Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy

Appropriation/Budget Activity R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational PE 0203761N I Rapid Technology Transition (RTT)

Systems Development

COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	22.389	7.626	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	30.015
3173: Technology Insertion Program for Savings (TIPS)	22.389	7.626	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	30.015

### A. Mission Description and Budget Item Justification

#### MISSION:

Navy

The Technology Insertion Program for Savings (TIPS) transitions 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 by keeping pace with the fast moving changes in technologies and operational needs. The TIPS program is structured to bring transition deals to closure quickly, and to provide execution year funding for a quick start, bridging the gap until the program of record can fund the completion of the technology insertion.

The mission of the TIPS program 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. 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 normal budget cycle. This program is designed to be proactive in identifying opportunities and to work with resource sponsors, 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, this program interacts with the industry and coordinates closely with Program Executive Offices (PEOs) and Program Managers (PMs) to maintain awareness of insertion opportunities. Utilizing existing authorities, TIPS applies execution year funds where necessary to "jump-start" transitions so they can be inserted and validated leading directly to deployment and/or demonstrations of high risk/high payoff technologies. This Program Element is the only Navy program that addresses current opportunities to reduce operations and support (O&S) cost drivers within a 18-24 month period. As such, planning and initiation 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 expenditure benchmarks for the first year of execution, but rapidly recovers in the second year.

PE 0203761N: Rapid Technology Transition (RTT)

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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy

**Date:** May 2017

Appropriation/Budget Activity

1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational

Systems Development

R-1 Program Element (Number/Name)

PE 0203761N / Rapid Technology Transition (RTT)

B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	8.632	0.000	0.000	-	0.000
Current President's Budget	7.626	0.000	0.000	-	0.000
Total Adjustments	-1.006	0.000	0.000	-	0.000
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
<ul> <li>Reprogrammings</li> </ul>	-0.884	0.000			
SBIR/STTR Transfer	-0.122	0.000			
Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000

# **Change Summary Explanation**

The FY 2016 funding request was reduced by -\$0.5 million to account for the availability of prior year execution balances.

Beginning in FY 2017, funding is realigned to PE 0603382N Advanced Combat Systems Technology for Rapid Prototype Development.

Technical: Not applicable.

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy								Date: May 2017				
1				R-1 Program Element (Number/Name) PE 0203761N I Rapid Technology Transition (RTT)				Project (Number/Name) 3173 I Technology Insertion Program for Savings (TIPS)				
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
3173: Technology Insertion Program for Savings (TIPS)	22.389	7.626	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	30.015
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

## A. Mission Description and Budget Item Justification

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

The mission of the Technology Insertion Program for Savings (TIPS) is to fund smart solutions for rapid insertion of new technologies that are inserted into DON acquisition programs in order to reduce operations and maintenance support costs across DoN acquisition programs. The TIPS program is structured to quickly transition applicable commercial off-the- shelf solutions and late-stage development technologies from any source, to meet emerging opportunities that lead to cost efficiencies in operations, maintenance, support, training, and/or logistics, and is supported by a business case that justifies all associated costs and schedule risks while demonstrating a positive return on investment (ROI) that is quantifiable and clearly explained given realistic assumptions. 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.

Beginning in FY 2017, funding is realigned to new PE 0603382N Advanced Combat Systems Technology for Rapid Prototype Development.

D. Accomplianmental families i registra (\$\psi\$ in \text{wintens}, Article &cantilles in Each)			1 1 2010	1 1 2010	1 1 2010
	FY 2016	FY 2017	Base	oco	Total
Title: TECHNOLOGY INSERTION PROGRAM FOR SAVINGS (TIPS)	7.626	0.000	0.000	0.000	0.000
Articles:	-	-	_	-	-
FY 2016 Accomplishments:					
Projects scheduled to complete in FY 2016: (Name & ROI% Averaged Over 5 years)					
- Virginia Class TEMPALT Electronics Rack: ROI% 961 completed					
- Modified Induction Heat Technology for Reduced Cost Removal of Special Hull Treatment: ROI% 754					
completed					
- Advanced Buoyant Cable Antenna (ABCA): ROI% 38 completed					
- Lot Serial Number Accuracy (LSNA): ROI% 360 completed					
- LCS Class 1 Stern Tube Seal Design Improvements: ROI% 7540 completed					
- Interactive Structural Analysis Environment & Management System: ROI% 11809 completed					
- Submarine Combat System Architecture Modernization: ROI% 1408 completed					
- Autonomous Target Acquisition Weapon Image Source Expansion: ROI% 469 completed					
- Remote Mine-hunting System Cable Maintenance Winch: ROI% 367 completed					
- Intermediary Application for Key Management Infrastructure: ROI% 690 completed					

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FY 2018 | FY 2018 | FY 2018

<b>Exhibit R-2A, RD1&amp;E Project Justification:</b> FY 2018 Navy		Date: May	2017			
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/ PE 0203761N / Rapid Technology (RTT)	Project (Number/Name) 3173 I Technology Insertion Program for Savings (TIPS)				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities	in Each)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
<ul> <li>Navy Nuclear Command, Control, &amp; Comms Emergency Action Message Er</li> <li>438 completed</li> </ul>	nhanced Technology (NEET): ROI					
Projects scheduled to complete in FY 2017:  - Radar Technology Engineering Upgrades A, B, & C completed (A) ROI% 313 (B) ROI% 120 (C) ROI% 92  - Virtualization in Submarine Warfare Federated Tactical System (V-SWFTS): complete end of FY 2017	ROI% 4254 scheduled to					
FY 2017 Plans: Funding realigned to PE 0603382N Advanced Combat Systems Technology 1	for Rapid Prototype Development.					

# C. Other Program Funding Summary (\$ in Millions)

Exhibit P-24 PDT&F Project Justification: EV 2018 Navy

N/A

N/A

N/A

## Remarks

# D. Acquisition Strategy

FY 2018 Base Plans:

FY 2018 OCO Plans:

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

### **E. Performance Metrics**

The TIPS program will initiate new projects each year that provide for new, innovative, and potentially disruptive technology being inserted into DON acquisition programs. The TIPS projects will have a greater than 70% success rate of insertion and fielding of technology into DON warfighting systems and/or operations and support cost efforts.

**Accomplishments/Planned Programs Subtotals** 

PE 0203761N: Rapid Technology Transition (RTT) Navy

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7.626

0.000

0.000

0.000

0.000

Date: May 2017