Rapid Innovation Fund (RIF) 101

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Distribution Statement A. Approved for public release
Agenda

• Background / General RIF Information
• Participating in the RIF Broad Agency Announcement (BAA)
• Project Examples
• Points of Contact / References
RIF: Background / General RIF Information
Background

• Established as the Rapid Innovation Program (RIP) in Section 1073 of the Fiscal Year 2011 National Defense Authorization Act (NDAA)
  – A competitive, merit-based program
  – Accelerate fielding of innovative technologies into military systems
• Re-designated as the Rapid Innovation Fund (RIF) within the Department of Defense (DoD)
• Made a permanent program in 2017 NDAA

Bottom Line Goal: Transition Small Business Technologies into Defense Acquisition Programs
Proposals or Projects:

- Satisfy an operational or national security need
  - Accelerate or enhance military capability
  - In support of major defense acquisition program
- Stimulate innovative technologies
- Reduce acquisition / lifecycle costs
- Address technical risk
- Improve timeliness & thoroughness of test & evaluation outcomes
- Can be completed within 24 months of award
- Cost is not more than $3 million

Selection Preference to Small Business Proposals
• Competitive, Merit-Based Two-Step Process
  
  o Step 1:
    - Issue Broad Agency Announcement (BAA) with DoD component requirements
    - Industry Response: 3-page White Paper + Quad Chart
    - Evaluations are “Go” or “No Go”
  
  o Step 2:
    - Highest rated “Go” offerors invited to submit full proposals
      ▪ Further competition – invite for proposal **DOES NOT** guarantee an award
    - Highest-rated proposals lead to award

• Public Notice:
  
Key Responsibilities & Roles

**OSD-Level (R&E / OSBP)**

- **Issue / Publish:**
  - Annual Implementation Guidelines
  - Acquisition Plan
  - Source Selection Milestones
    - Detailed Review Process w/ Defense Agencies / CCMDs
  - BAA
  - Communication Guidelines
  - White Paper (WP) Notifications to Offerors

- **Track Project Results**
  - Annual IPRs

- **Issue Funds & Monitor Financial Execution**

**Component-Level**

- **Execute Allocated Funds**
  - Supplement OSD Guidelines (as needed)

- **Provide BAA Requirements**
  - Address Offeror Technical Questions

- **Establish Source Selection Teams**
  - Evaluate WPs & Proposals
  - Make Contract Awards
  - Monitor & Report Technical Progress

- **Request Funds & Report Status –**
  - Financial Execution
  - Report Results of Project IPRs / End of Project Results
# RIF Demand

## FY 2011 – 2016

### Summary Data:
- Over $1.4B Invested (FY11-16)
- 14 Defense Component Participants (FY11-16 average)
- 14,853 White Papers Submitted & Evaluated (FY11-16)
- 957 Full Proposals Submitted & Evaluated (FY11-15)
- 553 Contract Awards (FY11-15)

### Summary of Funding:

<table>
<thead>
<tr>
<th>Year</th>
<th>Appropriated</th>
<th>Available</th>
<th>DoD Participants</th>
<th>White Papers (WPs)</th>
<th>Full Proposals</th>
<th>Awards - Small Biz</th>
<th>Awards - SBIR (Current / Prior)</th>
<th>Avg. Award ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY11</td>
<td>$439M</td>
<td>$432M</td>
<td>7</td>
<td>3,626</td>
<td>264</td>
<td>175</td>
<td>175</td>
<td>2.2</td>
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<tr>
<td>FY12</td>
<td>$200M</td>
<td>$187M</td>
<td>10</td>
<td>2,405</td>
<td>124</td>
<td>86</td>
<td>90%</td>
<td>2.1</td>
</tr>
<tr>
<td>FY13</td>
<td>$250M</td>
<td>$225M</td>
<td>16</td>
<td>2,763</td>
<td>234</td>
<td>104</td>
<td>85%</td>
<td>2.1</td>
</tr>
<tr>
<td>FY14</td>
<td>$175M</td>
<td>$175M</td>
<td>19</td>
<td>2,291</td>
<td>149</td>
<td>85</td>
<td>86%</td>
<td>2.1</td>
</tr>
<tr>
<td>FY15</td>
<td>$225M</td>
<td>$225M</td>
<td>17</td>
<td>1,955</td>
<td>186</td>
<td>103</td>
<td>84%</td>
<td>2.2</td>
</tr>
<tr>
<td>FY16 (Act. or Est.)</td>
<td>$250M</td>
<td>$250M</td>
<td>17</td>
<td>1,813 *</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

* WPs Submitted to Requirements for: Army (442), Navy (611), Air Force (428) & Defense Agencies (332)

