

The Dynamic History of Aviation Collection at UTD

Nearly every day, items of historical significance are added to the History of Aviation Collection (HAC) at The University of Texas at Dallas.

Widely recognized as a top aero/space history research library, the HAC was established at UT-Austin, in 1963, where it remained until mid-1978. Then, outgrowing space available there, it was moved to newer and larger quarters at UTD.

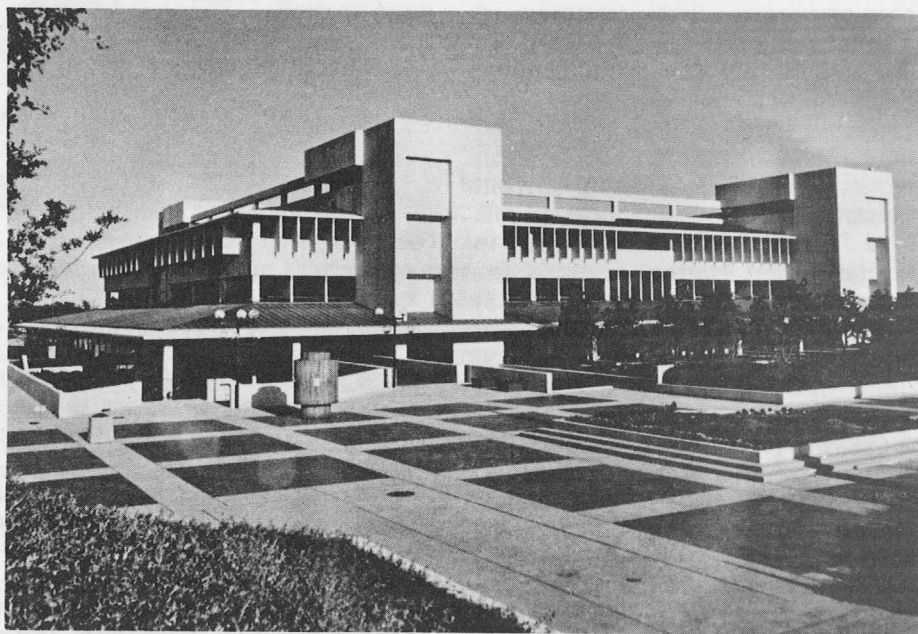
Addition of Admiral Rosendahl's million item LTA collection, the four-ton Hildesheim library, the extensive twelve-ton library of "Ed" Rice, and scores of smaller collections nearly quadrupled space requirements.

George E. Haddaway, whose aviation library was started while a student at UT-Austin from 1926 to 1930, provided the nucleus of the HAC in 1963. Founder of *Flight* magazine and its publisher for over 43 years, Haddaway received the prestigious Lauren D. Lyman Award of the Aviation/Space Writers Association in 1977.

Many other national organizations have honored him including the Order of Daedalians, National Pilots Association, National Business Aircraft Association, and OX5 Aviation Pioneers Hall of Fame. He is one of only nine recipients of the FAA's highest award, the Gold Medal.

Founder and Board Chairman of the Wings of Hope, Inc., Haddaway divides his time in retirement between the UT Aviation Collection and his aviation oriented charity which provides air transport and radio communications to scores of medical missions in remote corners of the globe.

Shortly after arrival of the HAC at UTD, President Bryce Jordan announced the appointment of G. Edward Rice as Curator. Rice came to the UTD campus with high credentials, having been an aviation



The beautiful Eugene McDermott Library, memorial to one of the founders and principal donors to UTD, houses the 2,000,000 item History of Aviation Collection in a specially remodelled and equipped 8000 sq. ft. area. Built in 1975, this building won the 1976 American Institute of Architects Citation.

history collector since childhood. With more than a half century in aviation, Rice retired in mid-1978 as an executive and director of Long Island's DeVore Aviation Corp.

Rice is a long-standing member of the History Committee of the AIAA, American Aviation Historical Society, Cross & Cockade Society, Canadian Aviation Historical Society and several other well-known aviation organizations.

The Rosendahl assemblage, generous gift of the late Admiral's widow, Jean, is the most comprehensive LTA historical collection in America and possibly the world. The Admiral was widely recognized both here and abroad as the foremost authority and most ardent proponent of LTA during the past five decades. His books *Up Ship* and *What About The Airship?* are bibles of the rigid dirigible age. He collected countless documents, correspon-

dence, technical data, books, and memorabilia on all aspects of LTA, plus much one-of-a-kind historical hardware.

