

# AERIAL AGRICULTURAL ASSOCIATION OF AUSTRALIA LTD.

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The Secretary  
Inquiry into Pilot Training  
Senate Rural Affairs and Transport Committee  
Parliament House  
Canberra ACT 2600

## **Pilot Training Submission from the Aerial Agricultural Association of Australia Ltd**

While the inquiry terms of reference are generally focused on airline pilot training and safety, AAAA believes there are a number of issues relevant to aerial application pilot training that may be of interest to the Committee.

AAAA has also made recommendations relevant to items (f), (g) and (j) of the Inquiry terms of reference.

The Aerial Agricultural Association of Australia (known as ‘four As’), represents the professional aerial application industry, providing critical aviation services for agricultural production and emergency response. Our operations cover crop spraying, fertilizing, sowing, locust and mouse plague control, firebombing and oilspill management – to name a few.

The Association members account for over 90% of all aerial application in Australia. The Association has been active since 1958 and provides a comprehensive mix of training, education, conference and accreditation services to our members, as well as ensuring our elected representatives are kept up-to-date with our industry issues, problems and opportunities. We work closely with State and Federal agencies on a range of policy issues. Our website is at [www.aerialag.com.au](http://www.aerialag.com.au)

## **Recommendations**

AAAA makes the following recommendations to the Committee:

### **ToR (f) CASA capacity to manage update of safety regulations**

1. That CASA make greater use of industry expertise by:
  - a) establishing an efficiency review panel drawn from industry leaders and CASA executives to identify innovative and effective means of reducing red tape and the regulatory burden on industry while improving safety, thus freeing up CASA resources for other priorities.

- b) formalising small advisory panels of paid experts drawn from industry where CASA has limited current expertise, with the role of the panels to include providing expertise on operational issues and training, regulatory development and implementation, policy and program development, emerging safety issues and, potentially, review of safety deficiencies and suitable responses.
  - c) adopting a small teams approach, including industry personnel on a paid basis, to review and finalise the Regulatory Reform Process.
  - d) abolishing the Standards Consultative Committee as it is no longer effective due to the way it is managed by CASA.
  - e) reintroducing the previous Regulatory Advisory Panels and risk based regulatory drafting to ensure new regulations deliver against specific safety outcomes, especially after they have been through Attorney General redrafting.
  - f) developing relationships with key industry associations already working on improving safety and supporting their existing programs.
2. That CASA implement a classification of operations policy that will enable considerable administrative and regulatory simplifications for sectors not involved in the carriage of fare paying passengers.
  3. That Government require the Attorney General's Department to accept lay drafts of proposed regulations prepared by CASA in consultation with industry so as to speed up the Regulatory Reform Program. AGs should only be able to propose changes where the legal form is not correct, as distinct from the current practice of changing intent and making the draft regulation prescriptive rather than outcome based.
  4. That Government consider removing the regulatory reform and policy development roles from CASA and put them into an appropriately resourced, dedicated policy area within the Department of Infrastructure and Transport. This is a direct result of the ongoing difficulties in CASA finalising timely and effective regulatory reform. The recommendations to the Committee in 1) above regarding the use of industry expertise would be relevant in that situation as well.
  5. That Government remove the safety education and safety promotion roles from CASA and give them and the accompanying resources to ATSB, which appears to be a much better fit. There would also be significant synergy with the ATSB's existing role in this area, as well as the obvious connection with accident investigation and the communication of safety recommendations direct to industry.
  6. That Government recognise the Australian Aviation Associations Forum, made up of most Australian peak aviation bodies, as the key industry consultative forum that can provide valuable feedback and expertise on aviation to the Government.

**ToR (g)      Incident Reporting**

1. That Government consider the addition of clearer immunity provisions in the *Transport Safety Investigation Act 2003* to further enhance the reporting of aviation incidents.

