
SP-4305 ENGINEER IN CHARGE

Appendix B

Personnel

[401] This appendix provides information about the chairmen of the NACA, members of the NACA Main Committee, executive officers at NACA headquarters, growth of the Langley staff 1919-1958, Langley researchers during the NACA years, and Langley officers t the end of the NACA years.

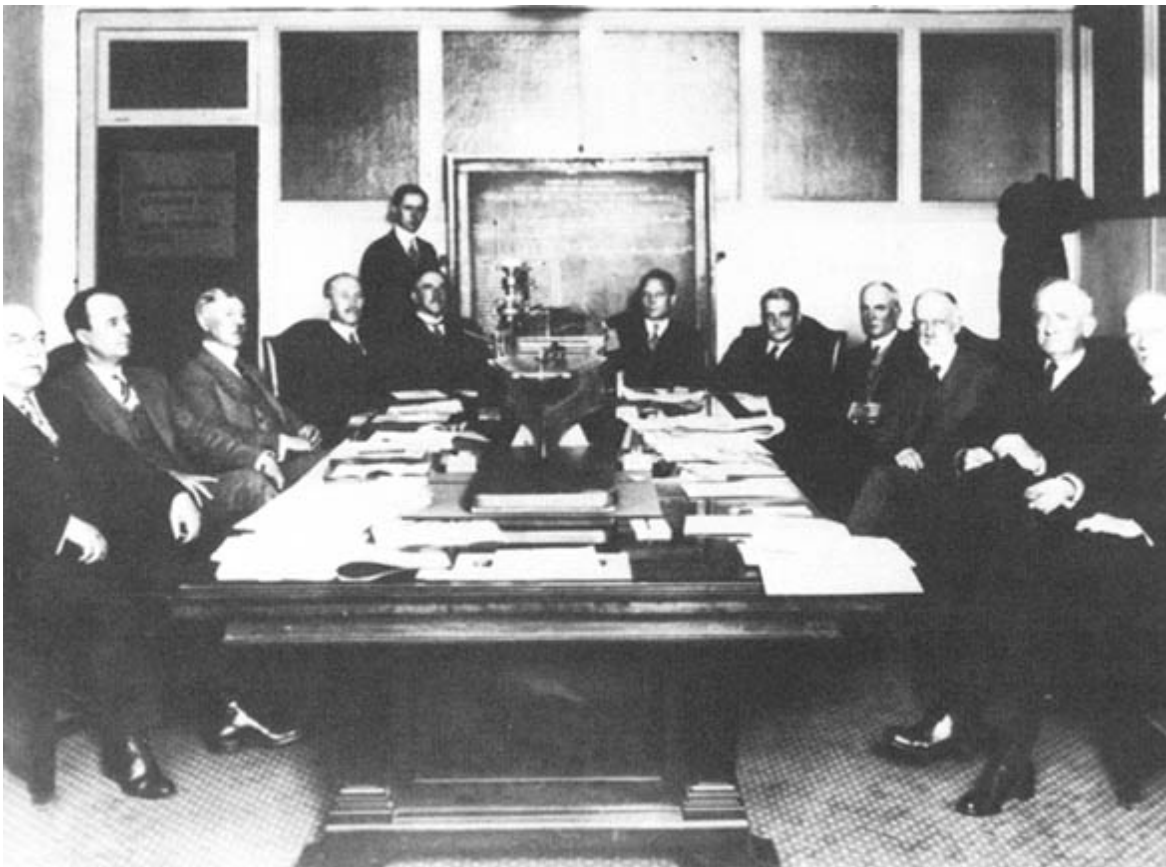
1. Chairmen of the NACA

One of the founding principles and greatest virtues of the NACA was the idea that the Committee should be composed of individuals of such high character and distinction to insulate it as much as possible from political and economic influence. The Main Committee had only eight chairmen:

George Percival Scriven	Brig. Gen., USA; Chief Signal Officer	1915- 1916
William Frederick Durand	Professor and Head of Department of Mechanical Engineering, Stanford University	1916- 1918
John Ripley Freeman	Consulting Engineer, Providence, R.I.	1918- 1919
Charles Doolittle Walcott	Secretary, Smithsonian Institution	1919- 1927
Joseph Sweetman Ames	Professor of Physics and President, Johns Hopkins University	1927- 1939
Vannevar Bush	President, Carnegie Institution	1939- 1941
Jerome Clarke Hunsaker	Chairman, Department of Aeronautical Engineering, MIT	1941- 1956
James Harold Doolittle (Lt. Gen., USAF, Ret.)	Vice President, Shell Oil Company of New York	1956- 1958

The average period in office of an NACA chairman was 6 1/2 years. The three longest tenures were those of Walcott (8 years), Ames (12 years), and Hunsaker (15 years). The chairmen's lives spanned from 1850 to the present, from wooden ships to spacecraft. All eight were born before 1900, the youngest (Doolittle) in 1896, seven years prior to the rights' landmark flight at Kitty Hawk. The first five chairmen, in fact, were born before the end of the Civil War. Four (Durand, Bush, Hunsaker, and Doolittle) lived to see the creation of NASA in 1958. In 1986, Doolittle was still living. The average age of the....

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Meeting of the Main Committee in the NACA conference room, Washington, D.C., 1920. At the far right are three men who would serve as chairman of the NACA: (from right to left) Charles D. Walcott, Joseph S. Ames, and William F. Durand. Fourth from the left is Orville Wright. Standing by the chalkboard is John F. Victory, the NACA secretary.

....NACA chairmen at time of appointment was approximately 60, equivalent to the average age of new judges on the U.S. Supreme Court. Walcott chaired the Committee to the age of 77, Ames until 75. Bush was the youngest man to head the body; he was 49 at the time of his

appointment.

Half of the group were born and raised in New England, including Durand (a small farm near Beaver Falls, Conn.), Freeman (West Bridgton, Maine), Ames (Manchester, Vt.), and Bush (Everett, Mass.). Only Hunsaker (Creston, Iowa; raised in Detroit and Saginaw, Mich.) and Doolittle (Alameda, Calif.) came from outside the Northeast. All seem to have come from solid middle-class families. Bush was the son of a Protestant minister (he received the name "Vannevar" in honor of the clergyman who married his parents). Hunsaker's father was a newspaper editor and publisher.

After Scriven resigned his chairmanship in 1916, no military man on active duty was chairman. However, Durand and Hunsaker had both graduated with high honors from the U.S. Naval Academy, the latter first in his class. Durand then served for seven years in the navy's new engineering corps, and Hunsaker spent a year at sea before being selected by the Construction Corps to study naval architecture at MIT. Doolittle rose to flag rank in his career as a military aviator. In the 1920s and 1930s he gained extensive experience in research and development in aeronautical research instruments and techniques. His most famous exploit, of course, was leading the bombing raid on Tokyo in 1942.

