



NEW TEAM MEMBER

Air New Zealand's first new-generation ATR 72-600 aircraft was handed over in Toulouse, France on October 31, sporting airline's famous 'all black' livery.

The aircraft is the first of its kind for Air New Zealand which has a total of seven on order with options to purchase a further five for a total list price of US\$270 million.

Air New Zealand CEO Rob Fyfe says the aircraft hand over is a significant milestone in the airline's ongoing commitment to growing the key domestic sector.

"The ATR 72-600 order potentially doubles the size of Air New Zealand's ATR fleet and will put two million additional regional seats into the market," said Mr Fyfe.

"The investment in these aircraft, along with a considerable outlay in purchasing both Bombardier Q300 and Airbus A320 aircraft for the domestic fleet, comes during a period when other businesses have shied away from significant investment in assets.

"We firmly believe in the importance of the domestic market and the long-term strength of the New Zealand economy."

The first ATR 72-600 aircraft will enter Air New Zealand subsidiary Mount Cook's fleet in mid November.

The new-generation ATR72-600 is the most efficient aircraft in its class and features a new cabin layout in the airline's interior colour palette of chalk and ink, larger overhead bins, and advanced cockpit technology.

It will be capable of RNP operations into Queenstown and will enter service for Mt Cook in mid November.



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Airbus future aircraft concept

A GLIMPSE FORWARD

“Technology can do anything — but it can’t do everything.”

Those were the opening words from Charles Champion, Executive Vice President Engineering at Airbus, who delivered the 54th Sir Charles Kingsford Smith Memorial Lecture in Sydney in September.

“Our engineers are continuously encouraged to think widely and come up with ‘disruptive’ ideas which will assist our industry in meeting the 2050 [environmental] targets we have signed up to. These and the other tough environmental targets will only be met by a combination of investment in smarter aircraft design and optimizing the environment in which the aircraft operates. That is why our latest Future by Airbus Smarter Skies

concepts focus on not just what we fly but how we may fly in 2050 and beyond.”

Mr Champion said that aviation today is the fruit of a pioneering spirit that has driven and continues to drive people to explore the boundaries of the possible — and to make them an everyday reality.

“Nowhere is this spirit more emblematic than in Australia and New Zealand — where vast distances can only be bridged by aircraft,” said Mr Champion.

He said that since Sir Charles Kingsford Smith and Charles Ulm took their tri-motor Southern Cross for a spin across the Pacific the industry has soared.

“Thanks to technology air transport now moves nearly

3 billion passengers and 35 per cent of the world’s trade every year, supports almost 60 million jobs, generates over US\$2 trillion in GDP and forges vital links for developing countries.”

And even more impressive, Mr Champion said, is the fact that while air traffic has grown by over 50 per cent in the last decade, the demand for fuel from aviation has pretty much remained flat.

“With air transport touching so many lives in so many ways we decided to ask thousands of potential passengers around the world what they expect from air transport in 2050 and beyond.”

Mr Champion said that the Airbus survey found that people wanted to travel more, but with less impact on the environment.

“And they want more comfort and connectivity, but with a lower ticket price. Which probably doesn't surprise you, but it does set the bar high. The good news is that we're already well on track with the A380 starting to become a bit more commonplace now with 81 in service around the world. And the A350 and A320neo are well underway.”

Mr Champion said the bad news is that when you start to look a bit further down the road there are “some dirty great obstacles headed our way and we are not best equipped to deal with them. In particular, it's hard to ignore the fact that as well as touching more lives than virtually any other, aviation is also one of the most capital intensive, long term industries in the world.”

Mr Champion said that it takes 20 years for a significant step change in aircraft technology.

“The program will run for about 30 years and the last aircraft built will fly for another 30 — that gives us an 80-year cycle to think about.

And it's not just the aircraft, said Mr Champion.

“With this being such a global industry, upgrading infrastructure needs agreement across dozens of countries ... which explains why Queen Elizabeth isn't the only one with a Diamond Jubilee. The current air traffic management system has been around for just as long.”

