

# Dewoitine D-332 Airliner

By Dave Stott

*In the age of air transport when tri-motors were the rage, this one was one of the most elegant and exciting.*



PHOTOGRAPHY: MARK FINEMANN

**P**rogenitor of some of the sleekest long range airliners ever to cross the Pyrenees Mountains, the Dewoitine D-332 possesses a history to excite the imagination. Its aerodynamic cleanliness and classic lines will make it a worthy addition to a modelers fleet. There is even a choice of color schemes. Originally the 332 was painted an emerald green and

christened "Emeraude". In this livery it made a number of promotional flights throughout Europe, Russia, North and West Africa, and as far as French Indo China. Only four months after the first flight, Air France bought the airliner in November of 1933. (The Douglas DC-1 first flew on July 1, 1933 and the Boeing 247 on February 8, 1933.) It was then painted all silver.

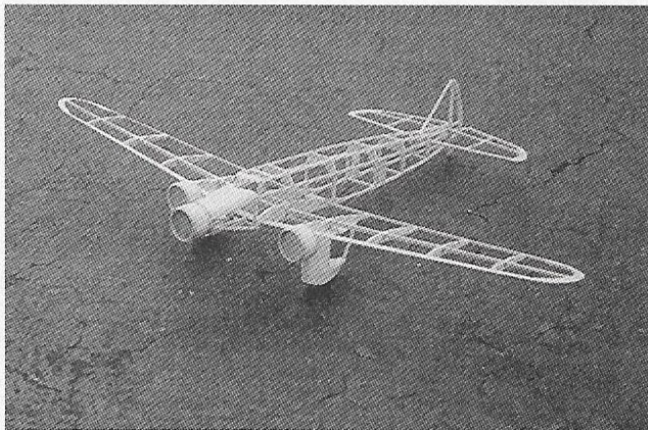
Unfortunately, the 332 crashed in January of 1934 in deplorable weather returning to France from a flight to Saigon. So impressed was Air France with the D-332 that an order was placed for four of the new and slightly larger D-333. Outwardly this D-333 looked just about identical to the 332. The series culminated with Air France acquiring twenty nine of the D-338, the final evolutionary design.

The model presented here was designed for outdoor flying and to conform to the Pseudo Dime Scale

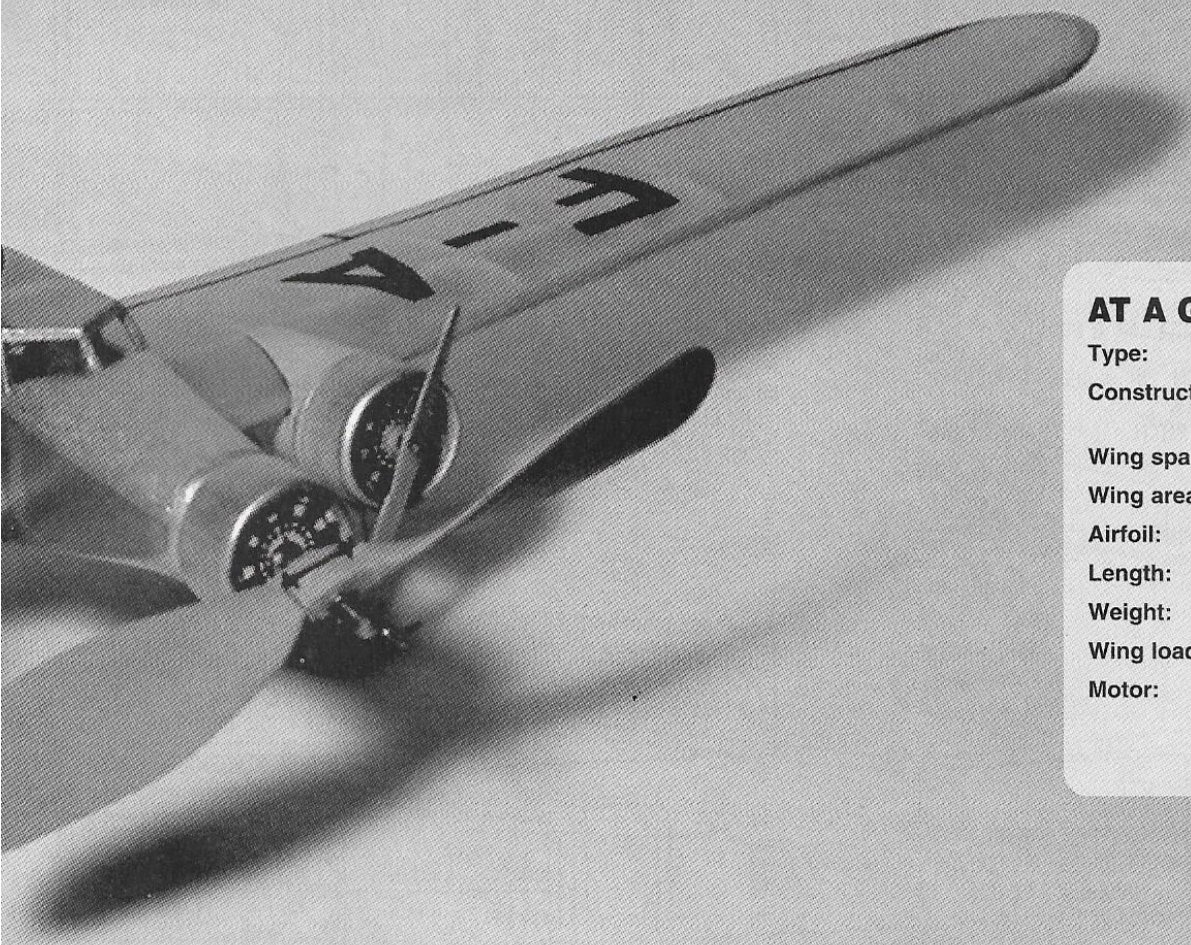
category of Flying Aces Club competition. It also lends itself to a reduction in size to fit Peanut Scale requirements. In this case wood size could be reduced accordingly in the interest of weight saving. If a modeler were to reduce it to Peanut size, it is recommended to reduce the fin at a lesser rate to ensure directional stability.

