Department of Homeland Security
Small Business Innovation Research (SBIR) Programs

Gaylord Hotel
National Harbor, MD

Elissa I. Sobolewski
DHS SBIR Program Director

Homeland Security Missions

- Preventing Terrorism and Enhancing Security
- Securing and Managing Our Borders
- Enforcing and Administering Our Immigration Laws
- Safeguarding and Securing Cyberspace
- Ensuring Resilience to Disasters
- Providing Essential Support to National and Economic Security
DHS Percent of Total Budget Authority by Organization, FY12

<table>
<thead>
<tr>
<th>Organization</th>
<th>Percent of Total Budget Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customs and Border Protection (CBP)</td>
<td>21%</td>
</tr>
<tr>
<td>U.S. Coast Guard (USCG)</td>
<td>18%</td>
</tr>
<tr>
<td>Transportation Security Administration (TSA)</td>
<td>14%</td>
</tr>
<tr>
<td>Federal Emergency Management Agency (FEMA)</td>
<td>11%</td>
</tr>
<tr>
<td>Immigration and Customs Enforcement (ICE)</td>
<td>10%</td>
</tr>
<tr>
<td>FEMA Grants</td>
<td>7%</td>
</tr>
<tr>
<td>U.S. Citizenship and Immigration Services (USCIS)</td>
<td>5%</td>
</tr>
<tr>
<td>National Protection and Programs Directorate (NPPD)</td>
<td>4%</td>
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<tr>
<td>U.S. Secret Service (USSS)</td>
<td>3%</td>
</tr>
<tr>
<td>Science and Technology Directorate (S&amp;T)</td>
<td>2%</td>
</tr>
<tr>
<td>Domestic Nuclear Detection Office (DNDO)</td>
<td>1%</td>
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<tr>
<td>Department Operations (Dept. Ops)</td>
<td>2%</td>
</tr>
<tr>
<td>Federal Law Enforcement Training Center (FLETC);</td>
<td>1%</td>
</tr>
<tr>
<td>Office of Inspector General (OIG); and Office of</td>
<td></td>
</tr>
<tr>
<td>Health Affairs (OHA)</td>
<td></td>
</tr>
<tr>
<td>Analysis and Operations (A&amp;O)</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: FY12 Budget in Brief
Domestic Nuclear Detection Office

Jointly staffed office established on 15 April 2005 with the signing of NSPD 43 / HSPD 14.

Established to improve the Nation’s capability to detect and report unauthorized attempts to import, possess, store, develop, or transport nuclear or radiological material for use against the Nation, and to further enhance this capability over time.

Transformational & Applied Research Directorate

- **Mission:** develop break-through technologies that will have a dramatic impact on capabilities to detect nuclear threats through an aggressive and expedited research and development (R&D) program
- **Objectives:**
  - Address gaps in the Global Nuclear Detection Architecture (GNDA)
  - Improve performance, cost, and operational burden of detectors and systems
  - Include industry, national laboratories and academia
  - Coordinate with intra/interagency R&D organizations
  - Transition successful technologies to system development, acquisition, and deployment or commercialization
- **Organization:**
  - Exploratory Research Program (ERP)
  - Small Business Innovative Research (SBIR)
  - Academic Research Initiative (ARI)
  - Advanced Technology Demonstration (ATD)
DHS S&T Directorate Mission

*Strengthen America’s security and resilience by providing knowledge products and innovative technology solutions for the Homeland Security Enterprise*

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DHS S&T Directorate’s First Responders Group

- **Support to the Homeland Security Enterprise and First Responders Group (FRG)**
  - Engages first responders to better understand their needs
  - Develops innovative solutions to address their most pressing challenges, from small- to large-scale emergencies
  - Helps practitioners identify requirements for transition to use
DHS S&T’s Technical Divisions – HSARPA

(Homeland Security Advanced Research Projects Agency)

- **Borders and Maritime Security Division** - Prevent contraband, criminals and terrorists from entering the U.S. while permitting the lawful flow of commerce and visitors

- **Chemical/Biological Defense Division** - Detect, protect against, respond to, and recover from potential biological or chemical events

- **Cyber Security Division** - Create a safe, secure and resilient cyber environment

- **Explosives Division** - Detect, prevent and mitigate explosives attacks against people and infrastructure

- **Resilient Systems Division** – Strengthen resilience to all hazard disasters

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**DHS SBIR – A Three-Phase Program**