“Incredible — our kids can play with their mates using digital connections, but our pilots still have to use VHF.”

And putting those delays into perspective Mr Champion said that the world's population is going to increase by 50 per cent to about 9 billion in the next 40 years.

“The planet isn't going to grow by 50 per cent so environmental concerns will have to outpace global warming. There will be 4 or 5 times more aircraft in the sky; between 10 and 20 thousand at any one time.”

Currently the industry wastes 5 million flight hours and burns 9 million tonnes of excess fuel with a resultant 28 million tonnes of CO₂ because of airport and ATC congestion.

“OF THOSE THAT FINALLY MAKE IT INTO AERONAUTICS, WE'RE SEEING A GROWING SKILLS GAP.” Charles Champion

“And the cost of refueling is going to get crazy. That's assuming you actually have a supply and that the airports aren't so congested it's impossible to takeoff,” said Mr Champion.

And Mr Champion warned that the aviation industry is an industry like no other and there are major obstacles.

“I'm not exaggerating. And that's a message we need to start spreading well beyond the walls of this room because we need to be looking a hell of a lot further down the road. We need to start prioritizing on what the world's long term priorities are, when it comes to making choices between emissions or noise, cost or recycling.”

“And we need to start addressing some of the issues that will make it possible to deliver the solutions because we can't do anything without the right people.”

Mr Champion warned that unfortunately at one end of the scale, there are a whole lot of great engineers headed for the golf course but at the other end, kids are struggling with science and math in school.

“Not enough of them are going on to study engineering. In the last decade, schools only turned out half the number of engineers that Australia needs, with failure and dropout rates running at around 40 per cent.”

“And many graduates then decide to follow different careers and of those that finally make it into aeronautics, we're seeing a growing skills gap,” said Mr Champion.

“It's not a pretty picture. We've got to start attracting the best talent back into engineering and then to stay in it.”

“We've got to invest in education and training at all levels, we've got to recognize the professional standing of people already working in engineering and we've got to capture and pass on the knowledge and passion of those heading into retirement.”

To meet the challenges Mr Champion said that Airbus has its Smarter Skies program.

“Smarter Skies is the latest installments in The Future by Airbus — a vision of sustainable aviation in 2050.”

Following the radical Concept Plane and Concept Cabin, Smarter Skies looks beyond aircraft design for more efficient operations both in the air and on the ground.

Some of the concepts of Smarter Skies says Mr Champion “go beyond the usual boundaries to look at disruptive ideas to cut time, delay and emissions.”

The five Airbus Smarter Skies concepts are:

- Aircraft take-off in continuous 'eco-climb'.
- Aircraft launched through assisted take-offs using renewably powered, propelled acceleration, allowing steeper climb from airports to minimize noise and reach efficient cruise altitudes quicker.
- As space becomes a premium and mega-cities become a reality, this approach could also minimize land use, as shorter runways could be utilized.
- Aircraft in free flight and formation along 'express skyways'.
- Highly intelligent aircraft would be able to "self-organize" and select the most efficient and environmentally friendly routes ("free flight"), making the optimum use of prevailing weather and atmospheric conditions.
- High frequency routes would also allow aircraft to benefit from flying in formation like birds during cruise bringing efficiency improvements due to drag

