

Testimony of Curtis W. Sumner, LS
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before the
Subcommittee on Energy and Mineral Resources
Committee on Natural Resources
U.S. House of Representatives
December 5, 2013
on
H.R. 916 and H.R. 1604

The National Society of Professional Surveyors (NSPS) is a national professional society with more than 10,000 members through affiliate organizations in all 50 states. NSPS seeks to advance the sciences and disciplines within the profession, enhance the image of the surveying profession in the eyes of the public, advance the protection of public welfare relative to surveying and mapping issues, and encourage high standards of ethical and professional behavior.

Mr. Chairman, permit me to cite two quotes to put the need for H.R. 1604 and H.R. 916 into perspective.

First -

“The last major study of Federal surveying and mapping nearly 40 years ago found a disturbing proliferation and duplication of activity among many different agencies. Today, these activities are found among an even greater number, suggesting that over the years the conventional budgetary process alone could not constrain the growth of surveying and mapping outside the core agencies, which apparently were not getting the job done...” 39 Federal agencies engage in surveying and mapping activities in an “uncoordinated, noncumulative, single-purpose” manner that has an “inability ... to deal efficiently and responsively with ... growing and changing requirements”. Agency funding is “piecemeal” and “lacks central management” and such surveying and mapping activities “are generally marked by insularity, agency competition, some overlap, and shortfall in meeting important national needs”. The effort to coordinate agencies’ activities has been “only partially successful”. Agencies have not been “given clear mandates to search for and identify duplication”.

And –

“There is a critical need for a better land information system in the United States to improve land conveyance procedures, furnish a basis for equitable taxation, and provide much-needed information for resource management and environmental planning ... Problems inherent in our present system may be categorized as accessibility, duplication, aggregation, confidentiality, and institutional structure ... Current technology is adequate in most cases for the surveying, mapping, data collecting, filing, and dissemination of information ... The major obstacles in the development of a multipurpose cadastre are the organizational and institutional requirements.”

These are not current or recent quotes. The former is from a 1973 OMB Report of the Federal Mapping Task Force on Mapping, Charting, Geodesy and Surveying and the latter is from a 1980 report, Need for a Multipurpose Cadastre, by the National Academy of Sciences.

NSPS, and its predecessor, the American Congress on Surveying and Mapping (ACSM), have been deeply involved in both these studies. In fact, ACSM was instrumental in a more recent look at Federal geospatial structure, organization, governance, and management, "Geographic Information for the 21st Century - Building a Strategy for the Nation" by the National Academy of Public Administration (NAPA) in 1998, that called for a reorganization of Executive Branch agencies in order to improve coordination within the Federal government and with state and local government, the private sector, and the academic community.

Let me first say that H.R. 1604 includes several important changes from its predecessor in the 112th Congress, H.R. 4233. The composition of the proposed National Geospatial Policy Commission has been revised to provide a broader cross-section of the geospatial stakeholder community. The section on development of standard clauses, contracts and form licenses has been revised to distinguish licensed geospatial data from state-issued licenses to practice.

Mr. Chairman, GAO reports, Congressional hearings, and other studies have highlighted the need to reform and redesign how surveying, mapping and geographic information activities are funded and managed at the Federal level to eliminate wasteful duplication, improve governance and coordination, and maximize the use of state-of-the art mapping and geospatial technologies. Geospatial data, products, technology and services benefit national priorities in economic development, resource management, environmental protection, infrastructure, construction and maintenance, homeland security and a variety of other national needs and applications. Executive Order 12906, issued by President Clinton in 1994 and reaffirmed by President Bush in 2003, established seven framework layers of geospatial data for Federal investment -- geodetic control, parcels (cadastral), orthoimagery, elevation, hydrography, administrative units, and transportation -- all constituting the National Spatial Data Infrastructure (NSDI). Eighteen years later, numerous new initiatives have been launched to complete some of the framework. These include National Land Parcel Data, Imagery for the Nation, Transportation for the Nation, and others. While these are all worthy programs, their proliferation indicates the *failure* of the NSDI. A strategy must be developed to both fund and complete the NSDI as a comprehensive approach, or to fully implement these individual initiatives.

There are dozens of Federal agencies engaged in geospatial activities. Neither the agencies, nor OMB, have a comprehensive understanding of which agencies are involved in geospatial activities. No one in the Federal government has a current, accurate accounting of annual geospatial expenditures. It is virtually impossible to determine how many Federal employees are involved in these activities. There is no balance sheet, prepared to accepted cost accounting standards, of the capital investment made in equipment and plant (office space, etc.). There is no accurate database on the amount of geospatial work performed in-house and by contract. The relationship of each agency with other Federal agencies and with State, local and foreign government agencies needs improvement. There is considerable duplication and redundancy, little sharing of data, and development of standards for "interoperability" of data has been far too slow. The obstacles are not technical; they are political and organizational.

H.R. 1604, the "Map It Once, Use It Many Times (MIO-UIMT) Act" provides for consolidation and stronger organizational partnerships for geospatial coordination. This legislation establishes the National Geospatial Technology Administration within the United States Geological Survey to enhance the use of geospatial data, products, technology, and services, to increase the economy and efficiency of Federal geospatial activities. MIO-UIMT also creates a National Geospatial Policy Commission to develop and

periodically amend a comprehensive plan to be known as the “National Geospatial Data Plan”. H.R. 1604 consolidates geospatial activities, eliminates obsolete programs and establishes today’s priorities.

If there is a criticism within NSPS about H.R. 1604, it is that it does not go far enough. While we understand the Labyrinth of committee jurisdictions and the parliamentary process of referrals of legislation, we believe there are programs, such as FEMA flood mapping, that would benefit from consolidation and better coordination.

