Becker, John V. Papers

John V. Becker Papers

1936-1980, n.d.

Title Statement

Becker, John V. PapersJohn V. Becker Papers, 1936-1980, n.d. Ms.1990.052

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Descriptive Summary

Unit ID

Ms.1990.052

Unit Date

1936-1980, n.d.

Language

The materials in the collection are in English.

Abstract

THe John V. Becker Papers include correspondence, notes, memoranda and other materials related to NACA and NASA programs with which Becker was associated, including the X-1, X-15, X-20 (or Dyna-Soar) programs; research files for The High-Speed Frontier; transcripts of oral history interviews; and copies of publications and lectures by Becker, created between 1936 and 1980.

Creator

Becker, John V. (John Vernon), 1913-2020

Extent

5.4 Cubic Feet 4 boxes

Physical Location

Please note: This collection is in off-site storage and requires 2-3 days notice for retrieval. Please contact Special Collections and University Archives for more information.

Repository

Special Collections and University Archives, Virginia Tech

Administrative Information

Conditions Governing Access

The collection is open for research.

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Source of Acquisition

The John V. Becker Papers were donated to Special Collections in 1990.

Processing Information

The initial processing, arrangement, and description of the John V. Becker Papers was completed in 1990. Additional description, re-housing of the collection, and the creation of series was completed in August 2018.

Preferred Citation

Researchers wishing to cite this collection should include the following information: [identification of item], [box], [folder], John V. Becker Papers, 1936-1980, n.d., Ms1990-052, Special Collections and University Archives, Virginia Tech, Blacksburg, Va.

Biographical Note

John Vernon Becker was born in Albany, New York, in 1913. He graduated from NYU in 1935 with a degree in mechanical engineering and an MS in 1936. He began working at National Advisory Committee for Aeronautics (NACA) in the Langley Memorial Aeronautical Laboratory later that year. During his career, he served as . Head of the 16-ft. Wind Tunnel Branch (1943-1947), chief of the Compressibility Research Division (1947-1957), and chief of the Aero-Physics Research Division (1958-1974) at NACA and NASA-Langley. He was a specialist in hypersonic and reentry aerodynamics and a pioneer in the development of hypersonic research aircraft, including the X-15. Becker retired from NASA in 1974. He was elected a fellow of the American Institute of Aeronautics and Astronautics. In 1980, he authored *The High-Speed Frontier: Case Histories of Four NACA Programs, 1920-1950* (Washington, DC: NASA, 1980). He died in 2020.

A longer biography of Becker is availalbe on the NASA website: https://www.nasa.gov/centers-and-facilities/langley/john-v-becker/.

See also Becker's obituary online at https://www.legacy.com/us/obituaries/dailypress/name/john-becker-obituary?id=14163893.

Scope and Content

The John V. Becker Papers contain correspondence, notes, memoranda and other materials related to NACA and NASA programs with which Becker was associated, including the X-1, X-15, X-20 (or Dyna-Soar) programs, research files for *The High-Speed Frontier* and other writings, transcripts of oral history interviews, and copies of publications and lectures by Becker. The majority of materials were created between 1936 and 1980, with the bulk dated between 1946 and 1976. There are also undated materials, but based on their content, they date to the same active time period of Becker's career.

Keywords

Archives of American Aerospace Exploration (AAAE)

Aerospace engineers

Science and Technology

Rights Statement for Archival Description

Arrangement

The John V. Becker Papers are in their original order. Since this order grouped like materials together, series were added to help navigate the collection.

Series I: Biographical Information and Correspondence, 1936-1976, n.d., contains resumes, interviews with Becker, correspondence, and materials about his retirement.

Series II: Writings and Authored Studies, 1970-1980, n.d., includes books, reports, and studies written by Becker and reviews about those works. In addition, this series has writings by colleagues on which Becker commented.

Series III: Talks and Presentations, 1946-1976, consists of talks and presentations given by Becker between 1946 and 1976. These include presentations given to the public (at conferences or invited events), as well as presentation given in the context of his job (for the military, NASA, and corporate partners).

