



Smithsonian

National Air and Space Museum

William F. Meggers Aerial Photography Collection

Melissa A. N. Keiser

2022

National Air and Space Museum Archives
14390 Air & Space Museum Parkway
Chantilly, VA 20151
Business Number: Phone: 703-572-4045
NASMRefDesk@si.edu
<https://airandspace.si.edu/archives>

Table of Contents

Collection Overview	
Administrative Information	1
Biographical / Historical	2
Scope and Contents	2
Arrangement	2
Names and Subjects	
Container Listing	
Series 1: 1967 Acquisition	4
Series 2: 2011 Acquisition, 1918-1919	9

Collection Overview

Repository:	National Air and Space Museum Archives
Title:	William F. Meggers Aerial Photography Collection
Date:	1918-1920
Identifier:	NASM.XXXX.0280
Creator:	Meggers, William F., 1888-1966
Extent:	2.71 Cubic feet (4 photo albums, 384 glass plate negatives)
Language:	English .
Summary:	This collection consists predominantly of aerial photography of the Washington, D.C. area created by Dr. William F. Meggers (1888 - 1966), a noted physicist and spectroscopist at the National Bureau of Standards (NBS), as part of a research project on sensitizing glass plate negatives which he carried out during the period 1918 to 1919. The collection includes 384 glass negatives (predominantly 4 x 5 inches, with some 5 x 7 inches), four photo albums, several folders of loose photographs, and a document.
Digital Content:	Image(s): NASM-9A10800: Dr. William F. Meggers, Lt. Post, and S. M. Burka at Bolling Field, D.C., 1918.

Administrative Information

Acquisition Information

Dr. William Meggers via daughter Dr. Betty J. Meggers, gift, 1967, NASM.XXXX.0280; additional material received from National Institute of Standards and Technology (NIST), transfer, 2011

Processing Information

Arranged and described by Patti Williams, 2012; revised and encoded by Melissa A. N. Keiser, 2022.

Preferred Citation

William F. Meggers Aerial Photography Collection, Acc. NASM.XXXX.0280, National Air and Space Museum, Smithsonian Institution.

Restrictions

No restrictions on access

Conditions Governing Use

Material is subject to Smithsonian Terms of Use. Should you wish to use NASM material in any medium, please submit an Application for Permission to Reproduce NASM Material, available at [Permissions Requests](#)

Biographical / Historical

Dr. William F. Meggers (1888 - 1966) was a noted physicist and spectroscopist at the National Bureau of Standards (NBS). In 1918, Meggers conducted a NBS research project on sensitizing glass plate negatives and the effectiveness of certain aerial cameras. The glass plate negatives were aerial shots of the Washington, D.C. area taken from a Fokker (Atlantic) aircraft. The flights were made from Bolling Field and a field near Port Comfort, Virginia [now known as Old Point Comfort, Hampton, Virginia]. The results from Meggers' study were published in *The Journal of the Optical Society of America*, 1920. [See: W. F. Meggers and F. J. Stimson, "Dyes for Photographic Sensitizing," *Journal of the Optical Society of America*, Vol. IV, Number 3, May 1920.]

Scope and Contents

This collection, which consists predominantly of aerial photography from the period 1918 to 1919, contains 384 glass negatives (predominantly 4 x 5 inches, with some 5 x 7 inches), four photo albums, several folders of loose photographs, and a document.

Series 1 of the collection consists of material donated in 1967 by the Meggers family and includes four photo albums of print photographs, 85 loose print photographs, a photocopy of Meggers' and Stimson's 1920 article "Dyes for Photographic Sensitizing," and 263 glass negatives. One of the albums has prints of Washington, D.C., and the surrounding area (such as Arlington, Virginia, and the Great Falls of the Potomac). In addition to the aerial photography, there are a few views of the Fokker DH-4M-2 (Atlantic Model 1) biplanes used for the photography flights. Another of the albums contains images of Niagara Falls and the surrounding countryside. The third and fourth albums contain images predominantly from unidentified locations, except for some showing Fort Monroe at Old Point Comfort, Hampton, Virginia. Photographs found in the albums are believed to be prints from negatives in the collection.

