

The “Real Right Stuff”

The Research Culture of the
NACA Test Pilot, 1917-1958

Presented by
James R. Hansen
Department of History
Auburn University



NACA
LMAL42612



Clare Gable

1941
S. F. 100

John's Canyon, West

CLARK GABLE MYRNA LOY SPENCER TRACY

TEST PILOT

VICTOR FLEMING'S
Production

Lionel BARRYMORE

VICTOR FLEMING
Produced by LOUIS D. LIGHT

When
Cinema
Starts



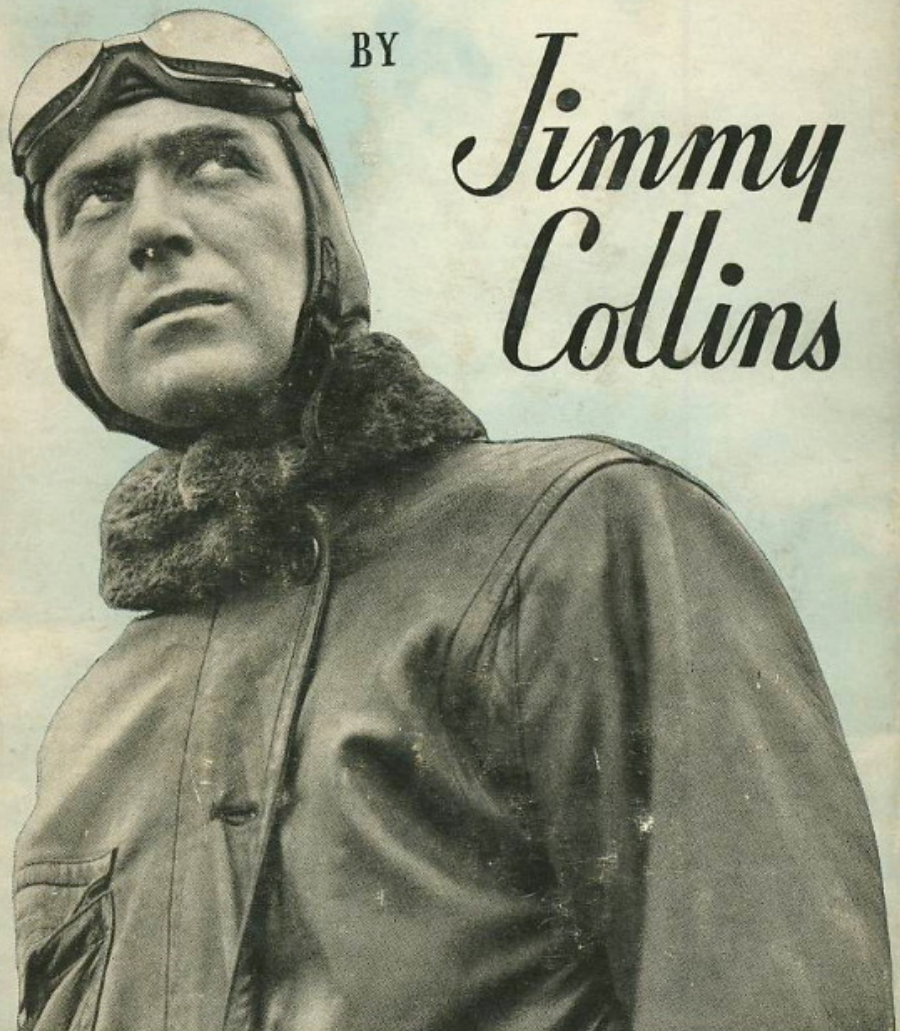




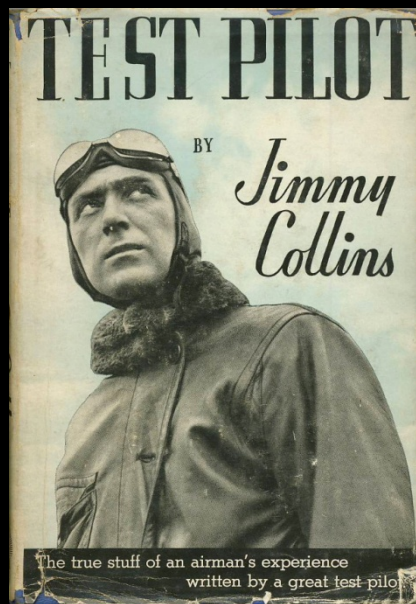
TEST PILOT

