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science for a changing world

DOI Technology Transfer Workshop
March 11, 2015

Technology Transfer at USGS

Presenters: ***Sharon Borland***
Michelle Chenault
Ben Henry

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Purpose and scope

- Provide information on how using the authorities in the Federal Technology Transfer Act of 1986, as amended, benefits agency/bureau missions.
- We will present information on different types of agreements and several case studies.
- We will provide information on how we manage our patents program. We will present two case studies of a license.

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Outline

- Introduction to USGS' TT program.
- Why participate in TT?
- How do we implement TT agreements?
- Case studies of TT agreements
- Overview of patents and licensing
- Case studies of patent licenses
- Where to find more information

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USGS TT Program Staff

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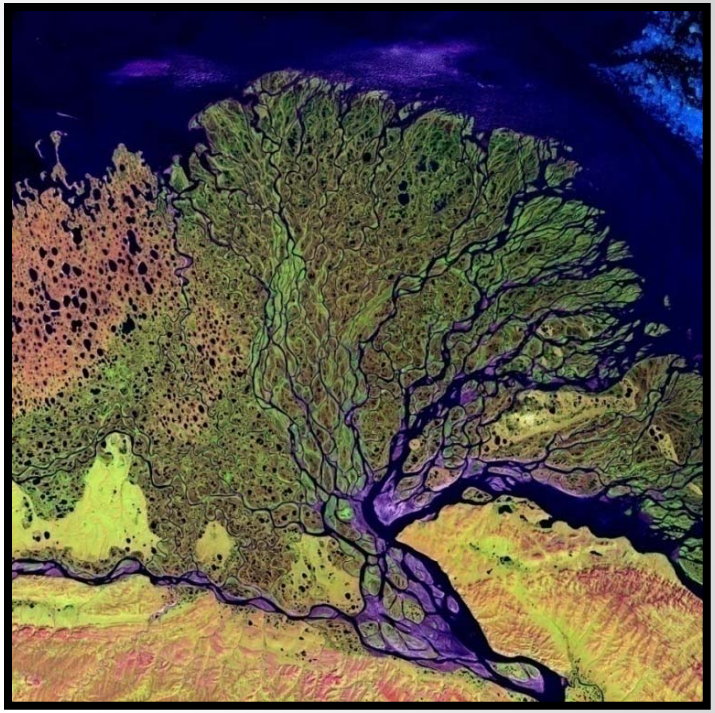
USGS Mission

The USGS serves the Nation by providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life.



Landsat 7: Lena Delta
Image taken 7/27/2000
The Lena River, some 2,800 miles (4,400 km) long, is one of the largest rivers in the world. The Lena Delta Reserve is the most extensive protected wilderness area in Russia. It is an important refuge and breeding grounds for many species of Siberian wildlife.

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Office of Policy and Analysis Mission

Manages the bureau's Technology Transfer Program, including the preparation, review, and approval of Cooperative Research and Development Agreements (CRADAs), Technology Assistance Agreements, Facility Use Agreements and Material Transfer Agreements.

Conducts the evaluation of USGS inventions for patentability and commerciality and preparation of patent applications and non-disclosure agreements; and execution of non-exclusive, exclusive, and partially exclusive licenses to companies interested in marketing, manufacturing, or using USGS developed technology.

Reviews non-standard cooperative and reimbursable agreements for compliance with statutory and regulatory requirements.

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What is Technology Transfer?

Technology is a tangible object or collection of objects (e.g., a tool, machine or assembly line) or intangible product or products (e.g., an idea, knowledge, information, method of organization, or management system) that can be used to advance human well-being in any of its dimensions.

Technology transfer (TT) is the process of disseminating scientific and technical information and knowledge and associated technology so that they are available for use.

Technology—and technology transfer—are critical factors in advancing the nation's economic, social and environmental well-being.

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What is Technology Transfer?

Technology transfer is the process by which existing knowledge, facilities or capabilities developed under federal research and development (R&D) funding are utilized to fulfill public and private needs. (FLC)

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Authorities

Stevenson-Wydler Technology Innovation Act of 1980 (P.L. 96-480)
Defined and promoted TT, made it easier for federal labs to transfer technology to private sector, dissemination of information from the federal goverment and getting labs more involved in the TT process, established the Office of Research and Technology Applications.

Federal Technology Transfer Act of 1986 (P.L. 99-502)
Required federal lab S&Es to consider TT an individual responsibility, established a charter and funding mechanism for the Federal Laboratory Consortium for TT (FLC), enabled GOGO to enter into CRADAs and to negotiate licensing arrangements for patented inventions made at the labs, provided for exchange of personnel, services, and equipment among the labs and nonfederal partners.

Executive Order 12591 - Facilitating Access to Science and Technology
Signed in 1987, written to ensure that fed labs assist universities and the private sector by transferring technical knowledge. Emphasized government's commitment to TT and urged GOGOs to enter into cooperative agreements to the limits permitted by law. Promoted commercialization of federally funded inventions by requiring labs grant to contractors title to inventions developed in whole or in part with fed funds, as long as government retained a royalty-free license for use.

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TT Tools

Federal legislation provides for a variety of agreements that authorizes and provides tools that are necessary for federal agencies to jointly work with other federal and non-federal entities, including industrial for-profit organizations, in ways that can protect new knowledge and scientific/technical information from public disclosure, including the intellectual property interests of collaborating parties. Under these agreements, federal agencies may share, exchange, transfer, obtain and/or use, as appropriate under statute, information, expertise, facilities, and materials with other entities. (DOI Departmental Manual for Technology Transfer Policy)

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Why participate in TT?

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President's Strategy for American Innovation

http://www.whitehouse.gov/innovation/strategy

Lab to Market

FY 2015 President's Management Agenda – Lab-to-Market Cross-Agency Priority Goal established to improve & accelerate technology transfer

President Barack Obama signs the America Invents Act September 16, 2011, at Thomas Jefferson High School for Science and Technology in Alexandria, VA.

