



Vector Aerospace in Brisbane is the only Pratt & Whitney Canada PT6A Designated Overhaul Facility in the Asia Pacific region.

PT6A Designated Overhaul Facilities available at Vector Aerospace in Brisbane

Vector Aerospace is a multi-national corporation providing maintenance, repair and overhaul (MRO) services for fixed- and rotary-wing aircraft operators around the globe. The company's Engine Services – Atlantic facility, located in Brisbane, is a fully authorised Pratt & Whitney Canada Designated Overhaul Facility for the PT6A family of engines – and the only such facility in the Asia Pacific region. A mobile repair team operating from Brisbane also offers support for a range of additional Pratt & Whitney Canada powerplants. New Zealand operators of the PT6A engine family are invited to contact Simon Wilks, Regional Sales and Service Manager, or any of the team at Vector Aerospace in Brisbane for all engine repair, overhaul, and accessory requirements, including for the supply of rental and exchange engines.

Introducing Vector Aerospace in Brisbane

Located in sunny Brisbane, Vector Aerospace Australia is part of Vector's Engine Services – Atlantic (ES-A) family. Our Brisbane facility, which celebrated its fifth year of supporting operators in the Asia-Pacific region last August, is a 26,000 sq. ft. site, staffed by 62 dedicated employees. The facility supports PT6A operators throughout the Asia Pacific region, with an overhaul line, repair line, hot section line, fuel nozzle cell and a Mobile Repair Team (MRT). We have a very diverse customer base, both culturally (spanning 3,200 language variants!) and geographically. On any given day, as well as Australia and New Zealand, we could be dealing with customers from China, Japan, Maldives, Papua New Guinea, India, Indonesia the Philippines, and more. In addition to supporting the PT6A engine, the MRT side

of the business also has approvals for the P&WC PW100, JT15D, PW300 and PT6T engines. Our customer base ranges from owner/operators who fly their aircraft for personal use, to aeromedical operators such as the Royal Flying Doctor Service, and from armed forces such as the Royal Australian Air Force, to air tour customers operating pleasure flights over the Great Barrier Reef. We also have a new customer base of agricultural companies that perform crop spraying and fire-fighting. Each customer has their own unique identity and needs, which we are proud to support.

Our Brisbane facility was originally established in 1986 by Pratt & Whitney Canada (P&WC), and became a full overhaul facility with a test cell in 2000. The facility was sold to Vector Aerospace in 2012, and all employees transferred over to Vector. This signified the start of a new era, and gave the facility the autonomy to deliver what customers in the region were looking for. A new sales team was hired, consisting of four sales managers with very specific skill sets which complement each other to satisfy all customer needs.

To better align ourselves with Vector's philosophy of setting the standard of customer service, several changes were implemented within the facility in order to restructure and refocus on customers. Significant investments have been made to continually develop and grow the facility's capabilities to better support our customer base. These investments have been a resounding success, both with our customers and our employees, with more investment planned in the coming years.

Like any operation, there are challenges – and satisfaction from meeting them successfully. Managing our very diverse customer base is a challenge we enjoy and face daily. Different cultures require different approaches. New Zealand is very similar to Australia for example, but very different to India.

Logistics can be challenging but are also a strength. It takes five days for engine parts to reach the Brisbane facility from North America, so we have developed systems and relationships to conduct as much business locally as possible, in order to best manage our turnaround times and minimise costs.

Since we became a Vector facility five years ago we have witnessed significant growth, which has led to an increase in staff and more opportunities for our employees. Although of course we remain reactive to customers' urgent needs, the schedule for engine overhauls this year is already largely locked in with confirmed orders from customers.

Our team at the Brisbane facility is extremely valued. They have a solid reputation for excellent quality of work and customer service. Their attitude and commitment are the major reasons for our success and strong customer relationships throughout the Asia Pacific region.

Enquiries from PT6A operators in New Zealand are most welcome. Contact us on +61 7 3268 0000 to speak with one of our team and find out more about the support we can offer.



The Vector Aerospace Team in Brisbane this year celebrated 5 years of operation.



Vector Aerospace Brisbane.

Vector Aerospace Brisbane holds ratings (maintenance, repair & MRT) for PT6A, PT6T, PW100 and JT15D series

- Engine repair
- Hot section inspection
- Borescope inspection
- Failure analysis
- Fuel nozzle repair and overhaul
- Bleed valve overhaul
- Parts support
- 24/7 AOG desk
- Worldwide field service
- Service Bulletin (S/B) compliance



Our reputation for superior customer service continues to grow at Vector Aerospace Australia.

Overhauls – Repairs – Accessories – Rental & Exchange Engines – Mobile Repair Team

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READY TO SERVE REPAIR
AROUND THE WORLD OVERHAUL

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A busy 2017 for the team at Avcraft Engineering NZ Ltd.

2017 has seen another year of strong growth for Avcraft Engineering NZ Ltd. The company remains focused on its policy of 'continual progress', and Engineering Manager Mat Bailey says the organisation continues to invest in tooling, training and staff, ensuring "the Avcraft team is always ready to provide world-class support for your aircraft, regardless of make or model, or maintenance required."

