

AireonFLOW™

Gate-to-gate, high-fidelity ATS surveillance data for flow management



A robust, high-quality dataset is vital for ensuring the safe and efficient flow of air traffic across different airspaces and aerodromes. AireonFLOW provides Air Navigation Service Providers (ANSPs) a single source of reliable and timely position data that extends well beyond their own Flight Information Region (FIR) or Area of Responsibility (AoR), eliminating the need for ANSPs to engage in data-sharing agreements with neighboring countries.

Data streaming tailored for ANSPs

AireonFLOW streams gate-to-gate, high-fidelity Air Traffic Services (ATS) surveillance data combined with flight and airspace contextual information. Together, this enhances prediction capabilities of flow management and other relevant air traffic capacity and demand platforms.

ANSPs can define an airspace boundary beyond their AoR to meet their requirements, which is typically 1,000 to 3,000 nautical miles (configurable to the ANSPs needs), and AireonFLOW will provide regular position updates on traffic of interest within this airspace. Traffic of interest can include inbound/outbound traffic to/from a selection of aerodromes, inbound/outbound traffic to

Key benefits of AireonFLOW

Single source

of position data that extends well beyond ANSPs' own FIR or AoR

Tailored data streaming

for ANSPs to provide regular position updates on traffic of interest within a defined airspace

Enhanced demand position accuracy

leading to streamlined ATFM processes

Easy to deploy

and seamlessly integrates with existing flow management systems

all aerodromes within the AoR, all traffic that will overfly the AoR, or any combination of these options.

Global coverage and availability

AireonFLOW provides position updates for all subscribed aircraft in accordance with ANSP requirements — typically once per minute (configurable to the ANSPs needs). This allows for a precise time of arrival into an airspace, waypoint, or an aerodrome. Aireon's space-based ADS-B provides data for any aircraft equipped with 1090 MHz / ADS-B equipment up to a ceiling of 127,500 feet above ground level. Aireon provides continuous, global coverage, and availability over 99% of the time.

Seamless and scalable integration

AireonFLOW is easy to deploy and seamlessly integrates with existing flow management systems. It requires minimal to no additional hardware, allowing for swift deployment. To facilitate integration, the ANSP should have a Data Delivery Point (DDP) to route data to their preferred systems.

Aireon ensures secure and reliable data delivery through a scalable event distribution and management platform. This platform supports real-time data delivery and accommodates various messaging exchange patterns, including publish-subscribe (pub/sub) and streaming over protocols such as AMQP 1.0 and others. All data is transmitted securely using an encrypted IPsec VPN tunnel over the public internet.



Airline	Flight Number	Time	Status
Alaska	2093	10:20 AM	On-Time
United	784	11:45 AM	On-Time
Air France	536	12:34 PM	On-Time
Virgin America	750	10:05 AM	On-Time
Alaska	3422	11:15 AM	On-Time
United	588	10:25 AM	On-Time
Delta	2348	11:05 AM	On-Time
Alaska	788	11:15 AM	On-Time
Alaska	1473	12:13 PM	On-Time
Delta	1933	10:10 AM	On-Time
United	364	10:45 AM	On-Time
Alaska	2586	11:25 AM	On-Time
Southwest	306	10:10 AM	On-Time
Alaska	2110	10:55 AM	On-Time
Alaska	4813	12:10 PM	On-Time
American	2180	11:45 AM	On-Time
Delta	728		On-Time
Alaska	2442		On-Time

Use cases

AireonFLOW is designed for use by ANSPs for:

- ▶ ATFM systems
- ▶ A-CDM systems
- ▶ Arrival / departure management integration