GOAL ACTIONS

(1) Optimize the management, discoverability, and ease-of-license of 100,000+ Federally-funded patents
(2) Increase the utilization of Federally-funded research facilities by entrepreneurs and innovators
(3) Ensure that relevant Federal institutions and employees are appropriately incentivized to prioritize R&D commercialization
(4) Identify steps to develop human capital with technology transfer experience
(5) Maximize the economic impact of the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs

Legislation and Mandates

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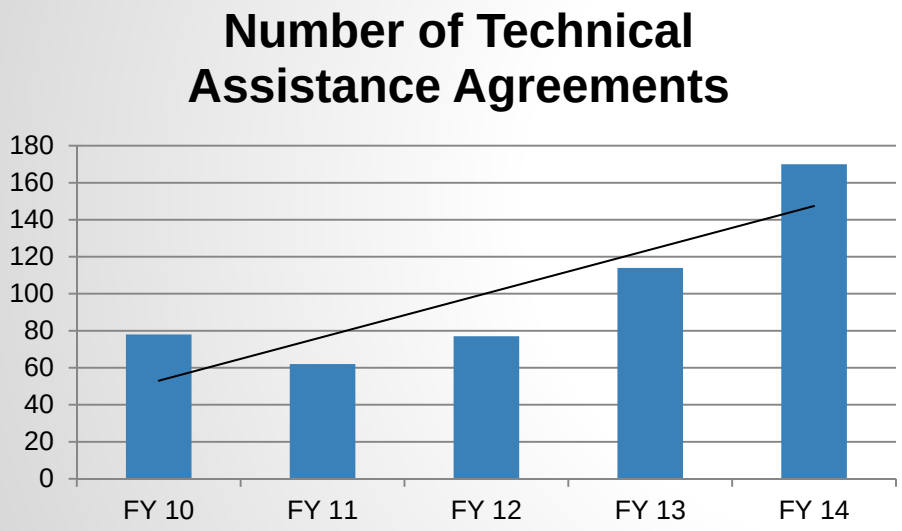
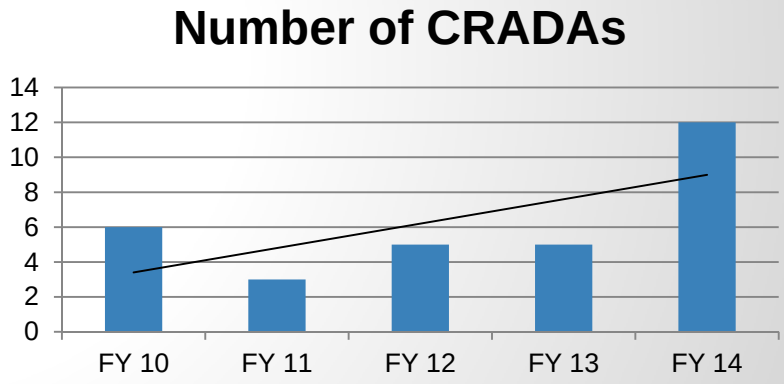
Presidential Memorandum Oct 28, 2011 – Accelerating Technology Transfer and Commercialization of Federal Research in Support of High-Growth Businesses.

TT Metrics





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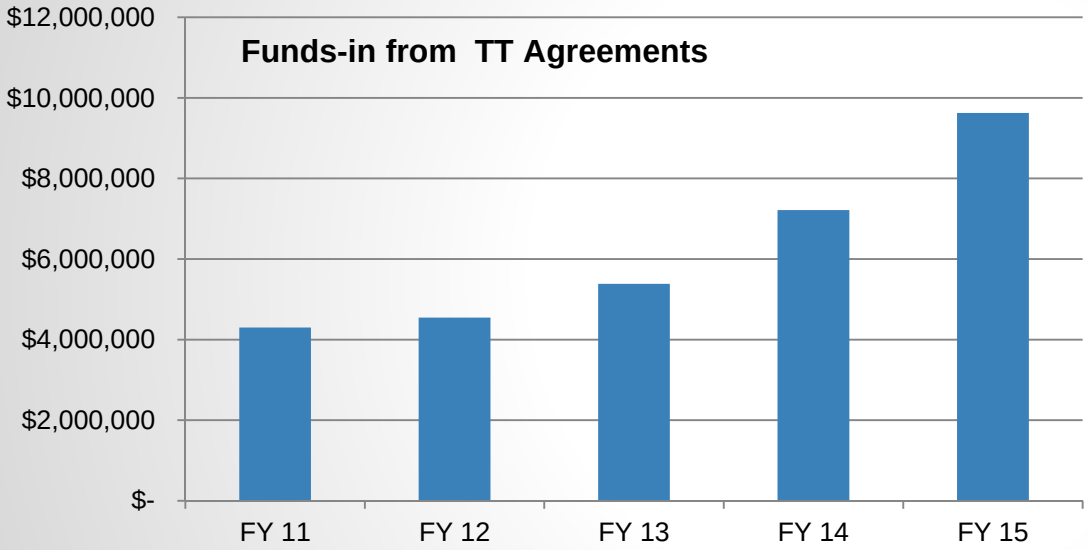
TT Metrics



- **In-kind: Travel expenses for PI**
- **Access to data**
- **Unique lab facilities**
- **Help cover lab costs, staff**

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How do we do it?

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Policy

- The Technology Transfer program is designed to leverage the research capabilities of USGS scientists and encourages the adoption and use of USGS research products, capabilities and technologies through partnerships with the private sector and other entities.
- Serves all USGS Science Programs; projects must be a mission related.
- The partner may contribute funds-in, services, equipment, know-how, intellectual property, other types of in-kind contributions. USGS may contribute services, equipment, know how, intellectual property and other in-kind contributions. USGS cannot provide funds.
- Partners can be federal, state, local governmental units or agencies, as well as domestic and international private corporations, non-profits, or academic institutions. (See list of entities on next slide.)