- **486 awards to Small Businesses**
  - 88% of all awards
- **309 awards to current or prior Small Business Innovative Research (SBIR) participants**
  - 56% of all awards

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Participating in the RIF BAA
**FY 2016: BAA Participation**

246 Requirements from 17 Defense Activities Spanning Over 50 Program Offices

### DEPARTMENT OF THE ARMY
- **Acquisition Program Offices**
  - Ammunition
  - Aviation
  - Soldier / Soldier Systems
  - Command, Control, Communications – Tactical
  - Intelligence, Electronic Warfare and Sensors
  - Combat Support / Combat Support Systems
  - Missiles & Space Systems
  - Simulation, Training & Instrumentation
- **Research & Development Centers / Other Activities**
  - Aviation and Missile Research Development & Engineering Center (AMRDEC)
  - Armament Research, Development & Engineering Center (ARDEC)
  - Army Research Lab (ARL)
  - Communications-Electronics Research, Development & Engineering Center (CERDEC)
  - Edgewood Chemical Biological Center (ECBC)
  - Natick Soldier Research, Development & Engineering Center (NSRDEC)
  - Tank Automotive Research, Development & Engineering Center (TARDEC)
  - Defense Forensics & Biometrics Agency (DFBA)
  - Corps of Engineers (COE)

### DEPARTMENT OF THE NAVY
- **Acquisition Program Offices**
  - Naval Air Systems Cmd. (NAVAIR)
    - F-35 Joint Strike Fighter
    - Tactical Aircraft Programs
    - Air Anti-Submarine Warfare
    - Assault & Special Mission Programs
    - Unmanned Aviation & Strikee Weapons
  - Naval Sea Systems Cmd. (NAVSEA)
    - Aircraft Carriers
    - Integrated Warfare Systems
    - Littoral Combat Ship
    - Ships / Submarines
    - Special Warfare
  - Space & Naval Warfare Systems Cmd. (SPAWAR)
    - Enterprise & Integrated Systems
    - Space Systems
- **Other Activities**
  - Marine Corp (MARCOR)
    - Ammunition
    - Armor & Fire Support Sys.
    - Chemical & Biological Sys.
    - Combat Support Systems
    - Enterprise Info. Systems
    - Infantry Weapons Systems
    - Info. Systems & Infrastructure
    - Light Armored Vehicles
    - Marine Intelligence
    - Land Systems
    - Training Systems
  - Other Activities: Warfare Centers, Naval Supply Systems Cmd., Navy Strategic Systems Programs, Naval Facilities Engineering Command, Bureau of Medicine & Surgery

### DEPARTMENT OF THE AIR FORCE
- **Acquisition Program Offices**
  - Battle Management
  - Business Enterprise Systems
  - Command, Control, Communications, Integration & Network
  - Fighter / Bomber
  - Joint Strike Fighter
  - Space
  - Strategic Systems
  - Weapons
  - Intelligence, Surveillance Reconnaissance & Special Operation Forces
- **Other Activities**
  - Air Force Life Cycle Management Center
  - Air Force Test Center
  - Air Force Nuclear Weapons Center Commander
  - Air Force Propulsion Directorate
  - Air Force Sustainment Center

### DEFENSE AGENCIES, OSD ACTIVITIES & COMBATANT COMMANDS
- Chief Information Officer / Defense Information Systems Agency (CIO / DISA)
- OASD(R&E): EC&P, Research, Joint Improvised-Threat Defeat Agency (JIDA)
- Defense Threat Reduction Agency (DTRA)
- Missile Defense Agency (MDA)
- Defense Logistics Agency (DLA)
- National Reconnaissance Office (NRO)
- Combating Terrorism Technical Support Office (CTTSO)
- Joint S&T Office for Chemical and Biological Defense (JSTO / CBD)
- U.S. Africa Command
- U.S. Northern Command / North American Aerospace Defense Command
- U.S. Pacific Command
- U.S. Southern Command
- U.S. Special Operations Command
- U.S. Transportation Command

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FY16-17 Source Selection Process
Key Steps & Timeline

**Planning Phase**
- 1. Research Topics Identified
- 2. BAA Released

**White Paper (WP) Phase**
- 3. Contractors Submit WPs
- 4. WPs Evaluated
- 5. WPs Approved
- 6. Contractors Invited to Submit Proposals

**Proposal Phase**
- 7. Proposals Evaluated
- 8. Proposals Recommended for Award
- 9. Source Selection Authority Approval
- 10. Contractors Selected Notified

**Award Phase**
- 11. Negotiations
- 12. Contract Awards

Note: Goal Planning Dates. Actual Dates will be Determined by Cognizant Contracting & Technical Offices

Source: GAO analysis of DOD data | GAO-15-421

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## RIF FY 2017 – 2017 Milestones