Series IV: Research and Meeting Files, 1954-1974, n.d., contains research and subject files on various projects from Becker's career including, but not limited to, wind tunnels, hypersonic and supersonic flight, the X-15 (and precursors and successors), Dyna-Soar, and active cooling programs. In addition, this series contains notes from meetings with supervisors, project partners, committees. This series may also have correspondence not located in Series I.

Description of Subordinate Components

Series I: Biographical Information and Correspondence
Unit Date 1936-1976, n.d.

Biographical data, resumes, etc.
box-folder 1 (box)
Container 1 (folder)

Interviews: May 27, 1973-Walt Bonney; February 10, 1976-Gene Emme
box-folder 1 (box)
Container 2 (folder)

List of Publications
box-folder 1 (box)
Container 3 (folder)

Correspondence, Miscellaneous
box-folder 1 (box)
Container 4a-4b (folder)

Correspondence, Appointments to advisory groups, committees
Unit Date 1936-1974
box-folder 1 (box)
Container 4c (folder)

Correspondence, Banquets & Awards
box-folder 1 (box)
Container 4d (folder)

Retirement
Unit Date 1975-1990

box-folder 1 (box)
Container 4e (folder)

Series II: Writings and Authored Studies
Unit Date 1970-1980, n.d.

Roland's NACA History-JVB Comments
box-folder 1 (box)
Container 5a (folder)

Hansen's Langley History
box-folder 1 (box)
Container 5b (folder)

Book Review-Hallion's Dryden History
box-folder 1 (box)
Container 5c (folder)

HRE Hindsight Study-Pre-HRE Scram jet res., aerospace plane
box-folder 1 (box)
Container 6a (folder)

HRE Hindsight Study-Contract, Report correspondence
box-folder 1 (box)
Container 6b (folder)

HRE Hindsight Study-Coord. National Programs
box-folder 1 (box)
Container 6c (folder)

HRE Hindsight Study-Final Report
box-folder 1 (box)
Container 6d (folder)

HRE Hindsight Study-Comments
box-folder 1 (box)
Container 6e (folder)

DuPont Engine Study
Unit Date 1970-1977
box-folder 1 (box)
Container 6f (folder)

The High-Speed Frontier-Correspondence, proposals, contract
box-folder 1 (box)
Container 7a (folder)

The High-Speed Frontier-Interviews
box-folder 1 (box)
Container 7b (folder)

The High-Speed Frontier-Sample taped interviews

The High-Speed Frontier-Sample taped interviews
box-folder 1 (box)
Container 7c (folder)

Unused writings for SP445
box-folder 1 (box)
Container 7d (folder)

The High-Speed Frontier (NASA SP445)-2 reviews
Unit Date 1980
box-folder 1 (box)
Container 7e (folder)

Reviews and comments on The High-Speed Frontier
box-folder 1 (box)
Container 7f (folder)

The Development of Winged Reentry Vehicles
box-folder 1 (box)
Container 8 (folder)

Series III: Talks and Presentations
Unit Date 1946-1976

Aviation Writers Association talk
Unit Date 2/7/1946
box-folder 1 (box)
Container 9a (folder)

"Problems in Newer Fields of Fluid Mechanics"
Unit Date December 29, 1949
box-folder 1 (box)
Container 9b (folder)

"States of 2-Dimension Transonic Research"
Unit Date June 1950
box-folder 1 (box)
Container 9c (folder)

Chairman's remarks
Unit Date October 2-3, 1951
box-folder 1 (box)
Container 9d (folder)

"Scale Effects at Supersonic Speeds"
Unit Date September 1953
box-folder 1 (box)
Container 9e (folder)

"Supersonic Heat Transfer on Flared Bodies"
Unit Date January 19, 1956
box-folder 1 (box)
Container 9f (folder)

"Future Aircraft,
Unit Date March 28, 1956
box-folder 1 (box)
Container 9g (folder)