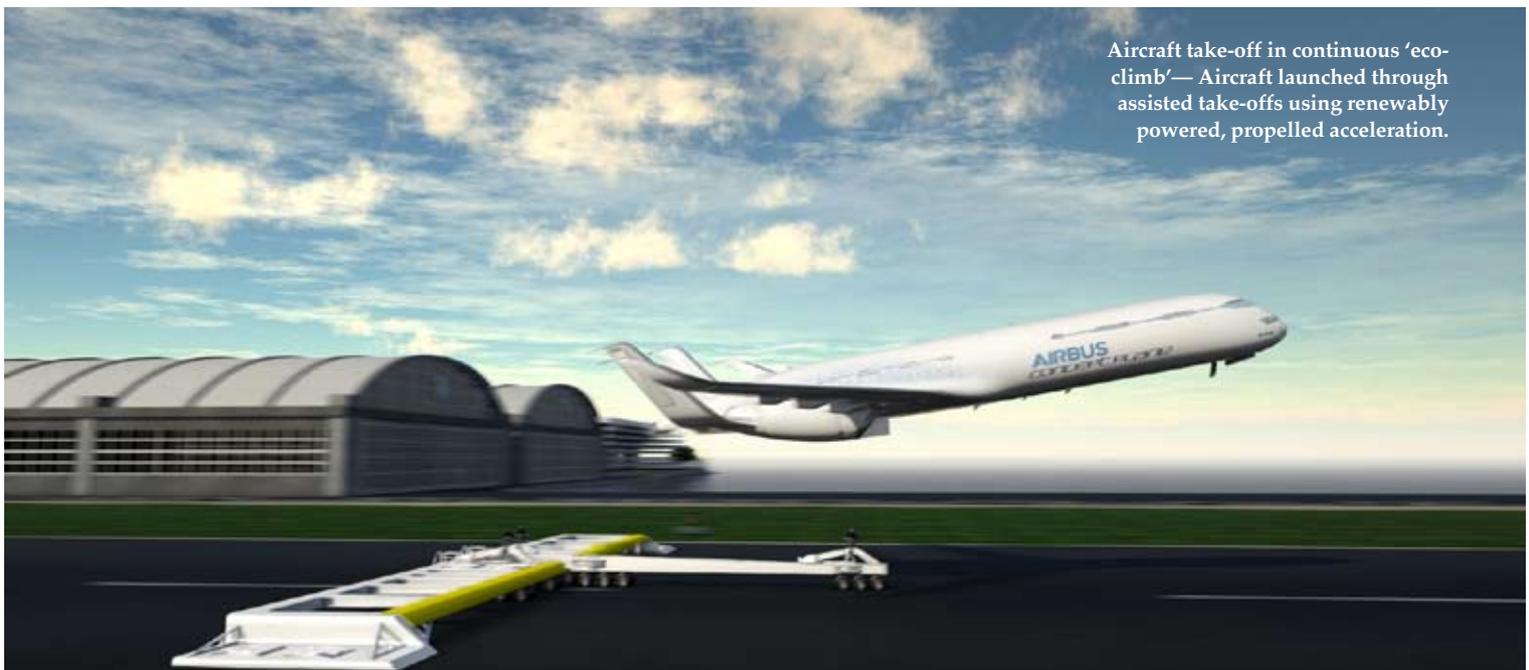
reduction and lower energy use.

- Low-noise, free-glide approaches and landings.
- Aircraft would be allowed to make free-glide approaches into airports that reduce emissions during the overall descent and reduce noise during the steeper approach as there is no need for engine thrust or air-breaking.
- These approaches would also reduce the landing speed earlier which would make shorter landing distances achievable (less runway needed).
- Low emission ground operations.
- On landing aircraft, engines could be switched off sooner and runways cleared faster and ground handling emissions could be cut.
- Technology could optimize an aircraft's landing position with enough accuracy for an autonomous renewably powered taxiing carriage to be ready, so aircraft could be transported away from runways quicker, which would optimize terminal space, and remove runway and gate limitations.

• Powering future aircraft and infrastructure.

- The use of sustainable biofuels and other potential alternative energy sources (such as electricity, hydrogen, solar, etc.) will be necessary to secure supply and further reduce aviation's environmental footprint in the long term. This will allow the extensive introduction of regionally sourced renewable energy close to airports, feeding both aircraft and infrastructure requirements sustainably.

Whilst some concepts Mr Champion admits remain an engineer's dream, Airbus is already working on the development and use of alternative fuels and supporting plans for more efficient air traffic management. Airbus believes that in the future more people should be able to share in the benefits of air travel; that a more connected world can also be a more sustainable world; and that the right combination of technology and talent — along with the right investment, support and cooperation — can make this happen.