**ToR (j)      Any other related matters**

1. That Government address the current aviation pilot, engineer and support staff shortage by:
  - a) Urgent Commonwealth recognition of the skills shortage in aviation pilots and engineers, including in aerial application and in rural and regional Australia.
  - b) Facilitating access to government programs and support aimed at remedying skills shortages should by the appointment of a joint government / industry committee to identify a suitable strategy for both the short and long term.
  - c) Enabling access to Commonwealth financial support of pilot training similar to HECS or a rebate on attainment of the prescribed qualifications (eg. Commercial Pilots Licence, Agricultural Rating etc).
  - d) Urgent amendment of the current HECS access provisions to enable traditional suppliers of aviation pilot training – such as flight training schools certified by CASA or CASA appointed Authorised Testing Officers – to qualify for Commonwealth funding for their students. There are currently specific provisions within the HECS framework that have created a funding model that is unfair to traditional providers of certified aviation training. This has created an unlevel playing field between traditional aviation trainers (flying schools and ATOs) and Universities offering aviation degree type courses as well as aviation flight training. Universities and others who are able to already meet the Department of Education requirements – such as the majority of their business coming from education – have clearly been handed a commercial advantage, but traditional training suppliers are discriminated against for no good reason.
  - e) Introducing accelerated depreciation (60% in the first year) for agricultural aircraft so as to make it more attractive for operators to go to the trouble and expense of having appropriate aircraft available for training. Inexperienced pilots are not able to fly larger agricultural aircraft. Accelerated depreciation is a feature of the entire aviation industry in the US – one of our main agricultural competitors.
  - f) Introducing income averaging over a five year period for aerial application companies and access to income equalisation schemes to enable greater resilience to be built into aerial application companies that would support the maintenance of junior ag pilot positions during economic and seasonal downturns.
  - g) Introducing tax incentives to support those aerial application operators who take on training responsibilities for agricultural pilots.

- h) Introducing greater government incentives to encourage people to work outside metropolitan Australia in sectors such as aerial application. Incentives might include tax zones.
- i) Introducing greater government support of industry Associations and programs where small but highly specialised areas/vocations receive tailored training from specialist Associations.
- j) Encouraging government agency support and recognition of professional development programs and accreditation programs where these serve to reinforce safety and provide skills and knowledge that is not available elsewhere.
- k) Encouraging CASA to finalising and expediting, in cooperation with industry, the implementation of the proposed *CASR Part 61 – Licencing*, and improving the related issues of the aerial application syllabus, competencies, examinations, and supervision – with a new focus on identifying means by which simpler regulation can encourage business owners to engage more with training and greater numbers of pilots entering the industry and the aerial application sector.

## Issues

**ToR (f) the capacity of the Civil Aviation Safety Authority to appropriately oversee and update safety regulations given the ongoing and rapid development of new technologies and skills shortages in the aviation sector;**

The following comments are mostly drawn from the AAAA Submission to the 2008 Senate Inquiry into CASA by the Committee of the previous Parliament.

### **The Big Picture - Cooperative Regulation**

CASA has limited resources and despite the recent increase in the aviation fuel tax to provide more CASA staff – something AAAA opposed – CASA should be focussed on greater efficiency and cooperation with industry to deliver better safety outcomes.

Working *with* industry is a lot more productive than working *against* it, and while there will be times that our different roles may see industry and CASA disagreeing, cooperation has achieved more for CASA and aviation safety than any other approach.

This is not in any way to undermine the industry supported role of CASA as industry policeman - it is a simple recognition that in many areas industry and CASA are pursuing the same outcomes and these can best be achieved by working together.

### **Simpler regulation for lower risk**

A key means of delivering improved safety outcomes and better focused resources is to implement the principle of simple outcome-based regulations for operations that do not involve the carriage of fare paying passengers.

This principle is critical in CASA's consideration of its classification of operations policy and the implications for how CASA should be administering the current regulations, writing the new regulations under the Regulatory Reform Program, and developing its enforcement and surveillance policies.

For CASA, a central question should be "how can we best target our limited resources for the best safety outcome?".

CASA should engage with those sectors of industry already effectively promoting safety in their sector and which would benefit from encouragement and financial assistance in this regard - aerial application certainly merits consideration in these terms.