"Hypersonic Gliders," May 1, 1957; "The Coolant Requirements of Hypersonic Gliders"
Unit Date November 4, 1957
box-folder 1 (box)
Container 9h (folder)

"Winged Configurations for Manned Satellites"
Unit Date March 1958
box-folder 1 (box)
Container 9i (folder)

"Reentry" lecture
Unit Date November 26, 1958
box-folder 1 (box)
Container 9j (folder)

"Comparisons of X-15, Mercury and Dyna-soar"
Unit Date February 10, 1959
box-folder 1 (box)
Container 9k (folder)

"Comparative Studies of Reentry Vehicles"
Unit Date April 7, 1959
box-folder 1 (box)
Container 9l (folder)

"Manned Hypersonic Vehicles"
Unit Date 1959-1960
box-folder 1 (box)
Container 9m (folder)

"State of the Art 1959 Manned Reentry Vehicles"
Unit Date July 28, 1959
box-folder 1 (box)
Container 9n (folder)

"Reentry" lecture
Unit Date September 9, 1959
box-folder 1 (box)
Container 9o (folder)

"Supersatellite Reentry"
Unit Date December 2-4, 1959
box-folder 1 (box)
Container 9p (folder)

"Reentry R & D"
Unit Date 1960-1961
box-folder 1 (box)
Container 9q (folder)

"Trajectory Control-Reentry at Escape Speed"
Unit Date June 21, 1961
box-folder 1 (box)
Container 9r (folder)

"Reentry from Lunar Missionsm"
Unit Date August 5, 1961
box-folder 1 (box)
Container 9s (folder)

"Reentry from Lunar Missions"
Unit Date September 8, 1961
box-folder 1 (box)
Container 9t (folder)

RESA lecture
Unit Date October 17, 1961
box-folder 2 (box)
Container 1 (folder)

"Facilities for Hypersonic Research"
Unit Date September 14, 1962
box-folder 2 (box)
Container 2 (folder)

"Reentry from Deep Space Missions"
Unit Date October 17, 1963
box-folder 2 (box)
Container 3 (folder)

OART studies
Unit Date June 25, 1964
box-folder 2 (box)
Container 4 (folder)

"Studies of High L/D Hypersonic Config ICAS IV"
Unit Date August 8, 1964
box-folder 2 (box)
Container 5 (folder)

"Research on Hypersonic Aircraft"
Unit Date January 14, 1966
box-folder 2 (box)
Container 6 (folder)

"Fluid Mechanics Problems of Hypersonic Aircraft"
Unit Date August 28-31, 1966
box-folder 2 (box)
Container 7 (folder)

"The Evolution of Lifting Body R.V.s"
Unit Date December 1967
box-folder 2 (box)
Container 8 (folder)

"A Critical Look at the R & D of Hypersonic Aircraft"
Unit Date October 24, 1967
box-folder 2 (box)
Container 9 (folder)

"Research and Development for Long Range Supersonic Aircraft"
Unit Date November 1, 1968
box-folder 2 (box)
Container 10a (folder)

"X-15 in Retrospect"
Unit Date December 4-5, 1968
box-folder 2 (box)
Container 10b (folder)

"Research and Project Management"
Unit Date March 13, 1970
box-folder 2 (box)
Container 11 (folder)

Hypersonic Technology Briefings for G. Low, June 8, 1970, and D. Nicks
Unit Date April 23, 1970
box-folder 2 (box)
Container 12 (folder)

ICAS VII
Unit Date September 1970
box-folder 2 (box)
Container 13 (folder)

Aeronautical Research Beyond Mach 3
Unit Date July 15, 1971
box-folder 2 (box)
Container 14 (folder)

NASA/OAST Hypersonic Technology Programs
Unit Date 1973
box-folder 2 (box)
Container 15 (folder)

"Actively Cooled Hypersonic Aircraft"
Unit Date May 18, 1972
box-folder 2 (box)
Container 16 (folder)

"Transport A/C Opportunities Beyond the M-2.7 SSt"
Unit Date July 27, 1973
box-folder 2 (box)
Container 17 (folder)

"Hypersonic Technology"
Unit Date March 19, 1974
box-folder 2 (box)
Container 18 (folder)

"Reflections on Hypersonics"
Unit Date December 5, 1976
box-folder 2 (box)
Container 19 (folder)

Series IV: Research and Meeting Files
Unit Date 1954-1974, n.d.

