

Rapid Innovation Fund (RIF) Program



Overview: June 2015

Distribution Statement A. Approved for public release



Background



- **Established by the Fiscal Year 2011 National Defense Authorization Act (Section 1073)**
 - **A competitive, merit-based program**
 - **Accelerate fielding of innovative technologies into military systems**

*Transition Small Business Technologies
into Defense Acquisition Programs*



Key Requirements



- ***Proposals or Projects:***

- **Satisfy an operational or national security need**
 - Accelerate or enhance military capability
 - In support of major defense acquisition program
- **Reduce:**
 - Technical risk
 - Cost: Development, acquisition, sustainment, or lifecycle
- **Completed within 24 months of award**
- **Cost is not more than \$3 million**

Selection Preference to Small Business Proposals



Implementation Strategy



- ***Competitive, Merit-Based Two-Step Process***

- ***Step 1:***

- Issue Broad Agency Announcements (BAAs)
- Industry Response: 3 - 5 page White Paper + Quad Chart
- Evaluations are “Go” or “No Go”

- ***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:***

- Federal Business Opportunities: www.FedBizOpps.gov
- Research & Engineering Defense Innovation Marketplace



RIF Interest & Workload

FY 2011 – 2014 Summary



Funds: > \$1B (Research & Development)

Extremely Competitive Source Selection:

- 13 solicitations (BAAs)
- 19 Defense Components (Services & Agencies)
- 10,800+ White Paper Proposals
- 600+ Full Proposals
- 367 Contract Awards (FY11-13 funds)
 - 329 awards to Small Businesses (90%)



RIF Demand & Stats

FY 2011 – 2015 (By Year)



	FY 2011 (Actual)	FY 2012 (Actual)	FY 2013 (Actual)	FY 2014 (Act. or Est.)	FY 2015 (Est.)
Appropriated	\$439M	\$200M	\$250M	\$175M	\$225M
Available	\$432M	\$187M	\$225M	\$175M	\$225M
DoD Participants	7	10	16	19	17
BAAs Issued	A, N, AF, OSD	A, N, AF, OSD	A, N, AF, OSD	OSD (single BAA)	OSD (single BAA)
White Papers Submitted	3,626	2,405	2763	2,292	TBD
Full Proposals	268	126	235	149	TBD
Awards	175	86	104	70-80	
- Small Biz	95%	85%	85%	TBD	TBD
- SBIR	80%	75%	70%	TBD	
Avg. Project	\$2.2M	\$2.1M	\$2.1M	TBD	TBD



FY 2015 Defense Participants



- **Military Departments:** Army, Navy & Air Force
- **Defense Agencies / OSD Activities (4th Estate):**
 - Chief Information Officer / Defense Information Systems Agency
 - Defense Threat Reduction Agency
 - Missile Defense Agency
 - Defense Logistics Agency
 - National Reconnaissance Office
 - Defense Intelligence Agency
 - Combating Terrorism Technical Support Office
 - Joint S&T Office for Chemical and Biological Defense
 - Deputy Assistant Secretary of Defense (Emerging Capabilities & Prototyping)
 - Deputy Assistant Secretary of Defense (Manufacturing & Industrial Base Policy)
- **Combatant Commands (CCMDs)**
 - U.S. Northern Command / North American Aerospace Defense Command
 - U.S. Pacific Command
 - U.S. Southern Command
 - U.S. Special Operations Command

- 17 Defense Activities
- 229 Defense Requirements
 - Army: 40
 - Navy: 37
 - Air Force: 108
 - OSD / Defense Agency: 44



RIF FY 15 BAA: Service “Acquisition” Participants



Army

- Acquisition Program Executive Offices (PEOs) & Program Managers (PMs)
 - 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)
 - Commo-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)

Navy

- Acquisition Program Executive Offices (PEOs) & Program Managers (PMs)
 - Naval Air Systems Cmd. (NAVAIR)
 - F-35 Joint Strike Fighter
 - Tactical UAS Rotary Wing Aircraft
 - Strike Planning & Execution Systems
 - Aviation Anti-Submarine Warfare
 - Aircrew Systems
 - Naval Aviation Training Systems
 - Naval Sea Systems Cmd. (NAVSEA)
 - Aircraft Carriers
 - Integrated Warfare Systems
 - Littoral Combat Ship
 - Ships / Submarines
 - Special Warfare
 - Space & Naval Warfare Systems Cmd. (SPAWAR)
 - Command, Control, Commo & Integration
 - Enterprise & Integrated Systems
 - Space Systems
 - Marine Corp (MARCOR)
 - Armor & Fire Support
 - Marine Air-Ground Task Force
 - Combat Support Systems
 - Infantry Weapons Systems
 - Intel, Tactical Remote Sensor System
 - Air Command & Control Systems
 - Land Systems
- Other Activities
 - Naval Supply Systems Command
 - Navy Strategic Systems Programs
 - Naval Facilities Engineering Command

