



Wings & Things

Welcome to the October 2019 newsletter for the Wellington Branch of the RAeS.

For the October Branch Presentation –

Wellington Branch, Royal Aeronautical Society

5:30 for 6:00pm start – Thursday 24 October

National SCOUT Centre, Level 1, 1 Kaiwharawhara Road, Wellington

(Opposite Spotlight) – Gold coin donation please

Early aviation history in Wellington. by Charles Davis

The Wellington Aero Club has its 90th anniversary this year. The talk will give an overview of aviation history in Wellington leading up to the formation of the Aero Club in 1929. Some of the key moments of the early 1930s will be discussed. The fuller history of the Wellington Aero Club is currently being researched and will be a topic for later talks.



Dave Paull photo



Charles is the immediate Past President of Wellington Aero Club and has been flying for over 30 years including a number of warbird aircraft. He is currently researching and recording the history of the Wellington Aero Club.

Charles is a Reconstructive Plastic Surgeon specialising in Paediatric Craniofacial Surgery and reconstruction of the skull base and face.

Last Month - Training Systems, Procedures and New Developments at L3Harris Airline Academy, New Zealand. by Guy Brooking CFI

In his overview, Gary stated it was a great time to be in the pilot training business, where 100% of those who graduated were guaranteed a job and 635,000 commercial pilots will be needed by the industry in the next 20yrs. L3Harris has a student throughput where 45% are sponsored by the airline industry and the rest are retail clients.

From a historical perspective, CTC had a good reputation producing high quality pilots that has not changed today, which was what attracted L3 Harris with the acquisition. They currently have 16 major airline customers, with the biggest market in Europe (70%) and Asia Pacific a growing business. The last 20hrs of each training course is an instrument rating completed in Europe under EASA regulations.



Many the company's training instructors come from around NZ and usually go on to be employed by Air NZ. The company operates in UK, NZ, Portugal and USA. The latter under FAA rules and is where Chinese airlines are trained. The whole training spectrum comprises pilot selection, ab-initio, Airline qualifications course (multi-crew), type rating (airlines), recurrent / refresher training, Command training, and Training captain.

At the Hamilton, NZ Academy, the following 2018 stats were impressive:

- 577 cadets from 25+ nations
- 30,000 flights
- 38,500 hours flown
- 110,000 movements,
- \$30 million
- \$120 million dollars into Waikato economy
- Purpose-built facility with 40 aircraft
- Purpose-built student accommodation – 200 rooms (need more!)

Upset Prevention and Recovery Training (UPRT). This is the #1 safety concern in the industry. It used to be controlled flight into terrain. However, loss of control in flight is now twice as likely to occur and is ten times more likely to result in a fatality. Some 'landmark' accidents were noted as Air France 447 that ended up in the Atlantic and the 2001 Airbus incident in New York (wake vortex off a B747 that resulted in the fin falling off due to over use of the rudder (reversing forces)). It was discovered that the US Upset Training employed techniques that were not recommended by the manufacturer and simulators that were operating outside of the training envelope – invalidated 'real flying' experience and resulted in a negative transfer of training.

L3Harris saw an opportunity where UPRT could be targeted at the airlines (Specifically A320 – based). Comprises:

- Harmonised Training from academic – simulator – on-aircraft – joined-up approach.
- Stall Awareness (ident & recovery, experience of stall awareness, alpha vs attitude across a range of airspeeds), This includes straight wing vs swept wing differences in relation to coefficient of lift, where the stall is difficult to feel in swept wing.
- Prevention Better Than Cure

UPRT has 4 causes – Environment, System anomalies, Pilot induced – or a combination. The goal is 'successful flight monitoring', where 'startle' is recognised as a problem. How do you react? Pause and analyse – takes time, so training helps pilots avoid the startle effect. The aim is to get them 'engaged' so there is less chance of startle. Also, to build resilience through flight experience and post startle, how to bounce back fast.

Some of the other key training areas are with aircraft type differences related to size vs inertia vs control input response lag. Energy management (again inertia) and lots of on-aircraft training to put theory into practice. All the concepts dovetail into the UK airline training academy and EASA.

This was a very well delivered presentation from a consummate professional from within our community and highly recommended to other Branches of the RAeS.

Report by David Saunders

RAeS New Zealand Division 34th Annual Symposium

Friday 1st November 2019

James Cook Hotel Grand Chancellor, 147 The Terrace, Wellington

CHALLENGES FACING AVIATION - Equipment - People – Regulation

The New Zealand Division of the Royal Aeronautical Society is pleased to announce the 2019 symposium featuring a topical theme "CHALLENGES FACING AVIATION Equipment - People – Regulation". This exciting theme is presented in sessions by high calibre speakers, followed by panel discussions for your involvement.

Online registrations here - <https://raes-nz-2019-symposium.lilregie.com>

Future Events

Thursday 24 October **Early aviation history in Wellington by Charles Davis**

Friday 1 November **New Zealand Division Symposium, AGM & Awards Dinner**

Thursday 5 December **End of Year Dinner – Suggestions for a venue are welcome.**

SVAS Weekend 22-23 February and 28-29 March 2020 - The branch is proposing to have a day at Hood Aerodrome next year during one of the monthly practice days. Available during the day will be 20 minute Tiger Moth flights for \$295. Please would everyone please indicate their preferred day to the Branch Secretary Bernard Weinstein.

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