

Hop on a flying carpet

*Australian inventor now has evidence that his “Flying Carpet” can get passengers on board faster and thus save the airlines billions of kroner per year.

Airline passengers may need to get used to a trip on a magic carpet before they go on board.

But don't worry: it is quite harmless and it will solve a growing problem: It is taking more and more time to fill a plane and hence get it into the air, because passengers drag more and more hand luggage aboard.

The airlines, and ultimately the passengers, can save billions of kroner each year if planes can be filled five minutes quicker so they become airborne that much sooner, where they earn money.

Airlines hesitate

Generally speaking, airlines have not been boarding (filling the aircraft) in the most effective way. This has previously been described in *Fyens Times* in a long article 20 March this year.

These rates were also noted by Australian engineer and inventor Rob Wallace, who thought he had found the philosopher's stone. But his invention - “The Flying Carpet” - which enables passengers to get on board in the right order so they do not hinder each other in the cabin, has not yet been taken up, even though it is not costly.

But now Rob Wallace has weight behind his claim that none of the well-known boarding methods are anywhere near as fast as the “Flying Carpet”, and several large airlines have become interested in the invention, he says.

An independent Australian company “Robotize”, using advanced software specializing in analysis of movements of humans and goods, has compared four boarding methods: “The Flying Carpet”, boarding in Random sequence, Wilma (Window, Middle, Aisle - window seats first, then middle seats, lastly aisle seats), and finally, Back-to Front.

Each method was simulated by computer 100 times, with the “Flying Carpet” performing much faster than the others, says an excited Rob Wallace.

Almost twice as fast

When passengers took their places on the “Flying Carpet” and went on board a 150 passenger plane with 25 rows of three seats each side of the aisle, it was filled within 9 minutes, while the Back-to-Front method took nearly 16 minutes.

The latter method is widely used, but is problematic because passengers clump together in a small area and get in each other's way.

The above-mentioned times of 9 and 16 minutes are averages of 100 repetitions of each of the boarding methods.

Passengers behaved normally, and all had baggage.

Most importantly, short routes

In Europe, Ryanair with many short routes is known to emphasise quick turn-around, and it is on flights of one to two hours that the most savings are to be made.

Save 20 billion kroner on aircraft

As an example, Rob Wallace previously mentioned Southwest Airlines in the US. If it can schedule an average of eight flights per day instead of seven for each Boeing 737 then their fleet of 536 Boeing 737s could be reduced to 7/8ths, a saving on aircraft purchase cost of 20 billion kroner.

On overseas flights, where the plane is on the ground for several hours between landing and take-off, it is of less importance whether it takes 10 minutes more or less to fill the plane.

How the Flying Carpet Works

“The Flying Carpet” for an aircraft with 150 seats, 2.0 x 5.6 metres, placed at the gate.

It is basically a mini version of the cabin plan with printed seat numbers. Places are small so passengers in adjacent rows cannot take their places at the same time, late arrivals have to step back and wait for the next group. This means that passengers will be scattered inside the cabin and not hinder each other.

When the carpet is filled with 25 to 30 passengers they go aboard, rear seats first.

Then the next group of passengers step onto the carpet and when filled they proceed to board, and so on until the plane is filled.

View the video showing the simulated test of “The Flying Carpet” compared with Rear-to Front boarding at

http://www.roundpegin.com/html/aircraft_boarding.html

Note that the yellow boxes (window seats) are wider. It is preferred that these seats will be the first to be filled in the plane, so passengers with window seats will usually be able to find space on the carpet as soon as they wish to go aboard. Note also the passengers outside the carpet: They must wait until the first group has boarded.

How soon can the plane be filled? It is not as simple as it sounds. For example, experiments demonstrated that it is better to let passengers embark at random than fill the cabin rear seats first. First and foremost this avoids “clumping” of passengers hindering each other while stowing hand baggage and taking their seats. By using “The Flying Carpet” some rear seat passengers are first on board, and others are spread out evenly so there is ample space for each person.

Photo: Air France KLM

Footnote: One US dollar = 5.6 Danish Kroner