A 1914 graduate of the Naval Academy, Rosendahl was senior surviving officer of the crash of the USS *Shenandoah* in a violent Ohio storm in 1925. He commanded the USS *Los Angeles* for several years and was the first commander of the USS *Akron*. He was in command at NAS Lakehurst and personally directed rescue efforts when the Hindenburg burned in 1937.

The library being acquired from early Danish aviator, Erik Hildesheim, is rich in both the very early European LTA history dating from the 1700's and early airplane history. Inventor of the Heim bearing, still widely used in aviation and other industries, Hildesheim also is noted for his work with Sikorsky in early helicopter development. After many

years in the U.S., the 85-year-old aviator returned to his native Denmark in 1970.

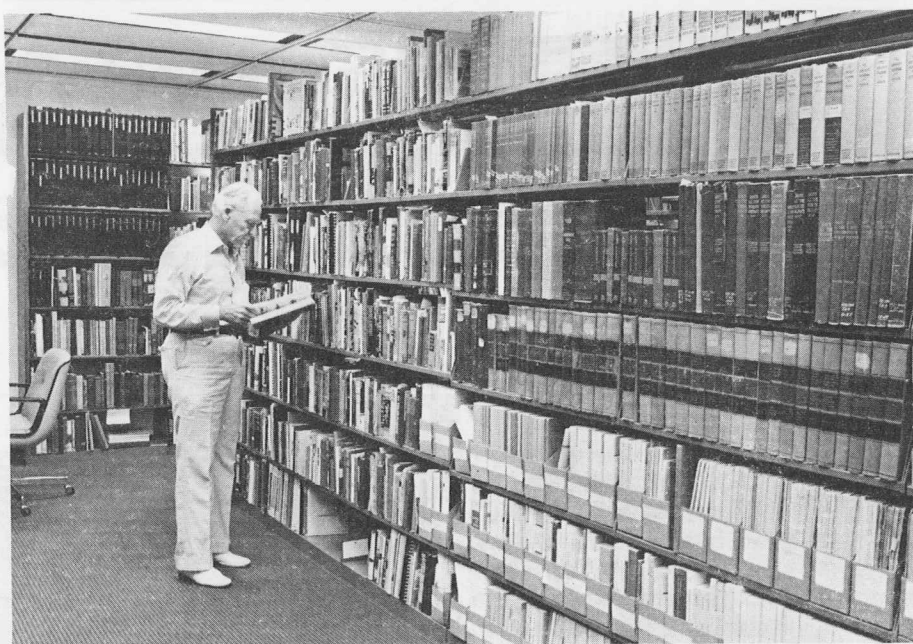
Other private collections and gifts from more than 200 aviation pioneers and historians or their families make up the balance of the UTD aero library. Included are several historically significant artifacts, which physically support the library, such as engines, propellers, instruments, radios, and handcrafted scale models of famous aircraft.

Among the 20,000 volumes are hundreds of priceless items, including many first printings of irreplaceable editions. Included are such landmark works as original printings of Faujas de Saint-Fond's 1783 and 1784 books, describing the first manned Montgolfier balloon flights of those same years; Vincent Lunardi's 1785 description of his first aerial balloon voyages in England; and Hatton Turnor's extremely rare *Astra Castra* (1865) which delineates concepts of manned flight from early Biblical times through the first 80 years of ballooning.

On the heavier-than-air (HTA) side are original writings published from 1809 to 1840 of Sir George Cayley, the "father" of the modern airplane; and Lilienthal's *Der Vogelflug*, detailing his aerodynamic discoveries in hundreds of glider flights in the late 19th century. His formulae were among those used by the Wrights in experiments which led to the first HTA powered flights. The Wright Brothers' two rare volumes of classic letters cover more than a thousand glider flights and delineate aerodynamic and engine developments which resulted in their monumental achievements at Kitty Hawk on Dec. 17, 1903.

Tens of thousands of foreign and English language volumes cover early aviation in nearly all nations of the world and combine with 250,000 photos, 200,000 journals and magazines, countless newspaper sheets and clippings and personal papers, scrapbooks, and logs of air pioneers to depict the history of manned flight from the myths and legends of 2500 B.C. through the space age.

Students, writers, researchers or aviation history buffs will find the collection a veritable storehouse of information on practically any aspect of aero/space history.



The UTD-HAC research Library of 20,000 volumes and 200,000 journals and magazines is one of the finest Aviation history research libraries in the U.S.

