



Guide to the
Michael H. Gorn Flight Research and X-Plane
Historical Research Files, 1922-1999
AFRC25-02

NASA Armstrong Flight Research Center Archives

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Descriptive Summary

Title:

Michael H. Gorn Flight Research and X-Plane Historical Research Files, 1922-1999

Collection Number:

AFRC-2502

Creator:

Gorn, Michael H.

Dates:

Inclusive: 1922-1999

Bulk: 1971-1999

Extent:

Volume: 9 cubic feet (9 linear feet). 9 records boxes, 3 digitized items (16.2 gigabytes), including WAV and MOV files.

Repository:

Armstrong Flight Research Center Archives

Abstract:

This collection contains former Armstrong Flight Research Center (AFRC) Chief Historian Michael Gorn's research files for two aeronautics research history books: Gorn's "Expanding the Envelope: Flight Research at NACA and NASA" and the second edition of Richard Hallion's "On the Frontier: Experimental Flight at NASA Dryden."

Administrative Information

Access: Restricted Partly; This collection contains information that has Controlled Unclassified Information (CUI) and Export Control restrictions.

Distribution Limits: Partly Public; NASA employees contact archivist regarding restricted materials.

Publication Rights: This collection may contain copyrighted material. The researcher assumes full responsibility for conforming with the laws of copyright. Securing permission to publish or use materials is the sole responsibility of the researcher.

Languages and Scripts:

All records are in English.

Acquisition Information:

Transferred by the ARC Archives on June 12, 2025 (Accession ARC-TR-2025-002).

Custodial History

Michael H. Gorn donated this collection to the Ames Research Center Archives on October 25, 2017 (Accession 2017-029). The materials remain in the custody of the ARC Archives but are now associated with the AFRC Archives.

Scope and Content

This collection contains former AFRC Chief Historian Michael Gorn's research files for two aeronautics research history books.

Series I pertains to Gorn's updates to Richard P. Hallion's "On the Frontier: Experimental Flight at NASA Dryden," which presents a history of X-plane flight research at Armstrong Flight Research Center (formerly known as Dryden Flight Research Center) from 1946 to 1981. Gorn added two new chapters to cover advancements for the remaining two decades of the twentieth century and wrote a new concluding section to the final chapter of the first edition, "Into Space: 1959-1981."

Series II focuses on Gorn's "Expanding the Envelope: Flight Research at NACA and NASA," which provides a broad overview of the evolution of this research discipline over 90 years by teams at NASA and its precursor organization, the NACA. The bulk of the collection comprises research files for this book.

System of Arrangement

This collection was left in the creator's original order. It is arranged into two series, one for each book.

Processing Information

Two audiocassettes and one VHS videocassette were digitized in July 2018.

Series Descriptions

Series I: On the Frontier: Experimental Flight at NASA Dryden (1976-1999), 52 files

This series includes documentation for chapters 12 and 13, mainly featuring files on various aircraft, (e.g., fighters, reusable lifting bodies, uncrewed aerial vehicles, systems research, and high-speed and high-altitude vehicles), as well as files related to research on controlled impact, vortex wake dynamics, and propulsion flight control. Other information relates to flight test facilities at AFRC, the Ames-Dryden consolidation, a lecture by former AFRC center director Ken Szalai, source materials used for the chapters, and copies of photographs for potential use.

Series II: Expanding the Envelope: Flight Research at NACA and NASA (1922-1999), 135 files

This series comprises information about the NASA and NACA laboratories, their research, and staff. There are also files about various aircraft, the consolidation of NASA aircraft at AFRC, and the dissolution of the Ames-Dryden consolidation. Types of documentation include supporting research files for the book grouped by chapter, source, and subject, summaries, research notes, peer review files, interviews and recordings, correspondence, clippings, reports, administrative materials, DFRC project update files, and copies of flight logs, photographs, center telephone directories, and other materials.

Indexing Terms

The following terms may be used to index this collection.

Corporate Name

National Advisory Committee for Aeronautics
Neil A. Armstrong Flight Research Center

