

**MS-345**

**John William Miller Papers**

**Special Collections and Archives  
Wright State University Libraries**

**Processed by:  
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## Introduction

The John William Miller Papers were donated to Wright State University Special Collections and Archives by Bob Robke, on behalf of John's widow, Kay Miller, after John's death in 2005. The collection was accessioned on 1 Nov. 2006. Kay Miller donated some additional personal materials in January 2007. The collection is approximately 13 linear feet.

The collection includes educational background about John; personal information, such as memorabilia and personnel records; engineering and technical reference materials, such as manuals and guides, data sheets, and military specifications; technical reports and notes; project reports; product catalogs; photographs and posters. Most of the items are either about John Miller or were used by him in his career as an engineer and civil expert on the jet engine at Wright Patterson Air Force Base from 1941 to 1976.

The John William Miller Papers date between 1930 and 2005. However, the vast majority of materials date to the 1950s and 1960s. This collection documents the testing and development of aircraft engines, helicopter transmissions, and other subsystem components, through the life and career of expert John William Miller.

There are no restrictions on the use of the John William Miller Papers.

The John William Miller Papers are organized into 7 series:

- Series I: Education
- Series II: Personal
- Series III: Reference
- Series IV: Reports
- Series V: Catalogs
- Series VI: Photographs
- Series VII: Posters

## **Biographical Sketch**

John William Miller was born October 16, 1916, in Cabool, Missouri, to Fred M. and Florence (Wicker) Miller. When John was eight years old, his family moved to Norton, Kansas. John attended Almena High School for two years and then Norton Community High School. He was a member of Glee club, Hi-Y, and Future Farmers of America. John graduated from Norton Community High School, where he was a social science major, on May 17, 1934.

After high school, John attended Kansas State College of Agriculture and Applied Science, in Manhattan, Kansas. He graduated on July 28, 1939, with a Bachelor of Science degree in Mechanical Engineering. John later completed additional courses and training at Ohio State University; University of Kentucky (Engineering Defense Training Program); University of Dayton; and Wright State University.

In 1941, John came to Dayton, Ohio, to work at Wright Patterson Air Force Base, in the Power Plant Laboratory. John worked at WPAFB for 35 years, retiring in 1976 as the Chief Subsystems Engineer (Propulsion and Power Division), collocated in the AWACS (Airborne Warning and Control System) project. During his time at WPAFB, he worked as a test engineer, aeronautical engineer, and aerospace engineer, testing small aircraft engines, turboprop and turboshaft turbine engines, and helicopter transmission systems. He also served as a supervisor, project team leader, Section Chief, and later Chief Subsystems Engineer. He contributed to the publication of several Army Air Corps Technical Reports, Memorandum Reports, and Technical Notes. John was also a registered Professional Engineer.

John led a full life outside of the workplace as well. He married Katherine Jones, whom he met while working at WPAFB. Katherine had been a member of the stenography pool assigned to his engineering group. John and Katherine had two children, a son Gary (deceased) and a daughter Barbara. John was a member of South Park United Methodist Church in Dayton; the Toastmasters International Club #405 (a member from 1951 and former president); and the William E. Ash Aphasia Support Group at Miami Valley Hospital. He often attended the Aviation Club at the Hithergreen Senior Citizens Center, and was at one time an active member of the Boys Scouts of America Troop Committee #153.

John died on April 7, 2005. Prior to his death, he was living in Centerville, Ohio, and is buried in Centerville Cemetery.

## Scope and Content Note

The John William Miller Papers contains personal information about John William Miller, as well as a wealth of technical reference material that would be useful to a researcher interested in the testing and development of aircraft engines, helicopter transmissions, and other aeronautical subsystems during the 1940s through 1970s.

### Series I: Education

Series I, Education, includes documents related to the formal education of John William Miller. It includes items from his K-12 education in Kansas, including several items related to his graduation from Norton Community High School in 1934. It includes documents pertaining to his undergraduate education at Kansas State College (now Kansas State University), as well as additional coursework, particularly at the University of Kentucky's Engineering Defense Training Program in 1941. It includes records of training and professional development undertaken through Wright Patterson Air Force Base, also. 1 box.

