

Testimony of

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**“A More Efficient and Effective Government:
The National Technical Information Service”**

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Introduction

Chairman McCaskill, Ranking Member Johnson, members of the Subcommittee, I am Bruce Borzino, Director of the National Technical Information Service (NTIS, the Service), a non-regulatory bureau within the U.S. Department of Commerce. Thank you for your invitation to testify today on NTIS's statutory mission. As you can tell from my biography, provided separately, over the course of 31 years in government service as a U.S. Army officer, a General Services Administration program manager, and with NTIS in the Commerce Department, I have spent the majority of my career in acquisitions and acquisition program management. So, in a way, being here today with the Subcommittee on Financial and Contracting Oversight feels like a bit of a homecoming for me.

Today, I appreciate the opportunity to provide an overview of the value that NTIS provides the Federal Government and the American public, and to express the Administration's opposition to S. 2206.

The Mission of the Service and its History

The NTIS mission can be summed up as promoting American innovation and economic growth by serving as the federal government's central means of collecting and widely disseminating scientific, technical and engineering information to the public and industry, and by providing innovative information management solutions to assist other federal agencies in managing and disseminating information to their users and constituencies. The mission of the Service compliments and supports the mission of the Department of Commerce, to promote job creation, economic growth, sustainable development and improved standards of living for all Americans by working in partnership with businesses, universities, communities and our Nation's workers.

The Service was originally established in the Department of Commerce as the Publication Board in the aftermath of World War II. Its original mission was to make available to industry the huge amounts of scientific research that had either been commissioned by the U.S. Government in support of the war effort or captured from the enemy. In the postwar period, the federal government began to assume much greater responsibility for funding the creation of scientific knowledge. Public Law 81-776, enacted September 9, 1950, 64 Stat. 823, 15 U.S.C. 1151, directed the Secretary of Commerce to establish and maintain a clearinghouse for scientific, technical and engineering information and make the results of the technological research and development more readily available to American industry and business. Since 1965, when the NTIS predecessor, the Office of Technical Services, became the Clearinghouse for Federal Scientific and Technical Information, NTIS has focused primarily, but not exclusively, on research produced by and for federal agencies. In 1970, the Clearinghouse was redesignated the National Technical Information Service.

The National Technical Information Act of 1988 and other statutes provide the Service with its unique authorities to serve the public and industry, e.g., establishing and maintaining an information clearing house; implementing new methods and media for ensuring official federal science information access; entering into cooperative agreements

and public-private joint ventures and other transactions to foster the dissemination of information to the public. Under the American Technology Preeminence Act of 1991 (ATPA), all federal agencies are required to transfer to the Service all unclassified scientific, technical, and engineering information that results from research and other activities funded by the government. The objective of the ATPA is to ensure permanent public access to federal technical reports, since federal agencies are not required to make these reports permanently available to the public. That permanent repository function is the responsibility of the Service. No other federal agency has the statutory authorities accorded to the Service under the ATPA to perform these critical functions for the public and other federal agencies. In fulfilling that congressional mandate, the Service has become the largest supplier of federal technical and science research reports (commonly known as “gray literature”) that are not commercially published and are not generally accessible to the public. As a result, the Service has assumed a major role in the preservation and dissemination of this valuable reservoir of federal scientific and technical knowledge. NTIS’s role as a permanent repository is as critical today, in the Internet age, as it has ever been.

Value of the NTIS Clearinghouse Mission to the Federal Government and Public

NTIS relies solely on fees from the provision of products and services. The Service has a permanent authorization, but does not receive an annual appropriation from the Congress.

Senator J. William Fulbright, in introducing the bill for the Clearinghouse that would become Public Law 81-776, captured its purpose and the value to the public:

“This bill will make it possible for a company that is in need of specific information in reference to the latest available technical knowledge on a specific commodity to secure such information through one request instead of hunting from place to place as is the condition at present, and then perhaps not be able to find it even though the data may be available.”

