CASE STUDY



# ENHANCING GENERAL AVIATION SAFETY WITH EASILY ACCESSIBLE WEATHER DATA









#### Meet the Team



**Zandri Banks** Chief Experience Officer, Spidertracks



**Sharise Pistorius**Marketing and Customer
Success Lead, Spidertracks



Cole Diffin
Development,
Spidertracks

With customers in more than 100 countries, New Zealand based company Spidertracks is a worldwide leader in aircraft safety technology. The company produces GPS hardware known as "Spiders" that are connected to the Iridium Satellite Network and continuously track the location of the plane or helicopter. People back on the ground, or in the air with internet access, can view the aircraft's location in real-time using Spidertracks' web and mobile platforms.

Spidertracks was founded in 2007 after a high-profile helicopter crash that killed two people and the ensuing 15-day search for the wreckage. The company's focus was on tracking a plane or helicopter in-flight, making it easier to locate in the event of a crash. When the company decided to enhance its solutions to proactively help prevent crashes, it knew high-quality, real-time weather data would be a vital addition.

"The value to our customers of having access to weather information in the live flight path is incredible," said Zandri Banks.



Zandri Banks, Chief Experience Officer, Spidertracks



Unlike commercial airliners that fly above the weather, general aviators fly at an altitude that often puts them directly in the weather. Inclement conditions are to blame for 35% of general aviation accidents.

Spidertracks wanted a vendor that could provide a simple way for its customers to view weather data without having to jump between screens or platforms. That desire led them to Baron. Using the Baron Weather API, Spidertracks integrates weather data from Baron directly into its software. Customers can turn the weather data on and off as a layer on their map.

Using Baron's API documentation that provides step-by-step details for the implementation process, the Spidertracks development team got the Baron products running in their platforms without the need for any assistance.

"The API products work well with our system. We have not noticed any issues or latency problems," said Cole Diffin, who oversees the development of web and mobile applications at Spidertracks.

Spidertracks selected a custom package of the Baron weather products they felt would best meet the needs of its global customer base. The following data products are visible in the Spidertracks' web and app platforms:

- Global Infrared Satellite
- Global Derived Radar\*
- Global Model Wind Vector and Temperature (various altitudes)\*
- Global Current Conditions (METARS)
- TAFs

- Global AIRMETs and SIGMETs
- Global NOTAMs
- Canadian Radar Composite\*
- Australian Radar Reflectivity\*
- North American Radar\*
- Global Lightning Heat Map\*

<sup>\*=</sup> Baron Exclusive Product



A large percentage of Spidertracks' customers are businesses that operate a fleet of aircraft. The ability to see the locations of all their airplanes or helicopters in the air, and simultaneously view the weather conditions along their flight paths simplifies daily operations. The company's Spidertxt technology allows messages to be sent between ground and aircraft, or aircraft to aircraft from any location, making the communication of weather information possible regardless of an aircraft's location or cellular connectivity.

Aside from keeping their crews safe by identifying dangerous weather, aircraft fleet businesses can use the weather data to avoid costly delays by finding safer routes and alternative locations they can reach on any given day.

Sharise Pistorius, Marketing and Customer Success Lead at Spidertracks, said a recent conversation with an employee at the Florida Keys Mosquito Control District confirmed how convenient the integration of Baron weather data is.

" It was one of the first things he mentioned," Pistorius recalled. " He said he loves it so much because he used to have his desk covered with screens, but now he just has everything on one screen. He said it makes his life so much easier."



Sharise Pistorius, Marketing and Customer Success Lead, Spidertracks

Spidertracks' international customer base uses its products to tracks thousands of flights every day, totaling more than 10 million flight hours over the company's history. Easily accessible weather data has become a vital component to the company's end-to-end solution that has proven to meet and exceed the needs of the aviation industry. The integration of Baron weather data enforces Spidertracks' commitment to safety, giving aviators critical weather intelligence that can prevent tragedies.







# **Summary of Work**



## Challenge

Display global weather data within flight tracking software, enabling general aviation pilots and businesses to identify and avoid potentially dangerous weather conditions, and find a data provider that offers flexible business terms.



#### Solution

Integrate Baron weather information via the Baron API into mobile and web applications as a visual map layer.



### **Benefit**

- Ability to integrate weather data into web and mobile platforms via the Baron API without the need for development support
- High-resolution weather data provides customers with clear visuals of weather conditions along flight routes
- Comprehensive catalog of global weather products allows Spidertracks to serve its worldwide customer base
- Customer Service & licensing that helps grow their business



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256-881-8811

developer.baronweather.com/contact