Rapid Innovation Fund (RIF)

Program Overview
December 2017
PE 0604775D8Z

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Distribution Statement A. Approved for public release
RIF Topics

• Background / General RIF Information
• Participating in the RIF Broad Agency Announcement (BAA)
• Project Examples
• Industry & General Accountability Office (GAO) Feedback
• 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 the FY 2017 NDAA

Bottom Line Goal: Transition Small Business Technologies into Defense Acquisition Programs
Key Requirements

Proposals or Projects:

• Satisfy an operational or national security need
  o Accelerate or enhance military capability
  o 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:
## RIF Demand
### FY 2011 – 2017

### Summary Data:
- Over $1.4B Invested (FY11-16)
- 16 Defense Component Participants (FY11-17 average)
- 16,580 White Papers Submitted & Evaluated (FY11-17)
- 1,113 Full Proposals Submitted & Evaluated (FY11-16)
- 685 Contract Awards (FY11-16)

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<th>FY11 Actual</th>
<th>FY12 Actual</th>
<th>FY13 Actual</th>
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<td>10</td>
<td>16</td>
<td>19</td>
<td>17</td>
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<td>White Papers</td>
<td>3,626</td>
<td>2,405</td>
<td>2,763</td>
<td>2,291</td>
<td>1,955</td>
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<td>264</td>
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<td>234</td>
<td>149</td>
<td>186</td>
<td>156</td>
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<td>Avg. Award ($M)</td>
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<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
<td>2.2</td>
<td>1.9</td>
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### Notes:
- 603 awards to Small Businesses
  - 88% of all awards
- 380 awards to current or prior Small Business Innovative Research (SBIR) participants
  - 55% of all awards

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Distribution Statement A. Approved for public release
Participating in the RIF BAA
FY 2017 Broad Agency Announcement (BAA)

- Issued on Federal Business Opportunities (FedBizOpps)
  - Solicitation Number:
    - HQ0034-17-BAA-RIF-0001A - NAICS Codes 541711 – R&D in Biotechnology
    - HQ0034-17-BAA-RIF-0001B - NAICS Code 541712 – R&D in the Physical, Engineering & Life Sciences
- Opened March 31, 2017 / Closed May 19, 2017
- Contains:
  - Key dates / milestones for submission
  - Instructions for submission
  - Notification of 2-step process: White Papers & Full Proposals
  - Source Selection Criteria: White Papers & Full Proposals
  - Requirements for industry / offeror responses
    - 223 Requirements: Army (43), Navy (44), Air Force (84) & Defense Agencies (52)
    - Each requirement provides DoD Technical Point of Contact (PoC)

**BAA is Closed: But .. Good Source Document / Reference for Industry Review**
## FY 2017: BAA Participation

### 221 Requirements from 22 Defense Activities Spanning Over 50 Program Offices

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<td><strong>Acquisition Program Offices</strong></td>
<td><strong>Acquisition Program Offices</strong></td>
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<td><strong>Chief Information Officer / Defense Information Systems Agency (CIO / DISA)</strong></td>
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<td>- Simulation, Training &amp; Instrumentation</td>
<td>- Space &amp; Naval Warfare Systems Cmd. (SPAWAR) &lt;ul&gt; o Cmd., Control, Comms. Computers &amp; Intel. &lt;li&gt; o Enterprise &amp; Integrated Systems &lt;li&gt; o Space Systems &lt;/ul&gt;</td>
<td>- Research &amp; Development Centers / Other Activities &lt;ul&gt; - Aviation and Missile Research Development &amp; Engineering Center (AMRDEC) - Armament Research, Development &amp; Engineering Center (ARDEC) - Army Research Lab (ARL) - Communications-Electronics Research, Development &amp; Engineering Center (CERDEC) - Edgewood Chemical Biological Center (ECBC) - Natick Soldier Research, Development &amp; Engineering Center (NSRDEC) - Tank Automotive Research, Development &amp; Engineering Center (TARDEC) - Defense Forensics &amp; Biometrics Agency (DFBA) - Corps of Engineers (COE) &lt;/ul&gt;</td>
<td>- Joint S&amp;T Office for Chemical and Biological Defense (JSTO / CBDC)</td>
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<td>- Other Activities</td>
<td>- Space &amp; Naval Warfare Systems Cmd. (SPAWAR) &lt;ul&gt; o Cmd., Control, Comms. Computers &amp; Intel. &lt;li&gt; o Enterprise &amp; Integrated Systems &lt;li&gt; o Space Systems &lt;/ul&gt;</td>
<td>- Other Activities &lt;ul&gt; - Aviation and Missile Research Development &amp; Engineering Center (AMRDEC) - Armament Research, Development &amp; Engineering Center (ARDEC) - Army Research Lab (ARL) - Communications-Electronics Research, Development &amp; Engineering Center (CERDEC) - Edgewood Chemical Biological Center (ECBC) - Natick Soldier Research, Development &amp; Engineering Center (NSRDEC) - Tank Automotive Research, Development &amp; Engineering Center (TARDEC) - Defense Forensics &amp; Biometrics Agency (DFBA) - Corps of Engineers (COE) &lt;/ul&gt;</td>
<td>- U.S. Africa Command</td>
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Distribution Statement A. Approved for public release
Elements of a Good Proposal (1 of 3)

