



# READY TO RESPOND

**ExecuJet highlights the strengths and opportunities of Australian MROs**

WRITER: STEVE GIBBONS

Visualise a sleek Bombardier Global 5000 finding a brake fault during a transit landing at Maroochydore on Queensland's Sunshine Coast – more than 500 flying miles or 1,000 kilometres by road from its key service centre in Sydney.

Worse than that, it transpires that the fault has caused significant damage to the main landing gear requiring the wiring harness to be replaced prior to the ongoing flight in, well, just 72 hours, with the additional challenge that there is little of the required equipment on site.

With the clock ticking, the problem has to be sorted, the aircraft jacked up and post-repair landing gear retraction tested.

In order to meet the customer's

72-hour schedule, a set of Bombardier Global jacks and other relevant ground support equipment is loaded on to a hire truck and driven by two technicians from Sydney to the Sunshine Coast over a period of about 14 hours.

Meanwhile a crew of maintenance engineers is flown in to the Sunshine Coast with hand-carried parts dispatched from Bombardier HQ in Canada via Sydney Airport. Hangar space is secured and a ground power unit trucked in separately from the Gold Coast.

Maintenance engineers work through the evening and into the next day to replace the landing gear wiring harness, before testing and releasing the aircraft to service-capability,

just two hours ahead of the target timeframe.

It was all just another day (or two) in the office for mobile repair teams from Sydney-based ExecuJet, a global company offering everything from charter to aircraft management, fixed base operations (FBO) and, in this case, comprehensive maintenance, repair and overhaul (MRO).

The story is a good example of service levels attributed to ExecuJet for aircraft on the ground at remote locations, and is part of the reason why its Sydney base was awarded first place in the Bombardier 2017 International Authorised Service Facility Excellence Awards.

At the same time it is representative of a service industry



that operates largely under the mainstream media radar compared with the activities of major airlines.

Much of the headline focus in recent years has been around Qantas and Virgin MROs in Brisbane, Sydney and Melbourne, and controversy around a shift of some heavy maintenance to offshore contractors, involving claim and counter-claim about labour costs, de-skilling, and safety issues.

That has served to exclude a genuine success story: the growth in MROs catering for turboprop, business jet and rotorcraft fleets allied to charter companies, businesses and individuals.

It includes key players such as Hawker Pacific, BAE Systems and

Airflite, as well as specialists lesser-known to the wider community such as Flying Colours (the aircraft painters based in Townsville), or helicopter-specific operators such as ProRotor based on the Sunshine Coast.

It's a competitive business. A recent comprehensive University of New South Wales report into the future of MROs in Australia, backed by the Australian Research Council, identified more than 260 MROs dealing with the general aviation sector and a further 84 third party MROs involved in work on both general aviation and larger aircraft types, including componentry and as agents for OEMs.

ExecuJet recognised potential in the Australian market in 2000: a

unique combination of the nation's long distance geography between major service centres, the projected sustained growth of air traffic alongside general economic growth in the Asia Pacific, and at that time a relative shortage of MRO operators working in its particular, business jet service niche.

It took just three years from start-up in Johannesburg in 1991, with just a single Learjet, for ExecuJet to convert recognition of a gap in the South African corporate jet service sector to a fully integrated turnkey business in conjunction with a Bombardier aircraft sales franchise.

From there, growth has been exponential. Now headquartered in Zurich, ExecuJet operates in Africa,

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Asia Pacific, the Caribbean, Europe, Latin America and the Middle-East offering aircraft management for private and commercial registered aircraft, aircraft charter, aircraft maintenance, aircraft completions management and fixed base operations.

Grant Ingall was engineering manager with Australian Jet Charter, a Sydney-based aircraft management and MRO, when ExecuJet came calling in 2000 with ambition to expand into Australia. It bought the company and within a year Ingall had been promoted, first to GM, maintenance, and then to the key role he still holds today: maintenance director, Asia Pacific.

He is passionate about the business and equally optimistic about the outlook for MRO in the region given the size of the fleet and network he represents, and the growing technological refinement and global reach of corporate jets under ExecuJet service agreements.

“Yes, really optimistic,” he said. “More than at any time in past months. Growth has been steady.”

“The industry is seeing lots of pre-owned business jet sales and lots more are coming into the country. Business and corporate jet ownership is getting rid of that “tall poppy” reputation and, as more people fly around in these types of jets, usage is becoming more accepted.