The Senator recognized the problem, and its solution would become the NTIS mission. In executing that basic statutory mission, the Service, on behalf of other federal agencies, has amassed a collection of approximately 2.8 million publications covering more than 350 technical and business-related subject areas. These items are perpetually available through the Service and approximately 30,000 new titles are added annually. All technical reports in the repository are indexed, cataloged, and abstracted by the Service, enabling the public user and professional researcher to efficiently locate reports and information within each subject area.

Importantly, the Service is a significant source of federal technical and science information and associated bibliographic metadata for world wide web search engines. Search engines can more easily find reports and documents that have had the underlying bibliographic metadata coding created by the Service. NTIS sitemaps and indexing enables and complements private search engines.

NTIS possesses a unique repository and clearinghouse with supporting systems and business processes. The GAO has reported that up to 45% of federal technical reports in a given subject category within the NTIS collection are only findable and available from the Service. The Service also ensures public access to the 26% of the reports entered into the NTIS collection since 1990 that GAO determined were not available from any of the four public sources searched by GAO, including the issuing agency website, GPO, USA.gov, and Google search. This permanent public access to federal technical reports is available only because NTIS provides this service under its statutory mandate.

As the publishing industry has evolved due to technology advancement, the Service has also evolved from print and microfiche to electronic distribution of its information reports and products. Since 1997, the Service has been making technical reports available electronically.

In March 2009, the Service launched the National Technical Reports Library. The NTIS Technical Reports Library (NTRL) guarantees libraries and technical information professionals easy access to, and perpetual availability of, a comprehensive collection of federally funded technical reports as a cost-recovery government service. The NTRL fills a void – well-recognized among information professionals, if not by the general public - for access to a centralized source of official government technical reports by libraries and technical information users and available through many academic, public, and corporate library holdings.

In 2012, NTIS initiated the Federal Science Repository Service (FSRS). The FSRS provides a set of tools for NTIS to design an agency-specific digital repository that serves as a distinct gateway to the agency's scientific and technical documents, images, videos and other content. Two recent FSRS projects are the NOAA Deepwater Horizon Archive and the Iraqi Science and Technical Information Repository.

The Service has also responded to the call from the scientific and academic communities for a sustainable, open access model for science information. An important issue for content and knowledge management of federal science and technology information is promoting the adoption of open information environments, while simultaneously achieving a financially sustainable model to permit future content and technology developments. The Service recognizes the need to significantly adjust the sustainability of its model as it adopts a more open environment for accessing federal science content. The NTIS business model was originally premised on a demand-base of hardcopy delivery formats of scientific information. Consistent with the evolution of electronic access and this Administration's emphasis on "Open Government," the Service is modifying its cost recovery business model - a transition that is well underway. NTIS is working to broaden our information dissemination scope and to be more "open." NTIS's transition initiatives include the Public Access NTRL program and other actions that I will address later in my testimony.

Value of NTIS's Services Mission to the Federal Government and Public

Throughout its history, the Service has had to develop advanced information systems to accomplish its mission. NTIS was a leading adaptor and innovator in the 1970's and 1980's of information technology solutions in support of the clearinghouse mission. Responding to the evolving need for document access, Congress passed the National Technical Information Act of 1988 and other statutes authorizing the Service to implement new methods or media for dissemination of scientific, technical, and engineering information. These authorities allowed the Service to produce and disseminate information products in electronic format, provide products and services to other federal agencies, and explore and deploy new services using public-private joint venture partnerships.

The joint venture authority created by Congress grants the Service the ability to efficiently and effectively respond to dynamic conditions for shared systems development, content delivery, oversight and management. The joint venture partnership authority permits the Service and its joint venture partners to work directly with a federal client agency to develop a project plan tailored to accomplish the specific requirements of the agency. This is a strength of the NTIS joint venture partnership program, in which the federal agency is the process owner, and NTIS and its partners evaluate, develop and select the best value solution. A mutual understanding of needs and capabilities exists before the project is approved and work commences. Accomplishment of the common goal involves the investment of resources by both the Service and its partner(s), and a sharing of risks. This process is iterative and often continues after the project has started as understanding grows and new ways to use the technology or modify the process are discovered. In fact, the process continues even after the project is delivered to ensure continued security, efficacy, and value.