Aircraft take-off in continuous 'eco-climb'— Aircraft launched through assisted take-offs using renewably powered, propelled acceleration.



PERFECT SOLUTION?

While at first glance the proposed seismic alliance with Emirates will solve in an instant Qantas's European network problems, questions remain about its longer strategy from Dubai along with how the Asian and Trans Pacific strategies will play out.

There is no doubt the Dubai solution is made in heaven — cutting hours of flying time, making 33 destinations in Europe one-stop and two-stops for regional Australians, giving Qantas access to more frequencies ex Australia, and access to the Boeing 777 — not to mention lower labor costs.

However some questions about the longer term role Qantas will play through Dubai remain.

Will it really deploy 787s in Dubai and will they be staffed by Australian crews based in

Dubai or will they operate from Australian ports. And if the former strategy is adopted what will be the basis of their employment?

STRUCTURAL CHALLENGES

Giving context to the challenges facing Qantas International, the airline's CEO Alan Joyce in his speech to the National Press Club in Canberra warned about the high dollar and fuel and increased lower cost competition.

"We are living in complex times. By 'we' I mean every Australian individual, company and institution," said Mr Joyce.

"The times are marked by uncertainty in everything from the value of the Australian dollar, to fuel and iron ore prices, to equity and property markets. That is

challenge enough. But we are also dealing with permanent structural change.

Demand for minerals and energy has transformed Australia to a high currency

economy, just as technology and globalization have heightened competition from offshore providers of shopping, tourism, manufacturing and services. We have great assets and capabilities in this country. We should have high expectations of our ability to prosper."

But Mr Joyce warned that "if we are to compete in this new environment — if we are to preserve and create jobs for young Australians and build sustained economic success for Australia — the reality is we need to respond comprehensively to this permanent transition."

Again Mr Joyce warned that “adapting to change is never easy. It requires wisdom not to overreact to the short term volatility. It demands courage to accept that there can be no return to the good old days. And it takes an effort of will to effect the transformation that is required. It’s not just about change it is also about the pace of change.”

Compounding these problems Mr Joyce said that the airline’s main competitors have four attributes in their favor – their geographic location which allows them to aggregate passengers from multiple sources and disperse them efficiently; government backed infrastructure, especially 24/7 hub airports; low or no tax

steps to make the business more efficient and to determine its own destiny.

“We have put together the right plan,” he said. “We are now at an inflection point, and I hope and believe the curve is set to turn upwards. Last month I announced a groundbreaking ten year partnership with Emirates Airways, which is now under consideration by the regulators.”

Mr Joyce said that the partnership will extend the airline’s reach, while restraining our costs and Dubai will become a one-stop gateway to 33 destinations in Europe and 28 in the Middle East or North Africa.

“Dubai will complement Los Angeles and Dallas, the gateways to North America; Santiago for South America; Johannesburg for Southern Africa; and Singapore and Hong Kong for Asia.”

Initially Qantas will operate its A380s from Melbourne and Sydney to Dubai and then onto to London, with passengers from all other Australian major ports such as Perth, Brisbane and Adelaide travelling on Emirates to Dubai.

The airline and Emirates president Tim Clark have talked about “expanding Qantas metal over Dubai” but what that means is open to interpretation.

DUBAI AND 787

Mr Joyce has given some hints as to how the 787-9s – if they are confirmed – will operate from 2016. After his address to the National Press Club in the Q&A Mr Joyce said that he expected to operate 787-9s from Canberra to Dubai, flagging that the aircraft may be used to open up direct services from smaller Australian cities.

These might also include Darwin, Cairns, Hobart and Broome.

Will Qantas take delivery of the Boeing 787 and will it deploy through Dubai?



The analogy Mr Joyce provided resonated with everyone in the aviation industry.

“The world is speeding up, while here in Australia we still take too long to do almost everything. Take one example from the aviation world. As part of their revised five year plan, the Chinese are now in the process of building 82 new airports. That’s a new airport every 23 days. Here in Australia we’ve been talking about a second airport for Sydney for more than 23 years,” said Mr Joyce.

