Enabling aeroplanes to take off on time

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Lynda Findlay, Senior Coordinator, Planning and Control, British Airways

FACTS

Customer: The airline British Airways.

Challenge: Improving load control communication to avoid delays during aircraft loading and departure.

Solution: TRIP (TurnRound Intelligent Pens), a solution developed by Sysnet, based on Anoto technology.

Benefits: Fast, manageable and auditable airside load-control communication during procedures. Prompter departures and a reduction of lost take-off slots.

British Airways wanted to find a way to speed up load control communication to avoid flight delays and lost take-off slots and get happier passengers.

Strict load control was time-consuming

Before a pilot can take off, a rigid procedure is carried out, to ensure that the aeroplane is neither overloaded, nor out of balance. Passengers, baggage and cargo need to be distributed correctly, depending on the aircraft type and the passenger seating arrangements.

Loading calculations are made before any baggage is placed in the hold (cargo area of the aircraft), but the actual loading of the aircraft always varies slightly from these calculations.

The reasons are: extra baggage being checked-in, changes in fuel levels, as well as in the number of passengers, and passenger bags being removed, should passengers fail to board the aeroplane.

These changes must be communicated securely and quickly to the airline's Central Load Control department, so that they can transmit the information directly into the cockpit for the pilot to see. The changes are usually illustrated in the form of annotated diagrams.

Before, an aircraft dispatcher sent this information to Central Load Control by fax or telephone, or sometimes even handed the paper in personally. For aeroplanes parked far away from the terminal on a remote stand, this was often impractical and moreover, there was a considerable risk of delays, missed take-off slots and as a result, disgruntled passengers.

Europe
Anoto Group AB
Phone: +46 46-540 12 00

US
Anoto Incorporated
Phone: +1-508 983 9550

Japan
Anoto-Maxell K.K.
Phone: +81 (0)3-5774 1212

New solution employed at Heathrow and Gatwick Airports

British Airways has now found a way to speed up the load-control process, with a 100% audit trail, near real-time data transmission, and minimal disruption to existing working practices.

Sysnet, an Anoto Gold Partner, has worked with British Airways to develop a solution named TRIP (TurnRound Intelligent Pens), which is based on Anoto's Digital Pen and Paper technology. At first, British Airways considered trying solutions with PDA:s or laptops, but in evaluations, the digital pen was found to be more appropriate, due to its pocket size and longer battery life. Moreover, it enabled a paper copy of the load sheet to be kept, in compliance with legal requirements.

During 2005, a pilot was initiated which proved the digital pens as robust, user-friendly tools, well suited for use in any type of weather conditions. In early 2006, British Airways accepted Sysnet's tender to develop the solution and today, it is used by over 300 turn-round coordinators to manage all of the airline's departures from London's Heathrow and Gatwick Airports.

How it works

With the TRIP solution, the aircraft dispatcher is replaced by a turn-round coordinator, using a digital pen. The digital pen contains a small, built-in infrared camera that stores the handwritten information. With the pen, the load data is registered into an A4-size form with an almost invisible dot pattern. Then, the information is transferred via a Bluetooth®-enabled mobile handset to the Central Load Control servers, where it is displayed in the form of a webpage. This process only takes a few seconds and is carried out by the turn-round coordinator at the side of the aircraft, regardless of where it is parked.

"In addition to the user-friendly, robust and highly mobile nature of the solution itself, the instant feedback that the mobile handset gives the turn-round coordinator is a really useful feature. It provides certainty that the information has been entered and also properly transmitted – in an area where such certainty is an absolute "must" for BA", says Neil Clark, Head of IT, Airline Operations, British Airways Information Management.

As the turn-round coordinator does not need to move away from the aircraft at any time during the loading, the process has become faster, more efficient and easier than before.

Digital pens part of change process

TRIP has been operational at London's Heathrow and Gatwick Airports for the last 18 months and deployment was extended to Heathrow's Terminal 5 building when British Airways moved its operations to the new terminal earlier this year.

"The digital pens and the new system have modernised the way we do things and brought us one step closer to a harmonised way of working, at Terminal 5", says Lynda Findlay, Senior Coordinator, Planning and Control, at British Airways.

Partner profile:

Sysnet is an innovative IT-solutions provider with a 20 year track record of developing complex, yet robust business products and solutions. Sysnet's award-winning digital pen and paper systems like TRIP are based on its SmartformCentral forms processing platform and PGCPlus advanced router software for mobile phones. Sysnet is a Vision Objects Gold Partner, Microsoft Gold Partner and IBM Premier Business Partner.

www.sysnet.co.uk

Customer profile:

British Airways is the UK's largest international scheduled airline, flying to over 550 destinations at convenient times, to the best located airports. Whether customers are in the air or on the ground, British Airways takes pride in providing a full service experience. The British Airways group consists of British Airways Plc and a number of subsidiary companies including in particular British Airways Holidays Limited.

www.britishairways.com

Anoto Digital Pen and Paper technology

An Anoto Digital Pen looks and feels like a normal ballpoint pen. However, it contains an integrated digital camera, an advanced image microprocessor and a Bluetooth® transmitter. Any paper can be used with a digital pen, if the Anoto dot pattern is added to the layout before printing the paper. The Anoto dot pattern consists of numerous black dots that can be read by the digital pen, but are almost invisible to the naked eye. The pen reads the pattern and registers what and where the user writes.

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For more information:
www.anoto.com