



Smithsonian
National Air and Space Museum

Aerojet Experimental Liquid Propellant
Jet Units Flight Test Scrapbook

2008

National Air and Space Museum Archives
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Collection Overview

Repository:	National Air and Space Museum Archives
Title:	Aerojet Experimental Liquid Propellant Jet Units Flight Test Scrapbook
Identifier:	NASM.XXXX.0844
Date:	(bulk 1942-1943)
Extent:	0.47 cubic feet ((1 box))
Language:	English

Administrative Information

Acquisition Information

Unknown, found in collection, Year received unknown

Preferred Citation

Aerojet Experimental Liquid Propellant Jet Units Flight Test Scrapbook, Accession XXXX-0844, National Air and Space Museum, Smithsonian Institution.

Restrictions

No restrictions on access.

Conditions Governing Use

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Biographical / Historical

In April 1942, the US Army Air Force was conducting flight testing of experimental liquid propellant units developed by the Air Corps Jet Propulsion Research Project at the California Institute of Technology to determine their effects on reduction of takeoff run, stability and control, high speed performance, blast effects, and reliability. The units were found to reduce takeoff distance by approximately one-third and increase maximum speed by approximately 40 miles per hour. However, improvements were recommended in terms of jet installation. In January 1943, flight tests were conducted by the US Army Air Force on Model AL-1000 liquid propellant jet units developed by Aerojet Engineering Corporation based on the April 1942 testing. The Aerojet units successfully reduced takeoff distance and increased flight velocity, as well as allowing for quick and easy servicing and or unit replacement. Aerojet Engineering Corporation began producing these different models of these units for the US Army Air Force subsequent to this testing.

Scope and Contents

This collection consists of a scrapbook containing 44 black and white photographs of various sizes as well as four typewritten pages describing the photographs and the flight tests they depict. Photographs are divided into five "exhibits." Exhibit I is noted to be the solid propellant jet unit. Exhibit II depicts flight tests conducted from April 7 to 24, 1942 at the US Army Air Forces Bombing & Gunnery Range, Muroc Dry Lake, California using a Douglas A-20A, of experimental liquid propellant jet units developed by the Air Corps Jet Propulsion Research Project at the California Institute of Technology. Liquid propellant jet units shown in this section are the experimental form of units later produced by Aerojet Engineering Corporation for the Army Air Forces. Exhibit III depicts flight tests conducted from January 7 to 8, 1943 at the US Army Air Forces Bombing & Gunnery Range, Muroc Dry Lake, California using a Douglas A-20B of liquid propellant jet units, Model AL-1000, designed by the Aerojet Engineering Corporation. Exhibit IV contains photographs of jet propulsion units that were in production at the Aerojet Engineering Corporation at the time the scrapbook was produced. Exhibit V contains photographs of selected Aerojet Engineering Corporation plant facilities.

Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Cultures:

Aeronautics
Jet propulsion

Types of Materials:

Scrapbooks

Names:

Aerojet-General Corporation
Jet Propulsion Laboratory (U.S.)