Innovative, user-friendly research and intelligence tools for the air transport experts

OUR VISION

Easy and instantaneous access to transport aircraft operators profile and fleets is key in today's competitive environment. This is especially true when it comes to providing accurate information on operators background data and specific airframe status and history.

In depth:

Air Transport has evolved since its beginnings to being nowadays, at the same time, a fully global and centralized industry and as well a highly fragmented domain of activities with more and more players offering products and services, contracting transactions, taking business decisions, looking for business opportunities.

Its global nature comes from the legal framework agreed within the ICAO in 1944, the small number of aircraft manufacturers, the control and regulations of airworthiness supervision from the FAA and JAA which have worldwide influence, the large costs associated with investing and operating aircraft fleets, and the virtue of moving airplane assets overnight to anywhere in the world, either to be overhauled and serviced at remote facilities or to be integrated in existing airline operations. In addition, airline alliances (IATA, Star Alliance, SkyTeam, etc), ATC integration (Eurocontrol) and the progressive substitution from bilateral agreements between countries to "open-skies" policies enable the possibility for any carrier to operate any aircraft type between any couple of airports.

On the other hand, the traditional and heavily static description where each country hosted a "flag carrier" and a few regional airlines operating small commuter equipment has been replaced by the deregulation policy introduced in the U.S.A. in the 1980's and Europe a decade later. It is now possible for any financially and technically capable airline company to enter any market at very short notice, using aircraft equipment obtained from the booming leasing market (AerCap, Avolon, etc) – or to withdraw with no advance warning. Indeed more than 4,300 new airlines with aircraft with 30 seats or more have been created worldwide since 1990.

The monitoring, control and supervision of the air transport industry by governments and airworthiness authorities, the possibility to find new business opportunities from services and products providers could not rely any more upon the traditional suppliers of data related to air transport which were too often restricted to a single-source of information edited and re-distributed as annual or quarterly directories and census in book or CD-Rom format.

The Internet "changed everything" and ATDB vision was built upon the successful conjecture that these information technologies enable that data supplied by multiple providers, after being reviewed and cross-checked by editors can be distributed almost instantaneously to everyone with an interest in air transport.

ATDB launched in 1997 and was the very first provider of extensive and continuously updated aviation data available from the infant Internet.

OUR SOLUTION

AeroTransport Data Bank is the solution for fast, user-friendly and accurate data on all operators of transport aircraft and specific airframes, worldwide. ATDB offers the latest in databases technology and delivers online the information that you require using any standard Internet browser.

Information is permanently updated several times a day and ATDB provides the latest corporate and fleets pictures, along with streamed news on air transport transactions and events. In addition to the current snapshots, **historical information going back from 1930** as well as new airline entrants and planned aircraft transactions are also instantaneously available.

In depth – typical queries from online users:

Find 1 or few aircraft
- by registration
- by military serial
- use jokers for fuzzy search
- by aircraft type and registration
- by aircraft type and MSN

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Find a list of aircrafts
- by aircraft type, version or model
- by manufacturer name
- add filter on MSN range
- add filter on manufacture or delivery date
- add filter on airframe status
- add filter on engines
- add filter on base country or region
- add filter on airport of storage, part-out

Find a census for an aircraft type
- for one or several aircraft types, version or model
- breakdown by airframes status
- historical and planned deliveries
- breakdown by geographical region
- available airframes for sale or lease
- top operators
- top leasing companies
- new aircraft orders and used transactions

Find aircraft operators, owners or lessors
- search by company name, IATA or ICAO code
- add filter on company type: airlines, air forces, leasing companies, ..
- filter by company status, nationality or region, filter by type of aircraft in use or in portfolio

Find subfleets or operators fleets
- by operator name and aircraft type, version or model
- add filter by aircraft status and ownership level
- retrieve historical snapshots
- expand to filtered list of aircraft used by specific operator

