

Altitude Aerospace Interior's Mike Pervan Talks to Andrew Patterson

Saturday 18 February 2014: New Zealand's marine industry has successfully made a name for itself internationally for the high quality design and fit out of luxury yachts leading to the creation of a sector estimated to be worth \$2.1 billion to the local economy and employing more than 10,000 people.

While not on the same scale, less well known is the fact that Auckland based Altitude Aerospace Interiors is developing a similar reputation for its state of the art fit outs of commercial and private jets.

Formed in 2008, in the midst of the Global Financial Crisis and wholly owned by Air New Zealand, Altitude is the only company in the Asia Pacific region authorised to be able to undertake such work.

The business was born out of the airlines frustration at being unable to find existing capacity within the industry globally to meet it tight delivery time frames for its new cabin fit outs.

In the end, the old kiwi mantra of "let's just do it ourselves" kicked in and Altitude began a journey that in just over five years has seen it achieve significant growth.

Isolation has its advantages

General Manager Mike Pervan admits the business was really born out of isolation.

"We came out of the isolation of Air New Zealand sitting at the bottom of the world and, before digital data, having to modify and repair its own aeroplanes.

"What changed was having a bunch of engineers building up a level of skill, knowledge and expertise that really an airline probably wouldn't have needed in the modern world. We took that knowledge, and over the last decade started applying it not only to Air New Zealand as they changed from a pretty conservative airline to one with the best interiors in the world, but we took that knowledge and then we went and applied it to the global marketplace.

"We went out there and won customers on the back of what we'd done for Air New Zealand and turned that into an export company in 2008 when we launched.

"So we're a product of New Zealand's isolation, reversing that and going out and realising we were as good as the best in the world and sold it to a global marketplace."

The decision to create Altitude came at a time when the airline was looking at niche opportunities to expand its business by using its internal capability to create other business units.

Pervan freely admits that interior fit outs weren't the first idea that came to mind.

"We had tried something earlier in the '90s. We thought we could go and play in the engine space. We're really good at modifying engines and that's a complex thing to do, but we quickly realised the sector was dominated by the big players along with the big engine manufacturers [think Rolls Royce and GE] who were going to make it difficult for us to compete.

"So we had already made some attempts to get into a global engineering aerospace business, so the nexus really came when Air New Zealand said we need some interior fit outs really quickly and we know we can't get it done outside, you guys need to figure out how to do it."

"That got a few of us thinking that this was potentially an area we could get into because interiors of aeroplanes didn't attract the big global players. The competitors are mainly Japanese, American, and

European companies but they weren't enormous, big dominant players, so that made it easier to compete. It was also of a scale that didn't attract government subsidies."

"Aerospace has a certain appeal about it. Everyone loves to build aeroplanes. As a result many countries subsidise big aerospace companies, but the interiors part, although it's a significant aspect of the aeroplane, wasn't big enough to be attractive to governments. We weren't getting Japanese competitors getting big subsidies like they were for building aircraft wings so it had that value to us as well."

Innovative design leads the way

While the competitive elements were attractive there was also an opportunity to bring some real innovation and creative thinking to the table.

"We realised aircraft interiors needed to be more innovative in their design and it was obvious our competitors in that environment had got lazy basically, they'd become complacent. You go to them and they'll give you anything you want as long it's a grey box because they knew you couldn't get it from anyone else.

"We took a very different approach. We said: we'll actually give you what you're wanting. We can give you the curvy-looking cabinetry. We can give you that great-looking bar and yes we can still meet all the requirements of the safety rules, but we know we can do it differently.

"So our whole approach was fundamentally different. We successfully broke into that niche and our competitors have still not been able to catch up. It wasn't totally haphazard. We were strategic about it: where's the niche, where are these things that we need to avoid and how can we be different. One other advantage is the sector is reasonably capital light. Other parts of aeroplane require big expensive factories. Building furniture actually is not that expensive. The hard bit is about justifying why it's a piece of safety equipment."

A good fit for NZ market

In many ways Altitude is almost perfectly specced for the New Zealand market: nimble, weightless and high value. But it's the wider macro factors that make it even more attractive when you look into the demographics of those working in the sector globally.

"Aeroplanes have only been around for just over a century, but it has become quite a traditional industry and part of that is due to the safety rules and regulations. It has meant that everyone tended to think the big factories and the hangars where you build these products were the most valuable part of the business and that's where the constraint existed.

"However, the constraint was really the intellectual property; the engineers designing the products. A classic statistic I like to quote is that Boeing has 40,000-50,000 engineers designing their aeroplanes, 58% of them are over 50. They're all going to retire in the next 15 years. We realised, we know how to develop highly competent engineers off the back of great engineers coming out of the engineering schools in New Zealand then turn them into aerospace engineers. They're all young people and here's a marketplace where suddenly there's a shortage of these skill sets that make the whole prospect look very appealing.

"There's always going to be demand for that knowledge so that was also core to our strategy. It was not getting all hung up about hangars, runways and factories because seriously, outside of New Zealand, there's plenty of those available globally. The bit that was short was the IP, so that's where we've concentrated development. Taking that IP and winning contracts because we know that's where it's short. But also because we're different; we tend to say yes, we can do that and then we'll figure out a way to do it."

