

Adjusting power models --

Advice from some old (1957) experts

As published in the September 2002 issue of the Bat Sheet, the newsletter of the Strat-O-Bats Model Airplane Club of Puget Sound, Chris Weinreich, editor

The following was taken from the March edition of The Satellite, the newsletter of the San Valeers MAC. Editor Ralph Prey dug this material out of American Modeler, Jan. 1957 issue. The trimming methods of six of the top power flyers of that era were summarized -- Dr Stanley D. Hill, Carl Goldberg & Woody Blanchard, Jr, Donald Foote, Richard Sladek and Carl Wheeley. There was only space here for three of the six. --CW

Dr. Stanley D. Hill

First achieved fame flying "Amazon" designed by Mrs. Hill. Latest is series of "Hammerhead" models. Flew on International FAI free flight team. Lives in Santa Barbara, CA. "Hammerhead II" has 2° positive wing incidence, 0° stab setting and 0° thrust settings. Hand glides for loose right turn. Gradually increases turn to safe maximum. Accomplishes turn by tilting stab and slight right rudder. Says wing warping is dangerous and unreliable in any hot power job. Considers wing incidence and C.G. position as fixed factors which determine model's flight characteristics and are therefore to remain unchanged, unless desired flight pattern cannot be achieved with variations of stab incidence alone. Uses a seven second engine run for high powered models, 15 seconds if very low powered. Initial test flights made with very low power, increasing gradually to 2/3, then to full power. Prop on forward. Tries to avoid thrust adjustments but has used up to 3° side thrust. Agrees that downthrust is effective in "opening up" looping tendency on low thrust models. Ineffective on high thrust line models. Flies "Hammerhead" designs in left-right pattern. Pylons right-right. Believes good design much more important than adjustment knowhow. Considers high thrust-line models easier to adjust due to lack of prop wash effect. Thinks the more offsets and warps used, the harder the model will be to fly.

Carl Goldberg

World's most famous free flight designer, "father" of all pylon-type models. Best known prewar designs were "Zipper" and "Interceptor." Currently developing new free flight kit for his Chicago model concern. Model shown had 1.5° positive wing incidence, .5° negative stab setting, no downthrust. Hand glides for a very gentle left turn. Trims model for left-left flight pattern. Uses rudder, tilting wing and tilting stab, in that order as necessary to achieve proper turn. Says altering incidence angles on proven designs would depend upon last flight. On flight tests, uses a 7-8 second motor run with intake tube plugged about 80%. When glide is OK, uses side thrust to alter power turn. Does not change propeller to alter turn. Believes design furnishes basic flight capacity. Adjustment corrects errors in design and building but says it isn't always needed. Advises beginners to take time and make sure C.G. position and incidence are set up as shown on plan. Remove warps by steaming over tea kettle. Work up gradually from low to high power and get help from experienced flyers.

Willard S. "Woody," Blanchard

Three-time winner of National Model Plane Championship crown (1954, 1955, 1956). Tremendous contender in any free flight competition. Lives in Hampton, VA. Always uses 5° downthrust approximately 5° positive wing incidence and 2° positive stab incidence. Build pylon design if power loading is low. Hand glides first, then trims for right-right flight pattern. Uses both rudder and thrust adjustments for power turn. Tilts stab and uses rudder for glide turn. Corrects glide angle with stab incidence. Initial test flights begin with 5 second engine run with prop on backwards. Believes prop affects flight pattern but generally does not change props to alter power. Recommends ample dihedral and use of engine downthrust, rather than tight turn, to prevent looping under power. Feels beginners should build from kits, follow flying instructions by designer.