



National Geospatial Program Office

# 125 Years of Topographic Mapping



National Geospatial Program Office

# ***Mapping at the USGS***

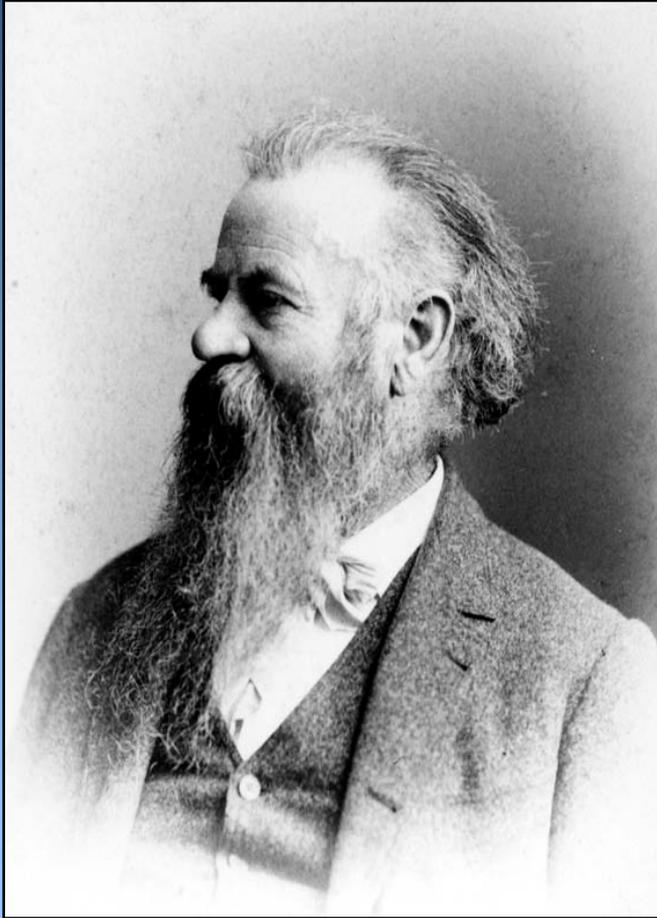
## ***A Brief Look at our History***

**Mark L. DeMulder**  
**Director, National Geospatial Program**

U.S. Department of the Interior  
U.S. Geological Survey



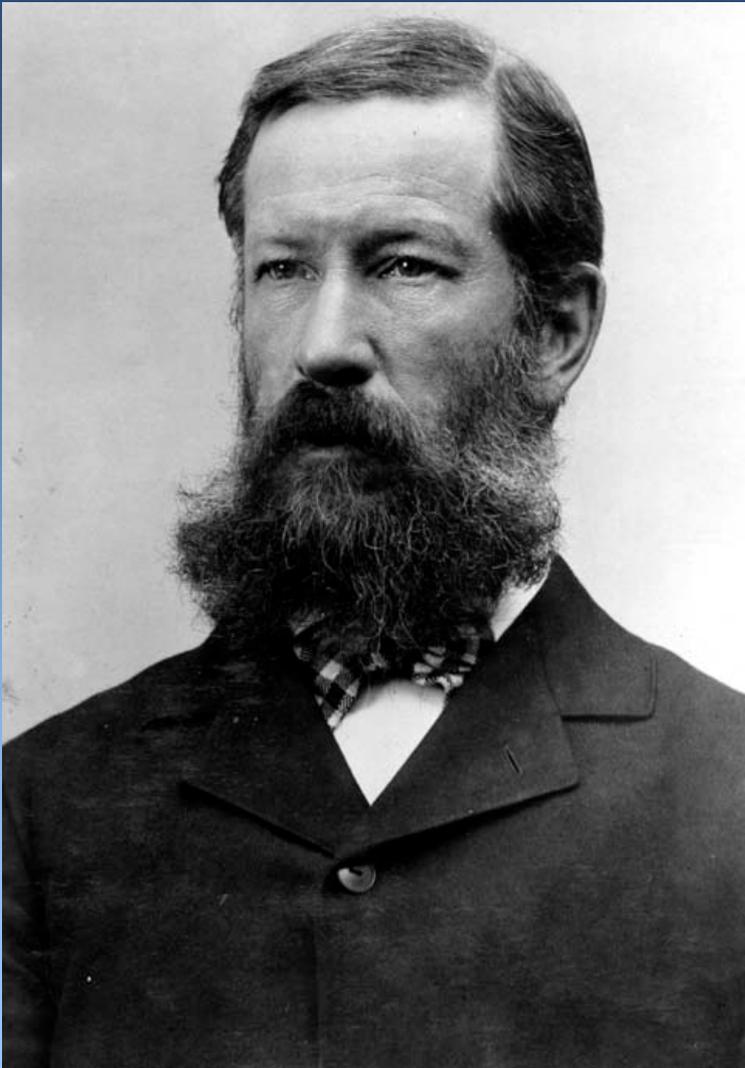
# Powell on National Mapping



Testimony to Congress on  
December 5, 1884

*“A Government cannot do any scientific work of more value to the people at large, than by causing the construction of proper topographic maps of the country”*