Personal Name

Gorn, Michael H.
Hallion, Richard, 1948-

Subjects

Aeronautics Research
Aeronautics--Research--United States
Research Aircraft

Container List

Series I: On the Frontier: Experimental Flight at NASA Dryden

Box	Folder	Title
1	1	General Summary
1	2	AD-1 Documents
1	3	CV-990 Shuttle Landing Gear Tests, I
1	4	CV-990 Shuttle Landing Gear Tests, II
1	5	Shuttle Tiles Flight Research
1	6	Winglets: Laminar Flow Control, I
1	7	Winglets: Laminar Flow Control, II
1	8	Laminar Flow Control, Adaptive Wing
1	9	F-16XL, I
1	10	F-16XL, II
1	11	F-16XL, III
1	12	F-16XL, IV
1	13	F-16XL, V
1	14	F-16XL, VI
1	15	10 Degree Cone Project
1	16	AFTI/F-111
1	17	Chapters 12-13 Sources, I
1	18	Chapters 12-13 Sources, II
1	19	Chapters 12-13 Sources, III
2	1	Chapters 12-13 Sources, IV
2	2	Potential Photos
2	3	X-33
2	4	Vortex Wake Research
2	5	Controlled Impact Demonstrator (CID)
2	6	Pegasus
2	7	Access to Space
2	8	Propulsion Flight Control
2	9	Uninhabited Aerial Vehicles, I
2	10	Uninhabited Aerial Vehicles, II
2	11	Test Facilities
2	12	G.E. Lecture by Ken Szalai

2	13	Dryden Subordinated under Ames
2	14	Controlled Impact Crashes
2	15	Dryden Experimental Facilities
2	16	Systems Research Aircraft
2	17	LASRE/SR-71
2	18	X-38
2	19	ER-2
2	20	Sonic Boom Proposal
2	21	HARV I
2	22	HARV II
2	23	Aircraft Consolidation
2	24	HIMAT I
2	25	HIMAT II
2	26	HIMAT III
2	27	HIMAT IV
3	1	HIMAT V
3	2	HIMAT IV
3	3	HIDEC I
3	4	HIDEC II
3	5	X-29 I
3	6	X-29 II

Series II: Expanding the Envelope: Flight Research at NACA and NASA

Series	Box	Folder	Title
II	3	7	Chapter 1 Documents
II	3	8	Chapter 2 Documents, pt. I
II	3	9	Chapter 2 Documents, pt. II
II	3	10	Chapter 2 Documents, pt. III
II	3	11	Chapter 2 Documents, pt. IV
II	3	12	Chapter 3 Documents, pt. I
II	3	13	Chapter 3 Documents, pt. II
II	3	14	Chapter 3 Documents, pt. III
II	3	15	Chapter 3 Documents, pt. IV
II	3	16	Chapter 4 Documents, pt. I
II	3	17	Chapter 4 Documents, pt. II
II	3	18	Chapter 4 Documents, pt. III
II	3	19	Chapter 4 Documents, pt. IV
II	3	20	Chapter 5 Documents, pt. I
II	4	1	Chapter 5 Documents, pt. II
II	4	2	Chapter 5 Documents, pt. III
II	4	3	Chapter 5 Documents, pt. IV
II	4	4	Chapter 5 Documents, pt. V

II	4	5	Chapter 5 Documents, pt. VI
II	4	6	Chapter 5 Documents, pt. VII
II	4	7	Chapter 5 Documents, pt. VIII
II	4	8	Chapter 5 Documents, pt. IX
II	4	9	Chapter 5 Documents, pt. X
II	4	10	Chapter 5 Documents, pt. XI
II	4	11	Chapter 5 Documents, pt. XII
II	4	12	Chapter 5 Documents, pt. XIII
II	4	13	Chapter 5 Documents, pt. XIV
II	4	14	Chapter 6 Documents, pt. I
II	4	15	Chapter 6 Documents, pt. II
II	4	16	Chapter 6 Documents, pt. III
II	4	17	Chapter 6 Documents, pt. IV
II	4	18	Chapter 6 Documents, pt. V
II	5	1	Chapter 6 Documents, pt. VI
II	5	2	Chapter 6 Documents, pt. VII
II	5	3	Chapter 6 Documents, pt. VIII
II	5	4	Chapter 7-8 Documents, pt. I
II	5	5	Chapter 7-8 Documents, pt. II
II	5	6	Chapter 7-8 Documents, pt. III
II	5	7	Chapter 7-8 Documents, pt. IV
II	5	8	Chapter 7-8 Documents, pt. V
II	5	9	Chapter 7-8 Documents, pt. VI
II	5	10	Chapter 7-8 Documents, pt. VII
II	5	11	Chapter 7-8 Documents, pt. VIII
II	5	12	Chapter 7-8 Documents, pt. IX
II	5	13	Chapter 7-8 Documents, pt. X
II	5	14	Chapter 7-8 Documents, pt. XI
II	5	15	Joe Wilson Ephemera
II	5	16	Joe Wilson Papers, I
II	5	17	Joe Wilson Papers, II
II	6	1	Expanding the Envelope, General Reviews
II	6	2	Expanding the Envelope, Reviews by Deborah Douglas
II	6	3	Expanding the Envelope, Reviews for Introduction and chapter 1-3
II	6	4	Expanding the Envelope, Reviews of Chapter 4
II	6	5	Expanding the Envelope, Reviews of Chapter 5
II	6	6	Expanding the Envelope, Reviews of Chapter 6
II	6	7	Expanding the Envelope, Reviews of Chapters 7-8 and Epilogue
II	6	8	Interview Prospects
II	6	9	Administrative Correspondence
II	6	10	Deliverables and Invoices