### **Lack of expertise within CASA**

CASA does not have a monopoly on expertise and yet, despite the inability of CASA staff to remain current with industry developments, CASA appears reluctant to put in place systems that formalise the use of industry expertise.

While there has been some success with the use of industry expertise in the Regulatory Reform Program, this has been spasmodic and certainly not characterised by the openness necessary to take advantage of the significant industry expertise on offer.

In addition, the lack of innovative interchange programs between CASA and industry fuels the often high levels of distrust between CASA and industry and the lack of current knowledge and experience amongst CASA staff.

In some cases where CASA simply has no or very limited expertise amongst its staff - for example in aerial application - CASA's role should include facilitating the work of the industry Association that has a proven track record in safety promotion and programs that support improved standards - such as AAAA's Professional Pilot Program and related training courses.

### **Slowness to Change – Safety Inertia**

CASA's inability to respond quickly to industry changes, while partly due to the necessary requirements of working within a legislative framework, remains a problem.

Industry is undoubtedly suffering from regulatory reform fatigue and CASA has managed to squander an enormous amount of industry goodwill that was supportive of change when the current reform program started in the 1990s. CASA's failure to achieve significant regulatory change despite enormous hours put in by industry and CASA staff has not only led to disillusionment with the reform program, but also to a sense of disengagement by industry, because despite their best efforts, advice and time sacrificed, there is very little on-the-ground improvement to show for it.

While AAAA's success in getting CASR Part 137 made may be an exception, the ongoing snail pace development of Parts 121, 135, 133, 136, 91 and 61 means that industry is locked into old regulations that are in desperate need of review to be more relevant.

The safety threat is that in the next 12-18 months, industry will be flooded with new regulations – many of dubious parentage in terms of Attorney Generals' Departments rewriting of previously consulted drafts – that CASA will not have the resources to properly implement with adequate education and training.

A further concern is that CASA does not appear to have the same commitment to review as, for example, the CAA in New Zealand. It should be clear that it makes sense to consult on regulations, promulgate them, and then review and amend when the inevitable mistakes and unintentional consequences are found in operating the new regulations. Unfortunately, in Australia, that has not been that culture of flexibility and responsiveness with, for example, the post implementation review of CASR Part 137 now some two years overdue.

Despite consistent offers from AAAA over a number of years to assist CASA by facilitating access to industry expertise for the betterment of safety and improvements in regulation, CASA struggles to engage in a meaningful way.

By way of proven record, AAAA already runs training and accreditation programs that every State in Australia recognizes for the issuing of a Chemical Control of Use Licence and the licencing of businesses in some States, and AAAA sits on a range of government advisory committees.

### **Lack of Support of Joint ventures with Industry / Recognition of Key Partnerships**

AAAA has pioneered the very successful use of the joint venture approach with CASA to bring a number of excellent projects to fruition. CASA has not taken this on more broadly and this represents a lost opportunity for improving safety.

For example, AAAA has developed with CASA:

- a Standard Operations Manual that has significantly simplified CASA's task in approving AOCs
- the Aerial Application Pilots Manual – now the world leading reference on safe aerial application
- the implementation of Part 137 which for the first time used a joint approach based on AAAA's unparalleled access to industry members and AAAA's extremely high credibility with industry.

AAAA has already delivered a range of successful safety training courses despite CASA indifference and has been proposing an expansion and recognition of the AAAA Chief Pilot course for many years with no support forthcoming from CASA.

If CASA ignores the power of working with key Associations that represent significant numbers of operators and pilots in a sector, then a number of important safety initiatives that will make a real difference will be lost.

## **Process Streamlining**

There is great potential in CASA to reduce costs by developing better ways of doing things and by assessing whether they really need to do certain things at all.

*Consultation, consistency and cost-reduction* are three goals that CASA should apply to every process to ensure it is actually delivering what industry needs.

A key question for CASA should be “can we deliver the same services, or require the same standards and identify and rectify any shortcomings in industry by more effective means?”. The answer, based on broad experience from other industries must be an unequivocal “YES”.

