

# Australian Society of Air Safety Investigators

Quarterly Journal     June 2023



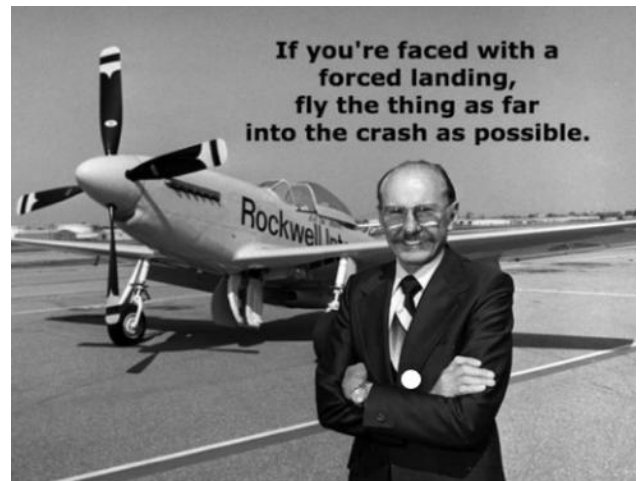
ANZSASI 2023



# AUSTRALIAN SOCIETY OF AIR SAFETY INVESTIGATORS

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*Bob Hoover 1922 - 2016*





# AUSTRALIAN SOCIETY OF AIR SAFETY INVESTIGATORS

## President's Message



Ladies and Gentlemen

My final message as ASASI President is combined with a certain amount of satisfaction. On the one hand, we have mostly come out of the pandemic

unscathed, however we suffered the loss of some great colleagues and quite a few jobs. Frank Sinatra used to say 'That's Life' but in our industry we've grown used to it.

Let's focus on the positives. Amid the pandemic, we managed to successfully pull off the international ISASI Seminar in Brisbane in 2022. Despite the early gloomy forecasts, it worked. Just to keep our hands in, we ran the regional ANZSASI 2023 in conjunction with the Asia Pacific Cabin Safety Working Group recently on the Gold Coast. Another winner, and down to a great team of volunteers who sorted papers, managed equipment, and coordinated those facilities necessary for the success of the seminar and the all-important networking.

At a professional level we have retained credibility as evidenced by formal approaches for support made to ASASI from the Australian Government Solicitors Office and also the State Coroner of Victoria. We continue to maintain and extend the support of military and civilian agencies along with a great bunch of generous sponsors.

We acknowledge that the tomorrow of our industry lies with the students of today. We've actively supported this by developing and maintaining two distinct student scholarships. With support from Flight Safety Foundation, we have commemorated the enduring legacy of the Macarthur Job through a scholarship in his name; three times now. In more recent times we embarked on a safety promotion journey too, with the support of CASA, by providing the Flight Safety Australia scholarship. In addition, we have provided complimentary ASASI registrations to Women in Aviation Australia (WAI) nominees at both the Member and Student level since 2020. We're doing our bit!

Looking forward, we have commenced a student mentoring program that will be rolled out later this year to capitalise on, and blend, the experience of our membership and the enthusiasm of our up-and-coming investigators. We have a volunteer coordinator who will shortly be seeking panel members to support this embryonic program. Further downstream but closely aligned with ASASI mentoring is the ISASI Reachout program, as it emerges from Covid induced hibernation. Announcements will be made within a few weeks to seek diverse support from all members.

Our new ASASI newsletter editor is keen to collate key items of professional development, general information, history and a bit of humour too. She can only work with what she is given though, so if you see an item that catches your imagination, please send it in.

Not surprisingly, communication remains the key to our success. Our webmaster is seeking new initiatives to link the membership with the traditional mechanisms and emerging social media. Platforms like LinkedIn and Zoom will be further utilised for short notice issues, so why not join up while you think of it?

Way back in 2019 we had preliminary plans for professional developmental guest lectures, utilising operator facilities. That's back in the flight plan too for later this year. We've proven through recent seminars that we have enough local horsepower to maintain a program like this.

Finally, we have a new Executive in place that is steeped in experience, ability, capacity and new ideas. For my part I see that our forecast is mainly CAVOK. Let's enjoy the journey and stay relevant.

Stay safe.

John



## ANZSASI 2023 Seminar

*Our ASASI Vice-President Alf Jonas has briefly summarised the ANZSASI 2023 proceedings. Here is his report from the front line.*

### Surfers Paradise 3-4 Jun 2023

This year's ANZSASI Conference in Surfers Paradise was not only very successful, but a blast. Feedback received by the ASASI Executive has all been very complementary. Herein is a snapshot of this year's event.

#### Stats:

We had a total of 83 registrations/delegates for the Conference and 5 partners for the cocktail reception and dinner.

#### The Tech Program:

Saturday's technical program was opened by Mr Angus Mitchell, Chief Commissioner of the Australian Transport Safety Bureau. In essence, Angus shared a 'day/week/month-in-the-life' of a Chief Commissioner and ATSB Accident Investigator team using Coulson's Boeing 737 aerial bomber accident as a recent case study. Sunday's program was launched into orbit by Group Captain David Smith, Director of the Defence Flying Safety Bureau. David reviewed four recent Defence investigations ranging from the F/A-18 LOC and subsequent ejection on take-off roll to the MRH-90 Taipan in March this year. David spoke about the added defensive 'slice' of Flight Authorisation and supervision and encouraged all to rehearse for what is not expected. Each keynote speaker set the scene for two days of fascinating, varied and very informative presentations from 16 presenters covering most aspects of accident investigation and associated disciplines.

#### ASASI Meeting:

Alf Jonas provided a quick pre-AGM SITREP to the members (it appears that all those present were rather settled on the next President and VP of our Society). Paul Mayes provided a brief update on ASASI member numbers (circa 110) and quick update on financial situation.

Group think discussion spurred renewed interest in rustling up new members, discussion on better engagement with professionals and the big take-away was that the Mentor Volunteers were all keen to go! Leaning on Military initiatives to encourage maximum attendance at similar meetings, our Vice President (elect) suggested a new arrangement of beers at the AGM and or other ASASI meetings! From what I recall – this was carried without objection! The location of the next AUS ANZSASI Conference was high on everyone's minds, with the following ideas: Canberra (site visit of ATSB's new digs?), Sunny Coast (Sue), Melbourne (RMIT site visit?), Sydney for UNSW site visit. We were all very keen on the idea of having a site visit at the respective campuses to better enable easy access from the various aviation students (may have to add pizzas to the beers Clare!).

#### The Gala Banquet:

This years awards went to:

- Mr David Adkins as this year's David Warren recipient.
- Jamielle Rogers (AI Paper) took out the Flight Safety Foundation sponsored MacArthur Job Award as presented by Mr David Anderson, MD FSF; and
- the CASA Flight Safety Australia Award went to Ms Yassmin Ebrahim (PhD student at UNSW).

Congratulations to each of the award winners.

We were then treated to have Australian Aviation Hall of Fame recipient, Ms Deborah Lawrie as our After Dinner Speaker. Deb was on fire. What a presentation.



## ANZSASI 2023 Seminar

### ASASI Executive Thanks:

Echoing our earlier email, the ASASI Executive wish to thank all those who made this year's conference a great success:

- Rob Chopin for the Technical Program
- David Adkins for the Audio/Visual technical organisation.
- Pierre Blais for organising the Golf Tournament (even though the Aussies lost, he pulled out all the punches for a great day out).
- Each of the moderators and all of the presenters.

For those that missed out and weren't able to attend this years Conference, we'll hopefully see you in Auckland for the 2024 ANZSASI Conference.

Best regards  
Alf Jonas (Vice President)

### ANZSASI Reflection - Jamielle Rogers, winner of the MacArthur Job Award

The 2023 ANZSASI seminar provided me with an excellent opportunity to hear from and network with experienced air safety professionals from various airlines and organisations. I thought the presentations were very insightful and it was fascinating to see how the concepts studied at university applied to safety and accident investigation in a real-world context, but it was also very interesting to see how much more goes on behind the scenes. Furthermore, speaking with those in attendance between seminar breaks about their varying career paths really opened my eyes to the opportunities available in air-safety. I would definitely recommend the ANZSASI seminar for future students with a keen interest in safety assurance and air-safety investigation.







## ANZSASI Golf Report

From the New Zealand Herald.  
Valiant Aussie golf team pipped at the post by New Zealand  
Coriolis Force cited as a contributory factor.

Well, golf was the winner on the day – it was a game of two halves (the front nine and the back nine). Kick-off was at 0930 at the Emerald Lakes course, with the Kiwi team captained by Bruce Robertson (Brucey) and the Aussies led by the indomitable Pierre Blais. Pierre was the organiser, instigator, call it what you will, but he pulled the proverbial rabbit from the hat just when we thought the golf game had been forgotten.