The Service continues to provide information management services through a mix of in-house services, public-private joint venture partnerships, and federal contracting tailored to meet the needs of the project. NTIS' joint venture partners range from Disabled Veterans, Women-owned and Small, Disadvantaged Businesses to middle- and large-sized businesses.

NTIS has been providing innovative technology services to the public and other federal Agencies since 1992, when FedWorld was created as a division within the Bureau. FedWorld was established to leverage in-house NTIS technology for public and federal consumption. During those first years, the NTIS systems were available to all citizens through dial-up connections accessing DOS-based bulletin boards, and FedWorld provided any US citizen with telephone service access to bulletin boards as well as early email address and services.

FedWorld systems also provided online locator services for a comprehensive inventory of information disseminated by the Federal Government, thereby assisting agencies and the public to electronically locate Federal Government information from a single location. Metadata on federal and commercial sites were housed within the NTIS repository, and information was made accessible through an electronic gateway of more than 100

Government bulletin boards. What started out as a small dial-up access system grew quickly in size, technology, and content.

The NTIS FedWorld website was one of the first to provide centralized portal services to citizens and other federal agencies searching for government information. Some of the portal services provided were:

- Metadata compendium of scientific web resources;
- Federal job vacancy announcements (prior to the launch of USAJobs.gov);
- US Supreme Court decisions in downloadable text format;
- International Trade and Business Bookstore;
- National Audiovisual Center;
- Portal for the Government Information Locator Service (GILS).

Much of the functionality of the FedWorld site was transferred to USA.gov when it was launched.

When the Internal Revenue Service (IRS) needed technical innovation, they came to NTIS, and together NTIS and the IRS created a powerful technical web system with controlled content management practices and advanced technologies. The IRS website was hosted by NTIS in three facilities across the US that ensured balanced, reliable and secure access throughout the tax season. During the last season NTIS hosted the system, there was no system downtime despite more than 65 million visits on tax day.

The Service began providing Learning Management Systems more than 15 years ago to the Department of Defense (DOD) Defense Acquisition University (DAU). For that project, NTIS worked with a joint venture partner who administered the application while the Service hosted the system, and provided help desk support as well as program and financial management of the entire project.

The NTIS track record of creative, innovative technology solution support for federal agencies has continued in the 21st century. NTIS technology innovation can be summed up as secure management and distribution of government content and data, a capability that is evolutionary and ongoing. The Service has a long, solid history providing those shared services to all branches of the government.

Today, the Service offers federal information services in the following business categories:

- Distribution and Fulfillment
- Scanning and Digitization
- E-Training and Knowledge Management
- Web Services and Federal Cloud Computing

In Fiscal Year (FY) 2013, NTIS, as a federal shared services provider, completed 103 separate services projects for 39 federal agencies and departments. The following are a few examples of current and recent NTIS services projects:

- Limited Access Death Master File (DMF) Certification Program

- Social Security Administration (SSA) Special Notice Option Program
- U.S. Department of Agriculture Staff Acquisition Solution
- U.S. Department of Labor Wage Determination On Line (WDOL)
- Department of Homeland Security NextGen my Homeland Proof of Concept
- Department of Education Free Application for Federal Student Aid (FAFSA) Program
- Financial Disclosure Online (FD OnLine)
- Distribution of 46.6 Million information products for other federal agencies

NTIS provided \$64 Million in information management services to other federal agencies in FY 2013. In FY 2014, federal services revenue is projected to increase to \$88 Million.

For example, an NTIS joint venture project developed a fully integrated system for talent management, the “One USDA Staff Acquisition Solution,” for the U.S. Department of Agriculture (USDA). The joint venture partner on this particular project is a Service-disabled, Veteran-owned small business. “One USDA” directly supports critical U.S. Forestry Service hires during the fire season. This NTIS-led project has processed information from over 884,000 applications with 161,627 veteran applications.

