

# THE STUNTWAGON

By HAL DeBOLT . . . From out of the past, a gut-wrenching, turn-on-a-dime-with-a-nickel's-change C/L old time stunter, from the certified old timer hisself, Pappy DeBolt.

- With the growing popularity of C/L old time stunt, there commences a search for unusual and outstanding designs of that period. With such a great abundance to draw from, the source seems unlimited. The end choice would seem to be something different.

The development of C/L stunt flying began in earnest at the end of WW II. Initially, if wingovers and inside loops were possible, you had a good thing. With a minimum of maneuvers possible, competition was of the "derring-do" variety; such things as "handkerchief pick up," "balloon bust," and "dual flying" became the order of the day. Obviously, it did not take long to use up all the tricks, so the future had to be with more acrobatic models.

The increase in maneuverability came with accomplishing inverted flight, which took a relatively long time to occur. Once inverted was a fact, progress was rapid, and by 1948, all the basic maneuvers were routine.

Dmeco Models was a definite part of this progress. However, Dmeco's major offering was its very successful "Bipe" series. Actually, along the way it did explore inverted flight with what would today be called a "sport scale" version of the FM-1 "Wildcat" Navy fighter. As a sidelight to this, it is interesting to note that development of this design was done with a simple version which established the concept for what would later be called "profile models." By this time the "big winged" monoplane had established a trend for C/L aerobatics. Dmeco entered this field with a radical new design which became very popular in a short time.

If you are a modern C/Liner who has never seen a "STUNTWAGON" perform you are probably in for a big surprise. If

today's C/L aerobatics would be compared to R/C Sport aerobatics, the Stuntwagon style would best be compared with the spectacular R/C Pattern performance. Both types of models perform in the same speed range.

The Stuntwagon had no lack of either power or wing lift. Coupled with the clean design was the big .60 engine pulling an abnormally large wing, using a fat, full-symmetrical airfoil. The short tail coupling produced the closest thing you could get to a flying wing without actually having one. To accentuate the cleanliness even further, a drop off gear was used to get rid of that drag and weight. The resulting performance was not only fast, the Wagon would turn on a dime and give you a nickel change!

To watch a Stuntwagon flight was an exhilarating experience, difficult to describe in this day and age. From the takeoff with its dropped gear, which occurred almost instantaneously, you knew that it was no normal model. First of all, it was on the end of long, 70-ft. lines, really moving around the circle, and it was obviously a "man's airplane;" to be sure, you held on with BOTH HANDS in level flight! Thinking back, the loads must have been terrific on that wing at the 100 mph-plus speeds and the end-for-end turning radius. In any case, it SOUNDED that way, as the vibration added a roar from the wing covering vibration to the bark of that big .60+ as turns were entered. A good Stuntwagon pilot garnered points easily; it was hard to see any glitches at those speeds!

Some sober thoughts about the performance would probably have today's judges quickly exiting their chairs rather than trusting the safety of it all. An example of the design's stability would be remembering when a really strong wind

slacked the lines while in an overhead eight; instead of blowing to the ground it simply freeflighted across the circle, gave the lines a good jerk on the other side, and continued its flight! Seriously, the Stuntwagon performance was not only spectacular, it was competitive in all levels of competition.

In the hands of many modelers the Wagons were flown with a wide variety of engines, from ignition Cykes and Spitfires to the glow Hornets and McCoys. It probably was at its best with the Atwoods, the "smoke stack" version being most popular. In the later stages a lightweight version was developed and flown with the classic Fox .35; this probably came closest to duplicating the C/L aerobatics we see today.

The structural design does not seem out of place, even today. The wing is interesting, considering the way it came about. The initial model used a thinner airfoil and less robust structure. Before it was built there was no indication of what the flying speed and turning ability would be. After a few flights, the need for something else became obvious, the wing simply exploded in a tight turn! The correction was a much thicker airfoil to knock about 10 mph off the speed and to add depth to allow the use of a truss-style spar.

The fuselage was simplicity exemplified; a hardwood engine crutch, screwed together, with 1/4-inch sheet sides glued to it and running practically straight back to the tail post. The fairing was shaped balsa blocks, top and bottom. Ruggedness was added with a stone-age version of glass cloth and resin. The fuselage covering was gauze bandage, with its pores filled by rubbing Ambroid cement into them. . . .