Find portfolios of leasing companies
- for specific leasing companies
- for trustee or bank
- for some part-out companies

Find airports
- by city or airport name
- by IATA or ICAO code
- by country or geographical coordinates
- retrieve details and maps
- retrieve list of stored aircraft

Find specific events
- new aircraft orders split by aircraft type or manufacturer
- used aircraft transactions
- recent events linked to a specific airline safety events filter by type, airport, country or region

D A T A B A S E > AIRLINES & NON-COMMERCIAL OPERATORS

With access to more than **14,000 airlines**, ATDB is the undisputed leader of intelligence on the air transport scene. Each operator is fully documented with:

- Details on corporate history, including changes on ownership structure
- Industry-standard identification codes used by IATA, ICAO, SITA, etc
- Contacts facilitators, including web site, email, address, phone/fax and social media
- 55,000+ senior management names and titles for instant contact
- current, historical, and planned fleets – both aggregate and for individual airframes status and owned vs. leased details

Non-commercial operators include military and government organizations, as well as private operators of transport aircraft.

D A T A B A S E > AIRCRAFT LEASING COMPANIES

For major leasing companies ATDB delivers complete details on the asset management and ownership portfolios, including status of each individual aircraft (leased out vs. in-storage). Also available are securities, trustee details, purpose-built subsidiaries, and companies in charge of part-out where applicable.

Full ownership history of each aircraft is displayed with a single click.

Portfolio details of 1,100+ asset management and leasing companies are instantly available.

ATDB is the only online supplier for this type of information.

D A T A B A S E > AIRCRAFT PROGRAMS

ATDB does not stop at Boeing, Airbus, Bombardier, Embraer and ATR models. **We track all transport aircraft programs with 30-seat of higher payload launched by any manufacturer since 1930.** Including piston models such as DC-3's, turbine propeller aircraft and jets up to the latest A380 variants. Also detailed are all programs from the former Soviet Union and recent new designs from Russia, Ukraine and China.

The list of ATDB-tracked aircraft types is at:

https://atdb.aero/php/go.php?action=definition_listactypes

For each aircraft program ATDB supplies extensive statistics including specific variants, airframes status, worldwide geographical usage, and largest operators.

In addition a complete production list of all airframes produced or planned for manufacture enables a quick glance of the performances and values of a specific aircraft program.

Available airframes for onward transactions are listed immediately, with details on owner, previous operator, age and place of storage for inspection and appraisal.

D A T A B A S E > INDIVIDUAL AIRFRAMES

Drilling down from either a specific airline fleet, leasing company portfolio or aircraft programs, all corresponding airframes can be retrieved for detailed analysis:

- Manufacturer serial number, sequence number and block number
- Dates of manufacture, initial service entry and current status
- Engines used, MTOW, MZFW and other weight values
- Specific conversions undertaken since delivery
- Current and historical cabin configurations and freight/palette capabilities
- For each historical, current and planned operator of a specific airframe: registration, ownership details and additional relevant data
- All transactions are linked to a specific airframe, including date sequences for registration, deliveries, retirement and de-registrations

D A T A B A S E > AIRPORTS

ATDB provides access to an extensive database of more than 17,000 airports and airfields worldwide, reconciliating at last ICAO and IATA codes under a same record. With runway details, ATC, weather, NOTAM, etc. In addition all aircraft stored or parked at a given airport can be easily retrieved. And direct visual interface to Google Earth and Google Maps.

D A T A B A S E > EVENTS & NEWS

QueryEvents: an easy to use database gives access to all recent and historical news and events, thus avoiding a long scan of newsletters:

- New start-up airlines
- Major ownership and organizational news affecting existing carriers
- New aircraft orders
- Used aircraft transactions: planned, contracted and actual
- Freighter conversions and VIP configuration projects
- Aircraft accidents and incidents

ATDB users also benefit from alert emails sent on a daily frequency and fully customizable.

