AERIAL AGRICULTURAL ASSOCIATION OF AUSTRALIA LTD.

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Submission to the Senate Standing Committee

on Rural Affairs and Transport

Inquiry into the Administration

of CASA and related matters

Key Issues Summary

- Independent review of CASA's functions required, drawing heavily on industry input.
- Current governance arrangements do not appear to be supporting or encouraging transparency, accountability or performance.
- Industry consultation mechanisms at the technical level may be adequate (for example on regulatory reform working groups), but at the strategic level they are either non-existent or in need of review. Asking industry what their view is and then ignoring it completely is frequently dressed-up as 'consultation'.
- CASA needs a central policy making function that binds all staff to a single interpretation that has been developed with industry consultation. This must be a central feature of any attempt to improve CASA's culture.
- CASA must develop a systems-based approach to managing interactions with industry that are currently piecemeal and treated as 'once-offs'.
- Cost recovery must be based on establishing CASA's essential functions and priorities (see independent review above), identifying any functions that can be transferred to industry while maintaining safety integrity and removing any requirements that do not deliver a safety outcome that addresses an identified and significant risk.
- CASA must be directed by Government to pursue aggressively an efficiency and cost-cutting program that reduces the burden on industry.

The AAAA ('four As')

The Aerial Agricultural Association of Australia (AAAA) was formed in July 1958 at a meeting jointly convened by the then Department of Civil Aviation and the Bureau of Agricultural Economics.

2008 Marks the 50th anniversary of AAAA's representing the industry and working to improve standards within the industry and the quality of regulations it has to comply with.

AAAA's mission is to promote a sustainable aerial agricultural industry based on the professionalism of operators, pilots and staff and the pursuit of industry best practice.

- Membership of the AAAA consists of operators of aerial application aircraft. There are approximately 130 active operators in Australia. AAAA has approximately 75% industry operator membership controlling over 90% of aircraft in use and is therefore representative of and qualified to speak on behalf of the aerial application industry. AAAA also represents pilot members within the industry and accounts for over 60% of all pilots working within the industry.
- Capital investment in the industry exceeds \$200 million. Agricultural aviation directly employs 2000 personnel comprising pilots, field staff, maintenance staff and administrators. A further 2000 people enjoy part-time employment. The industry uses more than 300 specialist aircraft with supporting vehicles and equipment, together with established aircraft maintenance facilities throughout the country.
- The Association has its National Office based in Canberra and is governed by a Board of Directors with representation from the States. The Board is in constant consultation with the CEO and local agricultural operators and meets formally on a quarterly basis.
- The industry has progressed considerably in knowledge, skill and degree of professionalism since the late 1940's image of the 'crop duster'.
- Today's "ag pilot" is highly trained and licensed under both Federal and State legislation. No other applicator of agricultural chemicals has the degree of training of the ag pilot, who is required to have a commercial pilot's licence, an agricultural rating and a chemical distributor's licence. The majority of operators and pilots are accredited under the AAAA "Spraysafe" program and participate in the AAAA Professional Pilot Program, the industry professional development benchmark.
- One of AAAA's key roles is to enhance education and professional development throughout the industry. The Association therefore conducts a comprehensive program of conference and convention activities to keep members up-to-date with legislation, practices and other developments. Meetings include sectoral Air Improvement Meetings (AIMs) for rice, cotton, Far North Queensland and top dressing, State Conferences and the Annual Convention.

AAAA has a comprehensive website at <u>www.aerialag.com.au</u>.

Introduction

While some small gains in efficiency and improvements to the industry/CASA interface have occurred over recent years, the pace of essential reform has been glacial.

In many ways, reform has been compromised by current governance and management structures, a lack of drive for urgent change from the top of CASA and an ongoing combative approach from some in CASA towards industry.

Trying to work with CASA is akin to prolonged guerrilla warfare, where success goes to the industry person or organisation that can build an alliance with competent staff within CASA and assist them to defeat the other retrograde forces at work within CASA to protect turf, retain power, resist change and to stifle industry.

It is industry that leads and daily implements aviation safety in Australia, not CASA.

Even the simple role of enforcing sensible regulations on those companies who make the decision to operate at the lowest end of the safety maturity curve is a major challenge to CASA. Often CASA argues they cannot fulfil that role in some high profile cases, while undertaking exactly those actions against other operators, often not in passenger carrying operations.

Most of the answers to improved CASA processes must be developed by industry first and then promoted within CASA.