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Types of entities for collaborations

Federal Agencies

State/local government and municipalities

Tribal Government

Tribal Corporations

Tribal Non-profits

Private companies: Oil, energy, mining companies are eligible if there is a mission benefit to the USGS.

Non-profit organizations

Academic Institutions

Foreign private companies, non-profits

International Organizations

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TT Mechanisms (SM 500.20-6)

Cooperative Research and Development Agreement (CRADA)

Used primarily for extensive efforts that have potential to develop intellectual property and/or commercialization of existing USGS technology. Signature level is highest –Associate Directors/Regional Directors

Technical Assistance Agreement (TAA)

Used primarily for technology transfer efforts at a project scale. Such projects have very low likelihood of any IP to be developed. Signature by Office Chiefs reporting to the Director/Deputy Director and managers and supervisors who report directly to an SES Manager (See SM 205.13, Delegations).

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TT Mechanisms (SM 500.20-6)

Facility Use/Service Agreement (FUSA)
Used primarily for allowing non-government entities to tap into USGS facilities, specialized equipment and/or capabilities. No competition with private sector. Signature level is same as for TAAs under $100,000.

Material Transfer Agreement (MTA)
Used to document the loan/transfer of scientific materials or samples to outside entities. Typically signed by Center Director.

Patent License Agreement
Used to commercialize or license USGS-owned intellectual property and may generate a royalty stream back to the Bureau. Signature by Associate Director, OA

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Roles: OPA

- Develops policy and procedures.
- Provides guidance to the field and management on the most appropriate mechanism to use.
- Assists with negotiations of agreements.
- Coordinates Ethics Determination for those agreements with private entities.
- Coordinates with external offices as required (e.g. U.S. Trade Rep's office for international private sector TT agreements).
- Coordinate with the Office of the Solicitor for legal reviews of non-standard language.
- Reviews all agreements prior to signature.
- Fulfills reporting requirements of the Technology Transfer Legislation.

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Roles: Science/Cost Center

- Develops a clear statement of work, articulates the mutual benefits of the work if TT, manages the financial processes.
- Ensures that the work is consistent with USGS and Center's missions and is approved by Center management.
- Ensures adherence to all applicable financial policies.
- Draft the agreement using the agreement template (most templates are posted on the FOP Handbook).
- AO (or PI) should contact OPA early in the process for guidance as needed.
- AO should coordinate the staffing/signature process.
- Provide a copy of the final signed agreement to OPA.

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Funds from TT agreements

- Cost recoupment (all TT agreements).
- Royalties/license fees for patented technology
- Revenues (royalties) from licensing of other intellectual property such as copyright or software (CRADA)

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Case Histories – TT Agreements

1. Facility Use/Service Agreement
2. Technical Assistance Agreement
3. Cooperative Research and Development Agreement (CRADA)

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1. Facility Use/Service Agreement (FUSA)

- A short-term agreement that allows one party to use unique USGS laboratory facilities and specialized equipment and/or capabilities.

- Used for providing access to unique equipment and/or capabilities that are not available from the private sector for use in research activities or technology development.

- USGS may or may not be reimbursed for use of the facility.

- Each party retains rights to their materials and or property.

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1. FUSA - USGS Luminescence Geochronology Lab

or Optical Stimulated Luminescence (OSL) Lab

PI: Shannon Mahan

http://crustal.usgs.gov/laboratories/luminescence_dating/index.html

Purpose: Priority luminescence dating services to USGS projects and external collaborators. OSL or luminescence dating is a geological dating technique used by both geologists and archeologists. (Like radiocarbon dating) Used in diverse USGS/governmental projects such as paleo-earthquake dating for seismic hazard research, timing of sediment deposition for climate change research, and dating of archeological features such as ancient pueblos.

Type of services: State-of-the-art luminescence dating services. The technique can be applied to sedimentary deposits and archeological features of up to 200,000 years of age.

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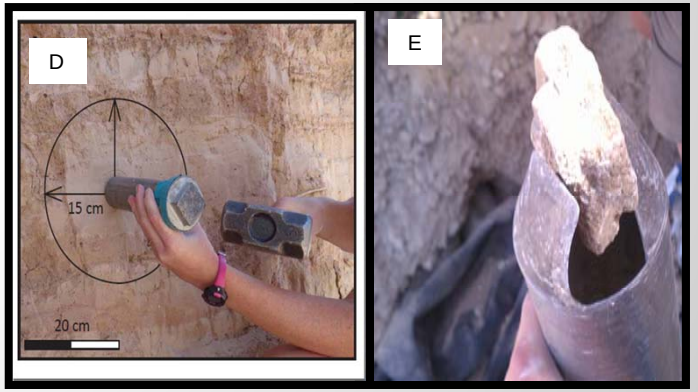

FIELD WORK:

A) Example of typical paleoseismic trench in coarse alluvial fan setting.
B) Example luminescence age sampling location on the trench wall. Note the sample is located in a sandy layer between coarse, poorly-sorted layers. Sample site hole is approximately 15 cm in diameter.
C) Tools used for obtaining samples D) Use of tools to extract sample
E) Sample in tube Photo credits: Shannon Mahan

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FUSA Example- USGS Luminescence Geochronology Lab cont'd

Specific techniques include:

- Standard Optically Stimulated Luminescence (OSL) single aliquot regeneration and single grain methods; thermally-transferred OSL; feldspar infrared-stimulated luminescence (IRSL); post-infrared IRSL; and thermoluminescence (TL)
- Dose-rate investigations for external researchers and consulting for other luminescence laboratories.

Canister sampling technique with blanket covering. Note hard hats.

Photo Credits: Shannon Mahan

Agreement Process-
Approval of template- USGS uses a template with standard pre-approved legal language. An agreement is prepared for each potential user and signed by both parties.

- OPA reviews agreements for unique terms and provisions and initiates Ethics review.

