Technology Insertion Program for Savings (TIPS)
4 February 2015

Margaret Marafino- ONR 03T
TIPS Program Manager
703-696-9774
Technology Insertion Program for Savings (TIPS) Overview

Objective:
- Transitions applicable commercial off-the-shelf solutions and late-stage development technologies into DoN acquisition programs to significantly reduce operations and maintenance support costs
  - $ bridge gap between S&T and Acquisition until Program of Record can fund the completion of the technology insertion

Program Criteria:
- Addresses a Navy or USMC need
- Increases cost efficiency in maintenance, training, or logistics
  - Must have a positive ROI
- Requires no more than $2M TIPS funding
- Technology can transition in 24 months or less
- Technology Maturity (TRL): Starting: $6$ Ending: $8$
- Technology has program and fiscal support (OPNAV / HQMC P&R)
- Solution can be supported by Navy/USMC infrastructure and policy

Funding ($K)$:

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<tr>
<th>Fiscal Year</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
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<td>$8,480</td>
<td>$18,632</td>
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DISTRIBUTION STATEMENT A. Approved for public release
Organizational Placement

Director of Technology
DDOT
(Dr. Killion)

Future Naval Capabilities
(Mike Meyers)
- FNC

Disruptive Technologies
(Bob Smith)
- INPs
- LA-CNR
- RIF *
- S2F
- TS
- NWE
- OA

Affordability Initiatives
(John Carney)
- MANTECH
- TIPS
- T2
- DPSI
- FCT

SBIR/STTR
(Vacant)
- SBIR
- STTR

INP = Innovative Naval Prototypes
LA = Leap Ahead Chief of Naval Research
RIF = Rapid Innovation Fund (Non S&T funded)
S2F= Speed to Fleet
TS= Tech Solutions
NWE= Naval Warfare Experimentation
OA = Operational Analysis

TIPS = Technology Insertion Program for Savings
T2 = Navy Technology Transfer
DPSI = Domestic Preparedness Support Initiative
FCT = Foreign Comparative Test
MANTECH= Manufacturing Technology
SBIR = Small Business Innovation Research
STTR = Small Business Technology Transfer
TIPS Governance

TOG (TWG) = Technology Oversight Group
TWG = TIPS Working Group
DOT = Director of Technology
<table>
<thead>
<tr>
<th>TIPS FY16 Proposal Selection Process Timeline</th>
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<tbody>
<tr>
<td>1. ONR’s Call Letter to SYSCOMs</td>
</tr>
<tr>
<td>2. SYSCOMs Proposal Development / Internal Reviews</td>
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<td>3. SYSCOMs submit proposals to ONR</td>
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<td>4. 1st Down Selection by TWG</td>
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<td>5. Red Team Reviews</td>
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<td>6. 2nd Down Selection by TWG for Ranking Consideration</td>
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<td>7. Submit Individual Rankings for Consolidation</td>
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<td>8. Prioritize Proposals for Ranking Recommendations</td>
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<td>9. ONR’s Director of Technology (DOT) Approval</td>
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<tr>
<td>10. MOAs Signed by PEO / Resource Officer / ONR 03T</td>
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<tr>
<td>11. Spend Plan Preparation and Submittal</td>
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<td>12. FY16 Funding Issued</td>
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<td>13. Projects Begin Executing</td>
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**Legend:**
- **TOG** Technology Oversight Group
- **TWG** TIPS Working Group
- **TWG Participation with Science Advisor (SA) Inputs**
- **SYSCOM (Submitter) Participation**
- **TWG, SAs & SYSCOM (Submitter) Participation**

**DISTRIBUTION STATEMENT A. Approved for public release**
# Roadmap for FY16 TIPS Reviews & Selection Processes

## Section 1. General Information
- **Proposal Title**: XXXXXX
- **Date**: XXXXXX
- **Discount Rate**: 1.50% Approximate 7 Year Treasury Note

## Section 2. Costs Associated with current method (without TIPS Involvement)

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## Section 3. Costs Associated with TIPS Involvement

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### B. Total Proposed Project Cost (with TIPS support)

### Cost Avoidance (A - B)

### Discount Factor

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### Present Value Cost Avoidance

### E. Cumulative Savings

### F. Project NPV

### Total TIPS Investment (Discounted)

### ROI

# Roadmap Details

- **MOAs signed by PEO or Acquisition Office**
  - **Jun**
  - **Jul**
  - **Aug**
  - **Sep**

