



AAAA / WINTER 2023 EDITION

## In this issue

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### Promoting ... professional pilots

In this issue of AAAA's *Quarterly*, we talk to three past winners of the Professional Pilot's Award: Dom Maher, Shane Hederics and Rob McIntosh.

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### A big survey thanks!

We had a fantastic response to the survey distributed earlier in the year. A big thank you to everyone who took the time to complete it. Here is some of the detail of what you said, feedback which will inform our policy and communication planning.

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### Giving habitats a flying chance

Founding AAAA's member, the Field Air Group has been working with agencies to protect threatened habitat in Victoria's Otway Ranges.

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### Safety spotlight

Each issue of AAAA's *Quarterly*, we will bring you info on relevant safety issues.

## Promoting ... professional pilots

Since its launch in November 2002, by the then Director of Aviation Safety, Mick Toller, the AAAA's Professional Pilot Program, has (pun intended) really taken off. In this issue of AAAA's *Quarterly*, we talk to three past winners of the related Professional Pilot Award: Dom Maher, winner in 2015, Shane Hederics (2019) and Rob McIntosh (2022). The most recent winner, announced at the AAAA's conference in June, was Tegan Allott.

### Dom Maher

Winning the award in 2015 led to Dom Maher becoming a director on the AAAA's board, a position he still holds. Being a professional pilot 'is a few things' he says. 'It's a lot to do with attitude. It means you have to do recurring training, keep learning and up to date with all the technology as it changes, communicate effectively with clients and operators, and take pride in presentation. It's the whole package.'

'The AAAAs has been very diligent. They are very passionate about pilots at the coalface of the industry. It's had to become a lot more professional than it used to be: regulators and insurance companies expect to see it, and to get a competitive price for insurance, you have to have a good track record.'

Maher has been flying for over 30 years, 22 of them professionally. 'My path to aerial application was a bit different to a lot of people. At 18 I was hang gliding and a farmer as well, and got sick of waiting for wind at the top of a hill, so I progressed to an ultralight, which I would fly around the farm. They were pretty basic back then—rag and tube—and I graduated to getting my pilot's licence and bought a C-150.' When the decision was made to sell the family farm he had been managing, it was a natural transition to aerial ag. 'I loved flying, and I loved farming.'

He came to Griffith, where he is currently based, 20 years ago, and 'in summer, works on rice, cotton and potatoes, and wheat and canola in winter. Griffith is not as seasonal as other places, there is year-round work.'



Dom Maher. Image supplied

'The boom-bust nature of what we do,' he sees as an ongoing challenge for the industry. 'In a wet season there will be shortage of pilots, and in a dry one, there will be too many. That continuity of work is always a challenge.'

'The relationship with regulators and insurance companies is always a bit of a tussle too, although we have a lot better relationship with the regulator now. Insurance is a big problem. On the one hand you have aircraft getting bigger and more expensive, and on the other we're getting to the stage where some insurance only covers 50 per cent of the hull. Losing a hull is too big a hit.'

'The professional pilots' program, with a focus on cockpit resource management courses, wire courses, two-yearly currency has seen a dramatic shift in the number of accidents, but they're still there.'

Then there's the prickly question of uncrewed aircraft. 'It's inevitable that drones will take more and more work, as will autonomous ground sprayers. They're doing imaging and spraying round here now, but there are reports of near misses. At the moment, drones are in the Wild West of aviation.'

Maher says 'drones aren't of a size to compete with us now and can complement us quite well. There's not the capacity for a drone to spray 3000 ha a day now, but in five to 10 years time? It would be better if we can work together, but I'm not sure how that's going to happen.'

## Shane Hederics

Shane Hederics was 2019's professional pilot award winner. 'From an early age, I always wanted to fly', he says. As kids, 'my cousin and I were right into planes and used to build model aeroplanes and fly radio-controlled ones'. It was a natural progression then to start flying training. His parents wanted him to be an airline pilot, so he did his commercial and instrument rating, but eventually decided he wanted to be an ag pilot and got his ag rating. 'I was in my late 20s when I started in ag' and having five or six other jobs before then helped to make him a bit more rounded, he says. He has now been flying for more than 15 years, with 12,500 relatively incident free flying hours.