There is a critical need in the United States for current, accurate location data on pipelines, surface and underground infrastructure, utilities and railroads. The location of these assets, portrayed on surveys and maps, are essential to public health, welfare, and safety, as well as to protect property rights. We are pleased that H.R. 1604 adds such infrastructure location data to the NSDI.

At a hearing on pipeline safety earlier this year, Senate Commerce Committee Chairman Jay Rockefeller (D-WV) said:

“They crisscross underneath our cities and country sides, yet most of the time we are not even aware they are there. They deliver critical fuel that powers our homes, factories, and offices, and also transport the oil and gas that keep our cars, trucks, and planes operating...Compared to other forms of transportation, pipelines are a relatively safe, clean and efficient way of transporting the goods they carry. Unfortunately, this is not always the case...Lack of records about older pipelines is a real problem and contributed to a catastrophic pipeline explosion in California that killed several people.”

More than 183,000 miles of railroad tracks run throughout the United States, adjoining tens of thousands of landowners. Railroad tracks and the monumentation that lie within the railroad right-of-way are paramount in defining the legal location of adjoining property boundaries. When abandoned railroad tracks adjoining landowners are removed, and there is no monumentation showing where the tracks once existed, defining the location of boundary lines for adjacent property owners can be a costly endeavor.

Federal officials, transportation designers, telecom, and utilities and pipeline operators, as well as local government, need accurate location information to manage existing underground infrastructure and plan for future growth and development. Surveys and maps of underground utilities are often inaccurate. In many cases, they don’t even exist. The National Transportation Safety Board (NTSB) and other authorities often cite the lack of location data as a factor in pipeline accidents. The inaccuracy of location data, unmarked utilities, and crowding within rights of way are major factors contributing to disruption to underground infrastructure. Digging, drilling or excavating in the vicinity of unknown, unmarked, unmapped, or incorrectly located utilities can be costly in terms of wasted excavation time, service disruption and utility downtime, environmental damage, and - worst of all - personal injury or loss of life.

Moreover, the tragic accident in New York last week demonstrates the need for Positive Train Control (PTC) systems, which utilize highly accurate geospatial data, such as GPS data, LiDAR data, high resolution digital imagery, survey data, and mobile mapping to delineate the location of rails, clearances and a detailed asset inventory, to assure safety, train separation or collision avoidance, speed enforcement, and for asset management.

As recently as January 2013, the Government Accountability Office released a study (GAO-13-168) on pipeline safety urging “better data” with an emphasis on “*location*”, “*proximity*” and “*topography*.”

Congress should investigate the problem of railroad abandonment, underground infrastructure location, and the need for improved location data to enhance public safety, protect the environment, and grow the economy by strengthening Federal law on accurate location (surveying and mapping) of such pipelines, railroads, and other forms of utility infrastructure. H.R. 1604 is a first step in that process.

As I noted earlier, NSPS and its predecessor have been leading proponents for a national parcel system. H.R. 916 helps address this need by authorizing a current, accurate inventory of land owned by the Federal government.

The Department of the Interior (DOI) Office of Inspector General (OIG) Final Audit Report, “Department of the Interior’s Management of Land Boundaries” (Audit No. C-IN-MOA-0001-2009), July 16, 2009, found “that the BLM’s Cadastral Survey program was missing the opportunity to identify and perform surveys on high risk lands where significant potential revenues could be collected by the Department or Indian Tribes. . . . This revenue could result from the collection of fees or royalties from identifying (a) unauthorized uses including rights-of-way violations and (b) the improper removal of oil, gas, timber, or other resources from Federal or Indian lands.”

In September 2012, the Department of the Interior (DOI) Office of Inspector General (OIG) found in “Management of Rights-of-Way in the U.S. Department of the Interior,” (Report No. C-IN-MOA-0013-2010) that “the Department’s bureaus have an opportunity to collect as much as \$100 million or more annually if they assess market value for rents” for rights-of-way (ROW) on Federal land. This potential revenue is not collected because rents are set below market value, rent discounts are not justified, and unauthorized uses of ROW are not identified and corrected. Although most ROW are valued based upon rent schedules, obtaining true market value requires individual valuations of proposed ROW. Data needed for valuing and prioritizing ROW could include the value and volume of a proposed service or product in addition to its location and land requirements. The latter are surveying and geospatial information data requirements.

In testimony before the House Subcommittee on Energy and Mineral Resources on May 2, 2012, in Colorado Springs, CO, the Government Accountability Office (GAO) “raised concerns about the accuracy and completeness of the data used to manage Federal land and resources and revenues collected from activities on Federal land. As these prior reports have concluded, without accurate and complete data, managers cannot make fully informed decisions and effectively manage and evaluate agency activities.” (GAO-12-691).

All of these reports demonstrate the need for a better land information system in the Department of the Interior. That is what H.R. 1604 will provide. The Federal government is losing valuable revenue due to the inefficiency of the current system. As the Inspector General found in the right-of-way report, “most of the recommendations will not require additional funding. Fully implementing the recommendations, however, should result in increased revenues, thereby offsetting any costs.” We believe the same applies to H.R. 1604.

Mr. Chairman, just as we found 40 years ago and 80 years ago, there is a disturbing proliferation and duplication of surveying and mapping activity among many different agencies, and a lack of utilization of geospatial services, data and technology to solve pressing national problems. There is an even more critical need for a better land information system in the United States today. The technology that the

geospatial profession brings to the table is more than adequate for the surveying, mapping, data collecting, filing, and dissemination of information that is needed. And the major obstacles we face are organizational and institutional.

H.R. 1604 and H.R. 916 are steps in the right direction. We urge their prompt and favorable consideration by the Congress.