- **Prepare and submit Spend Plan & Project Info Sheet**
  - **Aug**
  - **Sep**
  - **Oct**

- **Start MOA development**
  - **Jun**
  - **Sep**

- **Prepare and submit Spend Plan & Project Info Sheet**
  - **Aug**
  - **Sep**

- **DOT notifies TOG**

- **Selected candidates prepare to brief their proposal.**

**Important Acronyms**

- TWG = TIPS Working Group
- TRB = Transition Review Board
- MOA = Memorandum of Agreement
- SYSCOM = System Command
- DOT = Department of the Navy
- NAVSEA = Naval Sea Systems Command
- NAVAIR = Naval Air Systems Command
- SPAWAR = Space and Naval Warfare Systems Command
- MARCOR = Marine Corps
- NAVSUP = Naval Supply Systems Command
- NAVFAC = Naval Facilities Engineering Command

**DISTRIBUTION STATEMENT A.** Approved for public release
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**A. Total Present Project Cost (using current methods)**

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**B. Total Proposed Project Cost (with TIPS support)**

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**Present Value Cost Avoidance**

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**E. Cumulative Savings**

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**F. Project NPV**

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**Total TIPS Investment (Discounted)**

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**ROI**

#DIV/0!

**Industry**

- DoD Labs
- Warfare Centers
- PORs

**SYSCO**

- M CTOs
- NAVSEA
- NAVAIR
- SPAWAR
- MARCOR
- NAVFAC
- NAVSUP

**ONR Call Letter**

**Step 1: Submission Reviews**

- Proposal
- Quad Chart
- NPV

**Step 2: Post Selection**

- RTR Brief
- MOA

**Step 3: Execution**

- Spend Plan
- Project Plan

**Step 4: Transition**

- SADR
- Quarterly Spend Plans

**Close Out Report**

**Success Story**


DISTRIBUTION STATEMENT A. Approved for public release
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<tr>
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<th>Contact Name</th>
<th>Email</th>
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<tr>
<td>NAVSEA:</td>
<td>Steve Southard</td>
<td><a href="mailto:Steven.southard@navy.mil">Steven.southard@navy.mil</a></td>
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<tr>
<td>NAVAIR:</td>
<td>Todd Parcel</td>
<td><a href="mailto:john.parcell@navy.mil">john.parcell@navy.mil</a></td>
</tr>
<tr>
<td>SPAWAR:</td>
<td>Dr. Bob Parker</td>
<td><a href="mailto:robert.parker@navy.mil">robert.parker@navy.mil</a></td>
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<tr>
<td>NAVFAC:</td>
<td>Phil Vitale</td>
<td><a href="mailto:philip.vitale@navy.mil">philip.vitale@navy.mil</a></td>
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<tr>
<td>NAVSUP:</td>
<td>Mark Deebel</td>
<td><a href="mailto:mark.deebel@navy.mil">mark.deebel@navy.mil</a></td>
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<tr>
<td>MARCOR:</td>
<td>John Stroud</td>
<td><a href="mailto:john.m.stroud@usmc.mil">john.m.stroud@usmc.mil</a></td>
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TIPS Contractor Support Team


Transition Coordinators:

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<th>Agency</th>
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<tr>
<td>TIPS APM/NAVFAC/NAVSUP</td>
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<tr>
<td>NAVSEA</td>
<td>Joe Piff</td>
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TIPS Performance as of March 2014

- Transitioned/Ontrack: 26%
- Phoenix Transition: 4%
- Failed: 26%

Success Rate ~70%

Average ROI Transitions (FY10-FY14) 16:1
Areas of Opportunity for Reducing Costs to DoN

- Replace older near obsolete components with more reliable and less expensive components
- Improve operational & repair processes to increase mean time between failures that will reduce time spent with repairs.
- Test new materials & protective coatings that reduce rust, corrosion and maintenance costs due to corrosive damage to components and platforms
- Automate processes to improve performance
- Increase human and environmental safety factors
- Improve quality of life for our warfighters

DISTRIBUTION STATEMENT A. Approved for public release
Will reduce cost by streamlining maintenance decisions associated with aluminum crack repair. Cost Savings/Avoidance > $76m through 2018.

