TRIMMING TIPS FOR SCALE MODELS

By Bill Henn

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"My experience has been that after a scale model has been trimmed to glide straight ahead by hand gliding, then the flight turn during the power mode can be set using thrust changes alone. Some wash adjustment may have to be added at this point to prevent the inside wing from dipping. After a good power pattern has been established, the glide may have to be slightly reset by very carefully adjusting the rudder through the process of trial and error. Sometimes, some of the side thrust has to be removed to get the glide back the way you want it. I often see many scale models flying fine in the early part of the power mode, or almost entirely through the power mode, which then suddenly turn in the opposite direction and spiral in. I think this may be a case of the power turn being too tight, which often requires that a lot of wash be used to keep the inside wing up. When the torque burns off, the model spins in the opposite direction, especially if you are using a rearward CG. A lot of down- thrust may counter this problem during the initial part of the power mode but, eventually, the model stalls and falls off to one side as the torque diminishes. I set the CG where I think it should be, usually at 35% of the cord. I just tack in the horizontal stab, leaving room for it to be shimmed if necessary. If the model dives during hand gliding, negative incidence is added. I always go for a flat "floating" glide never a shallow nose dive. If the model turns slightly In either direction, something is probably out of alignment and should be corrected before power flying. The only exception would be a very gentle turn caused by wing wash that was put in deliberately to keep the inside wing up. If the model stalls in flight it may be because the motor has bunched up at the rear, even though it may be braided. When the model lands, check the CG on the spot without disturbing the way the motor has settled. Another cause for stalling is often that the glide turn is too wide. Tightening up the turn slightly may cure the problem."