Avcraft Engineering NZ Ltd.'s list of services, approvals and dealerships is extensive and provides for a 'one-stop' shop with the experience, capability and equipment to support all needs, including:

- Scheduled Maintenance
- Maintenance Control and Tracking
- Sheetmetal repairs and rebuilds
- Composite repairs
- Insurance repairs
- Corrosion and paint repairs
- Full strip and repaint
- Fabric repairs to complete recovering
- Pressurisation System maintenance
- Battery Capacity Testing
- Scheduled Avionics Inspections
- Avionics installations
- Electrical Load Analysis
- PBN Approvals / Documentation
- ADS-B Out Installations
- Electrical and Instrument repairs
- Avionics repairs
- Cirrus Aircraft Service Centre
- Pilatus Aircraft Service Centre

A year in review

This year has seen the Avionics team busy with continuous back-to-back installations of Garmin and Bendix King products into many different types of aircraft. The Garmin GTN650 and GTN750 remain the most popular option combined with ADS-B Out Garmin, Bendix King, Appareo and Trig Transponders.

A very big thanks must go to our fantastic customers and their continued support enabling Avcraft Engineering NZ Ltd. to complete the most Garmin G500 installs for New Zealand in 2017. The impending release of the incredible new 7 inch and 10.6 inch Garmin G500 TXi's in January 2018 will ensure this trend continues. The Avcraft Avionics team are extensively trained, and importantly, very experienced to ensure a seamless



Pilatus PC-12 scheduled maintenance



Garmin G500 installation



Airtractor rebuild

installation in to your aircraft. From initial advice and planning, right through to PBN approval, administering your Software Configuration Management Plans and ongoing support, "our Avionics team will get the job done right the first time and take the hassle out of your upgrades," says Avionics Manager, Jake Bradley. If you're thinking PBN, ADS-B Out or a modern and cost effective autopilot, call Jake to discuss.

Pilatus and Cirrus

Avcraft Engineering NZ Ltd. is New Zealand's only factory approved Pilatus and Cirrus Aircraft Service Centre. The company has the technical data, specialised tooling and factory training to ensure maintenance on these advanced aircraft is performed correctly and with full factory support. As Mat says, "We've got a tremendous amount of experience, capability and knowledge here at Avcraft. You can be assured your asset is in good hands."

Centrally located

Being conveniently located at Feilding Aerodrome, with no landing fees, Avcraft is readily accessible from North and South Islands. Mat says a large number of regular customers fly down from Auckland or up from the South Island, adding, "We have courtesy cars available and reduced rates at local motels if you want to overnight. We also offer a pickup and delivery service for your aircraft to keep it hassle free." A 24/7 Breakdown Service is also available New Zealand wide.

Foreign aircraft support

With CASA and FAA Licensed Engineers, Avcraft can also support US and Australian registered aircraft for Scheduled Maintenance, Repairs and Breakdown Support. US and Australian Certificates of Airworthiness and Export Certificates of Airworthiness can be issued locally. Avcraft have the experience and licence coverage to provide a full range of services to those operating foreign registered aircraft in New Zealand.

SMS

Avcraft Engineering NZ Ltd has recently had their Safety Management System approved by the New Zealand CAA, one of the first Part 145 Maintenance Organisations to reach this milestone. CEO and Safety Manager, Trina Futcher, has driven this project from the outset and very capably ensured compliance and an easy transition.

For more information

Call Trina, Mat or one of the team at Avcraft on 06 212 0920, email: mat@avcraft.co.nz or drop in to the hangar at Feilding Aerodrome and discuss your maintenance needs.



Maintenance and Avionics

Garmin Flight Decks

NEW PRODUCT



G600/ G500 TXi
Touchscreen Integrated Flight Display
List Price \$24995: Our Price \$21870*
G600 TXi 7"
List Price \$18995: Our Price \$17095*
G500 TXi 10.6"
List Price \$15995: Our Price \$14395*
G500 TXi 7"
List Price \$11995: Our Price \$10795*
EIS TXi Class 1, 2 & 3
From List Price \$4595: Our Price \$4250*

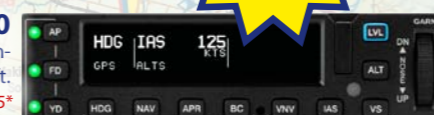


AVIONICS SALE ON NOW!

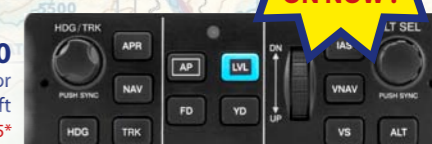
Garmin Autopilot

NEW PRODUCT

GFC-600
Digital Autopilot for single & twin-engine piston & turbine aircraft.
List Price \$19995: Our Price \$17995*



GFC-500
Garmin's Digital Autopilot for light single-engine GA aircraft
List Price \$6995: Our Price \$6295*



#1 for GTN installs 2016 and G500 installs 2017 to date. A big thanks to our Customers!

Thinking PBN / RNP?

GTN-750
Garmin's all in one GPS/Nav/Com Transceiver with internal Datacard
List Price \$17200
Our Price \$15840*



GTN-650
Garmin's all in one GPS/Nav/Com Transceiver with internal Datacard
List Price \$11600: Our Price \$10440*

Thinking ADS-B?