Coordination with USGS Ethics Office- Ethics review conducted to assess risk and or any issues that might result in an organizational ethical objection or bar.

- Conflict of Interest (COI) form completion by the USGS PI is required for agreements with private sector entities.

FUSA Example- USGS Luminescence Geochronology Lab cont'd

Cost model: $600 dollars per sample for USGS projects and $1100 dollars for external facility use agreements. Other services priced on a case-by-case basis.

Output: Lab established in 1991. With 2 luminescence readers, since 1997:
>2,000 ages and reimbursed for over $1,1000,000 in samples

Access to data for USGS databases: All lab data is available following release by project principle investigators.

Public benefit:

- Established lab and experienced scientists providing service since 1997
- Provides support for USGS projects with timely and accurate analyzes
- Unique cost effective services for a diverse group of external researchers
- Applications cover many Earth surface research efforts with exciting new uses

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2. Technical Assistance Agreement (TAA)

- Short-term agreement, similar to a CRADA, that allows a Government laboratory and its researchers to provide more focused technical or research efforts to a non-Federal party with or without reimbursement.

- Typically, intellectual property is not anticipated. Therefore, extensive intellectual property provisions are not included in the TAA.

- Requires that the project have a mission value to the USGS and some technical or commercial significance for the partner.

- Can also be mutually beneficial with both parties providing technical or scientific expertise to accomplish a mutual objective.

- Resources to support project activities can be funds or services in-kind (either party) or funds in from the Collaborator. USGS cannot provide funds to the Collaborator.

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2. TAA -

"A Method of Deterring Bats from Wind Turbines by Illuminating Turbine Surfaces with Dim Ultraviolet Light"

USGS PIs- Paul Cryan (FORT), Frank Bonaccorso (PIERC)

{Scientific Expertise for USGS provided by Marcos Gorreson, Cooperator- University of HI-Hilo}

Collaborator- Bat Research and Consulting (BRC) PI- David Dalton

Purpose: Continuation of field studies and research in progress of over 5 years under various agreement types. Specific collaboration agreement to reduce to practice a mutually developed prototype device.

Scope: Open field trials were conducted in HI that would produce data to support a utility patent application and confirm preliminary research.

Results: Studies were successful and 2 manuscripts/research reports have been prepared. These studies will support future grant applications to fund the next phase of the studies and serve as the basis for extended studies to be conducted under a CRADA.

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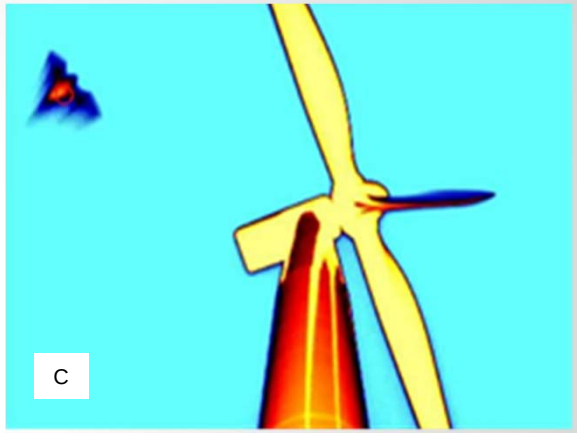
FIELD WORK:



Left (A): **Field technicians conducting fatality searches around wind turbine.** ***Center (B):*** **Carcass of hoary bat (*Lasiurus cinereus*) found beneath turbine on bare ground.** ***Right (C):*** **Footage from the thermal videography system revealed that bats approach and interact with wind turbines in consistent and predictable ways.** Photo credits: Paul Cryan

USGS

TAA example- cont'd
"A Method of Deterring Bats from Wind Turbines by Illuminating Turbine Surfaces with Dim Ultraviolet Light"

Cost model: funds or services/expertise in-kind

Time: Estblished to formalize relationship during critical research studies and development of the CRADA.

Unique data or IP concerns:

- There are 3 parties (USGS- 2 USGS centers, 1 university cooperator and 1 private entity) that have made significant contributions and will have an equal share in the invention)

- A separate 3 party inter-insitutional agreement will be needed to determine the terms for the patent/licensing agreement that may result from this project.

For more information see: **www.fort.usgs.gov/science- feature/96**

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3. Cooperative Research and Development Agreement (CRADA)

- Long term, more complex legally binding agreement between
- a non-Federal organization and a government agency to work together on a project.

- The agreement involves no transfer of funds from the Government and is not considered a procurement action.

- All parties may agree to keep research results emerging from the CRADA activity confidential to the extent permitted by the law (up to 5 years) or until they are published in scientific literature or presented at a public forum. Also enables protection from FOIA.

- The partners can agree to share patent and intellectual property rights in any manner agreeable to both parties.

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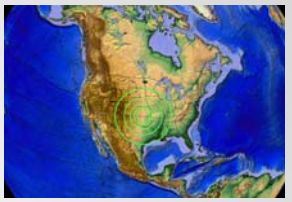
3. CRADA example-



“Seismic and Other Natural Hazards Research”
USGS PI- Keith Knudsen {and multiple Task Order/Project Scientific experts) **http://earthquake.usgs.gov**
Collaborator- Pacific Gas & Electric, PI- Richard L. Klimczak

Purpose: (1) the development and rapid application of data, methods, and technologies that improve earthquake hazard assessments in the regions where its electric power and natural gas facilities, service centers, and office buildings are located and where its customers live and work; and (2) the improvement of emergency response to earthquake occurrence by incorporating real-time earthquake hazard information.

Methods: Seismological, geophysical and geodetic research methods.

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CRADA example- cont'd
"Seismic and Other Natural Hazards Research"

Resources provided by each party: Funding, access to sites and expertise from PG&E. Methods, equipment and expertise from USGS.

Funding: USGS PIs are provided funding for individual projects based upon submission of Task Orders with objectives and specific budgets. Each Task Order is reviewed and approved by OPA and added to the CRADA as an amendment.

