
From: Nigel Thompson [REDACTED]
Sent: Saturday, November 18, 2017 7:52 PM
To: Folkerts Michael [REDACTED]

Mike, some more information for you.

We flew two Bonanza's, one standard and mine with the STOL conversion, both in the same morning.

First flight.

1966 V35. Standard airplane, no tip tanks or other major modifications. Gross weight approx. 3000lbs. This was for me to have a current baseline against which I could then compare mine.

Second flight.

1970 V35B, STOL conversion, Tip Tanks and Turbo Normalized engine (only significant because of weight forward of datum and hence further forward CG). Gross weight approx. 3100 lbs and CG approx. 1 inch further forward than standard airplane and about one inch aft of the forward limit for that gross weight.

Conditions very similar for both flights and test were performed between 2000 and 2500 ft agl. Initial configuration was same for both flights, level flight at 80kias, gear down. The flaps were extended with no pitch input at the yoke so we could see what happens in the case of no pilot input.

Compared to the standard Bonanza the STOL airplane going from clean to Flap 15:

Has a slightly more pronounced pitch down than the standard airplane. The descent rate maxed at about -1000fpm, similar to the standard airplane. Speed increased to 100kias in both cases. Pitch recovery force to level flight lighter on the standard airplane, but not significantly so. We used flap 20 on the standard Bonanza as a typical setting for approach, the STOL version does not have continuously variable setting, but only 15 and 30.

Compared to the standard Bonanza (going from flap 20 to 30) the STOL airplane going from flap 15 to 30:

Has faster and steeper pitch down, to around 20 degrees nose down. Descent rate increased to more than 1500 fpm and speed increased to 110 kias (at which point we started recovery). Recovery to level flight required more force than the standard airplane, but still easily managed. An

experienced Bonanza pilot (owner of the V35) who had never flown the STOL version before who was with me also then tried flap extension while maintaining the pitch attitude and then trimming (in other words normal flight operation) and commented on the more marked pitch down force and therefore more trim needed to offset, especially from flap 15 - 30.

We also tried going from flaps up to flap 30 in one go on the STOL airplane and essentially got the same result as the Flap 15-30, but with a further increase in rate of pitch change and descent rate (stick free).

[REDACTED]

[REDACTED]

[REDACTED]

Hope this is helpful for you.

Call me if you need any more information about the handling differences, or indeed anything else I can help you with.

Happy Thanksgiving,

Nigel