- Responds to a BAA requirement
- Relationship in place with key customers, or otherwise have an ability to reach-out and establish links -
  - DoD acquisition buyers / Program Executive Offices or Program Managers, depots, logistics or warfare centers
  - DoD prime or subsystem contractor who integrates RIF technology
  - DoD laboratory / technology provider

Selection Preference: Small Business Proposals

Source Selection Criteria:
1. Contribution to the Requirement
2. Technical Approach / Qualifications
3. Schedule
4. Cost

Industry:
- Primes
- Subsys

Small Business

DoD Acquisition Programs

Depots, Arsenals Logistics & Warfare Centers

DoD Labs
Elements of a Good Proposal (2 of 3)

**Technology Readiness Level (TRL)**

- **Maturity Goal:** TRL 6 – 9
  - Low TRL accepted **ONLY** if:
    - Breakthrough capability or operational game-changer
    - Cost neutral to the acquisition program
    - Accommodated within program schedule


- 6 System/subsystem model or prototype demonstration in a relevant environment
- 7 System prototype demonstration in an operational environment
- 8 Actual system completed and qualified through test and demonstration
- 9 Actual system proven through successful mission operations
- 4 Component and/or breadboard validation in a laboratory environment
- 5 Component and/or breadboard validation in a relevant environment

**Award By Exception**

**Required for Majority of Awards: Facilitates Transition**

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Elements of a Good Proposal (3 of 3)

RIF White Paper (WP) Submission

**WHAT TO INCLUDE:**

- Your technology solution
  - How it addresses the RIF requirement
  - Clear, concise synopsis of approach
  - What’s innovative – what sets your technology apart from competition
  - Enough technical specification to get tech evaluators ‘comfortable’
- Some key data:
  - Pictures & diagrams
  - Key Government contacts that currently relate to this effort
  - Summary of teaming arrangements
  - Any prior testing & summary results

**WHAT NOT TO INCLUDE:**

- Technology looking for a solution (e.g., unrelated to the requirement)
- Generic company overview (org chart)
- History of the problem
- Testimonials from other industry or lab researchers
- Detailed diatribe of charts and formulas stating why your technology is the best

**When BAA opens, read it, then input, ask questions & prepare a DRAFT WP soonest**

- If missing data, update later. DO NOT WAIT UNTIL LAST MINUTE!
- Follow directions / template as provided in the submission portal(s)
### Execution of FY17 Funds: $250M Milestones (Update: Dec 2017)

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<td><strong>BAA Released in FedBizOpps - Hot Link Posted at:</strong></td>
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<td>- <a href="https://dodrif.com/">https://dodrif.com/</a></td>
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<td><strong>BAA Closes: White Papers (WPs) due from offerors</strong></td>
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<td>NLT Sep 1, 2017</td>
<td><strong>Components complete WP evaluations</strong></td>
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<td></td>
<td><strong>Initial priorities and ranking by Components</strong></td>
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<td>NLT Sep 15, 2017*</td>
<td><strong>WP notifications, invite full proposals</strong></td>
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<td>NLT Oct 14, 2017*</td>
<td><strong>Full proposals due from offerors</strong></td>
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<td><strong>Components start full proposal evaluations</strong></td>
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<td>NLT Dec 16, 2017*</td>
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<td>NLT Jan 3, 2018*</td>
<td>Negotiations, start contract awards</td>
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<tr>
<td>NLT May 1, 2018*</td>
<td>FY17-funded RIF contract awards complete</td>
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<td>2018</td>
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*DoD-Wide RIF Goals: Actual Dates will be Determined by Cognizant DoD Component Contracting & Technical Offices*
FY 2018 Broad Agency Announcement (BAA)

• Issuance is contingent on congressional funding

• Recommend offerors review FY17 RIF BAA to:
  o Understand issues associated with participation
  o Nature of technical requirements
  o Prepare for FY18 BAA
    ✓ To be issued IF funds are appropriated

• Watch the DoD RIF website for additional information & milestones
  o http://www.defenseinnovationmarketplace.mil/rif.html
  o Contact RIF POCs if questions or issues
FY18 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 and an FY2018 signed defense budget.