BY

*Jimmy
Collins*



The true stuff of an airman's experience
written by a great test pilot



'JIMMY' COLLINS KILLED

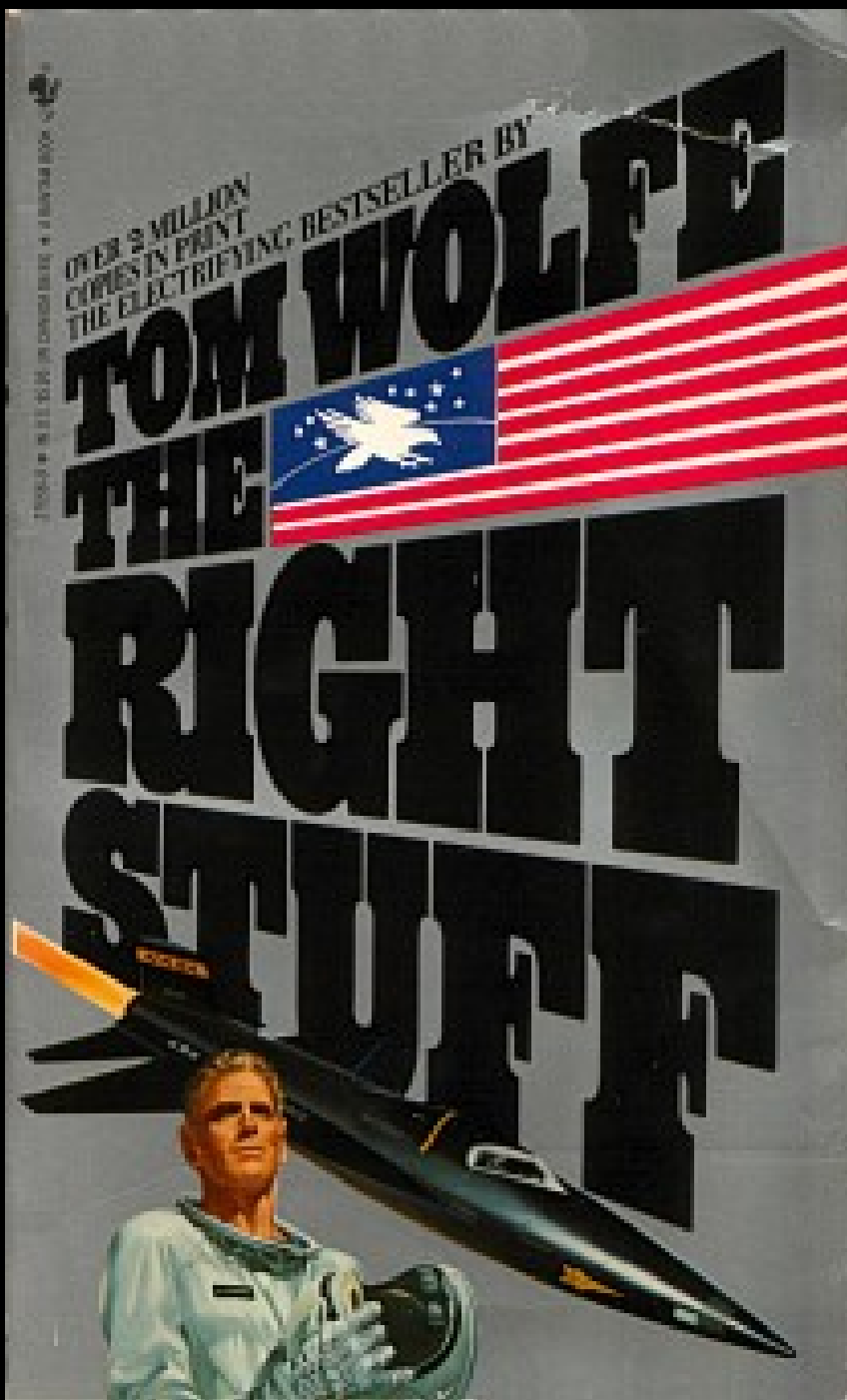
Noted Test Pilot Crashes in Long Island Cemetery

New York, March 12.—In the last of a series of ten power dives while testing a new pursuit ship built for the United States Navy, "Jimmy" Collins, well-known civilian pilot, crashed at a terrific speed in a cemetery near Farmingdale, L.I., tonight and was killed.