Series 2 of the collection consists of 119 4 x 5 inch glass negatives (almost all aerial photographs of the Washington, D.C. area) transferred on November 17, 2011, from the National Institute of Standards and Technology (NIST) (formerly the National Bureau of Standards). Views of northwest Washington, D.C., include the National Bureau of Standards campus on Peirce Mill Road; the original Wardman Park Hotel in the Woodley Park neighborhood; the William Howard Taft Bridge (Connecticut Avenue NW) across Rock Creek and surrounding Mount Pleasant, Woodley Park, Lanier Heights, and Kalorama Heights neighborhoods; the National Zoological Park (later the Smithsonian National Zoological Park) in Rock Creek Park; new homes in the Richmond Park neighborhood; the McMillan Reservoir, Filtration Plant, and Sand Filtration Site; and the United States Naval Observatory and Observatory Circle area. Views of the National Mall area include the Smithsonian Institution Castle, the United States National Museum (later the Smithsonian National Museum of Natural History), the Washington Monument and newly-constructed Lincoln Memorial, and extensive War Office buildings. Views of the Capitol Hill area include the United States Capitol Building, the Jefferson Building of the Library of Congress, the Hart Senate and Cannon House office buildings, and Union Station. Views of southeast Washington, D.C. include Bolling Field (military airfield) and the Anacostia River and surrounding area. Views made across the Potomac River feature Arlington National Cemetery, including multiple views of the newly-constructed Memorial Amphitheater. This series also contains a few images of the Potomac River waterfront areas of Alexandria, Virginia, including the Torpedo Factory at the foot of King Street and the Virginia Shipbuilding Corporation docks at Jones Point, and—farther downriver—views of George Washington's estate at Mount Vernon, Virginia.

Arrangement

The materials are divided into two series. Series 1 consists of the original 1967 acquisition donated by the Meggers family, with the materials are subdivided by format. Subseries 1.A consists of the four photo albums; Subseries 1.B

consists of loose black and white print photographs found inside the front cover of Photo Album 3 [NASM-9A19047] and grouped by location; Subseries 1.C contains materials relating to Dr. Meggers; and Subseries 1.D consists of glass plate negatives. Series 2 consists of the additional materials transferred from the National Institute of Standards and Technology (NIST) in 2011. All glass plate negatives are presented in the order they were received from the donors.

Names and Subject Terms

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

Subjects:

- Aerial photography
- Aerial photography -- Equipment and supplies
- Spectrum analysis

Types of Materials:

- Aerial Photographs
- Scrapbooks

Names:

- Meggers, William F., 1888-1966
- United States. National Bureau of Standards

Places:

- Washington (D.C.) -- 1910-1920
- Washington D.C. -- Photographs

Container Listing

Series 1: 1967 Acquisition

Subseries 1.1: Photo Albums, 1918-1919

Scope and Contents: Each of the four albums have a copy of the same hand-written label affixed to the cover: "Exhibits: Photos taken with Hypersensitized Ptg. [Photographic] Plates / World War I / Property of 4.1 NBS [National Bureau of Standards]. Valuable: Keep for NBS Museum at Gaithersburg. Negatives are stored in Room 211."

Box 1, Folder 1	NASM-9A19045: Photo Album 1, 1918-1919
Box 1, Folder 2	NASM-9A19046: Photo Album 2, 1918-1919 Notes: Blank pages in original album have not been digitally reproduced in slideshow. Any gaps in numbering are due to their omission.
Box 2, Folder 1	NASM-9A19047: Photo Album 3, 1918-1919 Notes: Blank pages in original album have not been digitally reproduced in slideshow. Any gaps in numbering are due to their omission.
Box 2, Folder 2	NASM-9A19048: Photo Album 4, 1918-1919 Notes: Blank pages in original album have not been digitally reproduced in slideshow. Any gaps in numbering are due to their omission.

Subseries 1.2: Loose Print Photographs, Aerial Photography, 1918-1919

Scope and Contents: Loose black and white print photographs found inside front cover of Photo Album 3 [NASM-9A19047]. Prints have been grouped by location.