Jan – Feb 2018
Feb – April 2018
April – Jun 2018
Jun – Sept 2018
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): 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 Technology): 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 an on Ships Signal Exploitation Equipment (SSEE) antenna

Out of tolerance damage
Production system to be delivered to Tinker AFB

• Dimensions: 3 in. x 1.2 in. x 0.6 in.
• Mass: 40 grams

SSEE High Gain Antenna
Radio Frequency Control Unit (RFCU)

Dimensions: 3 in. x 1.2 in. x 0.6 in.
Mass: 40 grams
RIF: Industry & General Accountability Office (GAO) Feedback
RIF – Incentivize Productivity in Industry

- Identify **what RIF performers** are getting from RIF contracts
- **Over 90% of RIF awardees** indicate RIF helped their business base **
  - 62% had new employee hires
  - 57% said RIF helped transition their technology
  - 52% benefitted from RIF teaming opportunities
  - 38% saw an increase in market sales
- **Over 80% note a program like RIF is vital to transition of small business technologies**
- **Examples:**
  - Helped **advanced Phase II SBIR-developed technologies**, resulting in a finished product for commercial and government sales
  - **Ability to get innovation to the DoD faster**
    - Large business customers sometimes submit their smaller, supplier-based technologies to the government as an engineering change
    - Could result in additional cost and lead-time for program insertion

**Based on Surveys by Both the DoD & Small Business Technology Council**
Government Accountability Office (GAO) Review

- Initiated by Defense Committees in FY 2014 Senate Bill
- **Purpose:** Assess extent to which DoD --
  - Has established a competitive, merit-based process to award contracts
    - **Results:** Process is lengthy, but meets objective
  - Has established practices to manage project execution
    - **Results:** Services & Defense Agencies are successfully monitoring
  - Is meeting objective of inserting innovative technologies into defense acquisition programs
    - **Results:** GAO independently assessed 44 projects- 50% transition

- **Recommendations:**
  - Establish overall RIF transition goal
    - **OSD non-concurred with goal, but agreed we need to measure annually**
  - Identify & apply factors that contribute to likelihood of technology transition success more consistently across the program
    - **OSD concurred, ‘transition practices’ published**


Distribution Statement A. Approved for public release
RIF: Points of Contact & Additional References
# Key DoD POCs

![Welcome to the RIF Fort](http://defenseinnovationmarketplace.mil/RIF.html)

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<th>Focal Point</th>
<th>Office</th>
<th>Phone</th>
<th>Email</th>
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</thead>
<tbody>
<tr>
<td>Ellen Purdy</td>
<td>OSD (R&amp;E) EC&amp;P</td>
<td>571-372-7545</td>
<td><a href="mailto:ellen.m.purdy.civ@mail.mil">ellen.m.purdy.civ@mail.mil</a></td>
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<td>OSD (OSBP)</td>
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<td><a href="mailto:theodore.j.bujewski.civ@mail.mil">theodore.j.bujewski.civ@mail.mil</a></td>
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<tr>
<td>Rob Saunders</td>
<td>Army (ASA/ALT)</td>
<td>703-617-0279</td>
<td><a href="mailto:robert.m.saunders14.civ@mail.mil">robert.m.saunders14.civ@mail.mil</a></td>
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<td>Scott Bartlett</td>
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<td>301-227-2388</td>
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<td>Bill McCluskey</td>
<td>AF (SAF)</td>
<td>571-256-0304</td>
<td><a href="mailto:william.j.mccluskey.civ@mail.mil">william.j.mccluskey.civ@mail.mil</a></td>
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<td>Dan Jarrell</td>
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Additional Info / Resources (1 of 3)


**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
Doing Business Across the Federal Agencies

http://www.sba.gov

• Starting & Managing a Business
• Loan Programs & Grants Assistance
• Contracting with the Federal Government
  o Contracting Resources for Small Businesses
  o Government Contract Field Activities
  o Partnership Agreements

• Learning Center
  o Understanding Your Customer
  o Marketing Research
  o Legal for Small Businesses
  o Patents, Trademarks, Copyrights
  o Finding & Attracting Investors

• Local Assistance
  o SBA Regional & District Offices
  o Small Business Development Centers
  o Export Assistance Centers
  o Procurement Technical Assistance Centers

Additional Info / Resources (2 of 3)
Small Business Administration (SBA)
Doing Business with the Department of Defense

http://business.defense.gov

- Guides on Marketing to Defense
- Programs for Small Business
  - SBIR / STTR
  - Mentor Protégé
  - Indian Incentive Program
  - RIF
  - Velociter
  - STEM
- Contracting with Defense
- Small Business Training
- Conferences & Workshops
- Frequently Asked Questions
- “How-to” Guide, link below:
  

Talk to a Small Business Program Expert


- Links to other DoD Small Business Offices