The third match of what is now a series will be played at an Auckland North Shore course on Friday 7 June 2024.

Photos:

Top – Pierre (the famous) wrestles with Bruce Robertson for the trophy.

Right - Brucey displays the trophy after the shock N.Z. win.

Some pre-match despair was evident in the Kiwi camp, when it was noticed that the trophy had disappeared in mysterious circumstances. Despite the sense of loss and deprivation, the Kiwi team went on to trounce the opposition by a margin that fluctuated wildly during Pierre's after-match calculations. All kinds of factors were introduced to the equation, including the Coriolis effect, the phase of the moon, and the GDP of Bhutan. All were to no avail, as Pierre just could not come up with a result that favoured the Aussies.

The trophy reappeared just as mysteriously at the seminar dinner and was received by Captain Brucey in good sporting fashion. There was no (or not much) mention of underhand, or even underarm, tactics by the other team.





## The Ron Chippindale Memorial Paper - ANZSASI 2023

The Ron Chippindale Memorial Paper titled 'Airworthiness Implications of Fuel Degradation in Heritage Flight Operations' was presented at ANZSASI 2023 by Major Glenn Pinnuck of Defence Flight Safety Bureau (DFSB) and Mr. Drew Donnelly of Defence Science Technology Group (DSTG)



Glenn and Drew receiving their awards from Alister Buckingham

This is awarded annually to commemorate the significant contribution of Ron Chippindale to aviation safety around the world.

NZSASI President Alister Buckingham recalls some of the highlights of Ron's career.



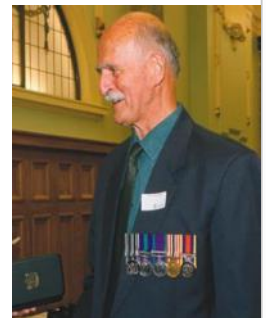
Ron Chippindale (26 Mar 33 – 12 Feb 08), a graduate of the RAF College Cranwell, was a pilot and instructor with the RNZAF from 1951 to 1974. This included operational service (on Hastings aircraft) during the Malayan Emergency and the Malaysia – Indonesia Confrontation. He spent over eight years as the Air Force Flight Safety Officer before 'retiring' (as a Squadron Leader) after 23 years' service, moving to the then Office of Air Accidents Investigation as an Inspector of Air Accidents.

In 1975 Ron was appointed Chief Inspector of Air Accidents, and was subsequently involved in several major investigations, most notably the

November 1979 DC-10 accident in Antarctica. He was an invited member of ICAO teams that investigated the Mozambican Tu-134 accident in South Africa, in which the President of Mozambique lost his life; the shooting down of three civil aircraft: Korean Air Flight 007 over Russia; and two UN Hercules aircraft in Angola.

When the Office was superseded by the Transport Accident Investigation Commission (TAIC) in 1990, Ron was appointed Acting Chief Executive and Chief Inspector of Air Accidents. A full-time CEO was appointed in 1992, Ron's position then becoming 'Chief Inspector of Accidents' until his retirement on 31 October 1998. Retirement? He ran the Massey University School of Aviation course (three papers) on air accident investigation, and up to the time of his death, was assisting the CAA with its backlog of investigations. Alister recalls that he had the privilege of joining Ron's team in 1991 and worked under his tutelage until he left TAIC 1997 for greener and then browner pastures. Much of his early on-site and subsequent OJT was with Ron, and the payback was when TAIC took on rail accident investigation. He was able to keep Ron on track with his specialist rail knowledge and experience.

Ron received the Jerome Lederer award at the 2004 ISASI seminar, for 'outstanding lifetime contributions in the field of aircraft accident investigation and prevention, and achievement of ISASI Objectives and technical excellence'. In March 2007, Ron was one of 22 people who received a New Zealand Special Service Medal (Erebus) at a ceremony in Wellington. The medal was awarded to personnel involved in for the site work, recovery ops, and victim ID phases in the aftermath of the Antarctic accident.



Ron was one of the five founding fathers of NZSASI in 1988, being variously President, Sec/Treas, and NZ Councillor, and was a Fellow of ISASI. He was major force in both NZSASI and ISASI until his untimely death in an encounter with an out-of-control car while out on his morning constitutional.





## Australia's CASA Looks To Boost Technical Staffing Levels

### Adrian Schofield

BRISBANE, Australia—Australia's aviation regulator is taking measures to try and address its own shortage of technical staff that is limiting its ability to help the MRO industry deal with post-pandemic pressures.

The country's Civil Aviation Safety Authority (CASA) has lost a lot of experienced technical staff over the past 10 years, said Darren Dunbier, Virgin Australia's general manager for engineering operations. This means CASA is "resource-constrained" in meeting industry needs, he said at Aviation Week's MRO Australasia event in Brisbane.

Karen Blair, CASA's national manager for regulatory services, agreed with Dunbier's assessment. "We have wonderful people, but we don't have enough of them," she said.

The problem is recognized by the government, and the issue of CASA's staffing cap is being considered at a ministerial level, Blair said. CASA is also undertaking a review of its distribution of staff, she said. This is in recognition of the fact that CASA needs more technical staff.

"It's not a quick fix, and it's going to take some time," Blair said. However, CASA is "working through establishing a recruitment process now" to bring in more technical capability, she added.

Some applications for CASA approvals are experiencing delays of up to 3-4 months at the moment, Blair said. For this reason, she is appealing to the MRO industry to submit any requests as far in advance as possible, and to let CASA know of any time constraints.

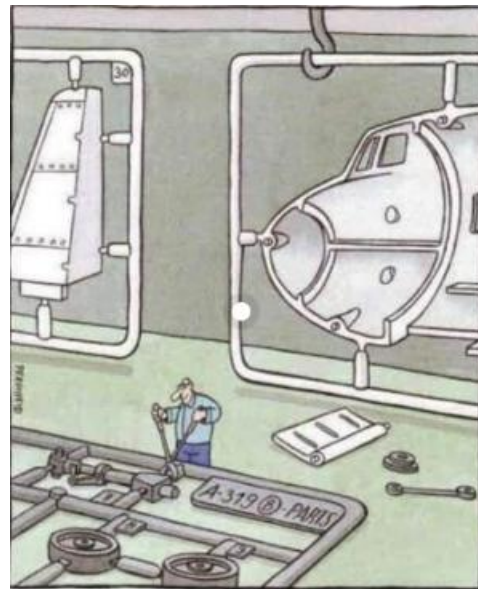
This will allow the agency to "prioritize and triage" applications coming through, Blair said.

CASA has recently made major changes to the locations of its regulatory services offices. Two years ago, CASA centralized its regional offices in an effort to improve standardization, but it also found that its engagement with industry declined. So, now it has reestablished its regional offices, Blair said.

The agency is contending with many of the same workforce issues as the broader aviation industry. CASA recognizes that the MRO industry has been facing skilled worker shortages for many years, said Ben Challender, CASA's manager for airworthiness standards. However, since the coronavirus pandemic this has shifted from a "broad, general shortage to a quite severe shortage" in Australia's engineering operations, he said.

CASA is "doing what it can to help address that," Challender said. For example, the agency is looking to refine the process for licensed engineers from other countries to be certified to work in Australia.

<https://aviationweek.com/mro/safety-ops-regulation/australias-casa-looks-boost-technical-staffing-levels>



Juergen's job at Airbus was exactly like his childhood dreams.