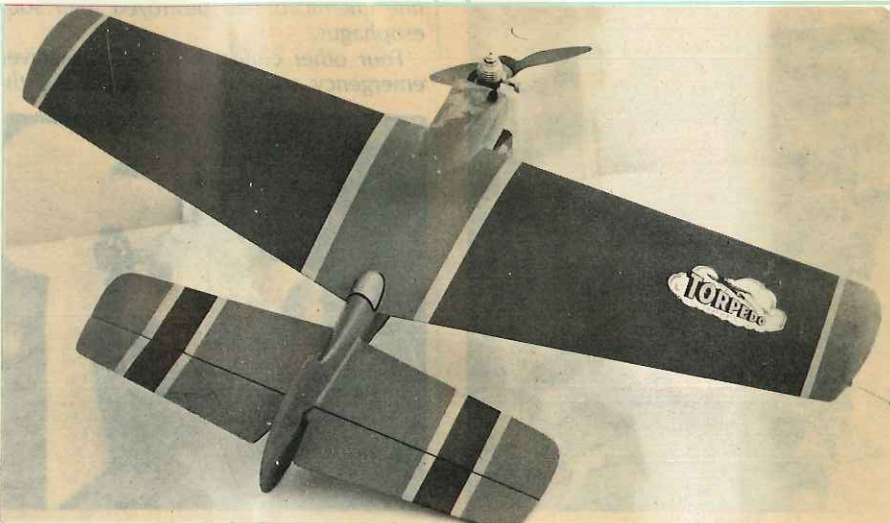
To keep the Wagon on the end of the

lines, it took four ounces of tip ballast to offset the weight of 70 ft., .016 solid steel wires. Another cute trick was carving rudder offset into the solid balsa fin-cabin block.

The basic Stuntwagon design evolved into two other kits of interest. One was labeled the "Stuntwagon 30" and was pretty much a scaled down version of its big brother. With .29 glow engines and 60 ft. lines, this version lost some of the all-out speed, however, the turning ability stayed with it and the performance remained excellent. In general, the structure followed the same practice and you wound up with a very similar model in a smaller size.

Speaking of smaller sizes, a happening occurred at this time period which shook up the modeling world for ever, it seems. K&B Manufacturing introduced a new engine which was labeled the "Infant." This little .02 glow engine did not offer much power, but in a day when an .09 engine was considered minute, it was sensational! The major problem with the engine was that there were no models suitable to fly it with... if you recognized the implication of the K&B offering it was obvious that a model kit to use it with was needed quickly. History would show that this was the beginning of "1/2A" and all that it has represented since then.

Dmeco recognized the need, and within a ONE MONTH period, a practical C/L model for the engine was designed, developed, and put into production! The basis for the design was, of all things, the big hotrod Stuntwagon. The resulting miniature clone was not very big, weighed only four ounces ready to fly, and was flown on 25-ft. "fish line." Labeled the "Infantwa-



Stuntwagon's baby brother, the Infantwagon, with K&B .02 glow engine for power. Predecessor to the 1/2A, the .02 allowed the Infantwagon to be flown indoors!

gon," the simple structure allowed assembly in an evening and it could be flown INDOORS. Nothing like it had been seen before and the concept was attractive as something different to do. Memory recalls stories of flying in church halls, school gyms, anywhere some clear space and interest could be found.

The little Infantwagon and that K&B .02 had its part in expanding interest in modeling at that time. The general idea opened up a whole new ballgame, and it was not long before a multitude of 1/2A type engines became available.

Obviously, with the minute .02 power, the Infantwagon had very limited performance and you flew indoors or in calm air only. Modelers being as they are, when

the "powerful" .049's appeared, you just had to bolt one onto an Infantwagon. The heritage was apparent immediately with this power, you could have a real ball with an .049 'wagon on 40 ft. lines!

At a buck ninety-five, Infantwagon kits could hardly be produced fast enough. Add the novelty of the little engines and the demand continued for quite some time. Kit production was in the many thousands.

What started out to be a description of a likely subject for the old time stunt movement turned into a bit of history. However, it is hoped that the point was made; if you would be looking for something different to suit this event, take a good look at the exciting "Stuntwagon."•



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