When Mr Joyce took over at Qantas in 2008 the Aussie dollar had averaged 73 cents for the prior six years. Since 2009 it has averaged 93 cents and its now sits over \$1. And before the GFC oil was around \$87 a barrel but since it has averaged over \$100.

regimes for airlines and their employees; and a lower cost of labor.

GREAT AIRLINE POOR BUSINESS

In a variation on Sir Rod Eddington’s famous “great airline lousy business” assessment of Ansett, Mr Joyce told the National Press Club that a year earlier he said that Qantas International was a great airline, but a poor business.

On that occasion he set out the four pillars that would shape our transformation plan for Qantas International: partnerships and gateways; being best for global travelers; growing with Asia; and building a strong and viable business.

Since then Mr Joyce said that the airline had been hard at work taking the hard but necessary

While those routes would make sense, it is harder to see how the airline will deploy the 787-9s into Europe beside Emirates.

However Mr Joyce told the National Press Club that while he could never see Qantas returning to Europe, in the circumstances that currently apply, "I can see us returning to Europe because Tim Clark said he could see us returning to Europe in our own right."

With Emirates operating to every major European port with either 777s or A380s, it begs the question however of where would you fit the smaller 787-9?

Would Qantas operate additional daily flights to key destinations possibly at off-peak times or open up new destinations, which would have never been served by the airline or perhaps help Emirates replace its ageing A330s with 787s?

Emirates operates some of its 26 strong 278-seat fleet of A330s to a number of smaller European cities such as Dublin. And what is the status of Qantas's two Heathrow slots leased to BA?

ASIA A MAJOR FOCUS

While it is clear, as Mr Joyce said that to be part of Asia is to be part of the future, Asia has been a huge challenge for Qantas because of its significantly higher labor costs.

Mr Joyce is focused on Singapore and Hong Kong as primary hubs and notes that these are the bases for Jetstar Asia and Jetstar Hong Kong but transferring to Jetstar is not going to wash with premium flyers, who will find Singapore Airlines and Cathay Pacific far more appealing.

Mr Joyce does also flag connections with DragonAir into China from Hong Kong and China Eastern from Shanghai.

He also adds that Qantas will offer 40 per cent more dedicated capacity to Singapore and 25 per cent more same day connections onwards across the region.

But one is left wondering what the strategy will be for instance from

appeal perspective — not to mention the economics.

In the shorter term — from April 1 next year — according to the Centre for Asia Pacific Aviation (CAPA), Qantas will deploy a daily 747-400 between Melbourne



Qantas now has access to Emirates 100 plus strong fleet of Boeing 777s.

Perth — the centre of the massive resources boom — where the airline operates just three daylight flights a week to Hong Kong and none to mainland China, the biggest resources customer.

While Qantas operates double daily to Singapore from Perth and there is a code-share onto Shanghai with China Eastern, virtually all other options are Jetstar, which will not cut it with premium classes.

Cathay Pacific operates 10 weekly services from Perth and rumor has it that will climb to double daily next year. It is a great shame that competition regulators excluded collaboration.

It will be fascinating to see how Qantas can rebuild its Asia strategy and network and one would think the 787-9 will be a pivotal asset from a customer

and Singapore, maintaining the sole mainline service between the two cities.

For Sydney to Singapore Qantas will replace the current daily A380 that goes onto London with a four times weekly A330 which will supplement the existing three times weekly Sydney-Adelaide-Singapore service.

"The Sydney-Singapore flights will also be retimed to support more Asia connections. Currently both the London-bound and Frankfurt-bound Sydney-originating flights land in Singapore within 30 minutes of each other in the late evening, making same day connections within Southeast Asia impossible," says CAPA.

"The 747-400 Frankfurt service will operate until the 26th October 2013, after which Qantas

will have to again re-adjust its Sydney-Singapore services. It could maintain the 747-400 service but terminate it in Singapore instead of continuing to Frankfurt or consider other options such as also down gauging the flight to an A330," says CAPA.

