



ATSB's new chief commissioner: Angus Mitchell

Angus Mitchell joined the Australian Transport Safety Bureau (ATSB) in September 2021, a challenging and exciting time for the new chief commissioner. *RAAA News* talked to him about his impressions after almost six months in the job.

It was a challenging time because of the COVID-19 restrictions Australia-wide, and exciting because the ATSB was poised to move into new facilities in Canberra, fitted out with purpose-built labs and plenty of room for transport safety investigators to work.

Mitchell brings to the Bureau his extensive experience in operational safety and regulation, with an underpinning focus on risk management, initially in the Royal Australian Navy, and most recently in the Queensland and NSW maritime safety regulatory authorities.

Given the COVID-19-imposed restrictions on face-to-face engagement when he came on board, he took the opportunity for a thorough immersion in the Bureau's projects. 'One of the advantages of that desk time, was being able to review the 90 or so investigations we have on our books at the moment. Roughly 80 per cent of these involve aviation, with the majority of that percentage being GA or recreational aviation,' Mitchell says.

'Whether people are involved in recreational boating, or recreational flying, we want to make it as safe as possible. We don't want (recreational participants) to drown in regulations, but we want to make pragmatic safety recommendations.'

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ATSB's chief commissioner

New ATSB chief commissioner, Angus Mitchell reflects on his first six months in the job.

Toowoomba Wellcamp Airport

RAAA News talks to John Wagner of Wagner Corporation about airport construction, their plans for Toowoomba Wellcamp, and beyond.

New fuels for aviation

With the Government's target of net zero emissions by 2050, *RAAA News* looks at sustainable aviation fuels and how aviation might achieve that goal.

From the chairman



Malcolm Sharp
RAAA Chair
CEO, Sharp Airlines

I don't know about you, but 2022 seems to have got off to a racing start, with none of the usual 'gentle' easing into business after the festive season. That's certainly true of the RAAA board. We held our first board meeting in mid-February, and have changed our modus operandi to meet the challenges of the new normal, post-COVID.

With the success of the roadshows last year, (and thank you for the positive feedback), our plan is to hold four roadshows in one year, and then every second year, to have two roadshows, a function in conjunction with the Avalon Airshow and our convention. I'm delighted to announce that the AMDA Foundation (Aerospace Maritime Defence and Security Foundation of Australia), organisers of the Avalon Air Show, among other events, are now RAAA diamond sponsors for 2022 and 2023, and they will be supporting the roadshows' ongoing development. We also thank Ian Honnery, who will be retiring as CEO of AMDA in March, for his support to the industry over many years, and welcome Justin Giddings, until recently CEO of Avalon Airport, who will be taking over as the new CEO. We're looking forward to working with Justin and the AMDA board, as well as our other roadshow sponsors: Platinum, CASA; Gold, Airservices Australia, Aviation Trader, QBE and Viva Energy; Bronze, Aviation Australia, Pacific Turbine and World Fuel Services; to continue to improve the roadshows, and make them as relevant and engaging as we can.

We're also looking forward to getting back on the road, talking to as many members as possible, and hearing your thoughts on how we can better support industry. As I said in my last column, we want to be more proactive, and do something practical about the larger issues we know are staring down the industry, such as skills shortages, and especially the shortage of engineers in regional and rural areas. There's been a lot of talk about skills shortages, but not enough action taken to mitigate the risk. At our most recent February board meeting, we formed a working group tasked with putting forward recommendations to address some of these major issues facing regional aviation in particular.

We need to think outside the box to be able to build some much-needed resilience into the industry, and would love to hear your thoughts.

If any members have innovative or left-field strategies to put forward, please email your thoughts to: administration@raaa.com.au

Our focus on futureproofing our industry, making a more resilient regional aviation sector, does not mean we won't continue to monitor the progress of the regulatory rollout and its impact on regional aviation. That will become business as usual, and we'll be trying to address any issues on behalf of members in a timely and effective way.