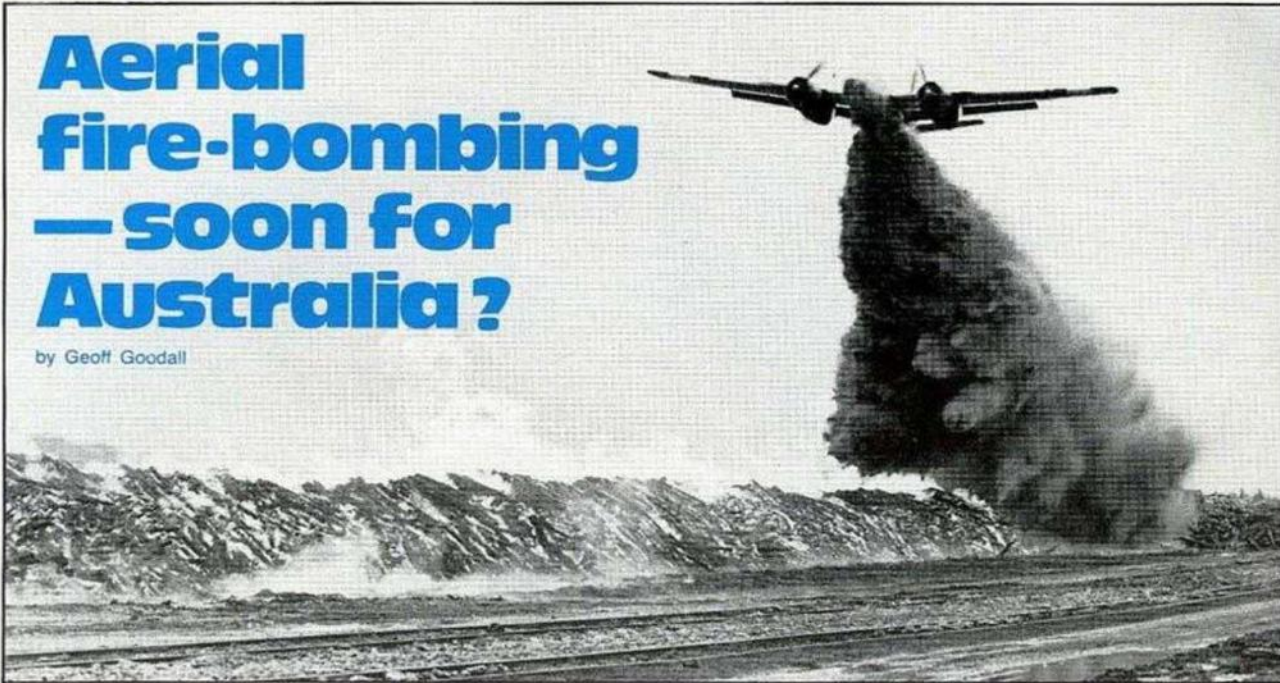


Following the tragic loss of the crew of a EC130Q Large Air Tanker in the N.S.W. Snowy Mountains on 23 January 2020, and the loss of a Boeing 737 Large Air Tanker near Hopetoun W.A this year, it is worth noting the history of aerial firefighting in Australia.

The first Australian trials in large aircraft took place over 60 years ago. This article, by former ATC *Geoff Goodall*, details the way we got to where we are in aerial fire control right now. How we get 'Slurry in a Hurry'!

# Aerial fire-bombing — soon for Australia?

by Geoff Goodall



AUSTRALIA'S first fire bombing trials using heavy aircraft to drop retardant on bushfires were conducted last summer. During January, a RAAF C130H Hercules dumped retardant on Victorian fires while operating from Sale and Mangalore at the height of the deadly bushfire season. The aircraft was fitted with a MAFFS (Modular Airborne Fire Fighting System) on loan from the U.S. Forestry Service and its RAAF crew had been trained in the operation of the system at the USFS training school in Idaho.

The Hercules flew more than 20 hours in sorties against established bushfires and the results were considered successful. Even so, the RAAF is reportedly not keen to develop this newly-acquired fire-fighting role because most bushfires would require several aircraft if they were to be effectively dealt with, and the capacities of Australia's two squadrons of Hercules are already stretched to the limit on transport duties.

Experimental fire-bombing with crop spraying aircraft has been carried out in Australia over the past decade. Beavers, Norsemen, Pawnees and Agwaggon have all been tried, but can drop no more than a maximum of 1000 litres of water or chemical retardant mixture per aircraft at a time. By contrast, a Hercules fitted with MAFFS is able to drop 11,000 litres and can adjust the swathe of retardant to suit the type of fire and terrain so as to cover an area up to 650 metres long and 30 metres wide.

Australian interest in aerial fire-fighting with heavy aircraft has never been higher than it is at present. The trials with the RAAF Hercules last summer proved the effectiveness of the technique and are a significant step towards the in-



Top: A Douglas A26 Invader drops 5000 litres of retardant slurry mixture on burning timber at a sawmill in Minnesota, USA. Above: A Fairchild C119 Flying Boxcar tanker. Twenty of these former military transports, fitted with an auxiliary J34 turbo-jet engine to improve take-off performance, have been converted for use as fire-bombers.

roduction of large scale fire-bombing in Australia.

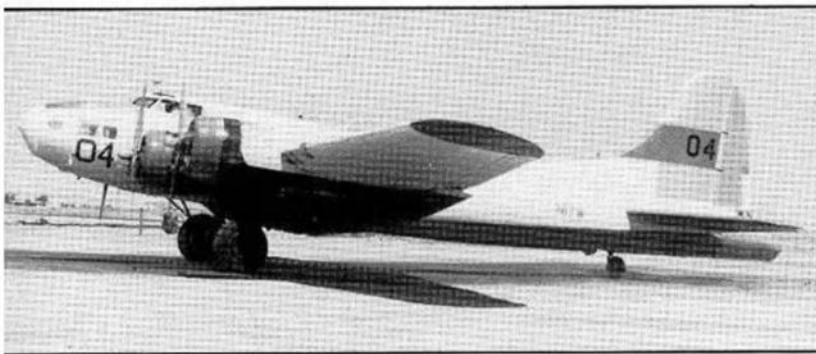
Over the past year, several U.S. fire-bomber companies have expressed keen interest in the possibility of deploying their fleets of tanker aircraft from the USA to Australia during the southern hemisphere summer. A Commonwealth Government investigation team visited the USA late last year to discuss the concept with several of the bigger civil tanker operators, including Black Hills Aviation of Alamogordo, New Mexico, who hope to send their Lockheed P2V7 Neptune tankers to Australia, and TBM Inc of Sequoia, California, who put forward a proposal to use their Douglas DC7 tankers. In addition, the Minister for Industry and Commerce made a personal visit to the home base of one of the biggest Californian fire-bomber companies, Sis-Q Flying Services at Santa

Rosa, during a U.S. trip last year to discuss a proposal to fly that company's Douglas DC6 tankers to Australia for the summer season.

Australia's attraction for U.S. air tanker companies during our summer months is obvious — the U.S. tanker fleets stand idle during the northern winter after their fire season is finished. Some old airliner types, such as the piston-engined DC6s and DC7s find work as freighters during the winter, but the majority of fire-bombers spend the northern winter in storage or undergoing maintenance.

The USA is not the only country to utilise fire bombers as a basic part of its forest fire-fighting program. France, Norway and other European nations are building up aerial tanker fleets for their summer fires, particularly in mountainous areas difficult for ground fire fighters to reach. Canada has a large





Top: A Douglas A26 Invader fire-bomber belonging to Lynch Air tankers of Montana — note the open bomb doors. Centre: A number of Consolidated P4Y Privateers — descendant of the WW2 Liberator — are still in use as fire-bombers. Bottom: Several WW2 B17 Flying Fortress bombers are also still going strong as fire-fighters.

number of civilian air tankers spread across the country, both retardant "slurry" tankers as well as basic "water bombers" — the most famous of the latter being the pair of huge WW2 Martin Mars flying boats based near Vancouver. These operate from fresh water lakes and can dump a massive 27,000 litres on to a forest fire before returning to the lake for a low run across the surface to scoop up another full load of water for the next bombing run against the fire.

The major obstacle of course is the cost-effectiveness of flying fuel-hungry heavy aircraft on fire fighting work. In the U.S. and Canada, with their higher populations and more matter-of-fact attitudes towards aviation, aerial fire fighting has become an important integral part of the overall fire fighting system.

Canada has in fact produced the only aircraft designed from the outset as an

aerial fire tanker: the highly effective and successful Canadair CL215. Seventy have now been built and more are on order. Canadair have been keen to interest the Australian Government in their rugged CL215 tanker for some time now and several Australian tours have been planned in recent years. However the Government's attitude may never be more receptive than right now, and it is believed that a CL215 will be sent to Australia this summer to demonstrate its fire fighting capabilities.

#### Aerial fire-fighting — U.S. style

The U.S. Forestry Service co-ordinates the aerial tanker fleet throughout the whole of the United States — from Florida to Alaska — and last summer had no less than 180 civilian tanker aircraft deployed across the country. These tankers, which range from converted WW2

bombers to old piston-engined airliners and more recent military disposals Neptunes and Trackers, are operated by numerous specialist private companies whose colorful and varied fleets number between one and twenty aircraft.

When conventional ground fire-fighting is considered to be ineffective for quelling a forest fire, the USFS calls in tanker aircraft from the nearest Attack Base. These are established at selected airports and resemble Battle of Britain squadrons on alert, with aircraft and pilots on constant standby all day during the hot American summer. Pilots relax between sorties in air conditioned lounges, reading books or watching TV, while the nearby Operations Room monitors the USFS radio network. Attack Bases can be hundreds of miles apart, or as close as only 40 miles apart in fire-prone areas such as California which has over twenty Attack Bases spread across the single State.