Intellectual Property: Standard terms in that the parties are publishing, making presentations and providing publically available data.

Results: Assist in better understanding earthquake rupture processes, the relations used to predict earthquake ground motions, and the seismotectonic setting of the Central California coastal area.

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CRADA example- cont'd "Seismic and Other Natural Hazards Research"

Benefits to USGS and the public:

- Long term (since 1992) mutually beneficial, collaborative relationship and high quality research results via a series of 5 year term CRADAs.
- Multi-element, action-based seismic risk management program to reduce the impact of future damaging earthquakes on the performance of their gas and electric systems, and to maintain acceptable levels of customer service.
- Compliments the USGS Earthquake Hazards Program. Carried out using the capabilities of five USGS Science Centers (Earthquake; Geology, Minerals, Energy and Geophysics; Pacific Coastal and Marine; California Water; and Geologic Hazards).

Photo Credits: A- Jessica Robertson B- Nicole LaRoche

Great Southeast ShakeOut earthquake drill, Langston Hughes Middle School, Reston, Virginia

Sea otter research and monitoring as a seismic activity ecosystem indicator

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Patents and Licensing

Snapshot of USGS

Patents

41 active issued patents

15 active patent applications

FY 15, 1 new issued patent

4 new patent applications

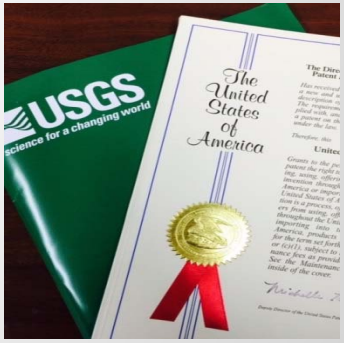
4 new report of inventions

Licenses

13 active licenses

3 current negotiations

$50k in annual royalties



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Quality Science

Process Overview

Disclosure

Patenting/
Marketing

License/
CRADA

Royalties

USGS or Partner

Commercialization

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What is a Patent

Patent Defined: A property right granted by the Govt. to an inventor “to exclude others from making, using, offering for sale, or selling the invention throughout the U.S.” for a limited time in exchange for public disclosure of the invention when the patent is granted (Codified in 35 USC)

US Constitution Article 1, Sec 8

The Congress shall have power ... To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries;

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Patents

What constitutes a patentable invention?

A new and useful process, device, article of manufacture, or composition of matter; or

A new and useful improvement of a known process, device, article of manufacture, or composition of matter.

- New/Novel - The invention or results of the invention should demonstrate something not previously observed, known, reported, or described anywhere in the world.
- Non-obvious - The invention or results of the invention should not be obvious to one of “ordinary skill” in the art.
- Useful – The invention must have a practical application.

Must be adequately described or enabled.

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Basic Patent Types at USGS

Provisional Application

Non-provisional Application (Utility)

PCT Application (International Application)

Foreign Nations

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Obstacles to Patenting

Public Disclosure, “prior art”

- Described in a printed publication

  1 year grace period in US
- Published applications
- Patented

In Public use

On sale

Otherwise available…anywhere in the world

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Inventor Benefits

Recognition

Financial Incentives

Patent filing awards

- $500 for patent application
- $800 for patent grant

Royalty stream from licensing

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Licensing

Authority to license:

- FTTA of 1986, 15USC3710a
- 35 USC 209
- Executive Order 12591
- Presidential Mandate 2011

To further commercialize…

Exclusive, partially exclusive, non-exclusive

Applications reviewed IAW 37 CFR 404

-Exclusive requires notice in Federal Register for minimum of 15 days

Commercial development plan

License Management

USGS

Royalties

First $2,000 goes to inventor(s), then

33.3% ea. to inventor(s), Center, OPA

Royalties may be distributed, in accordance with 15 USC 3710c(a)(1)(B), as follows:

(1) to reward scientific, engineering, and technical employees of the laboratory,

(2) to further scientific exchange among the laboratories of the agency,

(3) for education and training of employees consistent with the research and development missions and objectives of the agency or laboratory,

(4) for payment of expenses incidental to the administration and licensing of intellectual property by the agency or laboratory with respect to inventions made at that laboratory,

(5) for scientific research

Three year funds

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Process at USGS

Self-reporting system

Duty to disclose (43CFR Part 6 Subpart A)

DOI Form 1215 and/or 1218 w/ Support of Center

USGS Invention Evaluation Committee (IEC)

Favorable results from IEC = patent application / concurrent with marketing

Patent Attorney

- Ft Detrick, MD
- Redstone Arsenal, AL

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Process at USGS

Authority to patent, 35 USC 207

Pursue US patent protection

All patents and patent applications are posted on USGS website, Fed Biz Opps

USGS policy on licensing in SM 500.20, Technology Transfer

Negotiation of license by OPA with assistance from inventor(s)

OA AD is signatory on License Agreements and Inter-Institutional Agreements (Plan to manage joint IP)

Foreign protection if Licensee desires

If we do not continue with patent prosecution, USGS may return right and title of patent back to inventor(s) if requested

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USGS Patent Case Study #1: “Downhole Passive Water Sampler & Method”

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Case Study 1: The Invention

An improved method and device for sampling the concentration of contaminants using a semipermeable membrane, including volatile organic compounds, in groundwater.

Inventors

Don Vroblesky (USGS South Carolina Water Science Center)

Thomas Hyde (For profit domestic company)

Jointly Invented

Patent Application filed 1996

Patent Issued 5,804,743 1998

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Case Study 1: Licenses

Exclusive with co-owner
Allows for USGS to Lead in Licensing
50% Share of Patent Prosecution Costs and Royalties

Non-exclusive with for profit domestic company
% of Net Sales
Annual Fee

Non-exclusive with for profit domestic company
% of Net Sales
Annual Fee

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Company A

Passive Diffusion sampler to obtain representative, discrete interval samples of Volatile Organic Compounds in groundwater without purging or pumping. Effective for any site where VOCs are the main contaminant of concern.