QueryNews: instantaneous access to thousands of press articles from a user-selected keyword; including commercial (new routes, code sharing and alliances, ..), financial results, etc.

D A T A B A S E > USED AIRCRAFT MARKET

From an almost brand new wide-body passenger aircraft valued at over $200m to a more humble commuter aircraft, the used aircraft market has up's and down's dominated by the cyclical nature of the air transport industry.

Launched in 2010, AeroFinder is ATDB's newest division and aims to become the leading market place for all transport aircraft transactions. Over a thousand offers are permanently listed online at www.finder.aero by mandated sellers.

EXPERIENCE & ACCURACY

ATDB has been present on the Internet since 1997 and praises itself for its data-mining and synchronization technologies associated with its excellent reliability performances. With a global team composed of dozen of experts cumulating centuries of experience in aviation, ATDB users can rest assured that they are using a high quality data and services provider.

In depth - Data sources and Quality Assurance:

- 1.4 million databases requests returning 4 millions records are served every month by ATDB servers to 11,000 different users (audited figures, February 2008)
- > 99.9999% uptime availability (average 4 minutes downtime per month)
- Sub-second response time (for 98% of monitored queries)
- Emergency mirror server, hosted in a different country, which can be accessed instantaneously should our primary server be un-responding
- Dual domains (aerotransport.org, atdb.aero) are registered to avoid the consequences of any DNS failure

Raw information collected by ATDB comes from multiple sources, including:

- Aircraft manufacturers
- Airlines, leasing and brokerage companies, banks and financial institutions
- Air traffic flight plans and reports, airports reviews
- Open Intelligence resources, journalists, press releases, photographic agencies
- Aircraft enthusiasts communities
- Government repositories including aircraft registry files
- Industry insiders
- ATDB crawlers and robots within the Internet

and is always reviewed manually by an editor before being published online. In addition users can submit corrections at any time, thus providing a permanent iterative feedback loop leading to the highest quality of data.

ATDB is self-certified to ISO-9001 and internally keep traces of all sources of published data.

CUSTOMERS REFERENCES

ATDB growing customers base includes:

- Airlines, Logistics and Freight companies
- Aircraft manufacturers, MRO (Maintenance, Repair, Overhaul) and OEM providers
- Leasing and Asset Management, Aircraft brokerage companies
- Consulting, Financial, Risk-Insurance, Legal and Security
- Airports and handling, Air Traffic Control, Airlines & Crews organizations
- Civil Aviation Authorities, Air Forces, N.G.O.'s
- Media, Consultancy, Education, Tour-Operators, aircraft enthusiasts and aviation historians

For an updated list with named references please contact us.

ATDB Overview

B E N E F I T S

Air transport specialists now have access to a full-featured and robust aircraft fleets database through the Internet.

ATDB users benefit through:

- ATDB uses standard <u>web browsers exclusively</u>. No software installation is required on your PC with its load of security concerns and upgrade tasks
- <u>Permanently updated</u>: all ATDB databases are updated several times a day (not once a month or worse !), enabling users to analyze the most accurate information and to immediately diagnose new business opportunities
- Fast ! we target and achieve a response time well below 1 second for most queries
- Reliable: unlike traditional vendors whose business is based almost exclusively on data supplied by manufacturers, ATDB experts cross-check information with civil aviation authorities, aircraft operators, asset management companies and an active network of hundreds of informers
- <u>True worldwide coverage</u>: ATDB covers all geographical regions. From Afghanistan to Zimbabwe.
- All transport aircraft models above 30 seats, including terminated programs and Soviet/Chinese designs
- All data can be instantly <u>exported to Excel</u> or OpenOffice/LibreOffice for further manipulation and filtering
- Dual push/pull technology: users can register for specific events of interest and receive customized emails only when these events are triggered
- Fully accessible anywhere an Internet access is available. Including smart phones and tablets.
- Low cost: ATDB pricing is based on a modest annual fee with no unexpected add-on's or pay-per-use incremental costs

Increasing environmental concerns and unforeseen global events such as the COVID pandemic generate heavy constraints on all actors of the air transport industry: temporary and permanent losses of demands for transportation, reluctance to travel, added costs, shifts between passenger and cargo configurations, impacts on airlines balance sheets, temporary storages of airliners, agreed or disputed early returns from leases, deferred deliveries, early permanent retirements, falls in assets market values and lease rates, etc. The global image can be reviewed daily using ATDB reports and infographics. As well, the shift in paradigms create new business models and opportunities which can be exploited in full by our subscribers.

