

Our Heritage

Happy Birthday, Matthew Maury

By Howard Cohen

This year marks the bicentennial of Matthew Fontaine Maury's birth. Maury, who was born on Jan. 14, 1806, and died on Feb. 1, 1873, was an American original who wore many hats throughout his career as a naval officer, pioneer, superintendent, scientist, author, lecturer and educator. He was also a leader of the Confederate navy.



Maury was a distinguished scientist in the mid-19th century and invented an electrically detonated, floating mine for the Confederacy.

Photo courtesy of the Virginia Public Library

From its inception, the United States has relied upon brave individuals willing to risk life and fortune to explore uncharted territory. Explorers such as Lewis and Clark led expeditions through the Louisiana Purchase, aiding what became the great western migration across the North American continent.

Their reports, maps and artwork graphically and accurately depicted the little-known territory through which they traveled. Indeed, the Lewis and Clark Expedition is considered by many to be the first nationally sponsored geospatial intelligence mission, chartered to provide information about unknown territory through the use of maps, charts and drawings.

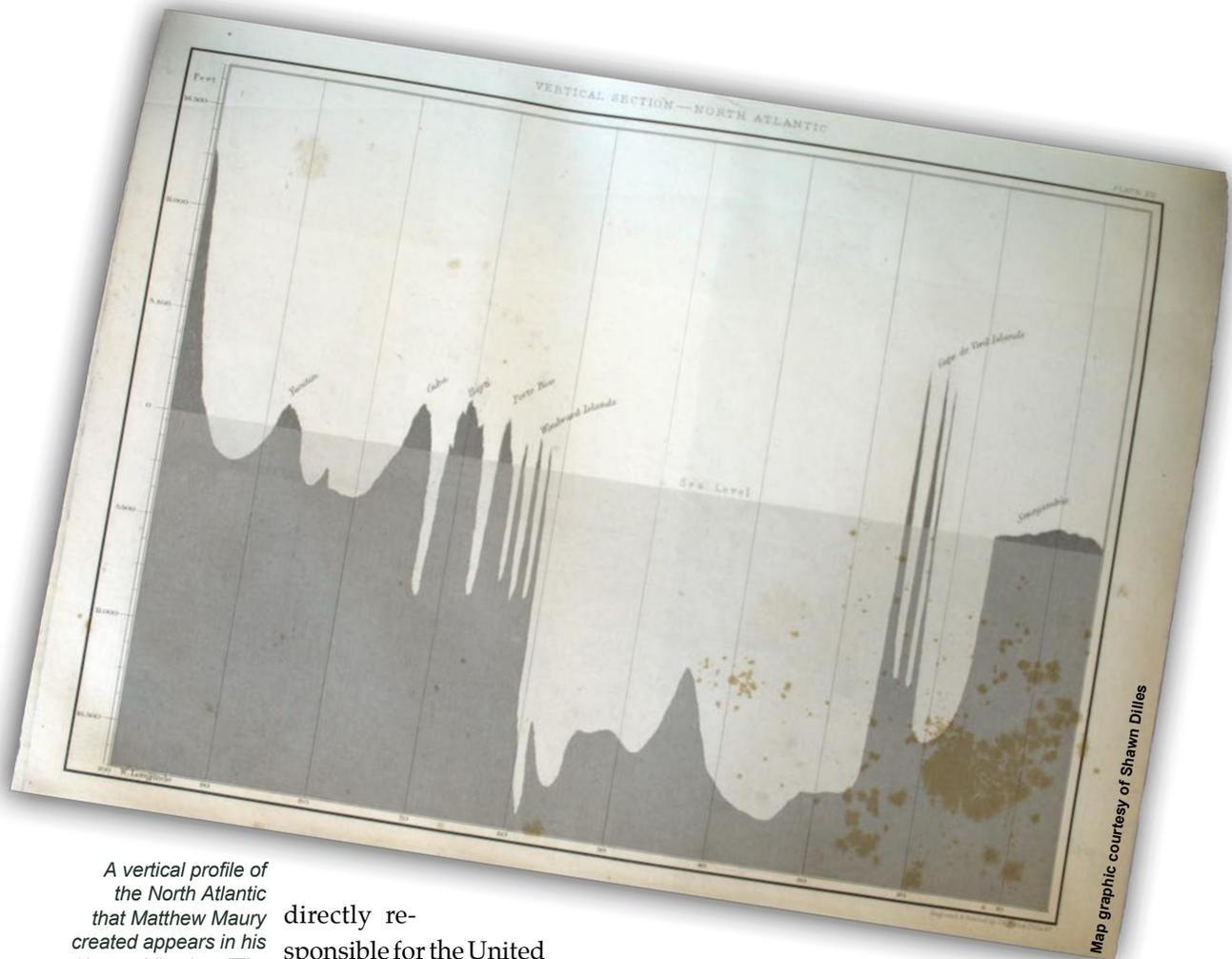
American explorer John Charles Fremont (1813-1890) also played a vital role; he was nicknamed "the Pathfinder" in acknowledgment of his expeditions to map the American West between 1838 and 1854.

