**RAeS HAMILTON Branch Meeting for November 2019.**

**DATE: WED 27th November 2019**
**START TIME: 19:30 hrs/7.30pm sharp**
**VENUE: Glenview Club, Peacockes Road. Glenview, Hamilton.**
**AGENDA; Guest Speaker; Mr. Murray McGregor, CPEng, MRAeS.**

Murray will give us a presentation on the latest re-engining exercise for the Fletcher. This is based around a high tech diesel engine and is due to fly at the end of the month. Murray has been recognized for his service to the industry by the Royal Aeronautical Society and the New Zealand Agricultural Aircraft Association. An attachment is included with the newsletter which provides a very brief summary of Murray's career. Have a read of it and ponder at how fortunate we are in NZ to have some one of his ilk still active in the industry.

Thanks to all those (13) who came to last month's meeting, when Mr. Hugh McCarroll gave us a very thought provoking talk on the space race. This was part 3 of a series and was called the Big Picture Update, as things have been happening so fast that Hugh had to re-write his script 3 times before giving us the final parts to the story. This was a great lecture and it just shows how all this fascinating stuff is going on right now and changing so rapidly that progress is measured in weeks and month's not years as was the case until all these new agencies came on board, so watch this space.

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**PACIFIC AEROPSPACE – Site Visit**

On Wednesday the 6th we were fortunate enough to be given a site visit at PAC, at Hamilton airport. We were a group of just over 20, including 5 from the Bay Of Plenty Branch.
A brief introduction was given by Andy Ives who is the General Manager of Engineering, David Roberts, Senior Design Engineer and Alf McLaughlin, Operations Manager, then guided us through the complex in two groups. David was the guide for my group.
We commenced the tour at the machining and sheet metal fabrication center where we were provided information on the parts fabricated there along with the manufacturing processes used. We then visited the XL-750 sub-assy and major assy areas where we were given an outline on the fuselage assembly process and some of the key tooling utalised to maintain control of the datums. We were also given a brief description of some of the design and manufacturing developments used on the XL-750 from the Fletcher and Cresco days, including the move away from fabricated parts to machined components to improve the overall manufacturing and assembly solutions.
In the main hangar we saw the first factory built Falco 3000 XL, this is a bespoke Agricultural configuration based on the XL-750. The original concept was developed by Farmers Air, the original design and certification work was carried out by Flight Structures. (Please follow the link to get some insights into the aircraft). David also provided some limited information into the development of the SUPER-PAC XL. This is an evolution of the current model which will be fitted with a new engine, PT6A-140A, a new propeller, improved aerodynamics, with an advanced avionics suite to deliver new levels of performance. We were also fortunate enough to get to see the operational prototype in another hangar as it was being prepared for a test flight.
In the main hangar we got an introduction into the E-350 expedition as we witnessed the first NZ built variant coming together. The E-350 is a high performance cross country cruising aircraft well suited for the rugged backcountry. PAC acquired the type certificate for the aircraft from the original Canadian

owner and is now making it its own.
And, last but not least, we also saw the company's CT4-E that was parked outside the old "James" hangar. This spawned another long entertaining conversation.
As the saying goes "*time flies when you're having fun*", but we all walked away with a grin and a sense of pride at what is being done in NZ.

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**Alan's November Jottings:**
Now that direct airline flights from London to Sydney have become a reality it will be interesting to see how popular they will become. Some folks will find a 19 hour-plus flight an unacceptable proposition and prefer shorter flights with a stopover to enable time to recover after each leg. My family and I have made a 15 hour-plus flight from Sydney to Dallas/Fort worth with the return flight being 16 hours-plus and while some of the family found it long drag none of us suffered any ill effects that a sleep-in at the destination hotels didn't fix.

Something that has captured some people's "green" thinking, is the amount of green-house gas emitted by airliners. While this could be of concern long-term, something that has never been mentioned by these "green" people or the media is that the gases emitted by the numerous active volcanoes around the world far exceed anything airliners produce.

A radical new aircraft that has recently come to light in the USA, is the Otto Aviation Celera 500L, a bullet-shaped, single pusher-turboprop powered, biz-jet-sized aircraft. It is claimed its performance and fuel economy far exceeds anything else available today. It has been seen around Victorville, California, during test-flights. It certainly looks radical and reminds me a little of the Piaggio P180 Avanti.

Al.

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Due to the lack of numbers, we won't be having a Xmas dinner this year, but don't let this stop you from enjoying the festive season with family and friends.

Don't forget Dave Homewood's WONZ lunch Forum at Te Kowhai Airfield on Sun/8th/Dec from 10.30-4pm. $20/Hd for a BBQ and sausage sizzle,or bring your own picnic lunch. Guest speaker is Mr. Dave Starr, who was a loader driver, then the last pilot to fly the DC-3, ZK-AZL which is parked up just behind the carpark at Te Kowhai.
The local guys will have some a/c parked outside to view, and there are some others flying in and hopefully a warbird or two.(Harvard ?).

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