

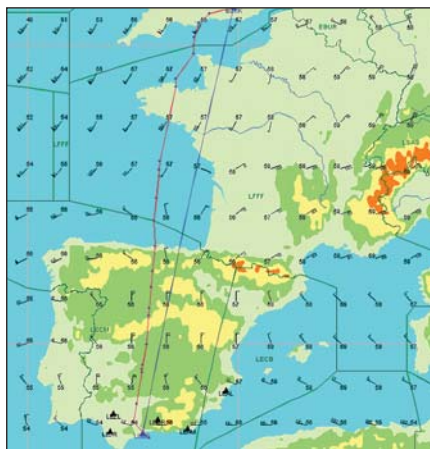
Kick the Tyres, Light the Fires, and Head For the Skies!

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Planning a flight, whether it is for a single corporate aircraft or for a major airline, involves many of the same basic procedures. The en-route weather and airspace notices (Notams) must be checked, an appropriate route worked out and filed, the fuel required, payload and flight times calculated, any necessary clearances requested, and finally the briefing material you need printed off, or loaded into an Electronic Flight Bag (EFB).



Gatwick-Malaga Wind/Temp chart

For the corporate pilot these are usually quite achievable tasks but, for an airline, the complexity can be daunting. They may be flying hundreds of sectors every day, and often need to generate their briefing material for dozens of crews all at the same time.

This requires rapid reactions to changing airspace conditions, such as airway closures, restrictions on airspace usage, weather delays, etc. Of course, all aviators and certainly commercial airlines need to comply with a constantly-changing raft of rules and regulations.

There is simply too much information that needs to be absorbed and

implemented in a very short time-span, and the logistics of doing so preclude the work being processed manually by the Operations staff or Dispatchers. AirData believes that automation is the only way that this can be done successfully, and we have made some tremendous advances over the last few years to facilitate this.

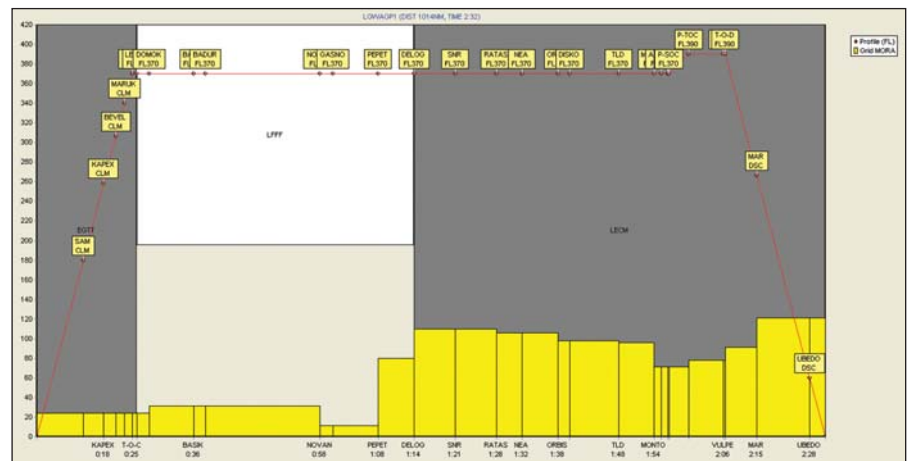
For flight planning, connectivity and integration are the key issues here, as the disparate operational systems in use need to communicate with each other and exchange mission-critical information, without manual intervention. When they are operating multiple flights on a continual basis, airlines need to have total synchronisation of their data, and instant notification of changes or updates to their scheduled plans. This data can change almost continuously and directly impact on an airline's operations, whether by requiring the re-planning of a flight, or altering a schedule.

A flight planning system will have plenty of static data, such as the aircraft structural weights, the performance data, and the basic airspace structure (updated every 28 day AIRAC cycle). It will also have

built-in functions to deal with the rules, regulations and changing airspace restrictions. Weather and Notams data will be continuously updated and automatically applied to the calculations made for every flight. Additionally, data on payloads, airline schedules, aircraft registrations (and any changes to these) needs to be automatically fed into the system. In turn, the system can provide accurate fuel figures, flight times, and any required adjustments to payloads or routes; data which can then be used by other systems.

Optionally, other constraints imposed by such things as runway performance calculations (the weight at which an aircraft can take off or land, under given conditions) could be used to modify the flight-planning input.

Clearly, the advantage of sharing this data automatically is with the cost savings that can be made. Not just in reduced manpower resources, but in more efficient flight-planning and the optimisation of routes, profiles, payloads, fuel usage and scheduling. If a flight could be planned more efficiently and the system react faster to any changes or opportunities, with



Gatwick-Malaga - Profile

the total confidence of the operator, the various belt-and-braces contingency procedures and reserves that are currently built in could be slimmed down.

Our philosophy at AirData is to provide customers with what they need to be operationally competitive in today's modern aviation environment. The **AirPlan4** system is capable of communicating with both internal and external systems by using the standard communication media: including SITA, Avinet, GDC, networks, email, etc. **AirPlan4** can also supply data for use in other applications, such as EFBs, resource management, management reporting and data distribution systems.

The EFB concept is gradually becoming an accepted norm by many airlines, enabling flight crews and operations staff to keep themselves continually updated with the information required to keep tabs on the progress of a flight. Whether it is a Class 1 (almost equivalent to a laptop), Class 2 (which can be connected to an aircraft) or Class 3 (built into the aircraft), there are ways in which all or some of the data produced by a flight-planning system can be utilised.

AirData were the first to provide Airbus with an XML flight-plan format for use with their EFB on the A380 and we have now provided the same functionality for other customers. We are continually developing our system to meet the data-exchange requirements needed to optimise functions in this area and working on ways of distributing flight-plan and briefing data before, during and after a flight with **AirPlan4** and our new Web Briefing system. This is a system which allows flight crews to self-brief for a flight, using information assigned to them by the operations staff. This information is updated to the latest available at the moment the flight crew generate their brief. They can also choose what (optional) material they want to generate - some is mandatory, of course, such as the flight-plan itself. Additionally, the system provides ready access to an airline's library documents, web-links and company notices.

When I first started flying (as an RAF navigator), flight crews needed to start their planning at least two or three hours before take-off (if not the day before). Now, with such a comprehensive exchange of relevant data between systems, the possibility exists for flight-crews to self-brief in the cockpit immediately prior to take-off and even, perhaps, during the short turn-round times that many

airlines now operate. AirData's continuing development programme is helping to deliver tomorrow's flight planning requirements today, and we would be delighted to discuss these with you. ■

Contact information

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Need to reduce costs?

Talk to us about...

AirPlan4

The cost-effective flight-planning solution

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