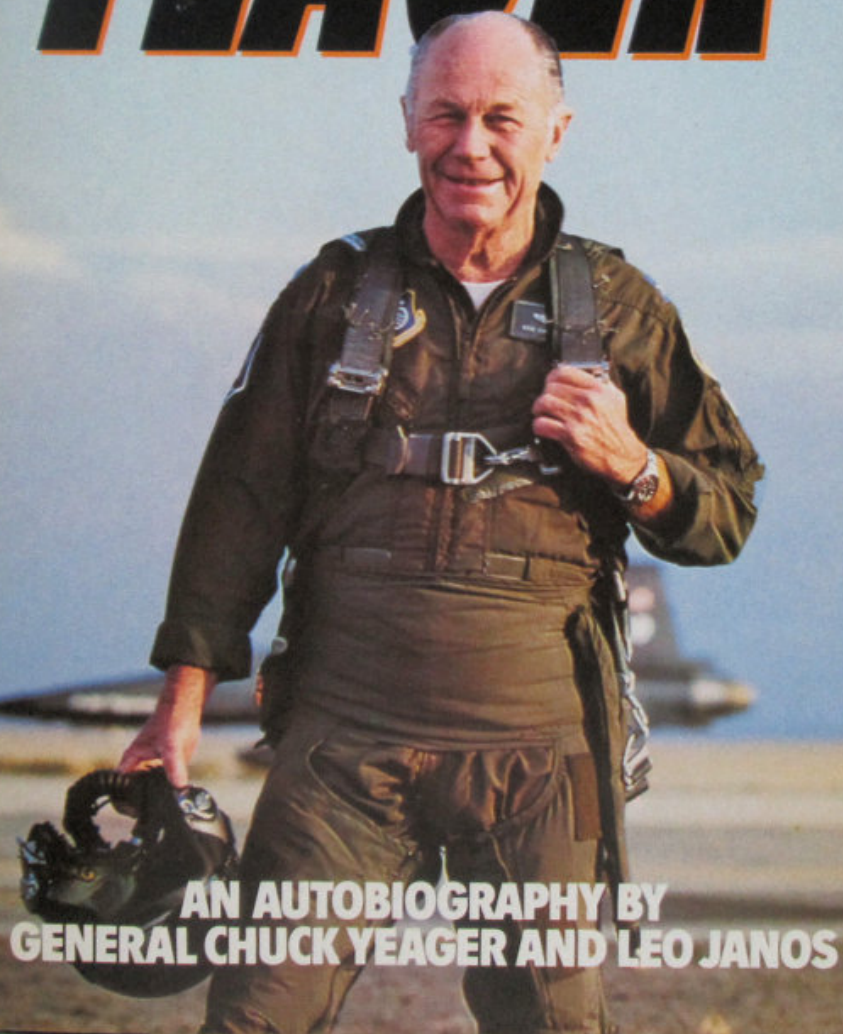
Half a mile away and buried some four feet in the earth was the powerful engine which, according to observers, left the ship as Collins levelled off at an altitude of some 8,000 feet, after a dive from a height of about 20,000 feet.

Collins was widely known as an experienced test pilot as well as a writer upon aviation topics. The plane was the first of eleven fighting ships ordered by the Navy Department, undergoing its final tests.





YEAGER



**AN AUTOBIOGRAPHY BY
GENERAL CHUCK YEAGER AND LEO JANOS**

NACA



NASA Dryden Flight Research Center Photo Collection
<http://www.dfrc.nasa.gov/gallery/photo/index.html>
NASA Photo: E-1321 Date: 1954

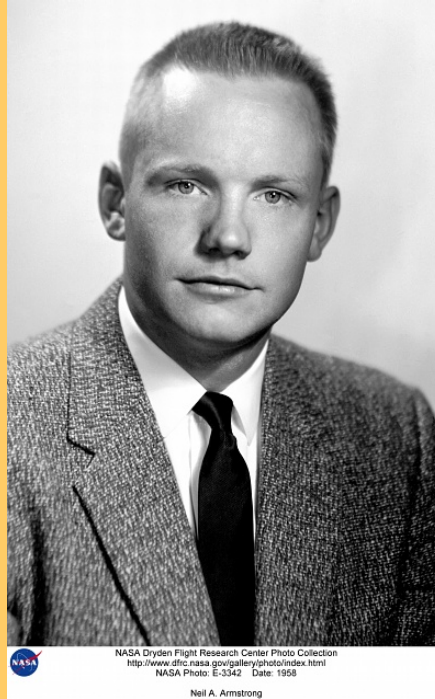
NACA/NASA test pilot Stanley P. Butchart

