



Smithsonian

National Museum of American History Kenneth E. Behring Center

David Taylor Model Basin Collection

NMAH.AC.1563

Alison Oswald

2023

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Collection Overview

Repository:	Archives Center, National Museum of American History
Title:	David Taylor Model Basin Collection
Date:	1856, 1878, 1925-1971 (bulk 1940s)
Identifier:	NMAH.AC.1563
Creator:	David W. Taylor Model Basin
Extent:	2 Cubic feet (4 boxes)
Language:	Some materials in Russian.
Summary:	Collection documents the activities of the David Taylor Model Basin.

Administrative Information

Acquisition Information

Acquired circa 1979; immediate source of acquisition unknown.

Provenance

Collection transferred to the Archives Center from the Division of Work and Industry in February 2022.

Processing Information

Collection processed by Alison Oswald, archivist, 2023.

Preferred Citation

David Taylor Model Basin Collection, Archives Center, National Museum of American History

Restrictions

Collection is open for research. Unprotected photographs must be handled with gloves.

Conditions Governing Use

Collection items available for reproduction, but the Archives Center makes no guarantees concerning copyright restrictions. Other intellectual property rights may apply. Archives Center cost-recovery and use fees may apply when requesting reproductions.

Historical

The David Taylor Model Basin (DTMB) was conceived, designed, and built from 1937-1939 by the United States Navy for building and testing ship models in accordance with the most modern and accurate methods.

The facility was named after David Watson Taylor (1864-1940), a naval architect, rear admiral and the chief of the Bureau of Construction and Repair for the Navy. Taylor oversaw the design and construction of naval aircraft and

ships. Taylor conceived of and designed the Washington Navy Yard's Experimental Model Basin (EMB) in 1896. By the 1930s, the EMB had become inadequate for research, and a new research facility--David Taylor Model Basin--was built in West Bethesda, Maryland. It is now known as the Naval Surface Warfare Center (NSWC)

Source

Historic Mechanical Engineering Landmark, David Taylor Model Basin, 1939, Naval Surface Warfare Center, Carderock Division, West Bethesda, Maryland, January 30, 1998

Content Description

Collection consists of a report by Mills Dean III, titled "Frontier Days of Electronic Measurements of the Taylor Model Basin." The report contains photographs of the model basin and diagrams of its construction. The photographs document equipment, facilities staff, and testing activities of the David Taylor Model Basin in the 1940s. Photographs are of cathode ray tubes recording channels; circuits; diagrams; a dynamometer; sections of ships at sea; and a static and dynamic ship analog computer. Also included are photographs of the David Taylor Model Basin (exterior and interior shots); electronics laboratory; Model Basin staff; and the 24th Annual Meeting of the Eastern Section of the Seismological Society of America.

Arrangement

Collection is arranged into 5 series.

Series 1: Vernon E. Benjamin Materials, 1946-1947

Series 2: George W. Cook Materials, 1945-1973

Series 3: Mills Dean III Materials, 1946-1969

Series 4: Papers, Reports and Writings, 1856, 1878, 1925-1971

Series 5: Photographs, 1943-1952

Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

- Ships
- Testing
- United States--Navy

Types of Materials:

- Diagrams
- Field notes
- Patents
- Photographs
- Publications

Container Listing

Series 1: Vernon E. Benjamin Materials, 1946-1947

Box 1, Folder 1

Vernon E. Benjamin, notebook, 1946-01-1947-01

Notes: Notebook contains testing information for the first jet plane structural landing impact tests on the *USS Franklin D. Roosevelt*, 1946.

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Series 2: George W. Cook Materials , 1945-1973

Box 1, Folder 1A George W. Cook, biographical materials , undated

Box 1, Folder 2 George W. Cook, teaching materials , 1947-1949, 1954

Box 1, Folder 3 George W. Cook, patents , 1945-1973

Box 1, Folder 4 George W. Cook. Electronic Instrumentation for Scientific Measurements, 1946

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Series 3: Mills Dean III Materials, 1946-1969

Box 1, Folder 5	Instrument Society of America, conference preprint, 1959-09
Box 1, Folder 6	Mills Dean III, notebook of instrument repairs, 1946-1947
Box 1, Folder 7	Mills Dean III. Techniques for Protecting and Waterproofing Resistance Wire Strain Gages, 1956-03
Box 1, Folder 8	Frontier Days of Electronic Measurement at Taylor Model Basin (TMB), 1979-08
Box 2, Folder 1	Frontier Days of Electronic Measurements, related papers , 1946-1969 Notes: Includes issues of <i>The Centerline</i> , (1967-1969), a bi-weekly publication for the employees of the Naval Ship Research and Development Center, Carderock, Maryland. Also included is "The Ballad of Basin Racin" composed circa 1946 by Fred Mintz and Joe Boyle.
Box 2, Folder 2	USS Ranger, strain gage installation, 1958
Box 2, Folder 3	Mills Dean III. Vulcanized-Rubber Protection for Strain Gages in a Seawater Environment, 1977-08