Langley Wind Tunnel Development
box-folder 2 (box)
Container 20a (folder)

4-ft Supersonic Tunnel
box-folder 2 (box)
Container 20b (folder)

60,000 hp Compressor for 4ft Supersonic Tunnel-Design, manufacture, test photos
box-folder 2 (box)
Container 20c (folder)

Analysis of Ram-Jet-powered wind tunnel
box-folder 2 (box)
Container 20d (folder)

Use of gases other than air in hypersonic tunnels
box-folder 2 (box)
Container 20e (folder)

Alternates to slotted throats for transonic testing in 16 ft tunnel
box-folder 2 (box)
Container 20f (folder)

Isentropic Compressor
Unit Date 1953
box-folder 2 (box)
Container 20g (folder)

11-inch Hypersonic Wind Tunnel-conception, progress reports, early research, initial design
box-folder 2 (box)
Container 20h (folder)

11-inch Hypersonic Wind Tunnel-photos
box-folder 2 (box)
Container 20i (folder)

11-inch Hypersonic Wind Tunnel-Tests, tech reports, transfer to Virginia Tech
box-folder 2 (box)
Container 20j (folder)

X-1 research airplane (conceptual predecessor to X-15)
box-folder 2 (box)
Container 21a (folder)

Langley pre-X-15 study of 1954
box-folder 2 (box)
Container 21b-c (folder)

Bell aircraft and Douglas visitors
Unit Date 1964
box-folder 2 (box)
Container 21c (folder)

Project 1226 (X-15)
Unit Date 1955
box-folder 2 (box)
Container 21d (folder)

X-15 Evaluation of contract proposals
Unit Date 1955
box-folder 2 (box)
Container 21e (folder)

X-15 Design phase (samples)
box-folder 2 (box)
Container 21f (folder)

X-15, Advances in technology
box-folder 2 (box)
Container 21g (folder)

X-15 Follow-on program, termination
box-folder 3 (box)

Container 1 (folder)

X-15
box-folder 3 (box)
Container 2 (folder)

X-15 History, retrospective assessment
box-folder 3 (box)
Container 3 (folder)

X-15 Sample correspondence
box-folder 3 (box)
Container 4 (folder)

Hypersonic Research Airplane Study
Unit Date 1956-1957
box-folder 3 (box)
Container 5a (folder)

Round III meetings
Unit Date October 16-18, 1957
box-folder 3 (box)
Container 5b (folder)

"Minimum Manned Satellite," WADC Briefings
Unit Date January 30-31, 1958
box-folder 3 (box)
Container 6 (folder)

Dyna-soar, X-20 Concept
Unit Date 1958-1959
box-folder 3 (box)
Container 7a (folder)

X-20 Controls
box-folder 3 (box)
Container 7b (folder)

Dyna-soar correspondence
Unit Date 1959-1962
box-folder 3 (box)
Container 7c (folder)

Korycircki Log of Key Dyna-soar Office Activies
Unit Date 1957-1962
box-folder 3 (box)
Container 7d (folder)

RVX-2, Proposed flight tests to validate Dyna-soar heating and aerodynamics
box-folder 3 (box)
Container 7e (folder)

Dyna-soar related ASAF's Asset Project
box-folder 3 (box)
Container 7f (folder)

Dyna-soar Reviews
box-folder 3 (box)
Container 7g (folder)

Dyna-soar Briefings
Unit Date 1962
box-folder 3 (box)
Container 7h (folder)

Dyna-soar Final Crises and Demise
Unit Date 1963
box-folder 3 (box)
Container 7i (folder)

