



**AERONAVDATA** is a Service Disabled Veteran Owned Small Business and was founded in 2004 with the vision of offering a high integrity, competitively priced ARINC navigation database capable of supporting commercial and military flight operations, flight inspection, flight planning, flight simulation and mission planning.

## Our Aeronautical Navigation Database

**AERONAVDATA** codes and maintains the highest-quality and comprehensive aeronautical navigation database with our certified process that is in strict accordance with FAA AC 20-153 and RTCA DO-200A guidelines and standards. We hold a current Type 1 Letter of Agreement (LOA) as audited and approved by the Federal Aviation Administration (FAA) Aircraft Certification Office (ACO).

Because we understand that all aeronautical navigation databases must work in concert with the implementation requirements of Flight Management System (FMS) manufacturers, we follow their **data quality requirements (DQRs)** for aeronautical data and we adhere to the data preparation and data transmission criteria.

We utilize official source Aeronautical Information Publications (AIP) from the Civil Aviation Authority (CAA) and Military Aviation Authority (MAA) in accordance with published 28 and 56 day Aeronautical Information Regulation and Control (AIRAC) cycles. We encode and maintain all Standard Instrument Approach Procedures (SIAPs), Departure Procedures (DPs) and Standard Terminal Arrival Routes (STARs) in the **U.S., Canada, Latin America and South America** in Aeronautical Radio Inc. (ARINC 424) data format.

## Our Navigation Database Coverage: USA, CAN, LAM, PAC and SAM ARINC Regions

Our Navigation Database includes all Supplemental and Procedure information contained within the Canadian, US and Latin American ARINC Regions. The data includes Airports, Heliports, Navaids, Waypoints, Enroute, Airspaces, Communication, SIDs/STARs, RNAV and Conventional Procedures. Our primary 2016 goal is to complete coverage to include the South American (SAM) ARINC Region.



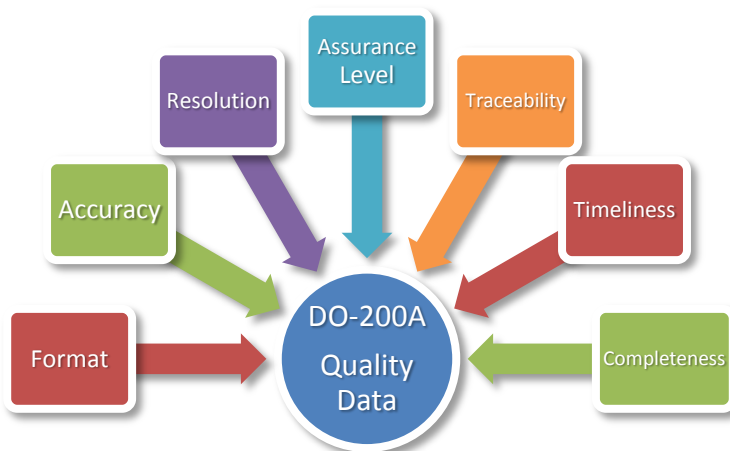
## Certified as FAA Type 1 LOA

Our **FAA certified Type 1 LOA** processes enable us to access, monitor, manage, track, and encode Aeronautical Information Publications (AIPs) and applicable data sources to produce current navigation data in the ARINC 424. We receive and track all published changes to aeronautical information through a centralized process – with full traceability from reception through delivery. During a 28-day cycle our analysts analyze thousands of changes published in a variety of sources including Transmittal Letters, NFDDs, Amendments, Supplements, and NOTAMs.

All participants in an Aeronautical Data Chain must ensure that data quality characteristics are established for the data's intended usage. The Type 1 and Type 2 LOA Holders work closely together to maintain the data quality throughout the process. Since the navigation database must go through the packing software, a qualified **Type 2 LOA Holder** must process and load the database onto an FMS and ensure that additional data integrity checks take place during the packing process. The Type 2 LOA certification ensures compatibility with specific systems or equipment by avionic manufacturers / application integrators. In addition, the Type 2 data suppliers have additional requirements to ensure the delivered database is compatible with the Data Quality Requirements (DQR) to support the intended function.

## Source Ingest, Analysis and Management

Our analysts code and maintain our aeronautical navigation databases by performing a thorough analysis of a variety of sources. For coding of data within the United States that includes the National Flight Data Digest (NFDD), FAA Form 7100, FAA Form 8260, Coded Instrument Flight Procedures database (CIFP), the National Airspace Resource (NASR) database, and the Digital Terminal Procedure Publication (D-TPP). For data outside of the US we utilize foreign Aeronautical Information Publications (AIP) that are published according to ICAO Standards. Our Aeronautical Navigation Database is maintained in accordance with published 28 and 56 day AIRAC cycles. Through a certified process and in strict accordance with RTCA DO-272B and DO-200A, we ensure that procedure coding and supporting data aligns with ARINC 424 standards for use in Flight Management Systems (FMS).



## Working with DO-200A Data Quality Requirements (DQR)

RTCA DO-200A defines the requirements that data processing organizations must follow to produce databases for airborne systems. One of the requirements is the specification by the data processing organization of the Data Quality Requirements (DQR) for the navigation data provided to it by its data suppliers. AeroNavData has experience utilizing DQRs that define the navigation data requirements for Flight Management Systems (FMS) for both commercial and military aircraft.

## AERONAVDATA's Navigation Database contains these ARINC 424 Records:

### Navaid

- D - VHF Navaid
- DB - NDB Navaid

### En Route

- EA - Waypoints
- EP - Holding Patterns
- ER - Airways & Routes

### Company Routes

- R\_ - Company Routes

### Heliport

- HA – Heliport / Pads
- HC - Terminal Waypoints
- HD / HE / HF – SID / STAR / SIAP
- HK - TAA
- HP - SBAS Path Point
- HS - MSA

### Airport

- PA - Airport
- PB - Gates
- PC - Terminal Waypoints
- PD / PE / PF – SID / STAR / SIAP
- PG - Runways
- PI - Localizer/Glide Slope
- PK – TAA
- PN - Terminal NDB
- PP - SBAS Path Point
- PS - MSA
- PT - Airport GLS Station

### Airspace

- UC - Controlled
- UF – FIR/UIR
- UR – Restrictive

### Communication

- EV - En Route Comm
- HV - Heliport Comm
- PV - Airport Comm