For example, a key function of CASA is to assess operators and issue them as appropriate with an Aerial Operators Certificate. Once issued, a key function for CASA is to audit those AOC holders to ensure they continue to meet the standards required by the original certificate.

However, were CASA to make a risk assessment of, for example, aerial application, or even non-passenger carrying aerial work, it could reasonably argue that the purposes of the Act would be better fulfilled by a different approach.

As an example, the following could be a model for simplification of non-passenger aerial work regulation:

- A) Entry control could be simplified by CASA:
  - 1) recognising a course of study and assessment for Chief Pilots provided by private enterprise in accordance with standards of competency established by CASA
  - 2) recognising or even producing a standard operations manual as per the arrangements AAAA already has in place with CASA which has reduced AOC issuing times to an often-bettered benchmark of 8 weeks.
  - 3) abandoning all other requirements regarding office facilities etc if they are not truly relevant to safe operations.
- B) Ongoing renewals could be simplified by making aerial work AOCs perpetual, removing at one stroke the renewal requirement that clearly contributes nothing to safety. The requirement to keep information up to date could be fulfilled by other means, such as a website that permits details to be updated by the person owning the information on line, rather than by CASA staff (see also C below).

It should be clear that it is the audit and surveillance program that is important to safety, not the AOC renewal process.

- C) CASA could outsource the audit task by, for example, requiring from an AOC holder a certificate of audit from a suitably qualified aviation safety auditor every 5 years or other relevant period. Alternative, CASA could recognise industry programs that deliver the same outcomes, such as AAAA’s Aerial Application Management System.

This would have a range of positive effects:

- 1) It would introduce an element of competition into auditing to allow costs to be kept low through reduced overheads. CASA could run standardisation courses for auditors to ensure consistency and quality, or it could also outsource this role.

- 2) By CASA maintaining control of the standard to which the audit is conducted and by mandating the qualifications of the auditor, safety would in all likelihood be improved, but at least maintained.
- 3) It would remove the difficulties CASA currently has in attracting suitable technical staff at the same time reducing significantly the amount to be recovered from industry.
- 4) It could enable audits to be conducted by personnel who actually have experience in that area, rather than CASA staff who may have no experience of a particular operation and simply do not know what they are looking at. This is particularly true in aerial application where only one CASA FOI, to AAAA's knowledge, has actually worked in the sector, rather than simply having attained the aerial agricultural rating.
- 5) It would free up resources for CASA to concentrate on other areas – or alternatively the recent fuel excise increase to fund another 90 CASA staff could be reversed.

This is a model that has a proven track record in the building industry, where much of the work previously undertaken in building inspections by local government employees is now being handled by registered and qualified independent building inspectors.

This model also has precedent in aviation, where CAR 35 delegates are able to fulfil certain tasks that would otherwise fall to CASA. The same applies to Authorised Testing Officers who work on behalf of CASA, especially in aerial application training.

CASA could then simply audit the auditors or other holders of delegations, or better still, recognise an existing standard for auditors and let another body certify that the auditor is up to an approved standard.

The principle is well established and CASA should be seeking to expand it.

- D) Any alterations to an AOC could be systemised or removed altogether. For example, the need to add particular models to an AOC is not critical to safety and CASA has recognised this by amendments to the CAOs. Similarly, the removal of the need for development of new manuals or procedures where pre-existing materials already exist (such as Pilot Operating Handbooks) has also been included in recent changes to the regulations. There will be other areas where this principle can be extended to reduce costs and maintain or even enhance safety.

Similar activities could be grouped together on AOCs so as to simplify management. There is even potential to say that for aerial work operations the certificate permits any activity that is covered in the operations manual as long as the pilot is licenced and competent for the task.

A similar approach to grouping all aerial application activities on the Part 137 AOCs and covering both piston and turbine aircraft used on Part 137 operations fundamentally simplified the management of those certificates.

The above are examples where four key interfaces with one industry sector currently require significant staff resources and support costs for very little contribution to aviation safety.



### **Self-administration**

CASA, some years ago, suggested to AAAA that self-administration or cooperative administration of the aerial application sector by AAAA should be investigated as a means of reducing costs to industry and CASA.

