

# ***Rapid Innovation Fund (RIF) Program***



**Dan Cundiff**

**Deputy Director, Comparative Technology Office  
OASD (R&E) Emerging Capabilities & Prototyping)**

**Email: [thomas.d.cundiff.civ@mail.mil](mailto:thomas.d.cundiff.civ@mail.mil)**

**Phone: 571-372-6807**



# RIF 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*



# RIF 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***



# RIF 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](http://www.FedBizOpps.gov)**
- **Research & Engineering Defense Innovation Marketplace**

***Annual RIF Implementation Guidelines***



# RIF Interest & Workload

## FY 2011 – 2013 Summary



***Funds: \$889M (Research & Development)***

### ***Competitive Source Selection:***

- 12 solicitations (BAAs)
- 17 Defense Components (Services & Agencies)
- 8600+ White Paper Proposals
- 800+ Evaluators
- 500+ Full Proposals
- 360 Contract Awards (Estimate)
  - FY11-12 Funds: 263 contracts
    - 240 to Small Biz (91%)
  - FY13 Funds: Anticipate 95 to 105 contracts



# RIF Demand & Stats

## FY 2011 – 2014 (By Year)



	FY 2011 (Actual)	FY 2012 (Actual)	FY 2013 (Act. or Est.)	FY 2014 (Act. or Est.)
Appropriated	\$439M	\$200M	\$250M	\$175M
Available	\$432M	\$187M	\$225M	\$175M (Est)
DoD Participants	7	10	16	19
BAAs Issued	A, N, AF, OSD	A, N, AF, OSD	A, N, AF, OSD	OSD
White Papers	> 3,500	> 2,200	> 2,900 (Act)	TBD
Full Proposals	> 200	> 125	> 175 (Est)	TBD
Awards	177	86	95 -105 (Est)	TBD
- Small Biz	95%	85%	TBD	
- SBIR	80%	75%	TBD	
Avg. Project	\$2.2M	\$2.1M	TBD	TBD



# RIF FY 2014-2015 Milestones

## \$175M Appropriated to OSD



	Date(s)	Action	As Of: June 2, 2014
2014	May 23 – Jun 23	BAA Pre-Release in FEBIZOPPs • Public discussion with technical PoCs	
	Jun 24	BAA Opens, Begin Accepting White Papers • Public discussion limited to questions submitted to RIF email: questions@dodrif.com	
	Jul 9	BAA closes to new questions	
	Jul 18	Answers to all formal questions posted	
	Aug 8	<b>BAA Closes: White Papers (WPs) due from offerors</b>	
	NLT Dec 18	• Components complete WP evaluations • Initial priorities & ranking	
2015	NLT Jan 9	Notify all offerors of WP disposition, invite full proposals	
	NLT Feb 13	Full proposals due from offerors (~ 30 days after invite)	
	NLT Mar 20	Components evaluate full proposals / complete ranking	
	NLT Aug 1	Complete proposal negotiations & contract awards	

**Updates - - [http:// www.defenseinnovationmarketplace.mil/RIF.html](http://www.defenseinnovationmarketplace.mil/RIF.html)**



# FY 2014 Defense Participants



- **Military Departments: Army, Navy & Air Force**

- **OSD Activities / Defense Agencies:**

- Deputy Assistant Secretary of Defense (Emerging Capabilities & Prototyping)
- Deputy Assistant Secretary of Defense (Manufacturing & Industrial Base Policy)
- Chief Information Officer / Defense Information Systems Agency
- Defense Threat Reduction Agency
- Missile Defense Agency
- Defense Logistics Agency
- National Reconnaissance Office
- National Geospatial-Intelligence Agency
- Defense Intelligence Agency
- Defense Health Program
- Combating Terrorism Technical Support Office
- Joint S&T Office for Chemical and Biological Defense

- **Combatant Commands (CCMDs)**

- U.S. Special Operations Command
- U.S. Northern Command / North American Aerospace Defense Command
- U.S. Pacific Command
- U.S. Transportation Command

- **19 Defense Activities**
- **278 Defense Requirements**
  - **Army: 116**
  - **Navy: 34**
  - **Air Force: 88**
  - **OSD/Defense Agency: 40**



# RIF FY 14 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
  - Joint PEO for Chemical & Biological Defense
- Research & Development Centers / Other Activities
  - Aviation and Missile Research Development & Engineering Center (AMRDEC)
  - Armament Research, Development & Engineering Center (ARDEC)
  - Army Research Institute (ARI)
  - 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)