When the aircraft are called to a fire, the air crews literally "scramble", the pilots receiving a quick briefing on the location and type of fire in the Operations Room, while engineers run to the aircraft to commence the pre-start checks. Within minutes of the call, the tankers are taking off and heading for the fire. A USFS "Fire Boss" circles the fire in a bright yellow Cessna 337 (these are actually ex-Vietnam USAF Cessna O-2A artillery spotters) and directs each tanker's run in over the fire by radio. The tankers drop their load of red-colored retardant slurry using various methods — the larger aircraft having from four to eight "bomb bays" in their belly tanks to regulate the exact amount and pattern of each slurry drop. After each aircraft has dropped its full load of retardant, it heads for the nearest Attack Base to quickly reload and return to the fire for the next attack run.

The US air tankers have achieved such a high degree of accuracy that they are now used to attack scrub fires close to inner city areas. Each summer, Los Angeles in particular suffers from severe outbreaks of fire in the hills that surround some of its most populated areas. Fire bombers can be seen flying at low altitude over suburban houses as they make their runs in to the fire. One fire on a hillside alongside a busy freeway last summer was attacked by DC6 tankers while traffic continued to flow normally along the freeway — every load of retardant hit its target and the fire was soon under control without any effect on the traffic!

These tanker aircraft used to be called "Borate Bombers" because of the original Borate retardant dropped. However, much more effective retardant chemicals have now been developed which, as well as smothering the fire, contain fertilisers to ensure rapid surface growth regeneration afterwards. The chemicals most widely used in the USA today are Phoschex and Firetrol, both of which have a high salt content. They are delivered in powder form to the Attack Bases where they are mixed with water by the operators to make up the slurry mixture. This is then stored in large tanks ready for pumping into the tanker aircraft during





Top: Among the biggest fire-bombers operating in the U.S. today are former airline DC7s — able to drop 13,000 litres of retardant. Above: A pair of Lockheed P2V-7 Neptune tankers. Several operators have converted this type into successful fire bombers. Below: A line-up of DC7 tankers parked for the winter at the home base of an Arizona fire bomber company.

quick turn-arounds between missions. Aircraft capacity ranges from the 3200 litres of retardant carried by the Grumman Trackers, up to 13,000 litres in the case of the old ex-airline Douglas DC7s. The current American summer season has seen the introduction of the largest tanker aircraft yet used — ex-military Boeing KC97 Stratotankers, the military variant of the Stratocruiser airliner which Pan Am operated on the Pacific route between the U.S. and Australia before the advent of the first Boeing 707s jets. Large numbers of KC97s have recently been retired from the U.S. Air Force and are now being sold from the huge military aircraft storage base at Davis Monthan Air Force Base in Arizona. For this season, two well established fire bombing operators, Hawkins & Powers Aviation of Wyoming, and Hemet Valley Flying Service of California have each converted three KC97s into 20,000 litre fire bombers. The introduction of this type of aircraft will be closely watched by other tanker companies.

While the leading fire bomber companies have fleets of up to 20 aircraft, the majority of companies are much smaller concerns. Mr Denny Lynch of Billings, Montana, formed Lynch Air Tankers 17 years ago with a single WW2 Douglas A26 Invader bomber. Today he operates six Invaders and will continue with these medium-load tankers despite earlier plans to move into heavier types. "Our Invaders are in demand with the USFS because of their manoeuvrability", Mr Lynch told *Aircraft*, "My pilots specialise in getting their loads into difficult areas. We usually fly out of the central States, but last summer we were sent down to Florida as well as north of the Arctic Circle in Alaska to work some tundra fires". Mr Lynch, whose slogan is "Slurry In a Hurry", flies his own aircraft each season along with experienced, carefully chosen fire bomber pilots who join him each summer. His Invaders drop 5000 litre loads of Phoschex retardant. "Each load costs us \$800 today compared with \$100 a load of Borate when I first stated",



he says.

WAIG Aircraft of Arizona are Douglas DC4 fire bombing specialists. Formed by four pilot friends whose initials make up the company name, WAIG Aircraft's military disposals C54 Skymaster transports are highly modified for aerial tanker work. The original 1100 hp P&W R-2000 engines have been replaced with derated 1700 hp R-2600s, the same engine as used on the B25 Mitchell bomber. The company engineers are kept busy building up new R-2600s from spares because engines of this type are now difficult to locate. The DC4s carry 8500 litres of retardant, each load weighing 18,250 lb.

During a visit to WAIG Aircraft's home base at Tucson, Arizona, company director Ken White told *Aircraft* "We build our own specially designed belly tanks with electric activation — we believe that ours give much better performance and allow quicker and much more accurate dumping of retardant. The Canadians were down here recently to look over our DC4s and we are hoping to build tanks for them soon."

Their DC4 cockpit consoles have been completely rebuilt with modern instrumentation, as well as to incorporate a new control panel of switches to activate the tank doors in any number of combinations needed to vary the dump pattern. "Our DC-4s were based in Idaho, New Mexico and Arizona last season, but we have operated all over the United States", he added.

The accident rate for these fire bombing operations is surprisingly low. Following several grim seasons during the 1960s when a tragic number of aircraft were lost when they flew into hills hidden by smoke, or broke up in turbulence over fires, the FAA banned some of the older wartime types such as the TBM Avenger and B-25 Mitchell, and tightened up all flying procedures. This has led to largely accident free seasons in recent years, a remarkable feat considering the numbers of hours flown at low level, usually in mountainous terrain. Today's aerial tanker pilots are in fact serious professionals, proud of their work. Their operations are truly impressive and speak for themselves.

The accompanying pictures were taken last summer at a typical Californian Air Attack Base — in this case at Lancaster in the Mojave Desert. Six tanker aircraft were flying a shuttle between the base and a fire 30 miles away in the Tehachapi Mountains. Two Consolidated Privateers, a Boeing B17 Fortress, Douglas DC4 and DC7, and a Grumman Tracker each flew four missions during the two hour attack. They returned to the Attack Base after each sortie to replenish with retardant — topping up at 300 litres per minute through high pressure hoses from underground tanks — before taking off again for the next mission. The large pall of smoke from the distant mountains visibly decreased as the bombers flew their attacks on the fire, and after two hours the fire was completely extinguished — a job that would have taken fire fighters on the ground at least a whole day.





## Aura Aero To Unveil 19-Seater Cabin At Paris Air Show

Thierry Dubois

Toulouse-based Aura Aero will unveil a full-scale mockup of the 19-seat cabin of the in-development hybrid-electric Electric Regional Aircraft (ERA) at the Paris Air Show next month.

The aircraft's configuration has been "frozen," meaning the technology and customer requirements are sufficiently well understood to lay industrial foundations for the program.

First flight is scheduled for 2026, simultaneously with the opening of a factory at Toulouse Franczal Airport, which was previously planned for 2024. Entry into service is predicted for 2028, Aura Aero CEO Jeremy Caussade said during a May 12 media event in Toulouse and online.

A feature of the aircraft's architecture is the distributed propulsion system, involving eight electric motors, up from the previous iteration's six, and an 800-volt electrical network.

Supplier Safran Electrical and Power has received a design organization approval (DOA) from the European Union Aviation Safety Agency (EASA). The DOA makes it the third commercial propulsion company inside Safran, alongside Safran Aircraft Engines and Safran Helicopter Engines, said Bruno Bellanger, general manager of Safran Electrical and Power.

Aura is developing a fly-by-wire control system in-house. It will pave the way for more autonomous flight, Chief Technology Officer Mattia Padulo says. Accordingly, Thales will provide a "single-pilot ready" avionics suite, said Jean-Paul Ebanga, Thales' flight avionics vice president. When regulation allows it, the aircraft will have the right equipment to be flown by one flight crewmember instead of two, thus cutting the operator's costs.

Moreover, Thales' flight management system will be integrated with Aura's power management system. Thales' algorithms will thus enable the crew to navigate in the most energy-efficient way, Ebanga said.

The ERA will be available for commercial passenger operations, cargo, business aviation and special

missions. Its short takeoff and landing capability will make it suitable for more airports, Chief Commercial Officer Gwenola Robert says. The two turbogenerators will be compatible with 100% sustainable aviation fuel use.

By the end of 2022, the startup had announced letters of intent (LOIs) for more than 330 ERA, which has a maximum payload range of 200 nm and a maximum range of 800 nm, including hybrid reserves.

Meanwhile, Caussade said development of the two-seat Integral E, an all-electric trainer, is progressing. It will also be unveiled at the Paris Air Show before being shipped back to Toulouse to complete the propulsion system's integration. First flight is scheduled for this year.

May 12 was the last day of test bench activity, Caussade added.



Credit: Aura Aero

<https://aviationweek.com/aerospace/advanced-air-mobility/aura-aero-unveil-19-seater-cabin-paris-air-show>





## QANTAS 747 Farewell Factsheet

# 50 YEARS OF THE BOEING 747 & QANTAS

If you've ever flown internationally with Qantas, chances are you would have done so on a Boeing 747. The distinctive shape of the Jumbo Jet has served Qantas for almost half of our one hundred year history.