Air Force

- Acquisition Program Executive Offices (PEOs) & Program Managers (PMs)
 - Agile Combat Support
 - Battle Management
 - Command, Control, Communications, Integration & Network
 - Fighter / Bomber
 - Joint Strike Fighter
 - Mobility
 - Space
 - Strategic Systems
 - Weapons
 - Intelligence, Surveillance Reconnaissance & Special Operation Forces
- Other Activities
 - Air Force Life Cycle Management Center
 - Air Force Test Center
 - Air Force Propulsion Directorate
 - Air Force Sustainment Center
 - 412 Test Wing
 - 96 Test Wing



Elements of a Good Proposal (1 of 2)

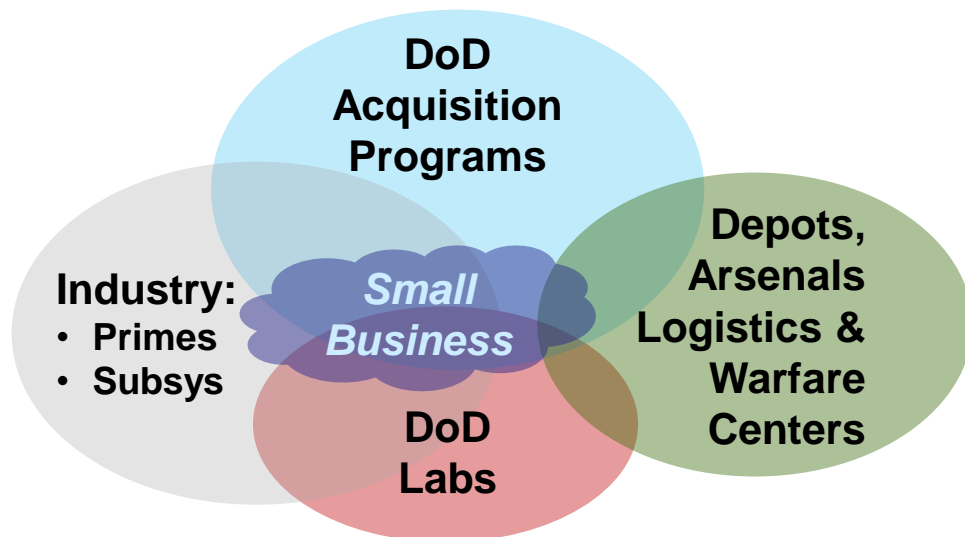


- Responds to a BAA requirement
- Relationship in place with key customers, or otherwise have an ability to reach-out and establish links -
 - DoD acquisition buyers / Program Executive Offices or Program Managers, depots, logistics or warfare centers
 - DoD prime or subsystem contractor who integrates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





Elements of a Good Proposal (2 of 2)



Technology Readiness Level (TRL)

4 Component and/or breadboard validation in a laboratory environment

5 Component and/or breadboard validation in a relevant environment

- **Maturity Goal: TRL 6 – 9**
- **Lower TRL accepted 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

Technology Readiness Assessment Guidance - -
<http://www.acq.osd.mil/ddre/publications/docs/TRA2011.pdf>



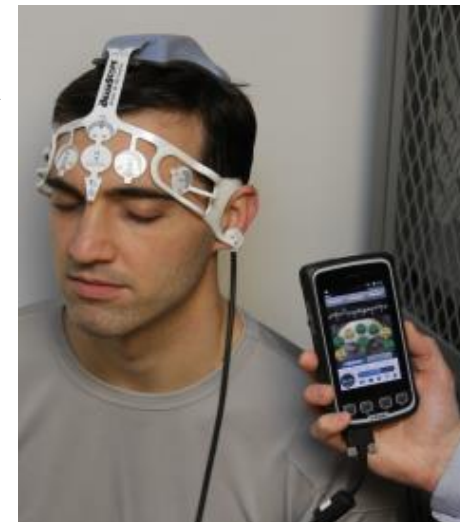
Success Stories

Army Examples (1 of 4)