For Hederics, having the right attitude is what distinguishes a professional pilot. He says he's done his fair share of speeding and taking risks, 'like any young man, but that all goes away with maturity. It's about all the planning you do. Most of the jobs you do, 90 per cent of the planning is on the ground. You're evaluating the weather and other risks, knowing the airstrip you're going to be using, and knowing your aircraft. When you start flying the aircraft is capable of doing more than you can, so you have to know your limits, and what the aircraft can and can't do.'



Shane Hederics. Image supplied

'I've had a few incidents beyond my control, such as a partial engine failure', and like all ag pilots has regular

birdstrikes, fortunately without serious results. 'Strikes are probably a weekly occurrence, but they rarely damage the aircraft—mostly they just leave a bloodstain on the leading edge.' He has however, studied how birds behave. 'If they're on the ground as you approach, most birds will take off into the wind, and then to get away, will turn away downwind, because they can do that more quickly. Waterbirds like ducks, will fly flat. If birds are in trees, they tend to be in dead trees, because they can see better there. Crows are pretty cluey – in springtime they will fly out to attack, then come close and see you, and dive away. Wedgetail eagles have no fear – they will cruise right up to you.'

When he won the award, Hederics was based in Wee Waa, spraying cotton in summer and cereal crops in winter, but to give the family more opportunities moved to Western Australia during the COVID lockdown. Now summers are spent firebombing from the Dunn Aviation base at Jandakot Airport, and winter spraying broadacre crops from the company's Ballidu base in the WA wheatbelt two and a half hours north of Perth.

The two operations are very similar in the skills they require, he says. 'We use the same aircraft; the hazards, like low-level manoeuvring are the same; you have to do risk assessments of where you can and can't operate; and your safety margins and attitudes are the same.'

What is different is that in the 'ag job you are more of an individual, relying on your wits and assessment ... you might go all day without speaking on the radio', whereas firefighting's 'more of a coordinated effort, everyone's communicating'.

## Rob McIntosh

Rob McIntosh, the 2022 winner, is a Kiwi import, originally from a family farm in South Canterbury in New Zealand's South Island. He learned to fly in Christchurch, got his commercial licence there, and now owns AG Airwork, based in Stawell, in northwestern Victoria. AG Airwork 'does a bit of everything. The first job for the year is super spreading on pasture, then cricket baiting, slug and snail baiting, crop fertiliser spreading, crop spraying and small seed sowing. The only thing we don't do is irrigation work.'

His advice to young people wanting to be ag pilots is to understand that it is not just a job. 'It's like farming – all-consuming – during the season, if you're not doing it, you're thinking about it. In this industry, you have to immerse yourself in it, there's no time off during the season.'

Professionalism is part of the company's credo. 'In our company, we like to leave no trace and do no harm. And that's no harm to people, equipment or the environment. The only sign that we have been there are the dead insects or the dead weeds.'

'We like to treat the farmer's infrastructure as if it is our own, so we take pains not to leave anything behind, no chemical drums, not even a drum lid. All the farmer has to do is to provide the map we need and the chemicals, and we'll do the rest.'

McIntosh's flying policy is to operate quite a bit back from the envelope, without being unproductive. 'One of my early mentors – the one who first let me fly – was a single-pilot operation. I started out with him as a loader-driver. He said, "All I want you to do really is bring the aeroplane back in one piece. I don't care how many loads of super you do. If you do that, it can fly again tomorrow." I've kept that mentality. I keep the aeroplane lighter, even if it means downloading and doing one or two extra loads for the day, because that way it's more manoeuvrable and safer. It wears you, and the machine out, pushing that close to the edge all day. You look after the aircraft, and it looks after you.'