For many Australians, stepping onboard a 747 was the start of their overseas adventure and for thousands of migrants, the first view of their new home was through the cabin window of a Qantas 747.

This iconic four-engine, twin-aisle, wide-body, jet has been a beloved member of the Qantas fleet since we took delivery of our first 747B named *City of Canberra* in 1971.

The Jumbo was such a good fit for our long-haul routes that we were

operating an all-747 fleet by the end of the seventies featuring the world's first Business Class cabin.

Qantas has flown almost every type of 747, from the 747SP series (a smaller, long-range edition) to the half passenger/half freighter nicknamed the Combi and most recently the 747-400ER.

The 747 changed the world forever bringing in lower fares and making overseas travel possible for a new

generation of younger passengers. It reunited families, fostered trade links and with its distinctive hump-shaped upper deck became instantly recognisable at airports around the globe.

For Australians, it became a sign of home and hope, particularly in times of trouble.

In 1974 following Cyclone Tracy 674 passengers were evacuated from Darwin, a record that stood for almost 20 years.

The Qantas 747 was deployed to Cairo to repatriate Australians caught up in the Arab Spring conflict and brought Aussies home in the wake of the Bali terror attacks. For its final mission in February 2020, a Qantas 747 repatriated Australians stranded in Wuhan and Tokyo by the COVID-19 pandemic.

And now we say our fond farewell to the Queen of the Skies.



## QANTAS 747 Farewell Factsheet

### TEN QANTAS 747 MOMENTS

Qantas broke the record for the most people on a B747 when it evacuated 674 people from Darwin in the wake of Cyclone Tracy.



Qantas took delivery of the faster and shorter 747SP variant. These flew the first non-stop trans-Pacific services.

Qantas operated nine 747 evacuation flights from Bali with the first leaving Sydney less than 24 hours after the explosions on 13 October. Qantas flew more than 4,500 Australians home after the terrorist attack.

Qantas 747 VH-OEE operated the first of two rescue flights from the COVID-19 epicentre of Wuhan, China to bring home hundreds of stranded Australians. It also operated an evacuation flight on 20 February from Tokyo to bring home passengers from the Diamond Princess cruise ship.

16 / 08  
1971

28 / 12  
1974

27 / 07  
1979

07 / 04  
1984

17 / 08  
1989

04 / 08  
1994

14 / 10  
2002

08 / 03  
2015

03 / 02  
2020

22 / 07  
2020



The first ever Qantas 747-238B (VH-EBA) landed at Sydney Airport direct from the Boeing factory in Seattle (via, San Francisco and Honolulu). It initially flew between Sydney and Singapore before the service was extended to London.

The first Qantas 747s featured a First Class lounge in the top deck 'bubble' named the Captain Cook Lounge which boasted a stand-up bar, lounge seating for 15 passengers, snacks and drinks (with your cigarette as smoking was still allowed in those days) and decor befitting the 1970s era.



Record breaking delivery flight for the first Qantas Boeing 747-400 (VH-OJA) which flew a non-stop flight from London to Sydney in a little over 20 hours. That record stood until Qantas operated a non-stop flight from London to Sydney in just under 20 hours in a Boeing 787 in October 2019.



Qantas is the first airline in the world to introduce 'Business Class'. This new class was launched on the 747 on flights from Australia to the US and offered bigger seats and more legroom.



The first Qantas B747-400 jumbo jet (VH-OJA) operated a 15-minute flight from Sydney to Wallongong Airport (Albion Park) to find a new home at the HARS Museum after Qantas gifted the aircraft for display. Previously, Qantas donated 747-200 VH-EBQ to the Qantas Founders Museum at Longreach in 2002.

Qantas launched the first of its 'Flying Art' series aircraft, with the 747 fuselage used as a canvas to showcase indigenous Australian art: *Wunala Dreaming* (meaning Kangaroo in the Yanyuwa language) appeared on two Qantas 747-400 aircraft (VH-OJB & VH-OEJ) from 1994 until 2012. *Nalanji Dreaming* (meaning 'Our Place') was a reflection of the lush colour palette of tropical Australia.



The final Qantas 747 (VH-OEJ) departs Sydney Airport bound for storage in the Mojave Desert.



On departure, the pilots performed a low-level fly-by over Sydney Harbour, dipping the aircraft's wings in a final farewell gesture before tracking east over the Pacific Ocean as the sun set on a 50-year love affair with Australians and their beloved Queen of The Skies, the Boeing 747.





## *The Way We're Heading - Airbus UTM Developing Fairness Concept For Drone Airspace Access*

[Graham Warwick](#)

First-come, first-served—the decades-old paradigm for equitable access to airspace—is being challenged as uncrewed aircraft enter the airspace in greater numbers, requiring a new definition of fairness.

The diversity of use cases for uncrewed traffic management (UTM) requires a new approach to prioritizing airspace access, so the Airbus UTM team has partnered with the Massachusetts Institute of Technology (MIT) to develop the concept of a Fairness Engine.

In traditional air traffic management (ATM), Airbus UTM says, the first-come, first-served approach works because today's flight plans are not deconflicted because flight and the traffic is relative homogeneous. In most UTM systems, however, flight plans are deconflicted when they are requested, resulting in a first-requested, first-served approach to prioritizing airspace access.

But first-requested, first-served becomes increasingly inadequate as uncrewed traffic grows and the types of operation increase and become more varied, Airbus UTM says. The approach can leave operators that cannot file flight plans early, such as on-demand delivery services and air taxis, unfairly disadvantaged, the Airbus unit says.

Because it has a decentralized architecture in which a network of service providers manage traffic based on shared data and common regulation, implementing fairness in the early stages of UTM's development is critical, says Airbus UTM, and discourages early movers and industry giants from gaming the evolving system.

The Fairness Engine concept has two components: monitoring flight operations by gathering fairness-relevant information from operators and service providers; and automatically applying that information to traffic management conflicts to determine priority in a way that is fair.

"We started by thinking what data is available and what are the metrics we can use to monitor a system that could lead to a notion of fairness and then, from there, how do

you manage it?" says Scot Campbell, U.S. head of Airbus UTM.

"Fairness exists in the traditional air traffic management system because there's this notion of first-come, first-service and of collaborative decision-making," he says.

"[But] a lot of collaborative decision-making is centered around human negotiation and sharing of information, whereas the systems of the future are digital. And the question we ask ourselves is how can we leverage the digital information that is being shared in order to monitor fairness so that it can be managed?"

The monitoring function of the Fairness Engine considers the cost of ATM to the operator measured by the delay they suffer beyond what they would experience if they were the only operator seeking airspace access.

"In UTM there is a service commonly called strategic deconfliction where an operator will share their intent and the system will then look for a conflict. And if there is a conflict, then the operator is going to need to do something to resolve it," Campbell says.

"One of the things they can do is delay their flight and replan their operation for some time in the future," he says. The Fairness Engine seeks to identify when an operator filed its intent to the system and if that intent was accepted or a conflict was identified and the operator had to replan.

Measuring that delay is one way to assess the cost. "The system will keep track of how people have operated historically so you'll know when they have accepted delay and when they haven't had delay and that could potentially be a factor in the prioritization of flights in the future," Campbell says.

"The other way it can be done is to have an additional service in UTM that is monitoring things like system demand and that could then provide resolutions based on delay," he says. As demand for airspace increases, access delays increase, so demand and capacity

balancing within UTM would distribute the delay across operators with a sense of fairness.

The first step in Airbus UTM's vision is to monitor system behavior to identify occurrences of under airspace use. With MIT, the team is working with standards developers, including ASTM International, to ensure that as UTM standards are published they include the level of data logging needed to support the monitoring of fairness, he says.

The next step is prioritization of how flights are authorized based on a calculation of fairness. Initially this function determines priority based on the type of operation—emergency services before passenger and package services, for example. In the event of a conflict between operations of the same type, the program would apply the fairness metric assigned by the monitoring function based on historic delays to resolve the conflict and determine priority.

Transparency will be important. “The key is that the prioritization rules would be well-known. It’s something that ideally would be a community-based approach,” Campbell says.

In parallel to working with standards organizations, Airbus UTM has implemented elements of the Fairness Engine as an operational prototype within air navigation service provider Airservices Australia's Flight Information Management System to support new users of low-altitude airspace. “It is not commercialized, but has gone through a set of operational trials,” he says.



<https://aviationweek.com/aerospace/advanced-air-mobility/airbus-utm-developing-fairness-concept-drone-airspace-access>





## Cathay Pacific Has Lost More Than Half Of Senior Pilots Since 2019

Lukas Souza,

Around 1,800 pilots left in the last four years.

