

NATIONAL AIR AND SPACE ARCHIVES  
FRED E. WEICK AUTOBIOGRAPHICAL TRANSCRIPTS

Accession XXXX-0425



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**Biographical Note**

Aeronautical engineer Fred E. Weick (1899-1993) had a profound effect on light aircraft development. While working for the National Advisory Committee on Aeronautics (NACA) he developed the NACA low-drag cowling for radial engines (1928) and built a low landing speed aircraft as an independent project sparked by a series of light aircraft design seminars at NACA's Langley Research Center (1931). He introduced the concept of "fifty foot obstacle clearance" as a measure of aircraft take-off performance, which remains a standard measure today. In 1936 he joined Henry Berliner at the Engineering and Research Corporation (ERCO) to develop and market a commercial version of Weick's aircraft. Although the resulting Ercoupe faded in the general aviation slump following World War II, Weick moved to Texas A&M (1948-56) where he developed a series of agricultural aircraft which evolved into the Piper Pawnee series. He remained at Piper until he retired (1956 to c. 1970) and developed the Piper Cherokee with John Thorpe and Karl Bergey. After retirement, Weick remained active in aeronautics, assisting in design studies for Beech Aircraft as well as undertaking private projects in aircraft trim and control.

**Contents Note**

This collection consists of transcripts of Weick's dictation for this autobiography, published as *From the Ground Up: Autobiography of an Aeronautical Engineer* (Washington, DC: Smithsonian Institution Press, 1988). A copy of this book can be found in the Smithsonian Library at the National Air and Space Museum.

**CONTAINER LIST**

<u>Folder</u>	<u>Tape</u>	
1	1	Boyhood Schooling US Mail Service Yackey Aircraft Company
	2	1923 National Air Meet in St. Louis Solo Flight Navy Bureau of Aeronautics Romance Army Round-the-World Flight
	3	Mid. Bu. Aero - Start at NACA First NACA Conference Start of NACA Cowling Program
	4	1927 to 1928 I Build a Sailboat I Start a Book on Propeller Design Twenty-Fifth Anniversary of First Flight
	5	1928 to 1929 The Hamilton Aero Manufacturing Company
2	6	November 1929 to April 1930 Back to the NACA at Langley Completion of Book on Aircraft Propeller Design Investigation of Stalling The Reed Patent Case
	7	1931 (W-1 begins) Dornier DO-X East Jacobs Flies in Hurricane Eye Our Home-Built Experimental Airplane
	8	May 1934 - W-1, Our Trials What a place to have to change tapes! Experimental Steel Propeller A Vacation from Aeronautics W-1 Trials to 2 - Control Trials by Us

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 FRED E. WEICK AUTOBIOGRAPHICAL TRANSCRIPTS  
 Acc. XXXX-0425

<u>Folder</u>	<u>Tape</u>	
2	9	September 1935 - W-1A continued 1936 to February 1937 Start of the Ercoupe The <i>Detroit News</i> Contest Again Schwarz Propellers
	10	February 1937 Getting a 65 hp Engine
	11	Getting a 65 hp Engine Pre-World War II World War II
3	12	1942 - Mrs. Freed - War Years Mrs. Freed's Unexpected Flight
	13	End 1944, 1945 - Ercoupe Sale Conference Quiet Birdmen Post-War Ercoupe
	14	1947 - Sanders Takes Ercoupe Erco Experiments
	15	December 1947 at Los Angeles; Move to Texas; July 1948 Texas A&M Fly From Home July 1948 to July 1949
	16	July 1949 to August 1950 Ag-1 Experimental Agricultural Airplane Ercoupe Flying Omnirange Trials More Ercoupe Flying
	17	August 1950 to December 1950 Back to the Ag-1 Memphis Meeting Dispersal Pattern Measuring Station Still More Ercoupe Flying
	18	Charlie Zimmerman's Project Back to the Ag-1 Texas Agricultural Aviation Conference
4		

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FRED E. WEICK AUTOBIOGRAPHICAL TRANSCRIPTS  
Acc. XXXX-0425

<u>Folder</u>	<u>Tape</u>	
4	19	Research Sponsored by NACA More Ercoupe Flying Back to Research Second Agricultural Aviation Conference June 1953 Start of the Ag-2 Consulting for Piper Article by Langewiesche Third Agricultural Aviation Conference Fiftieth Anniversary of First Flight Ag-3
	20	December 1953 Pleated Paper Air Filter European Visits Re: Ag Aviation Cessna L-19 Duster Experiment Texas Aerial Applicators Association Cost of Metal Versus Fabric Covered Airplanes Trip to Fort Lauderdale Fourth Ag Agricultural Conference Lateral Control Near the Stall Arizona Aerial Applicators Meeting Ercoupe Activity End of Book Automatic Carburetor Air Heater
	21	July 1955 European Trip Starts Ag Pilot Training Courses Fifth Ag Aviation Conference The Minta Martin Contest Three Months Visiting Europe March 1956
	22	May 1956 End of European Trip Continuing Research July 1956 to December 1956 Piper Aircraft Development Center

NASM Archives  
 FRED E. WEICK AUTOBIOGRAPHICAL TRANSCRIPTS  
 Acc. XXXX-0425

<u>Folder</u>	<u>Tape</u>		
5	23	January 1951 Preparing to Start with Piper Light Airplane for Business Transportation Club Flying Sixth Agricultural Aviation Conference Piper up to 1957 Piper Management and History	
	24	April 1957 Starting at Vero Beach Piper Pawnee Agricultural Airplanes Start of Pawnee Brave	
	25	Pawnee Brave January 1957 Piper Cherokee Series	
	26	ATC for First Cherokee October 31, 1960	
	27	PA-32 Series & PA-34; Karl Bergey Leaves Cherokee Six Pocono	
	6	28	1969 Chris-Craft Raid & Piper Organization Changes and Planes to 1984 Piper Organization Again Lear Siegler Court Cases and Product Liability
		29	Lake City - Phoenix Court Case My Experiments with Firm Trim, University of Michigan, etc.
30		Our Personal Flying, 1957 to Present, 1984 Dick's Wedding Reunion - Grand Canyon Long Beach Kitty Hawk and Wright Brothers Fresno and Palo Alto	
31		Personal Flying Fresno and Palo Alto Langley's Fiftieth Mexico with Robinsons Hammondsport - Alaska Burt Rutan on Way to Herb and Virginia's Fiftieth	

NASM Archives  
FRED E. WEICK AUTOBIOGRAPHICAL TRANSCRIPTS  
Acc. XXXX-0425

<u>Folder</u>	<u>Tape</u>	
7	32	Rutan - Herb and Virginia's Fiftieth Oshkosh - Home Our Round-the-World Trip End of Trip Organizations: NAA, SAE, ASME, AIAA to Start EAA
	33	Organizations Continued: EAA
	34	Organizations Continued: Ercoupe Owners Club, Kelly Viets Arkansas Picnic
	35	Organizations Continued: EOC, Flying Engineers, QB Air Mail Pioneers Flying Engineers International Quiet Birdmen Florida Aero Club OX-5 Aviation Pioneers Rotary Club Silver Wings AOPA UFO NASM
	36	Air and Space Museum