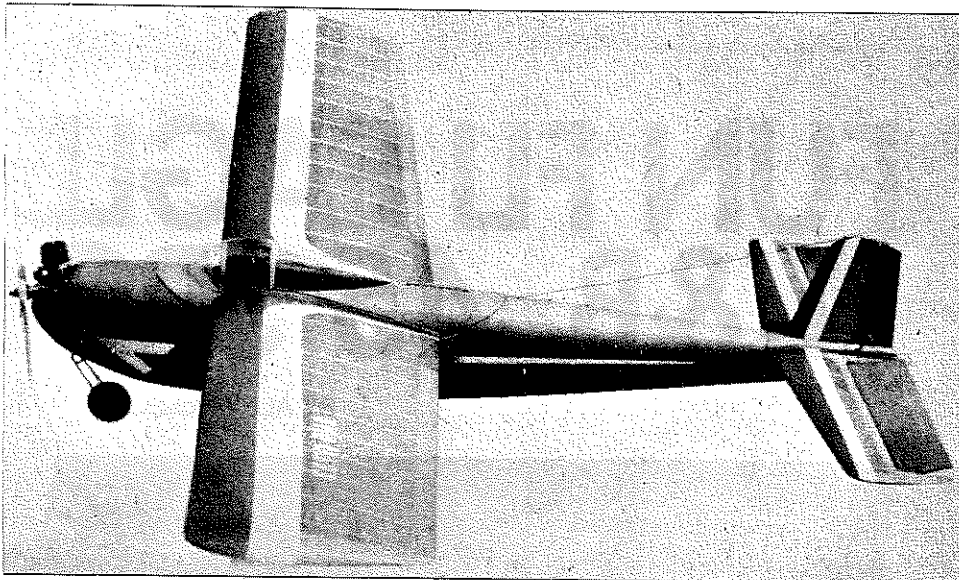
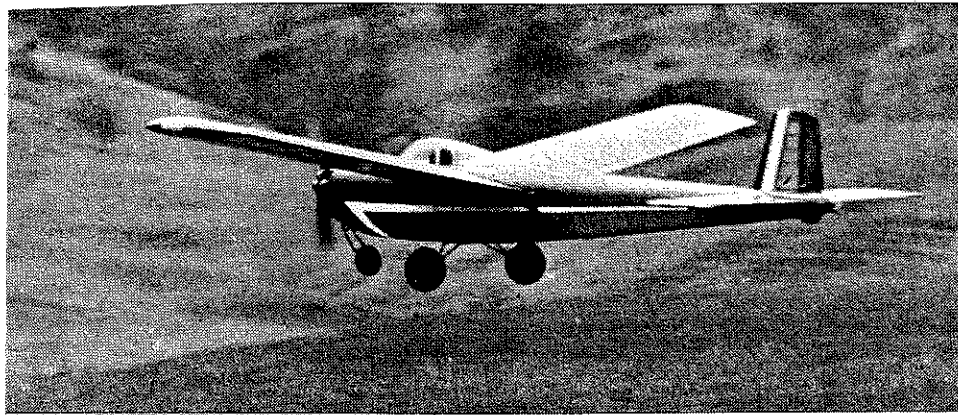


DALE ROOTS 'ASCENDER II'



A top California R/C pattern airplane from the late 1950's.

BY BILL NORTHROP

In the August 1957 issue of *Air Trails*... whoops... *American Modeler*, a construction article and plans were published for this ahead-of-its-time RC design by Oakland, California hobby shop owner, Dale Root. Called the "Ascender II," it had accumulated a whole bunch of trophies by the time it was published. Just to put you in touch with RC in 1957, in the same issue of this leading model magazine, there was a grand total of 15 ads for RC materials, of which only two advertised RC aircraft kits; deBolt and Babcock, and aside from miscellaneous electronic supply houses offering possible RC related items from their stock, there were only six radio control equipment ads; Ace RC, Bonner, Babcock, Bramco, Citizen-Ship, and C.G. Only one of

these companies, Ace RC, still exists today... and even then it was at Box 301, Higginsville, MO!

The first Ascender was flying in 1955 (that's 35 years ago!) and was considered a top pattern contender, even capable of performing all maneuvers in the 1957-58 AMA stunt pattern list. It was billed as the "West Coast Favorite," with several hundred having been built from Dale's plans before it was published. The original was flown with a K&B Torpedo .19, using a compound escapement on rudder, a three-position escapement on throttle (by way of a hand-built combination exhaust and intake choke system... there were no "RC" engines back then), and a trimmable-only servo (nicknamed "mail box") on elevator, all controlled by a three-channel Babcock BCR4 radio. (Turns out that Babcock was just around the corner from RCMB's present office location!)

At the time of publishing, Dale had installed a five-channel C.G. radio, using a new neutralizing Bonner servo on rudder

instead of an escapement, still a trimmable servo on elevator, and the three-position (high, cruise, and low) escapement on throttle. Power for the 5 pound, 4 ounce model was usually a K&B .29 or .35, more than enough for its needs back then. As Dale was planning to install an eight-channel Orbit reed radio a little later, the proposed aileron location was indicated on the plans. A word of explanation here. Eight channel in those days meant *FOUR* control functions, as it took two channels to run a servo in each direction. You can imagine the confusion that existed as proportional came into the picture! Newcomers to the hobby were reading about 10-channel reed systems that moved four controls plus trim on only one of them (elevator), and four-channel proportional radios that accomplished the same thing plus trim on *ALL* of them!

Trimmable-only elevator control may seem odd to some RC modelers now, and even more so back then. But in those days of lighter and slower flying aircraft, it had many practical points. The airplane could be trimmed for pitch attitude in flight (no big deal now, but nonexistent back then). If four blips of 'up' gave you the loop you wanted, then four blips 'down' would get you back to neutral. We later witnessed flying of a four-cylinder McCulloch-powered Norair military target drone that spanned 11 feet and cruised at better than 150 mph, that was flown with trimmable elevator *and* trimmable aileron, though the aileron also had gyro assist. The Norair engineer accepted my challenge and proceeded to perform beautiful loops, Immelmans, Cuban Eights, and rolls... much more than the straight passes with 180 turnarounds at each end as required for gunnery target practice.

Construction of the Ascender is very conventional ("straightforward," as they say), with an alternate rib pattern for those who don't want to mess with internal spars. The major construction difficulty for experienced builders, as far as we're concerned, is the carved and hollowed fuselage hatch that goes over the center section of the wing. These plans come from our "build it someday" collection. Note the addition of a dorsal fin, to help balance out the profile area distribution. No technical aeronautical engineering design backup for this, it just "looked better" to me.

To save you some head scratchin', the station numbers are located in the top view of the fuselage, and the temporary Former 1 and 1/4-inch ply firewall are shown upside down. Also, copying a trick we picked up from Jim Schmitt at Great Planes Model Mfg., the full size plan prints we offer will show the wing and stab plan upside down, so that when you turn the plan around to lay it on your building board, you can read the copy without twisting your neck. Ain't that clever?

Even if you're not interested in the Ascender for its Vintage RC value, it would still make a nice general sport/pattern aircraft that's just a little out of the current rut. Eh... what's 35 years?

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