Box 2, Folder 3	Loose photographs, Niagara Falls area, 1918-1919
Box 2, Folder 4	Loose photographs, Detroit, Illinois [in numerical order], 1918-1919
Box 2, Folder 5	Loose photographs, Dayton, Ohio, area, 1918-1919

Subseries 1.3: Dr. William F. Meggers

Box 2, Folder 6	NASM-9A10800: Photograph, Dr. William F. Meggers, Lt. Post, S. M. Burka, 1918 Notes: Aerial photographer Dr. William F. Meggers (left) poses in flight suit, standing holding an aerial camera (probably a Kodak A-2) and glass plate negative magazine, with Lt. Post (center) and S. M. Burka (right) beside the fuselage of an aircraft at Bolling Field, D.C., 1918.
Box 2, Folder 7	Document, "Dyes for Photographic Sensitizing", May 1920

Notes: [Photocopy] W. F. Meggers and F. J. Stimson, "Dyes for Photographic Sensitizing," *Journal of the Optical Society of America*, Vol. IV, Number 3, May 1920. [NOTE: Original of Fig. 9 may be negative NASM-9A19107.]

Box 2, Folder 8 Document, "List of Negatives", May 20 to July 12, 1918

Subseries 1.4: Glass Plate Negatives, 1918-1919

Box 3 Glass Plate Negatives, 5 x 7 inches [Meggers 001-022, 9A10801-9A10822]

Notes: 22 total

Box 3, Folder 1 NASM-9A10801: Potomac river. [Aerial view of the Potomac River at Great Falls], 1919

Box 3, Folder 2 NASM-9A10802: Potomac river. Brand of plate - Seed 30., 1919

Box 3, Folder 3 NASM-9A10803: Arlington Memorial. Negative number 1. [Aerial view of the Memorial Amphitheater at Arlington National Cemetery], 1919

Box 3, Folder 4 NASM-9A10804: Arlington Memorial. Negative number 5. [Aerial view of the Memorial Amphitheater at Arlington National Cemetery], 1919

Box 3, Folder 5 NASM-9A10805: Arlington Memorial. Negative number 4. [Aerial view of the Memorial Amphitheater at Arlington National Cemetery], 1919

Box 3, Folder 6 NASM-9A10806: Arlington Memorial. Negative number 2. [Aerial view of the Memorial Amphitheater at Arlington National Cemetery], 1919

Box 3, Folder 7 NASM-9A10807: Arlington Memorial. Negative number 3. [Aerial view of the Memorial Amphitheater at Arlington National Cemetery], 1919

Box 3, Folder 8 NASM-9A10808: Washington DC. [Oblique aerial view of downtown Washington DC looking east; Washington Monument and Capitol at center, White House at left]., 1919

Box 3, Folder 9 NASM-9A10809: Washington Monument [Aerial view of the Washington Monument], 1919

Box 3, Folder 10 NASM-9A10810: Great Falls on the Potomac. [Aerial view of Great Falls], 1919

Box 3, Folder 11 NASM-9A10811: Great Falls. [Aerial view of Great Falls of the Potomac River], 1919

Box 3, Folder 12 NASM-9A10812: Curtiss Airplane. [One-half right front view of a Curtiss assembled Royal Aircraft Factory S.E.5 fighter in flight, shot from slightly below. US Air Service markings.], 1919

