



## University Libraries Special Collections & University Archives

### Alexander Petroff Papers

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#### Collection Summary

<b>Title:</b>	Alexander Petroff Papers
<b>Call Number:</b>	MS 89-15
<b>Size:</b>	3.25 linear feet
<b>Acquisition:</b>	Donated by Genevieve Petroff
<b>Processed By:</b>	AHC, 10-26-1988; JEF, 3-9-1998; MN, 1-2015
<b>Note:</b>	None
<b>Restrictions:</b>	None

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#### Restrictions

None

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#### Content Note

A major part of this collection is comprised by photographs gathered by Alexander Petroff of military and civilian aircraft, especially Cessna and Curtiss-Wright designs, manufactured in the late 1920s and early 1930s. The collection also includes technical reports authored by Petroff and others.

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#### Biography

Alexander Petroff was a native of Russia who left his native land during the 1917 Revolution. He came to the United States and taught aeronautical engineering at the University of Michigan before becoming the first director of the aeronautical engineering department at the University of Wichita. He later became an engineer with Cessna in Wichita and taught at several universities.

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## Detailed Description: Series Listing

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<a href="#">Series 1.2</a>	Box 1 FF 11-12	Articles
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<a href="#">Series 3</a>	Box 1 FF 17-18	Cessna Promotional Publications
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<a href="#">Series 10.1</a>	Box 5 FF 1-25	Photographs of Curtiss Military Aircraft, 1928-1943
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## Detailed Description: Box and Folder Listing

### Series 1 – Writings by Petroff

#### Series 1.1 – Technical Reports

Box 1	FF 1	“Response of the HFB-1 to a Sudden Reflection of the Control Surfaces,” 1952.
Box 1	FF 2	“The Tandem Twin,” 1954.

Box 1	FF 3	“Non-dimensional Comparison of Take-off and Landing Distances, “ 1956.
Box 1	FF 4	“Determination of Friction Losses in a Duct of Constant Cross-sectional and Variable Perimeters,” 1957.
Box 1	FF 5	“The Relationship between Stall Velocity and Take-off Velocity and the Effect of this Ratio on Take-off Distances,” 1958.
Box 1	FF 6	“Efficiency in Climb of Private and Business Aircraft,” 1958.
Box 1	FF 7	“The Effect of Propellers in Static Thrust Condition,” 1958.
Box 1	FF 8	“Effect of Wing Area and Weight on Cruise Velocity of the Model 310,” 1959.
Box 1	FF 9	“Partial Generalization of Equations for Take-off and Landing,” 1959.
Box 1	FF 10	“Parametric Study of an Agricultural Airplane to Obtain Minimum Time-per-Acre,” 1960.

### **Series 1.2 – Articles**

Box 1	FF 11	Several articles on fuel control and efficiency
Box 1	FF 12	“A Method of Boren-Layer Attenuation,” n.d.

### **Series 2 – Correspondence**

Box 1	FF 13	Cessna inter-office communications addressed to Petroff, 1954-1958.
Box 1	FF 14	Correspondence to Petroff at Cessna, 1961-1963.
Box 1	FF 15	Letter from P. B. S. Lissaman, Northrop Corporate Labs, Hawthorne, California, to Petroff, La Jolla, California, March 16, 1970.
Box 1	FF 16	Several letters from NACA to Petroff concerning various projects.

### **Series 3 – Cessna Promotional Publications**

Box 1	FF 17	Cessna publication, <i>Cessquire</i> , 9-17-1954
Box 1	FF 18	Cessna study on “A Look at America’s Newest Volume Industry in 1970.”

### **Series 4 – Miscellaneous Articles Concerning Private Aircraft**

Box 1	FF 19	“Designing Tomorrow’s Personal Plane,” n.d.
Box 1	FF 20	“Journal of the Aeronautical Sciences,” May 1956.
Box 1	FF 21	“Dirigibles: Aeronautic Opportunities for the ‘70s and ‘80s,” n.d.

