

RESEARCH ELECTRONIC PROTOTYPING

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To Whom It May Concern:

Nova Research became involved in the design of electronic devices to track weather phenomena in the early 1990s through development projects with the University of South Florida and SAIC. Our involvement broadened with the redesign of the Skyscan in 1994. I the principal developer of the lightning detection electronics in both the Skyscan and Thunderbolt devices, and also the developer of the firmware used in both devices.

The Skyscan and Thunderbolt use slightly different detection methodologies. Skyscan uses two detection antennas both to eliminate spurious noise from the detected signals and to calculate the range of each stroke detected. Its display, gives the user the ability to see each stroke immediately and take action when appropriate.

The Thunderbolt uses a single antenna and sophisticated software to achieve similar ranging functions. The Thunderbolt uses additional routines to determine motion and speed, which the current Skyscan unit lacks. The Thunderbolt, while having more display features, also requires **dozens** of strikes to compute the necessary parameters to alert the user about the distance and speed of the storm.

As such, the Skyscan is better at providing immediate strike detection and ranging, particularly the first several strikes, while the Thunderbolt provides tracking and timing functionality unavailable on the Skyscan.

It is disingenuous to claim that one device is "superior" to another. Both devices detect lightning strokes, visually notify the users, identify severe storm activity, and they both provide accurate ranging information. They only differ in the time taken to present the information, and the depth of the information provided.