

MS-347

Richard J. Framme Papers

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**Processed by:
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Introduction

The Richard J. Framme Papers were donated to Wright State University Special Collections and Archives by Roxanne Hemmelgarn, on May 16, 2006. 3.5 boxes (approximately 3 linear feet) of material were received.

The collection includes photographs, organization charts, research notebooks, research data, patent material, biographical information, blueprints and diagrams. Most items are technical reports or material related to Richard Framme's professional affiliation as an engineer with Wright Patterson Air Force Base. The papers date from 1929 - 1973. The bulk of the collection is dated between the 1940s-1950s.

The Richard J. Framme Papers are organized into 8 Series

Series I: Resumes & Biographies

Series II: Employment Records

Series III: Awards & Honors

Series IV: Research

Series V: Correspondence

Series VI: Research Notebooks

Series VII: Photographs

Series VIII: Technical Reports

Biographical Sketch

Richard Joseph Framme was born February 7, 1905 in Carrollton, Kentucky. He was married to Blanche Anna Stanford May 8, 1937 and they had 2 sons and three daughters. Mr. Framme received a Bachelors of Science from the University of Kentucky in 1929. He continued his education and professional development at Bell Telephone Laboratories (1929-1933), Ohio State University (1948), University of Dayton (1958) and the United State Air Force Institute (1958).

Richard Framme enjoyed a long career, serving for such esteemed organizations as Bell Telephone Laboratory (1929-1933); Columbia University (1934-1935) and the USAF at Wright Patterson Air Force Base ARL under a variety of job titles from 1935-1973. In 1942 Richard Framme joined the Army Signal Corps as a Captain and rose to the rank of Lt. Colonel by 1948. He retired as the chief engineer of the aircraft instrument landing branch of the navigation division of ARL.

As an engineer Richard Framme participated in the development of the Automatic Radio Compass, (ILS) Instrument-Landing System and won a patent for an Aircraft Radio Navigator.

Scope and Content Note

The Richard J. Framme Collection documents the development of aircraft control systems in Dayton Ohio's Wright Field (Wright Patterson Air Force Base) research group. His areas of expertise ranged from radio and microcomputer control systems to instrument landing to the breakdown of metals in tropical environments.

Series I: Resume & Biographies

This series contains material related to Richard Framme's professional careers and include resumes, job searching material and a portfolio from early in his career.

Series II: Employment Records

This series contains records and documents from Richard Framme's career. These papers were mostly practical in nature and document the various job descriptions, organization structures and daily office regulations by which Mr. Framme worked. Also included are personal records dealing with health and finance, mostly in the context of the military or government affiliation he was working under at the time.

Series III: Awards and Honors

This series contains the many awards and certificates presented to Richard Framme throughout his career.

Series IV: Research

This series contains a variety of material which was used by Richard Framme during his career. Material in this series includes newspaper and magazine clippings, minutes, memos, conference notes, blueprints, engineering diagrams, research data, lectures, presentations, aviation history and patents.

Series V: Correspondence

This series includes letters written to and by Richard Framme. All correspondence in this series is professional in nature.

Scope and Content Note continued

Series VI: Research Notebooks

An extensive set of pocket sized research notebook journals make up this series. The notebooks record ideas, have some technical sketches and record some of Mr. Framme's daily activities. The notebooks are arranged in sequential order from 1941 – 1973.

Series VII: Photographs:

This series contains photographs. Most of the photographs are technical in nature, recording the assembly or actions of various aircraft or computer systems.

Series VIII: Technical Reports

This series contains technical reports written, contributed to or received by Richard Framme in his career. The technical reports are arranged in date order and range from 1930 – 1971. The topic of these reports mostly center on the research conducted by Richard Framme and his branch of ARL.