Self administration clearly refers to the transfer of only those responsibilities that are administrative in nature – as distinct from self-regulation. AAAA has never supported anyone but CASA playing the policing and enforcement role. It is also recognised that the role of regulatory development belongs with government (not necessarily CASA) but that it must include significant and meaningful consultation with industry, if for no other reason than the fact that CASA does not often have current industry expertise within its staff.

After positive initial discussions with CASA over the concept, AAAA wrote to CASA seeking further information on key concepts and potential financial support.

The reply indicated clearly that CASA had little idea of how to progress this issue and that while they were comfortable receiving funding from industry for staff positions at a value of say \$120,000 per year each, they were unwilling to see similar funds being transferred to industry for self-administration by whatsoever means that could be shown to work practically.

AAAA will not support self-administration without an overall reduction in costs to industry – either through a cut in fuel excise, a reduction in CASA charges, or greater efficiencies and reduced charges through AAAA.

### **ToR (g) the need to provide legislative immunity to pilots and other flight crew who report on safety matters and whether the United States and European approaches would be appropriate in the Australian aviation environment;**

A sound safety culture depends on people feeling secure in reporting incidents and accidents without fear of reprisal.

Unfortunately, it remains the case that incident reporting in Australian aviation is compromised by, at least, the perception that reporting an incident is likely to lead to unfair regulatory action against the reporter or others involved.

This perception remains despite the current protections within the Transport Safety Investigations Act, the different roles played by ATSB and CASA, and ATSB efforts to communicate these protections to industry.

The difficulty of balance of interest will always remain when, for example, ATSB reports safety issues to CASA and CASA takes an action to either investigate, punish or penalise the company or individual concerned.

While sensible policing of regulations is essential and fully supported by AAAA, without clearly spelled-out immunities from prosecution and other actions when reporting safety related incidents, reporting will be less likely due to the perception – and reality – of action being taken against the person or organisation trying to improve safety.

AAAA would support a further investigation of those immunities contained within the US system of incident reporting and any strengthening of protections that are likely to lead to greater openness and transparency in aviation safety.

CASA cannot have its cake and eat it too in the sense that it wants a mature safety culture in the industry, including comprehensive incident reporting, and also wants to use information gathered through open reporting to prosecute companies or individuals. If we are serious about CASA having a mature approach to safety culture, then it must also accept that part of that is not shooting the messenger or undermining the culture of reporting.

Clearer and more extensive immunities linked to reporting would start to address this issue.

## **ToR (j) any other related matters.**

### **The Current Skills Shortage in Agricultural Aviation**

#### *General Trends and Issues*

A key current challenge for aerial application is the shortage of skilled and experienced pilots, engineers and loader/mixers available to work in regional and rural Australia.

While the pilot qualifications and experience required to conduct aerial application operations are quite specific, this sector relies on a sufficient number of competent commercial pilots being produced to ensure the sector has adequate pilots to then undertake additional training specific to aerial application.

If the number of CPL qualified pilots declines, the airlines have active recruitment programs, or there is a general shortage in the industry, then the subset of pilots interested in a career in aerial application is also subsequently smaller.

Pilots in aerial application are committed to that career. There is very little movement of application pilots to other sectors such as airlines. It is definitely not an hour-building stepping stone to other sectors. Many ag pilots, however, hold other flying qualifications that enable them to maintain their aviation careers should aerial application suffer a drought or economic downturn. Many are 2<sup>nd</sup> generation ag pilots, with their family committed to the sector.

While the major drought of the last decade has had a significant impact on the economic viability of aerial application piloting as a career during that downturn, there remains the need to remove unnecessary impediments from the ability to ramp-up training quickly in the drought recovery phase.

