AIRBUS CABINS – Passenger at Heart, Airline in Mind

Flying is not just travelling; it should be a highlight of any trip, which is why providing the best passenger experience is a major Airbus design goal. Our cabins are designed to meet diverse passenger expectations, delivering comfort and efficiency, and ensuring airlines have a versatile space to meet changing market needs. Only Airbus offers airlines the opportunity to efficiently cover the full spectrum of passenger needs. With Airbus, airlines can offer the best on-board products, concerning either personal space or passenger services such as in-flight entertainment and internet connectivity.

Airspace by Airbus
Airbus has unveiled new cabin brand to reinforce our commitment to both passenger experience and airline performance. **Airspace by Airbus** represents the best of Airbus' cabin innovation and design, and promises cabins which are more relaxing, inspiring, convenient and beautiful.

The launch of Airspace coincides with the launch of our brand new cabin interior for the A330neo – the new re-engined version of the best-selling A330 widebody airliner. This new cabin, developed with passengers at heart and airlines in mind, fully encompasses the four pillars of the Airspace by Airbus brand: Comfort, Ambience, Services and Design and will ensure the A330 continues to be a benchmark in passenger experience and airline value. At the same time, it visibly sports an Airbus cabin and is a clear partner to the A350 XWB in the mid-size widebody market.

Overall, the subtle and sophisticated Airspace design language showcased in the A330neo and A350 XWB – and which will be infused progressively to the other Airbus Families – is unmistakably 'Airbus'. The signature details and iconic elements consistently recognisable throughout the cabin will add to passengers’ enjoyment of the flight. It is a beautiful space with straight lines, clean shapes and clear surfaces. And above all, it is the passengers’ space, which for the airlines also becomes a flexible canvas onto which they can project their own brand.

A320 Family non-stop cabin innovation
Taking advantage of the A320's larger cross-section, operators can choose the cabin product that fits their market: from a wider 18-inch seat for more personal space to a wider aisle for faster boarding and deplaning, allowing reduced turnaround times of 20 minutes or less. The more spacious cabin environment also comes with more overhead stowage volume, as standard, when compared with its direct competitor. To meet requests for a further increase in bag carrying capability, Airbus has launched a new pivoting bin, with a space enhancing design inspired by long-range aircraft.
The A320 cabin comfort and efficiency are constantly improving through innovation. New efficiency enablers, allow airlines to fit more seats in the cabin with equivalent comfort, or the same number of seats with more comfort.

- **Space-Flex** is a rear lavatory & galley arrangement which converts unused cabin space in the rear bulkhead into revenue space. It allows airlines to gain up to 6 seats as well as offer the first lavatory in the single-aisle market accessible to persons with reduced mobility. The first version flying since late 2013 has good in-service feedback, and a new version is now offered with more trolley capacity.

- **Smart-Lav**, a new optimised lavatory, allows airlines to recover maximum useable cabin length. This allows a gain of seats or to offer more comfort through increased pitch or more recline.

- In conjunction with the above enablers, and modern pitch-efficient seats, the latest certification for A320 Family forward and aft doors allows higher seat counts: up to 189 seats on the A320, 160 pax on the A319 and on the A321neo up to 240 pax with a new door arrangement.

**A330 an ever improving travel experience**

Across the A330 Family, First and Business Class passengers are rewarded with their preferred window or aisle seats. The eight-abreast seating layout in Comfort Economy ensures that no passenger is more than one seat from the aisle while offering the best in class seat comfort with 18” wide seats. To help airlines maximise revenues in particular markets, a nine-abreast Budget Economy and a seven-abreast Premium Economy can be offered as well. The A330 also supports the latest in-flight entertainment, including video-on-demand, mobile telephony and email via satellite.

A lighter, brighter and more spacious cabin results from updated features that include new interior styling and state-of-the-art full coloured LED lighting featuring appealing “mood lighting” scenarios. Overall, the A330 cabin is widely recognised as one of the best in the sky offering a bright and spacious atmosphere, and the quietest cabin in its class, making flying less tiring and more enjoyable.

In conjunction with the A330neo, Airbus is also introducing a new **Airspace** cabin driven by consumer-centric development and drawing on the success of A350 XWB. The A330neo cabin will feature 4th generation IFE & connectivity platform, improved lateral bins with 66% more bag capacity, latest Galley Inserts (ARINC standard same as on A350 XWB), refreshed lavatories with improved features, and upgraded cabin management system (CIDS).