Some chairmen had experience in industry. Freeman acted as a consulting engineer on water power and mill construction for various large manufacturing corporations in the United States and Canada. In the early 1900s he studied the water supply of Greater New York City and tested gun carriages for the War Department. He resigned within.....

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NACA chairman Jerome C. Hunsaker (left) chats with executive secretary John F. Victory during the NACA inspection held at Langley in October 1956.



James H. Doolittle, the NACA's last chairman, visited Langley in February 1928 in his Curtiss Racer, the plane in which he won the 1925 Schneider Trophy Race.

....a year to travel to the Orient, where he consulted with the Chinese government on the improvement of its canal system. Bush worked in 1913 with General Electric. Hunsaker was employed in the late 1920s with Bell Telephone Laboratories to develop airway wire, [404] radio, and weather services, and with Goodyear-Zeppelin to help build the Akron and Macon and to promote airships as transoceanic transportation. Doolittle worked for Shell Oil Company for many years, first as a manager of its aviation department and then as an executive officer.

Several spent most of their professional lives in teaching and research. Durand's 37 years of teaching began in mechanical engineering at Michigan State University in 1887. Four years later, he moved to Cornell to take charge of its graduate school of marine engineering and naval architecture. He accepted the chair of mechanical engineering at Stanford in 1904, staying in it until the age of mandatory retirement (65) in 1924. Ames taught physics at Johns Hopkins University, his alma mater, from 1890 to 1926, when he became the school's provost; later he became the school's president. Four chairmen of the NACA had strong ties to MIT. In 1914 Hunsaker returned to MIT, his alma mater, as head of the departments of mechanical and aeronautical engineering, expanding those programs to include studies in supersonics, aeroelasticity, vibration, instrumentation, automatic control, and jet propulsion. Bush taught at MIT from 1919 to 1939, advancing from professor of electric power transmission to vice-president and dean of the school of engineering. Bush, Freeman, and Doolittle earned engineering degrees at MIT.

The achievements, titles, and honors awarded this group, too numerous to list here, include some of the highest academic, civilian, and military awards presented in this country.

Sources: Series of biographical profiles entitled "Meet the Committee," appearing in Langley Air Scoop, 1944-1958; Who's Who in Engineering: A Biographical Dictionary of the

Engineering Profession, 6th ed., New York, 1945; American Men and Women of Science, 10th ed., New York & London, 1960; McGraw-Hill Modern Scientists and Engineers, 3 vols., New York, 1980; Alex Roland, [Model Research](#), NASA SP-4103, 1985.

2. Members of the NACA Main Committee

Public Law 271, 63d Cong., 1st sess., (see [appendix A](#)) set the number of NACA members originally at 12. Public Law 549, 80th Cong., 2d sess., raised the number to 15, and Public Law 908, 70th Cong., 1st sess., raised it to 17.

To ensure the primacy of government interests in the new agency, the enabling act established a ratio of seven government members to five from the private sector. The government majority was preserved in the subsequent increases in Committee size. The purpose of enlarging the NACA from 12 to 15 in 1929 was to make room for at least one representative of the new aeronautics section of the Department of Commerce, which had been created by the Air Commerce Act of 1926. The Civil Aeronautics Act of 1938 specified that at least two representatives of the Department of Commerce always sit with the Committee, guaranteeing government's predominance by a ratio of 9 to 6. Congress approved the 1948 increase in NACA membership from 15 to 17 in order to add a representative of the new Department of Defense, setting the government-to-private interest ratio at 10 to 7.

[405] From 1915 to the creation of NACA in 1958, a total of 120 men (and no women) served on the NACA:

Most Committee appointments from government service were ex officio: i.e., the incumbent of a post like head of the air force or secretary of the Smithsonian Institution was automatically appointed to the NACA. Length of service depended on tenure in the [primary] government post, and this varied from agency to agency. Until 1938, appointments from private life were until the incumbent resigned; after 1938, they were for five years, though often renewed. (Roland, [Model Research](#), app. B, . 423.)

Approximately half of the 12 members (58) were on active military duty; at least another 5 had served as officers in the armed forces. Forty represented the civilian side of the federal government. There were 22 private citizens, 9 of whom were employed by large corporations at the time of their membership.

Though the army and navy each had two seats, the frequent transfer of military members tended to weaken their influence. The average length of NACA service by active military men

was approximately t years. The NACA members averaging the longest tenures came from the Weather Bureau (14.5 years), the Smithsonian Institution (11 years), and the Bureau of Standards and the private sector (9 years each). Representatives from other government agencies averaged only three years in office. Like the military services, however, the Department of Commerce was compensated for its high turnover rate by always having two members on the Committee.

The following list of Main Committee members is arranged alphabetically.

