

1/4 Scale PA-44 Piper Seminole





Producer: Philip Cooper **Designer:** Reaaz Jahoor

Wood Laser Cutting: John Valentine – <u>Top Notch Product Company</u> **Builders:** Brian Wiltse, Jim Peave, George Bingen, Tim Davis, Philip Cooper

Test Pilot: Harold Voigt

Dimensions:

Wingspan: 117" Length: 84" Height: 24" Weight: 46 lbs

Wing Loading: 70 oz. / sq. ft.

Engines: 2 x OS FF-320 Pegasus Four Cylinder

Propellers: 2 x 18 x 11

Fuel Capacity: 48 oz. (2 x 24 oz.)

Equipment:

Wheels: BVM

Brakes: BVM E-Brake 2

Retracts: Robart 635 Modified with Electric Actuators by <u>Down and Locked Retracts</u>

Radio: Futaba 14MZ w/ 12 Servos

Onboard Glow System: 2 x McDaniel RC 4.8V Pulsed On Board Glow Driver - Four

Cylinders

Fuel: Cool Power High Performance 30% Glow Fuel

Exhaust: Kelvin Cubbison - Keleo Creations OS 320 FF exhaust system

Build Time:

9 Years (March, 2006 - May, 2015)

Video Links:

Maiden Flight: https://www.youtube.com/watch?v=UX8mN yDO0I

Others: https://www.youtube.com/watch?v=HMUuuTGKetg&feature=youtu.be











I have been flying RC Models since the age of 14. The hobby fueled my passion for aviation and led me to seek flight training at Embry Riddle Aeronautical University in 1984. On the path to becoming an airline pilot, I became a flight instructor at ATP Flight School in 1988 and spent the next year flying the Piper Seminole. It was then that I had the idea of building a quarter-scale RC Piper Seminole. The idea stalled while I searched for plans, which were finally found partially completed by Reaaz Jahoor in 2006. Reaaz agreed to complete the CAD drawings and paper plans. Reaaz forwarded the CAD files to John Valentine at Top Notch Product Company. John laser-cut the many sheets of balsa and ply for the kit.

As an airline pilot living near Jacksonville, Florida at the time, I became a member of the Radio Control Club of Jacksonville Florida. It was there that I met the many fantastic members who supported this project. Tim Davis is one of those members. Tim has a great deal of experience in custom builds and was the perfect choice for the project. Tim agreed to build the airplane and did a fantastic job with all aspects, including the addition of carbon fiber for strength where necessary.

I chose the OS FF-320 Pegasus 4-cylinder engine for the similarity to the full-scale Lycoming O-360. Kelvin Cubbison of Keleo Creations made a set custom pipes and McDaniel RC On-Board Glow systems give the model plenty of power, even with the rather heavy takeoff weight of 46 lbs. To ensure engine reliability, I had an engine testbed built by George Bingen. This allowed engine break-in, testing and tuning before installation on the model.

As the airplane was getting heavier, it became obvious that the model would need a substantial landing gear. Mitch Stott of Down and Locked Retracts was able to create custom landing gear using Robart Retracts and struts, BVM Wheels and brakes, and assembling it all by turning custom axles. I chose the BVM E-Brake 2 to provide the braking power and it works extremely well.

As the project reached completion in May of 2015, I had to choose a location for the maiden flight. As heavy as the model was, it was clear that it would need a flying site capable of handling a larger model like this. The DeLand Golden Hawks RC Club in Deland, Florida proved to be the perfect site. President Kevin Leisy was extremely helpful in providing assistance at the site and some great videography.

Needing the exceptional piloting skills necessary to fly such a large model, Kevin introduced me to test pilot Harold Voigt. Harold agreed to take the airplane for its maiden flight and returned it safely to earth even with substantial CG and control throw challenges. However, rebalancing and readjusting control throws has made this a model that is a pleasure to fly.

