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Lufthansa Systems prepares around 3,500 load sheets per day. Calculated before

each individual take-off, a load sheet contains all data relevant to pilots, such as take-off and landing weight, the required amount of fuel, passenger and cargo distribution. It also includes the calculation of the aircraft's center of gravity to ensure a safe and efficient flight. With LoadControl from Lufthansa Systems airlines can optimize their load planning, increase payload and generate fuel savings of up to 0.5%.

Hot Topics

The Integrated Operations Control Center (IOCC) Platform takes airline operations to new heights of efficiency

Airline operations is a complex business. Keeping aircraft departing and arriving on schedule requires a complex day-to-day, hour-to-hour operations control. Even small disruptions can have severe financial and organizational impacts if not tackled early and in the most efficient way. Lufthansa Systems has developed a comprehensive solution to speed-up the decision making process and at the same time enhance the quality of the decisions made. The Integrated Operations Control Center (IOCC) Platform is the first integrated IT platform able to control and monitor all aspects of airline operations which are closely interlinked in practice, including schedule management, operations control, crew management, flight planning and weight & balance.

The IOCC Platform simplifies an airline's business processes without limiting its flexibility. It enhances the airline's ability to react fast and with a view to the overall company good. When dealing with irregularities caused by adverse weather conditions, congested airspace or technical problems the IOCC allows an airline to see things from every angle. How many passengers might miss their connecting flights? What is the impact on the rotation of the airplanes? How does it affect the availability and the duty time of crews? What are the additional costs? As the IOCC Platform integrates all relevant information it is possible to quickly compare different scenarios and to find the optimum solution. And even in routine operation having the big picture leads to better decision and increased efficiency. As a consequence, the platform provides a strong savings potential through a combination of operational enhancements.

The idea behind the IOCC Platform is to stay ahead of the curve and to deal with upcoming irregularities proactively. The operations processes are all covered by the five IOCC Components, IOCC/Sched, IOCC/Crew, IOCC/Ops, IOCC/Flight and IOCC/Load. They are based on market-leading products from the Lufthansa Systems portfolio, which are already in service with more than 80 airlines. But rather than just putting them together and adding some interfaces, the IOCC goes further.

All components communicate via the IOCC Integration Layer, which enables the information flow among the components. This architecture ensures system stability and a high degree of consistency of the operational data.

A key element is the Integrated Control Panel (ICP). As a dash board it provides a real-time overview of indicators showing the operational performance of the airline. This is where irregularities are identified as they emerge, so the operations control team can assess various alternatives for action and can initiate the most efficient one. In case of a crew coming in late for example it might be better to activate a stand-by crew instead of delaying an upcoming flight, because this would limit the impact on the overall operations and minimize cost. There is a compelling business case behind this approach. Customer scenarios based on actual data show that a mid-sized network airline with a fleet of 90 aircraft can improve its result by up to 31.8 million US dollar per year using the IOCC Platform. In this scenario, optimized crew management alone can save around 10 million dollars. In addition, airlines using IOCC/Flight can benefit from extra fuel savings of up to 5 percent through optimized route planning. Because of its fast amortization it is a good investment even in difficult times. Depending on individual circumstances, airlines can see a return on investment as soon as one year after the first components have gone into operation.

Planning ETOPS flights with Lufthansa Systems' Lido/Flight and just a few mouse clicks

When 25 years ago the first airlines started to use twin-engine aircraft for revenue flights across the Atlantic, this was a revolution in air travel. With these smaller jets it was profitable to bypass the big hubs and to serve secondary airports directly saving the passengers time and money. Today "Extended Twin-Engine Operations" (ETOPS) rank among the safest and most reliable of all flight operations. Lido/Flight, the flight planning solution of Lufthansa Systems, helps airlines around the world to operate these flights in the most economical way.

As twinjets like the Airbus A330 or the Boeing 767 and 777 offer significant advantages in terms of operating cost, ETOPS flights have become the predominant mode of transatlantic flights. They are increasingly popular across the Pacific as well and even on polar flights between the U.S. and Southeast Asia. Every day some 2.000 ETOPS flights arrive at their destination. Many of them have been calculated with Lido/Flight.

On normal flights aircraft have to fly routes, which keep them within 60 minutes to the next suitable airport at single-engine speed and in case of cabin pressure loss at reduced altitude. ETOPS flights are allowed to be up to 240 minutes away. When doing this they have to follow strict rules. The aircraft and its engines have to be certified for this type of operation, the aircraft needs special equipment, the airline itself must be certified and the crew needs to undergo a special training. And finally the airline is required to use a flight planning solution which is able to optimize the route in line with ETOPS criteria.

Lido/Flight automatically optimizes ETOPS flights according to the individual certificate of an airline, whether it is for example allowed to operate flights under a 120-minute rule or the more demanding 180-minute rule. Within the ETOPS part of every flight Lido/Flight draws "time circles" around the selected alternate airports, showing from which points they could be reached in 60 minutes or within the applicable ETOPS rule. It automatically checks NOTAMs, runway availability, operating hours of the airport and local weather. The dispatcher is able to see immediately whether it is possible to operate this flight as planned or whether he has to select other alternate airports. By observing these airports and the ETOPS rules Lido/Flight will then calculate the most efficient route for the flight. It is the only system on the market which can do this automatically. This feature is especially important for airlines with regular ETOPS flights.