GTX-335/345
Garmin's ADS-B Out Transponder non-WAAS - List \$2995: Our Price \$2770*
inbuilt WAAS - List \$3795: Our Price \$3510*



APPAREO STRATUS
ESG Transponder non-WAAS - List \$2495: Our Price \$2307*
inbuilt WAAS - List \$2995: Our Price \$2770*



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From a 50 hour inspection on a Cessna 150, to a KingAir Phase Inspection or a Pilatus PC-12 Annual, our experienced engineers have the skills, knowledge and tooling to assist you with all scheduled and unscheduled maintenance requirements. Plus: Aircraft recoveries, Insurance repairs, Rebuilds, Sheet metal work, Corrosion repairs, Paint refinishing, Fabric work, Maintenance Control, and Avionics.



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www.avcraft.co.nz

*Please note all prices are in USD at time of Print, excluding GST, freight, Customs charges and installation costs unless otherwise specified.

Aviation Safety Supplies

Exclusive KANNAD Part 145 Repair & Service Facility

Aviation Safety Supplies Ltd located in Tauranga is the only KANNAD approved Part 145 KANNAD repair station and warranty replacement facility in New Zealand. Lloyd Klee has been a distributor for Kannad product for well over 20 years.

Kannad ELTs do need to be returned to an approved facility for battery replacement as specialised software and testing equipment is needed to re-certify them. Thorough testing as per the Kannad CMM ensures that the ELT is fully functional when it leaves the facility. Kannad ELT's only need bench testing every six years at the time of battery replacement.

Aviation Safety Supplies Ltd has renewed their CAA Part 145 approval and also holds ISO9001:2008 certification. They are now working through SMS.

Lloyd is also an active participant in several RTCA groups that are reviewing the next generation 406MHz ELT which will activate due to flight anomaly.

The company offers a prompt 24 hour service for most 406MHz service requirements and have Kannad ELTs available for AOG situations and/or any repair requirements. In addition, they carry good stocks of new and refurbished Kannad Compact ELTs. They also stock

the newer Kannad Integra models of both fixed wing and helicopter versions. A TEN year warranty is offered on all new Kannad Integra ELTs.

Aviation Safety also has a trade in (rebate) arrangement for those wishing to swap from Artex to Kannad.

The company also stock and service a range of Inflatable Lifejackets, Carbon Monoxide Monitors and most brands of 406MHz PLBs.

The brands of stocked products include Baltic, GME, Kannad, McMurdo, Ocean Signal, Switlik inflatable TSO lifejackets (stowable ten year service) and the popular X-Back Helicopter series, the Switlik Single Person Liferaft, a new SWITLIK liferaft with a five year service life, the Switlik Immersion Suit and 406MHz ELT testers from WS Technologies. Aircraft tracking devices such as the SPOT 3 are also stocked.

Launched within the last twelve months is a new range of SAR harnesses, lanyards and belts for human slung loads during helicopter operations.

For all enquiries on any 406MHz ELT and PLB products, accessories, servicing and repairs contact Lloyd on 07 5430075, email: sales@aviationsafety.co.nz or visit www.aviationsafety.co.nz

Kannad Integra

- The only ELT with back-up antenna that optimises signal transmission
- Embedded GPS receiver ensures location accuracy
- Industry's longest warranty - 10 years



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with the world's most innovative, resilient & reliable ELT

Aviation Safety Supplies Ltd.
P: 07 5430075
or 027 280 6549

E: Integra@aviationsafety.co.nz

www.aviationsafety.co.nz



Rotor and Wing Maintenance

Based at Taupo since commencing business in 1980, Rotor and Wing Maintenance Limited maintain a focus of enhancing the safety, performance and reliability of helicopters and light aircraft. Business has grown steadily over the years, with owners John and Shona Hobday expanding their hangar and facilities numerous times. The company became an early Robinson Service Centre during the 1980s, back when Frank Robinson himself signed and presented certificates. Countless Robinson overhauls have since been completed, including one of the first R66 overhauls worldwide.

Managed by Greg Newton, the workshop undertakes scheduled maintenance, airframe overhaul, and repair work across a wide variety of types. In particular the company has extensive experience on MD500 and AS350 series aircraft as well as the Bell 206 JetRanger.

Part 145 approvals for both the component overhaul shop and the maintenance workshop were achieved in 1997. The component overhaul shop, managed by accomplished engineer Murray Welch, has long provided a valued service for operators and other engineering maintenance providers.

Robinson Helicopter overhauls

Over the years, Rotor and Wing have developed several processes to enhance the efficiency of Robinson helicopters' 2200 hour overhaul and 12 yearly inspection requirements. John says that one of the keys is to start planning well ahead of the job. "It can be a complex process and managing it for best cost involves a good deal of thought and decision making before parts are ordered," says John.

Often helicopters will have had major components changed during their previous 2200 hours flying time. Cost/benefit decisions need to be made whether to order a complete overhaul kit or to source just the parts required for the overhaul and to refit components still having time to run. With shipping times and costs also to be considered, John says it pays to start planning three months ahead of the actual overhaul date.

Operators should consider that good overhaul and reassembly techniques can minimise the potential for future corrosion and associated costs. Rotor and Wing have

proven processes to increase the overhauled helicopter's resistance to corrosion attack.

Rotor and Wing also provide a variety of in-house component overhaul services, including for frames and undercarriages, often undertaken for other maintenance providers' overhaul projects. Rotor and Wing may also have exchange frames, undercarriage, tail cone, etc. available which facilitate a faster turn-around for the overhaul process.