II	6	11	Contract Proposal
II	6	12	Dryden X-Presses
II	6	13	Dryden Website Data
II	6	14	Dryden, Lewis, Ames Phone Books
II	6	15	HQ NASA, Dryden, JPL, Langley phone books
II	6	16	Library Research Notes I
II	6	17	Library Research Notes II
II	6	18	Library Research Notes III
II	6	19	HQ NASA History Office Research
II	7	1	Interview with De Beeler (50th Gala Interview. 30 min.), November 15, 1996
II	7	1	Item 001: Digital Copy of Interview with De Beeler.
II	7	2	Library Research Documents, I
II	7	3	Library Research Documents, II
II	7	4	Library Research Documents, III
II	7	5	Library Research Documents, IV
II	7	6	Library Research Documents, V
II	7	7	Library Research Documents, VI
II	7	8	Ames Notes/Contacts
II	7	9	Ames Reference Materials
II	7	10	Ames: John Howe
II	7	11	Langley: Contacts and Sources
II	7	12	Langley Documents
II	7	13	Lewis Contacts
II	7	14	Lewis: interview with Bill Rieke and Porter Perkins
II	7	14	Item 002: Digital Copy of Interview with Porter Perkins and Bill Rieke (Telephone). Audiocassette side 1 and side 2, June 1, 1998.
II	7	14	Item 003: Digital Copy of Interview with Porter Perkins and Bill Rieke (Telephone), June 1, 1998. Audiocassette side 3 (B). Interview with John Griffith, icing research, May 26, 1998.
II	7	14	Audiocassette side 4 (A).
II	7	15	Dryden Photo Gallery
II	7	16	Glenn Research Center Photos (Rejected)
II	7	17	Aircraft Icing Photos (Rejected)
II	7	18	AFFTC Photos (Rejected)
II	7	19	DFRC Photos (Rejected)
II	7	20	NASA HQ Photos (Rejected)
II	7	21	Langley Photos (Rejected)
II	7	22	X-33
II	7	23	General Flight Research Summaries
II	7	24	Aircraft Consolidation, 1970s, I
II	7	25	Aircraft Consolidation, 1970s, II
II	8	1	Aircraft consolidation, 1970s, III

II	8	2	Joe Wilson Diary, Interview vol. IV
II	8	3	Joe Wilson Diary, Interview vols. V and VI
II	8	4	Joe Wilson Diary, Interview vols. VII and VIII
II	8	5	Joe Wilson Diary, Interview vols. IX and X
II	8	6	Joe Wilson Diary, Interview, 1996-1997
II	8	7	Shuttle Flight Research at DFRC, I
II	8	8	Shuttle Flight Research at DFRC, II
II	8	9	Shuttle Flight Research at DFRC, III
II	8	10	Interviews with Fullerton, Painter Dana
II	8	11	Interview with Joe Wilson
II	8	12	Centurion aircraft
II	8	13	DFRC Regains Independence from Ames
II	8	14	DFRC Regains Independence from Ames
II	8	15	HiMAT
II	8	16	X-33 I
II	8	17	X-33 II
II	8	18	Aircraft Consolidation
II	9	1	Aircraft consolidation, 1970s, III
II	9	2	AD-1
II	9	3	Aircraft Operations in NASA
II	9	4	Dryden Shuttle Research
II	9	5	X-16XL
II	9	6	X-29
II	9	7	Milt Thompson and research aircraft
II	9	8	DFRC Project Updates, 1976
II	9	9	DFRC Project Updates, 1977-1978
II	9	10	DFRC Project Updates, 1979-1980
II	9	11	DFRC Project Updates, 1981-1983
II	9	12	DFRC Project Updates, 1984-1985
II	9	13	DFRC Project Updates, 1986
II	9	14	DFRC Project Updates, 1987-1988
II	9	15	DFRC Project Updates, 1989-1990
II	9	16	DFRC Project Updates, 1991-1993
II	9	17	DFRC Project Updates, 1994-1996
II	9	18	DFRC Project Updates, 1997
II	9	19	DFRC Project Updates, 1998
II	9	20	DFRC Project Updates, 1999
II	9	21	X-33