

Flarm Collision Avoidance Technology: Basics (by Jamie Shore)

Looking outside is paramount but getting a transponder and/or FLARM is helpful.

Research indicates that in the United States, 60% of glider midair collisions have been in the vicinity of the local airport or in the traffic pattern. After stall/spin, midair collision is roughly tied for second as a source of fatalities from accidents involving gliders. ([Article: May 2014 Soaring](#)). In a ten month period between 2009 and 2010, there were six glider related mid-air collision fatalities. [More details on the accidents...](#)

SCOH is in the planning stages of installing electronic collision avoidance technology in club aircraft (tow planes and gliders) and PowerFlarm is currently the preferred option for gliders. For the purposes of this column, PowerFlarm will be referred to as Flarm. This is the first part of an ongoing series of articles discussing the operation of Flarm, experiences from other clubs (see link near bottom) and individuals as well examples of the installation process and hardware opinions.

Who Sees What?

Flarm **does** see Flarm, ADS-B and transponder equipped aircraft. ADS-B, TCAS, PCAS and transponder equipped aircraft **do not** see flarm but a large part of the focus of Flarm for us is primarily glider to glider and glider to tow plane collision avoidance. For this, flarm is the best technology currently available.

Many of the technologies mentioned above are used in other areas of aviation. ADS-B is the FAA's "Next Gen" of traffic management and Flarm sees ADS-B. TCAS is widely installed in airliners, fast jets and military transport aircraft. TCAS equipped aircraft always have transponders so Flarm will see their transponder. PCAS is often used by GA (general aviation) airplanes. Since approximately 95% of GA aircraft are also equipped with transponders, the PCAS feature of PowerFlarm is very useful.

[Read more details in the Tech supplement to the May 2014 Soaring Magazine Article.](#)

The topic of Flarm will be an ongoing column hopefully written by and contributed to by many more members. In future SCOH newsletters, we will feature the installation and experiences from other private ship owners. In the meantime, see the following:

- [Flarm in a club setting: TSA \(Texas Soaring Association near Dallas\)](#) Describes TSA's experiences, lessons learned, hardware choices with notes and 50 pics from a recent visit to TSA
- [Installation in ASH26E](#) Convenient location to mount antennas in fiberglass nose

Two of the many displays that are available.