More than 20 airlines around the world are using the ETOPS features of Lido/Flight every day, among them leading carriers like British Airways, KLM, Lufthansa and Singapore Airlines. Because of its efficient high-quality dispatch process and the fuel saving optimization of every single flight it helps them to save cost on the ground as well as in the air.

News

Malaysia Airlines chooses navigation charts from Lufthansa Systems Latest customer in Asia/Pacific to opt for the Lido FlightOps portfolio

Malaysia Airlines began flying with navigation charts from Lufthansa Systems at the end of August this year. Malaysia's national carrier signed a five-year agreement for the use of the Lido RouteManual. The airline will introduce the electronic version of the charts, Lido eRouteManual, at a later date. The airline received around one million charts in its first delivery.

Dato' Captain Ahmad Zuraidi Dahalan, Senior General Manager Flight Operations at Malaysia Airlines, explained the reasons for the airline's decision, saying: "We were impressed by the clear structure and layout of the Lido RouteManual charts, which will make navigation easier for our pilots. Furthermore, migrating to the electronic version of the charts later on will enable us to move forward to a paperless cockpit."

The Lido RouteManual includes precise charts for every phase of a flight, from push-back to landing. Pilots can quickly find their way around the charts thanks to the true-to-scale topographical data, which is especially helpful in key phases like take-off and landing. The Lido RouteManual makes it easier for airlines to subsequently migrate to the electronic Lido eRouteManual solution since the organization and structure of the paper charts are identical to those of the electronic charts.

Norbert Müller, Senior Vice President Sales Asia/Pacific at Lufthansa Systems, said: "Malaysia Airlines is the latest leading carrier in the region to opt for our flight operations solutions, which shows that airlines consider Lufthansa Systems an innovative and reliable partner. We will continue to strengthen this fruitful relationship by enhancing our products and focusing on the customer."

airBaltic expands cooperation with Lufthansa Systems Latvian airline opts for IT solutions in flight planning

airBaltic and Lufthansa Systems have signed a five-year contract for the IT provider's flight planning solution Lido/Flight. The market-leading flight planning solution uses a number of parameters to calculate the optimal route for each flight, which leads to fuel savings of up to five percent. The implementation of the new system will be completed in the first quarter of 2010.

"We selected Lido/Flight because this powerful flight planning system will support the rapid growth of airBaltic. A benchmark showed that Lido/Flight will considerably increase the efficiency and operational flexibility of our flight planning and reduce costs at the same time. We expect to see a return of investment within one year. Quality of services and attractive ticket prices are priorities of airBaltic. We are delighted that our passengers will benefit because the system contributes to improved punctuality and better ticket prices", said Pauls Calitis, Senior Vice President Flight Operations at airBaltic.

With its modern technology and user-friendly architecture, Lido/Flight covers all aspects of flight planning. The system provides dispatchers with a host of optimization options regarding flight time, fuel consumption or costs of each flight. airBaltic will also use Traffic Flow Restrictions (TFR) and Lido/Flight Briefing, both add-ons of Lido/Flight. While TFR achieves fuel savings by taking the highly complex issue of temporarily restricted airways into account, Lido/Flight Briefing enables flight crews to access briefing materials over the Internet.

"We are proud that airBaltic has decided to expand our long-standing cooperation. By using our IT solutions in several business areas, airBaltic will benefit from an even higher degree of integration, more efficient processes and cost-savings," said Stefan Auerbach, Senior Vice President Sales EMEA at Lufthansa Systems.

Avianova opts for Lido FMS

With the Russian low-cost carrier Avianova, Lufthansa Systems wins another new customer for its Flight Management System (FMS) database. Both companies recently signed a five-year contract to this effect. The airline's decision further strengthens Lufthansa Systems' position in the Russian market.

The FMS database contains all important route information including altitude and airport data for optimizing routes and supporting autopilots on board modern aircraft. The navigation data, which are based on global aeronautical information, are updated and organized monthly and can be customized to specific routes and for the use in any type of aircraft. Lufthansa Systems can thus meet the requirements and needs of airlines at all times. Key factors for the airlines decision were the good cooperation with the Lufthansa Systems' contacts as well as the IT-Providers first-rate aeronautical solutions.

Meet Lufthansa Systems

If you would like to talk to one of our IT experts about any specific solution in detail, we would be happy to coordinate a meeting. You can find us at the following events:

Name of Event	Date, Location	Solutions presented
ADF Symposium	September 13-15, 2009 Beijing, China	NetLine/Plan and NetLine/Market
FFP Conference	22.-23.10.2009 Los Angeles, LA	FrequentLine
ALTA Conference	14.-16.10.2009 Cartagena, Columbien	IOCC Platform