Now — A Business Aviation Historical Center

The practical use of airplanes in business began threescore years ago—only 16 years after the Wright Brothers first flew.

This fascinating essential phase of civil aviation, now virtually ignored by aero historians, will no longer be neglected. Thanks to recommendations from Janice K. Barden, President of Aviation Personnel International, which were immediately accepted by Haddaway, Rice and others who saw the need to fill this vacuum, the Business Aviation Historical Center (BAHC) is now established in the HAC at UTD to preserve the history of this pioneering and major supporting segment of the aviation industry.

Memorabilia collections of the late Lois Henry (Skyways), Frank Hawks (Texaco) and Nelson Rokes (Proctor and Gamble) have been joined with those of Reg Robbins (Brown and Root), Charles Darby (Hercules), and George Haddaway and Tom Ashley (Flight), all prominent in the business aviation community, to form the nucleus of the BAHC.

As a commemorative biographical and technical information repository, the BAHC will preserve historical records of flight department personnel, the aircraft they operate and the companies who manufacture them. Business aviation history will be covered from its infancy through the phenomenal postwar growth, with

converted surplus aircraft, to its sophisticated maturity in the jet age as an irreplaceable business tool.

Today's news and data become tomorrow's history and must be preserved as well as yesterday's memorabilia if the full story of this important aviation activity is to be recorded. Everyone who has an interest in business aviation can contribute to the preservation of its heritage by directing its historical resources to the BAHC. In addition to its role in preserving such items, the BAHC will serve as a living memorial to those who have devoted their lives to the development of business aviation.

A committee is being formed with Jan Barden as chairperson to guide the development of the BAHC and to advise those who may have historical materials they wish to contribute or memorials they wish to establish. Charter members of the committee are: Don Baldwin, Texaco (Ret.); Charles Darby, Hercules; James Holahan, NBAA Conv. News; NBAA Board Chairman Richard Hornbeck, GE; Joseph Lopinto, 195 Broadway Corp.; Scotty Miller, AiResearch; Tom Miller, Johns-Manville; Til Peabody, GM (Ret.); Otto Pobanz, Fed. Dept. Stores; Milt Pugsley, Chrysler; Don Teel, U.S. Steel (Ret.) and NBAA President, John Winant, with Haddaway and Rice serving as advisors.

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Dr. Bryce Jordan, President of The University of Texas at Dallas, and Mrs. Charles E. Rosendahl, who graciously donated the million-item Rosendahl memorabilia to UTD, are at the dedication of UTD History of Aviation Collection.



George Haddaway and other members of the Aviation/Space Writers Association, South Central Region study artifacts and rare historical volumes dating back to 1783 at the UTD History of Aviation Collection.



Very Important Visitors (VIV's)

Since its dedication November 11, 1978, the HAC has hosted thousands of visitors ranging from fourth graders to astronauts, history buffs to curators and librarians of the nation's top civil and military collections, and organizations ranging from Cub Scout dens to the Council of Scientific and Technical Societies.



WW-II Flying Tigers Ace Donald S. Lopez (right) Assistant Director-Aeronautics of the National Air and Space Museum was keynote speaker at the November 11, 1978 dedication of the UTD History of Aviation Collection. G. Edward Rice, Curator, (left) introduced Mr. Lopez to the assemblage.



Legendary C. R. Smith, Retired Board Chairman of American Airlines holds a very rare copy of Lunardi's "Account of the The First Aerial Voyage in England" (1785). Henry L. Newman, left, Regional Director, FAA (Ret.), and Warren G. Woodward, President Metroplex Division of Linbeck Construction Corp. and past member of President Johnson's staff, look on.

International Learning Systems, Inc. meets at the HAC. Left to right standing are N. S. "Mike" Waterman, Chairman; Brig. Gen. B. B. Cassiday, Jr., USAF (Ret.); PanAm Captain S. H. Miller, V.P. Flight Ops. (Ret.), and Astronaut James A. Lovell, of Apollo XIII fame, Pres. Fisk Telephone Systems, Inc. Seated are Brig. Gen. Paul Tibbets, Pres., Executive Jet Aviation, famous for piloting the "Enola Gay" over Hiroshima, and George E. Haddaway, founder of the HAC.