Series I		Resumes & Biographies	
Box	File	Item	Date
1	1	Technological Record	1929-1935
1	2	Technological Record	ND
1	3	Job Hunting	1932
1	4	Identification	?- 1944
1	5	Applications	1953
1	6	Portfolio	1934?
OS14	8	U.S. Civil Service Commission – Confidential Inquiry	ND
OS14	9	War Department; Associate Radio Engineer	1936
Series II		Employment Records	
Box	File	Item	Date
1	7	Travel & TDY	1940
1	8	Travel & TDY	1942
1	9	Travel & TDY	1943
1	10	Travel & TDY	1944
1	11	Travel & TDY	1945
1	12	Travel & TDY	1946
1	13	Travel & TDY	1947
1	14	Travel & TDY	1948
1	15	Travel & TDY	1951-1971
1	16	Regulations	1940s
1	17	Regulations	1950s
2	1	Orders	1930s
2	2	Orders	1946-1948
2	3	Orders	1949
2	4	Orders	1950-1968
2	5	Medical	1940s
2	6	Organization Structure	1937
2	7	Organization Structure – ARL Org- Sic Corp	1942
2	8	Organization Structure	1942
2	9	Organization Structure	1943
2	10	Organization Structure	1950-1971
2	11	Organization Structure	ND
2	12	Position Descriptions	1950-1964
2	13	Training Seminars	1950-1967
2	14	Pay	1947-1948
2	15	TSELS	1947-1948
2	16	WPAFB Personnel Records	Oct. 1935 – June 1949
OS 13	6	Organization Structure: Org Chart Signal Corps Aircraft Radio Lab	Oct. 29, 1934

OS 13	7	Organization Structure: Communications & Navigation Laboratory Chart	Oct. 3, 1944
OS 73		Communication & Navigation Unit Division Org. Chart	ND
Series III		Awards & Honors	
Box	File	Item	Date
2	17	WWII Service	1946
2	18	U.S. Army	April 4, 1946
2	19	Field Economic Mobilization	March 27- April 7 1950
2	20	A.F. Management Certificate University of Dayton	June 18, 1958
2	21	The Institute of Radio Engineers	1962
2	22	30 years service	1965
2	23	Dictionary of International Biography	1984
OS14	1	Wright Air Development Center Outstanding Performance	Jan. 16, 1959
OS14	2	Certificate of Retirement	Jun. 29, 1973
OS 14	10	Certificate of Service	Jun. 29, 1973
OS 14	11	Director of Avionics Engineering	1973
Series IV		Research	
Box	File	Item	Date
2	24	Newspaper & Magazine Clippings	1950s
2	25	Newspaper & Magazine Clippings	1960s
2	26	Newspaper & Magazine Clippings	1987
2	27	Minutes, Memos & Conferences	1944
2	28	Minutes, Memos & Conferences	ND
3	1	Blueprints, Engineering Diagrams & Data	1929
3	2	Blueprints, Engineering Diagrams & Data	1931-1932
3	3	Blueprints, Engineering Diagrams & Data	1934
3	4	Blueprints, Engineering Diagrams & Data	1935
3	5	Blueprints, Engineering Diagrams & Data	Aug 31, 1938
3	6	Blueprints, Engineering Diagrams & Data	1939-1940
3	7	Blueprints, Engineering Diagrams & Data	ND
3	8	Blueprints, Engineering Diagrams & Data	ND
3	9	Blueprints, Engineering Diagrams & Data	ND
3	10	Blueprints, Engineering Diagrams & Data	ND
3	11	Lectures & Presentations – Radio Compass	1939
3	12	Lectures & Presentations – I.R.E. 14 th Annual Con.	1939

