

K. Aage Strand Papers

A Finding Aid to the Collection in the Library of Congress



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Washington, D.C.
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<http://hdl.loc.gov/loc.mss/eadmss.ms016003>

LC Online Catalog record:

<http://lcn.loc.gov/mm2008085428>

Prepared by Jody Lynn Armstrong
Revised by Karen Stuart with the assistance of Chanté Wilson-Flowers

Collection Summary

Title: K. Aage Strand Papers

Span Dates: 1875-1999

Bulk Dates: (bulk 1947-1977)

ID No.: MSS85428

Creator: Strand, K. Aage (Kaj Aage), 1907-2000

Extent: 15,000 items ; 16 containers ; 16 linear feet

Language: Collection material in English and Danish.

Location: Manuscript Division, Library of Congress, Washington, D.C.

Summary: Astronomer and director of the United States Naval Observatory. Correspondence, speeches and writings, subject files, printed matter, and miscellaneous material relating to Strand's research and career.

Selected Search Terms

The following terms have been used to index the description of this collection in the Library's online catalog. They are grouped by name of person or organization, by subject or location, and by occupation and listed alphabetically therein.

People

Beer, Arthur, 1900- --Correspondence.

Bok, Bart J. (Bart Jan), 1906-1983--Correspondence.

Brouwer, Dirk, 1902- --Correspondence.

Fowler, William A.--Correspondence.

Fricke, W. (Walter), 1915- --Correspondence.

Giclas, H. L. (Henry L.)--Correspondence.

Hertzprung, Ejnar, 1873-1967--Correspondence.

Hoag, Arthur Allen, 1921-1999--Correspondence.

Houziaux, L. (Léo)--Correspondence.

Jaschek, Carlos--Correspondence.

Kuiper, Gerard P. (Gerard Peter), 1905-1973--Correspondence.

Oort, Jan Hendrik--Correspondence.

Strand family--Correspondence.

Strand, K. Aage (Kaj Aage), 1907-2000.

Struve, Otto, 1897-1963--Correspondence.

Strömgren, Bengt, 1908-1987--Correspondence.

Uppgren, Arthur R.--Correspondence.

Van de Kamp, Peter, 1901- --Correspondence.

Organizations

Northwestern University (Evanston, Ill.)

United States Naval Observatory.

Subjects

Astrometry.

Astronomical instruments--Design and construction.

Astronomical photography.

Astronomy.

Double stars.

World War, 1939-1945--Science.

Occupations

Astronomers.

Administrative Information

Provenance

The papers of K. Aage Strand, astronomer and director of the U.S. Naval Observatory, were transferred to the Library of Congress from the U.S. Naval Observatory in 2008.

Processing History

The collection was arranged and described by Jody Lynn Armstrong at the U.S. Naval Observatory in 2008 before being transferred to the Library. The finding aid was revised in 2009.

Additional Guides

A detailed container list is available as a [PDF document](#).

Copyright Status

The status of copyright in the unpublished writings of K. Aage Strand is governed by the Copyright Law of the United States (Title 17, U.S.C.).

Access and Restrictions

The Strand Papers are open to research. Researchers are advised to contact the Manuscript Reading Room prior to visiting. Many collections are stored off-site and advance notice is needed to retrieve these items for research use.

Preferred Citation

Researchers wishing to cite this collection should include the following information: Container number, K. Aage Strand Papers, Manuscript Division, Library of Congress, Washington, D.C.

Biographical Note

Dr. Kaj Aage Strand specialized in positional astronomy, photographic astrometry, and astrometric instrumentation research. His work focused on the determination of stellar parallaxes, proper motions of stars, and use of visual and photographic observation of nearby double stars with an interest in the detection of unseen companion stars in binary systems and extrasolar planets. He is noted for proposing, designing, and supervising the construction of the United States Naval Observatory's pioneering 61-Inch Astrometric Reflector in Flagstaff, Arizona, the first telescope engineered specifically for astrometric purposes. The 61-Inch reflector surpassed refractors in faint object measurement and advanced parallax measurement accuracy from hundredths of an arcsecond to near milliarcseconds. He also designed and supervised the construction of the Strand Automatic Measuring Machine (SAMM) for precision measurement of the plate material being produced with the new astrometric reflector. Strand garnered publicity in 1943 after announcing evidence of a planetary companion in the binary system 61 Cygni AB, which reopened broad public debate on planetary bodies outside of the solar system.

While serving in the United States Army Air Forces during World War II, Strand flew and was chief navigator during B-29 test flights. He was in charge of testing new types of navigation equipment and developing new types of instrumentation for obtaining accurate ballistic data in aerial bombing. He participated in the operational training of special air crews, including the crew of the *Enola Gay*, first to drop the atomic bomb.

Strand served as International Astronomical Union President of Commissions 24 (Photographic Astrometry) and 26 (Double Stars). He sat on advisory panels for the National Science Foundation, Office of Naval Research, National Research Council, National Bureau of Standards, and Senior Fulbright-Hays Program Committee. He was awarded fellowships from the Danish Rask-Oersted Foundation (1938-1940) and the John Guggenheim Foundation (1946). Samples of Strand's awards include the Distinguished Service Medal, United States Army Air Forces (1946) and the Knight, 1st Class, Danish Royal Order of Dannebrog (1977). A minor planet, 3236 Strand = 1982 BH1 was named in his honor and the 61-Inch Reflector was rededicated and renamed the Kaj Strand Astrometric Telescope in 1997.