The Service has streamlined and modernized warehouse and distribution infrastructure that provides distribution/warehouse services to other agencies, including the Department of Education, Social Security Administration, and USDA. For the Department of Education, NTIS’s fiscally responsible model has reduced annual project costs by 40% from the prior contract cost.

The Social Security Administration (SSA) Special Notices Option program enables visually impaired citizens to access their SSA information. As part of a court ruling, SSA was required to provide alternative formats for visually impaired notice recipients. The SSA came to NTIS for assistance to develop processes to enable accessible notice information. The NTIS team deployed an innovative process that safeguarded the data, provided the ability to track notices, met the court’s requirements, and supported the SSA enterprise process requirements.

Systems deployed by the NTIS teams are continually reviewed to improve processes. An annual project plan is developed and agreed to with the federal client. In this way, the NTIS teaming capability provides a framework for continuing to refine improvements for new and improved functionality. One example is the “Financial Disclosure Online,” which is constantly updated based on the needs and requirements expressed by users. This responsive, iterative methodology avoids insufficient, outdated, and inferior system requirements and is representative of NTIS projects.

After the federal client decides to proceed with the project, an interagency agreement and project plan are developed to accomplish the project. Federal agencies are under no mandate to use NTIS information services. Agencies are free to obtain information services through interagency agreements with other federal agencies or obtain services through federal contract acquisition.

As is evident by NTIS's long history as a shared services provider and technical innovator, NTIS is constantly re-evaluating the technical environment and the evolving demand for services. The growth in NTIS federal services, provided to other agencies is a direct result of NTIS technical innovation and its ability to provide secure delivery of content. Federal agencies enter into shared services agreements with NTIS instead of contracting with industry for the following reasons:

- NTIS has the resources and technical expertise necessary to assist federal agencies in serving the information needs of their constituencies.
- NTIS provides a government-to-government partnership arrangement that is executed in a known financial and programmatic environment. The arrangement is collaborative and transparent.
- NTIS can enter into public-private joint venture partnerships to develop innovative solutions that other federal agencies require.
- NTIS is recognized for its operational efficiencies, best value pricing, and customer satisfaction.
- NTIS is customer-focused and has created feedback mechanisms to continue understanding evolving requirements.

Critical NTIS Functions Performed for the American Public

NTIS has unique authorities that enable it to provide scientific and technical repository services for the rest of the Federal government to foster dissemination of information and data. As the amount of data generated by the Federal Government grows, so does the challenge of ensuring its continued access and permanent availability. This is a function unique to NTIS.

NTIS provides services typically not directly available from private search engines. For instance, NTIS catalogues and indexes all of the collection documents and creates sitemaps that are then made available to all search engines to provide better "views" into the collection. Additionally, few agencies are required to maintain permanent access to their own agency information on their own websites and many have neither the technical or financial resources to do so. Consequently, by sending their official reports to NTIS, agencies ensure permanent public access to this information.

The Service also performs other valuable and unique functions for federal agencies and the public, a number of which are highlighted below.

Insurance: NTIS handles requests for, and provides information from, the Limited Access Death Master File (DMF), which is used by insurance and annuity companies to ensure that death benefits and annuities go to the right people, and to prevent fraud. By statute, many states require insurance companies to utilize the DMF for purposes of determining annuities. NTIS provides this critical service through an agreement with the Social Security Administration and in a manner consistent with Section 203 of the Bipartisan Budget Act of 2013.

Financial institutions and retail companies such as Amazon, also use the DMF from NTIS to ensure the security of hundreds of thousands of transactions every day. Legitimate users of the DMF have made it abundantly clear that the DMF's unavailability – even temporary unavailability, would have a severe and wide-spread negative impact on financial and retail institutions. The Service is committed to ensuring the continued and uninterrupted contributions of the DMF to our Nation's financial well-being.

