

# Personal Locator Beacons

*By Ira Orenstein*

Recall the book *127 Hours: Between a Rock and a Hard Place* by Aron Ralston (and the subsequent motion picture). In 2003 the author got his arm trapped under a dislodged 800 pound boulder while canyoneering in Utah and ... well, you know the rest of this grueling true story. Imagine how the outcome would have differed had he a way of sending a distress signal to activate a rescue. Since that time the personal locator beacon (PLB) has become available to outdoor enthusiasts, with exactly that capability. (Mr. Ralston became the promoter of a PLB produced by ACR Electronics.).

One of the wonderful characteristics of the Catskill Mountains is the remoteness of much of the terrain. In how many remaining places in the Northeast do we still have the opportunity to explore deep, rugged wilderness and ascend trail-less peaks. In many areas of the Catskills cell phone coverage is spotty or non-existent. In such surroundings, carrying a device that in a life-threatening emergency can launch a rescue surely makes sense, especially for the solo hiker or small groups. There are several PLB brands on the market. I own the McMurdo Fast Find 210.

A PLB is an electronic device that when activated in an emergency transmits a 406 MHz distress signal to a satellite that is then relayed to the Air Force Rescue Coordination Center (AFRCC) usually within 5 minutes of initial deployment. The signal has a unique identifier that cross-references to the registration details that the user provides the National Oceanic and Atmospheric Administration (NOAA) upon initial registration. The PLB that I own also transmits an additional 121.5 MHz homing signal that helps Search and Rescue further zero in on your location. It also has a GPS receiver that can further reduce rescue time by transmitting coordinates. PLBs can be used anywhere in the world (check with each country for registration requirements).

Activation of the PLB requires three steps (to minimize the likelihood of accidental deployment). Transmission of the first signal is delayed for 50 seconds after activation to provide sufficient time to turn off the PLB in the event of accidental deployment. An LED light SOS signal pattern can be deployed to help searchers visually locate you at night.

I hope to never need to activate my PLB. That said, I found when researching this piece of technology a consensus that PLBs and their associated support systems are extremely reliable.

Another popular but somewhat different type of product is a unit that transmits to one of the commercial satellite networks, such as Iridium or Globalstar. SPOT LLC and Delorme both manufacture such units, the Personal Locator and InReach units respectively, as of this writing. The greatest strength and appeal of this type of product is its ability to create a tracking map and to send pre-programmed text messages to a predetermined recipient. SPOT works by determining your GPS position and transmitting the coordinates to commercial satellites. These in turn relay the information to the GEOS Rescue Coordination Center for appropriate

disposition. Unlike the Fast Find 210 PLB, SPOT depends on the ability to achieve a GPS fix prior to transmitting a signal. I sent a query to [3500club@yahogroups.com](mailto:3500club@yahogroups.com) in an attempt to get feedback regarding the reliability of SPOT in the Catskills. I received only one reply and that respondent noted that she had an older model and that it worked fine in the Catskill region. It's important to note that the SPOT and Delorme units require subscription to a service operated by the companies, whereas a PLB makes use of publicly available search and rescue channels. However, activation of a PLB is an essentially irrevocable act, whereas the units using commercial satellite networks enable reassuring messages of lower priority (for example. "I'm OK, but will be back later than expected").

In summary, I feel that the ownership of a PLB by people who venture into the Catskill wilderness should be strongly considered. Needless to say, technology in this field is rapidly evolving and I anticipate that the consumer will over time have an increasing array of products and feature to choose from.

**\*\*\* Please note that activation of a PLB should only be performed as a last resort in the event of grave and imminent danger, where self-rescue is not a possibility.**