However, as the American westward expansion grew, an equally vital exploration, led by pathfinder Matthew Maury, was taking place on the world's oceans.

NGA proudly traces its lineage to these early explorers and is honored to have Maury Hall and the Fremont Building named after "pathfinders."

Efforts Bolster Naval Power

Maury applied his expertise to charting the maritime territory both along the coastlines and on the open sea. His efforts were



Map graphic courtesy of Shawn Dilles

A vertical profile of the North Atlantic that Matthew Maury created appears in his 1855 publication, *The Physical Geo-graphy of the Sea.* The spikes are islands in the ocean. The book also contains the first bathymetric chart published and earned Maury the title “Father of Oceanography.”

directly responsible for the United States’ emergence as a powerful seafaring nation unequaled in its knowledge of the Earth’s oceans, winds and currents.

Maury is known by several titles, all earned as a result of his work in several fields. To the mariner, he is forever known as “Pathfinder of the Seas,” a title he earned for his role in developing Wind and Current Charts in 1847, the predecessors of today’s NGA Pilot Chart Atlas.

He was perhaps the quintessential marine analyst, as he “analyzed and evaluated” thousands of ships’ logbooks that had been stored, by regulation, in Navy warehouses. By comparing different logs on any given route, he could deduce areas of wide differences and recommend certain areas of the oceans that should be avoided at different times of the year.

Today, NGA marine analysts embody Maury’s analytical skills by collecting, analyzing, maintaining and disseminating

navigation safety information to the Agency’s customers, the Navy and other NGA mission partners.

Maury also collected astronomical data and began cataloging the stars because of his belief that the United States should not be dependent upon foreign calculations and celestial observations. By 1849, his astronomical observations were sufficiently complete for him to establish the American Nautical Almanac Office.

Founder of Naval Meteorology

Maury is considered the founder of naval meteorology because he conceived the idea of a universal system of meteorological observations on both land and sea. In 1853, he organized and represented the United States in the first International Maritime Meteorology Conference in Brussels. This led to uniform weather-reporting systems for 13 nations.



The Matthew Maury Monument stands along the historic parade of statues on Monument Avenue in Richmond.



His 1855 publication "Physical Oceanography of the Sea" is considered the first modern textbook of oceanography and won Maury international fame, along with the title "Father of Oceanography."

Maury, along with his assistant John Mercer Brooke, played a significant role in developing a method for deep-sea sounding and bottom profiling of the ocean.

In 1858, this bathymetric data was instrumental in determining the location between Newfoundland and Ireland for the first trans-Atlantic cable. Cyrus Field, a U.S. financier and one of the founders of the New York, Newfoundland and London Telegraph Co. formed to carry out the project, was a driving force to have a trans-Atlantic connection. He said in a banquet celebration after the laying of the first trans-Atlantic cable, "I did the work, England gave the money, but Maury furnished the brains."

NGA continues Maury's bathymetric endeavors. NGA bathymetrists evaluate and extract hydrographic and bathymetric data to support safety in maritime navigation and create geospatial graphic displays and textual reports of intelligence data and information to meet customer requirements.

NGA Bathymetric Contour Charts play a vital role in underwater navigation and enable Navy submarines to support our nation's interests around the world.

Served Confederacy

Maury was a man ahead of his time, yet he lived within his time. As a native Virginian, he sided with the South at the outbreak of hostilities, and on April 20, 1861, he wrote to President Lincoln and resigned his commission in the Navy.

During the Civil War, Maury was the head of the Coastal and Harbor Defenses for the Confederacy. He was responsible for

developing the first electrically controlled submarine mine used in warfare. In 1862, after completing this project, he went to England to procure ships for the Confederate navy.

He did not return to the United States after the war but remained abroad until he was pardoned in 1868 by President Johnson. He then entered academic life and served as professor of physics at the Virginia Military Institute until his death in 1873. Maury is buried in Hollywood Cemetery in Richmond.

Maury's daughter, Diana, described her father in his prime as only a daughter could: "a stout man, and about 5 feet 6 inches; he had a fresh ruddy complexion, with curling brown hair, and clear, tender, blue eyes. His massive head and strong neck surmounted broad and square shoulders, and a chest deep and full. His arms were long and strong, with hands small, soft and beautifully formed; he was apt to use them in graceful gestures while conversing."

Because of his innumerable contributions in so many diverse and important fields of study, Matthew Maury is memorialized in many ways. From naval ships to buildings, the name of Matthew Fontaine Maury remains forever embedded in the American memory, a tribute to his contribution to all seafaring nations.

So, happy 200th birthday, M.F. Maury ... happy birthday.

This article was adapted from the introduction to the forthcoming NGA booklet "Tributes to M.F. Maury: The Quintessential Marine Analyst," by Howard J. Cohen. The booklet is expected to be available later this year and can be downloaded from www.nga.mil/maritime. This article appeared in the Washington Times June 25, 2006.