

11 ways commercial flights could change in the future

Chris Harris, www.euronews.com, June 2015



1. Helmets not headphones

Had enough of squinting at a tiny screen in the seat in front of you and fiddling with the flimsy standard-issue earphones?

Well, relief could be on its way.

According to a patent filed by Airbus in the US, plans are afoot to introduce virtual reality helmets.

The application suggests the helmets could offer “sound, vision or olfactory (related to smell) isolation” from the rest of the aircraft cabin.

2. Futuristic form

Airbus has given a futuristic vision of how the shape of passenger aircraft may change in the coming years.

It envisages longer and slimmer wings to reduce drag; a move away from the traditional tube-shaped fuselage; and introducing a new u-shaped tail.

It says engines will be positioned further towards the rear and more embedded into the body of the plane.

They will also be more reliable, allowing for a u-shaped instead of a vertical tail, the former helping to reduce noise pollution.

This may all seem too good to be true. And it might be.

The France-based manufacturer offers this closing caveat: “The Airbus Concept Plane brings together a package of technologies, which although feasible, are unlikely ever to coexist in this manner. So it is not a plane that will fly, but it stretches the imagination of engineers, it highlights some of the challenges and decisions that lie ahead for air travel, and it illustrates the main technologies being explored in anticipation of the future needs of passengers and their planet.”

3. Automated check-in

We are already seeing this trend today with online check-in. But the self-service element of our flying experience is set to climb to new altitudes.

London’s Heathrow Airport and Aeroports de Paris have this year installed do-it-yourself technology for dropping off baggage.

Other airports have or plan to follow suit. Some are even envisaging a future where the customer doesn’t interact with anyone until the flight attendant boards the plane.

We are perhaps seeing the first seeds of this at Aruba Airport, a Dutch Caribbean island off the Venezuelan coast. It is holding a two-year trial in which facial recognition technology is used to identify passengers between initial check-in and boarding the plane.

4. Terminal sleeping...

The sight of a sleep-starved traveller sprawled out across three seats in a busy terminal often incites laughter and sympathy in equal measure.

But should getting a bit of shut-eye in between flights really be so difficult for the modern jet-setter?

Well the management at Helsinki Airport certainly thinks not – it has become the first in Europe to introduce special sleeping pods. They are ergonomic seats which can be turned into a bed, with a cover pulled over to keep the noise out. There is even space for hand luggage and somewhere to charge your smartphone.

5. Augmented windows

Airbus filed a patent in 2014 which envisages, instead of a tiny oblong peephole, fitting planes with an “interactive cabin window system”.

The application says it could be used as a display screen and bring up information on places passed en route.

Airbus has also claimed future aircraft will have observation points, offering the “finest views ever of the world’s marvels”.

6. He’s behind you...

Another Airbus patent looks at the possibility of moving the cockpit away from the front of the aircraft.

Surely a flight of fancy, you’d think?

But the patent says the nose of an aircraft should, for aerodynamic reasons, be lancet-shaped. Except that is just not possible with a cockpit, whose presence at the front of the plane increases its weight.

The application considers putting the cockpit underneath the cabin or at the back of the aircraft, with pilots viewing the outside world via a virtual screen.

7. Supersonic resurrection

We have, of course, had supersonic passenger jets before: the Concorde, which was in flight from 1976 to 2003.

It was retired three years after its only crash, near Paris.

But it seems the idea of flying a passenger jet faster than the speed of sound could be making a comeback.

NASA has announced this month it will be spending 3.9m GBP funding research into finding a greener and quieter alternative to the Concorde.

8. Electric planes

Solar Impulse 2 is currently trying to become the first sun-powered aircraft to fly around the globe.

The solar cells on its huge wings drive the aircraft’s propellers during the day and charge batteries which sustains flight at night time.

Yet experts say the prospects of a commercial airliner using this technology are remote, because, given the weight of such an aircraft, it would not have enough power to get off the ground. In short, solar technology would have to improve significantly for this to become a reality.

But what about electric?

That would appear to be more likely. Both Airbus and Boeing are working on subsonic commercial aircraft powered by hybrid electric propulsion. Boeing says the hybrid electric engines – which offer better fuel efficiency, fewer emissions and less noise – would be used on shorter flights with fuel onboard for longer missions.

9. Flying aircraft carriers

This is still very much a concept, but Airbus has floated the idea of having flying aircraft carriers.

It says there will be more long-haul flights in the future and that developing airborne aircraft carriers could help manage them.

It envisages having a giant carrier with smaller planes docking on it for part of their journey, with aircraft landing and taking-off vertically.

10. Smoother security?

One of the most-hated aspects of passing through any airport is the security checks.

But there are moves, at some airports at least, to speed up the process.

For example at Amsterdam's Schiphol Airport automated scanning technology does an initial assessment of a travellers' trays or luggage and only shows the operator images of the ones that are suspicious, allowing him/her to concentrate their energies on the items that most need attention.

There has also been technology developed, but not yet rolled out, which could spell the end of limits on the amount of liquids travellers can take on flights.

Developed by scientists in New Mexico the scanning technology uses a combination of x-rays and nuclear magnetic resonance, used in MRI scans, to assess whether a liquid is dangerous or not.

11. Drone airways

In the aftermath of the Germanwings crash in the French Alps, the issue of pilotless planes has reared its head.

Experts say the introduction of such planes – especially with the widespread use of drones – is not a technological issue. Rather the biggest challenge is bringing passengers around to the idea.

Mary Cummings, from Duke University in North Carolina, told CNN: "Planes can already fly themselves

"Pilots only spend three minutes per flight flying a plane anyway, and they don't really need to do that."

"People want a human as a pilot who shares their own fate," she said. "We also need a babysitter up front, both to monitor the automation and to take charge if there's an unruly passenger."

However, with the potential savings on offer for airlines, this possibility is unlikely to completely go away.