# McGETTRICK STRUCTURAL ENGINEERING, Inc.



12513 E. Castlewood Ct. Wichita, KS 67206 Email: Info@McGettrickEngineering.com

Built on a Foundation of Integrity<sup>TM</sup>

# 100-lb Gross Weight Increase of Beech Bonanza STC (FAA Approved)

## Supplemental Type Certificate Number SA01091WI

Models: N35 and P35

**FAA Approved STC (Supplemental Type Certificate) Allows:** 100–lb Gross Weight Increase (from 3125 lbs to 3225 lbs) with no major modifications required.

**Rationale for Weight Increase:** These aircraft were originally certified in Utility Category, with the Maximum Takeoff Weight equal to the Maximum Landing Weight. The FAA allows the landing weight to be 95% of the maximum takeoff weight. Since the landing gear is already certified to 3125 lbs, 95% of 3225 lbs is less than 3125 lbs, which satisfies current FAA regulations. To substantiate the remaining structures (wing, fuselage, empennage) the aircraft must be flown under normal category for the increased weight.

### **Revised Operating Parameters:**

- Aircraft will take longer to takeoff, climb, and land.
- Stall speed at 3225 lbs increases by one knot.
- The forward C.G. limit remains the same at 82.1, but the aft will be restricted to 85.0 to ensure stability and elevator control at 3225 lbs.
- Taxi on relatively smooth paved runways at 3126 3225 lbs.
- Flight will be restricted to Normal Category at 3126 3225 lbs.

### **STC Package Includes:**

- Copy of the STC certificate.
- Signed letter specifically authorizing your S/N aircraft to legally use the STC.
- POH Supplement that details the revised performance and operating limitations.
- New placard to replace the existing Utility Category Airplane placard.