John says that the most economic and efficient overhauls are the ones that happen methodically and in a short time; "Planning is the key. With the many years of overhaul experience we have, Rotor and Wing is in a position to offer turn-around times of as little as 4 weeks. As well, we're confident enough of our processes to offer fixed price overhaul contracts if that is what the customer would like."

Lifting Equipment Specialists

A further area of expertise at Rotor and Wing is the development and supply

of lifting equipment. The company has decades of experience in supplying a range of lifting gear that includes remote hooks, long lines, cargo nets and swivels.

John recommends the Onboard Systems remote hook which has flexible options and straight forward servicing and overhaul requirements.

Long lines designed by Rotor and Wing have a safety ratio of 9:1 and can be easily disassembled for inspection (without undoing splicing) due to removable casings.

Cargo nets produced by Rotor and Wing are made by hand using strong polyester rope. Ruggedness is well-proven with many still giving good service after 20 years.

A swivel and its associated electrical connections are fitted above the remote hook to prevent damage to lifting equipment caused by rotating loads. Rotor and Wing manufacture these or can supply the Onboard Systems swivels.

For all enquiries contact John or Shona on 07 378 8688 or rotorandwing@xtra.co.nz

Helicopter Maintenance

Robinson Service Centre
R22 – R44 – R66

Single engine helicopter
routine inspections

CAA Part 145 approved

Component Overhaul

Central North Island
Location at Taupo

Established maintenance
provider since 1980

Safety

Performance

Reliability

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1175 Anzac Memorial Drive, Taupo Airport



One Stop Aviation at Tauranga

Solo Wings was founded as a small business 18 years ago at Tauranga Airport by Colin Alexander. Colin's goal was to offer a professional maintenance service to owners of microlight aircraft at a time when the technology and complexity (and popularity) of this category was just beginning to develop. Since then, the microlight and recreational flying scene has grown significantly, as has Solo Wings who now provide all manner of services to microlight, experimental, amateur-built, and GA aircraft owners. The Solo Wings team rightly attribute at least some of their company's success to a willingness to take on the jobs that others are shy of, and indeed take pride in "going the extra mile on anything more difficult or obscure".

Aircraft under the Solo Wings umbrella of care include everything from early rag and tube microlights, vintage wood and fabric aircraft, through to carbon-fibre sport planes with glass cockpits, autogyros, and experimental category aircraft such as an Albatros L-39 jet. The company also looks after numerous amateur-built and GA aircraft.

Solo Wings are factory appointed as a Service Centre for many of the major recreational aviation brands, such as Tecnam, Pipistrel, Viper, Auto-gyro Europe, Rotax, Airmaster, and more. Colin says they enjoy direct access to the manufacturers' technical people, many of whom they have personally met on factory training courses and visits. In the case of Rotax, Solo Wings are the only New Zealand maintenance provider approved by the factory as a Rotax sales, maintenance and overhaul facility.

Colin is quick to emphasise that the company wouldn't be where it is without a great team, who enjoy strong support from Colin in regards to ongoing training and skills development. One such example is Colin's son Saul who trained with Solo Wings and is now fully licensed. "Quite useful," says Colin proudly.

General Maintenance and SAMMS

Solo Wings have all the bases covered for professional light aircraft maintenance. They can carry out composites work on fibreglass or carbon fibre, as well as undertake wood, fabric and metal work from minor repairs to major fabrication. Weight and balance, and dynamic prop balancing equipment is all to hand.

A separate clean-room contains an engine shop and although Rotax overhauls are a dominant part of the business, other types (including radial) are welcome.

Maintenance requirements for all aircraft under Solo Wings care are kept track of via SAMMS, an online software tool (developed in-house) dubbed the Safer Aircraft Maintenance Management System. Solo Wings engineers use permanently-online tablets for managing checks, time studies, stock maintenance, due list updating, tasks per plane, and more. The system is fully automated to create Loose-Leaf-Log-Entries on job completion and is also available online to customers, to assist with their maintenance control and to eliminate due date or work scope surprises.

Rebuilds and Insurance work

In the hangar at the moment following a recent mishap is a Just Aircraft SuperSTOL for fuselage welding and re-fabricating prior to a new wing arriving which will also need to be fabricated. Solo Wings receive a steady stream of such jobs, and offer a complete



Solo Wings Team photo.



Recovery through to rebuild - Solo Wings are specialists in putting mishaps right.

service for recovery, assessment and rebuild of damaged aircraft for insurance companies and private owners who have had a bad day and need someone to put everything right again. The company also becomes involved in accident investigation when required.

Another current rebuild project is a Viper SD4 which the company acquired with corrosion issues that are in the process of being put right. This aircraft has a full avionics suite – look out for it online at the Solo Wings Aviation Centre soon.

Import and Certification Processing

With the Port of Tauranga just down the road, Solo Wings are ideally placed to provide import and export services, and handle dozens of such projects every year. The company is fully MPI approved for containerisation work and of course can easily attend to all incoming certification and paperwork requirements.