### Series II: Personal

Series II, Personal, includes many different documents of a more personal nature, such as: driver's license, ration stamps, news clippings, and certificates. This series includes multiple folders of personnel documents related to John's career at WPAFB, such as Efficiency Ratings, Notifications of Personnel Actions, resumes, and retirement. John's eight-page resume may be of particular interest to the researcher; it is dated 1974 and covers his entire career in great detail. One folder relates to John's involvement with Toastmasters and includes several of his speeches. There is also a folder containing documents related to John's death in 2005, including an obituary. 1 box.

### Series III: Reference

Series III, Reference, is the largest series in the collection and contains material that would have been used for technical reference. It includes: scholarly articles (written by others); conference materials; course materials and lecture notes; textbook excerpts; product manuals; design manuals and guides; reference manuals and guides; data sheets; model specification sheets (engines, airplanes); military specifications and military standards; environmental data; subject files; and pocket reference guides. The subject matter of the reference materials ranges from general mechanical engineering manuals; to general information about aircraft engines, helicopter transmissions, and other subsystem components; to product-specific or model-specific guides. 7 boxes.

### Series IV: Reports

Series IV, Reports, contains Technical Reports, Technical Notes, test reports and project reports. One folder pertaining to the AWACS (Airborne Warning and Control

System) project may be of particular interest to the researcher. This series contains two oversized items, located in box 13, and indicated in the finding aid by “OS 13”. 3 boxes.

#### Series V: Catalogs

Series V, Catalogs, includes sales catalogs and other promotional materials from subsystem component manufacturers. The series includes catalogs for the following companies: Lycoming, Continental, Heli-Coil, Tedeco, and Cone-Drive. 1 box.

#### Series VI: Photographs

Series VI, Photographs, contains both personal and work-related photographs. The personal photographs include mainly photographs of John as a young man; a few school group photos; John and his wife Kay; reunions; and travel. The work-related photographs include photos of airplanes and helicopters; control panels; system components; tests; and awards ceremonies. The folder of AWACS (Airborne Warning and Control System) photographs may be of particular interest to researchers. This series contains two oversized items, located in box 13, and indicated in the finding aid by “OS 13”. 2 boxes.

#### Series VII: Posters

Series VII, Posters, includes a few oversized posters of airplanes and system diagrams. All items in this series are oversized and located in map case drawer 73, indicated in the finding aid by “OS 73”.

## Container Listing

<b>Series I</b>		<b>Education</b>	
<b>Box</b>	<b>File</b>	<b>Item</b>	<b>Date</b>
1	1	K-12	1929, 1934
1	2	Kansas State College	1935-1939
1	3	University of Kentucky	June-Sept. 1941
1	4	University of Dayton	1945
1	5	Ohio State University	1946, 1961
1	6	Records of Training	1949, 1951
1	7	Training and Professional Development	1961-1973
<b>Series II</b>		<b>Personal</b>	
<b>Box</b>	<b>File</b>	<b>Item</b>	<b>Date</b>
1	8	Driver's License	[ca. 1938]
1	9	Ration Stamps	[ca. 1939-1945]
1	10	Airplane engineer comic strip	Nov. 1943
1	11	Smallpox Vaccination Record	1943
1	12	Professional Memberships	[ca. 1939, 1946]
1	13	Ratings, Efficiency Ratings	1940-1947, 1973
1	14	Notification of Personnel Actions	1942-1950
1	15	Letters of Praise and Recognition	1959-1972
1	16	Personnel Documents	1967-1972
1	17	Personnel Documents regarding AWACS	1970-1974
1	18	Resumes	[ca. 1971-1974]
1	19	First Transport Helicopter Letter	Dec. 1953
1	20	Retirement	1976
1	21	Articles and News Clippings	1943-1986
1	22	Certificates	1961-2004
Over -size		Certificates [oversized, box 13]	1971, 1976
1	23	Travel	Undated
1	24	Power Plant Personnel Reunion	1995-1996
1	25	Toastmasters	2001-2004, Undated
1	26	Post Mortem Documents	2005
<b>Series III</b>		<b>Reference</b>	
<b>Box</b>	<b>File</b>	<b>Item</b>	<b>Date</b>
1	27	Scholarly Articles (by Others)	1946-1973
1	28	Conference Materials	1953-1959
1	29	Conference Materials	1963
2	1	Course Notes: University of Kentucky	June-Sept. 1941
2	2	Course Notes: University of Kentucky	June-Sept. 1941
2	3	Course Materials: AF Manual: Conference Leadership	Jan. 1951