3	13	Lectures & Presentations	1947-1948
3	14	Lectures & Presentations	1948-1949
3	15	Lectures & Presentations	1951
3	16	Lectures & Presentations	1952
3	17	Lectures & Presentations – Presentation to the AGREE	1954
3	18	Lectures & Presentations	1957-1962
3	19	Lectures & Presentations	1964
3	20	Lectures & Presentations	1965
3	21	Lectures & Presentations	1966
3	22	Lectures & Presentations – Presentation to the AGREE	1966
3	23	Lectures & Presentations	1966
3	24	Lectures & Presentations	Aug-Oct 1966
4	1	Lectures & Presentations	ND
4	2	Lectures & Presentations	ND
4	3	Lectures & Presentations	ND
4	4	Aviation History – Instrument Landing	1919-1941
4	5	Aviation History – Instrument Landing	1919-1941
4	6	Aviation History – Chronology General	1900-1993
4	7	Aviation History – Chronology General	1900 – 1993
4	8	Aviation History	1970s
4	9	Aviation History (Rad Cap)	1972
4	10	Patents – Supporting Documentation	1941-1950
4	11	Patents	1947-1949
4	12	Patents – Radio Compass Support Documentation	1971
4	13	Patents – Radio Compass	1971
4	14	Patents – Automatic Navigators & Indicators	1975
4	15	Photography	ND
OS 73		Complete Wing Schematic Time Measuring Set	Sept. 17, 1931
OS 73		Automatic Drift Compensator Simplified Schematic Diagram	Oct. 24, 1941
OS 73		The Plant Kingdom – showing detailed nomenclature of Fungi-Associated w/Tropical Deterioration	May 20, 1946
Series V		Correspondence	
Box	File	Item	Date
4	16	General	1939-1949
4	17	General	1950-1959
4	18	General	1964-1972
4	19	On Military Service	1949-1967
4	20	Dr. John H. Bryant	1989-1990
Series VI		Research Notebooks	

Box	File	Item	Date
5	1	Calendar	1941
5	2	Research Notebook	May – June 1948
5	3	Research Notebook 1-A (trip to England)	June 1948
5	4	Research Notebook 1	July-Aug 1948
5	5	Research Notebook 2	Aug-Sept 1948
5	6	Research Notebook (trip to Watson Lab)	Sept – Oct 1948
5	7	Research Notebook (Abuse on Claranna)	Oct – Dec 1948
5	8	Research Notebook 5	Dec 1948 – Jan 1949
5	9	Research Notebook 6 (Father Walsh)	Feb 8-21 1949
5	10	Research Notebook	Mar – May 1949
5	11	Research Notebook 7	Jun – July 1949
5	12	Research Notebook 8	Aug – Nov 1949
5	13	Research Notebook 9	Oct – Dec 1949
5	14	Research Notebook	Nov 1949 – Sept 1950
5	15	Research Notebook	Feb – May 1950
5	16	Research Notebook	Mar 1950
5	17	Research Notebook	Aug 1950
5	18	Research Notebook	Oct – Dec 1950
5	19	Research Notebook	Nov – Dec 1950
5	20	Research Notebook (Approval of PR's)	1950
5	21	Research Notebook	Apr 1951
5	22	Research Notebook	1951
5	23	Research Notebook	1951
5	24	Research Notebook	Jan 1952
5	25	Research Notebook (Universal Cornora Control Sys)	1952
5	26	Research Notebook	June 1953
5	27	Research Notebook	1953
5	28	Research Notebook	1953-1954
5	29	Research Notebook	Mar – Sept 1954
5	30	Research Notebook	Sept – Dec 1954
5	31	Research Notebook	Aug – Sept 1955
5	32	Research Notebook	1956
6	1	Research Notebook	1956
6	2	Research Notebook	1957
6	3	Research Notebook	1958
6	4	Research Notebook	1959
6	5	Research Notebook	1958-1960
6	6	Research Notebook	1960 – 1961
6	7	Research Notebook	1961
6	8	Research Notebook	1962
6	9	Research Notebook	1963
6	10	Research Notebook	Mar 1964
6	11	Research Notebook	1964

