

# aboutturn

Cathay Pacific is flipping the traditional herringbone business-class format on its head to redress passenger concerns regarding seat width and privacy

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01



The competition never sleeps – but in the business-class airline market, sleep is what defines a competitive product. Hence Cathay Pacific has invested over a billion Hong Kong dollars on new wing-back seats from Sicma that convert into beds with a usable length of 75in – four inches more than its previous product. “The number one requirement for long-haul business class is sleeping comfort,” says Alex McGowan, Cathay’s head of product. “Privacy is a close second – this means no accidental eye contact, no rubbing shoulders, and no stepping over your neighbour or being stepped over.”

Airlines differ in their response to these requirements – with Cathay only the second airline to plunge for a ‘reverse herringbone’ solution, working with London design agency, James Park Associates (JPA). “This configuration creates a very open and spacious cabin,” continues McGowan. “The geometry of the seats means that privacy is easily achieved and every seat has direct aisle access. Outboard seats have a

perfect window view and inboard seats give the option of total privacy or easy interaction with a travel companion. It’s also a highly efficient layout, with every cubic centimetre of space being usable by the passenger. The only real challenge is that it’s a non-traditional layout and that means more effort is required on the certification front.”

Set at a relatively close pitch, Head Impact Criteria testing is the main certification hurdle to be cleared by reverse or ‘traditional’ herringbone schemes. The addition of an airbag to the seat belt provides a satisfactory solution in this respect.

**REVERSE ENGINEERING** JPA was instrumental in first bringing the reverse herringbone format to market, working with US Airways to install it on its A330-200 fleet. Casting his expert eye over traditional herringbone products similar to Cathay’s previous offering, James Park quickly identifies some common shortfalls. “The downside to the normal herringbone arrangement is that when you’re in the horizontal sleeping

## colour and trim

Cathay Pacific’s new business class features natural leather, brushed steel and richly woven fabrics that blend soothing green, brown and champagne tones. Abstract patterns on table tops, fresh-cut flowers and splashes of colour in storage areas provide elements of warmth.

A subtle bamboo print on the front cabin wall echoes the reception wall in Cathay’s new Hong Kong lounge, The Cabin. This provides a crisp, clean backdrop for original artwork created by Hong Kong artist Maria Lobo. Maria’s unique abstract works incorporate both Western and Asian techniques, supplementing the sophisticated, international appeal of the cabin with an Asian flavour.

“The scheme was inspired by the textures and rich colours of the Pacific region,” explains JPA’s senior colour and trim specialist, Annette O’Toole. “The concept was that the interior of your seating and sleeping area was dark and rich, whilst the outer privacy screening was light and pearlescent to keep the overall look of the cabin warm but light.”

Strong textured woven fabrics using multiple coloured threads give extra depth and richness to textile elements. “Pockets and stowage unit interiors are in strong, bright, pure colours similar to those used inside lacquered boxes, adding an element of delight,” adds O’Toole.

position, your legs are facing the aisle into what is effectively a public area – that’s uncomfortable for a lot of people,” he says. “You are also sitting with your back to the window, which is unpopular with some passengers. Finally, it’s difficult to socialise as you’ve got high screens on both sides, so you’re quite cut off – even in the central pairs you don’t have any sense of being with other people.”

Frequent flyer forums and message boards confirm Park’s observations. Some of Cathay’s customers never really took to its previous product, feeling too hemmed in by the high sidewalls, while seat width and privacy concerns are also mentioned in some posts. McGowan is understandably defensive of such criticism: “We designed our new product to be the best long-haul business class in the world, not to be better than our current business class,” he says.

However, by simply reversing the format, Cathay and JPA have solved many of these problems: “In our new business class, the outboard seats are angled slightly towards the window, giving a perfect view,” says McGowan. “The inboard seats are angled slightly together – if you sit back in the shell you are totally private, however you can track the seat forward up to 11in independently of recline,” he continues. “If you and your neighbour do this, you are in the ideal position to have a conversation over the side cocktail table.”

