

What is AirFlare?

AirFlare is a set of tools that helps Search Teams quickly determine the exact location of an outdoor adventurer in need of assistance via their cell phone, in and out of cell service. AirFlare has tools to help find people with or without the AirFlare app on their phone, but the technology is a lot more powerful when they do. The AirFlare app also has a set of self-help features that make it easier to request assistance, as well as a location sharing feature that helps adventure partners stay connected, potentially reducing the number of assistance requests initiated to Search Teams.

How does AirFlare work?

An outdoor adventurer downloads the AirFlare app to their IOS or Android mobile phone and fills out a short profile which is stored in a Registry. That's it, once downloaded, the AirFlare app does not need to remain open. There is no user action necessary to be discoverable by a search team looking for you, or by a previously authorized contact who has initiated a request for your location. Following is a list of AirFlare abilities and features:

Self-help and Location Sharing Capabilities (Requires cell service).

1. Ability to query the location of a friend or family member's phone and view on a map.
2. Ability to query emergency contact information specific to your location. For example, the number for ski patrol at the resort you are skiing at, or whether the county you are currently in has Text-to-911 capability.
3. Ability to pull your phone's GPS coordinates into a text message and send to an emergency contact, to 911, or to a first responder dispatcher such as ski patrol.
4. Ability to use your phone's camera flash as a power-conscious SOS strobe

Searching for an AirFlare Subscriber:

If an assistance call is reported for an adventurer, a search team checks the AirFlare Registry. If the subject is an AirFlare subscriber:

1. Ability for the search team to query the exact location of a lost subject's phone with *no user action required* to return lost subject GPS coordinates to search team. *(Requires cell service. If the lost subject phone is not in cell service, the request is queued for when the phone returns to service).*
2. Ability to deploy a small, lightweight device via ground or air configured to search specifically for the lost subject's phone. The AirFlare Detector acts as a powerful second set of eyes that sees through trees and other terrain barriers, alerting the search team when the lost subject is in vicinity. Once the Detector is within range, it instructs the lost subject phone to push its GPS coordinates back to the search team. *(Operates in or out of cell service).*

Searching for a non-AirFlare Subscriber

1. Ability for the search team to send a location request to a subject in need of assistance. Once received, the subject can elect to automatically send their GPS coordinates back to the search team. *(Requires cell service. If the lost subject phone is not in cell service, the request is queued for when the phone returns to service).*
2. Ability to deploy an AirFlare Detector to search for any wi-fi enabled phone, and alert the search team when the lost subject is in vicinity. Not as reliable as searching for an AirFlare subscriber, and will not return GPS coordinates, but a very powerful second set of eyes requiring minimal setup time and deployment overhead. *(Operates in or out of cell service).*

List of AirFlare Features

LOCATION RETURN:

A Lost Adventurer's phone's GPS coordinates are returned to a Search Team when they become the subject of a Search.

When a search is initiated for an AirFlare subscriber, a notification is sent to the subject phone. If the phone is in cell service its GPS coordinates are automatically sent back to the Search Team in 20 seconds (unless the subject intervenes and declines). If the subject's phone is not in cell service, the notification is queued and delivered once it returns online.

AIRFLARE BEACON DETECTION:

Deployed when Location Return does not return a subject's coordinates (e.g. out of cell service). Enables a Search Team to deploy technology in the field to search for a specific phone belonging to a specific Lost Adventurer.

When an Adventurer downloads and subscribes to AirFlare, a unique AirFlare Beacon is installed on their phone. If that Adventurer becomes the subject of a search, a Search Team configures an AirFlare Detector to search for that Beacon. When the Detector comes within range of the subject phone, the Search Team is notified the subject is in the vicinity. With AirFlare installed, the AirFlare Detector can "shock" the Lost Subject phone awake so that it can respond (e.g. in a scenario where the subject is non-responsive).

LOCATION CAPTURE:

A Lost Adventurer's phone's GPS coordinates are returned to a Search Team when a Detector comes within range.

When a Detector comes within range of a Subject's phone with AirFlare installed, the Detector prompts the phone to return its GPS coordinates to the searcher. The phone immediately returns its best-known coordinates with an accuracy estimate (typically within 30 meters), and will continuously optimize and resend its coordinates as accuracy is improved.

NON-AIRFLARE SUBSCRIBER DETECTION:

Enables a Search Team to configure AirFlare Search Technology to search for a phone without an AirFlare Beacon installed (i.e. belonging to an Adventurer who is not an AirFlare subscriber).

A Search Team can configure an AirFlare Detector to search for the Lost Adventurer's phone via a Wi-Fi address known or suspected to be stored on the phone (for example, a home or work network, the network of a frequently visited coffee shop, etc.). When the Detector comes within range of the subject phone, the Search Team is notified the subject is in the vicinity, and the Detector can be used as a homing device. This is not as reliable as AirFlare Beacon Detection because without AirFlare installed, the Detector cannot "shock" a phone awake which has gone into sleep mode.

LOCATION MESSAGING:

An Adventurer can automatically pull their phone's GPS coordinates into a text message and send to 911 or an emergency contact.

The Lost Adventurer phone must be within cellular service for the message to be sent.

LOCATION REQUEST:

Ability for a search team to send a location request via text to a mobile phone with or without AirFlare installed. Upon receipt and approval, the phone automatically pulls its GPS coordinates into a reply back to the search team.

The Adventurer phone must be within cellular service for the message to be received and responded to. If the phone is not in cell service, the message is queued and delivered when the phone returns to cell service.

SOS STROBE:

Uses the phone's camera flash to signal "S-O-S."

The SOS Strobe can be used at night or in low light to signal towards lights, a passing aircraft or into an open space where people may be present.

LOCATION SHARING:

Ability for an AirFlare user to request the location of another AirFlare user (example a friend or family member) with pre-approved permissions.

Both phones (requester and responder) must be within cellular service for location to be returned. If the responder's phone is out of cell service, the request is queued and will return its location when the phone returns to cell service.