Rob McIntosh. Image supplied

Challenges McIntosh sees in the next five to 10 years come firstly from the fact that 'we are becoming more and more highly regulated. The general population is frowning on chemical use, and there is an emphasis on organic farming. This affects the range of products we can use aerially; companies are not putting "aerial use" on the label, because of cost.'

Climate extremes are a factor, too, McIntosh says. 'With the greater extremes of climate, and weather variability, our operational windows of opportunity are becoming smaller. When it's wet, it's super wet, and when it's dry, it's drought.'

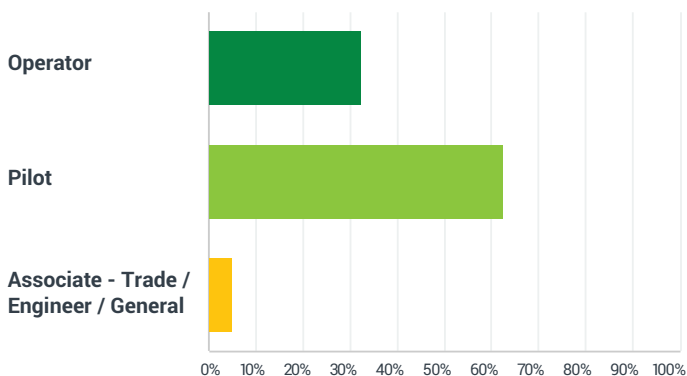


## A big survey thanks!

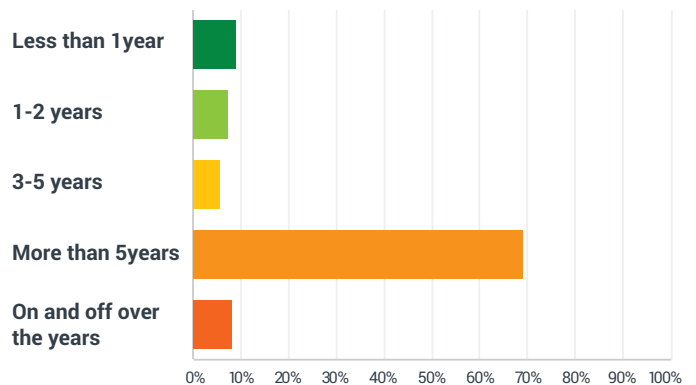
We were blown away by the response to our February survey, so a big thank you to the members: operators, pilots and associate/trade, who responded.

Almost 70 per cent of you have been members of the AAAAs for more than five years, and your three top reasons for belonging to the Association are: 'because AAAA advocates as a strong voice for industry' (75.83 per cent), followed by 'to maintain Spraysafe' (70.83 per cent), and the third –'membership demonstrates professional commitment' (65 per cent). 'Access to training resources' was a fairly close fourth choice at 60 per cent.

### Q1 What category of membership do you hold?



### Q2 How long have you been a AAAA member?

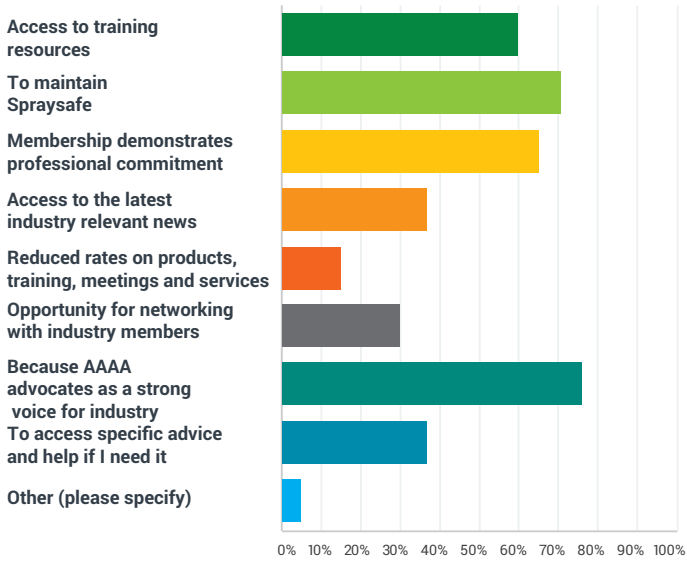


Although feedback was positive when it came to your overall rating for the quality of the AAAA's website [www.aaaa.org.au](http://www.aaaa.org.au), opinion tended to be more divided on other questions regarding the website. Those who gave 'poor', 'fair' or neutral ratings for these, especially on 'ease of navigation' will be pleased to hear that website changes are underway. We'll keep you posted on these.