To start now your ATDB experience go to https://www.aerotransport.org/ or https://atdb.aero and follow any 'Subscribe' link, or contact us for additional details.

DATABASE DESCRIPTIONS

Below are logical descriptions of main ATDB databases listing available data fields.

Customer-specific reports can be built for premium subscribers or through ATDB's Professional Services. Reports can be produced in any format: CSV, XML, xlsx, JSON, etc.
In most cases, a dedicated web page is set up and the subscriber can submit a refresh of data at any time (hourly,daily, weekly, monthly)

Companies (Airlines, Leasing/Owner companies, etc; 14,000+ records)

- Company name, and alias (common) name
- Country where company is based
- Company type: ATDB includes details on the following companies:
  - airlines
  - planned airline project (where ATDB has sufficient knowledge to evaluate the seriousness of the business plan); including past cancelled projects
  - military forces (air forces, navy, etc)
  - government agencies having a dedicate transport division
  - aircraft leasing companies, brokers and asset management companies
  - aircraft manufacturers
  - special-purpose airlines (e.g. transport aircraft used for fire-fighting, tankers, travel clubs)
  - private (non-commercial) companies
  - ACMI-only companies with only chartered equipment but allocated a IATA or ICAO code
  - Franchise names (eg. United Express, Delta Connection)
- ICAO codes (including historical codes previously allocated)
- IATA codes (including historical codes previously allocated)
- Main base airport (or legal HQ for non-operating entities)
- Date when company was created, when its AOC was granted
- Date when company ceased operations, its AOC suspended or revoked; or when a company was renamed or merged
- Safety flags (EU black list, IATA's IOSA program, FAA and ICAO audits, EASA TCO)
- General description including history, ownership, shareholdings, alliances, certification dates, etc

Directory and Contacts records (57,000+ records)

- Company legal name
- Address
- IATA account number
- ICAO/ATC call sign
- Main SITA code
- Main AFTN/ARINC code
- Internet website
- Email
- Phone
- Fax
- Senior management (Name, Position, Effective and termination dates)
- Stock exchange symbol
- Company logo
- Social media pages (Facebook, Twitter, Linkedin, Instagram, Youtube)

Company clusters (Groups of airlines; 1,000+ records)

- Cluster name
- Cluster type: airlines alliance (eg. SkyTeam), shared brand (eg. Wizz Air), financial relationship, etc
- Parent company
- Child company
- Date when effective
- Date when discontinued

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Production Lists (one for each produced airframe, 100,000+ records)

- Production name (aircraft type, e.g. Airbus A300)
- Manufacturer Serial Number (MSN)
- Manufacturer Line Number (production sequence)
- Block Number (Boeing) or COAC (Airbus)
- Location (airport code) of final assembly line
- Date of manufacture (roll-out)
- Date of first flight
- Date of first delivery (legal)
- Date of first delivery (physical; when different)
- Date of last flight (for aircraft permanently retired)
- Date of termination (aircraft scrapped or destroyed)
- Date of cancellation (CofR/CofA revoked)
- Aircraft sub-type and model designation
- Engines type and sub-type
- MTOW (Maximum Take-Off Weight), MZFW, OEW, MLW
- Last/current operator of the airframe
- Last/current status of the airframe. ATDB differentiate the following major status:
  - aircraft is active
  - aircraft is on long-term MRO (maintenance) or conversion (e.g. to freighter)
  - aircraft is parked, stored, available for sale
  - aircraft is on order, not yet produced by the manufacturer
  - aircraft has been destroyed
  - aircraft has been damaged, is being repaired or under evaluation
  - aircraft is being parted-out (cannibalized) or abandoned, permanently retired
  - aircraft is preserved (e.g. museum, ground trainers)