6	12	Research Notebook	1965
6	13	Research Notebook	1965
6	14	Research Notebook	1965
6	15	Research Notebook	1966
6	16	Research Notebook	Apr 1967
6	17	Research Notebook	1967
6	18	Research Notebook	1968
6	19	Research Notebook	1969
6	20	Research Notebook	1971
6	21	Research Notebook	1971
6	22	Research Notebook	1972
6	23	Research Notebook	1972
6	24	Research Notebook	1973
6	25	Research Notebook	June 1973
OS14	3	Research Notebook	ND
OS14	4	Research Notebook	Jan. 1, 1940
Series VII		Photographs	
Box	File	Item	Date
7	1	Mechanism for Automatic Loop Rotation	ND
7	2	High Frequency Compass; Cover removed. Front View – 1 st Model Receiver	ND
7	3	Adcock Antennae; High Frequency	ND
7	4	Portable Compass Locator Rear View	ND
7	5	A-1 Instrument Landing Truck, Front View, Showing New Spot Lighting Installation	ND
7	6	Radio Set SCR-274 N (High Frequency Command)	ND
7	7	Radio Set SCR-522 (); 5432 ()	ND
7	8	Home of ARL Front View (artist concept)	ND
7	9	Truck showing method of attaching antennae to marker beacon projector.	ND
7	10	Radio Frequency Bridge Northern Radio	ND
7	11	Radio Receiver; Part SCR-186-T6; Internal View, Also Continental Dynamotor DM-414-X.	ND
7	12	Model Tear Drop Housing (Side View)	ND
7	13	Simon Radio Guide A.N.U.	ND
7	14	(Radio Compass Unit) – Bottom View – SCR-186	ND
7	15	Radio Compass – Top View – SCR 186-T6	ND
7	16	Radio Compass – Assembly – SCR-186-T6	ND
7	17	Rad. Dir. Complete Assembly	ND
7	18	Compass Locator – Experimental Model – P-743-23-11	ND
7	19	Control Box of Radio Compass SCR-186-T6 Bottom View	ND
7	20	Radio Compass – SCR-186-T6 Control Box - ¾ Top	ND

		View	
7	21	Experimental Model Magneto Compass for Automatic Flight Control	ND
7	22	E4A Radio Compass Modulator External View	ND
7	23	E-4A Radio Compass Modulator Serial # AC-35-3 Interior View	ND
7	24	Ring Cowl Loop	ND
7	25	Loop	ND
7	26	High Frequency Receiver – 2 nd Model Cover Removed – Front View	ND
7	27	Rear View, 1 st Model Receiver High Frequency; Cover Removed	ND
7	28	Portable Compass Locator	ND
7	29	High Frequency Compass, Single Loop with Recorder	ND
7	30	Pat. Application, D. F. 186-T5 Frig 1d and 1e	ND
7	31	Assembly Complete with Cables. SRC-242-T2 Fig. 3	ND
7	32	Indicator Combined Marker Beacon Receptor and Radio Compass	ND
7	33	Pat. Application, D.F., 186 – T5, Fig 5	ND
7	34	Radio Compass SCR-276 ARL-870R	ND
7	35	Marker Beacon AC #32-412 – General View – Antennae Installation	ND
7	36	Receiver High Frequency Compass Double Loop	ND
7	37	Truck Opening Antennae brackets	ND
7	38	Radio Set SCR-578 (Emergency Sea Rescue)	ND
7	39	Radio Set SCR-277 (Portable Radio Range)	ND
7	40	Instrument Blind Landing Equipment SCR-251	ND
7	41	Instrument Landing System, Microwave Type, Patterson Field	ND
7	42	Experimental Model Magneto Magneto Compass for Automatic Flight Control Cover Removed	ND
7	43	Radio Receiver BC-348-J (Exterior Front View); Part of Radio Set SCR-287-A; Wells Gardner & Co., Sample on Order No. 832-Chi-42	ND
7	44	Photograph on plastic	ND
7	45	Patent Application D.F. 186-T5 Fig. 2, (10/18/1933)	Oct. 18, 1933
7	46	Patent Application, D.F., 186-T5, Fig 3. (10/18/1933)	Oct. 18, 1933
7	47	Patent Application, D.F., 186-T5, Fig. 4 (10/18/1933)	Oct. 18, 1933
7	48	Loop E4 (Compass) Negative Turned on to Mr. Srieg (10/2/36)	Oct. 2, 1936
7	49	Signal Corps – Training Film Production Lab (June 1941)	June 1941
7	50	Transistor Test Equipment (APR 22 1953)	Apr. 22, 1953
7	51	Transistor Test Equipment (APR 22 1953)	Apr. 22, 1953
7	52	Transistor Test Equipment (APR 22 1953)	Apr. 22, 1953
7	53	Transistor Test Equipment (APR 22 1953)	Apr. 22, 1953