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Company B “Passive Diffusion Bags”

PDB Samplers

Samples volatile organics

Available in both pre-filled and unfilled versions

Significantly reduces the cost of sampling

Simple to deploy

Eliminates the collection and disposal of purged water

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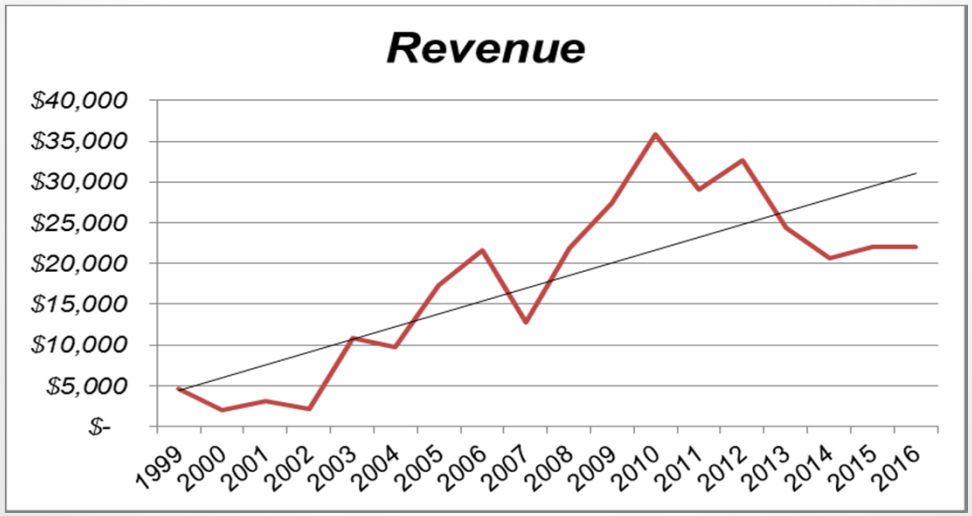
Royalties

Since licensing, $275k in royalties to USGS

Market demands remain steady, expect $22k per year until patent expires



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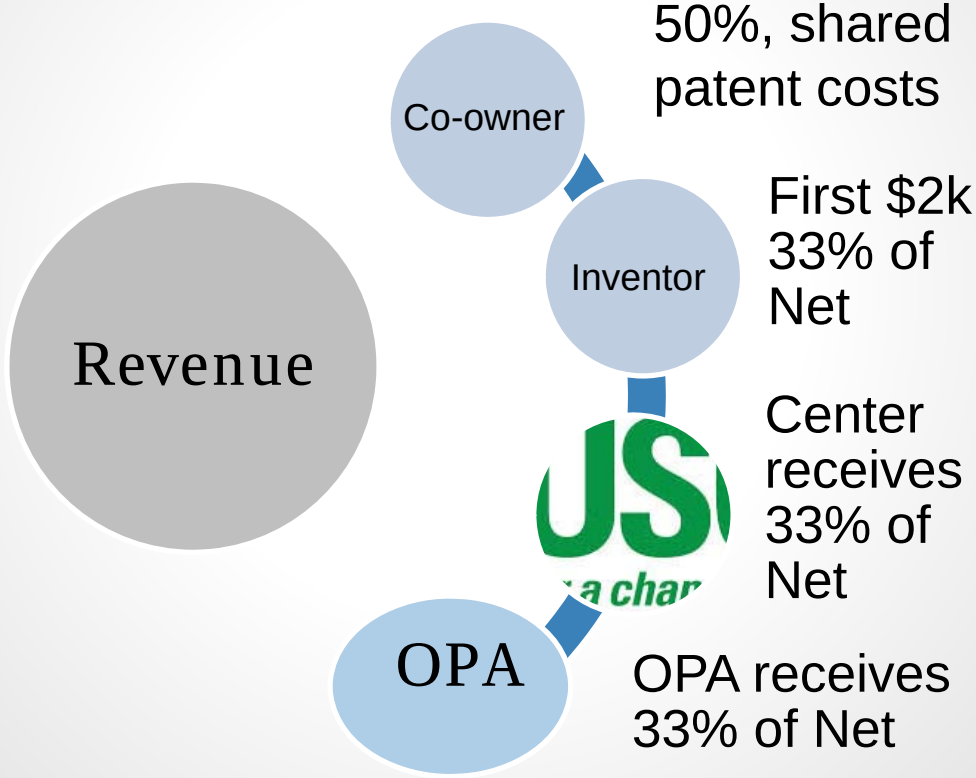
Case Study 1: Royalty Distribution



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Case Study 1: Impact

PI- able to attend conferences, obtain extra samples unrelated to existing projects, research new techniques.

Center- support the PI in areas where no funding is available.

Revolutionized the industry in sampling. Passive sampling was not done prior to invention. Saves time and money.

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USGS Patent Case Study #2: “Synthesized Reverse Osmosis Membrane”

USGS

Case Study 2: The Invention

US Patent- Synthesized Reverse Osmosis Membrane

Relates to permselective barriers in the form of thin films or composites thereof for the selective separation of fluid mixtures and solutions. An aspect of this invention relates to aromatic polyamides (preferably ultrathin polyamides on porous supports) suitable for reverse osmosis desalination of aqueous solutions containing dissolved solutes, to the process for preparing these membrane compositions, and to the process for using such membranes.