Hong Kong-based Cathay Pacific has lost over half its senior pilots since 2019. According to the Hong Kong Aircrew Officers Association, the union representing Cathay pilots published a release titled Exodus of Pilot Talent, and the numbers have increased since then. About 1,800 pilots left the airline during the pandemic, up from 1,500 last October.

### High Attrition Rates

It goes without saying that airlines worldwide faced one of, if not the greatest, challenges during the COVID-19 pandemic. In March 2020, the world virtually stopped, and almost overnight, airports were emptied of passengers, and aircraft were parked for an unknown period. Cathay Pacific was no stranger to challenges, facing some of the tightest and longest COVID-19 travel restrictions of any territory on the planet. During that period, many of its pilots left and continue to leave today.

According to the South China Morning Post, Hong Kong Aircrew Officers Association Chairman Paul Weatherill shared that around 1,800 pilots left the airline during the pandemic. Cathay recruited about 400, but that is almost one-fourth the number of pilots it lost. Morale has been low since the pandemic, as salaries and benefits received significant reductions.

### Significant pay and benefit cuts

Under the current contract, negotiated during the pandemic, some pilots had their pay reduced by as much as 40%. In addition to salary reductions, Cathay stopped paying its pilots for the time spent at the gate, and taxiing to and from gates, only paying them while the wheels were moving. This led to significant congestion at Hong Kong Airport as pilots began taxiing at lower speeds in order to receive more pay, leading the airport authority to alert Cathay Pacific to the ongoing problem.

A pilot, whose name was not revealed, told the Post that every minute less of work resulted in significant losses for pilots,

*"In the old days, if I was given 10 hours of work on that day, I would get 10 hours' pay. But now we are only getting paid counting the time from when the wheels move and stop by the minute. Just imagine, a minute of work is worth a few hundred dollars for captains. That's a huge difference."*

Cathay provides its pilots with medical, housing, and education benefits, all of which were significantly cut. The wife of a senior pilot at Cathay told the South China Morning Post that during the last three years, their family had moved homes twice, and one child even had to switch schools because of the cuts from her husband's employer. The pilot in question has worked for Cathay for more than 20 years.

The pilot's wife, named Lee in the Post's article to remain anonymous, said

*"There is a lot of guilt I think the pilots feel - of letting their families down, of not being able to provide for them as well, of how suddenly things turned despite the fact that they haven't done anything wrong."*

The current attrition rate at Cathay Pacific has stabilized. The airline told Simple Flying,

*The attrition rate has normalised across all staff groups, including the pilots. We are also pleased to welcome back some 250 Cathay pilots, including captains and first officers, to rejoin the airline. We are on track with our comprehensive plan to recruit top talent to support our operations and drive our rebuilding efforts.*

Source: [South China Morning Post](#)

## Who reads those? Why the airplane safety card is more complicated than you think.



Zach Wichter and Veronica Bravo

The seatback safety cards on airplanes are probably not something you think twice about when you fly, but believe it or not, those little pamphlets are actually the product of decades of research, all aimed at making your travel as safe as possible, even if something goes wrong.

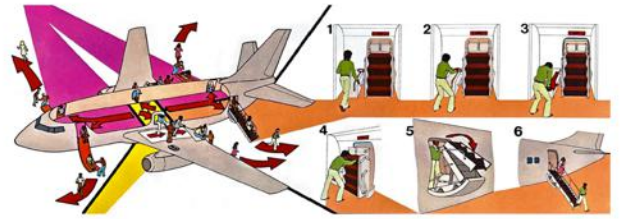
USA TODAY spoke with Trisha Ferguson, CEO of The Interaction Group, one of the largest designers and manufacturers of seatback safety cards in the world. Here's what travelers should know about the document that's mandated to be in front of them on every flight.

### What is an airplane safety card?

At its most basic level, the briefing card is a document that regulators require to explain the safety features on every aircraft.

"There are regulatory requirements about what information needs to be presented: the donning of the lifejacket, finding the lifejacket, taking it out of its packaging, putting it on," Ferguson said. Other requirements include explaining the location and operation of emergency exits, as well as instructions for seatbelt and oxygen mask use.

"Those things are pretty specific about what information needs to be on the cards," Ferguson said.



Different regulators like the Federal Aviation Administration set their own requirements for exactly what information must be included, but globally, the basic key points are the same pretty much everywhere.

"We want passengers to be prepared for emergencies. To accomplish this, the FAA requires airlines to give an oral briefing and provide safety cards. This provides passengers the basics on what to do for emergencies that may happen," the FAA said in a statement to USA TODAY.

### What goes into designing an airplane safety card?

According to Ferguson, airline safety cards have had a long evolution since the dawn of the jet age in the 1960s.

The founders of The Interaction Group, then known as the Interaction Research Corporation, "realized back in that era that safety cards were almost all text ... usually only in the language of the origin of the particular flight or the company," Ferguson said, adding that it was "extremely inefficient for educating the passenger."

So her predecessors got to work trying to make the briefing material more comprehensible to more travelers, beginning by partnering with individual airlines to create illustrated briefing materials.

"Eventually, after some significant accidents and loss of life, they went before Congress and said the airline needs to provide greater safety and security information to their passengers," Ferguson said. "It should be in the form of a safety card that every passenger has access to at all times."



safety card that every passenger has access to at all times.”

But the illustrations aren't just created by accident. The Interaction Group does a significant amount of research before making any changes or new cards to make sure they'll be as effective as possible.

“We are very, very stringent on the content of the cards' comprehension. ... We have a standard here at the interaction group that every single sequence and every card as a whole is tested for understandability,” Ferguson said. “If it's not understood by 90% or more of the people tested, we start making adjustments until it is understood.”

Over time, the cards need to be updated to reflect new aircraft types, and even changes in clothing style.

“Equipment has evolved significantly,” Ferguson said. The cards must be designed so that “it matches visually what the passenger is seeing inside the aircraft.”

characters in the illustrations were dressed in the 1970s and '80s versus today.



Why don't more people look at the safety card?

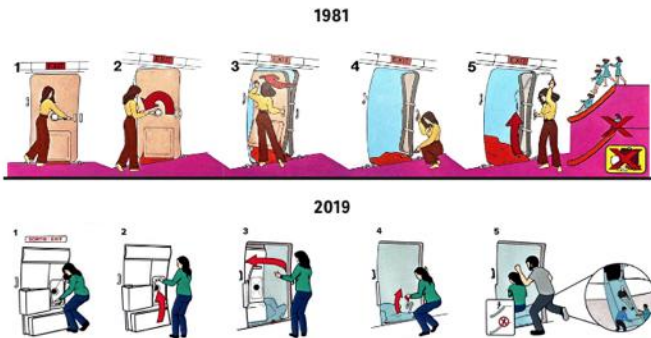
According to Ferguson, the reasons have changed over the years.

“In the original study back in the 70s, the comments were ‘an incident or an accident isn't survivable anyway, so I don't really need this information,’” Ferguson said, but added that in a more recent update to the company's research, people's thinking has shifted. “It was interesting to see the data shift upside down to where people say ‘flying is so safe, I don't need to look at the safety card.’”

It's true that flying is statistically safer than ever, but it's still a good idea to be armed with knowledge in case something goes wrong.

“We really see it as our job to care for the people that are in the airlines' care,” Ferguson said. “Pull the card out, take a look at it, consume information, and then sit back, relax and enjoy the experience of the carrier you're with.”

<https://www.usatoday.com/story/graphics/2023/06/01/how-are-airplane-safety-cards-designed/7022292600/>



Why does diversity matter in safety card illustration?

Beyond matching the aircraft layout, Ferguson said it's important that passengers can easily identify with the characters they see in the illustrations.

“Studies show you are more apt to spend time looking at something where you see yourself in it,” she said. “We are intentional about the dress or skin tone or hair textures,” making sure to showcase diversity and also regionally-appropriate dress and other cultural markers.

Fashion counts for relatability, too.

“It also has really followed stylistically, the eras,” Ferguson said, pointing to changes between how

## Strange Aircraft the Actually Flew - Westland-Hill Pterodactyl V

If ever there was a man who built some really odd-looking planes, it's Geoffrey Terrence Roland Hill. Hill was an experienced combat and test pilot who fought during the First World War with the Royal Flying Corps.

Between 1925 and 1932, Hill, working alongside the aircraft builder Westland, developed a series of experimental tailless aircraft – the Pterodactyl's.



Hill understood that the aircraft of the day had some rather dangerous characteristics, especially in the stall, and he hoped to develop a new aircraft planform that would remove these issues and help protect the lives of pilots. It is the final one of these experimental aircraft that I want to look at here.

The Westland-Hill Pterodactyl V.



