

## **Guide to the Edward S. Forman papers**

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## Guide to the Edward S. Forman papers

### Collection number: MS0042

Center for Sacramento History  
Sacramento, CA

Processed by:

Dylan J. McDonald

Date Completed:

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Sean Heyliger

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### Descriptive Summary

**Title:** Edward S. Forman papers

**Dates:** 1909-1972

**Collection number:** MS0042

**Creator:** Forman, Edward S.

**Collection Size:** 2.5 linear feet(3 boxes + 5 films + 1 oversized drawer)

**Repository:** Center for Sacramento History

Sacramento, California 95811-0229

**Abstract:** The collection is 2.5 linear feet in size and contains correspondence, publications, news clippings, black and white photographs, 16mm film, a scrapbook, and artifacts relating to the professional career of engineer Edward S. Forman. Divided into six series, the collection is organized chronologically within subject file folders. Forman worked at Cal Tech, Hughes Aircraft, and Lockheed. He was one of the founders of Aerojet Engineering Corporation.

**Physical location:** 4G1, 28H11, 35H5, MC 11:13

**Languages:** Languages represented in the collection: English

### Access

Collection is open for research use.

### Publication Rights

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### Preferred Citation

[Identification of item and/or item number], [box and folder number], Edward S. Forman papers, MS0042, Center for Sacramento History.

### Acquisition Information

Collection donated by Lynn Forman Maginnis, daughter of Edward S. Forman, to the Center for Sacramento History in August 2005 (Accession #2005/060).

### Processing Information

Processed in September 2005 by Dylan J. McDonald. Finding aid prepared in October 2005 by Dylan J. McDonald.

### Biography / Administrative History

Edward Seymour Forman was born in Gillespie, Illinois on December 3, 1912. His father was an electrical engineer and moved the family west during Forman's adolescence. An avid science fiction reader, Forman dreamed of flying and space travel. At age 15, Forman began with a friend, John W. Parsons, to research rocketry and conduct experiments. In 1928 they began testing in an area behind Devils Gate Dam in Arroyo Seco, near Pasadena, California.

After graduating from the California Institute of Technology (Cal Tech), Forman continued his rocket experiments with Parsons. Working on both solid and liquid rocket systems proved costly, prompting them to approach Cal Tech in 1934 for

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technical and financial support. Originally turned down, later they established a relationship with Frank J. Malina who assisted with the design and machining of parts at Cal Tech. They developed and fired their first liquid rocket in October 1936. Hoping to attract additional financial support, Forman and Parsons published newspaper and magazine accounts of their work. Eventually Forman was hired by Cal Tech to design and manage the Jet Propulsion Laboratory (JPL), a 3 ½ acre off-campus testing facility. JPL received federal funds to test both liquid and solid rockets. Instrumental in the design and development of JATO (jet assisted take-off) rocket boosters for military planes, Forman and five others at JPL founded Aerojet Engineering Corporation in 1942. After three years as a vice president and production manager at Aerojet, Forman left the company and over the next few years worked various engineering positions. In 1949 he began at Hughes Aircraft, which eventually took him to Tucson, Arizona. Forman then transferred to Lockheed Missiles and Space Company in 1958, working for a time at the Santa Cruz Test Base.

### **Scope and Content of Collection**

The collection is 2.5 linear feet in size and contains correspondence, publications, news clippings, black and white photographs, 16mm film, a scrapbook, and artifacts relating to the professional career of engineer Edward S. Forman. Divided into six series, the collection is organized chronologically within subject file folders.

Series 1 include biographical information about Forman's early rocket experiments from newspaper and magazine articles, many found in a scrapbook. Of note are the photographs of early launch attempts with John Parsons, and their original rocket test stand motor.

Series 2 contains documents and publications during Forman's time with Cal Tech, the GLACIT Program, and the Jet Propulsion Laboratory building JATOs. This series contains several films which show the test firing of various rockets and the take-offs of planes aided by JATOs (see Appendix A).

Series 3 has numerous photographs and reports produced by Aerojet Engineering Corporation during their research and development of various rockets for the U.S. military. Of note is a piece of an airplane wing from a fatal JATO experiment. The wing is annotated by Forman, describing the incident (see Appendix B).

Series 4 deals with an explosives company Forman helped found, Vulcan Powder Company.

Series 5 and 6 include employee newsletters and photographs from Hughes Aircraft and Lockheed.

### **Arrangement**

Series 1. Personal Series 2. Cal Tech – Jet Propulsion Laboratory Series 3. Aerojet Engineering Incorporated Series 4. Vulcan Powder Company Series 5. Hughes Aircraft Company Series 6. Lockheed Missiles and Space Company Series 7. Films

### **Indexing Terms**

The following terms have been used to index the description of this collection in the library's online public access catalog. Forman, Edward S.

Aerojet-General Corporation

Hughes Aircraft Company--History

Jet Propulsion Laboratory (U.S.)--History

Lockheed Missiles and Space Company

Vulcan Powder Company

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### **Series 1. Personal**

**Physical Description:** 13 folders

#### **Series Scope and Content Summary**

Personal series include biographical information about Forman's early rocket experiments from newspaper and magazine articles, many found in a scrapbook. Of note are the photographs of early launch attempts with John Parsons, and their original rocket test stand motor.