## Navy

- Acquisition Program Executive Offices (PEOs) & Program Managers (PMs)
  - Naval Air Systems Command (NAVAIR)
    - Tactical Aircraft Programs
    - Air Anti-Submarine Warfare, Assault and Special Mission Programs
    - Unmanned Aviation & Strike Weapons
    - Joint Strike Fighter
  - Naval Sea Systems Command (NAVSEA)
    - Aircraft Carriers
    - Integrated Warfare Systems
    - Littoral Combat Ship
    - Ships
    - Submarines
  - Space and Naval Warfare Systems Command (SPAWAR)
    - Command, Control, Communications & Integration
    - Enterprise & Integrated Systems
    - Space Systems
    - Fleet Readiness
  - Marine Corp Systems Command (MCSC)
- Other Activities
  - Naval Supply Systems Command
  - Navy Strategic Systems Programs
  - Naval Facilities Engineering Command
  - Navy Bureau of Medicine & Surgery

## 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
  - Space
  - Space Launch
  - 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



# Elements of a Good Proposal (1 of 2)

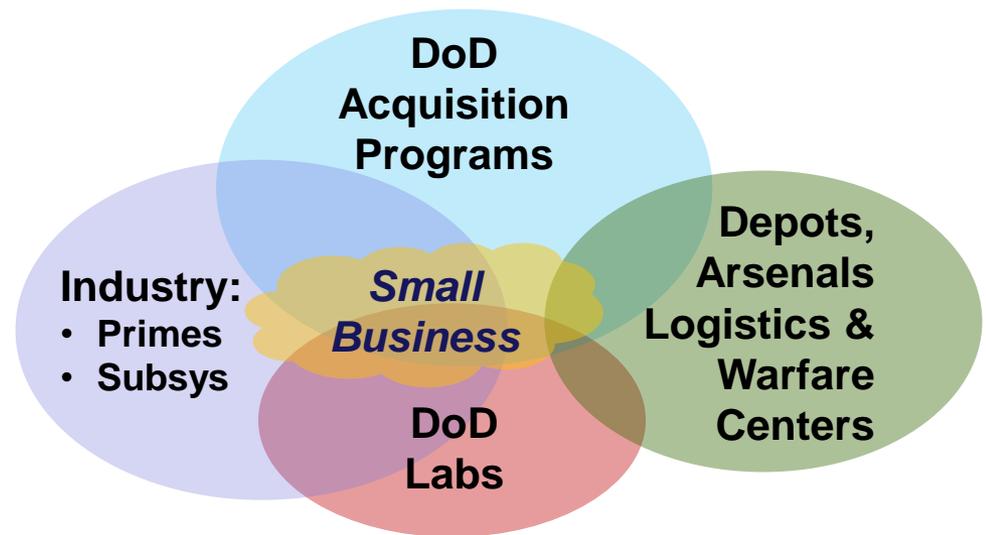


- Responds to a BAA requirement
- Relationship in place with key customers, or otherwise have an ability to reach-out and establish links -
  - DoD acquisition buyers / Program Executive Offices or Program Managers, depots, logistics or warfare centers
  - DoD prime or subsystem contractor who integrates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



# Completed Projects & Results (Army Examples)



## Advanced Combat Surveillance Kit



- A lightweight, low power sensor for unattended, localization, and tracking of dismounts and vehicles in challenging operational environments
- Detected & tracked multiple objects at over 500 meters in open terrain
- Detected dismounts up 220 meters though medium foliage when target was approaching

- Provides small unit leaders a capability for self-training in tactical command skills by expanding game-based training capabilities
  - Integrates intelligent tutoring system with games
- Software has transitioned to Officer Training at the US Military Academy, West Point, NY