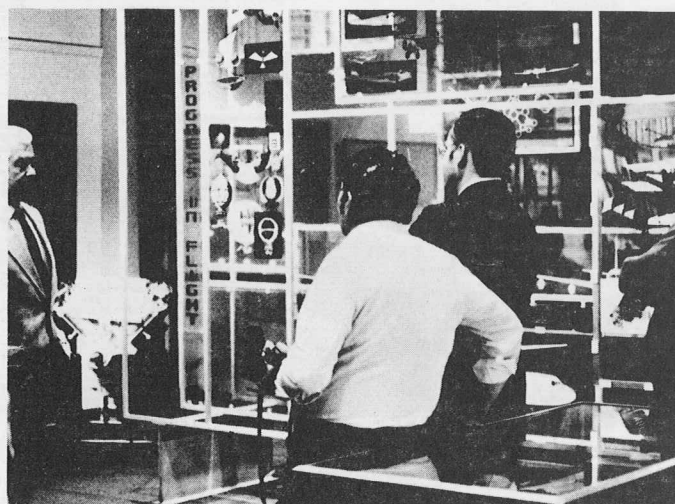
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The first committee meeting is scheduled during the National Business Aircraft Association's 32nd Meeting in Atlanta in late September.

Air-Log people, places, news, history, etcetera



Students from the aviation class of Skyline High School of Dallas study WW-I photos, books, and models during a visit to the History of Aviation Collection. More than ninety students were in the group.



The authentic illustrations on the lucite panels of the stabile donated to the History of Aviation Collection by Braniff Airways depict the history of aviation from the legends and myths of thousands of years B.C. into the space and jet ages. The visiting group is the Council of Engineering and Technical Societies.

Users of the HAC

The extensive research library is already being used for research by authors of airline histories and histories of famous fliers whose memorabilia are deposited in the collection.

Other current research users are various UTD faculty, high school and university students writing term papers or theses, graduating students or graduates researching job potentials in the aerospace field, and Navy and NASA personnel researching current and future LTA potentials.

HAC books, photos, manuscripts, letters and data

form the bases for the curricula used in Continuing Education Courses on the History of Aviation. The first of these was conducted by HAC personnel from March 28 to May 2, and another is scheduled from October 17 through December 12, covering all aspects of aviation in the roaring '20's and turbulent '30's, one of the most colorful eras.

The HAC will be available to support such advanced study as may be established at UTD, such as Airport Development and Management, and Air Transportation Business Management, both from the airline and business aviation standpoints.



Books, manuscripts, letters, photos, works of art and hardware are combined in the HAC display areas to cover significant historical events which are fully documented in the outstanding HAC Research Library.

Meet Our Donors



The beautifully streamlined 1967 German Glasflugel BS-1 Soaring Plane, which points the way into the HAC, represents the epitome of flight . . . *soaring*, as the condors and the eagles do using only rising thermal or up-slope currents to sustain flight.

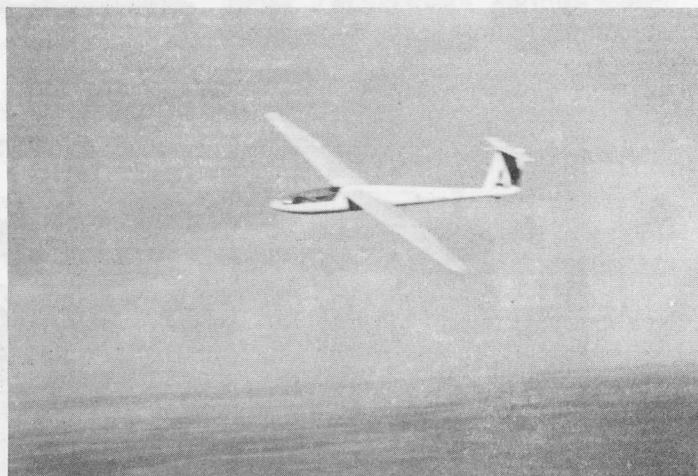
It was donated by former distance soaring champion (647.17 miles) Alvin Parker of Odessa, Texas, who has also contributed substantial funding to the support of the HAC. In this efficient sailplane, Mr. Parker in 1971 made diamond flights, the ultimate for soaring pilots: for distance (500 kilometers/310.7 miles minimum); distance to a predetermined goal (300 kilometers/186.4 miles minimum); and for height gain from low point after tow release (5000 meters/16,404 feet minimum). Complete logs and barograph records for this soaring plane are in the HAC.

The engine in the lower right corner of the photo is from the Cessna L-19 used to tow the sailplane to the release point.