For all Sports, Recreational and Aircraft Engineering

Solo Wings

Our TEAM is committed to provide Top Service with a Smile – every time

2 de Havilland Way, Tauranga Airport: Phone (07) 574 7973

Aircraft Repairs
Aircraft Restoration
Paint & Fabric Work
Dynamic Propeller
Balancing
NZ's only authorized
Rotax Sales & Service
Centre
Sales & Spares
Airworthiness Reviews
Aircraft Annuals
Managed Maintenance
Plans

www.SoloWings.co.nz

The Aviation Centre and Propeller Pad

In 2016 Solo Wings opened their new Aviation Centre and 'The Propeller Pad', around the corner and opposite to the main entrance to Tauranga Airport. The latter offers pilot accommodation at the airport and the former provides flight training services across the spectrum of GA and microlight/sport fixed-wing aircraft including seaplanes and autogyros. Thus Solo Wings can now not only acquire and maintain your aircraft for you, they can also teach you to fly it. It's best to book in advance at the Propeller Pad which has proven very popular, especially at the moment with Air Chathams running a service to Tauranga most weekends throughout summer.

In the Aviation Community

From the beginning, one of the Solo Wings principles has been to participate in and support the aviation community, particularly in regard to what Colin calls a 'Safer Aviation Philosophy'. A lot of time is invested in promoting safety via education, whether by participation in AvKiwi seminars, supporting apprenticeship programmes, giving lessons in logbook completion, or providing maintenance training to microlight owners. Colin is also active in RAANZ and the New Southern Skies programme.

For more information

If you need advice for recreational or other aircraft maintenance, aircraft importing, or support with an aviation project, give one of the team at Solo Wings a call on 07 574 7973, email: info@solowings.co.nz or visit www.solowings.co.nz Solo Wings continues to grow. Qualified engineers interested in employment should also feel free to get in contact.

For all your engine overhauls
Lycoming, Continental,
Gipsy, Rotax...
Part 145 approved
Call Bill O'Neill or Graeme Daniell
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www.southair.co.nz

Primary Avionics

for Pilot-centred avionics advice & installations



Military training in New Zealand's Air Force laid a groundwork in excellence for Adam Seumanutafa (Sammy) from Primary Avionics Ltd. Located at Hamilton Airport, Primary Avionics strives to provide quality solutions for installations, refits, upgrades and maintenance of all avionics systems. Making sure it looks good and does the job in the cockpit is only part of the equation for Sammy who believes that what's behind the panel is where the true art of avionics lies. Future proofing for ease of maintenance, eliminating potential issues from wear and tear through good practice and ensuring all remains "Smokefree" is paramount to his philosophy.

Currently a lot of Sammy's time is being spent reconfiguring systems in recently imported AS350 helicopters. These have required a high level of customisation and are involving multiple installations of Garmin G600 electronic EFIS systems.

A 2017 highlight has been providing oversight and signoff for Garmin's latest version of the G1000, the NXI, into a ZK registered King Air. Garmin, Aspen, Bendix-King, TRIG, PS Engineering, Jupiter and NAT avionics are all systems that Sammy knows well, with preliminary approval also granted for a TRIG dealership.

His experience across a broad range of avionics products means Sammy is well placed to be able to spend time with customers discussing the options available to achieve exactly the result required. This could be a basic radio unit in an enthusiast's aircraft, through to systems used in agriculture and forestry, right through to a glass cockpit system in a medevac or other specialist aircraft. "Being able to understand and communicate with customers as well as being flexible enough to provide custom solutions is one of the benefits of being a

smaller company," says Sammy. "Nothing gets lost in translation and we're able to move quickly for tight turnarounds or unexpected maintenance".

Holding all electrical, instrument and radio ratings for up to a BE300, Sammy is perfectly positioned at Hamilton airport to cater for these aircraft in the greater Waikato and Bay of Plenty and is happy to travel further afield if called upon. Alongside these avionics specific ratings, he also holds various airframe and engine ratings as well as Inspection Authorisation. This provides continuity of signoff and eliminates the need for multiple licensed engineers on one job reducing scheduling delays and extra cost.

This broader view of aircraft maintenance has also led to Sammy becoming involved with the CAA's working group for the upcoming ADS-B mandate. This has provided an invaluable insight into how the rest of the industry views ADS-B and once mandated what systems would be best suited to different tiers of the aviation market. "What's good for a helicopter operator may be completely wrong for a light sport owner," says Sammy.

Sammy's philosophy is centred on the pilot; "What I have come to realise over the years is that 'it needs to be right for the pilot,'" he says. "It doesn't matter what the avionics engineer reckons, at the end of the day the pilot needs to feel comfortable with their avionics. To that end I spend as much time as possible discussing with the user what they need/want then summarise to make sure we're both on the same page."

If you're after an independent, well informed avionics engineer who is fluent in both Geek and English then give Sammy a call on 022 636 6573, email: sammy@primaryavionics.co.nz or visit www.primaryavionics.co.nz

Avionics Canterbury Wide Expands

Following more than 20 years of avionics work for the RNZAF, David Harnett formed Avionics Canterbury Wide in 2006 to provide a fully mobile avionics service, centred on Canterbury and extending throughout the South Island. As the business grew, David took on an apprentice, Andrew Duff who is now licensed and continues to work for the company. Demand for their services has continued to grow and recently Gavin Simón, also licensed, joined the team from Air NZ with 30 years of industry experience behind him. A fourth, albeit temporary member of the team is Bob Waghorn, currently on board for work experience.