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Series 4: Papers, Reports and Writings, 1856, 1878, 1925-1971

Scope and Contents: This series consists of papers, articles, reports and other writings that relate to the work done at the David Taylor Model Basin. Included are a series of documents that were assembled and arranged in sequential order from 1-25 and are annotated "Reference No. 1, Reference No. 2, etc.) Many of these "reference " documents include original patents for George W. Cook and printed reports about seisometers, strain indicators, strain tests, and pilot turrets. Reference No. 7 is a *Manual for Visitors to the David W. Taylor Model Basin*, 1947. The materials are arranged chronologically.

Box 2, Folder 4	Transactions of the Royal Society of London, Volume 146, Part 3, 1856
Box 2, Folder 5	Transactions of the Royal Society of London, Volume 26, from March 3, 1877 to December 12, 1877, 1878
Box 2, Folder 6	Testing and Deformeters, 1925 Notes: File includes issues of <i>Public Roads A Journal of Highway Research</i> for December 1928 and January 1929.
Box 2, Folder 7	General Radio Company, Catalog K, 1939
Box 2, Folder 8	Reference documents, 1-9, 1940-1951
Box 2, Folder 9	Reference documents, 10-17, 1941-1953, 1971
Box 2, Folder 10	Reference documents, 18-25, 1949-1959, 1964-1965, 1977 Notes: Folder includes "employment record and resume of experience" for George W. Cook.
Box 3, Folder 1	Schematic Wiring Diagrams, testing of associated instruments, 1944-1948
Box 3, Folder 2	Baldwin Locomotive Works, Baldwin Southwark Division SR-4 strain gages, 1945
Box 3, Folder 3	Index of Wiring Diagrams, 1945
Box 3, Folder 4	Index of Wiring Diagrams, 1945
Box 3, Folder 5	Index of Wiring Diagrams, 1945
Box 3, Folder 6	TMB Type 1A Strain Indicator Operating and Service Manual, 1947-07
Box 3, Folder 7	TMB Type 15K160 Strain Indicator , 1948-10
Box 4, Folder 1	[Course notes about electricity], 1948-1951
Box 4, Folder 2	[Course notes about electricity], 1948-1951
Box 4, Folder 3	[Course notes about electricity], undated

Box 4, Folder 4	TMB Electronics Division, class notes on vacuum tube theory "The Penode", undated
Box 4, Folder 5	William T. Bean. B-55 Instructions, 1952
Box 4, Folder 6	A.E. Maine. Chart for Determining Acceleration , 1952-08
Box 4, Folder 7	An Experimental and Theoretical Investigation of Propeller Shaft Failures, 1952
Box 4, Folder 8	Electronics, 1953-01
Box 4, Folder 9	Testing Topics, 1953
Box 4, Folder 9	Testing Topics, 1956-09
Box 4, Folder 10	High Temperature Strain Gage Research , 1955
Box 4, Folder 11	Baldwin-Lima-Hamilton Corporation (BLH) Electronics and Instrumentation Division , 1956
Box 5, Folder 1	Russian strain gage technology, articles, 1960-1962
Box 5, Folder 2	F.G. Tatnall. Tatnall on Testing, 1966
Box 5, Folder 3	A Digital Torque and Thrust Dynamometer and the Differential Electrical Vernier , 1966-06
Box 5, Folder 4	Measurement of Rectilinear and Angular Displacements on Shipboard, 1967-12
Box 5, Folder 5	BLH Measurement Topics, 1963-1965
Box 5, Folder 6	BLH Measurement Topics, 1966-1971
Box 5, Folder 7	Navy News, Volume 8, Number 11, 1979-03-15
Box 5, Folder 8	Phase Determination with CRO, undated
Box 5, Folder 9	A Pulse Time Totalizer, undated
Box 5, Folder 10	A Twenty-Lens High-Speed Motion-Picture Camera, undated
Box 5, Folder 11	Miscellaneous calculations, undated

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Series 5: Photographs, 1943-1952

Box 5, Folder 12	Photographs, TMB 10357 to TMB 44102, 1943-1946
Box 5, Box 13	Sesmological Society of America, Eastern Section, Twenty-Fourth Annual Meeting, group photograph, 1952-06
Box 5, Folder 14	American Association of State Highway Officials, exhibit/display , undated
Box 5, Folder 15	Miscellaneous photographs, 1930s-1940s

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