In spite of being a tri-motor, the model itself offers nothing unusual in the manner of its structure. Study the plan well before you begin construction, and keep yourself familiar with it as building progresses. Refer back to this text as well. The accuracy of the patterns given for the stiff paper parts is dependent upon the accuracy of assembly. But, you need not go hard on their fitting. After all, it is only a Pseudo Dimer. The dummy props for the outboard engines can be made very durable by making them two ply and anointing them with CyA which case hardens them. It is most important that you build in the washout of the outer wing panels. This feature is essential to ease of flight trimming and performance.

Before final assembly, make a dry run in fitting the outboard engine nacelles. Make sure that the motor cowl is lined up properly when the aft part of former C-N is in contact with wing rib B. And, don't forget to



**A look at the bare bones** will show that the model's structure isn't all that complex. Even the nacelles are fairly simple to incorporate.



## AT A GLANCE

<b>Type:</b>	FAC Pseudo Dime Scale
<b>Construction:</b>	stringer/sheet balsa card stock or stiff paper
<b>Wing span:</b>	15 inches
<b>Wing area:</b>	27 sq. in.
<b>Airfoil:</b>	Rhode St. Genese 26
<b>Length:</b>	10½ inches
<b>Weight:</b>	10 grams
<b>Wing loading:</b>	.37 gms/sq. in.
<b>Motor:</b>	12-inch loop, ¾ Tan II

## Bibliography

"Airliners Between the Wars 1919-39", by Kenneth Munson. The Macmillan Company, New York, NY, 1972.

"Atlas Letadel, Trimotorova Dopravni Letadla", by Vaclav Nemecek and Pavel Tyc. Czechoslovakian publication, 1979. Text in Czech.

"Popular Aviation" magazine, December, 1933.


make left and right hand wheel spats. It is a good idea to make a trial fit of these parts before you cover them and the wing. SP-1 must be tilted to match the dihedral angle of the wing so the spats will stand vertically when viewed from the front.

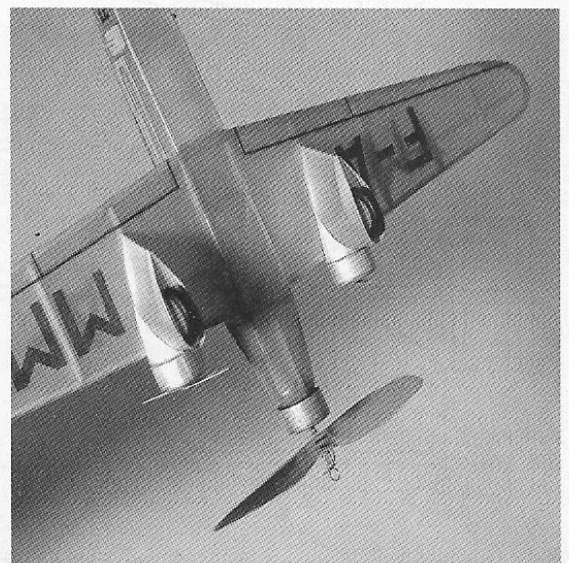
To avoid putting shims behind the nose cowl to obtain thrust line offset, try to drill in seven degrees of down, and two degrees of right thrust. This is equivalent to a ⅜ shim placed behind the nose block at the two o'clock position when viewed from the front. You may still have to add a thin shim somewhere to achieve the offset your particular model requires, as no two models are hard-

ly ever exactly alike. Note that there are no stringers between formers F3 and F4. This is to keep the interior of the nose as smooth as possible so no rubber knots will get hung up on structure. The fuselage formers through F6 are relieved for the same reason.

The propeller used was carved from a balsa blank ⅜ × ¼ × 4½ inches. Ballast consisted of three BBs pushed into the back of the bottom of the nose cowl. If the builder does not want to carve a prop, the small silver-gray plastic prop of 4.8 inches made by Sig may be tried as a substitute. (Sig refers to this as a 5-inch prop.) In this case, as much nose ballast may not be unnecessary, perhaps even none at all. If the model becomes nose heavy, try scraping the plastic prop with a single edge blade to get rid of excess material and weight.

It is not recommended to use a larger diameter prop. This will result in the need for more power and an increase in fin area. By keeping the power and fin size minimal, the model may be made to turn either left or right under power without

danger of spiral instability. The models performance with the balsa prop and one 12-inch loop of ¾ FAI Tan II or Super Sport will be found quite enough. 



Some parts, like the wheel fairings, are made from card stock or poster paper that has some stiffness.