What was especially pleasing was the number of you who took the time to give very full and frank answers to the open-ended questions: 'What activities do you feel the AAAA should be doing more of?'

There were several calls from pilots for more training courses : 'regional get-togethers/training days', 'safety courses, or at least suggesting resources or training organisations that could assist in furthering the professional development of your career', '1-2 day educational courses that involve guest speakers on topics such as chemicals, safety, turbine theory etc'.

### Q4 Why do you belong to AAAA? Please select YOUR TOP 3



Operators reiterated calls for training: ‘training sessions at the conference, monthly A4 safety flyers for notice boards’, ‘online wires courses’, and several called for more oversight of ‘delinquent operators ... ruining the industry’.

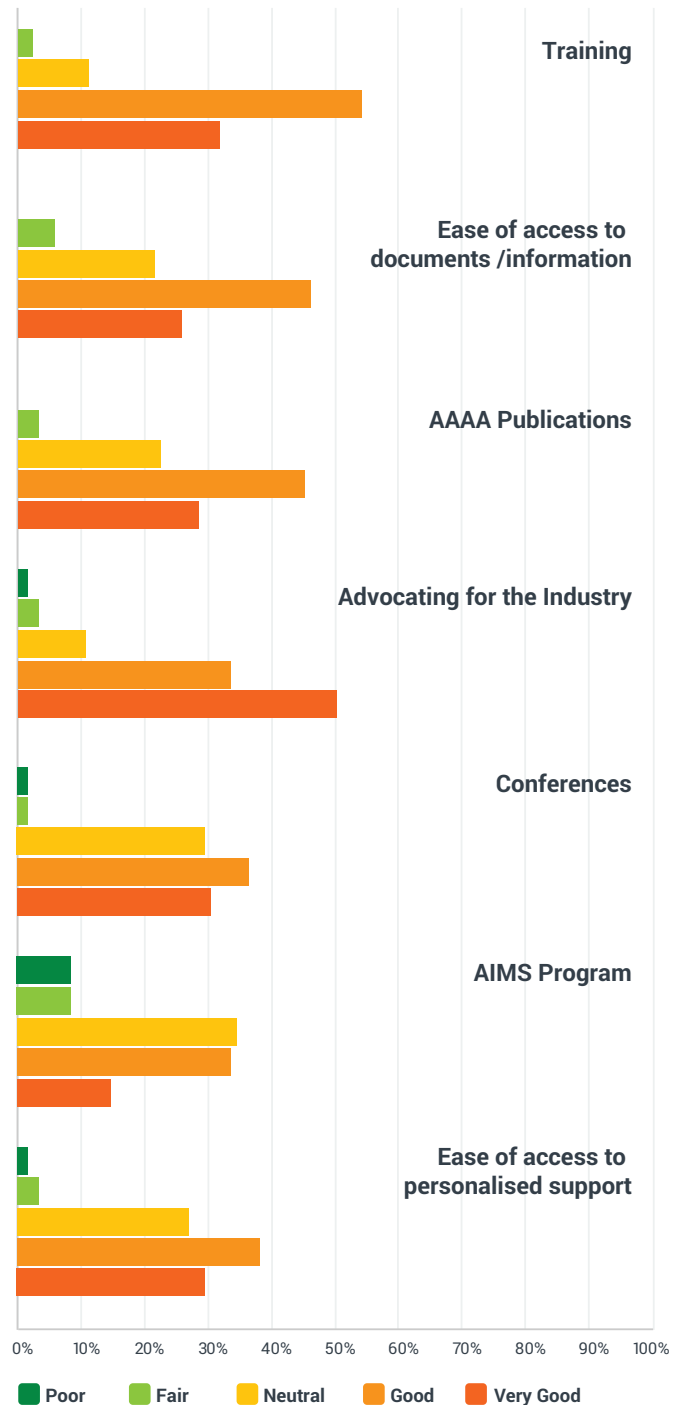
The answers to the question on the rating of the quality of the various activities the AAAAs engages in reinforce the reasons why you belong to the Association. A very pleasing 84.03 per cent of you found the work in ‘advocating for the industry’ to be ‘good’ or ‘very good’. The rating for the AIMS program was more ambivalent: 46,28 per cent rated it ‘good’ or very good compared to 51.72 per cent rating it ‘neutral’, ‘fair’ or ‘poor’.