Box 1            FF 22            “The Next 50 Years in Aerospace Education,” 1964.

### **Series 5 – Governmental Aviation Reports**

Box 2            FF 1            National Advisory Committee on Aeronautics Report no. 408 -- “General Formulas and Charts for Calculation of Airplane Performance,” 1932.

Box 2            FF 2            Office of Naval Research, November 1, 1951 -- “Lower Speeds for Fixed-wing Aircraft.”

Box 2            FF 3            “Calculations of High Speed of a Military Airplane,” n.d.

Box 2            FF 4            Untitled fragment

Box 2            FF 5            NACA Technical Memo 1167 -- “Calculations and Experimental Investigations on the Feed-power Requirement of Airplanes with Boundary-layer Control,” 1947.

Box 2            FF 6            NACA Technical Note 2440 -- “Wind-Tunnel Investigation and Analysis of the Effects of End Plates on the Aerodynamic Characteristics of an Upswept Wing,” 1951.

Box 2            FF 7            Units of Weights and Measures, Department of Commerce Reports, 1936 and 1960.

Box 2            FF 8            Report on MX-772, supersonic Ram, jet-powered missile, n.d.

Box 2            FF 9            “Efficiency of Personal Aircraft at Cruising and High Speeds,” n.d.

Box 2            FF 10           Various reports on fuel and propulsion systems for civil aircraft. n.d.

Box 2            FF 11           “Importance of the Turbopropeller Engine for the Multi-purpose 4- to 6-seater Light Aircraft,” n.d.

Box 2            FF 12           “Energy Approach to the General Aircraft Performance Problem,” 1953.

Box 2            FF 13           “Rigorous Performance Prediction Without Drudgery” by Elliott G. Reid, circa 1939; and airplane performance and design charts.

### **Series 6 – Magazines**

Box 2            FF 14            *Gloster Aircraft Company General Survey*, n.d. (circa 1930).

Box 2            FF 15            *Aeronautic Engineering Review*, 1955-1958, and other articles from various sources.

Box 2            FF 16            *Patent Digest*, 1959.

Also contains other patent information including U.S. and foreign.

### **Series 7 – Aircraft Photographs Taken from Magazines**

Box 3	FF 1	"Inter-Avia," 1933 -- contains various photographs, such as the Douglas DC-1, Conquest 101, and Wilbur Wright.
Box 3	FF 2	Curtis Wright public relations photographs
Box 3	FF 3	World War II air combat photographs clipped from magazines and articles on the Cessna M 319

### **Series 8 – Cartoons and Other Drawings Related to Aircraft**

Box 3	FF 4	"Wattson's Quips," cartoons showing life at Cessna
Box 3	FF 5	Cartoons
Box 3	FF 6	Mechanical drawings and images, mostly of Curtiss airplanes
Box 3	FF 7	Unidentified sketch from World War II
Box 3	FF 8	Miscellaneous mechanical drawings and photographs
Box 3	FF 9	Miscellaneous sketches and photographs

### **Series 9 – Teaching Materials**

Box 4	FF 1	Clippings related to aerospace engineering at Wichita State University. "Wichita Businessman to Fight for Aeronautical School Here," n.d.; two photographs of engineering students; a list of engineering graduates; and an article on Dwane Wallace, University of Wichita graduate, aviation engineer and Cessna executive.
Box 4	FF 2	Correspondence related to Brazil program, 1965.
Box 4	FF 3	Teaching load description, 1962. Some information about institute in Indonesia.
Box 4	FF 4	University of Michigan-Brazil program book, n.d.
Box 4	FF 5	Correspondence and other items related to Indonesia program, 1963.
Box 4	FF 6	Lecture note fragment, n.d.