# Henry Gannett – “The Quad Father”



- Topographer for the Hayden Survey
- Chief Geographer of the USGS
- One of six founding members of the National Geographic Society, and founder of the American Association of Geographers (AAG)
- Authored “A Manual of Topographic Methods” in 1893
- Organized the Board of Geographic Names with T.C. Mendenhall in 1890 and served as Chair for 20 years

# Field Crew in the Cascade Mountains of Washington



“Necessary qualifications were sturdy physique and experience in packing loads on the back, familiarity with boats and with general habits of rough camp life. Travel was variously by dog team, canoe, raft, pack train, and on foot.”

# Horse-Drawn Wagon Northwest of Sacramento, California



“The topographer would drive over the roads with the planetable on his lap and sketch in the contours. He determined his locations and distances by counting the revolutions of a rag tied to the front wheel of the buggy.”

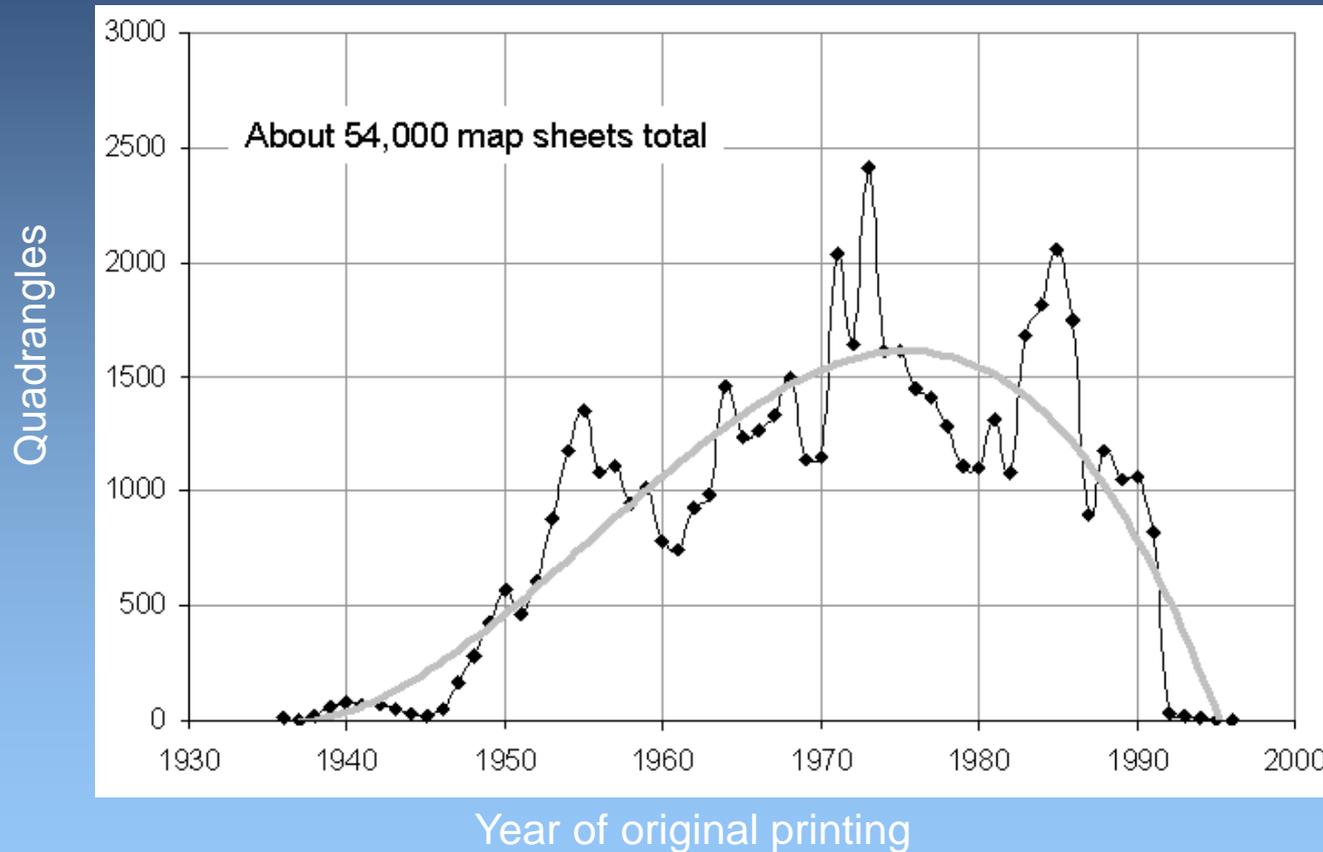
“This method did not possess the apparent luxurious ease. In front of the seated topographer was a harnessed horse who perhaps could not stand still, and in fly time, May to September, would keep up a continuous tap dance.”