H-1 Combining Gearbox Chaffing Repair via Cold Spray

Cold Spray repairs chafing damage on the combining Gearbox external housing extending the life vice having to be scrapped and replaced at significant cost. Cost Savings/Avoidance > $18M through 2020

Naval Superstructure Cracking Due to Aluminum Sensitization

Will reduce cost by streamlining maintenance decisions associated with aluminum crack repair. Cost Savings/Avoidance > $76m through 2018.

Transportation Exploitation Tool (TET)
Will enable NAVSUP GLS to reduce the planning cycle time required to identify, assess, coordinate, and execute transportation opportunities to accommodate critical delivery timelines. Cost Savings/Avoidance > $77m through 2020

Modified Atmosphere Packaging System (MAPS)
Extend service life of fresh fruit and vegetables aboard US Navy ships. Cost Savings/Avoidance > $3m through 2016
JOINT LETTER

From: Deputy Chief of Naval Operations, Fleet Readiness and Logistics
Deputy Commandant, Mission Support, USCG
Deputy Commandant, Installations and Logistics

To: Chief of Naval Research

Subj: OFFICE OF NAVAL RESEARCH (ONR) SUPPORT OF TRANSPORTATION EXPLOITATION TOOL (TET) DEVELOPMENT

1. During the most recent Naval Logistics Integration Service Logistics Chiefs Board, we were briefed on the status of TET development by Naval Supply Systems Command Global Logistics Support, Norfolk. The brief highlighted ONR’s support for the initiative.

2. In this time of diminishing fiscal resources, we continually look for new and innovative ways to improve efficiencies and effectiveness. Since 2010, use of the TET program to identify underutilized transportation opportunities has resulted in more than $27M in documented cost avoidance, a tremendous accomplishment highlighting ONR’s efforts paying dividends. Expansion of the TET user base and full implementation of the tool will undoubtedly result in even larger cost avoidance opportunities and increase transportation effectiveness. The future of TET is bright.

3. These impressive transportation results wouldn’t be possible without ONR’s sizeable investment and commitment to fund and develop TET. Thank you for your support, we ardently recommend continued investment.

Philip Cullom
VADM USN
DCNO (PR&L)

Manson Brown
VADM USCG
DCMS

W. M. Faulkner
LGen USMC
DC I&L

Copy to:
NAVSUP
DMCS
DC I&L

DISTRIBUTION STATEMENT A. Approved for public release
Transportation Exploitation Tool (TET)

Greg Butler
NAVSUP WSS
Division Director
Fleet Movement & Systems Support
4 Feb 2015
Foundation, Function & Impact

• SECNAV Naval Logistics Integration Initiative
• Sponsorship from 3-star naval Service Log Chiefs
• SECRET and UNCLASSIFIED
• First-ever Kayak©-like capability in DoD
• Connects unrelated flight and ship schedules
• Solves urgent and complex transportation problems
• Creates conveyance and cost efficiencies
• $41.5M in cost avoidance / 388% ROI
Why TET is Successful

USTRANSCOM Processes

- JOPES (air & sea)
- SAAM (air)
- Channel (air)
- JA/ATT (air)
- JOSAC (air)

Services

- USN (air & sea – USS, CLF, MPS, etc.)
- USA (watercraft - LSV & LCU)
- USCG (air & sea)

Geographic COMOs

- Theater Assets (air & sea – ships, JHSVs & landing craft)

Looks horizontally for available lift capacity and movement solutions (including multi-modal and multi-mission type, i.e., war resupply, USS vessels, inter-theater, etc.)

USTC has an aircraft taking off or landing every 2 minutes

We don’t care why the conveyance is moving, only that we can see it
Enabling Success Through TIPS

• ONR TIPS Program (x 2)
  – Critical to initial TET dev and mission accomplishment
  – Professional, reliable and focused on success
  – TIPS I:
    • Delivered first-ever UNCLASSIFIED PoR
    • Live USTRANSCOM aircraft scheduling data
  – TIPS II:
    • Enhanced SECRET transportation analysis: Web Services, Cloud enabling, Intelligent Agents
    • Reducing planning days/weeks to seconds/minutes
TET Path Forward

• Establish SECRET TET as NAVSUP PoR in FY15
• Nominated for TIPS III (Dynamic Replanning)
• Continue adding game-changing capabilities
• Stay ahead of change -- TIPS is **CRITICAL**
  – Sequestration and budget reductions
  – Demand signal (increasing)
  – Environment (Pivot to Pacific, Islamic State, Ebola, etc.)
DEMO
Q&A