

AVENTUS AIR



Summary

AVTECH's solutions are based on **patented** modular platforms which enable the company to deliver a range of services to the air transport industry depending on how the modules are combined. The modules also form the basis for a unique set of capabilities that AVTECH can offer in the form of consultancy assignments to a wide array of potential customers within the industry.

Innovations

Since the start over 25 years ago, AVTECH has been a leader in the global development of Performance-based Operations (PBO)

AVTECH is the only company in the world that can distribute processed weather information based on the most up-to-date and advanced forecasts available. These are derived from the UK Met Office's high resolution global meteorological model.

Weather Challenge

Many flight planning suppliers and most aviation Met organizations currently use the World Area Forecast Model that is produced to an ICAO specification by state Met providers.

Weather data derived from Met Office's High-resolution model, which is used by AVTECH, has an unmatched accuracy and reduces the error between actual and forecasted winds to a minimum.

Over the last five years, AVTECH has done extensive research on the global meteorological industry in a quest to provide the very best in weather information to our customers. As a result of this work AVTECH is delighted to partner with the Met Office as our first choice weather forecast provider. In combining the latest science with ground breaking advances in technology and local understanding, the Met Office is committed to delivering operational advantages to all sectors of the aviation industry.

Scientific research in this area indicates clear benefits from the use of High-resolution weather data. AVTECH's extensive testing and review of it's products, has confirmed and quantified the improvements in airline efficiency for airlines who put Aventus AIR™ in use.

Aventus AIR

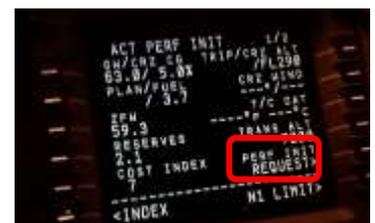
What if my FMS is not connected to my CMU?

The Aventus AIR service allows wind forecasts to be sent directly to the ACARS printer (or MCDU) when requested by crews. This service performs with a lower technological requirement than other Aventus products.

This service supplies wind and temperature information which is valid from Take-off to End-of Descent and is sent to the your ACARS printer (or MCDU). Expected winds at the planned cruise altitude are shown as well as winds on Flight Levels above and below and suitable climb and descent winds.

Route and performance information is collected from the Flight Plan system. By supplying wind and temperature information not only at the planned Flight Level, but also for altitudes above and below, AIR serves as a powerful decision-making tool.

Aventus AIR strongly supports the FMS capability to optimize a flight, in addition to improving overall performance during VNAV operations.



This is how it works

The pilot will receive a print over ACARS with all waypoint wind data, and optimized descent winds.

Inserting these winds in the FMC will improve performance of the FMS, reduce fuel consumption, get a more accurate ETA and give a more stable VNAV performance.

Benefits

- ☁ Saves fuel (CO₂)
- ☁ Improved Navigational performance
- ☁ Improved Time Accuracy (SESAR/NextGen compliant)
- ☁ Minimizes cost of flight

How to get started ?

- ☁ Get a demo
- ☁ Sign up for a Trial
- ☁ Contact us!

Weather Source

The Aventus weather information is derived from the UK Met Office High-resolution weather model, which is the best weather source available on the market.

The higher the accuracy of entered weather data, the better the FMC output will be. By using Aventus wind information you notice an improvement in your daily operations.

Because the Flight Plan system and AVTECH use different weather sources and different times for updates, there will be a difference in wind information on your OFP and the AIR wind information. Entering Aventus wind information will give benefits in terms of better time accuracy, reduced fuel burn and improved VNAV operation.



AIR SUPPORT

Integrated with PPS Flight Planning

Wind Logic

In the FMS, climb-, cruise- and descend wind data as well as temperature can be entered.

When data of good quality is entered into the FMS it will, of course, improve the output from FMS. If the pilot, the link between the FMS and the ACARS wind data, has access to winds of the highest quality, the FMS output will improve significantly.

Climb – When climb wind and temperature data is entered, it will optimize the climb speed schedule in the FMS to be more economical.

Cruise – The actual ECON cruise Mach/IAS is determined by the prevailing wind condition as sensed by the FMS. In a headwind condition, higher CRZ speed is commanded, and if tailwind is present commanded speed will be lower. This FMS logic minimizes the cost of the flight by optimizing speed, fuel flow and wind effect.

Descent – AVTECH's algorithms determine which wind levels are best to use, tailored to each flight trajectory, and optimized for the prevailing meteorological conditions on the planned route.

In use today in a joint project to reduce CO₂ footprint

 norwegian

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