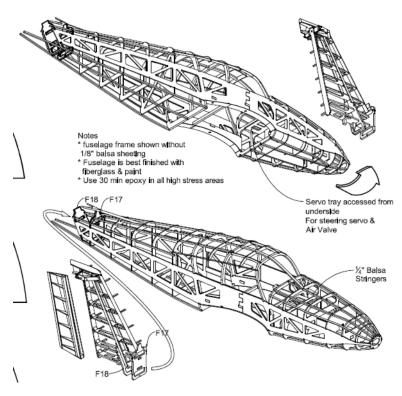
I am grateful to all those who provided assistance in making this 1988 vision a reality in 2015.

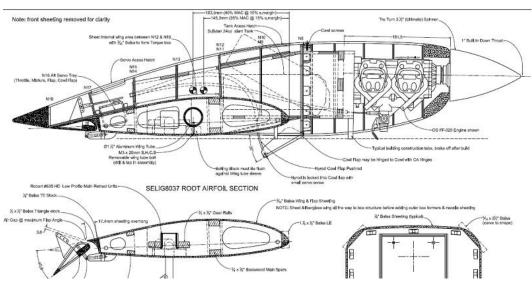
Credits:

Philip Cooper (Producer)
Tim Davis (Builder, Final Assembly, Fiberglass, Paint)
Reaaz Jahoor (Designer, Plans, CAD Drawings)
John Valentine (Laser Kit Cutting)
George Bingen (Engine Test Bed)
Kelvin Cubbison (Customer Exhaust Pipes)
Mitch Stott (Wheels & Retracts)
Brian Wiltse (Assistant Builder - Initial Fuselage Framing)
Jim Peave (Assistant Builder - Initial Wing Structure Framing)
Kevin Leisy and all the member of the DeLand Golden Hawks RC Club (Flying Field Assistance)
Harold Voigt (Test Pilot)



Images:

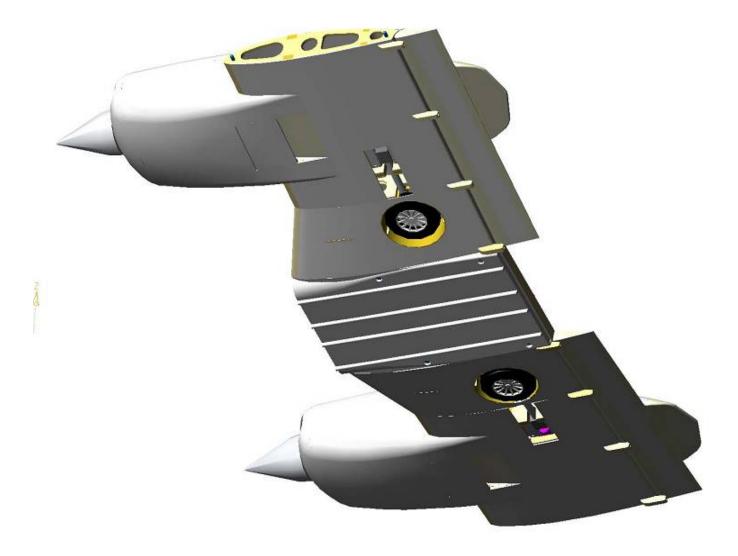




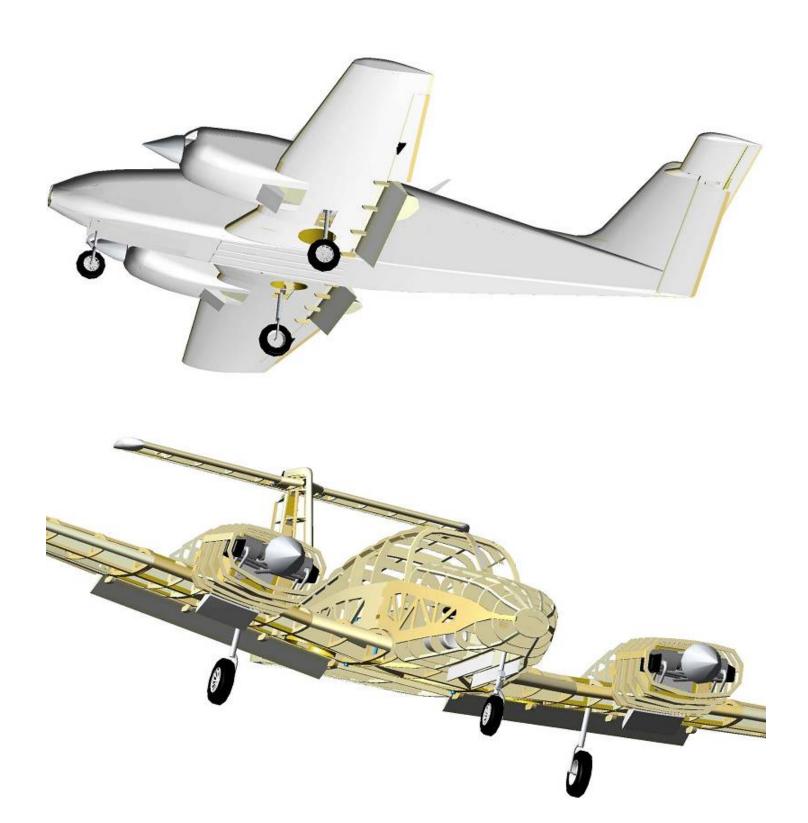




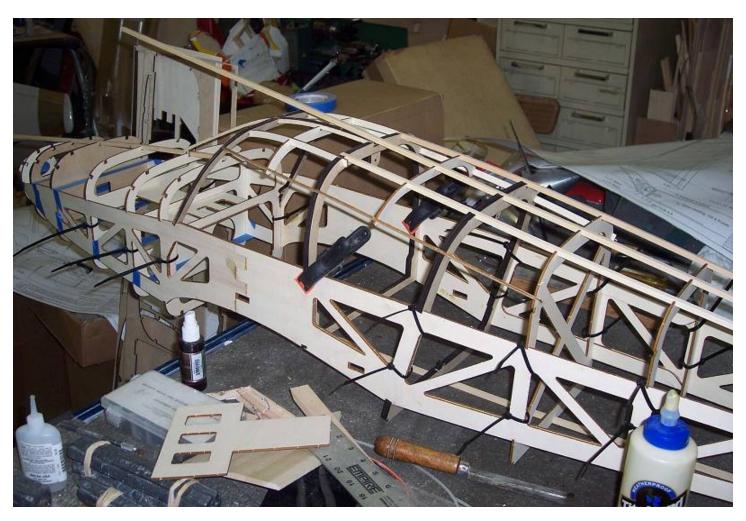




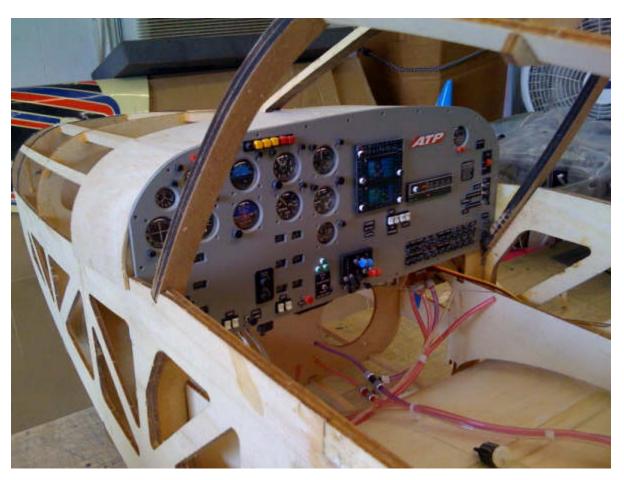


























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Builder: Tim Davis





Left: Phil Cooper (Producer) Right: Harold Voigt (Test Pilot)



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Several of the great guys at The DeLand Golden Hawks RC Club in Deland, Florida