### **Series 10 – Photographs**

#### **Series 10.1 – Photographs of Curtiss Military Aircraft, 1928-1943**

Box 5	FF 1	Curtiss F9C-2, 1932
Box 5	FF 2	Curtiss O2C-1, 1931; Curtiss O2C-2, 1933

Box 5	FF 3	Curtiss XP-6H, 1933
Box 5	FF 4	Curtiss X03C-1, 1934 and 1935 (Navy)
Box 5	FF 5	Curtiss F11C-2 (with 500 lb. bomb), 1932
Box 5	FF 6	Curtiss Hawk-Army P-1C, 1929
Box 5	FF 7	Curtiss Army Y0-40, 1932
Box 5	FF 8	Curtiss A-12 Shrike, 1933
Box 5	FF 9	Curtiss S0C-1 Flagship, 1935 and 1936
Box 5	FF 10	Curtiss Y10-40B monoplane, 1933
Box 5	FF 11	Curtiss Falcon-Army, 1930
Box 5	FF 12	Curtiss X0-1G, 1930
Box 5	FF 13	Curtiss Challenger, 1928
Box 5	FF 14	Japanese Hawk, 1930
Box 5	FF 15	Curtiss XF9C-1, 1931
Box 5	FF 16	Curtiss YA-10, 1932
Box 5	FF 17	Curtiss XF8C-7 Cyclone, 1930; Curtiss XF9C-2, 1931
Box 5	FF 18	Curtiss Y1A-18, 1937
Box 5	FF 19	Curtiss Condor bomber XB-2, 1927; Curtiss Army B-2 Condor bomber, 1929
Box 5	FF 20	Curtiss P-40-N, 1943
Box 5	FF 21	Curtiss XS3 C-1, 1932
Box 5	FF 22	XPT-5 Curtiss Challenger engine, 1928
Box 5	FF 23	Curtiss XF11 C-1, 1932 and 1933
Box 5	FF 24	Curtiss XA-14, 1935
Box 5	FF 25	Curtiss XF13C-1, 1933

### **Series 10.2 – Photographs of Cessna Military Aircraft and Unidentified Military Aircraft**

Box 5	FF 26	Unidentified Cessna military aircraft
Box 5	FF 27	Miscellaneous unidentified military aircraft

Box 5	FF 28	Contains a postcard of Bristol "Bull-dog," n.d., Royal Air Force
Box 5	FF 29	Contains photographs of Navy dirigible, 1932, and Mayflower II, Goodyear, n.d.

### **Series 10.3 – Photographs of Curtiss Private and Commercial Aircraft, 1923-1936**

Box 6	FF 1	Curtiss Fledgling Wright J-6 engine, 1929
Box 6	FF 2	Curtiss Robin, various engines, 1929
Box 6	FF 3	Curtiss Kingbird, 1929 and 1930
Box 6	FF 4	Curtiss XP-934, 1932
Box 6	FF 5	Curtiss DES 60-A, 1936
Box 6	FF 6	Curtiss XS2C-1, Wright R-1510 engine, 1933
Box 6	FF 7	Curtiss Condor #3, 1931
Box 6	FF 8	Curtiss P-6E, 1932
Box 6	FF 9	XPT-5 Curtiss Challenger engine, 1928
Box 6	FF 10	Seaplanes: Curtiss Wright Duck, 1932; Curtiss Columbian Falcon, 1928; Curtiss Robin seaplane, 1929
Box 6	FF 11	Curtiss Y0-40A, 1932 and 1933
Box 6	FF 12	Curtiss Falcon OJ-E, 1930; X0-16, 1930; Conqueror Falcon water-cooled engine 1930; and mail plane, 1930
Box 6	FF 13	Curtiss Model 10 Waco, n.d.
Box 6	FF 14	Curtiss Y1A-8A, 1932
Box 6	FF 15	Curtiss T-5942, n.d.
Box 6	FF 16	Curtiss Carrier Pigeon II, 1923
Box 6	FF 17	Cuban Hawk P-6, Wasp engine, 1930
Box 6	FF 18	Curtiss X53C-1, 1932
Box 6	FF 19	Curtiss XA-8, 1931
Box 6	FF 20	Curtiss YP-20, 1930
Box 6	FF 21	Curtiss YA-8, 1932
Box 6	FF 22	Curtiss YF9C-2, 1931
Box 6	FF 23	Curtiss Teal, 1930