Abbot, Dr. Charles G.
Secretary, Smithsonian Institution
1928-1945

Adams, Joseph P.
Civil Aeronautics Board
1952-1956

Alison, John R.
Assistant Secretary of Commerce
1947-1949

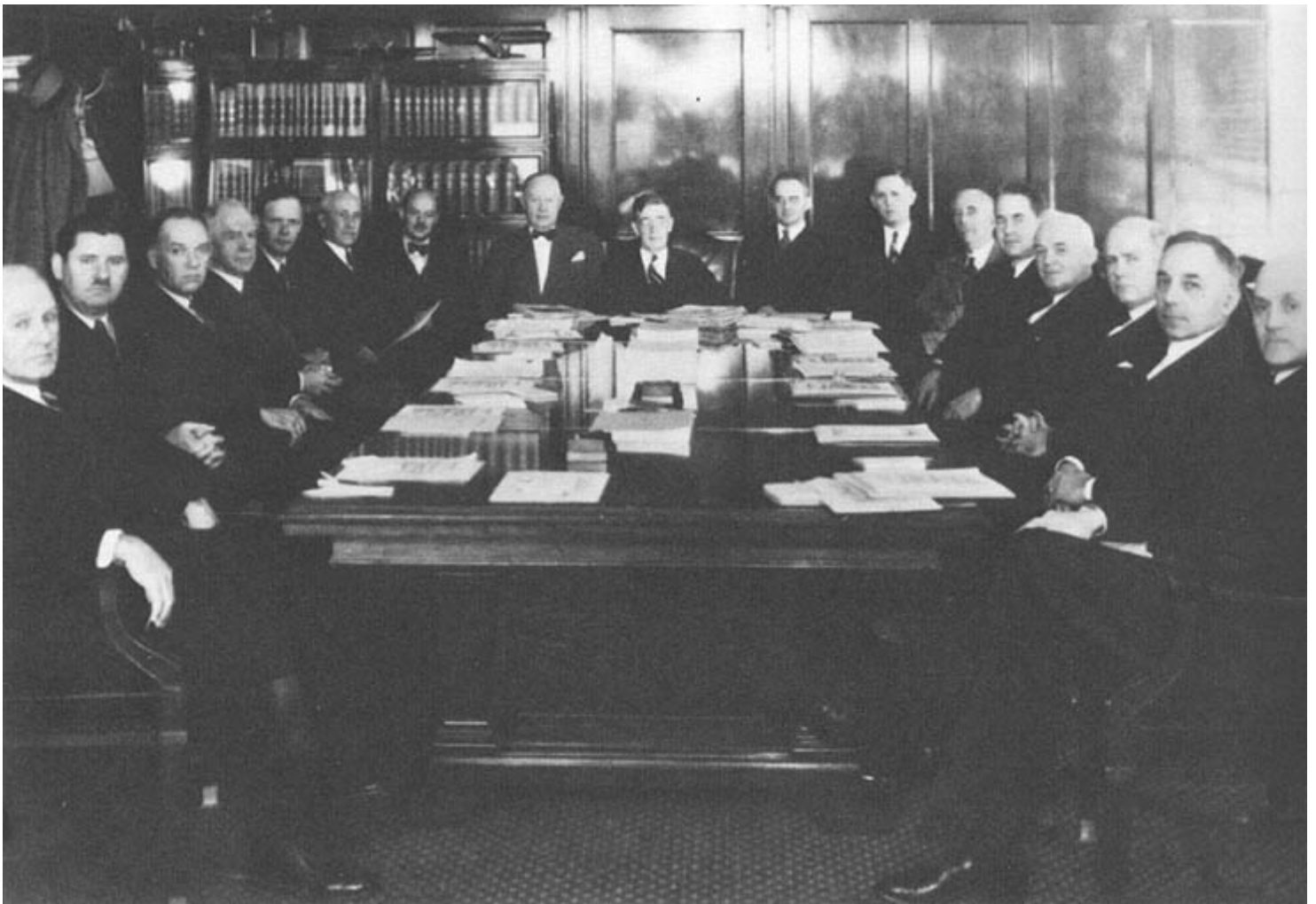
Ames, Dr. Joseph S.
Johns Hopkins University
1915-1939

Arnold, Henry H.
General of the Air Force
1938-1948

Astin, Dr. Allen V.
Director, Bureau of Standards
1952-1958

Bane, Col. Thurman H.
USA
1919-1922

Bassett, Preston R.
Sperry Gyroscope Co., Inc.
1953-1958



NACA meeting, 19 October 1939. Left to right: Brig. Gen. George H. Brett; Clinton M. Hester; Rear Adm. John H. Towers; Lyman J. Briggs; Charles A. Lindbergh; Orville Wright; Jerome C. Hunsaker; George W. Lewis; Vannevar Bush, chairman; George J. Mead, vice chairman; John F. Victory, secretary; Charles C. Abbot; Edward P. Warner; Maj. Gen. Henry H. Arnold; Robert H. Hinckley; Capt. Sydney M. Kraus; Francis W. Reichelderfer.

Brett, Lt. Gen. George H.
USAAC
1939-1942

Briggs, Dr. Lyman J.
Director, Bureau of Standards
1933-1945

Bristol, Capt. Mark L.
USN, Director, Naval Aeronautics
1915-1916

Bronk, Dr. Detlev W.

Rockefeller Foundation for Medical Research
1945-1958

Burden, Dr. William A. M.
Assistant Secretary of Commerce
1942-1947

Burgess, George K.
Director, Bureau of Standards
1923-1932

Bush, Dr. Vannevar
President, Carnegie Institution
1938-1948

Carmichael, Dr. Leonard
Secretary, Smithsonian Institution
1953-1958

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Cassady, Vice Adm. John H
USN, Deputy Chief of Naval Operations (Air)
1950-1952

Clark, Col. Virginius
USA
1917-1918

Combs, Vice Adm. Thomas
USN, Deputy Chief of Naval Operations (Air)
1952-1953;1955-1956

Compton, Dr. Karl T.
Research and Development Board
1948-1949

Condon, Dr. Edward U.
Director, Bureau of Standards
1945-1951

Connoly, Donald H. (Maj. Gen., USA, Ret.)
Administrator of Civil Aeronautics
1940-1942

Cook, Rear Adm. Arthur B.
USN, Chief, Bureau of Aeronautics

1931-1934; 1936-1939

Craigie, Lt. Gen. Lawrence C.
USAF
1951-1954

Craven, Capt. Thomas
USN, Director of Naval Aviation
1919-1921

Crawford, Dr. Frederick C.
Thompson Products, Inc.
1954-1958

Curry, Maj. Gen. John F.
USAAC
1924-1926

Damon, Ralph S.
Trans World Airlines, Inc.
1953-1956

Davis, Thomas W. S.
Assistant Secret of Commerce
1950-1953

Davis, Vice Adm. William V., Jr.
USN, Deputy Chief of Naval Operations (Air)
1956-1958

Doherty, Robert E.
Carnegie Institute of Technology
1940-1941

Doolittle, James H. (Lt. Gen., USAF, et.)
Shell Oil Co.
1948-1958

Duncan, Vice Adm. Donald B.
USN, Deputy Chie of Naval Operations (Air)
1947-1948

Durand, Dr. William F.
Stanford University
1915-1933;1941-1945

Echols, Maj. Gen. Oliver P.
USAF
1942-1945

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Fagg, Dr. Fred D., Jr.
Director, Bureau of Air Commerce
1937-1938

Fechet, Maj. Gen. James E.
USA, Chief of Air Service
1928-1931

Fitch, Vice Adm. Aubrey W.
USN, Deputy Chief of Naval Operations (Air)
1944-1945

Foote, Paul D.
Assistant Secretary of Defense (Research and Engineering)
1957-1958

Foulois, Maj. Gen. Benjamin D.
USA, Chief, SAAC
1929-1930; 1932-1936

Freeman, John R.
Consulting Engineer, Providence, R.I.
1918-1919

Furnas, Clifford C.
Assistant Secretary of Defense (Research and Engineering)
1956-1957

Gardner, Vice Adm. Matthias B.
USN, Deputy Chief of Naval Operations (Air)
1952-1953

Gilmore, Brig. Gen. William E.
USA
1926-1929

Gregg, Willis R.

