

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA**
(Alexandria Division)

MANAGEMENT ASSOCIATION FOR PRIVATE PHOTOGRAMMETRIC SURVEYORS, <i>et al.</i> ,)	
)	
Plaintiffs,)	Civil Action No. 1:06cv378
)	
v.)	(TSE/BRP)
)	
UNITED STATES OF AMERICA,)	
)	
Defendant.)	
)	

AFFIDAVIT OF JACK A. BUTLER

The undersigned affiant, Jack A. Butler, being first duly sworn, hereby deposes and says:

1. I, Jack A. Butler, am over the age of eighteen, suffer no legal disabilities, have personal knowledge of the facts set forth below, and am competent to testify.

2. I am a member of the Urban and Regional Information Systems Association (URISA), one of the amici. I submit this affidavit in support of the motion by AAG and other organizations for leave to submit a brief *amicus curiae* in the above-captioned case, and in support of the brief *amicus curiae* itself. In particular, I wish to communicate to the Court the fact that the “mapping” industry, particularly the Geographical Information System (“GIS”) and computerized mapping components, has long performed a broad range of activities that go well beyond traditional “surveying and mapping,” which is traditionally limited to establishing the legal boundaries of real property.

Personal Background

3. I am a founding partner of Butler & Butler, LLC, a Florida corporation. Butler & Butler provides information technology consulting services to private-sector clients and government agencies throughout the U.S. and Canada. Before founding Butler & Butler, I held a number of positions in the fields of planning, information systems, and civil engineering.

4. I have special knowledge, skill, experience, training, and education in Geographic Information Systems (GIS) technology, computerized mapping, and planning. I have 32 years of experience in planning and mapping, and have written over 90 publications related to GIS, mapping, and planning.

5. I possess a Bachelor's degree in Business Administration with a major in Management Information Systems from the University of Georgia, a certificate of Public Supervisory Management from Florida State University, and a Master's degree in Civil Engineering with a specialization in Spatial Analysis from the University of Colorado, Denver, where I graduated *summa cum laude*. While an undergraduate, I served as a policy intern to then-Governor Jimmy Carter.

Development of the GIS and Computerized Mapping Industries

6. Even before the Brooks Act was enacted in 1972, aerial platforms, such as airplanes, had provided spatial data for many decades. Following 1972, aerial data became increasingly available from the satellite-based remote sensing industry. In July 1972, recognizing the value of photographs that astronauts had taken during the Apollo 7 and 9 missions, NASA launched Landsat I, the first U.S. satellite to supply data for mapping the Earth's surface.

7. In addition to initiating the era of Earth-observing satellites, the Landsat program also marked the beginning of the large-scale production of digital mapping data. Today, Earth-observing satellites generate trillions of bytes of information every day. The enormous amounts of information that satellites routinely gather has led to the introduction of massive databases of digital mapping data, requiring specialized education and skills to design and administer. These tasks are not within the scope of the traditional training and skills of land surveyors.

8. In 1964, Dr. Roger Tomlinson had created the first GIS for the Canada Land Inventory. As satellites began gathering increasingly massive amounts of digital data, the need to manage these data propelled the development and growth of the new industries of GIS and computerized mapping. As of 1988, when Congress amended the Brooks Act to add the term “surveying and mapping,” GIS was already a recognized field of endeavor, clearly demarcated from traditional land surveying and mapping.

9. A GIS is a system for capturing, storing, analyzing and managing features and associated attributes that are spatially referenced to the Earth. These activities are outside of the scope of surveying and survey mapping, which measures the legal boundaries of real property.

Examples of Mapping Services of Interest to the U.S. Government

10. The U.S. Government is actively involved in many mapping projects involving GIS and computerized mapping. These projects do not require or involve the measuring or mapping of legal boundaries or the construction of buildings to code. Instead, they involve the use of spatial data stored and managed within a GIS to gather,

store and present other types of information. Examples of such federal mapping projects, actual and projected, include the following:

- a) Department of Commerce, National Oceanic & Atmospheric Administration (NOAA), mapping of weather and climate change;
- b) Department of Health and Human Services, Centers for Disease Control (CDC), epidemiological mapping of outbreaks and epidemic diseases;
- c) Department of Justice, Federal Bureau of Investigations (FBI), mapping of crime statistics and locations of child sex offenders;
- d) Department of Transportation, National Highway Traffic Safety Administration (NHTSA), real-time mapping of traffic patterns, and Federal Aviation Administration (FAA), passenger airline mapping systems;
- e) Department of Homeland Security, Federal Emergency Management Agency (FEMA), mapping of potential terrorist threats and emergency planning;
- f) Department of Defense, National Security Agency (NSA), mapping of internet traffic, and U.S. Navy, mapping the locations of allied ships in conflict regions;
- g) National Aeronautics and Space Administration (NASA), mapping of debris and satellites surrounding Earth and other planets;
- h) Department of Energy, mapping power grid status across the United States;
- i) Department of the Interior, mapping of endangered species, fishery management, fire-prone regions, and ecological impact;
- j) Department of State, mapping political hot-spots for policymaking;


- k) Department of Agriculture mapping production of crops by region; and
- l) U.S. Congress, developing census-based maps to aid in the drawing of new voting districts.

11. Each of these projects and others like them require the skills of professionals educated and trained in GIS, computer mapping, and any number of other scientific or technical disciplines. They do not require the training or skills of a licensed surveyor. If the Court determines that they do, then no geographer could ever make another map for the U.S. Government.

12. If the U.S. Government were required to carry out these types of projects using the procedures of the Brooks Act, it would make it much more difficult for the Government to carry out the projects, if it could carry them out at all, and it would certainly make them more expensive to carry out.

This, the 24th day of January, 2007.

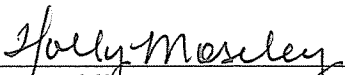
COUNTY OF ORANGE
STATE OF FLORIDA



Jack A. Butler, M.Eng, AICP

Sworn and subscribed before me this

the 24 day of January, 2007.



Notary Public HOLLY MOSELEY

My Commission expires: _____