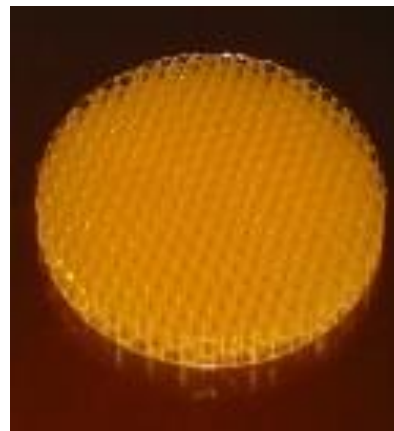


- **Quantitative Electroencephalogram (qEEG).** A pocket-size EEG for assessing Traumatic Brain Injury (TBI), providing forward-based medical diagnosis of neurological injury compatible with X-ray computed tomography (Brainscope Company Inc)

BrainScopeAhead
200 Received FDA
Clearance



- **Advanced Honeycomb-Core Helmet Pads.** An improved design to replace current helmet inserts, effectively providing a suspension system that softens blunt impact, reducing injury and mitigating TBI (TIAX, LLC)



Combat Helmet
Suspension System

Soldier Protection
System (SPS) Helmet





Success Stories

Navy Examples (2 of 4)



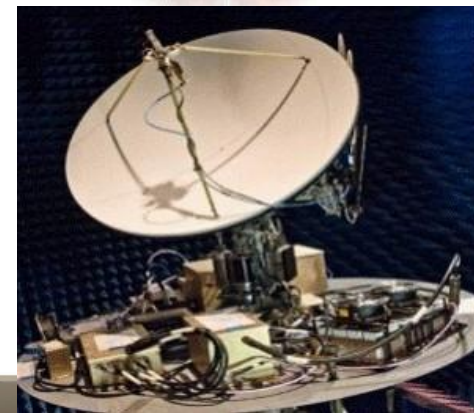
- ***Wireless Vibration Recorder.*** Handheld, compact diagnostic tool that records up to 4 hours of aircraft vibration data, enabling faster maintenance in diagnosing aircraft component failure, shortening downtime and reducing flight costs (Mide Technology)



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

- ***Extended Frequency Range Wide Band Radio Frequency Distribution System.*** A shipboard mast-mounted communications component that filters & blanks interfering signals so very low power signals of interest can be received. Fielded on Ships Signal Exploitation Equipment (SSEE) antenna (Out of the Fog Research, LLC)

SSEE
High
Gain
Antenna



Radio
Frequency
Control Unit
(RFCU)



Success Stories

Air Force Examples (3 of 4)

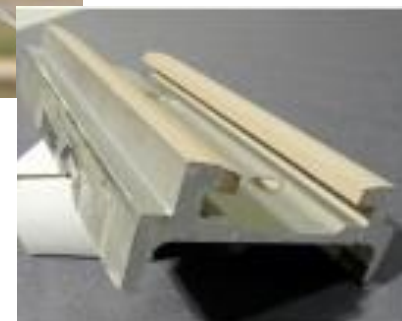


- ***Plasma Electrolytic Oxidation Nano-Ceramic Coating.*** Improved coating with additive manufacturing technology that improves the life and wear of missile launcher rails for F-15, F-16, and F/A-18 aircraft, reducing maintenance and downtime costs (IBC Materials and Technologies, Inc)



AMRAAM Missile Launcher Rail

Improved coating on missile rail surfaces: 10x improved wear



- ***Integrally Bladed Rotor (IBR) Repair.*** A production-ready machine that evaluates the vibratory response of IBRs, enabling faster damage tolerance assessment and previously classified unserviceable IBR parts to be returned to service for F-119 engine overhaul (Blade Diagnostics)



Out of tolerance damage

Production system to be delivered to OC-ALC (Tinker AFB)