Chief, Weather Bureau
1934-1938

Guggenheim, Harry F.
Long Island, N.Y.
1929-1938

Harrison, Rear Adm. Lloyd
USN, Deputy and Assistant Chief, BuAer
1953-1955

Hayford, Dr. John F.
Northwestern University
1915-1923

Hazen, Ronald M.
Allison Division, General Motors
1946-1954

Hester, Clinton M.
Administrator, Civil Aeronautics Authority
1938-1940

Hinckley, Robert H.
Assistant Secretary of Commerce
1939-1942

Hines, Rear Adm. Wellington T.
USN, Assistant Chief for Procurement, BuAer
1957-1958

Hunsaker, Dr. Jerome C.
Massachusetts Institute of Technology
1922-1923; 1938-1958

Kenly, Maj. Gen. William L.
USA, Director of Military Aeronautics
1918-1919

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King, Rear Adm. Ernest J.
USN, Chief, BuAer
1933-1936

Kinler, Brig. Gen. Walter G.
USA
1939-1940

Kraus, Rear Adm. Sydney
USN, BuAer
1936-1943

Land, Capt. Emory S.
USN, BuAer
1923-1929

Lindbergh, Charles A.
New York City
1931-1939

Littlewood, William
American Airlines
1944-1953

Lonnquest, Rear Adm. Theodore C.
USN, BuAer
1947-1952

McCain, Vice Adm. John S.
USN, Deputy Chief of Naval Operations (Air)
1942-1944

McCarthy, Charles J.
Chance Vought Aircraft, Inc.
1957-1958

MacCracken, William P., Jr.
Assistant Secretary of Commerce
1929-1938

McIntosh, Col. Lawrence W.
USA
1923-1924

Marvin, Charles F.
Chief, Weather Bureau
1915-1934

Mead, George J.
Hartford, Conn.

1939-1943

Menoher, Maj. Gen. Charles T.
USA, Chief of Air Service
1919-1921

Mitscher, Vice Adm. Marc .
USN, Deputy Chief of Naval Operations (Air)
1945-1946

Moffett, Rear Adm. William A.
USN, Chief, BuAer
1921-1933

Mulligan, Denis
Director, Bureau of Air Commerce
1938

Murray, Robert B., Jr.
Under Secretary of Commerce
1953-1954

Newton, Byron R.
Assistant Secretary of the Treasury
1915-1918

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Noble, Edward J.
Chairman, Civil Aeronautics Authority
1938-1939

Nyrop, Donald W.
Chairman, Civil Aeronautics Board
1951-1952

Ofstie, Vice Adm. Ralph A.
USN, Deputy Chief of Naval Operations (Air)
1953-1954

Pace, Rear Adm. Ernest M., Jr.
USN, BuAer
1943-1944

Patrick, Maj. Gen. Mason M.
USA, Chief Air Service
1921-1927

Pfingstag, Rear Adm. Carl J.
USN, Chief for Field Activities, BuAer
1955-1957

Powers, Maj. Gen. Edward M.
USAF
1945-1949

Pratt, Maj. Gen. Henry C.
USA
1930-1935

Price, Vice Adm. John D.
USN, Deputy Chief of Naval Operations (Air)
1948-1950

Pupin, Michael I.
Columbia University
1915-1922

Putt, Lt. Gen. Donald L.
USAF, Deputy Chief of Staff, Development
1949-1958

Pyle, James T.
Administrator of Civil Aeronautics
1937-1958

Quarles, Donald A.
Assistant Secretary of Defense
1954-1956

Radford, Vice Adm. Arthur W.
USN, Deputy Chief of Naval Operations (Air)
1946-1947

Raymond, Dr. Arthur E.
Douglas Aircraft Co., Inc.
1946-1956

Reber, Lt. Col. Samuel

USA, OIC Aviation Section, Signal Corps
1915-1916

Reichelderfer, Dr. Francis W.
Chief, U.S. Weather Bureau
1939-1958

Rentzei, Delos W.
Administrator of Civil Aeronautics; Under Secretary of Commerce
1948-1951

Richardson, Capt. Holden C.
USN, Naval Constructor
1915-1917

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Richardson, Rear Adm. Lawrence B.
USN, BuAer
1944-1946

Rickenbacker, Capt. Edward V.
Eastern Air Lines Inc.
1956-1958

Robins, Brig. Gen. Augustine W.
USA
1935-1939

Rothschild, Louis S.
Under Secretary of Commerce for Transportation
1955-1958

Ryan, Oswald
Civil Aeronautics Board
1954

Sabine, Wallace C.
Bureau of Aircraft Production
1918

Saville, Maj. Gen. Gordon P.
USAF

1950-1951

Scriven, Brig. Gen. George P.
USA, Chief Signal Officer
1915-1917

Spaatz, Gen. Carl
USAF, Chief of Staff
1946-1948

Squier, Maj. Gen. George O.
USA, Chief Signal Officer
1916-1918

Stevens, Rear Adm. Leslie C.
USN, Assistant Chief, BuAer
1946-1947

Stratton, Samuel W.
Director, Bureau of Standards
1915-1931

Taylor, Rear Adm. David W.
USN, Chief Naval Constructor (civilian member from 1922)
1917-1938

Towers, Rear Adm. John H.
USN, Assistant and Chief, BuAer
1917-1919; 1929-1931; 1939-1942

Twining, Gen. Nathan F.
USAF, Chief of Staff
1954-1957

Vandenberg, Gen. Hoyt S.
USAF, Chief of Staff
1948-1950

Vidal, Eugene L.
Director, Bureau of Air Commerce
1933-1937

Walcott, Dr. Charles D.
Secretary, Smithsonian Institution
1915-1927

Warner, Dr. Edward P.
Aviation magazine; industry consultant; later, Civil Aeronautics Board
1929-1945

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Webster, William
Chairman, Research and Development Board
1950-1951

Westover, Maj. Gen. Oscar
USA, Chief of Air Corps
1936-1938

Wetmore, Dr. Alexander
Secretary, Smithsonian Institution
1945-1952

Weyerbacher, Cdr. Ralph D.
USN, BuAer
1934-1936

White, Gen. Thomas D.
USAF, Chief of Staff
1957-1958

Whitman, Walter G.
Chairman, Research and Development Board
1951-1953

Wright, Orville
Dayton, Ohio
1920-1948

Wright, Dr. Theodore P.
Director of Aircraft Production; Administrator of Civil Aeronautics; Cornell University
1942-1953

Source: Eugene M. Emme, *Aeronautics and Astronautics: An American Chronology of Science and Technology in the Exploration of Space, 1915-1960* (Washington: NASA, 1961), pp. 202-205.

3. Executive Officers, NACA Headquarters

Director of Research

George W. Lewis, 1919-1947

Hugh L. Dryden, 1947-1958

Secretary/ Executive Secretary

John F. Victory, 1915-1958

Assistant Secretary and Executive Officer

Edward H. Chamberlin, 1918-1958



George W. Lewis



Hugh L. Dryden

[413] 4. Growth of Langley Staff, 1919-1958

Fiscal Year	Professional	Nonprofessional	Total
1919	4	7	11
1920	12	15	27
1921	15	32	44
1922	18	38	56
1923	23	52	75
1924	36	62	98
1925	39	72	111
1926	44	92	136
1927	45	104	149
1928	60	108	168
1929	79	110	189

1930	100	128	228
1931	102	155	257
1932	111	159	270
1933	110	150	260
1934	109	140	249
1935	111	164	275
1936	138	203	341
1937	149	253	402
1938	166	260	426
1939	204	320	524
1940	277	462	739
1941	369	571	940
1942	439	804	1243
1943	594	1624	2218
1944	937	2351	3288
1945	832	2388	3220
1946	692	2005	2697
1947	734	2051	2785
1948	899	2070	2969
1949	1082	2183	3265
1950	1158	2230	3388
1951	1235	2276	3511
1952	1255	2302	3557
1953	1189	2171	3360
1954	1138	2134	3272
1955	1072	2067	3139
1956	1034	2222	3256
1957	1093	2114	3207
1958	1151	2145	3296

Source: NASA chart, "Growth of Langley's Staff," 16 September 1965, LaRC Historical Archives.