We’re working hard on changing AIMS. We know how important it is to make it more accessible across the board, while maintaining its integrity and standards. By the end of the year we hope to have something more solid to offer to members.

Thank you too, to the delegates who completed the June conference survey. It all helps us to deliver more targeted sessions and continually improve the event for attendees.

The ‘Professional Pilot Training - Monday’ session, which speaks for itself, and the session entitled ‘A conversation with - Angela Garvey’ on pilot mental health were rated most highly in the ‘Which sessions did you get the most out of?’ category.

### Q6 Overall, how would you rate the quality of each of the following activates AAAA engage in?



Legend: Poor (Dark Green), Fair (Light Green), Neutral (Yellow), Good (Orange), Very Good (Red)



## Giving habitats a flying chance

In March this year, founding members of the AAAAs, Field Air, worked with agencies such as the Corangamite Catchment Management Authority, Parks Victoria, the Department of Environment, Energy and Climate Action to combat *Phytophthora cinnamomi*. It's a deadly plant pathogen that destroys the habitat for threatened species such as the southern brown bandicoot, long-nosed potoroo and swamp antechinus.

To slow the pathogen's spread, Field Air applied phosphite, a salt-like chemical, over critical habitat. Phosphite boosts susceptible plants' defences against *Phytophthora*, in a way a bit like immunisation. Native plant species such as the iconic grass trees and banksias are particularly susceptible to the disease.

According to Senior Ecologist, Dr Mark Garkaklis, 'the disease is a biological bulldozer. These groves of grass trees are hundreds of years old, they are our old growth forests, and once they are gone there is no going back.'

Groves of iconic grass trees in the Otways heath are highly susceptible to *Phytophthora* dieback. Image: Jess Miller CCMA



An Air Tractor from Field Air Group in Ballarat spraying phosphite to protect the Anglesea heathlands. Image: Jess Miller CCMA



Long-nosed potoroo. Image: Jess Miller CCMA

‘We can protect large amounts of bushland fairly quickly and easily using aerial spraying’, Katrina Lovett, Regional Conservation Program Coordinator at Parks Victoria says. Despite the efficiency and effectiveness of phosphite application, ‘it’s not a silver bullet, you need to repeatedly treat target sites as plants lose their immunity over time.’

The phosphite application trial is part of a larger ongoing project to map the prevalence of *Phytophthora*, prioritise areas for treatment and ensure stakeholder education to prevent its spread.

Thanks to Corangamite Catchment Management Authority for the news release on [www.ccma.vic.gov.au](http://www.ccma.vic.gov.au)

## Safety spotlight

The following article appeared in the December 2012 issue of *AAAA News*, and came in turn from a presentation given at a AAAA’s meeting ‘years ago’. The tips though are relevant for an enduring safety threat, safe and effective take offs.

‘Before opening the tap, ask yourself: do I KNOW I am going to get off safely, or am I just *hoping* for the best?’

The following tips were pulled together by a retired CASA AWI and practical friend of air ag, based on looking at a range of ag aircraft flight manuals.