Hope to see you in Toowoomba from 31 March–1 April,

Until then,

Stay safe, Mal

2022 Aviation events

RAAA Events

Roadshows
(two dates to be confirmed)

31 March–1 April
Toowoomba

30 June–1 July
Darwin

September (mid)
Cairns

November (late)
Perth

www.raaa.com.au

Other aviation events

Safeskies 2022

Conference Canberra

20-22 September

conference2022.safeskiesaustralia.org

Call for papers closes 22 April

2023 Aviation events

Avalon International Airshow and
Aerospace & Defence Exposition

28 February-5 March

www.airshow.com.au/airshow2023/index.asp

From the CEO



Steve Campbell
RAAA CEO

Following the really good feedback we had from members who attended last year's roadshows, we're looking forward to bringing you a series of four roadshows this year, starting in Toowoomba at the end of the month. We've got an exciting line-up of speakers and topics for this first 2022 roadshow, and as Mal has outlined, great support from government aviation agencies and industry operator sponsors.

At Toowoomba, we'll look at two areas which are beginning to have an impact on regional aviation operations: the use of electric aircraft, both conventionally piloted and uncrewed; and the push for sustainable fuels. Luke Gumley, formerly of CASA, who now heads up Airservices' integrated airspace program, will talk about AsA's plans for safe integration of the new urban air mobility (e-VTOL) aircraft and uncrewed aircraft into Australian airspace.



Photo In Feb, 2022 Eve Air Mobility announced partnerships with Aviair and HeliSpirit with potential orders for up to 90 eVTOL aircraft. Eve Air Mobility Image



Photo Sydney Seaplanes has ordered 50 e-VTOL aircraft. Eve Air Mobility Image

You will have seen the recent announcements by Sydney Seaplanes and Aviair/HeliSpirit about their pre-orders for e-VTOL aircraft from Eve Air Mobility, so I'm pleased that Rob Weaver from the company will be giving an update on Eve's plans in Australia.

I see real potential for these smaller eVTOL aircraft, but for our larger regional RPT and charter operators, more sustainable fuel is critical, especially given the government's goal of net zero emissions by 2050. We'll hear from fuel suppliers about what they're doing on sustainable aviation fuels (SAF).

Day 2 will open at Wellcamp airport, where John Wagner and his team will give the story behind the airport's development (see full article on page 5).

The program will conclude with a workshop on the rollout of the new flight ops regs: CASA subject matter experts will provide an update, and be on hand to answer questions. It's a packed program, so make sure [you register](#).

I look forward to seeing you later in the month,
Steve

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raaa.com.au/jobs



ATSB: Angus Mitchell ...cont.

With gradually lifting restrictions, he was able to get out and meet people face-to-face around the states—from CEOs to individuals—and canvass their views on the question, 'where do they see the ATSB offering most value?'

Mitchell says his role as chief commissioner is two-fold: to enable the ATSB to continue to undertake world-leading, evidence-based investigations into aviation, maritime and rail accidents, improving the safety of these transport areas; and as CEO of the ATSB, run it as a successful business.

That means balancing finite resources, he says, and 'influencing safety as best as we can, according to the environment'.

'We're looking at our reports, for example, and asking "does the average pilot read them?", trying to deliver safety information in more consumable and effective formats.

We also have a policy of not over-committing resources to incidents and accidents which are unlikely to deliver new safety results.'

Mitchell says the ATSB has two ongoing campaigns relevant to regional GA. The first targets VFR into IMC. 'We launched a campaign "Don't push it, don't go", looking at VFR into IMC data from June 2009–June 2019. During that time there were 101 occurrences, resulting in 9 accidents (almost one in 10), and sadly 21 deaths,' he says. 'And since 2020, there have been another 12 VFR into IMC incidents reported to us, although thankfully, no fatalities.'

Recent data also highlights the need for the second ongoing campaign, 'Know CO'.