Inventor

John Cadotte (DOI that worked with USGS on water issues)

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Case Study 2: Patents

Patent Application filed 1979

Patent Issued 4,277,344 1981

Foreign- Australia, Belgium, Canada, France, Germany, Great Britain, Italy, Japan, Mexico, Netherlands, New Zealand, South Africa, Sweden, Switzerland

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Case Study 2: Licensing Background

1978 John Cadotte created a start-up, Filmtec- subsequently acquired by Dow 1985

1988 Dow sued Nitto Denko for patent infringement

1992 Judge ruled Dow illegally acquired patent rights owned by US Government, DOI

1993 USGS non-exclusively licensed the patent

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Non-exclusive Licenses

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Case Study 2: Royalties and Impact

Since licensing in 1993, $11.5MM in royalties to USGS

Royalties used to fund innovative research

Self-sustain office and distributed 49% to DOI

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Current License Opportunities

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Technology: Device for Monitoring Subsurface Temperatures

Invention: A new robust distributed temperature probe designed with the use of microchip thermistors and internal data storage with a focus on heat as a tracer investigation in surface water investigations.

Inventor: Ramon Naranjo, Nevada Water Science Center

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Technology: Nozzle Mixing Methods for Ship Ballast Tanks

Invention: A system, method, and apparatus for treating ship or barge ballast water with biocide using nozzles in ballast tanks to prevent the spread of non-indigenous species.

Inventors: Barnaby Watten & Noah Adams, Leetown Science Center & Western Fisheries Research Center

USGS

Technology: Safe, Directional Drought-resistant Dug Well

Invention: A newly designed shallow well has the potential to provide water without high arsenic while also providing high yields and protection from bacterial contamination.

Inventor: Joe Ayotte, New England Water Science Center

USGS

Where to find more information

Federal Technology Transfer Act of 1986 as amended: Title 15, United States Code, section 3701 et seq. http://www.gpo.gov/fdsys/browse/collectionUScode.action?collectionCode=USCODE&searchPath=Title+15%2FCHAPTER+63&oldPath=Title+15%2FCHAPTER+63&isCollapsed=true&selectedYearFrom=2013&ycord=3251

Department of the Interior Manual, 207 DM 8 Technology Transfer

Technology transfer legislation and related policies: Federal Laboratory Consortium for Technology Transfer, http://www.federallabs.org/

USGS SM 500.20 Technology Transfer http://www.usgs.gov/usgs-manual/500/500-20.html

SM 453.1, Inventions by Employees http://www.usgs.gov/usgs-manual/410/453-1.html

USGS Technology Transfer website, http://www.usgs.gov/tech-transfer/index.html

USGS List of Patents and Opportunities: http://www.usgs.gov/tech-transfer/available_patents.html

USGS

USGS Points of Contact:

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USGS

We covered:

- USGS' TT program.
- Why it benefits the agency, DOI and the public to do TT
- How we implement TT agreements
- Case studies
- Overview of patents and licensing
- Case studies of patent licenses
- Where to find more information

USGS

Questions?

USGS

Sample Documents

FUSA

USGS FACILITY USE/SERVICE AGREEMENT
AUTHORIZED BY 15 USC 3710 (A) AS AMENDED

1. Name & Address USGS Facility:

2. Name & Address of Collaborator:

Tax ID Number (TIN): _____ DUNS Number:_____

3. Describe type of technical assistance to be furnished by USGS

4. Benefit of project work to USGS missions

5. Collaborator explanation of how the specified research activity assists your company, program or project work.

6. Project term/Delivery date:

7. Reimbursement/Cost Share:

[Center should address the advance requirement in this section.]

* For the convenience of the Collaborator, requests may be processed using Credit Card or PO during the term of the agreement but should include Agreement # on all such paperwork.

8. Contacts (name/address/phone/email)

USGS: Technical - (name/phone/e-mail/address)
Collaborator: Technical - (name/phone/e-mail/address)

9. Other Terms:

a) The Collaborator has determined that the capabilities of the above listed facility are unique and not readily available from the private sector.
b) Scientific results will be provided on a "best efforts" basis by the USGS.
c) The USGS MAKES NO WARRANTIES ABOUT THE INFORMATION IT DELIVERS OR ITS USEFULNESS FOR A PARTICULAR PURPOSE.
d) The parties do not anticipate the development of any intellectual property (IP) as part of this agreement. However in the event that IP, which is defined as patents, copyrights, new inventions, or discoveries, is created in the course technical assistance, such IP shall be the property or joint property of the organization employing the respective individual(s) who made the invention or discovery. Any IP developed will be reported by the developer to his/her Technical Contact who will in turn notify the other party's Technical Contact.
e) Collaborator/User understands that Government work will have priority over this project in the event that a scheduling conflict develops in the laboratory.
f) Both the USGS and the Collaborator may utilize the generated information developed by the USGS in databases, papers, or as part of other scientific information.

TAA

Instructions to preparer: Refer to SM Chapter 500.20 for guidance on USGS policy. Please insert the information indicated within [brackets]. When sending the draft Agreement to Office of Policy and Analysis for review, remove the instructional notes.

TECHNICAL ASSISTANCE AGREEMENT

This Technical Assistance Agreement is entered into by and between U.S. Geological Survey, a Bureau of the Department of the Interior, through the offices of its ____[Science Center name, City, State]___, hereinafter referred to as the "USGS" and___[Collaborator (Legal Corporate) Name, City, State_____, hereinafter referred to as "Collaborator." USGS and Collaborator are sometimes herein referred to as a "**Party**" and collectively as the "**Parties**".

Whereas, the USGS is authorized to perform technical assistance with other Federal agencies, units of State or local government, industrial organizations, private corporations, public and private foundations, and nonprofit organizations (including universities) under the Stevenson-Wydler Act (15 U.S.C. § 3710a, as amended);

(Note: Each project needs to include a statement about how it supports a USGS mission and a statement about how the collaborative effort supports objectives of the Collaborator. Refer to SM Chapter 500.20, section 5, for policy considerations.)

