

On The Ground Or In-Flight Lightning Detection

STRIKE FINDER®

Digital Lightning Detection



Insight

Avionics Inc.

www.insightavionics.com

New Display Outshines The Competition

Insight's New **STRIKE FINDER**® now provides pilots with the brightest weather avoidance display in aviation today. This state-of-the-art digital weather avoidance system maps lightning strikes on a new ultra bright **LED** in-cockpit display. On the ramp, in the clouds or between layers **STRIKE FINDER**® provides a 360° perimeter of detection with ranges of 25, 50, 100 and 200 nm away.

There's no better friend during thunderstorm season.

Exceptional Accuracy For Better Deviation Decisions

No more guessing when and where to deviate when thunderstorms begin to build.

The moment **STRIKE FINDER**® is activated you'll know if a thunderstorm is lurking in the haze or hidden among innocent looking clouds.

From engine start to shut down **STRIKE FINDER's**® sophisticated sensor continually searches for, and identifies, electromagnetic signals emitted by lightning strikes.

The key to exceptional performance is processing capability. **STRIKE FINDER's**® powerful and rugged digital signal processor performs approximately 20 million measurements per second to eliminate false readings and accurately plot current thunderstorm intensity, distance and bearing from your position.



STRIKE FINDER's® digital design is certified for IFR operation and protected by seven patents.

Superior Situational Awareness

When you need to circumnavigate a cell, the zoom feature lets you look at thunderstorms in greater detail. With the touch of a finger you can scan up or down through range settings of 25, 50, 100 and 200 nm.

The shorter the range the more defined a cell becomes. Regardless of what setting you select, **STRIKE FINDER**® continually monitors storm activity within a 200 nm radius of your position.



Monitor Storm Progress

STRIKE FINDER® also gives you the capability to track storms. The Time Travel function allows you to replay the past one hour. This storm data is compressed into a one minute playback so you can quickly determine if cells are building or dissipating along your route of flight.

New Easy-To-Read Ultra Bright Display

Pixels depicting lightning intensity and location appear on a panel mounted LED display. The **STRIKE FINDER**® display is ultra bright. Yet there is no glare.

Even with the sun shining directly on your panel, **STRIKE FINDER**® outshines all the competition. After sunset no adjustments are necessary. The display dims automatically to protect your night vision.

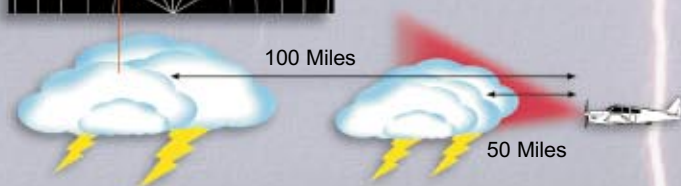
You will especially appreciate the display on long cross country flights.

STRIKE FINDER® uses only half the power of a CRT. There is no excessive heat build up that effects other instruments and forced-air cooling is not needed.

STRIKE FINDER® Advantages Over Radar



STRIKE FINDER® locates all the activity within a 200 mile range.



The most obvious shortfall of radar systems is their inability to measure lightning. Remember, all thunderstorms emit lightning, a force that could be catastrophic to any aircraft.

Other important **STRIKE FINDER®** advantages over radar are: range, field of view, detection, sensitivity to storm severity and sensitivity to storm height.

Stabilized Heading With Or Without Slaved Compass System

The Stabilization Module provides data to the **STRIKE FINDER®**, enabling displayed lightning strike information to rotate relative to heading changes. Operation of the Stabilization Module is automatic; no field configuration or calibration is required.

- Eliminates the need for a slaved compass system.
- Totally self-contained sensor and data processor.
- Contains no rotating gyro.
- Gone forever are those periodic overhauls that are necessary with common rotating gyro systems.

Upgrade Option

The Stabilization Module can be installed into any one of our existing **STRIKE FINDERs®** or simply specify when ordering a new **STRIKE FINDER®**.

Skin Map Your Aircraft With Dealer Mode

Installation Skin Map

The **STRIKE FINDER®** unit can be used to skin map the aircraft.

Here's how:

Before permanently installing the cable, run it along the outside of the aircraft. Connect the sensor and display unit and turn the unit on. The display unit should be mounted already in the panel. Boot the **STRIKE FINDER®** into dealer mode by holding all four buttons in until the first sunburst occurs. After booting a trigger counter will be in the bottom left hand corner.



Turn ALL aircraft systems on. With a helper holding the sensor flat on the aircraft skin, move the sensor to various locations on the aircraft while watching the trigger counter. Find an area on the aircraft where the least amount of triggering occurs. Ideally, the **STRIKE FINDER®** should only trigger once or twice every 30 seconds.

Diagnostic Skin Map

Pull all breakers in the aircraft. Turn only the **STRIKE FINDER®** on and boot the unit into dealer mode by holding all four buttons in until the first sunburst is complete.

The unit will sunburst 4 more times and 2 rings of dots will appear as well as a trigger counter. Press clear to remove the dots which are not needed.

Begin turning on the aircraft systems. Wait at least a minute between each system. If the unit begins to trigger, you have just found the problem.

A correct installation is with all systems turned on and no triggering.



Operation

After completion of the power-up system diagnostics **STRIKE FINDER®** begins acquiring data immediately.

Illuminated pixels indicate electrical activity on a 200 nm radius display. Clusters of pixels indicate active storm cells.

The Zoom Control buttons (in the bottom center of the display) will alter the range setting up and down through 25, 50, 100 and 200 mile radius displays.

The Display Clear button blanks the display and removes all data from memory. In an unslaved system Display Clear is used to maintain a valid display during heading changes.

The Time Travel button displays lightning strikes in a time-compressed format to show cell movement. When the time-lapse display is finished, **STRIKE FINDER®** returns to real-time depiction.

Installation

The Display/Processor mounts in, a standard 3.125 inch hole with 4 panel-accessible screws. The Active Sensor is mounted externally on the bottom of the fuselage. In composite aircraft it can be mounted internally. A pre-wired cable connects the two assemblies.

A built-in interface to Bendix/King KCS-55 series compass systems makes slaving a no-cost feature. **STRIKE FINDER®** will slave directly to KCS-55 systems without the synchro option or, to any compass system with standard synchro output.

STRIKE FINDER® is a panel mounted system and contains no remote box or additional hardware only the Display/Processor, Active Sensor and the Connecting Cable.

Components



Display/Processor, Connecting Cable and Active Sensor

Specifications

Size:

3.19"H x 3.19"W 9.40"D (Display)
0.96"H x 3.95"W x 4.95"D (Sensor)

Weight:

1.2 lbs. (Display/Processor)
0.6 lbs. (Active Sensor)
2.3 lbs. (Installed)

Power:

0.7 amps at 14 volts
0.35 amps at 28 volts

Approvals:

IFR Certified in the United States, Canada, Great Britain and France.
Protected by seven patents.

Warranty:

STRIKE FINDER® is warranted for two years from date of purchase against defects in materials and workmanship.

Call Now

Tel: 905-871-0733

Fax: 905-871-5460

Box 194, Buffalo, NY 14205-0194

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