“It is literally down to the size of the country. That is why individuals who need to do business, and can afford it, are buying larger aircraft with larger range – not only across Australia, but from here to the United States direct, for example.”

It is an optimism backed in part by the statistics. While a breakdown of corporate and business jet MRO is difficult to extract from overall figures, the Australian Research Council-backed report puts global third-party MRO value at more than \$84 billion with projected growth to \$100 billion by 2024.

Separate Asia Pacific Economic Cooperation (APEC) figures covering all types of MRO show projected growth in the Asia Pacific region alone (excluding China) of 5.3 per cent over the next five years to 2023, while IATA statistics highlight the fact that Asia Pacific’s share of global MRO is now the equivalent of Europe and North America.

The APEC forecast shows Asia Pacific ranks fourth in terms of growth behind China, India and the Middle-East.



● Bombardier’s Global 6000 demonstrator visits ExecuJet’s Essendon Airport facility. VICTOR POOY

In other words, it’s big business in this part of the world.

For ExecuJet Maintenance Australia, the MRO arm of the Asia Pacific operation, it means regular, current responsibility for 70 aircraft based “locally” from 20 different aircraft types, and 55 maintenance staff supplemented by contract labour across four separate maintenance bases: the Sydney headquarters, Melbourne (Essendon, established 2006), Wellington (2011) and Perth (2012).

On top of that, Ingall said ExecuJet is a service centre for four of the big bizjet manufacturers.

“What that means is that we are part of their network. We cover any visiting jets into this region: Australia, New Zealand and the Pacific islands. If there are any breakdowns, or they need any support, we will help them.”

ExecuJet also deals with regular visits from Asian customers inspecting its heavy maintenance capabilities. To underline its wider regional reach, a base was established in Kuala Lumpur in 2009, with a staff of around 40, with a similar number employed outside Beijing. The company also has an FBO in Bali.

“We do cover everything from basic line maintenance and servicing tasks all the way up to the heaviest checks you can get on the types we look after: full capability, except for full strip and repaint and heavy interior workover which would need to be contracted out,” Ingall said.

An additional key component is the capacity to dispatch mobile repair teams to remote locations. This may be for an aircraft grounded for maintenance reasons, or instances where sending engineers is more cost-effective than flying the aircraft under scrutiny to a maintenance base.

Grant Ingall: “If you get a problem in a remote location we would co-ordinate to see what parts are required. Depending on the location, and if it is not cost-effective to fly to one of our maintenance bases, one of our guys might hand-carry parts in. In

extreme cases we will charter aircraft to fly in with parts. An incident in Kangaroo Island (off the coast of South Australia) is one I particularly remember.

“Every second day we will work on a visiting aircraft. Sometimes we are lucky enough for it to be on our front door in Sydney or Melbourne. But other times it could be Cairns or Canberra or anywhere, and we have to react to that.

“For example, a problem with a Gulfstream might be referred first to its headquarters in Savannah before it is relayed back to us. We have to be ready to respond as needed.

“You just don’t know what’s going to happen from day to day,” Ingall said.

Far more basic services include servicing and interior and exterior cleaning, pre/post flight inspections, adjustment of tyre pressures, oxygen system, nitrogen system, and hydraulic level checks, more complex component maintenance, spares supply, and sales support.

The current OEMs under the ExecuJet Australasian authorised service centre umbrella read like a pantheon of the corporate jet market: Hawker 700, 800 and 900 series; Bombardier Global Express, Challenger, Learjet; Gulfstream GIV, GV, G450, G550, G650; and Embraer Phenom 100 and 300, Legacy 500, Legacy 600.

Then there is service on engines: Honeywell TFE731, HTF7000, APUs; Rolls-Royce BR725, BR710 series; General Electric CF34 series.

And avionics: Honeywell, Rockwell Collins, Satcom Direct, Artex Emergency Locator Transmitters.

According to Ingall, ExecuJet also has the capability to support Dassault Falcon and Textron Aviation (Cessna and Beechcraft) products. In the hierarchy of streams of ExecuJet operation, he ranks regular aircraft based in Australia as number one, then visiting jets, and then heavier work the company seeks, and quotes for, in the wider Asia region.

As an example of the reach in the region and beyond, current

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airworthiness authority certifications include CASA CAR 30 and Part 145, FAA and NZ CAA Part 145, Bermuda DCA and Indonesian Directorate General of Civil Aviation Part 145.