Neil as test pilot

Flew 50 different types of aircraft
2400 hours flying time (900 in jets)



X-5



F-100



B-29



F-101



F5D Skylancer



B-47



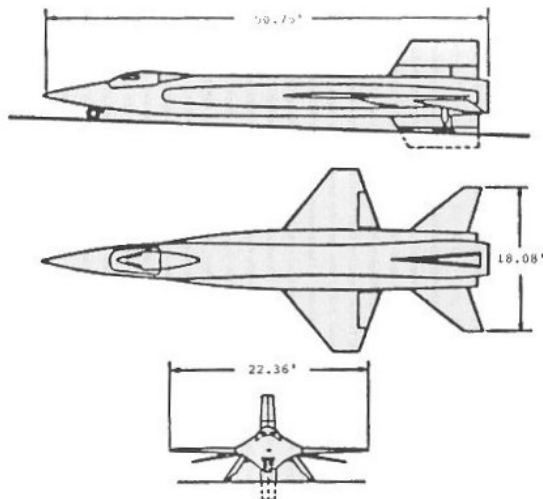
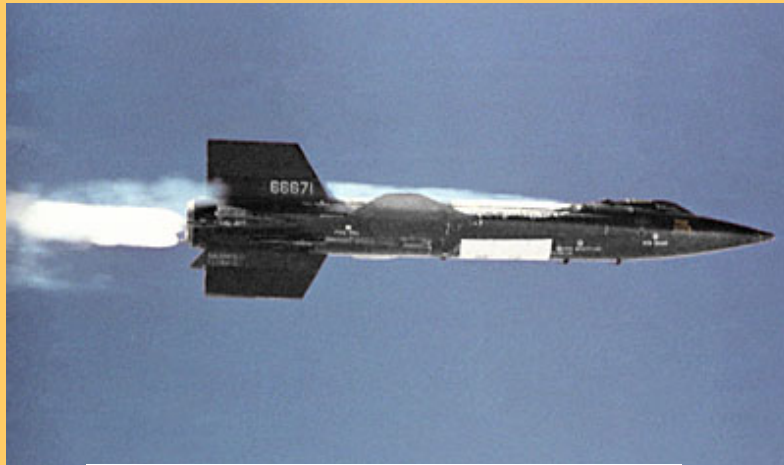
Hiller Raven



F-104



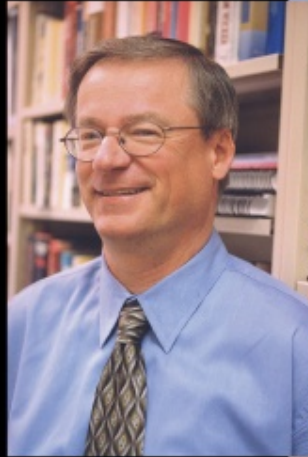
Dryden Flight Research Center ECN-89 Photographed 1961
Dryden pilot Neil Armstrong in the cockpit of the X-15. NASA photo



Dryden Flight Research Center E60-6286 Photographed 1960
NASA research pilot Neil Armstrong with the following
a mission in the first X-15 rocket plane. NASA/Dryden

Neil made 7 flights in X-15
Highest altitude: 207,500 feet

The NASA Dryden Colloquium Series Presents



James R. Hansen

Author of the only
authorized biography –
**First Man: The Life
of Neil Armstrong**
Discusses...

REAL The Right Stuff.

Before he walked on the Moon ... Neil Armstrong and the Dryden years.

November 17th, 1:00 pm in the ISF Bldg.

Book signing immediately following talk.







Lt. Eddie T. Allen (as later Boeing test pilot)



Lt. H. T. Cronk & 7 other Army pilots



NACA test pilot Thomas P. Carroll



“best test pilot I ever knew...”



NACA/NASA Test Pilot Jack Reeder (1943-1982)



John P. "Jack" Reeder"
NACA-NASA Test Pilot
1943-1982

NACA
LMAL 42612

“best test pilot I ever knew...”



NACA/NASA Test Pilot Jack Reeder (1943-1982)

“best test pilot I ever knew...