**Phase I:**
Scientific and Technical Feasibility/Study

- Funded with SBIR funds, 33% may be outsourced
- Not to exceed 6 months in duration
- Up to an additional $5,000 per year may be proposed for Technical Assistance
- $100,000 for S&T Directorate’s SBIR
- $150,000 for DNDO’s SBIR

**Phase II:**
Full Research/R&D Prototype Demonstration

- Funded with SBIR funds, 50% may be outsourced
- Generally 24 months in duration
- Up to an additional $5,000 per year may be proposed for Technical Assistance
- $750K for base effort for S&T Directorate’s SBIR
  - Potential for additional $250,000 for Phase IIB
- $1,000,000 for DNDO’s SBIR

**Phase III:**
Commercialization Stage
*(non SBIR funds)*

- Funded with private or non-SBIR government sources
- No dollar or time limits
- Size standards do not apply
- For work that derives from, furthers the Phase I/Phase II effort, or brings to conclusion
- Can be sole-sourced; competition determined in Phase I
DHS SBIR: Treated as a Federal Procurement

- Subject to the Federal Acquisition Regulations (FARs)
- Topics are determined by the government
- Announcements and solicitations in FedBizOpps
- Federal employee review panels, source selection authority
- Cost plus fixed fee contracts subject to a DCAA audit

DHS issues contracts, not grants, for its SBIR awards

DHS SBIR Historical Conversion Rates, FY04 –FY12

- ~ 17% of the 3,019 Phase I submissions received awards
- Then, ~ 38% of Phase I awards received a Phase II award
- And ~ 22% of Phase II projects received Phase III funding
  ➢ ~ $62.9M non-SBIR investment

DHS SBIR is a highly competitive process; award recipients are moving towards commercialization.
How “Small” is the SBC that Proposes to and Receives Awards from the DHS S&T SBIR Program?

(FY04.2 – FY13.1 data)

63% Phase I submissions from SBCs with fewer than 24 employees

49% Phase I awards to SBCs with fewer than 24 employees

DHS SBIR Phase I: A National Perspective

Data through FY13.1*

Total Phase I Submissions/Awards

3,083/519

*Includes STTR data

Submissions from 50 states, plus DC and Puerto Rico

Awards in 42 states

*Does not include DNDO data
Evidence that DHS SBIR-funded Technology has Helped Enable U.S. Small Businesses to be Successful and Profitable

- 345 companies in 42 states have received DHS SBIR funding
- 24 companies filed for patents *
  - 26 patents granted; 15 patents filed but not yet granted
- 40 commercial products in the market **

* data from 54 of 78 companies responding as of Fall 2010
** data from the 2013 survey (includes standalone products, active licenses, products with DHS technology incorporated

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**SBIR Companies: 31 Merger and Acquisition Activities**