Ingall said that in terms of base operations, there are similarities between business jet activity in Sydney and Melbourne while Perth has an inclination towards fly-in/fly-out charter operations, and MRO on turboprops (up to 50 per cent of the Perth business) such as Bombardier Dash 8s and Beech 1900s.

As a further service, ExecuJet Spares also operates a Sydney depot as a third party logistics provider for Bombardier commercial and business aircraft customers. Approximately 16,000 stock lines are operated 24/7 to support Bombardier's customers in both routine and "aircraft on ground" scenarios. The facility services both local and international locations with shipments expedited as required.

Much has been made in recent years about comparative labour costs between Asia and Australia in the maintenance space, vis à vis the onshore and offshore competitive environment. Ingall believes that while this might be particularly pertinent to heavy maintenance operations for airlines, any potential imbalance is not quite so clear cut in the corporate jet market.

"It really isn't like that in the bizjet world. Our main competition in Asia would be the OEMs themselves. For example, Bombardier has an operation in Singapore, and then there are the Asian-based MROs.

"At the same time, Jet Aviation and Hawker Pacific cover the Asian region.

"We compete on a global level really. Some of the aircraft we maintain do go to the United States and Europe regularly, so sometimes they may have the option to do the work there. Particularly, we might lose out if they want to do paint work at the same time, for example.

"But what we find is that (Asia) labour rates are US dollar-based and certainly not the lower rates you might experience in the heavy maintenance or airline world. Given the exchange rate the way it is, our Australian dollar rates are very favourable. With an even playing field or better, we have been fortunate to attract quite a bit of work out of Asia."

Ingall said ExecuJet is targeting further growth out of the Asia region.

"That said, the biggest challenge is just the distance – the ferry costs involved. But if it is worth it for the

customer to do it, we offer both good service and reliability. We get things out on time, we do everything we can to stick to our promised turn times and offer an excellent experience to the customer."

Regional spare parts logistics overcomes any issue allied to a lack of spare parts manufacturing in Australia.

"We (ExecuJet) are largely looking after the mid-sized to large business jets. Quite simply we go straight to the manufacturers. The OEMs, to varying degrees, do place high use key spares in regions, some in Australia for same day service, and some in Singapore. Worst case is an overnight supply flight from Singapore.

"Unlike an airline, where you have a large inventory of stock for your whole fleet, it doesn't make sense for the operators of one or two aircraft to have a huge investment in holding their own parts. So they rely heavily on these spare parts provision programs.

"If they are under warranty, same difference. The required parts have to come from the OEM. If they are out of warranty, and not on a supply program, ExecuJet, through its worldwide network, will shop around the supply chain for the best prices."

The largest business jets under current maintenance by ExecuJet are the Gulfstream G650 with capacity for 19 passengers, a MTOW of 45,178kg and a maximum range of 7,000nm, and the Bombardier Global Express 6000 (capacity 17 passengers, MTOW 45,132kg and a range of 6000nm).

Looking ahead there is something of a paradox between projected growth in MRO services and the increasing reliability and technical sophistication of aircraft types. Ingall accepts manufacturers are making a concerted

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effort to reduce maintenance costs by extending frequency of required maintenance.

"Where we would have been doing 150-hourly checks 10 to 15 year ago, they have been extended out to 200-hourly or more. But what you tend to find is that some of the newer types might have teething problems, though they do have the advantage of more sophisticated diagnostics which makes identification easier.

"Some of the bizjets are at the cutting edge of equipment and advancement."

Which raises the complex issue of engineering qualification and training in an environment subject to fierce competition from offshore competitors, particularly in the heavy maintenance sector.

Ingall has an obvious pride in the ExecuJet process: "All of our licensed engineers attend factory training schools or courses the OEMs recommend. Typically they will do an initial course of between six and eight weeks training overseas at the manufacturer – it's extensive and good quality.

"For the new generation of engineers coming through, they are quite fortunate to be working on these new types of aircraft. Something new every day."

At the same time, Ingall accepts he has concerns coincidental with reports of a looming engineering skills shortage.

"It is for that reason we are going out of our way to put on apprentices fairly regularly. We have two who started in Sydney this year, one in Perth and we will start one in Melbourne as well.

"I just want to keep the young guys coming through." ☺

☺ Every other day ExecuJet finds itself supporting visiting business jets. SETH JAWORSKI