Medical and Pharmaceutical Services Firms: The Service provides controlled distribution of sensitive data for the Drug Enforcement Agency (DEA). The distributed data support the control and enforcement of controlled substances under the DEA Controlled Substances Act. The "NTIS System Registrants Database" enables Health Maintenance Organizations, physicians and health practitioners, insurers, pharmaceutical and medical services firms, and others to properly prescribe and handle controlled substances.

Libraries: Many academic and government libraries subscribe to the Service's National Technical Reports Library, which I described earlier in my testimony, for unlimited access to approximately 2.8 million technical reports on the results of federally funded research. Thousands of students and staff have open and free access to this important and unique collection.

American Public and Consumers: NTIS' permanent repository is one of the comprehensive collections of federally funded science and technology documents. Common search engines use algorithms that are designed to learn what users want to see based on previous searches, location, ad clicks, etc., rather than through pure search and retrieval. These search engines leverage the cataloguing and indexing work published by the Service at the NTIS sitemap.

NTIS is mandated to be the permanent repository of federal science and technology reports. The Service was given that role precisely to avoid the duplication of effort, and consequent waste of taxpayer dollars that would result if individual agencies were required to take on that repository function within each agency. Moreover, U.S. Government science and technology reports ("gray literature") would be lost forever without this permanent repository.

As I noted previously, many federal agencies and departments have neither the technical expertise, nor the statutory mandate or funding, that would be necessary to individually take on responsibility to maintain permanent availability of their scientific and technical information. This is a service that NTIS is uniquely suited and mandated to provide, and which it provides without appropriated funding.

Developing an Open and Sustainable Model for NTIS Technical Reports

NTIS is a self-sustaining federal agency maintaining fiscal viability and responsibility through the collection and management of fees for both information products and services. NTIS has had positive margins for each of the past five Fiscal Years and expects to remain viable and self-sustaining throughout this decade. Significant cost

reductions in direct and allocated costs, combined with new efficiencies in information products and information systems upgrades, have significantly reduced the operating costs associated with NTIS information products.

The Service does not oppose changes to the fee-based model under which NTIS has operated for the dissemination of federal technical reports as Congress has recently suggested. In fact, NTIS, throughout its history, has constantly re-evaluated its model in adapting to an ever-changing financial environment. And, and the Service has been listening and is responding to the Congress's inquiries and suggestions.

- The Service is proactively engaged with the NTIS Advisory Board, academia and industry partners to develop a business model to facilitate free U.S. public access to electronic scientific and technical reports through its National Technical Reports Library (NTRL).
- After receiving the final concurrence from the NTIS Advisory Board on April 25, 2014, NTIS is developing the Public Access NTRL service that will allow the American public to have free and open access to NTIS electronic technical reports, associated biographic records, other selected research services, and linkage to report data. The beta version of this service is scheduled to be released August 1, 2014. This new program is anticipated to be launched in October 2014.
- NTIS features on its website that each of the technical reports and documents in its repository may be available online for free either from the issuing federal agency, GPO, or through private sector search engines. NTIS also advises the public of free ways in which to receive a report before processing a request for a technical report.
- The Service is working with other federal agencies to facilitate the collection and dissemination of federal science and technical information by providing enhanced information management and repository services to federal scientific content developers. NTIS, under the Federal Science and Repository Service (FSRS), will become a center of excellence for expertise and capabilities in assisting federal agencies in making the data associated with their scientific and technical reports available for public use in accordance with the Administration's Open Access and Open Data Policy, and the Department of Commerce Data Strategic Goal.
- NTIS has applied for FEDRamp Certification and will submit NTIS shared services for inclusion on Uncle Sam's List.

In conclusion, as NTIS moves forward, we will continue to adopt the business processes and technology needed to achieve the Service's mission in the most efficient and effective manner.

Thank you for this opportunity to present to the Subcommittee. I am pleased to answer any questions that you may have.