



May 4, 1984

Tedroy Associates
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Gentlemen:

Edith Peifer asked me to make a few comments concerning my recollection of activities surrounding the Comanche 400. Indeed it was a remarkable program to develop an aircraft which was the "apple of Pug Piper's eye". The aircraft was truly Pug's baby.

It was first discussed on October 15, 1958, with preliminary design starting on June 1, 1959. The specification was issued on August 3, 1959, and an aircraft with the "N" number 5316P was first flown on February 22, 1960. This aircraft was a standard PA-24 with an IO-720 engine installed. The first conformity prototype, N8380P, was flown on March 16, 1961. A second and third prototype, N7511P, Serial No. PA26-2, and N8400P, Serial No. PA26-3, were the aircraft used in the certification flight test between April 9, 1963 and November 25, 1963.

The PA-24-400 was certified on December 27, 1963. The first production delivery was made on July 28, 1964. A total of 84,333 Engineering manhours were expended for the development and certification of the PA-24-400.

My position with Piper at the time of certification was Manager of Aerodynamics, Flight Test, and Structures. I was fortunate enough to be integrally involved in the development and certification process of this aircraft.

An interesting recollection that I have concerns the longitudinal control. The first aircraft, N5316P, had a standard Comanche horizontal tail. The C.G. of the Comanche 400 being so far forward gave us a real problem with pitch control. I remember that when the flaps were extended the stabilator balancing loads were such that the horizontal tail went to stall angle of attack. When this happened the aircraft would pitch uncontrollably down in a tucking maneuver. You would recover by retracting the flaps. This characteristic was the reason that the Aztec stabilator was installed on the aircraft. Following this installation of the Aztec stabilator the aircraft exhibited rock solid stability, and excellent controllability.

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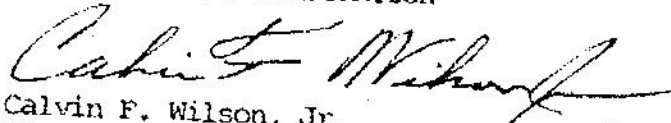
To insure the reliability of the aircraft, we hired a graduate student who was on summer vacation to fly the 400 Comanche eight hours a day for a period of two months. Can you imagine a young man having this type of equipment at his disposal to cruise around Central Pennsylvania? Needless to say he became a legend in his own time.

I cannot forget having talked to a friend of mine, George Reno, who owned a 400 Comanche, and I asked George how in the world he could afford the gasoline for that 400 Comanche, and George said "yes, it burns a lot of gasoline, but not all in one place".

I wish you all the very best of luck, and low maintenance on your 400 Comanches.

Very truly yours,

PIPER AIRCRAFT CORPORATION



Calvin F. Wilson, Jr.
Director of Engineering

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