<b>Series III</b>		<b>Reference (continued)</b>	
<b>Box</b>	<b>File</b>	<b>Item</b>	<b>Date</b>
2	4	Course Materials, Lecture Notes	1952-1958
2	5	Lecture Notes: Gas Turbines and Free Piston Engines	July 1958
2	6	Course Materials, Lecture Notes	Undated, [ca. 1958]
2	7	Course Materials: Gas Turbines and Free Piston Engines	1958
2	8	Course Materials: Analog Indoctrination Program	Apr. 1965
2	9	Course Notes: Air Conditioning	1969
3	1	Unidentified Textbook Excerpt	Undated
3	2	Unidentified Engineering Textbook	Undated
3	3	Engineering Notes, 2nd Edition	Undated
3	4	Book Excerpt: Chapter IV: Compressors	1956
3	5	Guide: Classification and Description of Jet Propulsion Systems	Undated
3	6	Design Manual on Aircraft Fire Protection for Reciprocating and Gas-Turbine Engine Installations	Apr. 15, 1954
3	7	Manual: The ARDC Model Atmosphere	1956
3	8	Manual: The ARDC Model Atmosphere	1956
3	9	Flight Test Handbook: Performance, Chapter 1, Part 1	Jan. 1960
3	10	Manual: Performance Correction Procedures for Turbojet and Turbofan Commercial Engines	May 1961
4	1	Manual: General Operating Instructions: Axial Compressor Afterburning Turbojet and Turbofan Engines	Nov. 1963
4	2	Guides: WADC Engineers Guide for Gas Turbine Engine Operating and Testing	Undated
4	3	Guides: WADC Engineers Guide for Gas Turbine Engine Operating and Testing	Undated
4	4	The Timken Reference Manual	1942
4	5	Gleason Gear Design Guide	1947-1951
4	6	General Controls Co.- Valve Information	1963
4	7	General Controls Co.- Valve Information	1963
4	8	SPS Threaded Fasteners- Reference Guide to Bolts and Screws, Self-locking	1970-1971
5	1	Teleflex Design Handbook	1973
5	2	Design Manuals: B.F. Goodrich, Amerace, Esna	Undated
5	3	Continental "E" Series Aircraft Engines, Models E165 and E185- Maintenance and Overhaul Manual	Undated
5	4	Ex-Cell-O Handbook and Instruction Manual, Model B4 and B6 Gasoline Injection Systems	Undated
5	5	Design Report for the T53-L-9 Turbo Shaft Engine	Undated
5	6	Design Report for the T53-L-9 Turbo Shaft Engine	Undated
5	7	Advanced T56 Series Turboprop Engines	Undated