Box 3, Folder 13	NASM-9A10813: Bureau of Standards. [Aerial view of the Bureau of Standards, now the National Institute of Standards and Technology, Washington DC], 1919
Box 3, Folder 14	NASM-9A10814: Bureau of Standards. [Aerial view of the Bureau of Standards, now the National Institute of Standards and Technology, Washington DC], 1919
Box 3, Folder 15	NASM-9A10815: Potomac [Aerial view of a boat on the Potomac River, Washington DC], 1919
Box 3, Folder 16	NASM-9A10816: Bridge [Aerial view of an unidentified bridge], 1919
Box 3, Folder 17	NASM-9A10817: Naval Observatory. [Aerial view of the United States Naval Observatory (USNO), Washington DC], 1919
Box 3, Folder 18	NASM-9A10818: Potomac? [Aerial view of a river], 1919
Box 3, Folder 19	NASM-9A10819: Washington DC [Aerial view of a street lined with buildings, Washington DC], 1919
Box 3, Folder 20	NASM-9A10820: Bureau of Standards. [Aerial view of the Bureau of Standards, now the National Institute of Standards and Technology, Washington DC], 1919
Box 3, Folder 21	NASM-9A10821: Mt. Vernon. [Aerial view of the mansion and grounds of Mount Vernon, Virginia], 1919
Box 3, Folder 22	NASM-9A10822: Mt. Vernon. [Aerial view of the mansion and grounds of Mount Vernon, Virginia], 1919
Box 4	Glass Plate Negatives, 4 x 5 inches [Temp 023-057, NASM-9A10823 to NASM-9A10857], 1918-1919 Notes: National Mall, Lincoln Memorial, Capitol Hill and War Office buildings; Carnegie Institute of Washington; Great Falls of the Potomac; farmland in the Washington, D.C. area; Bolling Field (US Army Air Service); Mt. Pleasant neighborhood; McMillan Reservoir and surrounding neighborhood in northwest Washington D.C.
Box 5	Glass Plate Negatives, 4 x 5 inches [Temp 058-091, NASM-9A10858 to NASM-9A10891], 1918-1919 Notes: Virginia Shipbuilding Corporation docks at Jones Point, Alexandria, Virginia; railroad tracks with steam engine; McMillan Filtration Plant and McMillan Sand Filtration Site, Washington D.C.; National Zoological Park, Rock Creek Park; Anacostia River; Richmond Park neighborhood near Porter Street NW; Russell Senate Office Building; presidential yacht USS Mayflower (PY-1) docked at the Washington Navy Yard; Pan American Union Building (Organization of American States); National Mall showing Smithsonian Institution

and Department of Agriculture buildings; Department of the Interior; The White House and surrounding area; Washington Monument and Tidal Basin.

- Box 6 [Glass Plate Negatives, 4 x 5 inches \[Temp 092-127, NASM-9A10892 to NASM-9A10927\], 1918-1919](#)
Notes: [National] Bureau of Standards; Cleveland Park neighborhood; United States Capitol, Russell Senate Office Building, Cannon House Office Building, Thomas Jefferson Building of the Library of Congress; Columbia Road below 18th Street; Georgetown; steam locomotive pulling a railroad train; excursion boat on Potomac River; landscape and clouds; Anacostia River; 1954 Biltmore Street, NW; Lincoln Park area; Curtiss JN-4 Jenny (ground view, probably at Bolling Field); railroad bridge across Anacostia River; Walter Reed Hospital.
- Box 7 [Glass Plate Negatives, 4 x 5 inches \[Temp 128-163, NASM-9A10928 to NASM-9A10963\], 1918-1919](#)
Notes: Chevy Chase Country Club, Chevy Chase, Maryland; Taft Bridge over Rock Creek Park (Connecticut Avenue), Washington D.C.; National Mall area with Potomac River; northwest Washington, D.C.; Holy Cross Academy, Cathedral High School; House of the Temple (headquarters of the Scottish Rite of Freemasonry, Southern Jurisdiction, 16th Street); St. Elizabeths Hospital; Union Station with railroad yards behind; Wardman Park Hotel (Woodley Park neighborhood); Scott Circle, Thomas Circle, Dupont Circle; Anacostia Naval Air Station; rural areas in nearby Maryland and/or Virginia; excursion steamer "Charles Macalester" on the Potomac River; views of water surfaces; farmland.
- Box 8 [Glass Plate Negatives, 4 x 5 inches \[Temp 164-203, NASM-9A10964 to NASM-9A10999, NASM-9A14883 to NASM-9A14886\], 1918-1919](#)
Notes: Unidentified aerial views (vertical and oblique); views of coastlines, marshland, and water surfaces; farmland; clouds.
- Box 9 [Glass Plate Negatives, 4 x 5 inches \[Temp 204-235, NASM-9A14887 to NASM-9A14896, NASM-9A19049 to NASM-9A19070\], 1918-1919](#)
Notes: Unidentified aerial views (vertical and oblique); views of water surfaces (including "Steamer and Oil-Spot"), urban areas, farmland, clouds; the US Navy's Arlington Radio Station (group of three radio transmission towers); United States Capitol, Capitol Hill area including Russell Senate Office Building, Cannon House Office Building, Thomas Jefferson Building of the Library of Congress; Washington Monument and National Mall; George Washington's estate at Mount Vernon, Virginia; Wardman Park Hotel (Woodley Park neighborhood); Great Falls of the Potomac.
- Box 10 [Glass Plate Negatives, 4 x 5 inches \[Temp 214-265, NASM-9A19071 to NASM-9A19100\], 1918-1919](#)
Notes: United States Capitol Building; Taft Bridge over Rock Creek Park (Connecticut Avenue); [National] Bureau of Standards; Thomas Jefferson Building of the Library of Congress; Bolling Field and War