Books, papers, photos and other memorabilia have been received from more than 200 donors, and financial contributions to support the HAC have been received from hundreds of individuals, corporations and foundations, some of whom will be introduced in each issue of *Air-Log*. Some donor organizations prefer to remain anonymous, as is the case of the foundation which has



The 16'7" propeller from the USS Shenandoah is displayed above with photos of the crew and survivors of the Shenandoah disaster of September 3, 1925.



provided the funds for purchase of the Hildesheim Collection which is rich in many rare or irreplaceable items on early aviation history.

Other donor organizations and individuals have established memorials to which they and others may make tax deductible contributions toward the support of the HAC. All donations whether financial or of materials or voluntary assistance will have recognition in and from the HAC, if their donors so desire, both in the displays and in the HAC, and in scrolls which they may display in their offices and homes.



Mrs. Jean Rosendahl sits beneath the portrait of the late Vice-Admiral Charles E. Rosendahl in the HAC Lighter-Than-Air Collection.

Aviation's Most Notable Golden Anniversary of 1979

Knowledgeable aviation historians agree that the most significant milestone in aviation a half century ago was the first completely blind flight in history at Mitchel Field, Long Island, by Lt. (now Lt. Gen. USAF Ret.) James H. "Jimmy" Doolittle.

Doolittle's dramatic demonstration on September 24, 1929, not only led to the universal acceptance of instrument flight, but was a giant step toward Category II and Category III instrument flight systems commonplace in business and airline flights today.

Jimmy's pioneering takeoff, flight, and landing by instruments alone was not just another example of his exceptional piloting abilities, but the culmination of a diligent and aggressive effort which he had spearheaded at the Guggenheim Full Flight Laboratory for more than a year. For this and other notable achievements, Jimmy was awarded the Guggenheim Medal in 1942.

Fired by Jimmy's enthusiasm, Paul Kollsman and Elmer Sperry, personally working and flying with him, developed in record time the Kollsman sensitive altimeter and the Sperry artificial horizon and directional gyro, all essential to the success of his flight. The National Bureau of Standards and Department of Commerce constructed a special short-range visual type beacon to be used with the aural beacon already installed to keep the pilots on course. Bell Telephone Laboratories and the Radio Frequency Laboratory quickly developed the special airborne radio receivers.

Heavy fog shrouded Mitchel Field on the morning of the blind flight. Doolittle and others arrived early to test fog dissipation devices which proved ineffective, so Doolittle decided to make a solo zero-zero flight to test the system, successfully completing this flight a few minutes before Harry Guggenheim and others arrived to witness the scheduled hooded demonstration flight. Not realizing that Doolittle had just made a solo blind flight, Guggenheim insisted that Lt. (now Brig. Gen. USAF Ret.) Ben Kelsey ride in the open front cockpit as safety pilot, but Kelsey kept his hands on the edge of the cockpit throughout the demonstration flight.



Jimmy Doolittle in the cockpit of the specially instrumented Consolidated NY-2 Trainer in which his famous blind flight was made. The retracted clamshell type hood completely enclosed the cockpit during the flight.

Jimmy lauded Kelsey for his contributions to the test and practice flights and equipment development. With characteristic Doolittle modesty, Jimmy later commented, "Actually, despite previous practice, the final approach and landing were sloppy." He failed to mention that in previous blind practice flights

accompanied by Lt. Kelsey, later the first pilot and champion of the Lockheed P-38, he had made numerous smooth approaches and landings.

Jimmy was high in his praise of the Guggenheims for their financial support and personal interest in the program, and Captain Emory Land, Vice-President of the Guggenheim fund, for his support and backing. The Elmer Sperrys, father and son, and Paul Kollsman were given full credit for their contributions, as was also his former professor at MIT, William Brown, who he had selected as his technical assistant.

Jimmy relied heavily on the experience his Army colleagues, Capt. (later Col. USAAF) William C. Ocker and Lt. (now Col. USAF Ret.) Carl J. Crane, had gained in earlier experiments in instrument flight and instrument development, as well as his own experience, in preparing for the flight.

Coordinating all of these data and developmental activities to develop a flyable system in such a short time and climaxing them with this unparalleled flight certainly ranks with the finest efforts in aviation since the Wrights first flew.

UTD Air-Log

Newsletter for History of Aviation Collection at The University of Texas at Dallas

UTD *Air-Log* is a biannual publication of The University of Texas at Dallas.
Box 643, Richardson, Texas 75080.

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