7	54	Components of Receiving Set, Radio AN/ARN-30A Procured by Communication and Navigation Laboratory From Aircraft Radio Corporation (May 7 1953)	May 7, 1953
7	55	Radio Set AN/ARC-27, Radio Set AN/ARC 34 (Nov. 20 1953)	Nov. 20, 1953
7	56	Dudley Grey Signal Generator; Used with High Frequency Ground Antenna. Procured by Communication and Navigation Laboratory RDO R112- 80 (Jul 10 1959)	Jul. 10, 1959
8	1	Aircraft Radio Laboratory	1938
8	2	Early Interfone Aircraft	ND
8	3	Microminiature Computer	ND
8	4	Misc	ND
8	5	Misc	ND
8	6	Misc	ND
12		Retirement ceremony photo album	July 31, 1973
13	1	Interior view screened Booth Anu	ND
13	2	Gen. Mauborgnes wave coil antennae 3 to 6 megajules	ND
13	3	Gen. Mauborgnes wave coil antennae 3 to 6 megajules	ND
13	4	Patterson Field Radio Lab Negative #2	ND
13	5	Cone of Silence – Marther Beacon Projector (U.H.F.) Installment on Experimental Radio Bldg on Hill	ND
13	6	Cone of Silence – Marther Beacon Projector (U.H.F.) Installment on Experimental Radio Bldg on Hill	ND
13	7	Cone of Silence – Marther Beacon Projector (U.H.F.) Installment on Experimental Radio Bldg on Hill	ND
13	8	Cone of Silence – Marther Beacon Projector (U.H.F.) Installment on Experimental Radio Bldg on Hill	ND
13	9	Radio Frequency Bridge, Northern Radio	ND
13	10	SCR-242-T1 Assembly complete with cables	ND
13	11	Automatic Drift Correction Model	ND
13	12	Automatic Drift Correction Model	ND
13	13	Marker Beacon Receptor BC-301 Model T1, T2 Chassis	ND
13	14	Marker Beacon Receptor BC-301 Model T1 + T2	ND
13	15	Radio Receiver BC-224 A (Copy of RCA print) Chassis- Rear View – out of case	ND
13	16	Radio Receiver BC-224A (Copy of RCA Print) Chassis – Front View – Panel Removed	ND
13	17	Radio Receiver BC-224A (Copy of RCA Print) Chassis – Front View – Panel Removed	ND
13	18	Radio Set SCR-283 (High Frequency Command)	ND
13	19	Radio Set SCR-283 (High Frequency Command)	ND

13	20	Radio Set SCR-283 (High Frequency Command)	ND
13	21	Radio Set SCR-283 (High Frequency Command)	ND
13	22	Radio Set SCR-283 (High Frequency Command)	ND
13	23	Patent Application; DF; 186-T5, Fig 1	ND
13	24	Mrs. Framme, Blanche's wedding dress	ND
13	25	Mrs. Framme, Blanche's wedding dress	ND
13	26	Radio Set SCR-263; 269; 280	ND
13	27	June 1941 Home of ARL South View (Construct Progress)	June 1941
13	28	June 1941 Home of ARL South View (Construct Progress)	June 1941
13	29	June 1941 Home of ARL East View (Construct Progress)	ND
13	30	Home of ARL North View	ND
13	31	SIG Corps T.F.P.L. – Under Construction Nov/25/1941	Nov. 25, 1941
13	32	Recopy negatives of Signal Corps Building (Copy of retouched print May '37)	May 1937
Series VIII		Technical Reports	
Box	File	Item	Date
9	1	Relay Time Set, Bell System	Nov. 1930
9	2	Time Measuring Set	Feb. 6- Apr. 21 1931
9	3	Relay Time Test Set	Apr. 1, 1931
9	4	Work Done at Gen Instr. Corp	Oct. 14, 1933
9	5	Work Done at Halson Radio Corp	Apr. – May 1934
9	6	Air Board Report on Communications	Dec. 1934
9	7	Time Record; Radio E-4 MD Compass	Oct. 15, 1935
9	8	Radio Compass	Oct. 18, 1935
9	9	Laboratory Tests and Analysis of Radio Compass	Jan. 15, 1936
9	10	Evaluation of Radio Compass SCR-242	Oct. 1, 1936
9	11	Mechanical Inspection of Radio Products Co. Sample Radio Compass	Dec. 1, 1936
9	12	Mechanical Inspection of RCA Sample Radio Compass SCR-242-T1	Dec. 1, 1936
9	13	AFRL Test Report	Dec. 1, 1936
9	14	Compilation of Data for the Evaluation of Radio Compasses	Dec. 1, 1936
10	1	Mechanical Inspection & Photographs Radio Compass SCR-242-T3 Test Report No. 14-B	Feb. 9, 1937
10	2	Mechanical Inspection & Photographs Radio Compass SCR-242-T4 (Radio Products)	Feb. 9, 1937
10	3	Performance Tests & Air Navigational Radio Compass	Feb. 10, 1937
10	4	Performance Tests, Communication and Navigational Radio Compass	Feb. 10, 1937
10	5	Radio Compass R.C. 5-T INT.TEL & TEL CO	Apr. 3, 1937

