

A Smoothie History
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Transcribed by. Ken Goldman

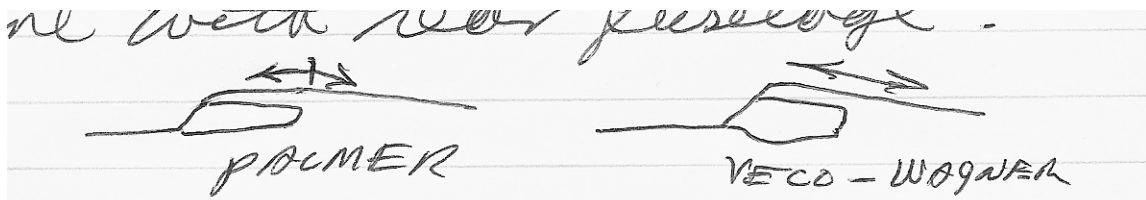


-A “Smoothie history” – Feel free to transcribe and circulate, if you wish. My info source, at least for early stuff, was Bob Palmer himself. Bob was a true “gentle-man” and greatly missed.

Palmer was working at Lockheed in Burbank in the early 50’s and wanted a better windy weather model than the typical “barndoor“ wing planes of the era such as the Chief or Go-Devil. In talking with “the wind tunnel guys” they’d suggested a Spitfire elliptical as optimal. A true elliptical wing is too complicated to easily build, so Palmer shaped the tips only, to an approximately elliptical shape. He also used an airfoil shape similar to the P-51 Mustang’s laminar- flow airfoil with a somewhat “pointed” front $1/3^{\text{rd}}$ or so. Tail shapes on the Smoothie are from the P-51 (my observation, not Palmer’s words). This was published in Air Trials in 1952, with plans drawn by Clarence Lee, later known as an engine designer for Veco, and author of a long running column on engines in R/C Modeler.

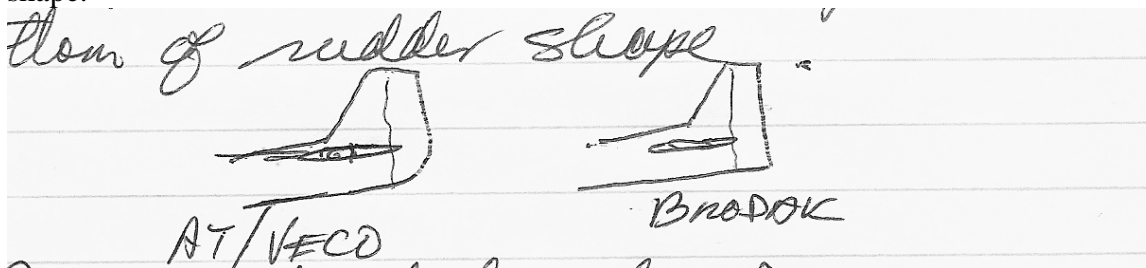
However the Lee drawn plan was somewhat different from Palmers model(s). Lee straightened the T.E of the flaps, which were supposed to be a curve to match “flow” of the rounded tips. (I’ve taken the liberty here to include my plan of what I call the Palmer Smoothie where you can see this in the photo included on the plan – that plane was in all the Veco ads, but did not match the Veco Kits!).

When Veco decided to kit the Smoothie, Joe Wagner again changed it, making the wing tip shape more “pointed” and keeping straight T.E. of flaps. He also raised top of canopy to keep a continuous line with rear fuselage.



My plan of Veco kit is drawn to replicate the picture in the ads. + on the box with inverted engine. The plan from Model Aviation is my update incorporating equal wings, nobler airfoil, and wing mounted L.G. and is called Smoother, not Smoothie.

When John Brodak decided to offer a Smoothie kit, and later, ARF, he had someone "update" it. It isn't really a Smoothie anymore as the airfoil is completely changed, the fuselage moments are longer, and the stabilizer/elevator are a lot bigger! He did keep the original "hump" canopy fuselage however. The wing shape is much like the Air Trials shape, but constructed differently. I noticed all these changes when someone hired me to build a Brodak Smoothie kit for them. There is almost zero relationship to the Air Trials or Veco versions! In addition, the Brodak models change the bottom of rudder shape.



I actually feel the Brodak Smoothie shouldn't be OTS legal, but Bob Palmer signed off on it, John is a friend and no one competes in OTS at a high level with one anyhow. (I won 2004 FCM contest in OTS with one though, probably top contest win in OTS for a Brodak Smoothie!)

What to build depends on what you want to do. If you want an OTS and Classic legal model to compete, build any of the Smoothie versions except the Brodak one. If you want an easy to build, or don't want to at all, get a Brodak kit or ARF. The best flying version is the Smoother version I did because of airfoil and equal panel wings, but it's only a Smoothie "look-alike". It's legal only for P.A. At Denver's altitude I'd put at least a .40 in any of them or you'd be lacking for power.

Palmer's later Thunderbirds came about because the Smoothie wasn't a good model for square maneuvers with its airfoil shape....it would stall easily. The thunderbird was obviously shaped after the P-47 Thunderbolt....though Palmer insisted it was not. I never knew if he was "pulling my leg", or simply didn't remember. I never found out before he died. The Brodak Thunderbird, like the Smoothie, is considerably changed from the Veco kit, as is the RSM kit version of the later inverted engine T-Bird. All claim to be "original", of course. The plan I drew of the Veco Smoothie, other than the nose was drawn from a kit, tracing the actual parts.

Hope this helps.

Tom.