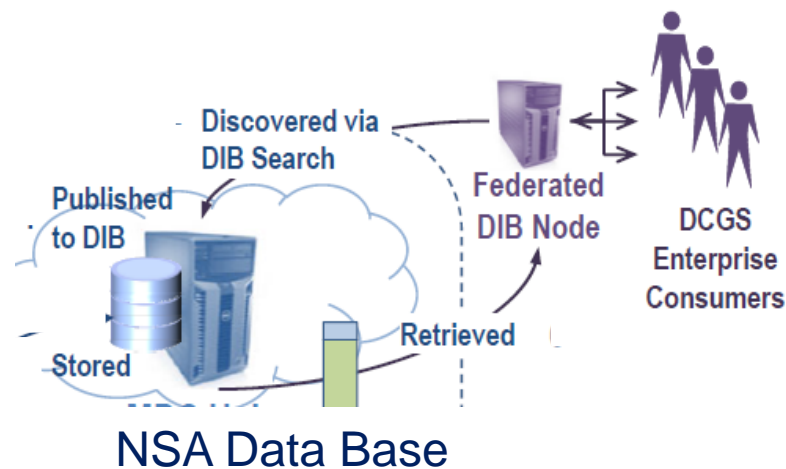


Success Stories

Defense Agency Examples (4 of 4)



- ***Shooter2DIB.*** Accelerates exploitation of intelligence by publishing SIGINT data to the Distributed Common Ground System (DCGS) Integration Backbone (DIB). Results: < 1 second to publish product after arrival at hub, transitioned to DCGS Enterprise (SOCOM & Modus Operandi, Inc)



- ***Checkpoint Explosive Detection System.*** A smaller, reduced weight system with improved stand-off distance that increases detection range for explosives for improved & safer checkpoint operations (DTRA & Alakai Defense Systems)



CPEDS-Lite System



RIF FY 2015 – 2016 (FY15 Funds) Source Selection Milestones



Date(s)		Action	As of April 10, 2015
2015	March 1	Requirements from Components, prep DRAFT BAA	
	April 15	BAA Release in FEDBIZOPPs https://www.fbo.gov/index?s=opportunity&mode=form&id=cd85175835c504efe2f3a85a3ebba525&tab=core&_cvview=0	
	June 15	BAA Closes: White Papers (WPs) due from offerors	
	NLT October 15	<ul style="list-style-type: none"> Components complete WP evaluations Initial priorities and ranking by Components 	
	NLT November 1	Components notify all offerors of WP disposition, invite full proposals	
	NLT December 1	<ul style="list-style-type: none"> Full proposals due from offerors Components start full proposal evaluations 	
2016	NLT February 1	Components complete full proposal evaluations	
	NLT March 1	Negotiations complete, contract awards	
	NLT June 1	FY15-funded RIF contract awards complete	

For Questions / Additional Information --

<http://defenseinnovationmarketplace.mil/RIF.html>

Focal Point	Office	Phone	Email
Dan Cundiff Sherry Freeman	OSD (R&E) EC&P OSD (OSBP)	571-372-6807 571-969-0660	thomas.d.cundiff.civ@mail.mil shermain.d.freeman.civ@mail.mil
Rob Saunders	Army (ASA/ALT)	703- 617-0279	robert.m.saunders14.civ@mail.mil
Tom Gallagher	Navy (ONR)	703-696-6815	thomas.j.gallagher@navy.mil
LtCol Dan Gallton John (JR) Smith	AF (SAF) AF (SAF)	571-256-0332 571-256-0316	daniel.a.gallton.mil@mail.mil johnr.smith@pentagon.af.mil



Resources for Industry: Defense Innovation Marketplace

(1 of 2)



Improve Industry Understanding of DoD Needs -- www.DefenseInnovationMarketplace.mil

HOME RESOURCES FAQs NEWS & EVENTS ABOUT CONTACT US

CONNECTING INDUSTRY & DoD

The Defense Innovation Marketplace is a centralized market research resource:

For Industry, to learn about Department of Defense (DoD) S&T/R&D investment priorities, capability needs and technology interchanges.

For Government, to access search tools to assess and then leverage industry IR&D projects for current and future programs.

INNOVATION OPPORTUNITIES

- Resources for Industry
DoD Info for Business & Program Planning
- Submit IR&D Data
Share projects with DoD Customers
- Resources for DoD
DoD employee access of IR&D Search tool

NEW IN THE MARKETPLACE

Strategic Documents

- Chairman's 2nd Term Strategic Overview "NEW"
- Expeditionary Force Capstone Concept "NEW"
- Release 21 Operating Principles
- Inspection 2016 Annual Review
- 2016 FY13 Budget Overview
- Army FY13 Budget Materials
- 2016 Defense Budget Priorities
- 2014 Quadrennial Defense Review