[414] 5. Langley Researchers

The following Langley researchers are mentioned in the text or notes of this book. In general, the list includes those researchers to whom more than mere passing reference is made. Some

of the "researchers" included were in fact technical service employees who supported research.

Name & year of birth, College degree(s) & dates of Langley employment

- Abbott, Ira H. (b. 1906)MIT, B.S. '29, aero. eng.;1929-1947 (detailed to NACA HQ)
- Alford, William L. (b. 1921)Wayne State, B.S. '49, aero. eng.; 1949-NASA
- Allen, H. Julian (b. 1910)Stanford, A.B. '32, M.A. '35, mech. eng.; 1936-1940 (transferred to Ames)
- Ames, Milton B. (b. 1913)Georgia Tech, B.S. '36, aero. eng.;1936-1941 (detailed to NACA HQ)
- Ayer, Bruce E. (b. 1904)Univ. Illinois, B.S. '29, mech. eng.; 1929-1941 (transferred to AERL)
- Baals, Donald D. (b. 1916)Purdue, B.S. '38, mech. eng.; M.S. '39,aero. eng.; 1939-NASA
- Babberger, Carl (b. 1909)Stanford, B.S. '34, mech. eng.; 1936-1939
- Bacon, David L. (b. 1895)Yale, B.A. '16, physics; 1920-1924
- Bailey, Frederick J., Jr. (b. 1911)MIT, B.S. '34, aero. eng.; 1934-1955
- Bamber, Millard J. (b. 1898)Univ. Michigan, B.S. '26, aero. eng.; 1927-1944
- Becker, John V. (b. 191:)New York Univ., B.S. '35, mech. eng.; M.S. '36, aero. eng.; 1936-NASA
- Beeler, De Elroy (b. 1915)Kansas St. Univ., B.S. '41, mech. eng.; 1941-1954 (transferred to HSFS)
- Biermann, Arnold E. (b. 1904)Purdue, B.S. '28, mech. eng.; 1928-1942
- Biermann, David J. (b. 907)Purdue, B.S. '29, mech. eng.; 1929-1943
- Bioletti, Canton (b. 1906)Univ. California, B.S. '30, mech. eng.;1930-1940 (transferred to Ames)
- Bogdonoff, Seymour M. (b. 1921)Rensselaer Poly. Inst., B.S. '42, aero. eng.;1942-1947
- Brevoort, Maurice J. (b. 1900)Allegheny Coll., B.S. '22; Univ. Nebraska, M.A. '24, physics; 1930-1958
- Brown, Clinton E. (b. 1920)Purdue, B.S. '41, M.S. '42, mech. eng.; 1942-NASA
- Buckley, Edmund C. (b. 1904)Rensselaer Poly. Inst, B.S. '27, electr. eng.; 1930-NASA



The flight crew in front of a Fokker trim tor with experimental NA CA cowlings, March 1929. Front row, left to right: John Spivey, John Haines, Robert Hunt, Charles Shobe, Melvin Gough, Samuel Eakin, Walter Quigley, Siegfried Hunsecker, and Frederick Hunsecker. Back row: "Mac" McConnaha, George Bylifant, William McAvoy, Thomas Carroll, Ernest Johnson, Charles Wolf, Raymond Braig and John Houston.

Name & year of birth College degree(s) & dates of Langley employment

- Busemann, Adolf (b. 1901) Tech. Hochschule Braunschweig, Ing. Dipl. '24, Dr. Ing. '25; 1947-NASA
- Butler, T. Melvin (b. 1917) Virginia Poly. Inst., B.S. '39, indus. eng.; 1939-NASA
- Carroll, Thomas (b. 1890) Georgetown, law '20; 1920-1929
- Clay, William C. (b. 1903) MIT, B.S. '28, aero. eng.; 1928-1939
- Collier, Thomas M. (b. 1901) No degree; 1926-1932 Conner, D. William (b. 1920) Ohio Northern, B.S. '42, mech. eng.; 1942-NASA
- Corson, Blake W., Jr. (b. 1908) Univ. Richmond, B.S. '32, math; 1935-NASA
- Cram, Percy J. (b. 1913) Georgia Tech, B.S. '35, mech. eng.; 1939-NASA
- Crigler, John L. (b. 1905) William and Mary, B.S. '27, math and physics; 1928-NASA
- Crowley, John W., Jr. (b. 1; 99) MIT, B.S. '20, mech. eng.; 1921-1947 (transferred to NACA HQ)
- Davidson, Milton (b. 1917) Univ. Alabama, B.S. '38, aero. eng.; 1940-1946

[416] Name & year of birth, College degree(s) & dates of Langley employment

- Dawson, John R. (b. 1909)Rice Inst., B.S. '29, civil eng.; 1930-NASA
- Dearborn, Clinton H. (b 1897)Univ. Michigan, B.S. '22, mech. eng.;1927-1950 (transferred to NACA HQ)
- DeFrance, Smith J. (b. 896)Univ. Michigan, B.S. '22, aero. eng.;1922-1940 (transferred to Ames)
- Delano, James B. (b. 1911)New York Univ., B.S. '35, mech. eng.;1936-1953
- Demming, Arthur (b. 1905)Univ. California, B.S. '30, electr. eng.;1930-4939
- Donaldson, Coleman duPont (b. 1922)Rensselaer Poly. Inst., B.S. '42, aero. eng.;1943-1952
- Donely, Philip (b. 1909)MIT, B.S. '31, aero. eng.; 1931-NASA
- Donlan, Charles J. (b. 1916)MIT, B.S. '38, aero. eng.; 1938-NASA
- Draley, Eugene C. (b. 1916)Catholic Univ., B.S. '38, aero. eng.; 1938-NASA
- Duberg, John E. (b. 1917)Manhattan Coil., B.S. '38; Virginia Poly. Inst., M.S. '40; Univ. Illinois, Ph.D. '48, civil eng.; 1943-NASA
- Ebert, John W., Jr. (b. 1913)Johns Hopkins, B.S. '35, mech. eng.; 1935-1947 (detailed to NACA HQ)
- Ellerbrock, Herman H. b. (1906)Johns Hopkins, B.S. '27, mech. eng.; 1930-1942 (transferred to AERL)
- Ellis, Macon C., Jr. (b. 918)Alabama Poly. Inst. (Auburn), B.S. '39, aero. eng.; 1939-NASA
- Faget, Maxime A. (b. 1921)Louisiana St. Univ., B.S. '43, mech. eng.;1946-NASA
- Fairbanks, Andrew J. (b. 1901)Cornell, B.S. '24, mech. eng.; 1924-1927
- Fairbanks, Karl J. (b. 1902)Univ. Michigan, B.S. '24, aero. eng.;1924-1926
- Fedziuk, Henry A. (b. 1916)Univ. Michigan, B.S. '39, aero. eng.; 1939-NASA
- Ferri, Antonio (b. 1912)Univ. di Roma, Dr. Ing. '36; 1944-1951
- Forrest, Marvin (b. 1906)No degree; 1927-NASA
- Gardiner, Arthur (b. 1898)Swarthmore, A.B. '20, civil eng.; 1920-1927
- Garnick, I. Edward (b. 1910)Univ. Chicago, A.B. '30, math and physics;1930-NASA
- Gerrish, Harold C. (b. 1891)Univ. Maine, B.S. '14, electr. eng.;
- 1926-1943 (transferred to Ames)Gilruth, Robert R. (b. 1913)Univ. Minnesota, B.S. '35, M.S. '36 Aero. Eng.: 1937-NASA



