

ALPHA SYSEMS AOA PRESS RELEASE

The Alpha Systems AOA Indicator is a potentially life-saving instrument in that it keeps the pilot aware of available lift and margin above actual stall, increasing precision and confidence for all pilots regardless of the number of hours flown and skill level. Pilots who have learned to fly by Angle Of Attack in the military agree that many fatal accidents could have been prevented if the pilots had accurate and instantaneous display of how much lift they had before stalling.

The Alpha Systems AOA indicator maximizes a pilot's awareness of airplane performance during take-offs, landings and emergencies. It's constantly providing a clear picture of the flight envelope – all a pilot has to do, is look at it, to immediately see what is happening to the wing, available lift.

The system was primarily designed as a standalone device to improve operational safety of airplanes by increasing pilot awareness during operations at high angles of attack. This AOA system meets the stated objective of the FAA's Advisory Circular, AC 23.1309-1C, **“To improve the safety of the airplane fleet by fostering the incorporation of both new technologies that address pilot-error and weather related accidents and those technologies that can be certified affordably”**

The AOA system comes complete with all parts necessary allowing installation in most aircraft. Everything for the kit weighs less than 2 pounds, AOA information comes from a simple, stationary AOA probe mounted at a starting angle of 50 degrees to the cord of the wing. The probe measures the change of differential pressure corresponding to the aircrafts linear range of AOA from Cruise, up to Stall. The AOA probe comes complete with its own mounting plate, cut to the shape of an existing inspection cover, positioned in undisturbed air, outside of the prop wash, typically 6” from the leading edge and 6” up from the trailing edge. Two hoses supply the AOA information to the cockpit where the air data electronics sends information to the display. Since each aircraft has a different coefficient of lift due to the design of the wing, the AOA will be calibrated by the pilot, in flight, to two set points 1.) Optimum Alpha Angle (OAA), and 2.) Cruise. After calibration values are entered, other in-flight values such as VX, VY, Stall, Max Climb Angle, and other in-flight dynamics can be referenced simply by identifying the corresponding number of LED's that are on.

With multiple sizes of digital LED displays and mounting options along with the non-electric mechanical needle displays available, the pilot has the flexibility to locate the AOA display in many locations and orientations in the cockpit.

Adding AOA in every cockpit will give pilots an absolute indication of when the wing will stop flying, every time. Too much lift can be as dangerous as not enough. AOA gives the GA pilot what the military and commercial aircraft manufacturers have known for years, it's about flying SAFE.