Whereas, [the USGS has a mission in **** and has need of data on **** to support this mission.];

Whereas, [Collaborator has *** and has need of USGS expertise in **** etc];
Whereas, the project entitled [insert a brief descriptive title of the project] is intended by the Parties to be mutually beneficial and to benefit the people of the United States;

Now, therefore, the Parties hereto agree as follows:

1. **Statement of Work.** See attached Statement of Work (SOW)(Attachment A), incorporated by reference herein. ***(Note: If the SOW is very short, you may insert it here instead of having it as an attachment. If you insert the SOW here, delete the sentence "See attached Statement of Work (SOW)(Attachment A), incorporated by reference herein.")***

2. **Principal Investigator.** The USGS principal investigator (PI) for this project is **[Insert name, telephone number, e-mail, and office address]**. The PI for the Collaborator is **[Insert name, telephone number, e-mail, and office address]**. In the event that a PI is unable to continue in this project, his sponsoring agency will make every effort to substitute a replacement acceptable to the other Party.

3. **Title to Equipment.** There will be no joint property purchased as a result of the work outlined in the SOW. Each Party will provide its own equipment necessary to support its participation in the technical evaluation. ***(Note: The terms in this section may be modified for a particular project if necessary.)***

USGS

CRADA

COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT
BETWEEN THE U.S. GEOLOGICAL SURVEY
AND
[insert name of COLLABORATOR]

General Provisions

This Cooperative Research and Development Agreement (CRADA) is entered into by and between _____with offices in _____ (the Collaborator), and the United States Geological Survey (USGS), a Bureau of the Department of Interior, through its _____ [insert name of Center or Bureau office].

WHEREAS, the United States Congress in enacting the Stevenson-Wydler Technology Innovation Act of 1980, as amended by the Federal Technology Transfer Act of 1986, Public Law No. 99-502, October 20, 1986, and the National Technology Transfer and Advancement Act of 1995, Public Law No. 104-113, March 7, 1996, has found that Federal Laboratories' developments should be made accessible to private industry, state and local Governments, and has declared that one of the purposes of such Act is to improve the economic, environmental and social well-being of the United States by stimulating the utilization of federally funded technology developments by such parties; and,

WHEREAS, the Federal Technology Transfer Act of 1986, codified in 15 USC 3710(a) as amended, among other technology transfer improvements, has provided each Federal agency with the authority to permit the Director of Government-operated Federal Laboratories to enter into Cooperative Research and Development Agreements (CRADAs) with Federal or non-Federal entities, including private firms and organizations, or other persons, for the purpose of providing to collaborating parties personnel, services, property, facilities, or equipment or other resources (EXCEPT FUNDS), or obtaining from collaborating parties personnel, services, property, facilities, equipment or other resources (INCLUDING FUNDS) toward the conduct of specified research and development efforts which may include the disposition of patent rights in the inventions which may result from such collaborations; and,

WHEREAS, USGS has performed substantial research and development with respect to _____ and,

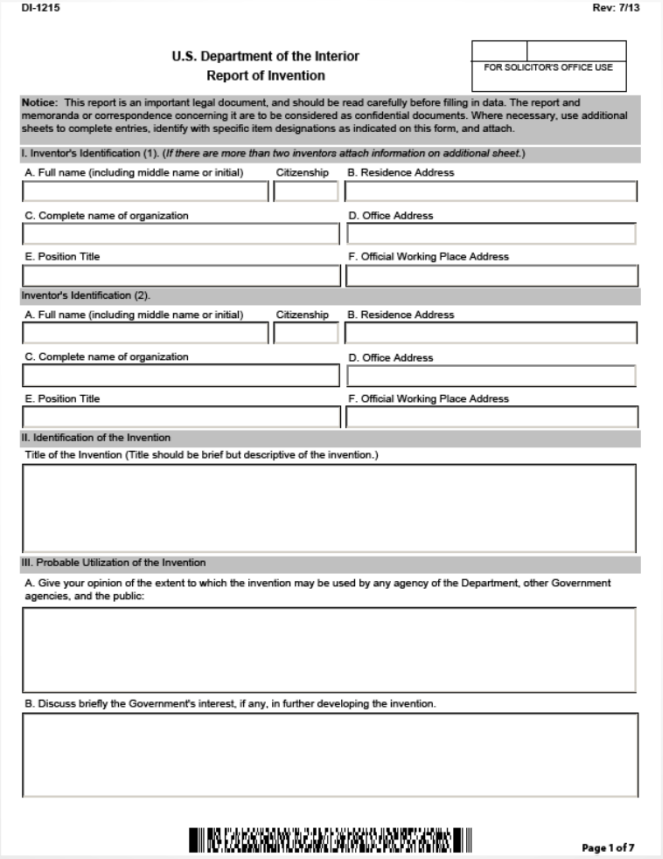
WHEREAS, COLLABORATOR and its consultants have carried out certain studies on _____ and,

WHEREAS, USGS has unique technical capabilities and facilities to _____; and

WHEREAS, it is the intention of the parties hereto that research and testing on _____ should be to their mutual benefit and the benefit of the people of the United States; and,

USGS

Invention Disclosure Form



DI-1215 Rev: 7/13

U.S. Department of the Interior
Report of Invention

FOR SOLICITOR'S OFFICE USE

Notice: This report is an important legal document, and should be read carefully before filling in data. The report and memoranda or correspondence concerning it are to be considered as confidential documents. Where necessary, use additional sheets to complete entries, identify with specific item designations as indicated on this form, and attach.

I. Inventor's Identification (1). (*If there are more than two inventors attach information on additional sheet.*)

A. Full name (including middle name or initial) | Citizenship | B. Residence Address

C. Complete name of organization | D. Office Address

E. Position Title | F. Official Working Place Address

Inventor's Identification (2).

A. Full name (including middle name or initial) | Citizenship | B. Residence Address

C. Complete name of organization | D. Office Address

E. Position Title | F. Official Working Place Address

II. Identification of the Invention

Title of the Invention (Title should be brief but descriptive of the invention.)

III. Probable Utilization of the Invention

A. Give your opinion of the extent to which the invention may be used by any agency of the Department, other Government agencies, and the public:

B. Discuss briefly the Government's interest, if any, in further developing the invention.

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