The disincentives, costs and difficulties of creating the appropriate environment for both the *ab initio* training of aerial application pilots and the sound mentoring and ongoing education of inexperienced pilots include:

- The cost of purchasing, maintaining and insuring smaller, less productive aircraft suitable for operation by pilots holding an agricultural rating but who have to gain experience in application operations before graduating to larger aircraft.
- The increasing preference of aerial application business owners to only operate larger aircraft due to the increased productivity, economic return and safety of these aircraft. These aircraft are not suitable for inexperienced application pilots
- The productivity and significant cost implications to the company in having approved pilots supervising the recently graduated agricultural pilot as required by CASA regulation – a mentoring and training approach wholeheartedly endorsed by the industry.
- The reliance by some companies who do not conduct training or supervision of inexperienced agricultural pilots on ‘poaching’ pilots from other companies who conduct training and supervision. This is often in the form of offering the newer pilot the opportunity to fly larger aircraft, once the pilot has been supported through their regulation-required supervision period.
- The trade-off of employment expenses for having an inexperienced pilot that is not fully productive.
- The cost and difficulties in maintaining junior pilot employment in a business that will be affected by seasonal variations, commodity price fluctuations, government policy changes such as on water allocations, and overhead expenses.
- The difficulty in securing long term finance arrangements (longer than 5 years) that would support the addition of smaller training specific aircraft to any operator’s fleet.
- The cost and often difficulty in securing insurance for inexperienced pilots, despite the safety statistics indicating that they are not over-represented in accidents – principally due to their operational limitations to smaller cheaper aircraft and their supervision by more experienced pilots.
- The complete lack of financial support, systems or loans to help pilots and engineers meet the very high costs of training for a career in aviation, including sector specific mandatory training requirements such as the agricultural rating.
- The difficulty and sometimes long timeframe in securing supervision approval from CASA required before an inexperienced pilot can be employed.

#### *Drought Recovery Meets Huge Demand – the current crisis*

Current pilot shortages are leading to delays in the ability to treat agricultural pests and disease in a timely manner. The implications for economic loss are significant.

The crisis peaked last month, but is likely to return to a critical condition during periods of peak demand.

Due to the time lag in training new pilots as the industry emerges from the drought of the last 8 years, it has been necessary in recent months to source pilots from overseas – principally New Zealand and Canada. This process has also met delays in CASA approving some internationally qualified pilots to operate in Australia.

The impact of the significant drought driven downturn in recent years has included:

- early retirements from the aerial application industry
- an element of generational change (many aerial application businesses are family owned)
- strong competition from the mining sector for staff and
- the need for pilots to find meaningful alternative employment during the drought

These factors have led to a significant reduction in the number of pilots, engineers and loader/mixers available to the industry once work started to pick up following significant rainfall.

This unavoidable decrease in available staff has been brought into even starker contrast by the recent ‘perfect storm’ of agricultural, meteorological and pest conditions including:

- Significant and ongoing rainfall leading to paddocks being too wet to treat from ground equipment
- Huge locust egg-laying leading to plagues across Queensland, NSW, Victoria and South Australia.
- A significant rust epidemic in the largest wheat crop in years
- Fungus outbreaks in chick peas
- Insect pressure in canola crops
- Mice plagues in northern NSW / southern Qld
- Increased demand for fertiliser applications
- The first significant rice planting for years (almost the entire Australian rice crop is sown by aircraft)
- Significant weed control to prepare land for summer crops.

This perfect storm has led to significant delays in application. Media coverage focussed on the delays to farmers and the likely economic implications. It recently became so marked that AAAA issued a media release to assure clients that aerial application companies were making every effort to get to their crops. **(Copy Attached)**

### **The Challenge of Becoming an Application Pilot**

While aerial application pilots may conduct agricultural operations as well as firebombing and other operations, the starting point is for the pilot to hold a CASA issued Commercial Pilots Licence and an Agricultural Rating Grade II. These licences and ratings can be for either fixed-wing or rotary-wing operations. The name of the rating is proposed to be changed to ‘Aerial Application Rating’ in the proposed *CASR Part 61 – Licensing* regulatory reform package to better reflect the nature of the rating.

For a pilot to qualify to undertake the agricultural rating, the candidate must first hold at least a Commercial Pilots Licence. The cost of a Commercial Pilots Licence is significant –

probably upwards of \$60,000 – and must be attained generally without access to HECS or any other government support.