David says the company's growth has in part paralleled that of loyal commercial customers who have continued to upgrade older aircraft and also bring new aircraft on line. It has also been thanks to a steady flow of new customers who have come to the business for anything from checks through to full installations. If one takes the time to read some of the testimonials on the Avionics Canterbury Wide website, it will become apparent that the growth likely also has a lot to do with excellent trouble-shooting skills and a friendly, efficient service.

Mobile and Fixed Base

Having begun as a fully mobile business operating from a customised van configured to offer all manner of on-the-ground avionics testing and services, the company has for some time been in demand to provide hangarised services and late last year purchased a hangar on Rangiora Airfield for this purpose. Work is well underway to convert this to a modern and permanent home base with appropriate facilities that will include an adjoining office and flat which customers may use for short term accommodation if required.

The hangar won't change the company's mobile service offering, which continues for all customers that need it – far and wide across the South Island. Callouts to helicopter operators are common, particularly given their ferry costs and if jobs on multiple aircraft can be combined for one visit, travel costs can then be shared. Field trips are often interesting and varied; for example following a call for assistance earlier this year, David added a trip to Gloriavale to his logbook. Customers come to Rangiora from far and wide too, one 'regular' client being from Auckland every two years for biennial checks – and a holiday at Hanmer Springs whilst in the area.



The Avionics Canterbury Wide Team outside their new Rangiora Hangar.

Services Available

Avionics Canterbury Wide provide a full range of avionics servicing and installation. David says that engine analyser installations have been popular during the last year, as have comms installations to varying levels of complexity. A lot of customers are private operators for whom David is happy to work to a careful budget including forward planning. One such customer who returns regularly commenced with a full IFR radio stack installation, then a Garmin G5, and for next year is planning an auto-pilot and ADSB transponder.

The company supports many microlights and recreational aircraft in the local area, commonly for biennial check requirements, but also for fault diagnosis and rectification when sticky problems arise. Full aircraft wiring and avionics installation services (and support) are available for builders who would prefer not to tackle this part of the project on their own.

Recently popular in the GA field, as some of the older generator units start to fail, are Plane Power installations. Plane Power have alternator STCs for most aircraft types (whether gear or belt driven), providing the opportunity to replace old technology with modern and more reliable systems.

David welcomes any enquiries for avionics advice, maintenance or installations in the South Island. Contact David on 027 222 0872 or email: avionicscanterbury@gmail.com For more information, visit www.avionicscanterbury.co.nz

Leading Edge Aviation

Wide ranging maintenance available at West Auckland Airport Parakai

Based at West Auckland Airport Parakai, Bryn Lockie (LAME and IA) at Leading Edge Aviation offers a complete suite of maintenance services for certified, sports and microlight aircraft, including for Whole Aircraft Parachute Systems.

A free courtesy car is available for those flying in for service. As Bryn lives close to North Shore Airfield he can also pick up aircraft there and deliver back after maintenance work is done.

Apart from normal servicing of aircraft, Leading Edge Aviation specialise in: major rebuilds, corrosion and damage repair, refurbishment of aircraft, aircraft recovery from remote locations, import/export of aircraft, and assistance to home builders including completion of stalled projects.

Ballistic Recovery Systems

Do you have or are you interested in fitting a Whole Aircraft Parachute? When might you activate? - Loss of control in unintended IMC - Failure of a critical

component - Engine failure over hostile terrain - Pilot disorientation or a medical event? It's great to have a 'Plan C' up your sleeve. The driving factor to have a chute installed is often that the pilot's family wants an insurance policy that can save their family members' lives, rather than just delivering a cheque after the event. A chute offers peace-of-mind for family and pilot alike. "It's not about the plane..."

Leading Edge Aviation are WAP specialists and can provide advice, installation and all servicing requirements. All brands have a six year repack/revision requirement, with BRS STC'd units for certified aircraft having 5 yearly maintenance requirements. Leading Edge can also offer exchange repacked/reviced units for certain models.

For more information

Contact Bryn Lockie on 09 973 5119, email: info@LEAV8.com or visit www.WestAucklandAirport.co.nz

Capability and Ratings

Aeroplanes:

Aluminium, Composite & Fabric/wood

Helicopters: Group 1 and Group 2

Piston Engines:

Turbo/supercharged, Diesel, Rotax 9xx

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Thriving on Projects and more

Another great year for JEM Aviation at Omaka

2017 has been another great year for the team at JEM Aviation, albeit with more than a fair share of unforeseen left-field challenges, Chief Engineer Jay McIntyre reports.

On several occasions another pair of hands in the hangar could easily have been kept busy, and of course a certain Reno distraction (see elsewhere this issue) saw resources temporarily relocated half way around the world. Limitations on labour have however, had somewhat of a silver lining for some customers, as funds could be diverted into purchasing items needed to complete their various projects. Demand on labour is of course now higher than ever. Jay says, "If anyone is interested in a job, please contact us! However, you will need a good range of skills, preferably an aviation background, and be able to be left to your own devices to some degree. A serious love of aviation and sense of humour are also required as working with us is much more than 'just a job!'"

Projects aside, the company has been kept busy with annual inspections, routine maintenance, modifications and repairs to the GA fleet under JEM Aviation's care. Jay says Scott Tudor is the main man on the ground and over the past two years has really cut his spurs on this front. Jay laughs, "We just need to get him licensed and into the paperwork!"