Box 1:1	<b>Biography and resume 1958-1969</b>
Box 1:2	<b>Correspondence 1938-1953</b>
Box 1:3	<b>News clippings - career 1938-1970</b>
Box 1:4	<b>News clippings - general 1909-1972</b>
Box 4G1 Drawer J	<b>Photographs undated</b>
Box 1:6	<b>Publications 1948-1970</b>
Box 1:7	<b>Rocket loans 1938-1971</b>

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Box 3                   **Scrapbook - cover board undated**  
 Box 1:8               **Scrapbook (photocopy) 1938-1956**  
 Box 1:9               **Scrapbook - articles 1938-1940**  
 Box 1:10              **Scrapbook - correspondence 1939-1942**  
 Box 1:11              **Scrapbook - news clippings 1938-1942**  
 Box 1:12              **Scrapbook - newsletters and bulletins 1939-1956**  
 Box 1:13              **Scrapbook - photographs 1938**

**Series 2. Cal Tech - Jet Propulsion Laboratory****Physical Description:** 5 folders**Series Scope and Content Summary**

The Cal Tech - Jet Propulsion Laboratory series contains documents and publications during Forman's time with Cal Tech, the GLACIT Program, and the Jet Propulsion Laboratory building JATOs.

Box 1:14               **Correspondence 1966-1969**  
 Box 1:15               **Documents 1940-1942**  
 Box 1:17               **Publications 1940-1968**  
 Box 1:18               **Reports 1938-1941**

**Series 3. Aerojet Engineering Incorporated****Physical Description:** 14 folders + 1 artifact**Series Scope and Content Summary**

The Aerojet Engineering Incorporated series has numerous photographs and reports produced by Aerojet Engineering Corporation during their research and development of various rockets for the U.S. military. Of note is a piece of an airplane wing from a fatal JATO experiment. The wing is annotated by Forman, describing the incident.

Box 1:18               **Reports 1938-1941**  
 Box 1:19               **Correspondence 1942-1957**  
 Box 1:20               **Lectures 1942-1943**  
 Box 2:21               **Lectures - Aerojet Training Program May 1943**  
 Box 2:22               **Legal and financial 1942-1943**  
 Box 4G1 Drawer J   **Photographs 1941-1968**  
 Box 2:24               **Publications 1945**  
 Box 2:25-30           **Reports 1942-1944**  
 Box 2:31               **Research 1941-1943**  
 Box 2:32               **Travel 1943-1944**  
 Box 3                   **Artifact, "A PIECE OF BELLY CENTER SECTION FROM INTERSTATE AIRPLANE DAMAGED BY 2 AEROJET UNITS 8AS1000 THAT SLIPPED OUT OF THE MOUNTING RACKS. ONE UNIT IMBEDDING ITSELF IN THE GASOLINE TANK, THE OTHER UNIT GOING THRU THE PROPELLER AND FLYING THRU A HANGAR 125 YARDS AWAY. ONE PROPELLER TIP SHATTERED THE RIGHT LEG OF NAVY INSPECTOR KLEIN. NO OTHERS WERE INJURED. THIS WAS THE FIRST ACCIDENT TO OCCUR WHERE AEROJET UNITS WERE INVOLVED. ACCIDENT OCCURRED 6 P.M. NOV. 1, 1943. ED. S. FORMAN P.S. MR. KLEIN DIED AT 4:00 A.M. THE FOLLOWING MORNING. 1943**

Box 3                   **Test motor stand circa 1938**

**Series 4. Vulcan Powder Company****Physical Description:** 3 folders**Series Scope and Content Summary**

The Vulcan Powder Company series includes article of incorporation, correspondence and a proposal to create the explosives company Vulcan Powder Company.

Box 2:33               **Articles of incorporation and minutes 1946**  
 Box 2:34               **Correspondence 1946-1947**  
 Box 2:35               **Proposal circa 1946**

**Series 5. Hughes Aircraft Company**

**Physical Description:** 3 folders

**Series Scope and Content Summary**

The Hughes Aircraft Company series include employee newsletters and photographs from the Hughes Aircraft Company.

Box 2:36  
Box 4G1 Drawer J  
Box 2:38

**Documents 1954**

**Photographs 1950-1955**

**Publications 1952-1955**

**Series 6. Lockheed Missiles and Space Company**

**Physical Description:** 2 folders

**Series Scope and Content Summary**

The Lockheed Missiles and Space Company series include employee newsletters and photographs from the Lockheed Missiles and Space Company.

Box 4G1 Drawer J  
Box 2:40

**Photographs circa 1960**

**Publications 1968**

**Series 7. Films**


**Physical Description:** 5 films

**Series Scope and Content Summary**


Five films documenting the Cal Tech-Jet Propulsion Laboratory in the 1940s. Films include: "The Jet Propulsion Research Project," 1942; "Flight Test of the Ercoupe Airplane without and with Auxiliary Jet Propulsion at March Field, CA - August 6-23, 1941"; "Flight Test of the Ercoupe Airplane without and with Auxiliary Jet Propulsion at March Field, CA - August 6-23, 1941"; JATO Historical Footage, ca. 1941;

Box 35H5  
Box 35H5

**"The Jet Propulsion Research Project" 1942** 

**"Flight Test of the Ercoupe Airplane without and with Auxiliary Jet Propulsion at March Field, CA - August 6-23, 1941" 1941-08-06** 

Box 35H5

**"Flight Test of the Ercoupe Airplane without and with Auxiliary Jet Propulsion at March Field, CA - August 6-23, 1941" 1941-08-06** 

Box 35H5  
Box 35H5

**JATO Historical footage circa 1941** 

**JATO Historical footage circa 1941** 