

**FINDING AID FOR THE
ROBERT F. PANNETT PAPERS, 1955-1992 (#2009-0001)**

Contact Information:

University of Houston-Clear Lake Archives
Neumann Library
2700 Bay Area Blvd.
Houston TX 77058
Phone: 281-283-3936
Email: archives@uhcl.edu
URL: www.uhcl.edu/library

Descriptive Summary

Repository: UHCL Archives, Human Space Flight Collection

Collection #: 2009-0001

Title: Robert F. Pannett Papers

Creator: Pannett, Robert F.

Inclusive Dates: 1955-1992

Bulk Dates: 1955-1970

Extent: 2 linear feet (4 boxes)

Language: English

Administrative Information

Restrictions on Access: None

Restrictions on Use: None

Acquisition Information: Robert F. Pannett donated this collection of his papers from working at McDonnell Aircraft Corporation, later McDonnell Douglas Corporation, on December 17, 2008. A second donation arrived on August 5, 2009 containing two GT-4 notebooks, newspapers, and a scrapbook of GT-4 articles.

Processed by: Shelly Kelly

Preferred Citation: Robert F. Pannett Papers, (#2009-0001), University of Houston-Clear Lake Archives.

Biographical/Historical Note

Robert F. Pannett is the oldest of three children. Both of his parents were teachers; his mother taught at the junior high level after her children started to school and his father was a high school math teacher.

He graduated from East St. Louis High School in 1948 and received a scholarship to Cornell University where he earned a BS in Physics in 1952 and a MS in Engineering Physics in 1954. He spent at least

three summers at McDonnell Aircraft Corporation where one of his projects was working on stability mathematics for the F2H-3 Banshee aircraft.

After graduation he received several offers for employment and chose McDonnell Aircraft Corporation because of the salary, connections he'd made during summer employment, and the proximity to home. His first project was to develop a targeted homing system for the Talos missile. Next he worked on a McDonnell concept to compete with the ballistic missile, the 122B Alpha Draco missile. While the first two tests were successful, the third test had trajectory issues. However, the Alpha Draco was not developed after the ballistic missile became preferred by the military. His work on missiles kept him from being drafted during the Korean War.

After the missile testing, he worked on various short-term mathematical or research support projects. For fun, Pannett and Carl Stowyk, a friend and colleague, wrote up a memo describing the Sputnik trajectory. After the memo was seen by a McDonnell Aircraft vice-president, Pannett was assigned to the new Mercury contract as project manager for developing the Mercury trainer. For this project they had no specifications given and only eight months to complete the Mercury trainer from concept to delivery. The schedule was very challenging to plan. He provided a vice-president with monthly updates on his schedule progress and cost estimates.

After Mercury he worked on a number of design and testing aspects of guidance and control for Project Gemini. He became Spacecraft Manager for Spacecraft #4, used during the Gemini-4 flight. There were many challenges addressed related to the impending, yet secret, planned EVA (spacewalk). He met regularly with the GT-4 prime and backup crews (McDivitt, White, Borman, Lovell) to have their influence and input in the design and testing.

From 1965-1969, he worked on the Gemini B project, an Air Force project to use the Gemini design for high-altitude ground observation. While the basic design remained the same, the purpose and equipment used for monitoring was unique to the Gemini B, though in the end it was never launched.

From 1969-1974 he worked on a variety of other projects, including the air launch missile "Harpoon", coordinating with the companies building the airplanes that would launch the missile. He spent a short time at McDonnell's St. Charles facility, where they designed and constructed military and commercial aircraft trainers, evaluating how to get the facility back on schedule and on budget. Pannett recommended concentrating on the schedule, despite the cost overruns, in order to get the projects completed. They did and eventually the company got out of the trainer business.

In 1974, McDonnell received a NASA contract for engineering support and design analysis of the Shuttle. Pannett and his family were among the fifty employees who relocated to Houston. He remained in Houston working on various projects for McDonnell Douglas, including Space Station. After retiring in 1999 he continued working on McDonnell Douglas projects in a part-time consulting position with GB Tech. He is an Associate Fellow in the AIAA.

Scope and Content

This collection represents the material Robert F. Pannett gathered while employed with McDonnell Aircraft Corporation in St. Louis, Missouri, from the 1950s through around the late 1960s. Pannett served as Spacecraft Manager for Gemini Spacecraft No. 4. He also worked from 1965-1969 on the Gemini B project, a U.S. Air Force project to use the Gemini design for high-altitude ground observation. While the basic design remained the same, the purpose and equipment used for monitoring was unique to the Gemini B, though in the end it was never launched.

This collection includes a paper he co-authored for the AIAA Third Manned Space Flight Meeting. Various reports document additional projects he appears to have worked on for the McDonnell Aircraft Corporation. The Project Gemini series focuses on Spacecraft No. 4, used in the Gemini IV June 1965 launch crewed by Edward H. White and James McDivitt. Pannett saved numerous photographs of various projects including the Alpha Draco 122B missile, Gemini, and the Mercury Trainer. The Alpha Draco

photos are a mixture of U.S. Air Force photographs and McDonnell Aircraft Corporation, but the others are largely identified as taken by McDonnell Aircraft Corporation.