10	6	Performance tests on the French design of radio compass furnished by IT&T Co.	Feb. 1, 1938
10	7	Test Report No. 33 Mechanical Inspection of Radio Compass – SCR-242-B	Feb. 28, 1938
10	8	AFRL Report No. 34 Radio Compass SCR-242-B (Elect. Tests)	May 6, 1938
10	9	AFRL Test Report No. 30 Radio Compass SCR-246-T1 (Pursuit Type)	May 6, 1938
10	10	Indicator-Radio Compass	Oct. 26, 1939
10	11	Description of Instrument Landing Systems Aircraft Radio Laboratory	Sept. 3, 1940
10	12	Instrument Landing 700 MC Wavemeter	Dec. 14, 1940
10	13	Instrument Landing 750 Wave Meter	Jan – Apr 1941
10	14	Parts List for Instrument Blind Landing Equipment	Sept. 18, 1941
10	15	Radio Compass Dual Automatic Bearing	Sept. 27, 1941
10	16	Instrument Approach Landing System	1941 & 1943
10	17	Frequency Receiver for Localizers	Jan. 17, 1942
10	18	ARL Engineering Report Performance Characteristics of Portable Localizer Equipment Radio Set SRC-591-()	Oct. 30, 1942
11	1	Inspection Instructions for Radio Transmitting Equipment	Apr 9 – May 5 1943
11	2	Dyeing (Vat) and Finishing of Duck and Tent twill	Apr. 20, 1943
11	3	Instrument Landing System	Oct. 1943
11	4	Testing Methods Tropicalization	1944
11	5	Testing Methods Tropicalization	1944
11	6	Radio & Instrument Hook-Up	March 7, 1944
11	7	Tropicalization Handbook	March 20, 1944
11	8	Bibliography on the effects of moisture on metal (ARL)	May 20, 1944
11	9	Bibliography Regarding Weather, Climate, Meteorology and Air Analysis	Jun. 15, 1944
11	10	Difficulties Encountered with Electronic Equipment in Humid Climate	Oct. 1944
11	11	Application of Moisture and Fungus-Resistant treatment to Electrical Communication Equipment	Jan. 27, 1945
11	12	Operational Requirements	Jan. 23, 1950
11	13	Development Summary & Applications of a Micro-Miniaturized Flight Director Computer	Mar. 12, 1965
11	14	Equipment, Electronic, Criteria for the Utilization of Micro/Molecular Electronic Technology	Dec. 1, 1967
11	15	ASNAC-40 Exhibit ASD – WPAFB, Ohio	Jan 22-23 1968
11	16	U.S. Air Force Participation in the DoD Advisory Group on Electronic Devices	Nov. 24, 1971
11	17	RADCAP AW6	1972
11	18	Air Corps System of Instrument Landing (Type A-1)	ND
11	19	Considerations Pertaining to Instrument Landing Systems	ND

11	20	ANNEX A Functional Area: Transceivers	ND
11	21	ANNEX A Functional Area: Transceivers	ND
11	22	How To	ND
11	23	How To	ND
OS14	5	Performance Requirements for Speech Inverter	Apr. 1931
OS 73		Electron Tube Development & Standardized Activity	ND