

Pipeline Safety Research and Development Program

Advisory Committee Update

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Office of Pipeline Safety

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Outline:

Where have we been?

Pipeline Safety Improvement Act of 2002
Blue Ribbon Panel Meeting and R&D Forums
BAA #1-3 topics, budgets and totals

What are we doing now?

BAA #4
Paperless Management Information System
Research Performance Measures

What are our future plans?

Implementation of PSIA 2002
Future is bright!



Where Have We Been?



Pipeline Safety Improvement Act (PSIA) of 2002

Required Departments of Transportation and Energy (DOT and DOE) and National Institute for Standards and Technology (NIST) to carry out a pipeline research, development, demonstration, and standardization program.

- Develop a five-year research program plan that will guide each agency's pipeline Research
- Establish memorandum of understanding detailing each agency's research responsibilities
 - Consult with other government agencies, the pipeline industry, researchers, and others during the development of the plan and in selecting and prioritizing projects
- Obtain review and comment of the Pipeline Safety Advisory Committees



Update on PSIA 2002 Activities...

Five-Year Research Program Plan

- DOT worked over the past year with DOE, NIST and the Minerals Management Service to draft the proposed 5-year plan.
- This plan is currently in the approval process within DOT and should be submitted to Congress shortly.



Update on PSIA 2002 Activities...

Memorandum of Understanding (MOU)

- DOT's, Office of Pipeline Safety (OPS) led an effort including the DOE, and the NIST and completed a draft MOU in April 2003.
- The MOU is due to be signed off in early February 2004.



Update on PSIA 2002 Activities...

Obtain review and comment of the Pipeline Safety Advisory Committees

- The Technical Pipeline Safety Standards Committee (TPSSC) and the Technical Hazardous Liquid Pipeline Safety Standards Committee (THLPSSC) reviewed the outline for the 5-year program plan as it was being developed.
- The comments of the both Technical Standards Committees were included in summary form in the 5-year program plan being submitted to Congress



OPS R&D Blue Ribbon Panel

Meeting Held in Washington, DC, June 10, 2003

Panel was comprised of various stakeholders...

DOE MMS NIST NARUC SSEB NACE AOPL AGA APGA
INGAA GTI PRCI API

The purpose of the meeting was:

1. Thank panel members for past efforts on improving the OPS R&D Program
2. Update panel on current R&D Program activities
3. Seek feedback from identified R&D Priorities
4. Illustrate candidate performance measures and seek feedback



For more information visit...
http://primis.rspa.dot.gov/rd/mtg_61003.htm

2003 Joint Government and Industry Pipeline R&D Forum

- Held in Washington, DC, December 11-12, 2003
- Organized and hosted by the OPS together with Pipeline Research Council International (PRCI) and the Gas Technology Institute (GTI)
- Over 130 representatives from various industry groups and companies, Federal, State and foreign government agencies attended

Forum Goals/Objectives

1. Identifying key challenges facing industry and government;
2. Sharing information on current research efforts, and
3. Identifying research that can help to meet the challenges



For more information visit...
http://primis.rspa.dot.gov/rd/mtg_121103.htm

2003 Joint Government and Industry Pipeline R&D Forum

Forum Outputs...

Five concurrent technical track sessions structured discussion of the key challenges:

1. New Construction, Materials, and Welding
2. Prevention
3. Detection and Assessment
4. Mitigation and Repair
5. Facilities



For more information visit...
http://primis.rspa.dot.gov/rd/mtg_121103.htm

RSPA/OPS Broad Agency Announcements (BAAs)

BAA #1 – Pipeline Damage Prevention and Leak Detection

BAA #2 – Enhance Pipeline Operations, Controls, and Monitoring

BAA #3 – Improved Material Performance and Other Pipeline
Safety Improvements



For a list of funded projects visit
<http://primis.rspa.dot.gov/rd/>

Small Business Innovation Research (SBIR) Program

- Grant Program managed by DOT VOLPE Center
- SBIR phase I awards are up to \$100K and 6 months.
- Focus on validation of theory through scientific or laboratory experimental developments
- SBIR phase II awards are by invitation only and are up to \$800k over 24 months.
- Focus on prototype development and path to commercialization

