

Static Port Location Calibration Analysis

Test Date/Time: 2022/01/06 15:01

Notes:

Static port calibration flight test started 1/6/2022 15:15:39. During this flight test the indicated airspeed was increased. Analysis run 2/15/2022 16:07:34.

Add your notes here to remind you of any configuration changes you made before the flight, or will make after the flight.

SUMMARY: During this static port location test your indicated airspeed increased from 110 MPH to 120 MPH. Analysis shows that your static pressure port(s) are being subjected to slightly lower pressure as airspeed increases. Therefore, at higher airspeeds your indicated altitude will read higher than it actually is.

Analysis: The first graph (below) shows the GPS (blue line) and indicated (green line) altitudes. The indicated altitude is measured by the plane's static port(s). If the static port(s) are installed in a neutral pressure area the distance between the GPS and indicated altitude lines will be constant as the airspeed increased.

The second graph (below) shows the distance between the GPS and indicated altitude readings (red line). A straight horizontal line would indicate that the static port(s) have been installed in a perfectly neutral pressure area, and that changes in airspeed do not affect pressure at the static port.

Analysis shows that your static pressure port(s) appear to be subjected to slightly lower pressure as airspeed increases. Therefore, at higher airspeeds your indicated altitude will read slightly higher than it actually is. The difference between the GPS and indicated altitudes varied by 43 feet during this test. See JASFlyer.com/FAQ/AN4.aspx for additional information that may help you to interpret these results.