Airframes history records
(list all operators, owners, sub-leases for each airframe; 320,000+ records)

- Aircraft Type, Sub-Type and Model
- Manufacturer Serial Number (MSN)
- Sequence in history
- Aircraft registration
- Aircraft operator (AOC holder)

- Date when aircraft was officially purchased and registered by the aviation authority
- Date when aircraft was delivered (legal sale/lease, legal hand-over; physical ferry flight), including planned future deliveries.
- Date when aircraft was retired from revenue operations (removed from active use)
- Date when aircraft was disposed (sold to third party; de-registered; struck off charge), including lease expiry dates.

- Aircraft ownership details. ATDB provides up to 4 levels of ownership details:
  - Leasing companies (e.g. ILFC, GECAS) and asset management companies
  - SPC (Special-Purpose Companies) established by the owner for portfolio distribution or tax reasons
  - Security name (where applicable)
  - Trust (e.g. Wilmington Trust) used as official owners to hide the true owner's identity
  and also lists the cascade of non-operating owners when the aircraft is temporarily or permanently disposed
- Name of private users for non commercial operator (mostly VIP aircraft), including name of the individual beneficiary

- Aircraft cabin configuration (Executive/First/Business/Premium Economy/Economy) or freight payload details (tons or pallets)
- Allocated permanent call-sign and serial codes (military operators)

- ATC Sel-Cal code allocated by ARINC
- ICAO ADS-B 24-bit address code

- Aircraft engines (OEM and specific models)
- Aircraft MTOW (Maximum Take-Off Weight), MZFW, OEW, MLW
- Aircraft role (e.g. VIP, military, freight-only, etc)
- Origin and fate details (links to previous and next record in history tree for this airframe)

- Flag if aircraft remained commercially inactive during this time period (e.g. parked by lessors and flew ferry flights only)

- Flag if an acquisition transaction was contracted, then later cancelled before delivery
- ACMI wet leases to other operators
- Franchise operations (eg. United Express), including group of companies operating under the same brand (eg. EasyJet, Wizz Air)

- Total hours flown since new (for disposed aircraft)
- Average annual hours flown with this operator (for active aircraft)
- Total cycles (landings) since new (for disposed aircraft)
- Average annual cycles flown with this operator (for active aircraft)
- Airport used for storage or part-out
- Geographical details for off-airport fates (accidents, museums)

- Additional remarks, including: detailed conversion information (dates, OEM handling conversions, airport where converted), franchise operations, special colour scheme used for marketing purposes, base airport for private users, etc

ATDB Overview

Aircraft Types (6,000+ records)

ATDB uses a 3-level hierarchical schema to handle all aircraft designations, enabling complex queries issued against any level:
1. Aircraft model (e.g. Boeing 777, Airbus A340)
2. Aircraft version (marketing designator) (e.g. 777-300, A340-300)
3. Aircraft type (as technically certified) (e.g. 777-312, A340-313)

- Name of aircraft type, sub-type or model
- IATA and ICAO codes
- Class: piston-engined, turboprop-engined, jet single-aisle, jet twin-aisle
- Number of engines
- Relative weight in this class/engines combination
- Range with typical max payload
- Length, wingspan and height (for airport planning purposes)
- Manufacturer
- Associated aircraft type for sub-type and model records
- Associated aircraft sub-type for model records
- Production name (link to production list)
- ICAO Annex 16 noise compliancy level
- Conversion flag (if converted from another type)
- Customer specific flag (if true then type designation is customer-specific, e.g. Boeing 777-222 is 777-200 built for United Airlines)
- Military flag (model designation is allocated by the US DoD or similar)
- Final Assembly Line (factory) where aircraft are built and first flown (relevant for models with multiple FAL's, eg. Airbus A32x, 787 and some Soviet and Chinese types)
- Typical configuration (pax seats with class details /freighters: payload tons or pallets)
- Link to relevant Wikipedia page

Note: ATDB does not track transport aircraft smaller than 30-seat or equivalent cargo payload.