- ▶ Every 2 knots of tailwind increases take-off distance by 10 per cent.
- ▶ Firm dirt increases take-off distance by 7 per cent.
- ▶ Short grass increases take-off distance by 10 per cent.
- ▶ Increase flight manual take-off distance by 7–14 per cent for every 10 degrees C over ISA.
- ▶ Increase flight manual take-off distance by 25 per cent for every 1000 feet above sea level.
- ▶ A 10 per cent weight increase requires 20 per cent more distance.
- ▶ Increase flight manual take-off distance by about 4 per cent for every degree of slope.

All these small variations can increase take-off distance by a whopping 150 per cent.

And just when you start to climb, there is the wind gradient to put you into the trees.

Of course, this information is based on you being familiar with the published data for the aircraft you are flying.

Finally, there was a tip from a AAAA’s pilot which was incorporated into the *Aerial Application Pilot’s Manual*:

- ▶ If you don’t have half the take-off speed you need by one quarter of the strip, then either dump or abort. This means you have to physically identify the point that is one-quarter of the strip—and be prepared to **ACT** if the numbers aren’t there.

## From the vault

Snippets from past AAAA's newsletters.

### Air Ag News June 1996

The Executive Officer's report:

'The goal is zero.

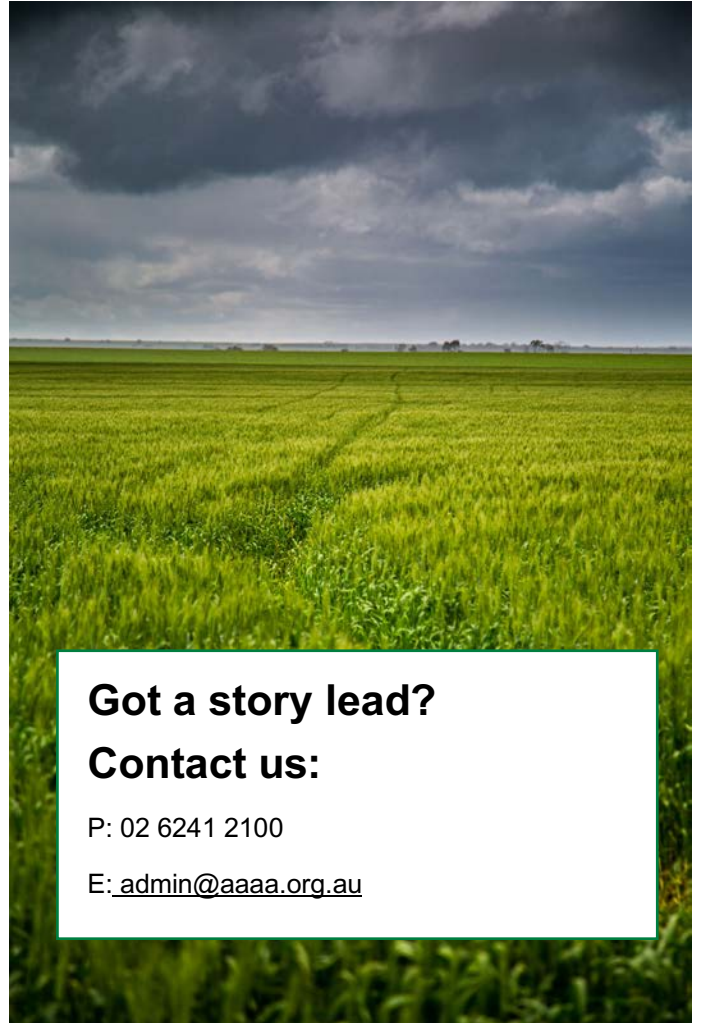
Zero drift. Zero accidents. Zero incidents.

Difficult to achieve you say, but it is what will be expected of the industry going into the 21st century.'

### Air Ag News February 1996

On GPS guidance systems:

'We were all assured they were easy to use – you bolt them in, read the manual, do a few practice runs, and you'll never use another marking system again. ... it's never that simple; how many of you can really program your VCR? The systems don't think the way we do ... their logic is different.'



**Got a story lead?**

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