Before commencing training for the CASA agricultural rating, most candidates attain a suitable qualification and competence in the safe management of chemicals and a State issued chemical distribution licence for the State in which they are training/operating. If they operate in more than one State they will need several licences.

AAAA provides training and accreditation through its Spraysafe program that is recognised by every State and Territory for the issuing of a chemical distribution licence - except WA – which recognises a licence from any other State, all of which are issued on the basis of Spraysafe accreditation.

Despite over 8 years of working groups and committee meetings and more recently a COAG driven review, there is still no national system of licencing for chemical distribution that is based on a single licence to cover the whole country. Each State continues to issue its own licence – at a fee – despite using Spraysafe as the *de facto* national competence standard.

The CPL and chemical licence-holding candidate must then undertake additional comprehensive training for the issue of an Agricultural Rating Grade II. For fixed-wing operations this requires approximately 40 hours of flying at a cost now approaching \$20,000.

Agricultural flying training for the issuing of the rating is conducted by industry trainers approved by CASA as Authorised Testing Officers or ATOs. In addition, the pilot must pass the CASA written examination for the rating as well as a flight test generally conducted by the ATO – CASA may decide to conduct the test despite their staff not having recent experience in the industry. CASA will then issue the Agricultural Rating Grade II.

The pilot must then find an aerial application business owner who holds or is willing to apply for CASA approval to conduct supervision of an agricultural rating Grade II holder. The pilot then undergoes 10 flying hours of ‘direct supervision’ and an additional 100 flying hours of ‘indirect supervision’. This is so that a new ag pilot is mentored into safe operations. The supervision may include restricting which paddocks the new pilot may treat so as to minimise risk and manage workload, so that the new pilot’s competence and experience is matched to their risk exposure. This way, the pilot’s experience can be built-up in a gradual and safe manner.

AAAA fully supports this system which has delivered very sound safety outcomes over many years.

After 13 months from the issue of their agricultural rating, the pilot must undergo another flight test with an ATO to confirm they have maintained the standards of their rating and that their supervision has clearly delivered additional experience.

After some years of operation as an agricultural rating Grade II holder, the pilot may decide to upgrade to an Agricultural Grade I rating – but only after gaining 1000 hours of flying time on agricultural operations and completing another flight test with a CASA approved Authorised Testing Officer for agricultural operations.

Agricultural pilots must then successfully complete an Annual Proficiency Review as required by CASR Part 137 as well as continuing to hold a Class I medical certificate and their CPL to exercise the privileges of their licence.

This basic structure has been maintained in the proposed *CASR Part 61 – Licencing*, but with some useful innovations such as the establishment of a new agricultural instructor rating and clarification of the ag examiner position.

Many operators prefer that Ag II qualified pilots also have experience in safely handling chemicals including working as a loader/mixer in the aerial application industry for at least a season before commencing as a full-time pilot.

This means that a fully productive aerial application pilot would be at least two years in the making – generally significantly longer. This time frame can be drastically altered by the availability of work in a highly seasonal and drought susceptible industry.

#### *Ag flying training schools*

There are very few training providers in Australia for the agricultural rating simply due to the low numbers of candidates, the high cost, and the relatively small size of the industry.

Further disincentive is provided by the complex, inconsistent and non-transparent requirements of CASA in becoming either an agricultural rating trainer (ATO), a pilot approved for supervision of Ag II rating holders after ab initio training or a pilot approved to issue type conversions for turbine aircraft.

There are approximately 5 fixed-wing trainers for the agricultural rating, and even less for rotary wing training.

Without exception, this training is provided not as a commercially viable enterprise in its own right, but as an adjunct to an aerial application business. When interviewed, all trainers indicate that they conduct training as a means of ‘putting something back into the industry’.

The cost of fixed-wing agricultural ratings is now close to \$20,000 – obviously depending on the competence of the candidate.

#### **AAAA Training and Safety Initiatives**

While the risk and hazardous nature of aerial application operations may appear to be extreme to those unfamiliar with the industry, those risks are well managed through comprehensive and ongoing training.