SBIR 03-RS1 - Advanced Sensors for Pipeline System Integrity Management

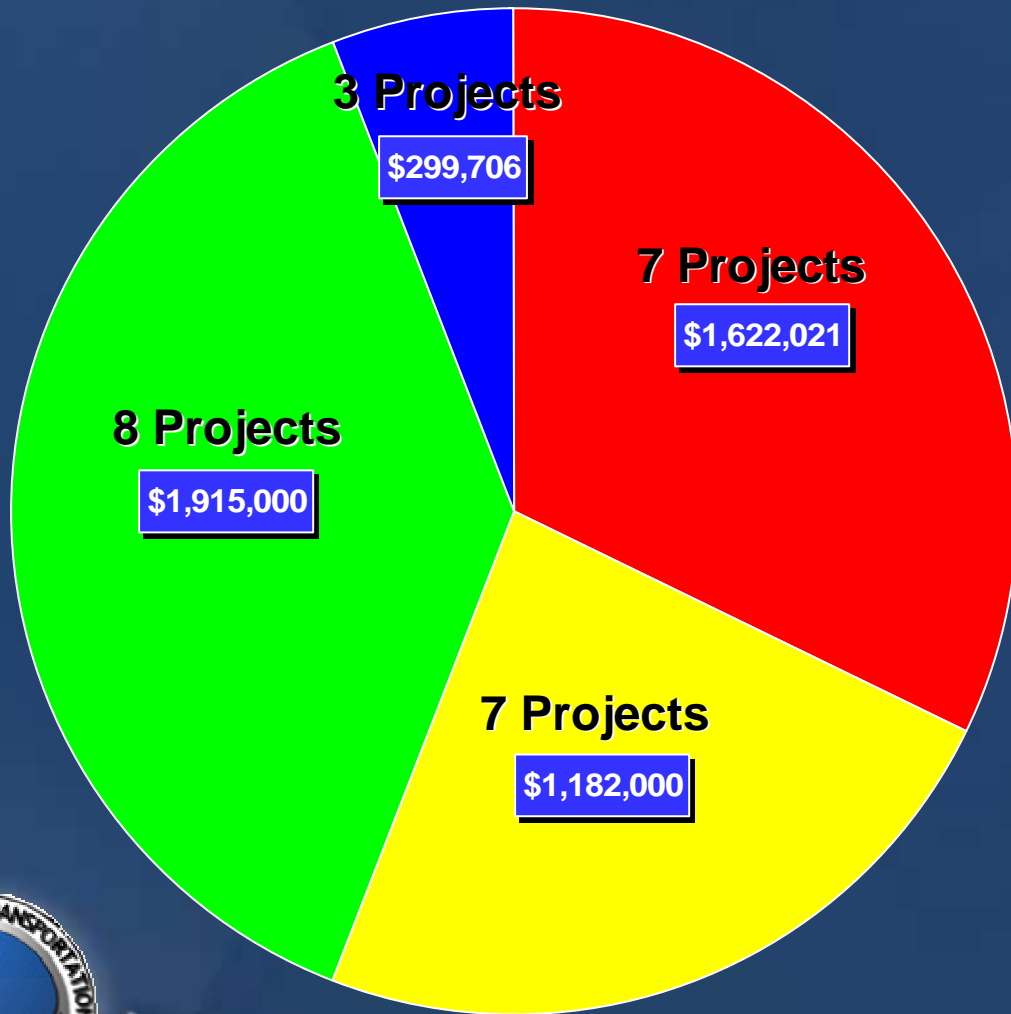
1. Infrasonic Frequency Seismic Sensor System for Pipeline Integrity Management
2. Intrinsic Distributed Fiber Optic Leak Detection
3. Piezo Structural Acoustic Pipeline Leak Detection System

FY04 SBIR February 17, 2004

<http://www.volpe.dot.gov/sbir/sol04/titles.html>



Resulting Research Projects



- BAA #1 (March 2002)
- BAA #2 (June 2002)
- BAA #3 (Dec 2002)
- SBIR (June 2003)

