

# TOMORROW'S AIRLINE INDUSTRY... HUB AND SPOKE OR POINT TO POINT?

Among today's aircraft manufacturers, planes are being built and strategic business bets are being made over a critical debate. Will business travelers in the next 20 years demand that the premium paid for their tickets gets them on a plane with the widest array of amenities possible or simply on one that avoids ever-more-congested hubs?

The two views of air travel evolution – hub-and-spoke and point-to-point – represent the philosophies of the world's two primary airplane manufacturers, Europe's Airbus and U.S.-based Boeing, as well as the regional airplane manufacturers such as Brazil's Embraer and Canada's Bombardier. They also lie specifically behind the designs of Airbus and Boeing's two newest models, the A380 and the 787, respectively.

The enormous 555-seater A380 isn't much longer than Boeing's latest 747, but its 261-foot wing-span is 50 feet wider, broader than many runways and taxiways, and it weighs in at a maximum of 1.2 million pounds, 30 percent more than the biggest 747. Only a plane the size of the A380, says Airbus, will be able to accommodate the growth in passenger traffic through the world's hub airports that are already slot constrained. Airbus is betting the current hub-and-spoke model of air travel cannot be replaced with more direct point-to-point flights because it would be too costly for airlines to operate. Furthermore, says Airbus, the A380's 50% greater floor space will allow airlines to add amenities for business travelers heretofore only dreamed of, such as spas and gyms.

The smaller 787, says Boeing, with its 200-300 passengers but equivalent range of over 8,000 nautical miles (approx. 15,000km), is better adapted to the trend to less hub-dependent travel that has been increasing since deregulation in the mid-80s. Boeing cites Official Airline Guide figures that show jumbo jet departures from Tokyo's Narita and Haneda airports, and Hong Kong, as a percentage of all departures, is half of what it was in the mid-90s. Jumbo jets leaving JFK in the mid-80s accounted for approximately 25% of all departures, but only 5% today.

Made of composites rather than aluminum, says Boeing, the 787 will provide a more humid cabin environment, reducing passenger dehydration. The cabin atmosphere is further enhanced by the market's largest, electrically controlled windows, which

tailor the incoming amount of light while allowing passengers to look out and less fatiguing LED lighting.

Despite Airbus' valid cost argument against wide-spread, high-volume, point-to-point travel, there is mounting evidence that regional traffic at least is increasing. Such travel becomes even more cost-effective with the use of smaller planes from the likes of Bombardier and Embraer. Stéphane Guilbaud, spokesman for Embraer in France, says, "Hub and spoke has reached its limits for us. The future for regional transport will be via point to point, serving regions without going through the hub."

In both Europe and the U.S., for example, Embraer sees airlines like Poland's Lot, Italy's Alitalia, Jet Blue and Continental replacing bigger planes with models from its family of 70 to 120-seaters. "Lot is doing Warsaw-Dublin and Warsaw-Venice. With bigger planes, they couldn't do the flight because there aren't enough people. When a company had a 200-seater for Milan-Barcelona twice a day, now it uses a 70-seater that flies more frequently," he said.

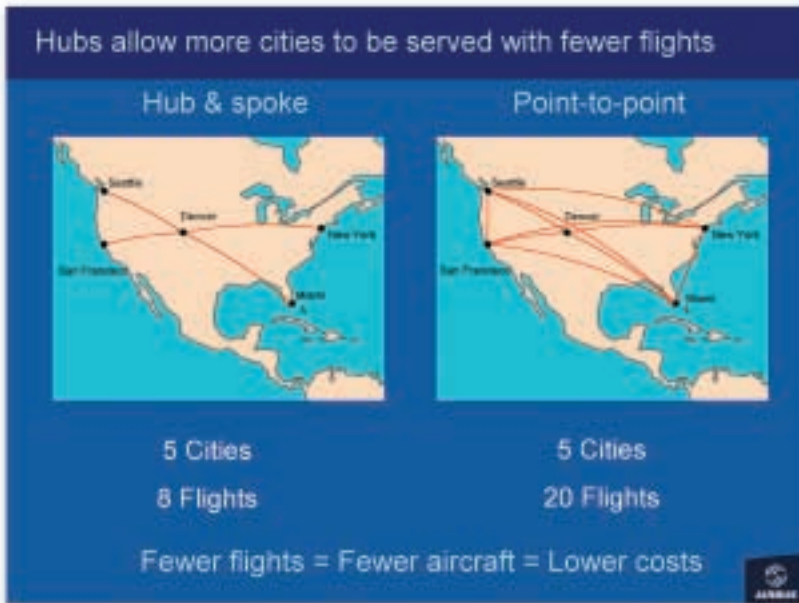
Embraer currently has 340 firm orders and 400 options for its newest family of planes, from clients that include Finnair, Swissair, JetBlue, Republic Airways and Air Canada.

Indeed, for business travelers, the convenience of regional air travel is increasingly a compelling argument, says David Radcliffe, CEO for UK travel market company BTI. More and more, the business traveler seeks as painless a travel experience as possible, with the most amenities, and they include airports and planes in their calculation, Radcliffe says. "If you're traveling within Europe, for example, business travelers are starting to think of regional airports (and regional jets) as a viable option because they can get in and out of them much more quickly – faster access, better parking, etc. It can be more expensive because there is less competition but some of the low cost carriers can meet the needs; and in any case, to some travelers, time is money."

