intelligence, Surveillance and Reconnaissance (ISR); Standoff Land Attack Missile - Expanded Response (SLAM-ER) Land Moving Target/Littoral Surveillance Radar System (LSRS) Validation; and Expand 4/5 Synthetic Aperture

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PROJECT NUMBER: 3126

PROJECT TITLE: RAPID TECHNOLOGY TRANSITION (RTT)

Radar (SAR) Mapping; and Physical Screening Protection.

- Initiated the following TIPS projects: Wireless Blade Monitoring System (WBMS); Sonar Cable Connectors; Valve Regulated Batteries (VRLA); and Air Intercept Missile (AIM)-9 Cryo Engine.

FY 2009 Plans:

- Continue all FY 2008 efforts less those noted as completed above.
- Complete the following RTT projects: Digital RF Memory (DRFM) Jammer; Subnet Relay (SNR) and High Frequency Internet Protocol (HF IP); Communications T/FDOA (Time / Frequency Difference of Arrival) Geo-location; Submarine Tactical Paging at Speed and Depth; Deployable Alternative Energy Module (DAEM); Airborne Communications Package ADNS Airborne Network Node; Expedient Airfield Damage Repair (ADR); Sparsely Populated Volumetric Array Acoustic Intercept Sensor Enhancing Submarine Passive Broadband Detection and Localization (SPVA PBB); Joint Mission Planning System Expeditionary SPF (JMPS-E); CLUSTER BIGHT Optical Subsystem (CBOS); Cryogenic Filters; MPU with Commercial Stirling Cooler; and Littoral Combat Ship Mission Package Networked Tactical Training System (LCS NTTS).
- Complete the following TIPS projects: Sprayable Dielectric Shield Coatings effort; and Normal Fuel Oil Tanks and Littoral Combat Ship Virtual Maintenance Performance Aid in collaboration with RTT LCS - Network Transition Training System.
- Initiate 6-10 new technology transition deals in support of the RTT program.
- Initiate 5-8 new start projects in support of the TIPS program.

FY 2010 Plans:

- Continue all FY 2009 efforts less those noted as planned for completion.
- Complete the following RTT projects: Riverine Patrol Boat Protection; Wireless Networks for Embarked Forces; Joint Standoff Weapon (JSOW-C) Target of Opportunity (TOO) Mode Employment; Pocket Charger; Multistatic Active Capability Enhancements (MACE); Interim Surface Ship ASW Trainer For Surface Warfare Enterprise (SWE) Participation In Fleet Synthetic Training (FST) Events; Dismounted Infantry Simulation Interface (DISI); Non-Organic Over the Horizon ISR; SLAM-ER Land Moving Target/LSRS Validation; Expand 4/5 Synthetic Aperture Radar (SAR) Mapping; Physical Screening Protection; Advanced Capability Integrated Trailer-ECU-Generator (ITEG); Multi-Level Security (MLS) Sensor Grid; Expedient Main Supply Routes (MSR) Crater Backfill System; Improved Anti-jamming Performance SeaLancet RT-1944/U Multi-Band Network Radio (MBNR); Seal Delivery Vehicle (SDV) Diver Thermal Power System Supporting Naval Special Warfare Undersea Operations; Common Radio Room (CRR); and Afloat Non-Classified Network.

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- Complete the following TIPS projects: Wireless Blade Monitoring System (WBMS); Sonar Cable Connectors; Valve Regulated Batteries (VRLA); AIM-9 Cryo Engine; Retail Operations Management (ROM - Enterprise Support (ES); Advanced Prognostics for Steam Catapults Water Brake Monitoring.
- Initiate 6-11 new RTT projects to improve naval warfighter capabilities.
- Initiate 5-8 new TIPS projects to reduce operations and maintenance support costs.

C. OTHER PROGRAM FUNDING SUMMARY - NAVY RELATED RDT&E:

Not applicable.

OTHER PROGRAM FUNDING SUMMARY - NON-NAVY RELATED RDT&E:

Not applicable.

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 & DEPLOYMENT

Project Number & Title	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate
3174 RAPID DEVELOPMENT & DEPLOYMENT	9.333	6.031	8.871

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 operational needs. The RDD process applies when existing DON processes cannot meet urgent operational needs. Overseas Contingency Operations (OCO) have 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 2008	FY 2009	FY 2010
RDD	9.333	6.031	8.871

Funding decrease from FY 2008 to FY 2009 is due to reduced level of investment/effort required for completing projects and subsequent initiations in FY 2009. The increase of funding from FY 2009 to FY 2010 is due to initiation of approximately 4 new RDD projects in FY 2010.

FY 2008 Accomplishments:

- Completed delivery of the Counter Suicide Bomber Detection capability for in-Theater evaluation and provided in-Theater sustainment support.
- Provided sustainment for the Tactical Biometric Collection and Matching System prototype, which supported

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PROJECT NUMBER: 3174

PROJECT TITLE: RAPID DEVELOPMENT & DEPLOYMENT

the Expanded Maritime Intercept Operations mission area.

- Initiated RDD effort titled: Portable Chemical, Biological, Radioactive/Nuclear Explosive (CBRNE) Detection Capability which supports Visit, Board, Search and Seizure (VBSS) effort.

FY 2009 Plans:

- Complete Portable CBRNE Detection Capability project.
- Initiate and complete multiple projects within RDD for urgent warfighter requirements that meet the RDD selection and execution criteria.
- Initiate approximately 3 new RDD projects.

FY 2010 Plans:

Continue new efforts initiated in FY 2009.

- Initiate and complete multiple projects within RDD for urgent warfighter requirements that meet the RDD selection and execution criteria.
- Initiate approximately 4 new RDD projects.

C. OTHER PROGRAM FUNDING SUMMARY - NAVY RELATED RDT&E:

OTHER PROGRAM FUNDING SUMMARY - NON-NAVY RELATED RDT&E:

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

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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 2008	FY 2009
US NAVY MOBILE CONDITION ASSESSMENT SYSTEM PILOT	0.771	0.000