This was a direct result of the Westland-Hill partnership trying to make the new concept aircraft commercially viable. The Pterodactyl IV had been a three-seat monoplane intended for the civilian market. One was built, and it had proven to be a good aircraft.

But the IV had flown in 1931, a time when the world economy was not exactly in great shape. Consequently, there was not a lot of market for such an aircraft, and it never went into production. But there was one market that, though it did suffer from the crash, was always looking to buy at least some aircraft fairly consistently – the military.

So, Hill and his team at Westland decided to explore if they could build a cutting-edge fighter incorporating his ideas. The proposed aircraft would have high-performance and be a two-seater, as was a fairly common practice of the day, with both machine guns for the pilot firing forward and more mounted on a flexible position for the observer to protect the rear of the aircraft. Being a tailless design, this position would have an excellent field of fire.

The proposal was put to the British Air Ministry, who were interested enough to draw up a specification and authorize development for a prototype. Work progressed extremely rapidly, and by the latter half of 1932 the aircraft was complete.

Because it was intended to be a fighter, and therefore needed to be capable of hard manoeuvring, the Pterodactyl V was built as an unequal-span biplane to provide it with greater strength. While the top wing was swept, the lower, smaller wing retained a straight profile. This also provided an anchoring point for the top wing and was projected to be capable of carrying 20-lb bombs for ground attack in service.

The lower wings also had the landing gear balancing struts attached to it, as the main gear was composed of two wheels housed inside the fuselage.



And speaking of the fuselage, you may have noticed it was rather short. With the vertical stabilizers mounted on the upper wing tips, thus removing the need for the tail, Westland evidently just decided that the fuselage was largely surplus to requirements.

In fact, the plane was only 20' 6" long (6.24m) which meant that getting the engine, cooling system, fuel tank, control systems, weapons and two crew into it was a squeeze.

Armament was two fixed forward firing Vickers machine guns either side of the pilot, which fired through long chutes in the sides of the fuselage. The rear gun position was supposed to be fitted with an electrically powered turret of Hill's own design which held either one or two Lewis machine guns, with sources disagreeing on which is correct.



But as the turret never seems to have been fitted, and all photographs of the aircraft show the rear position open, it remains an unconfirmed detail.

As said, development and construction of the -V progressed fairly quickly during 1932 and taxi trials were undertaken in the autumn of that year. Unfortunately, the aircraft suffered a set back when the left wing collapsed. The Pterodactyl then had to return to Westland's, where work to rectify the fault and strengthen the design further was undertaken.

At the same time, work was also done to improve the cooling system of the aircraft's engine, which unfortunately was the Rolls Royce Goshawk. This experimental engine was all the rage with the British during the early 1930s, which is a shame because it was horribly unreliable and never was able to get made to work properly. Indeed, the limited testing conducted by

the -V before its mishap showed that the Goshawk was problematic, and the cooling system needed reworking.

The changes took time, in fact more than building the original aircraft took, and it wasn't until May 1934 that taxi trials were able to be completed and the aircraft was able to be sent to RAF Andover for flight tests.



These showed that the aircraft had no apparent dangerous tendencies, despite its unorthodox design, but the engine was still problematic, and reworking of the condenser and the air intake were again required.

Continued flight testing found that the wings tended to flex in dives due to lack of torsional rigidity, which meant the outer portions of the wings also needed to be redesigned and strengthened. But testing also showed that the Pterodactyl V was, despite its compact design and powerful engine, not a particularly good performer.



Maximum speed was 165 mph (266km/h) which was about 20 mph slower than the RAF's then current two-seater, the Hawker Hart.

Despite this, various tweaks continued to be made to the aircraft to address issues in its handling, and by the summer of 1935 it was thought ready to be put through its paces at the Royal Aircraft Establishment at Farnborough. Unfortunately, as the aircraft took off to head for the RAE

the engine seized and the pilot had to make an emergency landing, though he did bring the aircraft down safely.

But the damage to the Goshawk was severe enough that it needed replacing and there simply wasn't one available. Rolls Royce only built something like twenty of these engines and they were all in use with other development programs. So, after some contemplation on what to do with the Pterodactyl V, in February 1936 the Director of Scientific Research at the Air Ministry ordered that no further flight testing or refinement should be carried out and that the aircraft would be sent to the RAE for future studies.

Westland shipped the aircraft to the Establishment, where it appears to have only survived for around a year before being decommissioned and ultimately scrapped. This also ultimately meant the end of the Pterodactyl series. Hill had left Westland anyway in 1934 and taken a post as Professor of Mechanical Engineering at University College London.

Westland had plans for several follow-on Pterodactyl aircraft, with the VI envisaged to be a pusher version of the V with the turret mounted in the nose. But ultimately the departure of Hill and then the cancellation of the Pterodactyl V marked the finish, and this line of rather interesting and odd prototypes and ideas came to an end.

Source: Military Matters Online







## In Memorial

### Bev Maunsell



Bev Maunsell (1943 - 2023) passed away on 23rd March following a battle with cancer. She was a proud ISASI member and a passionate advocate for cabin safety.

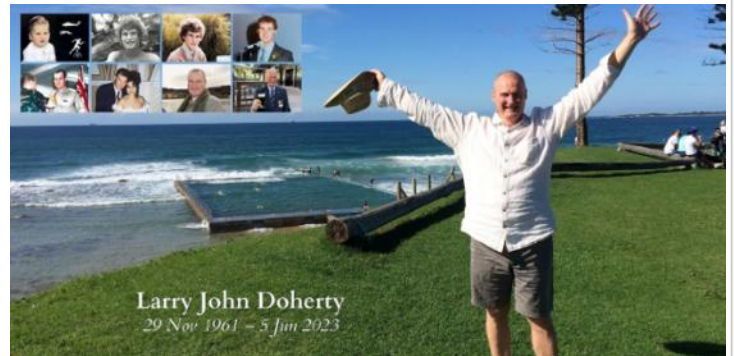
She initially crewed as a flight attendant for Ansett (DC3, F27 and B727) and with QANTAS (L188 - B707) from 1965. She was actively involved in the B747 cabin interior designs with QANTAS Engineering. Bev joined the QANTAS Safety Department as an Investigator in 1987, retiring as Manager - Cabin Safety Investigations in 2004.

Bev was instrumental in the development of the Asia Pacific Cabin Safety Working Group in the early 90's. She championed a variety of cabin safety initiatives during her tenure, many of which have contributed to improved industry safety standards.

Bev was a true character and will be sadly missed.

### Larry Doherty

Join the Celebration of Larry Doherty's Life - Save the Date: Friday 1st Sep 2023, 12:00 pm - 4:00 pm Thoroughbred Park, Canberra. Bring all your good stories!



A friend to many, this will be a fun opportunity to uncover the 'contributing factors' that turned him into the much loved, respected and larger-than-life, gift of the gab larrikin that he was.

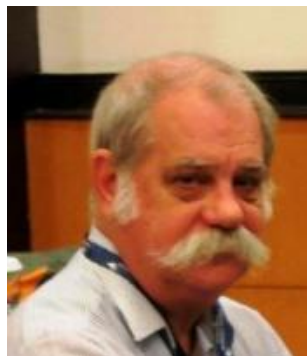
Son, student at Cartwright Primary & Hoxton Park High, budding sports star, actor, singer, poet, hiker, brother, uncle, yo-yo champion, racetrack bagman, car salesman, barefoot skier, pilot, charmer, officer, orator, gentleman, Black Hawk aviator, instructor, partner, dog-trainer, safety guru, renovator, chef, hand model, investigator, volunteer, lecturer, comedian, handyman, gardener, mentor, confidante, friend, raconteur extraordinaire, cheeky bugger...



## Meet the New Members

### Mike Gahan

Mike Gahan has over 50 years' experience in military and civil airspace management, design, regulation, operations and training. During 23 years' service in the RAAF, he attained the rank of Wing Commander and worked in a wide variety of ATC operational, training and staff appointments, retiring in 1993 as the Staff Officer Air Traffic Services. His staff appointments included Executive Officer of an operational fighter base. He is a graduate of the RAAF Command and Staff Course.



As the Manager ATS System Requirements for Airservices Australia he led teams responsible for the development and implementation of advanced technology for airspace, ATS and airport management in Australia and across the Pacific and Indian Oceans. In 2005 as the Manager Airspace Management and Regulation he participated in the development of the inaugural Australian airspace regulations and strategic plan.

Since 2005 he has accumulated considerable experience in airport certification, standards and regulation, both in Australia and overseas and provided regulatory and operational advice to several companies involved in the design of airports and the development of four national level strategic airspace plans.

He has undertaken numerous projects related to airspace, airports and ATM infrastructure in Australia and overseas, working in 44 countries including Malaysia, Peru, Iraq, Oman, Afghanistan, Nigeria, Indonesia, Philippines, Kyrgyzstan, Somalia, UAE, Fiji, Taiwan and Bolivia. Project activities have involved him in work in all seven continents.