Army Research Institute & Stottler Henke Associates

## Automated Intelligent Training



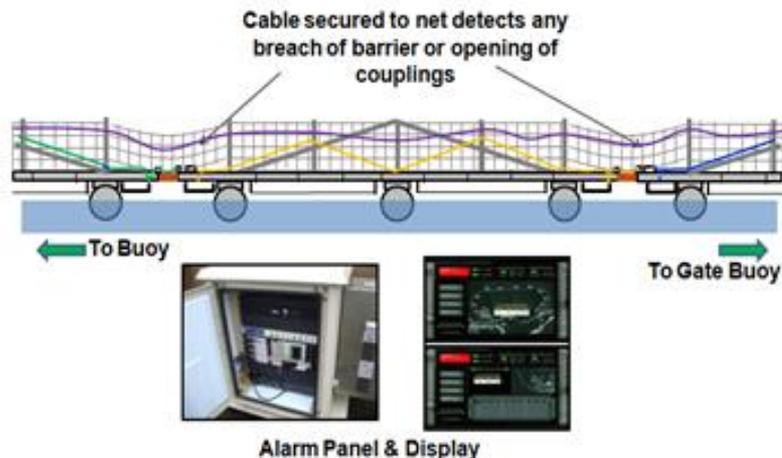


# Completed Projects & Results (Navy Examples)



## Port Security Barrier (PSB) Intrusion Detection System

Strategic Systems Programs /  
Sound & Sea Technology

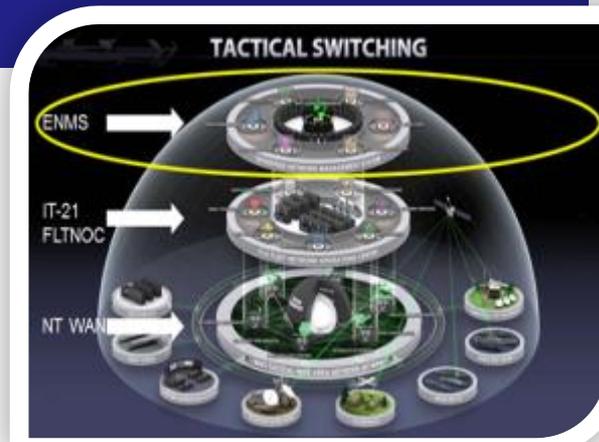


- Demonstrated fiber optic continuity sensor to monitor PSB continuity
- Optic-electronic alarm & software monitor gate conditions
  - Ensures threats cannot exploit undetected gaps
- Over \$2M budgeted to procure PIDS from FY14 to FY16 for Kings Bay, GA & Bangor, WA

SPAWAR / Referential Systems Inc

## Network Planning & Real-Time Automated Management System

- Enables more real-time management of critical network assets and ability to quickly configure network traffic
  - Visualization of network traffic flow status
  - Improved response to network alerts
  - Simplified user interfaces
- Deployed to four Fleet Network Operations Centers





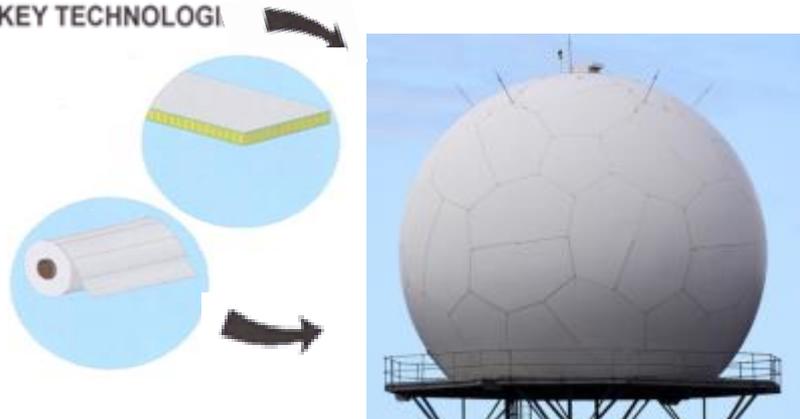
# Promising Projects (Air Force Examples)



## Advanced Composite Radomes

AF Sustainment Center / Ebert Composites Corp

INTEGRATING TWO  
KEY TECHNOLOGI



- Combines innovative advancements in 3D thermoplastic fibers and hydrophobic film to eliminate delamination issues
- Developed one-step pultrusion process that creates spherical shape needed for radome panels
- Full scale prototype (Summer 2014)

AF PEO C3I & Networks /  
Windmill International Inc.

## Lightweight Tactical Suitcase Portable Receive Suite

- Enables deployed military forces to access Global Broadcast System (GBS) for satellite imagery, weather info, map data, classified and unclassified intelligence
- Several hundred expected to be ordered, primarily for special forces