JEM Aviation has become a popular GA maintenance provider in the last 3-4 years, something that Jay says has "snuck up on them" to the point that another engineer could now easily be employed. By necessity Jay's role is changing as the company grows. No longer is there time for an annual sojourn to Hastings for annual inspections, and in the office Jay has relinquished numerous administrative duties to the capable hands of Paula Holdaway, in order that he provide direction and oversight to an increasing number of contractors and semi-volunteers involved in restoration projects.

In addition to the quality work that comes off the hangar floor, Jay takes particular pride in the quality of the paperwork that is delivered with the finished product. "While it does add time to the job, the customer knows exactly what has been done and can be confident



Robin Officer at work on cowl sections for an Australian P-38



Robin's craftsmanship in the form of Swift spats.



WACO UOC with Robin's cowls.



90hp Cub Bkx during rebuild / rebag.

that the future value of their aircraft will not be compromised by shoddy and incomplete records," says Jay. He doesn't mind nagging when required, or hearing that it wasn't 'the way we did it at XYZ', as long as the result meets his standards.

Hangar 2

A second hangar which was expanded into two years ago is now well set up and houses a certified spray booth and most recently an air-conditioned engine/hydraulic clean room - currently utilised for bulk strip and inspection/repair of engines destined for Special Category aircraft. These include Gipsy Major engines, something Jay says seems to have become increasingly hard for owners to find service/overhaul capabilities for in recent years. The first engine is from an Australian registered aircraft destined for France. "Although the engine has only 500 hours TSO, and was only meant to need the cylinders refitted, some odd things were noted that dictated a complete strip and reassembly," says Jay, "as someone, somewhere along the way had pulled it apart and haphazardly put it back together!" Waiting in the shadows are a number of Ranger engines for the fleet of Bristol Fighters that were recently liberated from Chino.

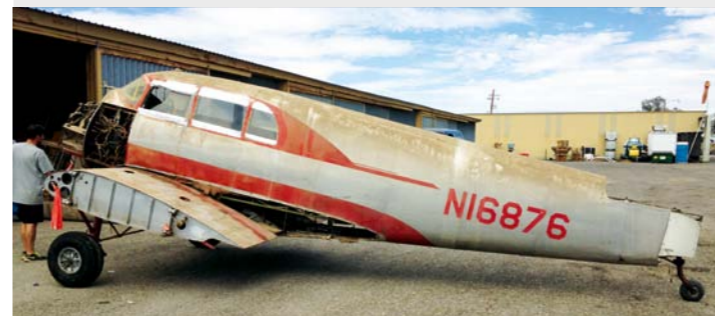
Also operating out of the second hangar is Robin Officer, a master metal worker and coachbuilder who spent 25 years in the USA and worked for Jay Leno on his car collection prior to returning to New Zealand. Robin is being "put to good use" on such projects as spats for the Fairchild F24 and Comper Swift, cowlings for WACO UOC, F24 and Bristol Fighter, and any number of fairings and compound shapes required by various projects. Jay says "His work is amazing and while he has enough to go on with, the more work we can provide, the longer he will stay! Do talk to us if you need any coachbuilding support."

Projects

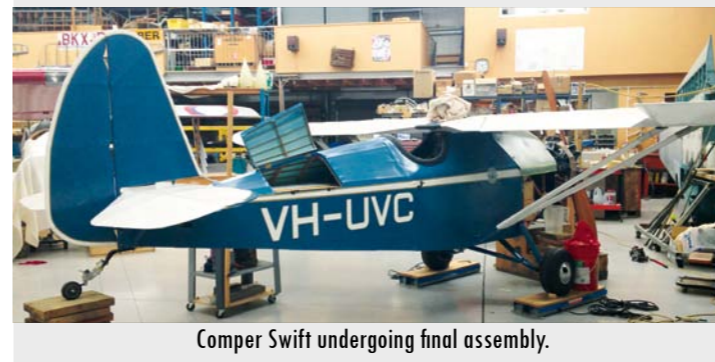
On the projects front, Jay reports that the Comper Swift is heading towards completion. Niggly carb jetting and ignition issues prevented a display at Classic Fighters this year but have now



Trevor Collin's F-24 undergoing final assembly.



Fairchild F45 as removed from 35 years of storage in California.



Comper Swift undergoing final assembly.

been resolved. "Hopefully by the time you are reading this, the pretty little English racer will have flown," says Jay. Another project with a long gestation has been DC-3 ZK-JGB. Requiring more work than ever envisioned she went through a long hiatus whilst financial resources were gathered. A CoA inspection to allow Part 91 operations is imminent.

New projects in the shop include an ultra-rare 1934 Fairchild F-45, ex Australian Tiger Moth, Bucker Jungmann and Bristol Fighter replica. Existing projects such as the Yak-9V and repairs to the FW-190 continue in the background as time and money allow. "On a very positive note," says Jay, "the WACO UOC (ZK-AEL) is making stunning progress with Rex Newman at the helm. The only problem being that his contribution to date far outweighs mine and I will be in for some serious work shortly to even the score!" Also in the throes of completion is Nanchang ZK-WOK. Recently departed volunteer, Dave Simms spent the better part of three years bringing her back to life after an out-landing in 2007. At the time of his passing, JEM Aviation were about to take on the final preparation for her return to flight. At time of writing, the undercarriage had just been raised for the first time in ten years.