Barriers to entry

At first glance it might seem that barriers to entry are low in the sector until you understand the amount of compliance it takes to gain certification.

"You have to remember that an aeroplane is something that flies eight miles high at the speed of a bullet and keeps you in a level of safety that's probably as safe as you lying in your bed at night. So, it really is a very constraining environment to design something in, but then everyone goes well, you're just doing the furniture, and it's just cabinetry. The thing that's important are wings and engines.

"The reality is the aircraft interior cabin is a system of safety. It's the thing that saves you when everything else doesn't. It is so critical to the safety system of an aeroplane and therefore to demonstrate to a regulator and the big manufacturers that you can meet those very, very stringent requirements requires a lot of effort. So that in itself is a huge barrier to entry. It's not a non-tariff barrier to entry, the traditional: we'll get a regulation to stop entrance. It reality it's driven by the public's need to have safety in aeroplanes

"Now we're in a great place. We're in an industry that's booming. More aeroplanes are sold now than ever before. There are huge forward order books. The demand is massive and yet the bit that needs to make it happen are those aerospace engineers, but we know how to create them and we know they're very credible in the industry.

With its engineering design base in Auckland and its operational facility in Christchurch, Altitude has built its business around both its engineering capability and its reputation for design excellence.

"Fundamentally our business is built around a core of engineers. We have program managers, and supply chain managers and the general support functions. We go out and get a contract with an airline or a private jet owner - a Boeing private jet owner - and then we do the engineering and design. We organise certification and then our program management and supply management teams organise the build and the installation of those products so we're the leader contractor. That's non-traditional.

"The traditional manner is you own everything. You're vertically integrated. You have the factories and the runways. We weren't in that position to do that. Clearly, we use Air New Zealand facilities for our Boeing private jet customers, but we build our airline furniture up in the States, but in the end, it's an Altitude product. It comes out with Altitude branding. We own it. It's our product."

But how does the business deal with the issue of being owned by an airline and yet also doing work for its competition.

"Certainly we've got customers who compete with Air New Zealand but the reality is that we're a stand-alone subsidiary. It is vitally important to us that we protect the integrity of our customer's information. Whether it's a private jet customer or an airline, these are things that are very important to them commercially or in a privacy sense, and if we hadn't been able to demonstrate that level of integrity, we wouldn't be in business today. So while Air New Zealand might own us they have no view on who we chose to do business with or the extent of our relationship with those customers. Obviously it has to be that way and they understand that."

Complimentary sectors

Altitudes success mirrors the success of the marine industry which has also gained a reputation globally for its "can do" attitude and the high quality of its output.

Pervan says where the synergies really line up is around technology and the ability to cross pollinate staff..

"Obviously we both operate at the high-tech end of the industry. As I mentioned, aeroplanes are complex beasts. Probably, the most affinity we have in the marine industry is at the Team New Zealand level. We have people who worked for us and worked for Team New Zealand, then moved back and forward between the two.

"A lot of us went through the same engineering schools together, and we share that same sort of challenging engineering approach. We push the boundaries, and whether it's high-speed yachts or an aeroplane, the fundamental engineering science is the same and you can have two approaches to that. You can be conservative and reserved or you can be the New Zealand way, which is to push the boundaries, understand the science and go to another level. So our relationships and our approaches from that perspective are similar."

There's something in the NZ DNA that loves to confront a problem which allows us to go away and solve it, often in a way that's completely unconventional.

Using problem solving skills to our advantage

Pervan believes it's a skill set we often underestimate.

"I think we underestimate as a country how valuable our problem solving ability really is. He has a significant relationship with Boeing. It's such an important stakeholder in our industry, and I think the Americans definitely get that. They really appreciate that because they understand that if you're not always pushing the edges, you are going to get overcome by another nation or another player."

For companies like Boeing, it's important that they have agile, nimble people around them who are pushing those boundaries, particularly when you're a very large, lumbering corporate.

"The commercial side drives technology improvements, so Boeing and the Airbuses of the world are constantly trying to get more efficiency out of their aeroplanes so that airlines can deliver better airfares for people. So it has to still be this fundamentally very, very safe product, but it also constantly has to improve.

"They need suppliers like us who're going to help them deliver less weight, more efficient use of space while also maintaining and in fact enhancing the safety of the product and giving people an environment they're going to sit in for 12-24 hours. It makes a real difference when you can get all that right. You can feel pretty uncomfortable or you can get off the plane and feel pretty fresh and that really comes down to the interior because there's only so much you can do with the rest of the aeroplane."

While Altitude is proud of what it's achieved in five years it's not resting on its laurels and it seems it still has some proving to do.

"There's no reason why, as long as we continue to execute successfully, that this business shouldn't continue to grow. What we're all particularly proud of is the fact that we've created a new industry within this country.

"I actually had my old professor from engineering school here recently. I keep reminding him and thanking him for telling me that we'd never be able to get into aerospace in NZ. In fact, I can vividly recall him saying the engineering is too complex, the capital is too intensive, a New Zealand company can't do this.

"I've certainly enjoyed being able to prove him wrong."

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