

The FLYING CARPET

Patent Pending



The Fastest Way To Fill A Plane*

Deceptively simple, yet twice as fast: The first two passengers take their places on the Flying Carpet (left), just before the gate. A minute later the carpet is full and the group is about to move to the plane, rear seats leading (above).

HOW IT WORKS

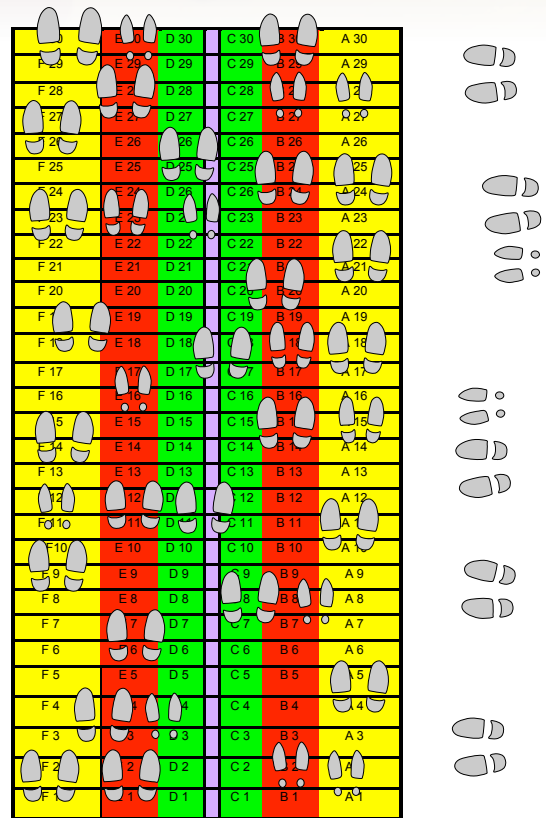
The Flying Carpet for an aircraft with 180 seats, placed at the gate. Measuring only 2.0 x 6.0 metres (6.5 x 19.7 feet), it represents the cabin plan drawn to scale.

Places are deliberately small so, when boarding commences, the carpet is filled by the first 30 to 40 passengers stepping onto their correct numbered places. This only takes about a minute, then the group proceeds to the plane, rear seats first, and go direct to their seats unimpeded. They will then be spread throughout the plane with plenty of elbow-room to stow their bags and get seated.

Getting people in the right order before they get on the plane, it's elementary.

Meanwhile, those that were not able to fit on the carpet in the first group will now certainly be able to take their places along with others to form the next group of 30 to 40, a minute or two later. This second group now heads to the plane and so and on until everybody is aboard. Five or six groups in rapid succession fill the 180 seat plane far quicker than any other method.

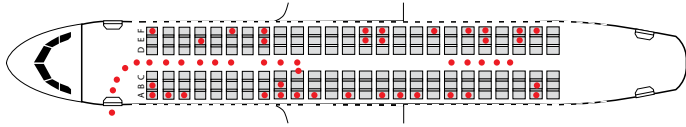
Being passenger-friendly, with minimal regimentation, the Flying Carpet means less anxiety and stress. Passengers who like to be first aboard can do so, as do those who like to be last. Live display screens show which passengers have gone through the gate, so that others can judge when best to make their move. Boarding groups are regulated by announcements and gate staff removing and replacing tape barriers. Ultimately this function could be fulfilled or at least augmented by "traffic lights".



"FLYING CARPET" representing the seating plan for a typical single aisle aircraft. Footprints on the mat represent 39 men, women, and children passengers, standing in their correct places, ready to board. Off to the right are the footprints of passengers who weren't able to fit on the mat, but will join the next group a minute or two later.

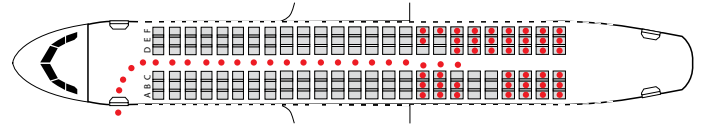
*As confirmed by computer simulations. View the comparison between "The Flying Carpet" system and Rear-to-Front boarding on the short video clip at www.roundpegin.com/html/aircraft_boarding.html The Flying Carpet fills the plane completely with 150 passengers, all with carry-on bags, in less than 9 minutes, way ahead of the almost 16 minutes taken by Rear-to-Front.

BOARDING SYSTEMS



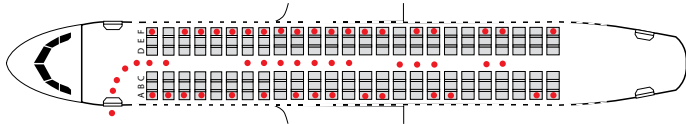
RANDOM

A passenger in a front row holds up all the other passengers while he stows his coat and bag and gets seated. This gets repeated over and over again resulting in a series of bottlenecks. **Aisle congestion** means that boarding proceeds at snails pace.



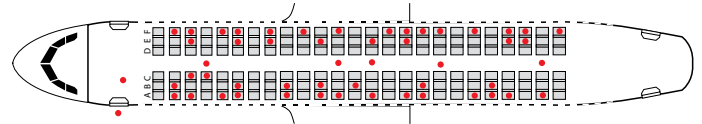
REAR-TO-FRONT

Though it reduces aisle congestion, Rear-to-Front boarding creates **row congestion**. The passengers are all clumped together and get in each other's way. Various studies have shown Rear-to-Front boarding is actually slower than no system at all.



WINDOWS FIRST

Wilma (Window, Middle, Aisle) and Reverse Pyramid are variants based on the obvious, desirable principle of getting window seat passengers seated first. Studies show that this is much faster in theory, though minor bottlenecks still occur. However, the high degree of regimentation required and splitting up of couples or families is not acceptable to the travelling public.



FLYING CARPET

Passengers enter the plane in the right order and go straight to their seats unimpeded. No aisle congestion. No row congestion either; being well spread out they have plenty of elbow room while they stow their bags and get seated. The Flying Carpet is almost twice as quick as Rear-to-Front.

Forget the cattle crush – not only does the Flying Carpet get passengers aboard much faster but it does it in a civilized manner.

ONE SIZE FITS ALL

A Flying Carpet with 40 rows, 3 seats each side of a single aisle only measures 2.0 x 8.0 metres (6.5 x 26.2 feet) but it can handle the biggest medium/short haul aircraft. And the smaller planes as well; it doesn't matter if places on the carpet are unused, and of course these rows can easily be roped off. Likewise, the same generic Flying Carpet can handle two seats per side, as in business class or smaller planes.

If space is a problem a scaled-down version can be used. In really tight places a simplified, narrow version is the answer.

SELF CHECK-IN, SELF BOARDING

The Flying Carpet boarding system is timely given the current trend at airports towards automating passenger processes such as self check-in and mobile phone boarding passes. In particular, the Flying Carpet fits well with boarding machines (scanners/turnstiles) as passengers are well able to arrange themselves and proceed through the gate with minimal staff input.

PATENT PENDING

International Patent Application (PCT) is well advanced. Inquiries from parties interested in licensing and/or commercialization are invited to contact RoundPeg Innovations Pty Ltd.



RoundPeg Innovations P/L was established by Rob Wallace to undertake development and commercialization of a wide range of products.

Over a long career as a professional design engineer Rob has designed and developed numerous novel but practical, commercially successful solutions to real world problems.

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