Regardless, high-volume, long-haul hub carriers, like Emirates or Virgin, will continue to favor planes like the A380, and are likely to drape them in luxury amenities that could easily seduce business travelers.

By Marsha W. Johnston

# THE TWO VIEWS OF AIR TRAVEL EVOLUTION— HUB-AND-SPOKE AND POINT-TO-POINT



"The A380 is the future of air travel," declared Sheikh Ahmed bin Saeed Al-Maktoum, chairman of Emirates, at the unveiling of the A380 in Toulouse, France in January. Emirates has specialized in long-haul routes since its founding in 1985; in fact, it "doesn't even have a short-haul network", says a spokeswoman in London. Even so, the airline, one of the world's fastest growing, ordered an amazing 45 A380s, almost a third of the aircraft's entire order book, totaling \$19 billion, one of civil aviation's largest orders ever.

In a first hint of what facilities might be found onboard Emirates' A380s, the company last year signed a \$1 billion deal with Matsushita Avionics Systems for its ex2 in-flight entertainment (IFE) system. The next-generation IFE system promises broadcast audio and video, on-demand audio and video, games, libraries of electronic and audio books, noise cancellation and the ability for passengers to create and store personal playlists. The carrier also committed \$80 million to the purchase of First Class suites from B/E Aerospace.

Virgin Atlantic Airways, headquartered at Heathrow Airport, has ordered a more modest five A380s, be-

cause the plane fits the maverick airline's (peculiar) business model," says Joe Thompson, Virgin's manager of market & network planning. "We are exclusively long haul, flying point to point because we have no short haul to feed into our hub to hub, so we fly on the thickest routes," he said.

The A380 also corresponds to Virgin's reputation for using revenue-generating space – seats – for other innovative amenities that generate more customer loyalty than immediate revenue. "We don't have the same infrastructure as other airlines, so we have to do things in terms of product and service because of our limited network," says Thompson. "Our product guys are pretty excited about the 380. It gives them a lot of floor space to play with."

Both Emirates and Virgin cite constraints on landing and takeoff slots as additional points in favor of the A380. Says Thompson, "They are very constrained at Heathrow. It's very difficult because runway capacity is full, which means the way to grow is to fly a bigger plane." Sheikh Ahmed bin Saeed Al-Maktoum concurs: "Air travel is forecast to double in the next

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14 years. There are continued constraints on traffic rights and the availability of landing slots. Therefore, large capacity aircraft will be vital to Emirates' need to meet the increasing passenger demand."

Precisely, says Christoph Klenner, a Brussels-based consultant with Prisma, a public affairs consultancy focusing on EU policies related to transport, the environment and trade sectors. By 2020, overall traffic volumes will double or even triple and airports will be more and more congested, with more delays and stress. "But the rise in plane size will not be able to keep up with passenger volume," he says. As an ultra long haul, economical plane, Boeing's 787 should help resolve the problem, says Klenner, by providing airlines a means to develop new point-to-point routes and bypass uncomfortable hubs. "Barcelona, for example, is quite a high-tech place, but today there are not many intercontinental routes out of Barcelona. Given growth in traffic, however, there might be a profit in operating a route between Barcelona and Shanghai. Not enough to justify an A380, but one that would do to have a long-haul plane of 200-300 passengers," he explains. "The 787 will exactly fit those intercontinental routes that have lower traffic."

Based on current information, the 787 could have an advantage over the A380 in terms of the number of world airports that will be able to receive it. BTI's Radcliffe remarked that several large U.S. airports recently declared that they can't take the A380, due to its size. "If the large hub airports won't take the massive great jets, that will play a large part in business travelers' thinking; they will have to think about the type of plane they're flying vis-a-vis where they're going," he said.

The U.S. airports said the modifications to runways, taxiways, overpasses and jetways for the A380 are just too costly to justify, leaving only four U.S. airports – John F. Kennedy in New York, San Francisco, Los Angeles and Miami – working to accept the plane. It is true that Heathrow has announced modifications for the A380 that will total 450 million pounds over the next 8 years. David Gamper, technical and safety director for Geneva-based Airports Council International says the actual number of airports affected by the A380 is small; 23 for the 2006-07 timeframe. Among those, he says, are quite a few new ones, in the Far East, that were designed for very large aircraft. "Bangkok's new airport, which opens at the end of 2005 is compatible from day one," he says. Furthermore, he says, a lot of issues, such as taxiway and runway width requirements, are being gradually resolved at lower than estimated cost. Thus, the number of airports that could accept the A380 could well increase over time.

In the meantime, the debate goes on: Which model of air travel service will best serve business travelers? In reality, both are certain to survive, in varying degrees. Air France CEO Jean-Cyril Spinetta, for example, said the company will continue to use the hub model to fill its planes, while further developing its point to point, notably in the U.S. BTI's Radcliffe jokes that "soon we'll have a situation where business people will travel on certain planes just to get there and leisure travelers on another for the experience!" ■