<i>Date</i>	<i>Event</i>
1907, Feb. 27	Born, Hellerup, Denmark
1926	B.A., University of Copenhagen, Copenhagen, Denmark
1931	M.Sc., University of Copenhagen, Copenhagen, Denmark
1931-1933	Geodesist, Royal Geodetic Institute, Copenhagen, Denmark
1933-1938	Assistant to Director Ejnar Hertzsprung, University Observatory, Leiden, Netherlands
1938	Ph.D., University of Copenhagen, Copenhagen, Denmark
1938-1942	Research associate in astronomy, Swarthmore College, Swarthmore, Pa.
1942-1945	Chief, Navigation Department, Proof Division, Air Force Proving Ground Command, Eglin Field, Fla.
1945-1946	Research astronomer, Swarthmore College, Swarthmore, Pa.
1946-1947	Associate professor of astronomy, University of Chicago, Chicago, Ill.
1947-1958	Professor of astronomy; Chairman, Astronomy Department; and director of the Dearborn Observatory, Northwestern University, Evanston, Ill.
1958-1963	Director, Astrometry and Astrophysics Division, U.S. Naval Observatory, Washington D.C.
1963-1977	Scientific director, U.S. Naval Observatory, Washington, D.C.
1977-1979	Part-time consultant, National Aeronautics and Space Administration
1981-1985	Part-time consultant, Lincoln Laboratory, Massachusetts Institute of Technology, Lexington, Mass.
2000, Oct. 31	Died, Washington, D.C.

Scope and Content Note

The papers of Kaj Aage Strand (1907-2000), which span the years 1875 to 1999 with the bulk of material dating 1947-1977, represent Strand's important work in double star photography, astrometry, and astrometric instrumentation design. They offer insight into the collaboration and competition between colleagues on an international level in this field. The papers also document the contribution of one of many Danish immigrants to scientific research in service to the United States military during World War II. The papers are organized largely as received into seven series: [Publications](#); [Speech, Lecture and Manuscript File](#); [Correspondence](#); [Subject File](#); [Miscellany](#); [Photographs and Slides](#); and [Books, Notebooks and Journals](#). The collection material is in English and Danish.

Prominent correspondents include: Arthur Beer, Bart Jan Bok, Dirk Brouwer, William A. Fowler, Walter Fricke, Henry Giclas, Ejnar Hertzsprung, Arthur Allen Hoag, Leo Houziaux, Carlos Jaschek, Gerard Kuiper, Jan H. Oort, Bengt Strömgen, Otto Struve, Arthur Uppgren, and Peter Van de Kamp.

Arrangement of the Papers

This collection is arranged in seven series. A detailed container list is available as a [PDF document](#).

- [Publications, 1930-1981](#)
- [Speech, Lecture and Manuscript File, 1940-1993](#)
- [Correspondence, 1875-1997](#)
- [Subject File, 1942-1996](#)
- [Miscellany, 1926-1999](#)
- [Photographs and Slides, 1944-1980](#)
- [Books, Notebooks, and Journals, 1929-1975](#)

Description of Series

<i>Container</i>	<i>Series</i>
BOX RC 1	<p><u>Publications, 1930-1981</u></p> <p>Published works including originals and reprints from American, European, and Russian professional journals. Arranged chronologically.</p>
BOX RC 2	<p><u>Speech, Lecture and Manuscript File, 1940-1993</u></p> <p>Speeches, class and conference lectures, draft copies and notes on published works, book reviews, and referee reports written by Strand and about his written works. Arranged by type of writing and therein alphabetically.</p>
BOX RC 3-RC 8	<p><u>Correspondence, 1875-1997</u></p>
BOX RC 3-RC 4	<p><u>Special Correspondence, 1937-1994</u></p> <p>Copies and originals of letters and memoranda sent and received, mostly between science professionals, academic colleagues, and publishers on matters of professional interest; some is written in Danish. Arranged alphabetically by name of correspondent.</p>
BOX RC 5-RC 6	<p><u>Miscellaneous Correspondence, 1935-1984</u></p> <p>Arranged alphabetically by name of correspondent.</p>
BOX RC 7	<p><u>Family Correspondence, 1875-1995</u></p> <p>Correspondence between Strand, his mother, sister, and first wife, written in Danish. Arranged alphabetically by name of correspondent.</p>
BOX RC 8	<p><u>Other, 1930-1997</u></p> <p>Predominantly post-retirement communications. Arranged chronologically, with postcards at the end of the file.</p>
BOX RC 8-RC 12	<p><u>Subject File, 1942-1996</u></p> <p>Correspondence, planning notes, publicity releases, travel and event itineraries, invitation and attendance lists documenting Strand's work with specific organizations, projects, and research. Included are files relating to Strand's contributions to the design, development, and construction oversight of pioneering equipment such as the U.S. Naval Observatory's 61-Inch Astrometric Reflector and the Strand Automatic Measuring Machine (SAMM), and his activities as President of Commissions 24 (Photographic Astrometry) and 26 (Double Stars) with the International Astronomical Union (IAU). Arranged alphabetically by name of organization, conference, event, or activity.</p>
BOX RC 13-RC 14	<p><u>Miscellany, 1926-1999</u></p> <p>Biographical materials, personal documents, awards, employment records, military records, publications, property documents, master's thesis computations, and photocopies of Strand's scrapbooks consisting primarily of publicity pieces from newspapers and articles published in foreign and domestic press. Arranged alphabetically by type of material or organization to which the documents relate.</p>

BOX RC 15

Photographs and Slides, 1944-1980

Publicity portraits of Strand, construction and dedication of the 61-Inch Astrometric Reflector, samples of early color star and galaxy photography taken with the 61-Inch telescope, conference and event photographs, and personal family photos.

BOX RC 16

Books, Notebooks, and Journals, 1929-1975

Observation journals, student notebook, course lecture notebook, and published books edited by Strand.

Arranged by type of material.

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Photographs and Slides, 1944-1980

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