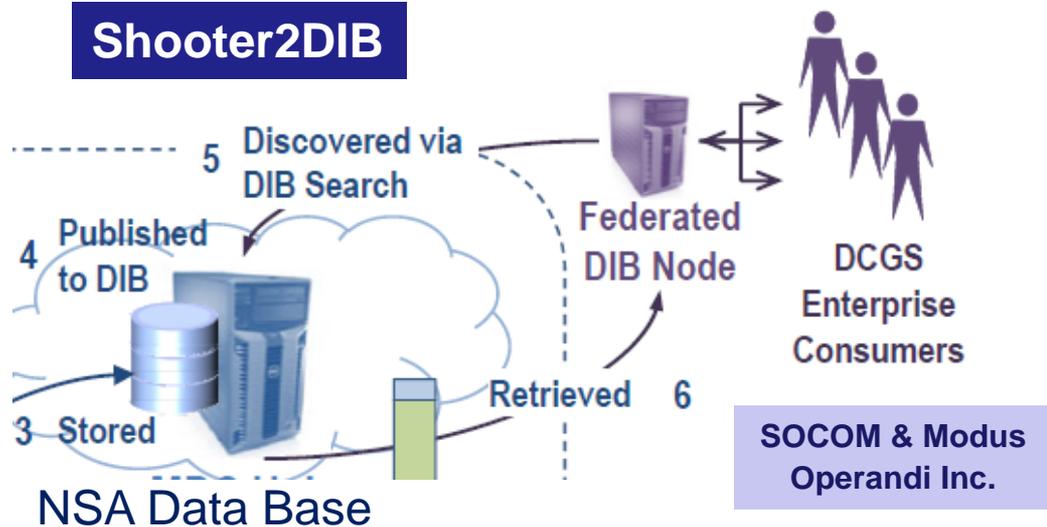




# Completed Projects & Results (Defense Agency Examples)



## Shooter2DIB



- Accelerates exploitation of intelligence by publishing Signal Intelligence data to the DCGS Integration Backbone (DIB)
- Capability transitioned to the Distributed Common Ground System (DCGS) Management Office for the DCGS Enterprise

## SOCOM & Systema Technologies, Inc

- Doubles the number of targets that can be attacked from a single CLT while maintaining the overall system
- Smaller warheads combined with precision delivery minimizes collateral damage
- Transitioned to CLT Program of Record

## Multi-Missile Common Launch Tube (CLT)



# ***For Questions / Additional Information --***

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

<b>DoD Focal Point</b>	<b>Office</b>	<b>Phone</b>	<b>Email</b>
<b>Dan Cundiff</b>	<b>OSD (R&amp;E) RF</b>	<b>571-372-6807</b>	<b>thomas.d.cundiff.civ@mail.mil</b>
<b>CAPT Dick Balzano</b>	<b>OSD (OSBP)</b>	<b>571-256-7785</b>	<b>richard.a.balzano.mil@mail.mil</b>
<b>Rob Saunders</b>	<b>Army (ASA/ALT)</b>	<b>703- 617-0279</b>	<b>robert.m.saunders14.civ@mail.mil</b>
<b>Bob Smith</b>	<b>Navy (ONR )</b>	<b>703-696-7954</b>	<b>robert.l.smith6@navy.mil</b>
<b>LtCol Greg Barnett</b>	<b>AF (SAF)</b>	<b>571-256-0332</b>	<b>gregory.d.barnett4.mil@mail.mil</b>



# Resources for Industry: Defense Innovation Marketplace

(1 of 2)



## Improve Industry Understanding of DoD Needs -- [www.DefenseInnovationMarketplace.mil](http://www.DefenseInnovationMarketplace.mil)

**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
- Submit IR&D Data
- Resources for DoD

**NEW IN THE MARKETPLACE**

- Strategic Documents**
  - Chairman's 2nd Term Strategic Overview "NEW"
  - Operational Forces Capstone Concept "NEW"
  - Release 21 Operating Principles
  - Procision 2024 Annual Review
  - 2019 FY18 Budget Overview
  - 2019 FY18 Budget Materials
  - 2018 Defense Budget Priorities
  - 2014 Quadrennial Defense Review
- Doing Business with DoD**
  - Unmanned Carrier Launched Airborne Surveillance and Strike (UCAS) "NEW"
  - Quikie Cyberops Operations IR&D "NEW"
  - 2014 A-109 Solicitation "NEW"
  - Consulting Transition Technical Support (CTTS) Support "NEW"
  - R&D of Next Generational Naval Integrated Power Systems
- News & Events**
  - Gold March Newsletter
  - Top Downloads (Full list)
  - Army Technology Magazine
  - Defense 21 Bio Magazine
  - Army Tactical Network Industry Seminar
  - Supply Chain Resilience Integrity for Electronics Defense (Project Dog)
  - DoD FY18 Budget Outline

**FEEDBACK**

Search Trends

What did you Miss? Top Marketplace pages and downloads

**TECHNOLOGY INTERCHANGES**

Aeronautical

## 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)

### Additional Information

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

**Small Business Resources**

**Small Business Strategic Materials**

- OSBP Reauthorization Policy
- Testimony of Mr. Andre Dalgard to the House Armed Services Committee, August 7, 2012
- OSTR 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 2014 A-109 Solicitation "NEW" (view details)

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