Photo | The ATSB's Angus Mitchell. Supplied.

Carbon monoxide (CO) is an insidious 'silent' killer, as highlighted in the multiple fatalities in the Beaver floatplane accident on New Year's Eve 2017. CO was found in both the pilot's and passengers' systems. Mitchell says the ATSB is concerned about lessons not being learned about its danger, and mitigating the risk through use of active CO detectors.

'Since the beginning of 2020, we have had four similar incidents reported to us, ones where no active CO detector was present. Pilots shouldn't rely on spot detectors, or worse still, their own symptoms, to alert them to carbon monoxide leaking into the cabin.'

Spot detectors are not up to the job, they can be affected by normal wear and tear, and rely on pilots monitoring them regularly, difficult to maintain in a high-workload environment, Mitchell says.

Interestingly, America's ATSB equivalent, the National Transportation Safety Board,

has formally requested the Federal Aviation Administration mandate active CO detectors for this reason.

Mitchell says the focus of his tenure will be on continuing the ATSB's important independent role in 'uncovering and exposing systemic safety issues, and providing frank and fearless recommendations, to ensure Australia's transport systems continue to be among the world's safest, with a high level of public confidence.'

He will be especially focused, he says, on engagement with all ATSB stakeholders: operators, pilots, engineers, regulators etc. to ensure the ATSB is delivering what they see as the best value.'



Australian Government

Australian Transport Safety Bureau

Toowoomba Wellcamp Airport

John Wagner and his brothers, Denis, Neill and Joe made history in 2014 when Toowoomba Wellcamp Airport opened, the first international airport to be constructed in Australia in 48 years. Not only that, they built it in record time, a little over 18 months.



Photo | John Wagner. Supplied

The airport is hosting the second day of the RAAA's first 2022 roadshow, so *RAAA News* caught up with John Wagner for an update on Wellcamp. As with much of aviation, 'COVID has been devastating for the airport', Wagner says, having a massive impact on passenger flights, with many airlines using the airport, such as Cathay Pacific, reducing

or cancelling passenger flights. However, Wagner says, passenger traffic is resuming; 'from 28 March, Qantas will begin double daily services to Sydney', and airline start-up, Bonza, is planning 'eight services a week out of here' when it begins operations planned for late 2022.

It's a different story with freight: with COVID-generated demand for cargo-only flights, the airport's freight capacity has come into its own. 'We've had three cargo flights a week, instead of one,' Wagner says. Wellcamp's Code E rated 2870-metre runway handles jumbo freighters; the first Cathay Pacific 747-8F landed at Wellcamp in 2015, and Cathay began regular cargo flights in the following year. Add a 36,000m² high-strength apron, sophisticated ground support equipment, and a large regional trade distribution centre, with a huge refrigeration building, and you have a freight hub perfect for getting the Darling Downs' (and Australia's) exports to the world.

The family has a reputation for getting things done, and Wagner gives a whirlwind summary of completed, or in-the-pipeline developments at Wellcamp. 'We have a deal with Pacific Rail,' Wagner says, 'to create a multi-modal freight hub: road, rail and air, to bring produce from down

south. We're looking at 20 hours from Melbourne to Brisbane.'

Wagner is also proud that Boeing has chosen Wellcamp for the Loyal Wingman project: the airport precinct will be Boeing's 'only final assembly plant outside the US. Plans are in council, and following council approval, we're looking at beginning construction in May' he says. Boeing will be part of the new Wellcamp Aerospace Defence precinct, which he describes as a 'vibrant hub, promoting aerospace innovation'. The family is also in negotiation with a number of universities to take advantage of the precinct; 'we will offer a campus-style facility where smart people can collaborate', Wagner says.

Wellcamp's green credentials are fundamental to the airport's development and sustainability. "Earth Friendly Concrete" (EFC) was used for the construction of all heavy-duty pavements in the aircraft turning areas as well as for other building and civil works on the project. Using EFC instead of conventional concrete reduced CO₂ emissions by 6,600 tonnes across the project,' Wagner says.