<table>
<thead>
<tr>
<th>SBIR Company</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Access Data Corporation</td>
<td>Merged with CT Summation, 2010 New company is AccessData Group, LLC</td>
</tr>
<tr>
<td>Acoustech Corporation</td>
<td>Acquired by Applied Physical Sciences, 2006</td>
</tr>
<tr>
<td>Aculight Corporation</td>
<td>Acquired by Lockheed Martin, 2008</td>
</tr>
<tr>
<td>AETC, Inc.</td>
<td>Acquired by SAIC, 2006</td>
</tr>
<tr>
<td>CounterStorm, Inc.</td>
<td>Acquired by Trusted Computer Solutions (TCS), 2008 TCS was acquired by Raytheon, 2010</td>
</tr>
<tr>
<td>Crucial Security, Inc.</td>
<td>Acquired by Harris Corporation, 2009</td>
</tr>
<tr>
<td>Dolphin Technology, Inc.</td>
<td>Acquired by ITT Corporation, 2007</td>
</tr>
<tr>
<td>Endevor Security, Inc.</td>
<td>Acquired by McAfee, 2009</td>
</tr>
<tr>
<td>Endevor Systems, Inc.</td>
<td>Acquired by TELESIS Corporation , 2012</td>
</tr>
<tr>
<td>Geospatial Systems, Inc.</td>
<td>Acquired by Optech Incorporated, 2010</td>
</tr>
<tr>
<td>Harris Acoustic Products Corp.</td>
<td>Acquired by Ultra Electronics Holdings PLC, 2008</td>
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<tr>
<td>Komoku, Inc.</td>
<td>Acquired by Microsoft Corporation, 2008</td>
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<tr>
<td>Lynntech, Inc.</td>
<td>Acquired by Astin Partners, 2007</td>
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</tbody>
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<td>Maxion Technologies, Inc.</td>
<td>Acquired by Physical Sciences Inc., 2009</td>
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<tr>
<td>MesoSystems Technology, Inc.</td>
<td>Acquired by ICx Technologies, 2005</td>
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<tr>
<td>Nomadics, Inc.</td>
<td>Acquired by ICx Technologies, 2005</td>
</tr>
<tr>
<td>PercepTek, Inc.</td>
<td>Acquired by Lockheed Martin, 2007</td>
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<tr>
<td>Picometrix LLC</td>
<td>Acquired by Advanced Photonix, Inc., 2005</td>
</tr>
<tr>
<td>Rhobotika, LLC</td>
<td>Acquired by Neya Systems, LLC, 2012</td>
</tr>
<tr>
<td>S5 Wireless, Inc.</td>
<td>Acquired by Recon Dynamics LLC, 2010</td>
</tr>
<tr>
<td>Seahawk Biosystems Corporation</td>
<td>Purchased by Tetracore Inc., 2008 Operates as a subsidiary of Tetracore, Inc.</td>
</tr>
<tr>
<td>Solidcore</td>
<td>Acquired by McAfee, 2009</td>
</tr>
<tr>
<td>SpaceMicro, Inc.</td>
<td>Formed a new subsidiary, 2008 New subsidiary is SD Technologies, Inc. (SDTI)</td>
</tr>
<tr>
<td>SPADAC, Inc.</td>
<td>Acquired by GeoEye Inc., 2010 Merged with Digital Global (DGI), January 2013</td>
</tr>
<tr>
<td>Syagen Technology, Inc.</td>
<td>Acquired by Morpho Detection, 2011</td>
</tr>
<tr>
<td>Terra Research, Inc.</td>
<td>Acquired by McAulay-Brown Inc., 2008</td>
</tr>
<tr>
<td>Vista Research, Inc.</td>
<td>Acquired by Raven Industries, 2012</td>
</tr>
</tbody>
</table>

[https://sbir2.st.dhs.gov](https://sbir2.st.dhs.gov)
Useful Web Sites and DHS SBIR Points of Contact

Useful Web Sites

- https://sbir2.st.dhs.gov
- https://baa2.st.dhs.gov
- http://www.dhs.gov
- https://www.fbo.gov
- http://www.sbir.gov

Elissa (Lisa) Sobolewski
DHS SBIR Program Director
elissa.sobolewski@hq.dhs.gov
(202) 254-6768

Francis (Frank) Barros
DHS S&T Directorate SBIR Program Analyst
francis.barros@hq.dhs.gov
(202) 254-6966

S&T Directorate SBIR Program Inquiries
STSBIR.PROGRAM@hq.dhs.gov

Kevin Gutierrez
DHS DNDO Program Manager
kevin.gutierrez@hq.dhs.gov
(202) 254-7610

DNDO Program Inquiries
dndo.info@hq.dhs.gov

To report SBIR fraud, waste and abuse:
- Email: dhsoighotline@hq.dhs.gov
- Anonymous Hotline: 1-800-323-8603
- Fax: 202-254-4292
- Mail: DHS Office of Inspector General/Mail Stop 2600,
  Attn: Office of Investigations-Hotline,
  245 Murray Drive SW, Building 410
  Washington, DC 20528

Other Opportunities within the S&T Directorate

- S&T Directorate Broad Agency Announcements (BAAs),
  including the Long Range BAA
  - LR BAA is DHSS-TLRBAA12-07
    - covers HSARPA divisions and the First Responder Group
    - ~ 65 technical areas
    - https://baa2.st.dhs.gov

- Safety Act

Homeland Security
SAFETY Act
Support Anti-Terrorism by Fostering Effective Technologies Act of 2002

- Enables the development and deployment of qualified anti-terrorism technologies
- Provides important legal liability protections for manufacturers and sellers of effective technologies
- Removes barriers to industry investments in new and unique technologies
- Creates market incentives for industry to invest in measures to enhance our homeland security
- The SAFETY Act liability protections apply to a vast range of technologies, including:
  - Products
  - Services
  - Software and other forms of intellectual property (IP)

Examples of eligible technologies:
- Threat and vulnerability assessment services
- Detection Systems
- Blast Mitigation Materials
- Screening Services
- Sensors and Sensor Integration
- Vaccines
- Metal Detectors
- Decision Support Software
- Security Services
- Data Mining Software

Protecting You, Protecting U.S.

Questions?

Homeland Security

https://www.safetyact.gov