# A USGS Packtrain While Mapping the Mount Goddard, California Quadrangle



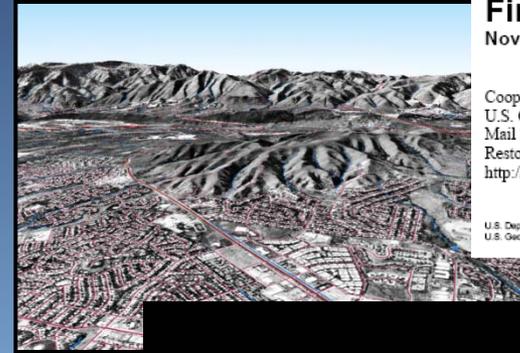
“Where the terrain had considerable relief, the topographer dismounted and measured distances by pacing. He was warned not to count mule paces, as that cagey critter traveled away from camp with a reluctant, shortened step and towards camp with a springy step several inches longer.”

## Original 7.5-minute coverage - contiguous 48 States



# The National Map Vision

- A **seamless, continuously maintained, nationally consistent** set of base geographic data
- Developed and maintained through **partnerships**
- A national **foundation** for science, land and resource management, recreation, policy making, and homeland security
- Available over the **Internet**
- The source for revised **topographic maps**



## The National Map

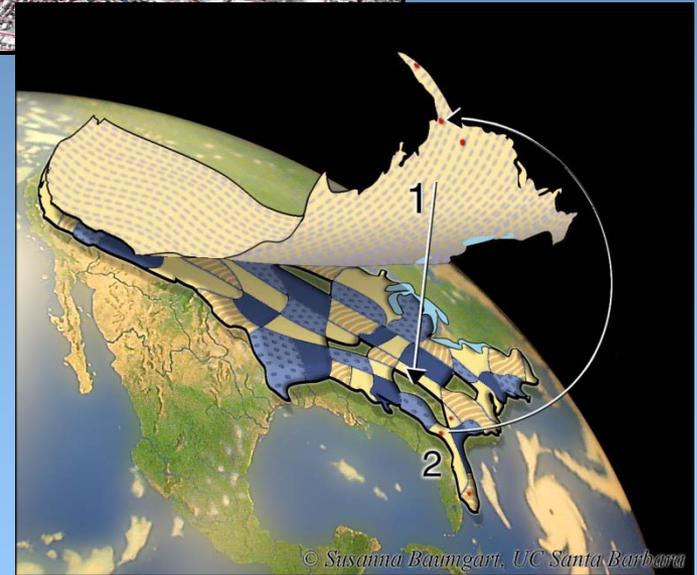
Topographic Mapping  
for the 21<sup>st</sup> Century

### Final Report

November 30, 2001

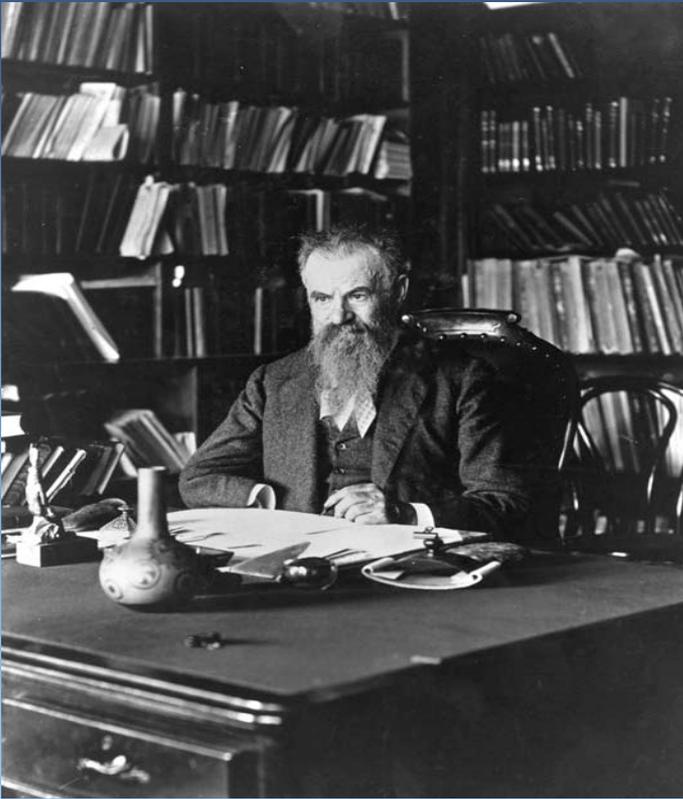
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U.S. Department of the Interior  
U.S. Geological Survey



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# A Challenge – From A River Running West, Donald Worster



- *Dogged in hope, driving in energy, he remained to the end incapable of imagining that his native country would ever fail in its promise*

# National Map – A Proud Heritage and a Bright Future

- [www.nationalmap.gov](http://www.nationalmap.gov)