<table>
<thead>
<tr>
<th>Date(s)</th>
<th>Action</th>
</tr>
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<tbody>
<tr>
<td>3 March</td>
<td>• Collect and Finalize Requirements <strong>COMPLETE</strong></td>
</tr>
<tr>
<td>17 March</td>
<td>• Release BAA in FBO.gov <strong>COMPLETE</strong></td>
</tr>
<tr>
<td>19 May</td>
<td>• BAA Closes: White Papers (WPs) due from offerors</td>
</tr>
<tr>
<td>2017 NLT 1 September*</td>
<td>• Components complete WP evaluations</td>
</tr>
<tr>
<td></td>
<td>• Components are complete initial priorities and ranking</td>
</tr>
<tr>
<td>2017 NLT 13 October*</td>
<td>• Components notify all offerors of WP disposition</td>
</tr>
<tr>
<td></td>
<td>• Invite full proposals</td>
</tr>
<tr>
<td>2017 NLT 17 November*</td>
<td>• Full proposals due from offerors</td>
</tr>
<tr>
<td></td>
<td>• Components start full proposal review</td>
</tr>
<tr>
<td>2018 NLT 3 January*</td>
<td>• Components complete full proposal evaluations</td>
</tr>
<tr>
<td></td>
<td>• Negotiations, begin contract awards</td>
</tr>
<tr>
<td>January – April*</td>
<td>• Goal for completing contract awards</td>
</tr>
<tr>
<td>2018 NLT 1 May*</td>
<td>• FY17-funded RIF contract awards complete</td>
</tr>
</tbody>
</table>
RIF: Project Examples

See also RIF AWARDS/PROJECT DESCRIPTIONS at http://www.defenseinnovationmarketplace.mil/rif.html
RIF – Project Examples (1 of 2)
Enabling Technology Insertion & Refresh in Acquisition

• Ongoing Operational Needs:
  – Traumatic Brain Injury (Army & Brainscope): Fielded a pocket-side electroencephalogram used to provide forward-based medical diagnosis of neurological injury compatible with X-ray computed tomography
  – Checkpoint Explosive Detection System (DTRA & Alakai Defense Systems): Demonstrated a smaller, reduced-weight checkpoint detection system that increases stand-off range for detecting explosives, providing safer checkpoint operations

• U.S. Manufacturing:
  – Plasma Electrolytic Oxidation Nano-Ceramic Coating (Air Force & IBC Materials): Demonstrated an improved nano-ceramic coating based on additive manufacturing, increasing the life and wear of missile launcher rails for F-15, F-16, and F/A-18 aircraft, reducing maintenance and downtime costs
RIF – Project Examples (2 of 2)
Enabling Technology Insertion & Refresh in Acquisition

• Logistics Supportability:
  – Integrally Bladed Rotor Repair (Air Force & Blade Diagnostics): A production-ready machine that evaluates the vibratory response of integrally bladed rotors, enabling faster damage tolerance assessment and previously classified unserviceable parts to be returned to service for F-119 engine overhaul.
  – Wireless Vibration Recorder (Navy & Mide Techology): A handheld, compact wireless vibration diagnostic tool that records up to four hours of aircraft vibration data, enabling faster maintenance in diagnosing aircraft component failure, shortening downtime and reducing flight costs.

• Commercial Technology for Defense Operations:
  – Extended Frequency Range Wide Band RF Distribution System (Navy & Out of the Fog Research): Uses on a shipboard mast-mounted communications component that filters, blanks interfering signals so that very low level power signals of interest can be received.
    o Manufactured by a Silicon Valley company and fielded on Ships Signal Exploitation Equipment (SSEE) antenna.
RIF: Points of Contact & Additional References
# Key DoD POCs

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[http://defenseinnovationmarketplace.mil/RIF.html](http://defenseinnovationmarketplace.mil/RIF.html)
Additional Info / Resources


Defense Innovation Marketplace

Business Opportunities

- Small Business Resources
- Acquisition Resources
- Technology Interchange Meetings
- Army, Navy, Air Force & Other DoD S&T Information

Rapid Innovation Fund (RIF) Program

- Current BAA / FBO Link
- Current Year Milestones
- RIF Component Leads / POCs
- Overview Brief (RIF 101)
- RIF Awards
- Transition Guidelines
- Congressional Statute

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Doing Business with the Department of Defense


- “How-To” work with Defense
- Guides on Marketing to Defense
- Programs for Small Business
  - SBIR / STTR
  - Mentor Protégé
  - Indian Incentive Program
- Contracting with Defense
- Small Business Training
- Conferences & Workshops
- Frequently Asked Questions
- Links to Army, Navy, Air Force & Other Defense Agency Programs