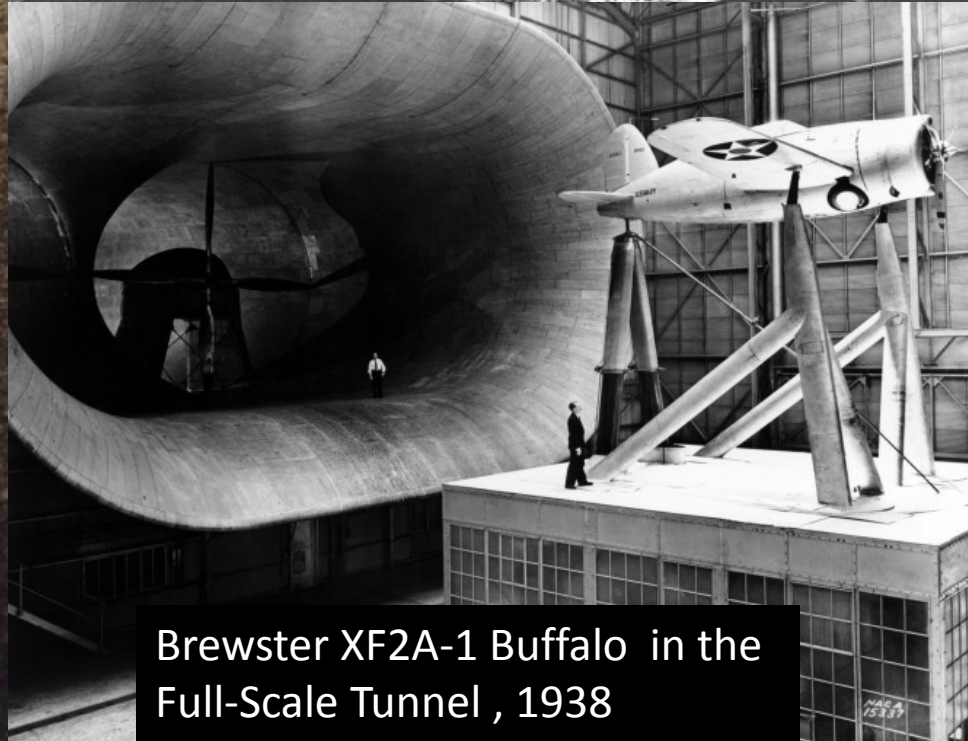
...and Chuck Yeager was the worst.”