'We now have a team of people working on the whole sustainability issue. We're aiming to be net zero, or even carbon positive in the near future—we're



looking at the whole environment. And that's important, given our Boeing commitment.'

'We're also doing research into sustainable aviation fuels, and picking which technology we want to pursue. We want to bring it all together at Wellcamp; rather than importing sustainable fuel, to manufacture it here.'

New fuels for aviation

The International Air Transport Association (IATA) 77th Annual General Meeting in 2021 approved a resolution for the global air transport industry to achieve net-zero carbon emissions by 2050. With increased traffic (ten billion people expected to fly in 2050 according to IATA projections) that means a massive cumulative total of 21.2 gigatons of carbon will need to be abated between now and then.

One of the key ways to bring about this decarbonisation is a greater use of sustainable aviation fuels (SAF); fuels which unlike traditional fossil-derived jet fuels are produced from sustainable feedstocks, while having very similar chemistry to conventional aviation fuels. This SAF is made using feedstocks such as cooking and other waste oils; solid waste from homes and businesses, such as paper, textiles and food waste; forestry and wood mill waste; wet waste, such as manures and wastewater treatment sludge; agricultural residue; and dedicated energy crops, such as fast-growing algae.

Currently, SAF is blended at up to 50 per cent (the maximum SAF aircraft are certified to operate with) with conventional jet fuel, quality tested and the resulting blend is re-certified as Jet A or Jet A-1. SAF are also described as 'drop-in fuels': fuels that can

be incorporated automatically into existing airport fuelling systems. Interestingly, in early 2022, however, engine manufacturer, Rolls Royce confirmed that all its Trent engines will be compatible with 100 per cent SAF by 2023. The company undertook a three-and-a-half-hour test flight on its 747 testbed, with one of the four engines running solely on SAF. World Energy, the world's first and America's only commercial-scale SAF production company, provided the low-carbon fuel for the flight.



Photo | Sustainable aviation fuel flying testbed. Rolls Royce image.

Work is also underway on other alternative fuels. A collaboration between the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and Boeing is looking at electrofuels – drop-in fuels produced from hydrogen derived from electrolysis and captured CO₂. According to their report, 'Given the low rate of asset turnover within the aviation sector, electrofuels represent a primary way for hydrogen to achieve meaningful decarbonisation before 2050'.

In March 2022, SWISS and the Lufthansa Group began a strategic collaboration with Synhelion, a company which has developed a unique technology to produce what they describe as 'sun-to-liquid' fuel. Using concentrated solar heat, syngas is manufactured, which is then synthesised into kerosene via standard industrial processes. Synhelion is planning to build its solar fuel facility in Germany in 2022, with SWISS its first customer for solar kerosene in 2023.

Analysts, Statista, say that global fuel consumption by commercial airlines had increased each year since 2009, and reached an all-time high of 95 billion gallons in 2019. (The impact of the COVID-19 pandemic reduced that figure to 52 billion in 2021.)

On the other side, IATA predicted that around 100 million litres (around 21 million gallons) of SAF would be produced in 2021.

Welcome to new members

We are happy to welcome the following companies and individuals as members of the RAAA, and look forward to a long and productive association.

- **BHP**
www.bhp.com/
Cameron Ross,
Head of Aviation
- **Black Diamond Aviation Pty Ltd**
www.blackdiamondaviation.com.au
Mathew Collins,
CEO/Chief Pilot
- **Lowes Petrol**
www.lowespetrol.com.au/
Troy Martin, Aviation Manager
- **Trafigura**
www.trafigura.com/
Grant Love, Commercial
Manager Australia
- **UPRT Australia** – Upset
Recovery and Training
www.uprt.com.au
Directors/instructors: Jeremy
Miller & Shane Tobin

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