Dyna-soar Problem Areas remaining for R&D
box-folder 3 (box)
Container 7j (folder)

1968 Hypersonic Research Airplane study
box-folder 3 (box)
Container 8a (folder)

1972 Hypersonic Research Airplane reviews
box-folder 3 (box)
Container 8b (folder)

Hypersonic Research Airplane industry field trip
Unit Date June 1972
box-folder 3 (box)
Container 8c (folder)

"MARV" proposal
Unit Date 1973
box-folder 3 (box)
Container 8d (folder)

X-24C approach to a hypersonic research airplane
Unit Date 1974, 1976
box-folder 3 (box)
Container 8e (folder)

NASA/USAF position paper advocating a hypersonic research airplane
Unit Date 1976
box-folder 3 (box)
Container 8f (folder)

Lunar Mission Steering Group
box-folder 3 (box)
Container 9 (folder)

Reentry Research Steering Committee
Unit Date 1960
box-folder 3 (box)
Container 10a (folder)

Reentry flight tests
Unit Date January 7, 1961
box-folder 3 (box)
Container 10b (folder)

Reentry Flight Program Presentations
Unit Date November 7, 1960
box-folder 4 (box)
Container 1 (folder)

RVX-2 Proposal
Unit Date April 1, 1960
box-folder 4 (box)
Container 2 (folder)

Reentry Flight Tests-supercircular speed, project fire
box-folder 4 (box)
Container 3 (folder)

Airbreathing Launch Vehicle Studies
box-folder 4 (box)
Container 4 (folder)

Supersonic Transport R&D; Hypersonic Transport R&D; Crituque of OART Program
box-folder 4 (box)
Container 5a (folder)

OART Management Council Reviews Hypersonic Technology Program
Unit Date 1971-1973
box-folder 4 (box)
Container 5b (folder)

Joint NASA/USAF Hypersonic Program
Unit Date November 9, 1962
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Container 6a (folder)

USAF/NASA Scramjet Programs Reviews
Unit Date 1965-1967
box-folder 4 (box)
Container 6b (folder)

USAF/NASA Review of AEDC Triplet Facility
Unit Date 1966
box-folder 4 (box)
Container 6c (folder)

AACB-DOD/NASA Joint Study, Hypersonic Technlogy
Unit Date September 1972
box-folder 4 (box)
Container 6d (folder)

DOD/NASA Joint Reviews, Supersonic/Hypersonic Programs
Unit Date 1973-1974
box-folder 4 (box)
Container 6e (folder)

Active Cooling Aircraft Proposal-History and initial publications
Unit Date 1966-1974
box-folder 4 (box)
Container 7a (folder)

Symposium on Active Cooling Airframes
Unit Date November 17, 1970
box-folder 4 (box)
Container 7b (folder)

Active Cooling Structures Program
Unit Date November 21, 1972
box-folder 4 (box)
Container 7c (folder)

Active Cooling Inter-directional Group
Unit Date 1974
box-folder 4 (box)
Container 7d (folder)

Active Cooling Program and Reviews
Unit Date 1972-1973
box-folder 4 (box)
Container 7e (folder)

Reorganizations
Unit Date 1969-1974
box-folder 4 (box)
Container 8a (folder)

Exchanges with director
box-folder 4 (box)
Container 8b (folder)

Airlie House Retreats
Unit Date 1970-1971
box-folder 4 (box)
Container 8c (folder)

Williamsburg Retreat
Unit Date 1974
box-folder 4 (box)
Container 8d (folder)

LRC Aircraft Design Steering Committee-Critiques of Aeronautics Program
box-folder 4 (box)
Container 8e (folder)

Director's Reviews Aero-physics Division, 1968; Hypersonic Division
Unit Date 1972
box-folder 4 (box)
Container 8f (folder)

Committee on Studies & Analogues
Unit Date 1973
box-folder 4 (box)
Container 8g (folder)

Technical Report Survey, Theorhetical vs. Experimental
box-folder 4 (box)
Container 8h (folder)