NACA/NASA Test Pilot Jack Reeder (1943-1982}

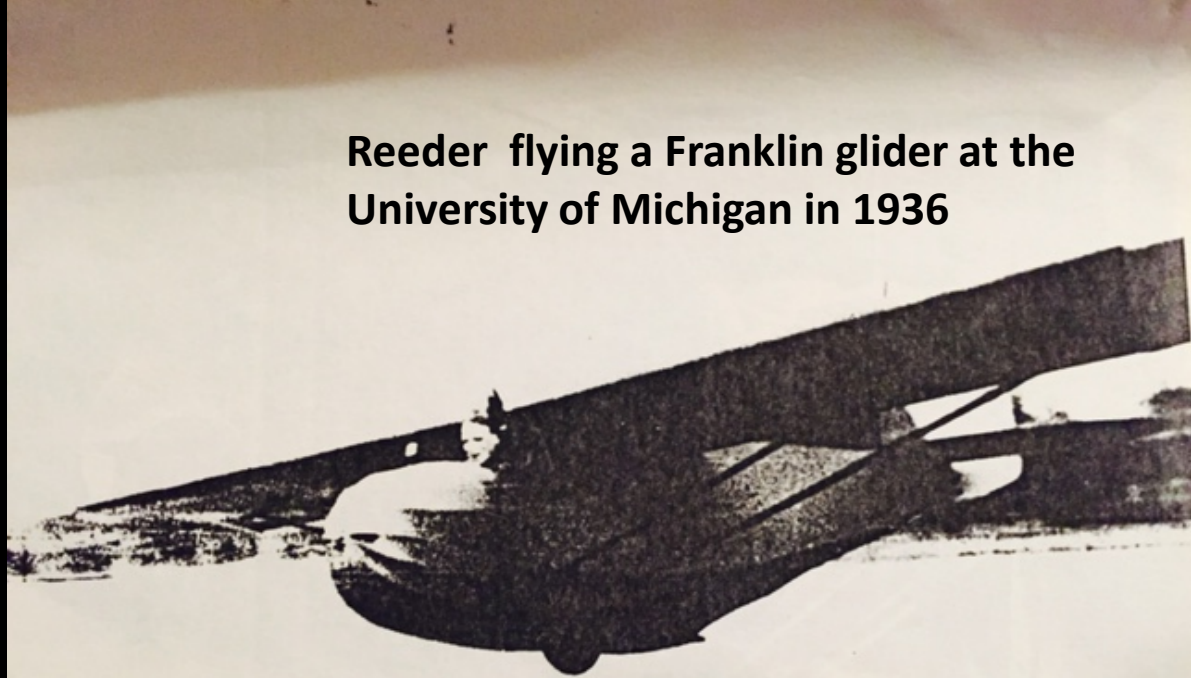


NACA Langley Memorial Aeronautical Laboratory



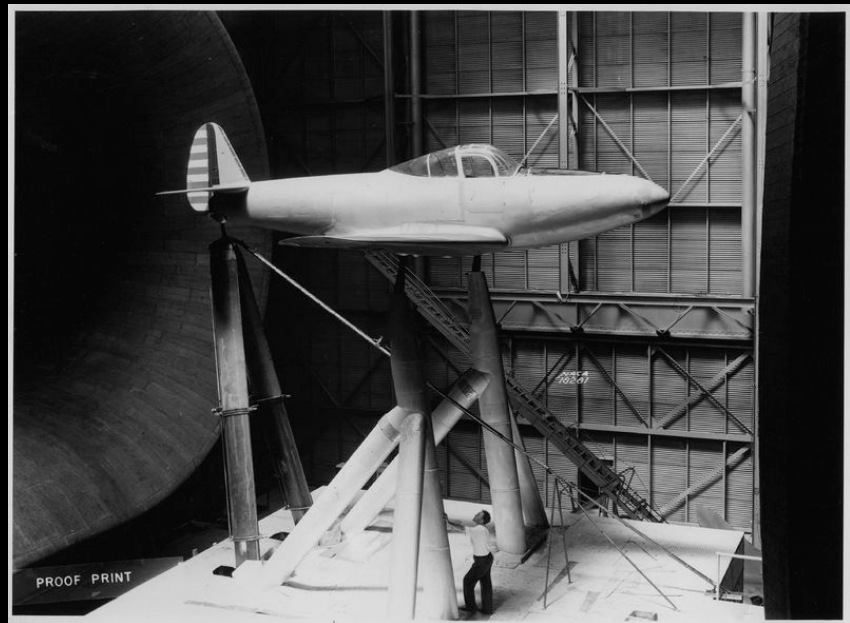
Brewster XF2A-1 Buffalo in the Full-Scale Tunnel , 1938