In a nutshell, the A330neo passengers and crew can look forward to an experience which builds on the current benchmark for medium-sized aircraft cabins – the A350 XWB – to offer the very best cabin for the foreseeable future in such an aircraft.

Along with this new cabin, new efficiency enablers are also being introduced on A330neo to maximize seat count without compromising passenger comfort:

- **Smart-Lav**, an optimized lavatory maximizing available cabin length for installation of seats
- Angled-wall double lavatory offering optimized lavatory tailored to nine-abreast budget economy class
- Modular Space-Flex to maximize space usage aft of Door 4 with a combination of lavatories (up-to 4 lavatories and offering PRM* capability) and galleys (up-to 20.5 trolleys)
- Lower deck crew rest combining rest area for cabin crew as well as flight crew
* PRM stands for “People with Reduced Mobility”

A380 unbeatable passenger experience
Customers operating the A380 are not only carrying more passengers at a new comfort level, but are also doing so in the most eco-efficient way, while generating the most revenue. The flagship A380’s greater floor space enables airlines to offer passengers in every class an unmatched comfort standard. The unique widebody double-deck arrangement provides extra seating capacity at the same time as improving the passenger experience.

The A380’s typical 10-abreast economy already offers an outstanding comfort with a seat width of up to 19”. Airbus’ ability to offer efficient choice for Premium Economy and Economy extends also to A380, with new options at nine-abreast and 11-abreast respectively. Meanwhile, with even 11-abreast allowing 18” between the armrests confirms the A380 continues to offer the best standards in every class.

A350 XWB: the Xtra that makes the difference
The A350 XWB benefit from Airbus’ most advanced technology, much of which is now being made available across the Airbus product range. The eXtra Wide Body fuselage enables generous space in all classes and 18” wide seats for the nine-abreast Comfort Economy class. To help airlines maximize revenues in particular markets, choices for a 10-abreast Budget Economy and the eight-abreast Premium Economy options will certainly be popular for this growing market segment.

The A350 XWB cabin design – with its smooth curves, flowing lines and innovative lighting – also generates a pleasant and soothing atmosphere. Larger panoramic windows create wide angles of vision, offering passengers of all sizes a good view of the outside world. Larger overhead stowages provide space for more carry-on baggage in every class, and enables room-like spaciousness in Business class thanks to the removal of the centreline overhead stowage.

New cabin enablers are also being introduced to increase seat count and cabin efficiency without impacting the passenger comfort:
- Smart-Lav, an optimized lavatory, that allows maximizing the available cabin length to install more seats
- ICE* Rear Galley, a combination of two longitudinal galleys (16 trolleys) and 2 lavatories, for an optimized use of the floor space available aft of the Door 4
- Optimized lateral 3-trolley galley allowing to minimize floor space used while maintaining the volume available for food and drink storage

* ICE stands for “In-Flight Entertainment”
Airbus is continuously working on introducing new cabin efficiency enablers, and more will be announced soon. (Note: ICE stands for "Increased Cabin Efficiency")

**Well-Being on-board**

Airbus aircraft have the quietest cabins in the sky, which greatly contributes to passengers being rested on reaching their destination. The A380 leads the way with the very quietest cabin, with the whole Airbus family comfortably beating competing aircraft in this important aspect of passenger comfort.

Temperature control, via the Flight Attendant Panel, is enabled for a greater number of separate zones. This allows the cabin crew to precisely control the temperature for optimised comfort throughout the aircraft.

Effective cabin air conditioning is a major factor in maintaining high levels of passenger comfort, with advanced environmental control systems maintaining an airy, yet draft-free, environment. The air in the aircraft cabin is completely replaced every two to three minutes, being replenished with both outside air with filtered recirculated air. High efficiency filters remove 99.99 per cent of particulate and organic matter. Together with highly controlled air circulation patterns with no longitudinal flow, even the most miniscule organic materials are efficiently and quickly removed from the cabin. On the ground, Airbus' unique Volatile Organic Compounds (VOC) converter keeps cabin air free of kerosene odours from other aircraft.

Airbus was the first to introduce ambient ‘mood’ lighting as a factory fit option on a commercial aircraft in 2001, an option that is now widely adopted. Not only do all Airbus programs offer full white LED cabin lighting, but Ambient LED based lighting can also be fitted on all Airbus aircraft allowing airlines to choose from a palette of up to 16 million colours. With these, airlines can “paint” their cabin with light, and create an atmosphere in line with their branding and colour scheme. Lighting scenarios use colours, brightness levels and dynamic transitions to provide a pleasant and refined cabin atmosphere in all flight phases, helping passengers to minimise jet lag by simulating, for example, sunrise or sunset. The adoption of full LED technology (from the first A350 XWB aircraft, and from this year onwards on all other Airbus aircraft types) further enriches lighting control, the variety of scenarios, and the quality of the lighting, so that airlines can “make magic” out of light.