Total Projects Awarded
Since March 2002

25

Total OPS Funding

\$5,018,727

Total Industry Co-Funding

\$5,568,475





R&D Projects Map

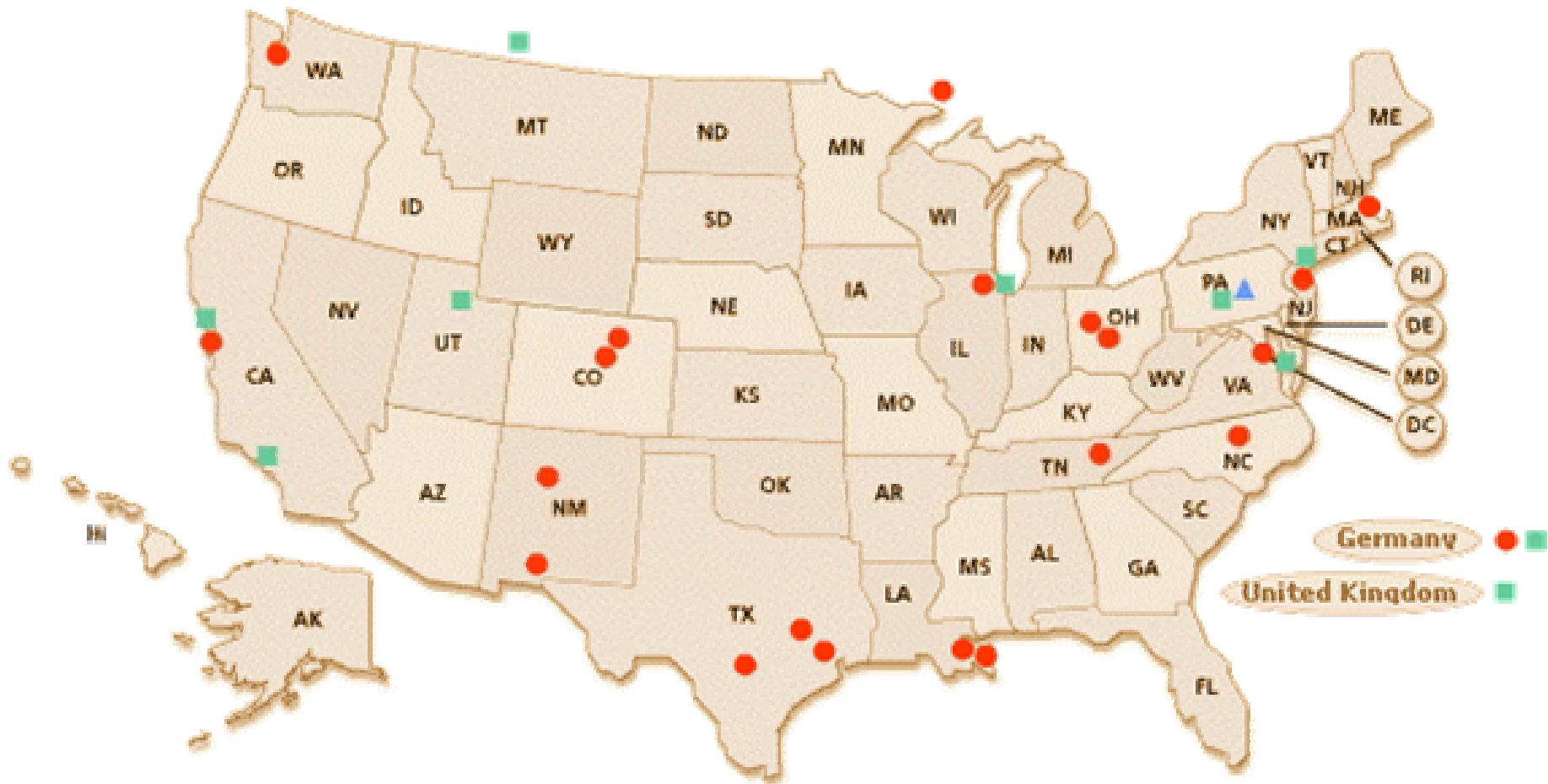
Office of Pipeline Safety
Research & Special Programs Administration

For a list of funded projects visit
<http://primis.rspa.dot.gov/matrix/>

Lead Organizations ●

Partner Organizations ■

University Partners ▲



R&D Web Site <http://primis.rspa.dot.gov/rd>

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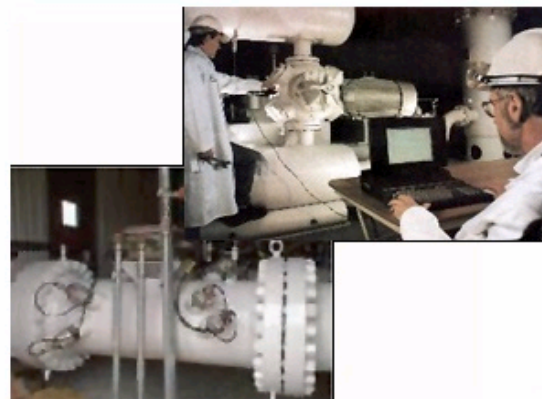
[OPS Communications](#)

Welcome to RSPA's Pipeline Safety Research and Development Website.