Box 7	FF 1	Curtiss Standard C-6 motor, n.d.
Box 7	FF 2	Curtiss Thrush, various engines, 1929
Box 7	FF 3	Curtiss XP-23, 1932
Box 7	FF 4	Curtiss 1930 Hawk, water-cooled Conqueror engine, 1930
Box 7	FF 5	Curtiss Export Hawk, 1932; Curtiss Export Falcon, 1933
Box 7	FF 6	Curtiss XF11C-2, 1932
Box 7	FF 7	Curtiss YA-10, 1932
Box 7	FF 8	Curtiss Y10-40B, 1933
Box 7	FF 9	Curtiss Travel Air Speedwing, 1932

#### **Series 10.4 – Photographs of Various Private and Commercial Aircraft**

Box 7	FF 10	A-W Cessna Warner-Scarab engine, c. 1930
Box 7	FF 11	Lincoln AP cabin, Kinner engine, n.d., and Bristol “Lucifer school” n.d.
Box 7	FF 12	Macchi M-39, Fiat AS-2 motor, set world record for seaplane at 512 kilometers per hour in 1928 (picture from L’Anee Aeronautique, 1927-1928)
Box 7	FF 13	Henri Farman winning German aviation contest in January 1908 flying a Voisin Brothers aircraft with Antoinette-Levavasseur motor (picture from L’Anee Aeronautique, 1927-1928)
Box 7	FF 14	Unidentified Cessna, c. 1950s
Box 7	FF 15	Postcard of tri-motored Fokker flying over New York Central Railroad, n.d.
Box 7	FF 16	Early airliners: Junker’s Grossflugzeug G38 D2500; Imperial Airways “City of Glasgow” and “City of Karachi;” Bristol freight carrier; and Mohawk Aircraft Corporation. Kinner 50 hp.
Box 7	FF 17	Junker’s Ganzmetall-Grossflugzeug G24, n.d.
Box 7	FF 18	Doriner flagship, n.d.

#### **Series 10.5 – Miscellaneous Photographs**

Box 7	FF 19	Miscellaneous unidentified aircraft
Box 7	FF 20	Unidentified pilots
Box 7	FF 21	Pictures of model airplanes
Box 7	FF 22	Unidentified drawing



Box 7	FF 23	Unidentified helicopter
Box 7	FF 24	Building pictures, some identified, some of Cessna in Wichita

### Series 11 – University of Michigan

Box 8	FF 1	Contains “The First Fifty Years (A Fragmentary, Anecdotal History),” Department of Aeronautical and Astronautical Engineering, University of Michigan, October 1964.
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### Series 12 – Translations

Box 8	FF 2	Contains the translated notes written by Petroff from a Russian book by Golubev.
Box 8	FF 3	Contains several letters to P. B. S. Lissaman at Northrop Corporate Laboratories concerning translations Petroff did from a book by Golubev for the company. The letters are dated from May 13, 1970 to October 30, 1970.
Box 8	FF 4	Contains the translated notes written by Petroff from a Russian book by Golubev.
Box 8	FF 5	Contains the translated notes written by Petroff from a Russian book by Golubev.
Box 8	FF 6	Contains three letters from P. B. S. Lissaman of Northrop Corporate Laboratories to Petroff. One letter, dated March 26, 1970, tells that Lissaman received Petroff’s book on aerodynamics by Golubev and suggested that an English translation of the book be made. He also asked Petroff if he would be interested in making the translation. Another letter, dated December 11, 1970, thanks Petroff for translating the first three chapters, which were the most important to him. The other letter, undated, wishes Petroff a Merry Christmas.

For information, please contact us at:

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