**Reeder flying a Franklin glider at the
University of Michigan in 1936**



JPR learned to fly in a Piper J-3 Cub

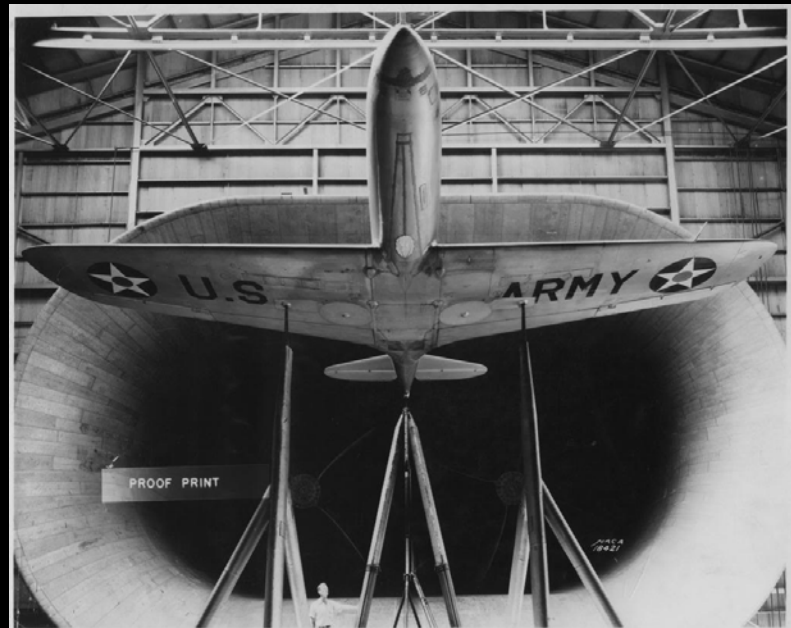


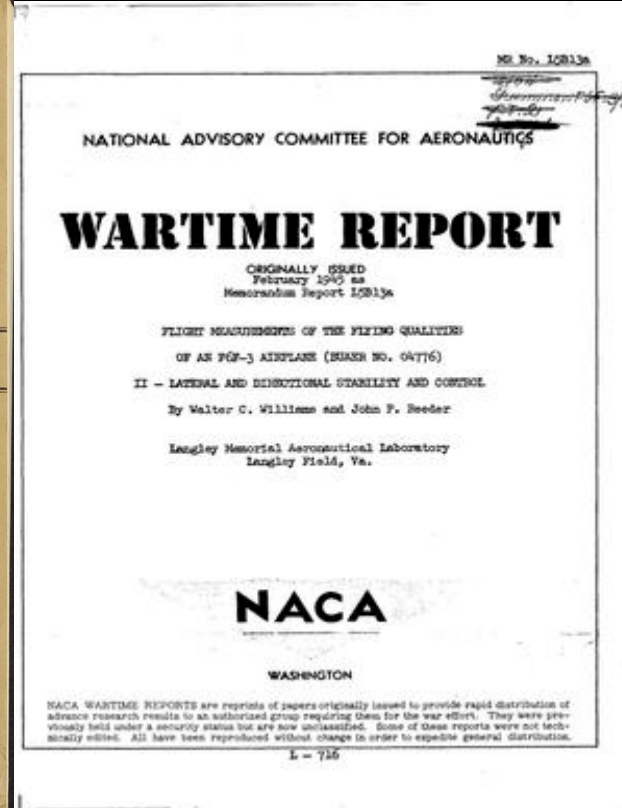
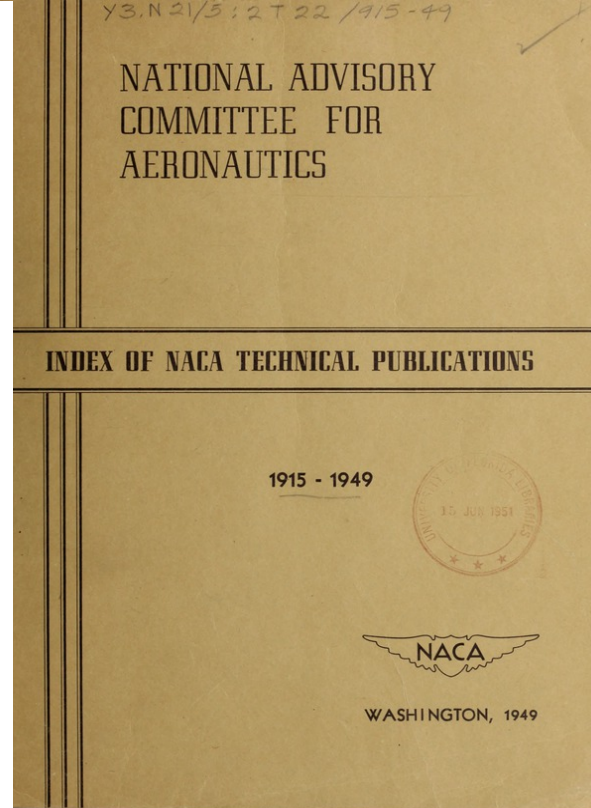
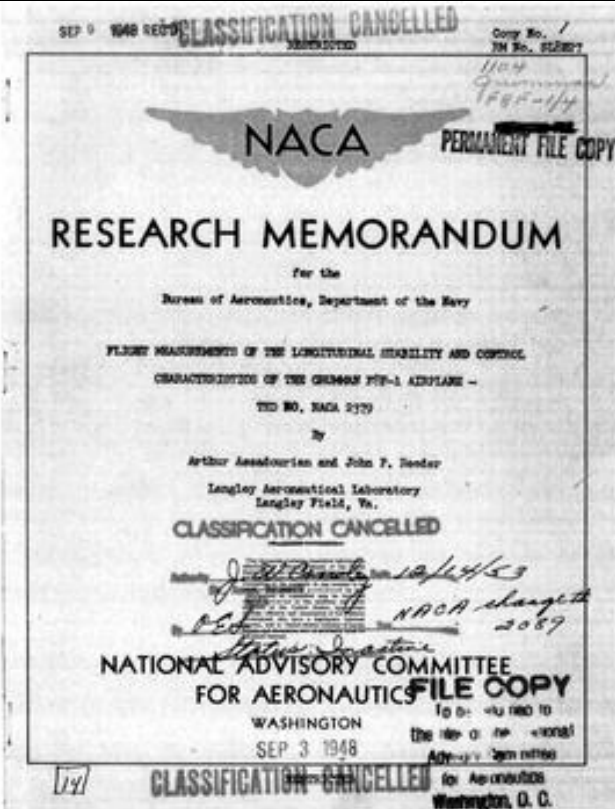