This site is dedicated to the coordination and dissemination of Research and Development information related to Pipeline Safety.

OPS conducts and supports research to support regulatory and enforcement activity and to provide the technical and analytical foundation necessary for planning, evaluating, and implementing the pipeline safety program. OPS is sponsoring research and development projects focused on providing near-term solutions that will increase the safety, cleanliness, and reliability of the Nation's pipeline system.

Recent R&D projects are centered on leak and damage detection and prevention of the leading causes of pipeline failure. This includes: leak detection; detection of mechanical damage; improved pipeline system controls, monitoring, and operations; and, improvements in pipeline materials. These projects are addressing technological solutions that can quickly be brought to bear to improve pipeline safety.



What are we doing now?



BAA # 4 – Posted January 7, 2004

Topics included...

- Damage Prevention; Leak Detection;
- Enhanced Pipeline Operations, Controls, and Monitoring;
- Improved Materials Performance; and
- Other Safety Improvements

Accepting White Papers for both singular topics and Consolidated R&D programs

Anticipate awarding projects totaling not more than \$3,000,000 as a result of this announcement

BAA # 4 is still open until March 5th

<http://primis.rspa.dot.gov/matrix/Rfp1.rdm>



Paperless Management Information System (MIS)

- BAA # 4 Amendment 1 posted on January 22, 2004
- Announced RSPA/OPS MIS for Pre-Award
- Post-Award MIS to follow

Pre and Post System Benefits

1. Completely paperless with online submission and review of WP's and Proposals
2. Provides tracking, inventory, and accountability through database management
3. Resulting reduction of workload for submitters, reviewers, CO's, COTR's & management



View Pre-Award MIS requirements/details
<http://primis.rspa.dot.gov/matrix/Rfp1.rdm>

OPS Research & Development Performance Measures

Office of Management and Budget (OMB) - Program Assessment Rating Tool (PART)

- All Federal agencies funding research must incorporate the PART process with their research program
- OPS can self evaluate the performance of research outputs on their effectiveness
- OPS has initiated the alignment of its research program with PART and will fully implement for Fiscal 2005 as required

<http://www.whitehouse.gov/omb/part/>

PART Components

OMB PART for Applied R&D Programs

Program Purpose & Design	Strategic Planning	Program Management	Program Results/ Accountability
1.1 Purpose clear?	2.1 Meaningful long-term performance measures?	3.1 Regular collection of performance information to manage program?	4.1 Demonstrated progress towards long-term performance goals?
1.2 Address a specific problem, interest, or need?	2.2 Targets & incentives for long-term measures?	3.2 Managers and partners held accountable?	4.2 Achieve annual performance goals?
1.3 Not duplicative of other Federal, state, local or private efforts?	2.3 Annual performance measure?	3.3 Funds obligated timely and spent for intended purpose?	4.3 Improved efficiency or cost effectiveness towards program goals?
1.4 Design free of major flaws?	2.4 Baselines and targets for annual measures?	3.4 Procedures to measure & assess efficiency & cost effectiveness?	4.4 Compare favorably to similar government or private efforts?
1.5 Effectively targeted – resources reach intended beneficiaries and/or address purpose directly?	2.5 Partners work toward long-term goals?	3.5 Collaborate and coordinate with related programs?	4.5 Independent evaluations indicate that program is effective and achieving results?
	2.6 Independent evaluations?	3.6 Strong financial management practices?	
	2.7 Budget requests built to annual and long-term goals?	3.7 Addressing management deficiencies?	
	2.8 Connecting strategic planning deficiencies?	3.801 Allocate funds and use management processes that sustain program quality?	
	2.801 Complies program benefits to similar efforts?		
	2.802 Privatization process for budget and funding decisions?		



What are our future plans?



Implementation of PSIA 2002

OPS/DOE/NIST/MMS to meet February 19, 2004

On the agenda for discussion...

1. Semiannual coordination meetings
2. Future combined pipeline R&D solicitations
3. Peer review of project outcomes
4. Combined workshop to disseminate program activities and project results
5. Common Pipeline R&D Program Presentation for use at various engagements



R&D Future Is Bright!

Refinement of the OPS R&D Program with the following items...

PSIA 2002 + Blue Ribbon Panel + R&D Forums + MIS + PART

...will provide for all stakeholders, an R&D Program with the following attributes:

Collaborative

Competitive

Co-funded

Communicative

Comprehensive



Thank You! – Questions?

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