A jousting contest was one of the highlights of the NACA's annual picnic at Grandview Beach on Chesapeake Bay in July 1929. On the barrel to the left is Edward R. "Ray" Sharp, a future engineer-in-charge of the NACA's Aircraft Engine Research Laboratory in Cleveland, Ohio.

Name & year of birth, College degree(s) & dates of Langley employment

- Glass, Clinton (b. 1899) No degree; 1925-1940
- Goett, Harry J. (b. 1910) Holy Cross, B.S. '31, physics and math; New York Univ., B.S. '33, aero. eng.; 1936-1940
- Gough, Melvin N. (b. 1906) Johns Hopkins, B.S. '26, mech. eng.; 1926-NASA
- Griffith, Leigh M. (b. 1882) California Inst. of Technology, B.S. '02, mech. eng.; 1918-1924
- Gustafson, Frederic B. (b. 1913) Univ. Kansas, B.S. '36, M.S. '38, mech. eng.; 1938-NASA
- Harris, Thomas A. (b. 1903) William and Mary, B.S. '29, physics; 1927-NASA
- Hartmann, Edwin P. (b. 1905) Marquette, B.S. '29, mech. eng.; 1930-1940 (transferred to Ames)
- Heldenfels, Richard R. (b. 1920) MIT, B.S. '42, aero. eng.; 1947-NASA
- Hemke, Paul E. (b. 1890) Univ. Chicago, A.B., M.A.; Johns Hopkins, Ph.D. '24, physics; 1924-1927
- Herrnstein, William H., Jr. (b. 1905) Univ. Michigan, B.S. '27, aero. eng.; 1927-NASA
- Higgins, George J. (b. 1897) Univ. Michigan, B.S. '23, aero. eng.; 1923-1928
- Hill, Paul R. (b. 1909) Univ. California, B.S. '36, mech. eng.; 1939-NASA
- Hooker, Ray W. (b. 1906) Purdue, B.S. '29, mech. eng.; 1930-NASA

[418] Name & year of birth, College degree(s) & dates of Langley employment

- Hoover, Herbert H. (b. 1912)Univ. Tennessee, B.S. '34, mech. eng.;1940-1952 (killed in crash of B-45 during research flight)
- House, Rufus O. (b. 1907)William and Mary, B.S. '29, math;1927-NASA
- Howe, Edward A. (b. 1918)Syracuse, B.S. '43, aero. eng.; 1943-NASA
- Huckel, Vera (b. 1908)Univ. Pennsylvania, B.S. '29, math;1939-NASA
- Hulcher, Charles A. (b. 1910)No degree; 1930-1954
- Jacobs, Eastman N. (b. 1902)Univ. California, B.S. '24, mech. eng.; 1925-1944
- Joachim, William F. (b. 1893)Univ. Minnesota, B.S. '21, mech. eng.;1922-1929
- Johnson, Caldwell C. (b. 1919)No degree (2 years at Univ. Virginia);1937-NASA
- Johnson, Harold I. (b. 1920)Univ. Michigan, B.S. '41, aero. eng.;1941-NASA
- Johnson, W. Kemble (b. 1911)Virginia Poly. Inst., B.S. '33, chem. eng.;1934-NASA
- Jones, Robert T. (b. 1910)No degree (took classes at Univ. Missouri and Catholic Univ.); 1934-1946 (transferred to Ames)
- Joyner, Upshur T. (b. 1908)William and Mary, B.S. '31, physics and math; 1931-NASA
- Kantrowitz, Arthur (b. 1911)Columbia Univ., B.S. '34, M.A. '35, Ph.D. '45, physics; 1935-1946
- Kaplan, Carl (b. 1904)Johns Hopkins, B.S. '26, M.S. '28, chemistry; Ph.D. '30, physics; 1932-1956
- Katzoff, Samuel (h. 1909)Johns Hopkins, B.S. '29, Ph.D. '34, chemistry; 1936-NASA
- Keffer, Percy R. (b. 1897)No degree (Newport News Shipbuilding and Dry Dock Co. Apprentice School, 4 years); 1920--NASA
- Kemper, Carlton (b. 1899)Univ. Pennsylvania, B.S. '23, mech. eng.; 1924-1943 (transferred to AERL)
- King, Paul B. (b. 1892)No degree (took classes at Univ. Utah);1922-1927
- Kirschbaum, Howard W. (b. 1903)Univ. Michigan, B.S. '27, aero. eng.; 1927-1941 (transferred to Ames)
- Knight, Montgomery (b. 1901)MIT, B.S. '22, electr. eng.; 1925-1930

[419] Name & year of birth, College degree(s) & dates of Langley employment

- Koppen, Otto (b. 1900)MIT, B.S. '23, mech. eng.; 1924-1925
- Korycinski, Peter F. (b. 1917)Georgia Tech, B.S. '42, mech. eng.; 1942-NASA
- Kotanchik, Joseph N. (b. 1903)MIT, B.S. '38, mech. eng.; 1938-NASA
- Kraft, Christopher C., Jr. (b. 1924)Virginia Poly. Inst., B.S. '44, aero. eng.;1945-NASA
- Kuhn, Paul (b. 1903)Univ. Michigan, B.S. '30, aero. eng.;1931-NASA
- Lindsey, Walter F. (b. 1910)Virginia Military Inst., B.S. '30, electr. eng.; 1931-NASA
- Loftin, Laurence K., Jr. (b. 1919)Univ. Virginia, B.S. '43, mech. eng.;1944-NASA
- Lorenzen, Coby (b. 1905)Univ. California, B.S. '29, mech. eng.;1929-1931
- Lundquist, Eugene E. (b. 1907)Univ. Nebraska, B.S. '28, Ph.D. '44, civil eng.; 1941-NASA
- McAvoy, William H. (b. 1896)No degree; 1921-1940 (transferred to Ames)
- McHugh, James G. (b. 1906)North Dakota St. Coil., B.S. '29, mech. eng.; 1929-1956
- McLellan, Charles H. (b. 1915)Univ. Washington, B.S. '37, aero. eng.;1938-NASA