**State of the art In-Flight Entertainment**

All Airbus aircraft, from the short to medium range A320 Family up to ultra-long range A380, can be fitted with the latest state-of-the-art In-Flight Entertainment (IFE) systems offering individual screens with audio and video on demand throughout the cabin. In addition, passengers can enjoy live satellite live television broadcasts, outside live views from landscape cameras and access the internet.
With the latest generation of IFE products, intelligent integration into the seat preserves passengers’ legroom and also gives them the ability to connect their personal electronic devices. Not only can they re-charge their devices, but can complement the airline’s entertainment offer with their own content.

In its quest for more robust IFE systems which ensure reliability, deliver the smartest in-seat integration and offer the best passenger legroom, Airbus already offers the next generations of IFE:

- Right from entry into service, the A350 XWB offers the first ever genuine 4th generation IFE platform and thus outperforms other aircraft in terms of passenger comfort and viewing, whilst providing lower life-cycle cost for the airlines. The ‘future-proof’ IFE of the A350 XWB delivers high-definition content to all passengers, featuring 12 inch screens for the first time in economy class and touch screen control. Its simpler architecture results in a leaner physical integration. For example, the A350 XWB is the only aircraft which maintains a flat cabin floor, free of the bumps that IFE installation typically causes.

- 4th generation IFE products are also on offer on all other Airbus aircraft types, including the A320 which benefits from a new Universal Platform entering into service this year.

- At the end of 2012, for the first time, a new, lighter, cost-effective, and simpler IFE system, based on a seat-centric architecture was installed in production: the A330 “Light IFE”. Light IFE offers are also available now on A320 and A350 XWB.

- Airbus is also the only airframer to offer new, lighter, cost-effective, and simpler IFE systems in production, for instance those based on a seat-centric architecture, e.g. A320, A330 & A350 XWB.

Onboard wireless services are now offerable on all Airbus aircraft types. They provide passengers with the possibility to access an onboard portal (intranet) by WiFi from their own personal electronic devices, opening the door for new airline services. Airbus has the most advanced and the most comprehensive IFE and onboard wireless offerings on the market, with 5 different suppliers providing a wealth of choice across our product line.

**Airbus, the only airframer offering in-flight connectivity, in production, on all aircraft**

Internet access, texting, and social networks are now a reality for passengers, as airlines are deploying in flight connectivity en-masse. More than 75 airlines, from all profiles and all regions have now committed to connectivity, such that more than 85% of our A350 XWB and A380 aircraft delivered last year can connect in flight. In the last five years, more than 60 airlines have committed to connectivity. Two thirds of A380 operators, and all A350 XWB aircraft connect in flight.

Passengers increasingly wish to use their own personal electronic devices in-flight to communicate with the ground, access the internet and enjoy social media. Moreover,
connectivity enables airlines to continue to communicate personally (e.g. by SMS or through social networks) with passengers in-flight and potentially to generate ancillary revenues. It also serves airline operations communications, accessible wirelessly from cabin crew devices, such as crew mail, digital cabin logbook, documentation viewing, telemedicine, credit card authentication, on board rescheduling of traveller flight connections – with further applications to come.

Airbus pioneered connectivity, anticipating the large scale airline uptake now taking place. It was the first manufacturer to receive certification for its on-board mobile phone system in June 2007, and since 2010, Airbus operators have been able to offer both high-speed internet access and mobile telephony, worldwide. In the same vein, the A350 XWB is the first and only “digital native” aircraft offering line fit connectivity since its entry into service, with three connectivity solutions (*L-Band/SwiftBroadBand, *Ku-Band, and *Ka-Band).

Airbus offers by far the most comprehensive choice of connectivity solutions as illustrated by the selection of Zodiac Inflight Innovations as a new connectivity supplier. Operators can now choose from four different suppliers (Panasonic, Thales, Airbus, Zii) and three different technologies (*L-band/SBB, Ku-Band, and Ka-Band) across the Airbus family. By offering High Bandwidth Connectivity solutions on a multi technology, multi supplier, multi program basis, with the possibility to mix and match different IFE and Connectivity suppliers, Airbus is supporting maximum customer choice.

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