<b>Series III</b>		<b>Reference (continued)</b>	
<b>Box</b>	<b>File</b>	<b>Item</b>	<b>Date</b>
5	8	T65-T-1 Turboshaft Engine for Helicopters, Mock-up Brochure	July 1962
5	9	Ranger Aircraft Engines- Installation Manual	Undated
6	1	Engine Model Specification Sheets	Undated
6	2	Airplane Model Specification Sheets	Undated
6	3	Model Sheet: Jered ST-1200-1 Automatic 8-speed steering transmission	Undated
6	4	Engine Data: Dayton Air Show	1984
6	5	Data Sheets	Undated
6	6	Military Standards	1957, 1972-1973
6	7	Military Specifications	1951-1959
6	8	Military Specifications	1965-1966
6	9	Military Specification: MIL-E-5007D, Engines, Aircraft, TurboJet and TurboFan General Specification	Oct. 15, 1973
6	10	Military Specifications and Standards	1976
7	1	Federal Aviation Regulations, Part 23: Airworthiness Standards- Normal, Utility and Acrobatic Category Airplanes	1964
7	2	Environmental Considerations	Undated
7	3	Environmental Considerations	Undated
7	4	Subject Files: Turbine Notes	[1945-1964]
7	5	Subject Files: Helicopter Information	[1953-1955]
7	6	Subject Files: Sky Hook	[1964]
7	7	Subject Files: Gear Data	Undated
8	1	Pocket Reference Guides: Wright Aircraft Engines, Westinghouse	1945, [1955]
8	2	Pocket Reference Guides: General Electric, Pratt and Whitney	1957-1958, 1973
8	3	Pocket Reference Guides: Ranger, Continental	Undated
<b>Series IV</b>		<b>Reports</b>	
<b>Box</b>	<b>File</b>	<b>Item</b>	<b>Date</b>
9	1	Air Corps Tech Report #4552	July 15, 1940
9	2	Air Corps Tech Report #4552	July 15, 1940
9	3	Technical Reports	1930-1943
9	4	Technical Reports, Technical Notes	1956-1959
OS 13		Technical Note: Internal Characteristics and Performance of Several Jet Deflectors at Primary- Nozzle Pressure Ratios up to 3.0 [oversized, box 13]	June 1958
9	5	WADC Technical Report 58-638	Jan. 1959
10	1	Technical Reports, Technical Notes	1961- Aug. 1962
10	2	Technical Reports, Technical Notes	Oct.-Dec. 1962
10	3	Technical Reports, Technical Notes	1963

<b>Series IV</b>		<b>Reports (continued)</b>	
<b>Box</b>	<b>File</b>	<b>Item</b>	<b>Date</b>
10	4	Test Reports, Project Reports	1945-1954, Undated
OS 13		Report No.R.166: Some Effects of Scale and Material on the Bursting Speeds of Turbine Discs [oversized, box 13]	Jan. 1955
10	5	Test Reports, Project Reports	1955
11	1	Test Reports, Project Reports	1958-1964
11	2	Test Reports, Project Reports	Oct. 1965
11	3	Test Reports, Project Reports	Oct. 1965
11	4	Test Reports, Project Reports	Oct. 1965
11	5	Airborne Warning and Control System (AWACS) Project	[ca. 1970-1975]
11	6	Power Plant Proposal for High Altitude Communications Relay Vehicle TSIO-360 Engine	May 27, 1964
<b>Series V</b>		<b>Catalogs</b>	
<b>Box</b>	<b>File</b>	<b>Item</b>	<b>Date</b>
11	7	Sales Promotional Materials	Undated
11	8	Catalog: Lycoming	Undated
11	9	Catalogs: Continental, Heli-Coil, Tedeco, Cone-Drive	Undated
<b>Series VI</b>		<b>Photographs</b>	
<b>Box</b>	<b>File</b>	<b>Item</b>	<b>Date</b>
11	10	Airborne Warning and Control System (AWACS)	[ca. 1972]
11	11	N-156T D.E.I. Presentation	[ca. 1960s]
12	1	Personal	[ca. 1920-2005]
12	2	Travel	1983-1984
12	3	Reunions: Kansas State University	1984, 1989, 1991
12	4	University of Kentucky	1941
12	5	Presentations and Awards	1968-1969, Undated
12	6	Power Plant Reunion	[ca. 1990-2005]
12	7	Evaluation Report: Ice Ingestion Investigation	May 9, 1961
12	8	XO-470-1 (Components)	Undated
12	9	General Motors MX-53, X250-A, X250-D	Undated
12	10	Helicopters	Undated
12	11	Airplanes	Undated
OS 13		P-38 Lightning Lockheed [oversized, box 13]	Undated
OS 13		Bell Aircobra P-39 [oversized, box 13]	Undated

<b>Series VII</b>		<b>Posters</b>	
<b>Box</b>	<b>File</b>	<b>Item</b>	<b>Date</b>
OS 73		General Electric TF34 Turbofan Engine [oversize, map case]	Undated
OS 73		Unidentified Technical Diagram [oversize, map case]	Undated
OS 73		CFM56 Engine Airflow Diagram [oversize, map case]	Dec. 1974
OS 73		U.S. Air Force "Riding High into the Sky" [oversize, map case]	[1976]
OS 73		U.S. Air Force "For the Common Defense" [oversize, map case]	[1976]

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