

## 1.0 Flight Calibration Procedure

The AIMMS-20 Flight Calibration Procedure is described below:

1. Power up the AIMMS-20 system.
2. Start aircraft, taxi and ascend to an altitude at which you will be insured smooth air with a constant wind field. Depending on the prevailing meteorological conditions this may be well above the temperature inversion and/or cloud top.
3. Select a true air speed (TAS) range from a comfortable margin above aircraft stall to a comfortable margin below maximum cruise. Select the minimum and maximum calibration speeds in consultation with the pilot flying the calibration flight to determine what he is comfortable with.
4. Start the calibration procedure by setting up on a true north heading at the lowest airspeed selected in step 3 above.
5. At this lowest airspeed perform a yaw manoeuvre yawing the aircraft approximately 5 degrees to port followed by 5 degrees to starboard, or vice-versa, at a rate of approximately 5 to 10 seconds into the yaw and 5 to 10 seconds back out for a total of 20 to 40 seconds for the complete manoeuvre.
6. Once the yaw manoeuvre is complete, hold the lowest airspeed on a constant true north heading for approximately 10 seconds and then increase the airspeed slowly covering the complete speed range, min to max, selected in step 3 over a period of 60 seconds.
7. At the highest TAS repeat the yaw manoeuvre.
8. Turn the aircraft around 180 degrees and set up on a true south heading at the highest airspeed.
9. Repeat the yaw manoeuvre.
10. Decrease the airspeed continuously as described in step 6.
11. Once again perform the yaw manoeuvre at the lowest TAS setting.
12. Return to base and land.
13. E-mail the log file to [bwoodcock@aventech.com](mailto:bwoodcock@aventech.com) for post-processing. The new calibration parameters will be e-mailed to you for programming into the AIMMS-20 system.