**SAME DIFFERENCE** Although US Airways already has a reverse herringbone product in the market, McGowan insists Cathay’s new seat is significantly different: “Our product is unique in terms of both the styling and substance,” he says. “From a styling perspective, we’ve sculpted the backshell into a wing-back design. We think this looks great but it also adds to the feeling of privacy and exclusivity. We’ve also opted for exceptionally premium materials – our fabrics [from rohi] are a weave of five colours, we have the finest leather and

01. Cathay Pacific has opted for a 1-2-1 reverse herringbone product, with 53 seats on its B777s and 39 seats on its A330s

02. Side cabinet and shoe locker provide secure storage for small valuables and shoes

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WE'VE ADDED A UNIQUE BED EXTENSION THAT DEPLOYS AUTOMATICALLY AND PROVIDES EXTRA BED WIDTH

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- 03. The large cocktail table can be used in conjunction with the main table to allow passengers to spread out while they work
- 04. Latchable side cabinet with vanity mirror

custom-designed Tedlar [Schneller]. We've also added soft, padded Nomex [Botany Weaving] to the inside of the shell around the footwell and headboard – this attention to detail really helps with both comfort and soundproofing.”

In terms of substance, McGowan points to a new bed extension as a critical detail passengers are sure to notice: “We’ve added a unique bed extension that deploys automatically when the seat reclines to 180° and provides extra bed width,” he says. “We also moved the main table so that it deploys horizontally rather than vertically. This releases a large space, which can be used as storage or as a space for passengers to spread into when they sleep. This space and the bed extension combined make our seat one of the biggest and most comfortable flying anywhere.”

But the differences don't stop there: “The latchable side cabinet, shoe locker and vanity mirror are also unique,” continues McGowan. “We’ve also added a third actuator to our seat that provides a better ‘relax’ position and greatly aids interaction between centre seats by allowing forward tracking independent of recline. Finally, we have a 15.4in personal television that can accept video feed from the passenger’s own device, including iPods.”

**SLEEP ON IT** The new extension sees bed width increase from 23.5in to 26.4in, while a retractable armrest takes it to 27.6in on the carrier’s A330s; bed width is 26.6in (with extension) and 29.5in with the armrest retracted on its 777ERs. The bed is also an inch longer: “From tip to tip our new bed is 82in long,” says McGowan. “We also assess bed length by calculating the point at which a 95th percentile male can comfortably fit his feet when lying on his back. In our new business class this is 75in (6ft 3in) – one of the best ‘real’ bed lengths flying,” he says. “Bed width is the other key consideration, as this enables passengers to turn freely while they sleep. Our seat is up to 29.5in wide with the bed extension deployed and the armrest lowered. The width into the further reach of the side stowage pocket, which can be used by tall passengers in conjunction with the bed extension, is over 40in.”

Cathay has also specified a new soft padded material (see page 148) from MGR Foamtex to line the inside of the suite to enhance comfort and provide sound proofing.

Beyond sleeping comfort, McGowan says the carrier’s research revealed another important insight: “Storage space is incredibly important to passengers on a long-haul flight,”



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### Key features

- 82in-long bed with a usable length of 75in – a 4in improvement on previous usable bed length of 71in
- Maximum seat width (with extension and armrest retracted) of 27.6in on Cathay's A330s and an even more impressive 29.5in on its B777ERs
- Plenty of dedicated storage space – during flight side cabinet can be fixed in the open position to double as a privacy screen
- Outboard seats are angled towards the windows - enjoy the view!
- Centre seats are angled towards each other and passengers can track forward for a more social flight experience if desired

he says. “The moment they step into their space, they want to find a place for all of their belongings. We’ve tried to accommodate this by creating several distinct storage areas. There’s a side cabinet with a latching door that’s perfect for small valuables. A triangular space at the passenger’s knee is large enough for a laptop or handbag – it also contains a pouch for a bottle of water. Finally, we added a shoe locker at floor level. We iterated continuously through the development process to get the small things right, as well as the big things. Two of the last changes we made were to enable the door of the side cabinet to be used as a privacy screen between centre seats and to add a vanity mirror.”