- Maher, Edward T. (b. 1920)Pierce Business School '39; 1947-NASA
- Mattson, Axel T. (b. 1916)North Carolina St , B.S. '41, mech. eng.;1941-NASA
- Mayo, William B. (b. 1910)No degree; 1939-NASA
- Messick, J. Cabelle (b. 1909)No degree; 1928-NASA
- Miller, Elton W. (b. 1881)George Washington Univ., B.S. '08, mech. eng.; 1922-1948
- Mixson, Robert E. (b. 1895)No degree; 1919-1957
- Morgan, William C. (b. 1880)Cornell, M.S. '06, mech. eng.; 1921-1950
- Mueller, James N. (b. 1920)Alabama Poly. Inst. (Auburn), B.S. '42, mech. eng.; B.S. '46, aero. eng.; 1946-NASA
- Munk, Max M. (b. 1890)Hanover Poly., Dipl. Ing. '14; Univ. Gottingen, Ph.D. '18, physics; 1921-1927
- Myers, Edward A. (b. 1884)No degree; 1927-1933
- Neihouse, Anshal I. (b. 1908)Virginia Poly. Inst., B.S. '30, M.S. '31, electr. eng.; 1935-NASA
- Nelson, William J. (b. 1916)MIT, B.S. '38, aero. eng.; 1938-NASA

[420]



LMAL accounting office, 1986, with pictures of the Wright brothers on the wall.

Name & year of birth, College degree(s) & dates of Langley employment

- Nichols, Mark R. (b. 1916)Alabama Poly. Inst. (Auburn), B.S. '38, aero. eng.; 1940-NASA
- Norton, Frederick H. (b. 1897)MIT, B.S. '18, physics; 1918-1923
- Orlin, William J. (b. 1920)Rensselaer Poly. Inst., B.S. '42, aero. eng.;1938-NASA

- O'Sullivan, William J., Jr. (b. 1915)Notre Dame, B.S. '37, aero. eng.;1938-NASA
- Parkinson, John B. (b. 1907)Webster Inst. of Nav. Arch., B.S. '29, nav. arch.; 1931-NASA
- Parsons, John F. (b. 1908)Stanford, B.S. '30, mech. eng.; 1931-1940 (transferred to Ames)
- Pearson, Henry A. (b. 1906)Worcester Poly. Inst., B.S. '30, mech. eng.;1930-NASA
- Phillips, William H. (b. 1918)MIT, B.S. '39, M.S. '40, aero. eng.; 1940-NASA
- Pinkel, Benjamin (b. 1909)Univ. Pennsylvania, B.S. '30, electr. eng.; 1931-1942 (transferred to AERL)
- Pinkerton, Robert M. (b. 1905)Bradley Univ., B.S. '28, physics; 1929-1931, 1932-1941, 1949-1952
- Platt, Robert C. (b. 1910)MIT, B.S. '31, aero. eng.; 1931-1940

[421] Name & year of birth, College degree(s) & dates of Langley employment

- Polhamus, Edward C. (b. 1921)Univ. Maryland, B.S. '44, mech. eng.; 1944-NASA
- Purser, Paul E. (b. 1918)Louisiana St. Univ., B.S. '39, aero. eng.; 1939--NASA
- Recant, Isadore G. (b. 1913)New York Univ., B.S. '33, mech. eng.; B.S. '34, aero. eng.;1937-NASA
- Reeder, John P. (b. 1916)Univ. Michigan, B.S. '38, aero. eng.;1938-NASA
- Regier, Arthur A. (b. 1909)Kansas St. Univ., B.S. '33, electr. eng.;1938-NASA
- Reid, Elliott G. (b. 1900)Univ. Michigan, B.S. '22, M.S. '23, aero. eng.;1922-1927
- Reid, Henry J. E. (b. 1895)Worcester Poly. Inst., B.S. '19, electr. eng.;1921-NASA
- Reiser, Walter H. (b. 1893)No degree; 1923-1951
- Rhode, Richard V. (b. 1904)Univ. Wisconsin, B.S. '25, mech. eng.; 1925-1950 (detailed to NACA HQ)
- Ribner, Herbert S. (b. 1913)California Inst. of Technology, B.S. '35; Washington Univ., M.S. '37, Ph.D. '39, physics; 1940-1949 (transferred to AERL)
- Ritter, W. K. (b. 1906)Univ. Oklahoma, B.S. '26, mech. eng.;1929-1943 (transferred to AERL)
- Rizzo, Frank S. (b. 1886)MIT, B.S. '17, mech. eng.; M.S. '22, aero. eng.; 1922-1932
- Robinson, Russell G. (b. 1907)Stanford, B.S. '28, M.S. '30, aero. eng.;1930-1939 (detailed to NACA HQ)
- Rodert, Lewis A. (b. 1906)Univ. Minnesota, B.S. '30, aero. eng.;1936-1940 (transferred to Ames)
- Rogallo, Francis M. (b. 1912)Stanford, A.B. '32, M.S. '35, aero. eng.; 1936-NASA
- Rollin, Vernon G. (b. 1906)Univ. Minnesota, B.S. '29, mech. eng.; 1929-1943 (transferred to AERL)
- Rothrock, Addison (b. 1903)Penn St. Univ., B.S. '25, physics; 1926-1942 (transferred to AERL)
- Rubert, Kennedy F. (b. 1906)Cornell, B.S. '27, M.S. '33, Ph.D. '35, mech. eng.; New York Univ., B.S. '28, aero. eng.; 1941-NASA
- Runckel, Jack F. (b. 1916)Univ. Wisconsin, B.S. '39, mech. eng.; 1940-NASA