His recent projects include: review and implementation of air navigation regulations in Indonesia; implementation of

ATM systems to support three runway operation at KLIA, replacement of the Changi AGLCMS to support three runway operations and aviation advisor to the Government of Kiribati. He is currently engaged on projects related to national level air navigation regulation and the ATM and airspace aspects of a 25-year strategic airports plan.

His professional memberships include Australian Institute of Management, the Military Air Traffic Control Association, UK Guild of Air Traffic Control Officers and the US based Air Traffic Control Association (ATCA). He was the Area 8 (Asia Pacific) Director of ATCA 2002-2008 and was awarded the ATCA Chairman's Citation of Merit for his international activities to improve Airspace Management in developing countries.

He has an excellent understanding of the outcomes and performance-based approach to standards and regulation as well as the new and emerging technologies for airports, airspace, and air traffic management. He frequently makes presentations on both topics to international audiences.

### Amanda Macqueen

Aviation has always been in Amanda's blood. Originally from Somerset in the UK, Amanda grew up with tales of daring adventure from the past. At the start of WWII, Amanda's grandmother returned from India



to England, flying on the last direct BOAC flight via Italy before they changed the route. "Her fascinating stories of mechanical failures enroute, and her account of being strafed by fighters whilst refuelling in Italy gives me an appreciation of just how far we have progressed in aviation safety".

Amanda is a founding director of Aviation Safety





## Meet the New Members

Amanda says that the most rewarding aspect of her job is working closely with the safety team/managers to ensure their SMS is fully compliant. Spending time to ensure they understand all the safety principles, and taking the time to understand what is important to their company helps drive engagement and acceptance of the SMS throughout the organisation. Staying up to date with SMS principles across five continents is certainly a challenge with the job. Over the last 12 years Amanda has mentored and assisted aviation companies to develop highly effective management systems. Seeing the organisation mature through the SMS implementation phase is very fulfilling.

Amanda is married to Andrew, and has two children, Alex and Jessica. Andrew is a codirector of ASM, Air Traffic Controller, Maintenance Engineer and Air Safety Investigator, and Alex is a pilot for Jetstar, having previously flown for Qantas and Emirates.

### Natasha Heap

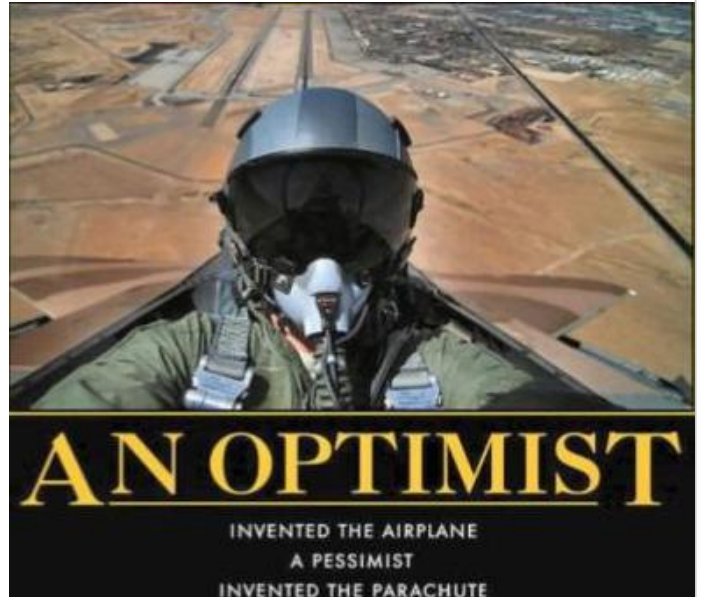
Natasha Heap has been involved in the aviation industry for over 20 years. After receiving her commercial pilot licence in 1998 at the Royal Newcastle Aero Club she has



worked as a flight instructor, charter pilot, search and rescue pilot and a Training Captain for QantasLink – Australia's largest regional airline. She is now a Lecturer in Aviation at the University of Southern Queensland, bringing a wealth of industry experience to the tertiary sector and is driven to connect theoretical approaches

to a practical application in the industry. Natasha's research interests are multidisciplinary. She holds a Bachelor of Arts in Ancient History from Macquarie University and a Master of Philosophy in Biological Anthropology from James Cook University. Her research focus is on historic aviation, aviation archaeology, biological anthropology, dental anthropology, forensic

anthropology and archaeology, with a current focus on the application of forensic archaeological methods in the area of air accident investigation.





# AUSTRALIAN SOCIETY OF AIR SAFETY INVESTIGATORS

## Sponsors



### **Australian and New Zealand Societies of Air Safety Investigators**

#### **2024 Regional Air Safety Seminar**

**Crowne Plaza Hotel  
Auckland, New Zealand**

**Friday 7 June to Sunday 9 June 2024**

#### **Invitation**

We will be presenting papers on contemporary air safety issues, recent developments, and current or recently completed investigations. Attendance is not restricted to members, and delegates from industry and outside the region are particularly welcome.

The seminar follows the usual format of the welcome reception on Friday night; the presentations on Saturday and Sunday; with the seminar dinner on Saturday night.

The Asia Pacific Cabin Safety Working Group will meet on Friday.

Don't forget the Trans-Tasman Golf Challenge, also on Friday!

#### **Registration and Accommodation**

Details to be notified in due course.

See the ASASI website, <https://asasi.org/events/> for updates.





## Upcoming Events

### Development Corner



Are you joining into the monthly training and education webinars facilitated by our NZSASI friends across the ditch?

NZSASI Vice President, Mike Zaystoff, facilitates them monthly and has warmly invited all ASASI members to attend. There is no need to apply to join in, just Zoom in on the day using the details below.

#### **NZSASI & HCAP NZ Monthly Professional Development Webinar**

Time: 2nd Wednesday of the month at **10am NZ time (0800 AEDT)**

Join Zoom Meeting at:

<https://us06web.zoom.us/j/98797654960?pwd=NFNYcnBNMDFWUUR1QzV2ZWZwLzVPUT09>

Meeting ID: 987 9765 4960

Passcode: 19291964

Save this meeting ID & passcode. It is the same for every monthly webinar.

**Zoom etiquette.** *Microphone off* unless talking. *Camera off* to save bandwidth if the number of participants dictate.





## ASASI is looking for Mentors!

### Australian Society of Air Safety Investigators Student Mentoring Program

#### Calling All Mentors

ASASI is seeking expressions of interest from those members wishing to volunteer their time and assist our investigators of the future.

#### Purpose

The purpose of the ASASI student mentoring program is to establish a formal link between experienced ASASI members and aviation students interested in a career in aviation safety.

#### Goal

The goal of the student mentoring program is to assist our next generation of aviation safety professionals achieve their career goals through guidance and advice from experienced investigators.

#### Why Become a Mentor?

As a current aviation safety specialist and member of ASASI, you hold substantial knowledge and experience. You know the people, the processes and the pitfalls associated with our niche industry. Rather than letting this experience fade away over time and maybe into retirement, it can be passed along to our upcoming generation of investigators. Voluntarily mentoring a student can provide a rewarding opportunity to achieve this important objective. Our ASASI psychologist members would tell us that, according to Maslow, our highest-level needs relate to self-actualisation, a process by which we can achieve our full potential.

#### Mentor Expectations?

A commitment to communicate with an assigned student on an *agreed-upon* basis, be a good listener, and share your experience and knowledge. It is envisaged that this can be practically accomplished primarily by email or perhaps telephone as appropriate to your preference. Rest assured; you will only offer *advice* from your experience. You will not be doing assignments! Mentors can offer to assist as little or as much as they choose and have the time to commit to.

#### Management of the Program

A mentoring coordinator will hold details of student applicants and the volunteer specialist mentors. The coordinator will match requests to prospective mentors and seek their approval to connect a student to them.

#### What is Needed to Get Started?

A brief bio sketch that includes your email address, telephone number, employer, position, area(s) of specialisation and your likely availability. It will be held securely in confidence.

Please send this information to: [asasiexecutive@gmail.com](mailto:asasiexecutive@gmail.com)





## ASASI Contact Details

**www.asasi.org**

**log on:** news

**password:** aviator



**www.isasi.org**

**log on:** membership number

**password:** your Christian name  
(all lower case)

<b>President:</b>	John Guselli	0419 015684
<b>Vice President:</b>	Alf Jonas	
<b>Secretary/Treasurer:</b>	Paul Mayes	asasiexecutive@gmail.com
<b>Email:</b>	contactasasi@asasi.org	
<b>Post:</b>	P.O. BOX 399 Bowral NSW 2576	



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