Winds System Calibration Flight Plan

Purpose: Conduct an aircraft to obtain data for calibration the gust probe wind system that accounts for airflow around the aircraft, which changes depending on aircraft configuration.

Procedure:

For the Citation Research Aircraft, air speeds are ~ 140 , 180 and 225 knots. Repeated at three altitudes (i.e. 10,000 ft, 20,000 ft, and 29,000 ft)

- 1. Take off and climb to first altitude.
- 2. Fly at minimum airspeed in level flight (i.e. 30 seconds or better 3 minutes).
- 3. Transition to **3 porpoises**, approximately 100 ft altitude change each side, approximately 20 seconds for each.
- 4. Back at original altitude, **Yaw** the aircraft left and right approx. **8°** (Maximum of 10°), **3 times**. Approximately 10 second for each.
- 5. Regain Level Flight, and reverse direction.
- 6. Repeat 2-4
- 7. Accelerate to a medium speed.
- 8. Repeat 2-5.
- 9. Reverse direction, and accelerate to a maximum speed.
- 10.Repeat 2-4.

11. After the 3 airspeeds are repeated, Climb to next altitude and repeat.