Doing Business with DoD

- Unmanned Carrier Launched Airborne Surveillance and Strike (UCAS) "NEW"
- DoD's Cyber Operations IR&D "NEW"
- 2014 ETR Solicitation "NEW"
- Consulting Technical Support (CTS) Support "NEW"
- R&D of Next Generation's Next Integrated Power Systems

News & Events

- DoD March Newsletter
- Top Downloads (Prior)
- Army Technology Magazine
- Defense at the Magazine
- Army Tactical Network Industry Seminar
- Supply Chain Resilience Integrity for Electronics Defense (Project Dog)
- DoD FY13 Budget Outline

FEEDBACK

Search Trends

What did you Miss?
Top Marketplace pages and downloads

TECHNOLOGY INTERCHANGES

Aeronautical
Dialogue with Industry and IR&D Interchange

Resources for Small Business: Rapid Innovation Fund and DoD Small Business Links

Rapid Innovation Fund (RIF)

The Rapid Innovation Fund provides a collaborative vehicle for small businesses to provide the department with innovative technologies that can be rapidly inserted into acquisition programs that meet specific defense needs. RIF is administered by the Office of the Secretary of Defense (OSD) Assistant Secretary of Defense for Research and Engineering (ASD R&E) and Office of Small Business Programs (OSBP).

DoD will issue four solicitations in FY2012, titled Rapid Innovation Fund (RIF) Small Agency Announcements (SAA). Each solicitation will list the technology areas of interest, instructions for submission of a white paper and source selection criteria. The white paper will be used as the initial basis for award determination. Firms whose white papers are selected will be invited to submit a full proposal that will be used as the basis for selection of contract awards. Bidders can submit one or more ideas to one or more of the SAAs.

RIF Awards

- FY 2011 RIF Awards (see here)
- FY 2012 RIF Awards (see here) "The Request"

Additional Information

- RIF Overview Briefing
- FY11 NSAA Language (version 10/1)
- Small Business Resources

Small Business Resources

Small Business Strategic Materials

- SBIR Reauthorization Policy
- Testimony of Mr. Andre Dalgard to the House Armed Services Committee, August 7, 2010
- STTR Pre-Solicitation Release Topics

Small Business Offices

DoD Office of Small Business Programs

Army Office of Small Business Programs

- What the Army Buys
- Army Single Face to Industry
- Small Business Development Center

Navy Office of Small Business Programs

- Find a Small Business Specialist

Air Force Office of Small Business Programs

- What the Air Force Buys
- Find an Air Force Small Business Specialist

Other Defense Agencies

- Defense Information Systems Agency
- Defense Intelligence Agency
- Defense Logistics Agency
- Defense Contract Management Agency
- Missile Defense Agency
- Defense Intelligence Agency
- National Geospatial-Intelligence Agency
- United States Special Operations Command
- Defense Threat Reduction Agency
- United States Transportation Command
- Defense Advanced Research Projects Agency
- Washington Headquarters Services

Success Stories

Click Here to read Air Force Small Business Innovation and Transition success stories.

Useful Guides and Materials

- Overview of Small Business Set-aside Programs
- DoD Guide to Contracting Opportunities
- Marketing to the DoD: The Basics
- Outbook for Facilitating Small Business Team Arrangements
- Master-Protégé Program

Opportunities

- Small Business Pavilion on the AUSA Show Floor
- Rapid Innovation Fund Overview & Updates
- Awards, Opportunities, and SBIR net
- DoD Research & Technology SBIR Opportunities
- Conferences

Other

- Small Business Administration Centers

Open Solicitations

Requests For Information/Proposals (RFIs/RFPs)

- DoD 2014A ETR Solicitation "NEW" (view results)

Talk to a DoD SBIR Expert

Marketplace: Resources for Industry

- DoD R&D Roadmaps; Investment Strategy
- Business Opportunities with the DoD
- Virtual Interchanges & Events
- Secure Portal for IR&D Project Summaries
- Top Downloads / Pages visited



Resources for Industry: Small Business Innovative Research (2 of 2)



Doing Business with the Department of Defense

<http://www.acq.osd.mil/osbp/sb/index.shtml>

- “How-To” work with Defense
- Guides on Marketing to Defense
- Programs for Small Business
 - SBIR / STTR
 - Mentor Protégé
- Contracting with Defense
- Small Business Training
- Conferences & Workshops
- Frequently Asked Questions

Talk to an Small Business Program Expert

<http://www.acq.osd.mil/osbp/sbir/contacts/sbir-contacts.shtml>

- 14 Points of Contact Across the Department of Defense