

VGs on My CM-30

Bill Clark (FL) - I slowly added VGs on each side of the canard and on each main wing on 8" centers. Instead of tufts, I used thin black sewing thread to get nearer the boundary layer during flight test. Without VGs, the canard began bobbing at 58 KIAS and air flowed instantly about 45 degrees to the direction of flight. At cruise, the CM-30 was very pitch sensitive. With the addition of 12 pairs of VGs, pitch sensitivity greatly improved. With 24 pairs, the canard began bobbing at 55 KIAS and I noticed additional stability/control on approach. Improvements continued until 40 pairs were installed with approach speed of 75 KIAS.

Then a very strange response occurred. At partial aft stick I saw 55 KIAS, while at full aft stick I saw 60 KIAS with no canard stall. The CM-30 began a 700 fpm stable decent which it held from 5000' to 1000' msl. IAS was closely monitored for possible excursion to zero. I've repeated it several times, exploring roll control at higher altitudes. Although roll is very slow with full aft stick, there is some. Has anyone else noticed this?