

Towerless

Receive-only operational intelligence for radio-driven aviation environments.

Air Signal Labs develops Towerless, a receive-only operational intelligence system that converts public aviation radio traffic and aircraft movement data into searchable, structured AI-powered operational records. The system supports safety review, incident reconstruction, training debrief, and airport operations insight without transmitting on operational frequencies.



EXPLORE TOWERLESS

Key Biscayne prototype / 17 days

28 AUG - 14 SEP 2026

airsignallabs.com/demo

10,946

Radio calls recorded

66 h

Audio recorded

417

Aircraft identified

49 NM

Farthest observed match

01 Company Data

Entity Air Signal Labs LLC

HQ Miami, Florida

Status Small Business

SAM Active

UEI F73FF2HA8HW7

CAGE 23RC9

Primary NAICS 513210

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02 Core Capabilities

01 Receive-Only Radio Capture

Record and organize public unencrypted aviation radio traffic across configurable VHF channels.

02 Searchable Radio Transcripts

Convert radio traffic into searchable text, extracted call signs, and structured event data.

03 Multi-Source Correlation

Correlate transmissions with ADS-B / UAT observations, timestamps, positions, and movement history.

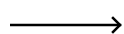
04 Searchable Operational Record

Generate timelines, activity metrics, and exportable incident packages for review and reporting.

03 Operational Logic

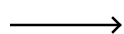
PUBLIC RADIO

Public aviation traffic



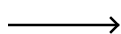
TRANSCRIBE

Searchable text



CORRELATE

Aircraft context



RECONSTRUCT

AI-powered operational record

04 Differentiators



Receive-only by design

No aviation-band transmission.
Patent pending (2 applications).



Multi-source correlation

Fuses radio, aircraft movement, and time into a single operational record.



Local-first deployment

Core processing occurs on site, with cloud synchronization optional.



Operational data, not just audio

Outputs are structured for search, analytics, and reconstruction.

05 Relevant Experience



Kershaw County Airport / South Carolina

Towerless prototype demonstrated using live general aviation radio traffic in an untowered airport environment.



Homestead General Aviation Airport / Miami-Dade County, Florida

Presented Towerless to Miami-Dade airport leadership; formal proving evaluation proposed.



Founder Aviation Background

FAA Private Pilot. Two years serving as an Honorary Commissioner on the Kershaw County Airport Commission, with direct exposure to general aviation airport operations.

06 Mission Fit

→ Untowered airports

→ Airport operations

→ Incident review

→ Training debrief

→ Operational analytics

→ After-hours incident alerts

Proving evaluations

available to public-use airports.