Index Terms:

Personal Names

Burke, Walter
Pannett, Robert F.

Corporate Names

American Institute of Aeronautics and Astronautics (AIAA)
McDonnell Aircraft Corporation
McDonnell Douglas Corporation
United States. National Aeronautics and Space Administration.

Subjects

Alpha Draco
Project Gemini (U.S.)
Project Mercury (U.S.)

Arrangement

The collection consisted of documents and photographs. The photographs were stored separately from the documents and were re-folded keeping their original headings. Documents were grouped into four series: AIAA, McDonnell Aircraft Corporation, Project Gemini, and General NASA items. Original newspapers and the scrapbooks are housed in an oversized box. Loose clippings were photocopied.

Items Separated: One duplicate copy of the Preliminary GT-4 Flight Crew Debriefing Transcript Part I was returned to Mr. Pannett. One copy of *Project Gemini: A Chronology* was sent to cataloging for addition to the JSC book collection.

Related Material: Mercury and Gemini materials were removed from the JSC History Collection and returned to the NARA Southwest Regional Facility in Fort Worth, Texas. The GT-4 Flight Crew Debriefings are duplicated in the JSC History Collection, General Reference Series, GH-133 and GH-134.

Inventory

<u>Box</u>	<u>Folder</u>	<u>Title</u>	<u>Dates</u>
1		American Institute of Aeronautics & Astronautics (AIAA)	
	1	Houston Section 30 th Anniversary Program	1992
	2	Technical papers Presented at AIAA/NASA Third Manned Space Flight Meeting in Houston, Texas	Nov. 4-6, 1964
	3	"Gemini Design Features" presented at AIAA/NASA Third Manned Space Flight Meeting in Houston, Texas	Nov. 1964
		McDonnell Aircraft Corporation	
	4	Annual Reports	1960, 1962. 1963, 1965
	5	Simulation of the Talos Type "B" Interferometer Homing System. Report # 4014	June 6, 1955
	6	Comparison of Several Methods for Detecting a Signal Present in Random Noise. Report # 4166	Mar. 23, 1956
	7	The Triton Autopilot, Preliminary Information Rprt #5402	June 1, 1957
	8	Detailed Test Requirements for Alpha Draco MAC Model 122B FTV Operations Requirements No. 1800	Dec. 5, 1958

	9	Navigation for Manned Space Flight. Includes "Gemini Navigation Considerations" by Walter Burke	1965
	10	Mercury/Gemini Program Design Survey. NASA/ERC Design Criteria Program Stability, Guidance & Control. Report F917	Jan 31, 1968
2		Project Gemini	1983
	1	NASA Project Gemini Familiarization Manual Long Range and Modified Configuration. SEDR 300 Volume 1	Sept. 30, 1965
	2	NASA Project Gemini Familiarization Manual Long Range and Modified Configuration. SEDR 300 Volume 2	Aug 22, 1966
	3	NASA Project Gemini Familiarization Manual Long Range and Modified Configuration. SEDR 300 Volume 2 Supplement	July 1, 1966
	4	Gemini Guidance and Control Performance Summary. Report No. A344	June 15, 1965
	5	Gemini B Ave Critical Design Review Presentation	Mar. 17, 1969
3	1	Spacecraft Configuration Review Spacecraft-4	Nov. 12, 1964
	2	Preliminary GT-4 Flight Plan	Apr. 26, 1965
	3	Master Countdown Launch Vehicle GLV-4	May 24, 1965
	4	Spacecraft-4 (S/C 4)	1964-65
	5	GT-3 Gemini 3 (U) Supplemental Report 5 Air-to-Ground Voice Transcription	June 23, 1965
	6	Preliminary GT-4 Flight Crew Debriefing Transcript Part I	June 16, 1965
	7	Preliminary GT-4 Flight Crew Debriefing Transcript Part II	June 18, 1965
5	1	Final GT-4 Flight Plan	May 19, 1965
	2	Flight Readiness Review Report Spacecraft 4	May 10, 1965
	3	GT-4 Mission Rules Revision 2	May 18, 1965
	4	Spacecraft Prelaunch Test Procedure Launch Countdown	May 24, 1965
	5	GT-4 Clippings	1965
4		General NASA Items	
	1	Space News Roundup (Vol. 28, No. 28) and NASA Facts (NF-138/3-83)	1983, 1989
	2	Space Station	1986-1989
		Photographs	
	3-4	Alpha Draco (122B)	1959
	5	McDonnell Aircraft Corporation	Not dated
	6	McDonnell Douglas Corporation	Not dated
	7-13	Mercury Trainer	Not dated
	14	Gemini	Not dated
	15	Gemini B	Not dated
OS		Newspapers	
		St. Louis Post-Dispatch Everyday Magazine	July 13, 1969
		Metro-East Journal	July 16, 1969
		St. Louis Post-Dispatch	July 16-22, 1969
		Metro-East Journal (incl. Moon Day Issue)	July 20-21, 1969
OS		Scrapbook	1965

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Loose clippings

1957-1965