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National Air and Space Museum

Mooney M18 Mite Drawings and Reports

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Collection Overview

Repository:	National Air and Space Museum Archives
Title:	Mooney M18 Mite Drawings and Reports
Date:	(bulk 1946-1959)
Identifier:	NASM.1989.0028
Creator:	Mooney Aircraft, Inc.
Extent:	2.96 Cubic feet (2 letter document cases; folders in map drawers and oversize boxes)
Language:	English .
Summary:	Mooney Aircraft, Inc. was formed in 1946 by Albert W. Mooney and Charles G. Yankey, both former executives of Culver Aircraft Corporation. The company soon marketed the Mooney M18 Mite, a low-wing, single-place, cabin monoplane designed for the general aviation market and involving extremely low operating costs. This collection consists of the original drawings and reports for the Mooney M18 Mite.

Administrative Information

Acquisition Information

Fred Quarles, Gift, 1989, NASM.1989.0028.

Processing Information

Arranged and described by Elizabeth C. Borja, 2021.

Preferred Citation

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Biographical / Historical

Mooney Aircraft, Inc. was formed in 1946 by Albert W. Mooney and Charles G. Yankey, both former executives of Culver Aircraft Corporation. The company soon marketed the Mooney M18 Mite, a low-wing, single-place, cabin monoplane designed for the general aviation market and involving extremely low operating costs. The M18 was awarded Civil Aeronautics Authority Approved Type Certificate #803 in 1949. Increases in engine power improved the performance of the aircraft, eventually giving the M18 a top speed over 140 mph and a service ceiling of 19,400 ft. Production ended in the mid-1950s as increased labor costs drove the price of the aircraft up to where larger, more comfortable aircraft could compete successfully with the Mite. In the mid-1970s, after Mooney Aircraft had passed through a number of ownership changes, the Mooney Mite Aircraft Corporation was formed to market the M18 as a home built aircraft.

Scope and Contents

This collection consists of the original drawings and reports for the Mooney M18 Mite.

Arrangement

The collection is arranged into two series: Reports and Drawings. Reports are organized by report number. For drawings information, please see the Mooney Mite Drawings order form on the [NASM Archives website](#).

Names and Subject Terms

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

Subjects:

- Aeronautics
- Mooney M18 Mite

Types of Materials:

- Drawings
- Reports

Container Listing

Series 1: Reports, 1946-1950

Scope and Contents: This series consists of 43 reports regarding the Mooney Mite Models 18, 18C, and 18L. Most reports are handwritten and contain charts, graphs, diagrams, and drawings (though some are reproductions). The majority of the reports were written by founder Al Mooney. Some folders contain the original report with appendices and/or revisions. Materials are organized by report number. The dates given are the latest revision to the report.

Box 1, Folder 1	Report A - Model 18 - Propeller Design Study, August 14, 1947
Box 1, Folder 2	Report 1 - Model 18 - Preliminary Design Data, January 23, 1946
Box 1, Folder 3	Report 2 - Model 18 - Preliminary Performance Estimate, July 1, 1946
Box 1, Folder 4	Report 3 - Model 18 - Final Performance Estimate, July 17, 1946
Box 1, Folder 5	Report 4 - Model 18 - Wing Basic Layout Data, July 19, 1946
Box 1, Folder 6	Report 5 - Model 18 - Wing Aerodynamic Data, July 23, 1946
Box 1, Folder 7	Report 6 - Model 18 - Basic Fuselage Fairing, July 26, 1946
Box 1, Folder 8	Report 7 - Model 18 - Weight Control, July 31, 1946
Box 1, Folder 9	Report 8 - Model 18 - Balance Control, August 1, 1946
Box 1, Folder 10	Report 9 - Model 18 - Weight and Balance, August 2, 1946
Box 1, Folder 11	Report 10 - Model 18 - General Design Data - Utility Category, August 5, 1946
Box 1, Folder 12	Report 11 - Model 18 - Computation of Wing Loadings, August 6, 1946; revised June 5, 1947
Box 1, Folder 13	Report 12 - Model 18 - Fuselage Front Section Stress Analysis, August 15, 1946; revised October 1, 1946, May 22, 1947
Box 1, Folder 14	Report 14 - Model 18 - Landing Gear Stress Analysis, June 2, 1947; revised 1948
Box 1, Folder 15	Report 16 - Model 18 - Control Surfaces Layout Data, September 11, 1946
Box 1, Folder 16	Report 17 - Model 18 - Computation of Control Surface Loadings, September 12, 1946; revised May 27, 1947

Box 1, Folder 17	Report 18 - Model 18 - Fuselage Rear Section Stress Analysis, September 23, 1946
Box 1, Folder 18	Report 19 - Model 18 - Static Test Report, July 11, 1947
Box 1, Folder 19	Report 20 - Model 18 - Control System Analysis, January 10, 1947; revised May 28, 1947
Box 1, Folder 20	Report 21 - Model 1 - Engine Test Report, February 28, 1947
Box 1, Folder 21	Report 22 - Model 18 - Flutter and Vibration, June 2, 1947
Box 1, Folder 22	Report 26 - Model 18 - Landing Gear Drop Tests, September 28, 1947
Box 2, Folder 1	Report 28 - Model 2 - Endurance Test Report - Second Run, November 17, 1947
Box 2, Folder 2	Report 29 - Model 18 -Design Weight and Balance (Revised), April 5, 1948
Box 2, Folder 3	Report 30 - Model 18 - General Design Data (Revised), April 5, 1948
Box 2, Folder 4	Report 32 - Model 18 - Fuselage Loading Computations (Revised), April 5, 1948
Box 2, Folder 5	Report 34 - Model 18 - Landing Gear Loading (Revised), April 5, 1948
Box 2, Folder 6	Report 36 - Model 18 - Manufacturer's Flight Report, April 16, 1948
Box 2, Folder 7	Report 37 - Model 18 - Actual Weight and Balance Reports, (37-1) June 30, 1948; (37-12) February 28, 1949
Box 2, Folder 8	Report 38 - Model 18 - Aerodynamics Report, February 23, 1948
Box 2, Folder 9	Report 43 - Model 18 - Landing Gear Analysis, November 1948
Box 2, Folder 10	Report 44 - Model W-1 and W-2 - Wheel and Brake Loading Data, December 3, 1948
Box 2, Folder 11	Report 45 - Model 18L - Weight and Balance, December 20, 1948
Box 2, Folder 12	Report 46 - Model 18L - General Design Data, December 20, 1948
Box 2, Folder 13	Report 47 - Model 18L - Landing Gear Analysis, December 20, 1948
Box 2, Folder 14	Report 48 - Model 18L - Fuselage Loading Computations, January 5, 1949
Box 2, Folder 15	Report 49 - Model 18L - Static Test Report, January 17, 1949
Box 2, Folder 16	Report 50 - Model 18L - Flutter and Vibration, January 1949

Box 2, Folder 17	Report 51 - Model 18L - Aerodynamics Report, February 1949
Box 2, Folder 18	Report 52 - Model 18C - Weight and Balance, January 5, 1950
Box 2, Folder 19	Report 53 - Model 18C - Landing Gear Analysis, January 10, 1950
Box 2, Folder 20	Report 54 - Model 18C - General Design Data, January 10, 1950
Box 2, Folder 21	Report 55 - Model 18C - Structural Analysis, February 9, 1950

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Series 2: Drawings, 1946-1959

Scope and Contents: This series consists of original large format drawings on paper for the Mooney Mite. For drawings information, please see the Mooney Mite Drawings order form on the [NASM Archives website](#) .

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