New Aircraft Orders (14,000+ records)

- Manufacturer
- Airline (or non-commercial customer)
- Order date
- Aircraft ordered: selected types, quantities of orders, options, reservations
- Includes LoI (Letter of Intent) and MoU (Memorandum of Understanding) generally announced prior to the formal contract commitment
- Includes announcements for "unidentified" customers where either manufacturer or customer does not wish to disclose the name of the customer
- ATDB identifies the customers of most unidentified orders significantly ahead of any announcement eventually made at delivery
- ATDB identifies the operators, owners and end users of unidentified orders made by private companies or individuals (VIP aircraft)
- Includes contract value (as announced, nowadays at "catalogue" prices)
- Note that ATDB has its own sheme scheme for contracted orders which are in doubt and/or bound to be cancelled (overriding Boeing ASC 606 accounting provision)

Note: Used aircraft transactions are detailed in the history databases.

Countries and Territories

- Usual country name
- Official name(s) in English and local language(s)
- Includes non-sovereign territories allocated a specific ICAO or ITU code
- Link to country if country was renamed or merged
- Registration prefixes allocated by ICAO
  - including historical prefixes allocations since the Paris Convention in 1929
  - also available are ITU communication prefixes allocated to territories
- Official 2-letter and 3-letter ISO codes (ISO-3166)
- FIPS code allocated and maintained by the US Department of State (FIPS 10-4)
- State code (USA only)
- Geopolitical regions (15 defined; for marketing and research purposes)
- Phone dial prefix
- Currency code
- Territory capital city, size, boundaries and coastline, etc
- ITU prefix and ITU prefixes range for radiotelephony (basis for ICAO allocations)
- Safety flags (for countries in EU black list or FAA's IASA program)

Airports and Airfields (17,000+ records)

- IATA code (Note: may differ from FAA LID codes for some US airfields)
- ICAO code (or Russian MoD codes)
- Q code (before 1945)
- City name
- Airport name
- Country name (and state for USA)
- Latitude
- Longitude
- Elevation

Note: additional information (e.g. runways descriptions, facilities, ATIS, ATC frequencies, METAR/TAF, NOTAM, etc) are available online

Safety Events (14,000+ records)

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List of write-off's and significant incidents

- Event date
- Aircraft Operator
- Aircraft Co-Operator (for ACMI/wet-leases and franchise operations)
- Aircraft Type
- Manufacturer Serial Number
- Event result: Write-Off, Repaired, or Currently being evaluated for repairs
- Short description of the event
- URL's to external servers providing additional details on event

Note: Significant incidents which may affect the assets' long-term overall value are listed.

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Other databases of interest:

- **airline_aircraft:** all events and announcements linking an aircraft operator and an aircraft type for which no MSN is yet allocated or identified

- **archived_events:** all events published daily by ATDB to our professional/premium subscribers since 2003

- **abbreviations:** miscellaneous static records used by ATDB

DDL and physical implementations:

- Each table has a primary key
- Extensive use of foreign keys to ensure validation and consistency, and to avoid wasted redundancy (database normalization)
- Multiple database views, indexes are used to ensure our target of sub-second response time
- Audit scripts periodically review each data record
- To ensure 100% uptime availability each set of databases is hosted by at least two distinct companies in different countries
- Multiple database triggers enforce a complete and permanent synchronization between all our external and internal databases
- Fully self-certified as ISO-9001 compliant

Any question left ? Contact us (links below) !