Bell XP-39 in Langley's
Full-Scale Tunnel in August 1939



Vought-Sikorsky V-173 STOL fighter
concept in FST





NATIONAL ADVISORY COMMITTEE
FOR AERONAUTICS

TECHNICAL REPORT

NATIONAL ADVISORY COMMITTEE
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Abe Silvertstein (1908-2001)
Rose Poly Inst., B.S. '20 M.E,
NACA/NASA: 1929-1970



Harry J. Goett (1910-2000)
Holy Cross, B.S. '31 M.E.
NYU, B.S, '33, A.E.
NACA/NASA: 1929-1965

**Ames Aeronautical Laboratory
under construction in 1940**



Aircraft Engine Research Laboratory, 1945

**Curtiss XP-42 fighter with various test
modifications in flight over Langley, 1945**



**Consolidated B-24D Liberator outside of the
Langley hangar in 1943**



William H. McAvoy
(1896-1980)
NACA Langley 1921-1940
NACA Ames 1940-?



Melvin N. Gough
(1906-1994)
Johns Hopkins, B.S. '26, M.E.
NACA/NASA 1926-1962

Herbert H. Hoover (1912-1952)
Univ. of Tennessee, B.S, '34, M.E.
NACA 1940-1952





Floyd L. Thompson (1898-1976)
Univ. of Michigan, B.S. '26 ,A.E.
NACA/NASA 1926-1968



Mel Gough



Monocoupe 90 with Jack Reeder sitting on the left wheel

CHARACTERISTICS OF NACA AIRPLANES

In Order Used for Student Test Pilot Training

Airplane	Designation	Gross weight with full service and crew of 1 (170 lb)	Wing area	Horsepower	Wing loading, W/S	Power loading, W/P
Piper Cub	NACA 98 (NC26899)	1070.0	178.5	50	6.0	21.4
Fairchild, XR2K-1	NACA 82	1716.5	172.0	145	10.0	11.8
Ryan, ST	NACA 96	1570.0	134.7	150	11.7	10.5
Stinson, SR6E	NACA 94	3474.0	258.5	350	13.4	9.9
SNJ-30	-----	4980.5	253.7	550	19.7	9.1
XSBA-1	-----	5715.0 (Incl. instr. & ballast)	258.0	1000	22.2	5.7
XP-42	-----	5484.0	236.0	1200	23.2	4.6
P-39D-1	-----	7500.0	213.0	1150	35.2	6.5
XTBF-1	-----	13,389.0	490.0	1700	27.3	7.9
F6F-3	-----	11,165.00	332.0	2000	33.6	5.6
SB2C-1	-----	12,600.0	423.0	1700	29.8	7.4
Lockheed 12	NACA 99	8,400.0	352.0	900	23.9	9.3
F4U-1	-----	11,165.0	314.0	2000	35.6	5.6
P-51B	-----	8,800.0	235.8	1400	37.3	6.3
F2A-2	-----	5,980.0	208.9	1200	28.6	5.0



Reeder

Hoover

Gough

William E. Gray, Jr.

Langley Piloting Staff in early 1944

4.
bert





**Jack Reeder died on May 24, 1999,
At age 82, from complications due
to Alzheimers**





GLAMOROUS
GLENNIS



NACA Muroc Flight Test Unit XS-1 Team members and USAF Pilots

Joseph Vensel

Walter Williams

Major Jack Ridley

Gerald Truszynski

De E. Beeler

Captain Charles Chuck Yeager







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The Research Culture of the
NACA Test Pilot, 1917-1958

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LMAL42612



ENGINEERING TEST PILOT

*The Exceptional Career of
John P. "Jack" Reeder*



BY
MARK A. CHAMBERS