For more information

For all aviation engineering requirements, whether a routine check or a warbird acquisition and restoration project, contact Jay McIntyre on 03 578 3063 or 021 504 048, email: jay@jemaviation.co.nz or visit www.jemaviation.co.nz



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“Here to Help” at Hamilton Airport

Maintenance providers are often differentiated by their focus, whether that be rotorcraft or fixed-wing, sport aircraft or warbirds, etc. Rather than identify with any particular type or style of aircraft, Hamilton based Central Aero Engineering's owner Paul Waterhouse describes their focus as “delivering fair value” and their approach as being “here to help”. It's a strategy that draws private and commercial customers and sees a steady variety of interesting aircraft through their hangar for all manner of routine maintenance, through to overhaul and rebuild requirements. And that's not to mention the support regularly given to home builders and microlight aircraft owners needing guidance from time to time on projects or their own routine maintenance.

Paul and his team of four licensed engineers (Steve, Hamish, Kanda, and Dave who recently joined ex. Eagle Airways) derive a lot of satisfaction from taking on unusual or difficult jobs and delivering results “that delight customers”. Plus, Paul says that because overheads are comparatively low for the level of equipment and experience they can provide, costs can be maintained at an affordable level. “It all goes towards our fair-value philosophy,” says Paul.

In the Hangar

There's no shortage of diversity on any given day in the Central Aero hangar. Visitors can expect to see engines from Gypsy to turbine, and aircraft from balloons to helicopters.

Recently departed has been a Beech Bonanza which arrived for undercarriage removal and refurbishment. Other recent work has included various ag. aircraft (PT6 and IO-720 powered), and a Cessna 172 in for engine overhaul.

In the hangar are a variety of other Cessnas (180, 182, 152) and a freshly imported MBB Bo 105 helicopter. Central Aero supported the new owner with sourcing and importing and are now preparing the aircraft for its NZ



One of several Cessnas in the hangar currently.



Freshly imported Bo 105 getting ready for CoA.



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“Every day is interesting,” says Paul. Although absent at time of writing, microlights and sport aircraft also make regular appearances – including types such as Dynamic, Sportcruiser and Bristell, plus rotorcraft including autogyros and the Safari helicopter of which several are ‘on the books’.

Services and Capabilities

The depth of licensed engineering experience in the hangar means there's no question that Central Aero can tackle most jobs regardless of how unusual or difficult they might be.

Central Aero's services cover everything from pre-purchase inspections worldwide, shipping container handling, CoA preparation and issue, airworthiness reviews, maintenance, repair and restoration of all flying machines, 24 month avionics checks (including mode S transponder testing), dynamic prop balancing, weight and balance services, maintenance control for private and air transport operators, accident and incident investigation, builder support, parts and materials supply, - and “good old-fashioned free advice”. Paul says; “If you own it, or fly it, no matter what it is, from hot air balloons, to twins and helicopters, piston engines and turbines, give us a call, ‘We are here to Help’”.

That help extends beyond direct aircraft maintenance too, with Paul providing support when asked, for other engineers sitting their exams – particularly from the point of view of covering legislation and how ‘proper’ logbook entries should be made. “We've helped several candidates now from a practical viewpoint to explain more about what is being achieved with correct logbook completion and what they should be looking for,” says Paul.

For more information

Paul's contact details at Central Aero Engineering are: 07 843 1200, 021 743 033, paul@centralaero.nz or visit www.centralaero.nz

Central Aero Electrical Limited

In the neighbouring hangar to Central Aero Engineering is Central Aero Electrical Ltd. Owner Martin Ross describes his small team as, “handy people – we're good at twisting our minds around unusual problems and designs”. It's a modest boast, evidenced by the variety of jobs to be seen in the hangar at any one time. When replacement of a component seems like the only option, be it a fuel sender unit or a GPU circuit board, there's a fair chance that Martin may be able to apply some wizardry to fix the problem, often at considerable savings to the operator.

One of his frustrations is the increasing number of modern parts which suppliers are engineering to be return-to-base for all maintenance. Martin is doing his best to counter this trend by working with a Design Organisation on STCs to enable much cheaper and faster local options for operators.

Central Aero Electrical has a comprehensive range of diagnostic equipment and a large test bench that will handle up to 12 cylinder magnetos. Capabilities cover a good range of piston engine starter/generator, control unit rectification and overhaul work, along with the 500 hour requirement for magnetos. Mechanical actuator overhauls for various rotary and fixed wing types are a regular job as Martin's collection of manuals grows. Operators may be surprised to find just how broad Central Aero Electrical's capabilities are becoming in this regard. Turbine electrical components also frequently pass through the shop, including starter/generator overhaul work for Pacific Island companies.

Central Aero Electrical stocks a variety of parts for re-sale including starters, batteries, alternators, strobe units, starter generators, GCUs, voltage regulators, ignition switches, and HT ignition harnesses. Various exchange items are available. In many cases Martin is able to deal directly with a component supplier, thus bypassing the aircraft manufacturer's mark-up which he is happy to pass on as a saving to the customer. Contact Martin on 027 733 0208 or email: centralaero@clear.net.nz



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