College (confluence of Potomac and Anacostia Rivers); Glen Echo Park; Washington Navy Yard; the US Navy's Arlington Radio Station (group of three radio transmission towers); Memorial Amphitheater, Arlington National Cemetery, Virginia; Naval Observatory, Woodley Park neighborhood; temporary office buildings; Anacostia Naval Air Station.

Box 15, Folder 1

Original 4 x 5 inch Glass Plate Negative Envelopes [Temp 023-265], 1918-1919

[Return to Table of Contents](#)

Series 2: 2011 Acquisition, 1918-1919

Box 11

Glass Plate Negatives, 4 x 5 inches [NASM-9A19101 to NASM-9A19130],
1918-1919

Notes: Various aerial views of northwest Washington, D.C. under different atmospheric conditions (including Cleveland Park and Woodley Park); downtown Washington, including National Museum Building (Smithsonian Institution, later National Museum of Natural History); higher-altitude oblique views of National Mall with Tidal Basin and Potomac River, Anacostia River, farmland; Union Station with railroad yards beyond; northeast Washington D.C.; clouds, farmland.

Box 12

Glass Plate Negatives, 4 x 5 inches [NASM-9A19131 to NASM-9A19163],
1918-1919

Notes: Higher-altitude oblique aerial views of Washington, D.C. area under different atmospheric conditions, including confluence of Potomac and Anacostia Rivers (southeast Washington, D.C.), Washington Monument; Potomac River probably near Alexandria, Virginia; George Washington's estate at Mount Vernon, Virginia; Woodley Park; Naval Observatory; Capitol Hill; two street-level (ground) views looking up Pennsylvania Avenue NW towards the US Capitol Building; Rock Creek Park; Holy Cross Academy; National Bureau of Standards.

Box 13

Glass Plate Negatives, 4 x 5 inches [NASM-9A19164 to NASM-9A19195],
1918-1919

Notes: Higher-altitude oblique aerial views of Washington, D.C. area under different atmospheric conditions, including northwest Washington, D.C. (Wardman Park Hotel, Woodley Park); unidentified suburban areas; Union Station; Capitol Hill; Potomac River; Tidal Basin and Washington Channel (southwest Washington, D.C.); unidentified cemetery; Great Falls of the Potomac; Potomac River waterfront area of Alexandria, Virginia, showing the Torpedo Factory at the foot of King Street; railroad marshalling yards; unidentified aerial views.

Box 14

Glass Plate Negatives, 4 x 5 inches [NASM-9A19196 to NASM-9A19219],
1918-1919

Notes: Higher-altitude oblique aerial views of Washington, D.C. area under different atmospheric conditions, including northwest Washington, D.C. (Dupont-Kalorama, Woodley Park); railroad marshalling yard; National Bureau of Standards; unidentified suburban and rural areas, probably in Maryland; northeast Washington, D.C. (including McMillan Reservoir); the US Navy's Arlington Radio Station (group of three radio transmission towers) adjacent to Columbia Pike, Arlington, Virginia; War College; Carnegie Institute of Washington; Great Falls of the Potomac.

Box 15, Folder 2

Original 4 x 5 inch Glass Plate Negative Envelopes [Temp 266-384], 1918-1919

[Return to Table of Contents](#)