In terms of safe operations, the long term fatality trend in aerial application has been steadily downward due to a combination of improved aircraft safety design, sound initial training and AAAA’s ongoing education and professional development programs. In recent years – admittedly in conjunction with a significant contraction of risk exposure due to less hours flown during drought years – the sector has seen fatality-free years despite approximately 70,000 hours flown in even the quietest years.

Regardless of the encouraging safety trend line, AAAA is committed to continuous improvement and the ongoing delivery of relevant training to aerial application pilots and operators.

AAAA remains the key driver and provider of safety training in the aerial application sector – without significant government support.

AAAA is alone in delivering safety education and training targeted to aerial application.

AAAA has provided the structure for ongoing professional development through its Professional Pilot Program that requires the accumulation of 15 education credits over any three year period to maintain key AAAA accreditation through its State government-recognised Spraysafe program. For example, attendance at a AAAA course earns 2 points.

AAAA also provides the key ongoing learning opportunities and subject material through its comprehensive National Convention, state Conferences, sector specific Air Improvement Meetings, and targeted safety training courses.

Current AAAA safety training courses include ‘Wire Risk Management’, ‘Human Factors in Aerial Application’, ‘Agricultural Pilot Safety Awareness’, ‘Aerial Application Chief Pilots’, and a range of safe chemical management courses including ‘Drift Management’, ‘From Chemical Label To Aircraft Nozzle’ and a range of practical tools to support ongoing use of new skills.

AAAA also conducts a range of other safety initiatives including email, fax and text ‘Safety Alerts’ covering new wind farm monitoring towers and safety messages during periods of high operational tempo, such as over the last few months.

### **Aerial Application Management System - AAMS Program**

AAAA has recently launched an integrated management system for aerial application – the Aerial Application Management System, or AAMS – that takes safety management for aerial application operations – including training – to a new level.

It is not just about aviation safety but also covers product stewardship, logistics, OH&S, human resources and management. It features independent auditing on commencement and then every three years for renewal.

The program is based on risk management, sound communication practices, appropriate record keeping and continuous improvement. The program is based on an ISO style approach and encompasses the relevant Australian standards for risk management. The program features an integrated safety and risk management system that is not dissimilar to the CASA SMS materials and advice.

The program has been well supported with 30 companies already signing-on, with initial training already completed for most of them. This represents coverage of more than 30 per cent of the industry already. AAAA anticipates that additional companies will join up as usefulness of the program travels by word-of-mouth and government agencies recognise and use the program as their own quality assurance guarantee. AAAA anticipates that accreditations will start to be issued in 2011.

AAAA is seeking government support and recognition for this comprehensive program.



22 September 2010

## **Busy Season Needs Excellent Planning**

With the current bumper season across eastern Australia, it is more important than ever for farmers to establish good communication with their aerial applicators to plan their aircraft needs over the coming weeks and months.

CEO of the Aerial Agricultural Association of Australia, Mr Phil Hurst, today warned that pest and disease pressure across eastern Australia, combined with wet paddocks and the aerial ag industry being in a post-drought rebuilding phase, may lead to some delays in treatments.

“We are expecting a very busy season and are doing everything in our power to service our clients,” he said.

“Good planning and communication will be critical to ensuring timely treatment, as will positive cooperation between farmers and neighbors as well as with aerial operators.

“While we are anticipating some delays compared to previous seasons due to the long timeframes required to train new pilots and secure additional aircraft, farmers can significantly assist our efforts.”

AAAA suggested the following action plan for farmers to assist aerial application operators:

- SAFETY COMES FIRST
- Aerial operators will not compromise in their duty of care to pilots and staff
- Do not try and pressure an operator or pilot – this may compromise their safety
- Check airstrips to ensure they are safe and serviceable
- Talk to neighbours about aerial operations so you can group book work on same day
- Ensure good maps and instructions are supplied to operators as new pilots and staff will be involved
- A little patience, understanding and humour will go a long way!

“Our valued clients can cover all of these issues and more by talking to their local aerial applicator,” Mr Hurst said.

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