



ABOUT THE ALPHA SYSTEMS AOA

Alpha Systems AOA provides angle of attack information critical during slow flight.

The two important factors of slow flight:

- Exactly when the wing will stall
- The slowest possible airspeed allowing full elevator control while maintaining zero vertical speed.

With this additional knowledge, you will be amazed at how much more efficiently your aircraft can operate.



TYPICAL AOA PROBE LOCATION

The probe is solidly mounted under the wing on most airplanes. Twins, jets and ultra-lights with pusher props can mount it on the nose or canard. The important point is to mount it outside of the prop wash area in clean air flow.



AOA PROBE

The probe has two holes (ports) in the end. Both ports receive ram air (dynamic pressure). The green line points to the leading edge port. Air in this area drives the indicator to the green (good). The red line indicates the bottom port that drives the indicator to the red (bad).



PROBE & MOUNTING PLATE

The design of the probe allows differential AOA pressure readings to be displayed in the cockpit. Once calibrated, the probe will give the pilot an instantaneous AOA reading based on the aircraft's angle of attack.

THE ELECTRONIC KIT INCLUDES



Alpha Systems AOA probe, mounting plate, hoses, fittings, control module, mounting hardware, and choice of digital display.

THE MECHANICAL KIT INCLUDES



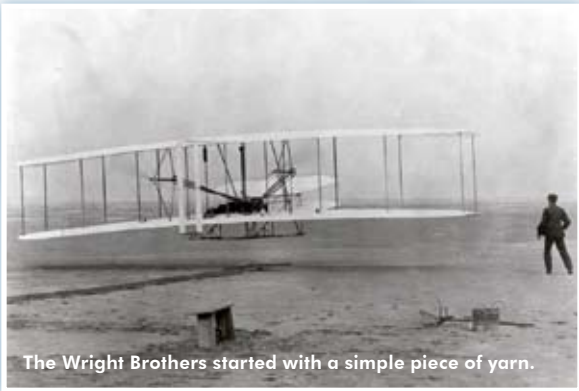
Alpha Systems AOA probe, mounting plate, hoses, fittings, mechanical gauge, case and mounting hardware.

YOUR CHOICE OF DISPLAYS

- 2.625" round mechanical gauge
- 2.25" round LED digital instrument with audible warning
- 4"x1" vertical or horizontal LED digital instrument with audible warning



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The Wright Brothers started with a simple piece of yarn.

Angle of Attack and airspeed are the two fundamental components of lift. The Alpha Systems AOA provides a visual display of the amount of available lift throughout its slow speed envelope regardless of the many variables which act upon an aircraft. The Alpha Systems AOA also provides a continuous visual reference of an aircraft's margin over stall at any airspeed. This allows a pilot to continuously monitor their aircraft's performance since the Alpha Systems AOA responds instantaneously to pilot control and wind conditions.

In 1998, Terrance O'Neill Reported in Kit Planes Magazine;

"Unintentional stalls are the leading cause of general aviation accidents".

The Navy's miraculous safety improvement 42 years ago was missed or ignored by general aviation. We still have a lot of fatal crashes because we don't use AOA to avoid stalls.

Wrongfully, students continue to be instructed that the airspeed gauge is the primary instrument to monitor during approaches.



- According to NTSB records as of 2001, 28% of all general aviation type-certified airplanes, 5222 fatal accidents were caused by unintentional stalls.
- Among experimental amateur built aircraft some 318, or 45.3% of all 701 fatal accidents were caused by unintentional stalls; they all can't be wrong.
- As a student pilot I can still hear my instructor "remember Grasshopper, the airplane will stall at any airspeed, any altitude, but always the same Angle of Attack"
- The Navy teaches pilots to fly only **Angle of Attack** when landing on ships.
- Commercial airlines use AOA information to establish proper speeds.
- The Alpha Systems AOA is an investment in performance, safety and economy. The Alpha Systems AOA needs only to be scanned once in any situation for it's significance to become immediately obvious to anyone flying with it on board.
- The Alpha Systems AOA is a potentially life saving instrument by keeping the pilot aware of available lift and margin above actual stall thus increasing precision and confidence for all pilots regardless of number of hours flown and level of skill.



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