[422] Name & year of birth, College degree(s) & dates of Langley employment

- Schey, Oscar W. (b. 1897)Univ. Minnesota, B.S. '23, mech. eng.;1923-1943 (transferred to AERL)
- Schultz, Fred W. (b. 1903)Kansas St. Univ., B.S. '26, agriculture;1929-1930
- Seidman, Oscar (b. 1909)Rutgers, B.S. '29, M.S. '31, math and chemistry; 1931-1945
- Sherman, Albert E. (b. 1910)New York Univ., B.S. '31, aero. eng.;1931-1943
- Shoemaker, James M. (b. 1902)Purdue, B.S. '25, mech. eng.; MIT, M.S. '28, aero. eng.; 1925-1927, 1931-1935
- Shortai, Joseph A. (b. 1908)Texas A&M, B.S. '29, mech. eng.;1929-NASA
- Silverstein, Abraham (b. 1908)Rose Poly. Inst., B.S. '29, mech. eng.;1929-1943 (transferred to AERL)
- Soulé, Hartley A. (b. 1905)New York Univ., B.S. '27, aero. eng.;1927-NASA
- Stack, John (b. 1906)MIT, B.S. '28, aero. eng.; 1928-NASA
- Stickle, George W. (b. 1906)Purdue, B.S. '29, mech. eng.; 1929-1951
- Stone, David G. (b. 1919)Univ. Washington, B.S. '41, aero. eng.; 1941-NASA
- Strailman, Gilbert T. (b. 1900)No degree; 1927-1954
- Theodorsen, Theodore (b. 1897)Univ. Trondheim, Dr. Ing. '22; Johns Hopkins, Ph.D. '29, physics; 1929-1946
- Thompson, Floyd L. (b. 1898)Univ. Michigan, B.S. '26, aero. eng.;1926-NASA
- Toll, Thomas A. (b. 1914)Univ. California, B.S. '41, mech. eng.;1941-NASA
- Tozier, Robert E. (b. 1908)Linfield College (Ore.), B.S. '30, physics;1930-1943 (transferred to AERL)
- Truscott, Starr (b. 1886)Univ. Michigan, B.S. '09, mech. eng.;1926-1946
- Truszynski, Gerald M. (b. 1921)Rutgers, B.S. '44, electr. eng.;1944-1954 (transferred to HSFS)
- Tucker, Virginia (b. 1909)Univ. North Carolina, A.B. '35, math;1935-1947
- Turner, Harold R., Sr. (b. 1894)No degree; 1922-NASA
- Turner, Harold R., Jr. (b. 1919)No degree (attended Univ. Virginia night school extension); 1938-1953
- Turner, Lindsey I., Jr. (b. 1912)Georgia Tech, B.S. '34, aero. eng.; 1937-NASA



Test pilots James B. Whitten (left) and John P. "Jack" Reeder prepare to investigate the handling qualities of a tandem helicopter in 1951.

Name & year of birth, College degree(s) & dates of Langley employment

- Underwood, William J. (b. 1916)Georgia Tech, B.S. '40, aero. eng.; 1940-1948
- von Doenhoff, Albert E. (b. 1910)Columbia Univ., B.S. '30, electr. eng.; 1931-NASA
- Waldron, Clyde D. (b. 1907)Univ. Arkansas, B.S. '29, mech. eng.; 1929-1942 (transferred to AERL)
- Ward, Kenneth E. (b. 1903)Univ. California, B.S. '29, mech. eng.; 1929-1940
- Ward, Vernon G. (b. 1919)Syracuse Univ., B.S. 43, mech. eng.; 1943-1951
- Ware, Marsden (b. 1896)Rensselaer Poly. Inst., B.S. '18, mech. eng.; 1918-1927

[424] Name & year of birth, College degree(s) & dates of Langley employment

- Weick, Fred E. (b. 1899)Univ. Illinois, B.S. '22, mech. eng.;1925-1929, 1930-1936
- Wenzinger, Carl (b. 1903)Swarthmore, A.B. '25, M.S. '29, mech. eng.;1927-1946
- Wetmore, Joseph W. (b. 1909)MIT, B.S. '31, aero. eng.; 1931-NASA
- Wheatley, John B. (b. 1908)Stanford, B.S. '30, mech. eng.; 1930-1937
- Whitcomb, Richard T. (b. 1921)Worcester Poly. Inst., B.S. '43, mech. eng.;1943-NASA

- Williams, Waiter C. (b. 1919)Louisiana St. Univ., B.S. '39, aero. eng.;1940-1954 (transferred to HSFS)
- Wilson, Herbert A., Jr. (b. 1914)Georgia Tech, B.S. '34, aero. eng.;1937-NASA
- Windler, Raymond (b. 1902)Univ. Missouri, B.S. '24, mech. eng.;1928-NASA
- Wood, Donald H. (b. 1898)Rensselaer Poly. Inst., B.S. '20, mech. eng.;1924-1941 (transferred to Ames)
- Woods, Robert J. (b. 1904)Univ. Michigan, B.S. '28, aero. eng.;1928-1929
- Wright, Ray H. (b. 1907)Univ. Kentucky, M.S. '33, physics;1935-NASA
- Young, Pearl I. (b. 1895)Univ. North Dakota, B.A. '19, physics;1922-1943 (transferred to AERL)
- Zimmerman, Charles H. (b. 1907)Univ. Kansas, B.S. '28, mech. eng.; 1929-1937, 1946-NASA

Source: NACA/NASA biographical files, LaRC Historical Archives.

6. Langley Officers at the End of the NACA Years

Director: Henry J. E. Reid

Associate Director: Floyd L. Thompson

Executive Assistant and Budget Officer: Rufus O. House

Chief, Research Reports Division: Henry A. Fedziuk

Assistant Director: John Stack

Chief, Compressibility Research Division: John V. Becker

Chief, Full-Scale Research Division: Eugene C. Draley

Chief, Theoretical Mechanics Division: Clinton E. Brown

Chief, Unitary Plan Wind Tunnel Division: Herbert A. Wilson, Jr.

Assistant Director: Robert R. Gilruth

Chief, Dynamic Loads Division: I. Edward Garrick

Chief, Pilotless Aircraft Research Division: Joseph A. Shortal

Chief, Structures Research Division: Richard R. Heldenfels

Assistant Director of Research: Hartley A. Soulé

[425] Chief, Flight Research Division: Melvin N. Gough

Chief, Hydrodynamics Division: John B. Parkinson

Chief, Stability Research Division: Thomas A. Harris

Chief, Instrument Research Division: Edmund C. Buckley

Chief of Technical Services: Percy J. Cram

Chief, Engineering Service Division: John C. Messick

Chief, Mechanical Service Division: William B. Mayo

Chief, Maintenance Division: Marvin Forrest

Chief, Electrical Services Division: Joseph Getsug

Chief, Administrative Services: Elton W. Miller

Fiscal Officer: Edward A. Howe

Chief, Office Services Division: Edward T. Maher
Personnel Officer: T. Melvin Butler
Chief, Photographic Division: Harry H. Hamilton
Procurement and Supply Officer: Sherwood L. Butler



From left to right, John W. "Gus" Crowley, Edward H. Chamberlin, Smith J. DeFrance, Henry J. E. Reid, and Edward R. "Roy" Sharp at the NACA's 40th anniversary party at the Smithsonian Institution, April 1955. At the time of this anniversary, the five men had a total of nearly 170 years NACA experience and three were laboratory directors: DeFrance (Ames), Reid (Langley), and Sharp (Lewis).