**SELF SATISFACTION** Aside from pleasing passengers, any new product has to meet an airline’s requirements – with seat density the prime consideration. Cathay’s new business class uses the same cabin envelope as the previous product, but its B777s now have 53 seats, four less than before. Its A330s feature 39 seats, two less than before. “Of course seat count is important from an airline perspective and we rejected a number of concepts because they were wastefully inefficient,” reveals McGowan. “Our new business class has two less seats on an A330 and four less on a B777 than our

current product – but all of this has been given back to the passenger in valuable storage and living space.”

There is also a slight variation in the angle that the seating faces away from the aisle between aircraft types. “In both cases it is under 30°,” says McGowan, “but I’d prefer not to give exact details.”

Cathay has also designed maintainability into the product, paying particular attention to its choice of materials, as well as maintenance access to key components. “It is a testament to a terrific team effort that we have a product we think looks great in the marketing material and will continue to look great after years in service.”

Finally, the new seat is considerably lighter, ensuring valuable fuel savings: “The new product is mounted directly to the aircraft cabin without the need for an intermediate pallet,” explains McGowan. “This, plus the use of new ‘crushed core’ manufacturing techniques, and carbon fibre materials gives an overall weight saving.”

Park notes the struggling economy will continue to effect product development going forward: “We’ve got to be looking at things like passenger density, cost of ownership and weight reduction, especially now we have very high oil prices again,” he says. “With this particular product, we have managed to

- 05. Buddy seat and footrest
- 06. Side storage is ideal for handbags or laptop cases and includes a dedicated water bottle holder
- 07. Centre seats slide forward allowing passengers to interact with neighbours



08

- 08. Each seat is equipped with a universal power supply outlet and a multiport connector so passengers can connect and charge their own devices
- 09. Wing-back design and sound-proofing materials ensure a private oasis of calm

knock out quite a lot of weight because it's track mounted, which saves about 20 to 30 lbs per seat."

**MORE THAN JUST A SEAT** Cathay's business-class overhaul involves more than just a seat – the airline is rolling out a new uniform and also opened a new lounge, The Cabin, at Hong Kong International Airport, last year. "Long-haul business class is an incredibly competitive segment," observes McGowan. "The passengers who fly it are important people, and are used to being treated as such. In order to attract passengers to fly with us, we have to provide the best overall customer experience. This includes the ability to speed through check-in, relax in a world-class lounge, and enjoy the combination of a great onboard product with genuine, personalised service. This is hard to pull off and it's not enough to get some of it right some of the time. We strive to deliver it consistently and have built the right team, processes and governance to help us do so."

Meanwhile, the airline continues to invest in its IFE: "We recently expanded our IFE content across all cabins from over 350 TV programmes to 500," says McGowan. "This is



09

in addition to over 100 movies, 888 CDs, 22 radio channels and 70 games. We're also introducing a multi-port adapter, which allows passengers to stream content from any video-output device to the 15.4in seat monitor. There's also a USB port that supplements the international power supply as a means of charging passenger's devices."

A large table that can be used in conjunction with a side cocktail table makes for a better all round working environment, while McGowan says broadband internet will be introduced across both Cathay Pacific and Dragonair's fleets from 2012, courtesy of Panasonic's eXConnect system.

**FLEET MANOEUVRES** The new seats are currently being line fitted to all of Cathay's new deliveries in Seattle and Toulouse. Meanwhile retrofits are being handled by TAECO in Xiamen, Southern China. "We have an aggressive schedule and by the first quarter of 2013 all of our long-haul A330 and B777 aircraft will be equipped with the new product."

Surprisingly, the airline is not fitting it across its whole long-haul fleet: "Our passengers really value the comfort of the existing business-class bed, as well as the privacy it provides; hence it will remain fitted to our A340 and B747 aircraft."

McGowan also rules out plans to purchase any A380s at this point in time: "Our passengers tell us that it's the product and service that count, not the type of aircraft," he says. "We've recently announced an order for 30 A350s and six more B777-300ERs. We'll configure these aircraft to provide a superb passenger experience. We're certainly keeping busy but aren't in a position to make any more announcements just yet!" ☒

CONTACTS

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