Adelaide and Brisbane frequencies will remain the same but will be retimed. The net effect of all the changes says CAPA will be an approximately 7 per cent decrease in Qantas seats between Australia and Singapore.

"But because about half of existing Australia-Singapore traffic transfers to Europe, Qantas claims it is increasing by about 40 per cent the number of seats terminating in Asia. This will give Qantas an opportunity to compete more effectively against Asian carriers, including Singapore Airlines, in the fast-growing Australia-Asia market."

CAPA adds that "if the Emirates-Qantas partnership is approved, Qantas will also start code sharing on Emirates' Melbourne-Singapore and Brisbane-Singapore services, increasing frequency as well as giving access to first class seats. Emirates currently has daily flights with 777-300ERs on Melbourne-Singapore and Brisbane-Singapore, both of which continue to Dubai. This will essentially give Emirates and Qantas two daily frequencies on both routes although a portion of the capacity on the Emirates flights does not get off in Singapore. The Emirates' Brisbane-Singapore flight arrives in Singapore early in the morning, which is ideal for connections throughout Asia but the Emirates' Melbourne-Singapore flight arrives in Singapore late at night."

CAPA also warns on Qantas's intention to put onwards Asian customers onto Jetstar.

"Qantas must undertake a significant structural change

in how it sells and markets its Singapore services. Intra-Asia connecting opportunities will be available on Singapore-based Jetstar Asia, however it remains to be seen how willing the market will be to maintain loyalty to Qantas for Asian services if it means passengers must transfer from full service Qantas to low-cost Jetstar."

“QANTAS MUST UNDERTAKE A SIGNIFICANT STRUCTURAL CHANGE IN HOW IT SELLS AND MARKETS ITS SINGAPORE SERVICES.” CAPA

This is particularly the case "when Qantas' competitor Virgin Australia has a partnership with Singapore Airlines, enabling full service carrier (on either SIA mainline or its regional subsidiary SilkAir) flights from Australia to around Asia. Singapore Airlines also has far greater frequency between Australia and Singapore," says CAPA.

In an interesting twist, CAPA sees the exit of Qantas from Singapore for its London route as smoothing the way for the airline to revisit its RedQ premium operation based at Changi.

"For Changi, the loss of the Qantas Australia-Europe hub is relatively small and the potential gain of a Qantas Group Australia-Asia hub is relatively large. But ultimately Singapore may need to re-think its stance on a possible new regional full service carrier from Qantas if it is to fully exploit its potential as an Australia-Asia hub. With a

full service regional carrier based in Singapore, Qantas would be able to maintain and grow its Singapore operation as it would have a connecting product for both budget and premium passengers."

CAPA adds that the Qantas Group is important to Singapore and Changi as its two brands now account for about 11 per cent of total capacity in the Singapore market. This makes Qantas the second largest player after SIA, which as a group accounts for almost 50 per cent of total capacity in Singapore (includes wholly owned subsidiaries SilkAir and Scoot and partially owned affiliate Tiger). Changi will want to make sure that Qantas maintains its position in the Singapore market."

TRANS PACIFIC OPTIONS

Qantas talks to its two hub strategy in the US of Los Angeles from Sydney, Melbourne and Brisbane and Dallas Fort Worth from Sydney. This is built around the A380 and 747-400ER.

Two questions beg answers going forward. Will Emirates work with Qantas across the Pacific and will Qantas deploy the 787-9 as a hub-buster to destinations such as San Francisco, Seattle and Vancouver?

Perhaps it may use 787-9s to fly to Dallas Fort Worth from more Australian cities?

It must be considered likely that a rejuvenated United Airlines with 787s will increase its South Pacific presence possibly with flights from Denver or Houston to Sydney and Melbourne.

However, at the earliest, the 787-9 for Qantas is disappointingly 2016 and that is if the 50 options are firmed up.

The Emirates alliance going ahead will make that almost a certainty as it will assure the international division's long term viability.