The effect of much of CASA's processes is to stop industry from achieving adaptation to a changing market rather than to facilitate it, often as a result of CASA staffs' personal outlook on aviation.

Transparency, accountability and clear performance outcomes are almost unknown concepts within CASA, despite pockets of forward thinking individuals who try and hold CASA to the same standards that are delivered by other public service agencies.

CASA does not have aviation problems - it has management problems.

Three key issues lie at the heart of CASA's seeming inability to mature into an effective regulator:

- A lack of clear accountability for the CEO and senior managers of CASA to Government, Parliament, the community and industry, compromised by current governance arrangements.
- A lack of commitment, or at least results, from the CEO and senior management to comprehensive and urgent improvement in cost-cutting, management systems, internal policy development, internal communications and high level genuine consultation with industry.
- A poor CASA culture that focuses on personal power at the expense of aviation safety, sensible regulation and industry development.

A useful starting point could be an independent review of CASA's core functions that draws heavily on industry expertise and best practice models of regulation - or better still, a review of CASA by representative industry leaders with a track record in safety leadership, such as AAAA.

The key question is 'what does CASA need to do to improve aviation safety?'. The follow-up is likely to be 'what can CASA stop doing or do simpler to allow resources to flow to safety critical areas such as protection of fare-paying passengers?'.

Terms of Reference 1 - to assess the effectiveness of administrative reforms undertaken by CASA's management since 2003

CASA leadership

No-one in CASA seems to be held accountable for non-performance. This applies from the CEO down.

At the top, there does not seem to be a coherent plan, shared with industry and properly resourced, to improve CASA's management of itself. Policy development, internal communication and standardised procedures are seemingly left to chance.

At lower levels, there appears to be little consequence for taking a line that is not consistent with stated policy.

AAAA believes that not having the CEO based in the headquarters of the organisation unnecessarily complicates an already difficult task.

AAAA also believes that it is even more difficult to control costs and improve systems when you do not talk strategically with your 'clients', despite them offering assistance to identify savings and better systems.

It is no use to industry if the talk and PR of CASA is not matched by speedy action and noticeable improvement. There has been some improvement over the last few years (mostly through sacking/retirement etc of difficult individuals within CASA although more remain) but the pace of improvement is glacial.

CASA does not suffer from aviation problems - it suffers from management problems.

Management does not seem able to formulate a coherent plan for improvement, nor appears capable of enforcing their will over lower managers, delegates and even field staff in the organisation.

For example, the role of FOIs and AWI's varies enormously between individuals and offices, apparently without any coordination from a central manager. Similarly, the outlook of senior management is not shared by many others in the organization, and the perspective of central office to the regions appears worlds apart.



A key element in improving this is putting in place transparent (eg published on the web) systems for doing things. CASA insists on this from industry (eg operations manuals) but does not seem to have or at least enforce their own systems or SOPs.

At the top level, CASA needs skilled managers who can identify clear improvement goals for CASA to work towards, who can provide a road map for achieving those goals and who can explain the processes required to staff while engaging industry in the process to ensure the goals are where industry needs to be.

AAAA works positively with a range of competent managers within CASA and is heartened by what appears to be a newly emerging culture of cooperation and a focus on real-world positive outcomes for aviation safety. However, this new culture is not shared by many at the operational level and the timescale for sweeping aside the 'old' CASA simply does not have the urgency that is essential for the aviation industry to prosper and do so safely.

Establishing what CASA should be doing

A key issue for Government is to establish what CASA should be doing, what it can drop and what it can do differently and better.

While AAAA would be concerned with yet another review of CASA, AAAA doubts that CASA is able to undertake such a review internally.

If an outside individual or company is commissioned to undertake such a review, they/it should be informed by a small reference group of industry representatives with a proven track record of working constructively with CASA, such as AAAA.

While AAAA accepts the concept of cost recovery, the first principles that should be established before attempting to focus on the means of cost recovery are:

- 1. What are the activities (costs centres) that CASA could stop doing or do less of as they do not contribute significantly to aviation safety and protection of the fare paying passenger?
- 2. What functions could CASA shift to industry (along with the ability to raise income to support those functions) that would serve both safety and cost goals?
- 3. How can CASA become significantly more efficient and cost-effective in delivering those services/functions that remain after the above is addressed?

What is required as a starting point is a comprehensive establishment review that gives industry the means and time to contribute to the discussion about what it is that CASA does. This should not be supervised by CASA, but by the Minister appointing an independent committee made up of industry representatives including AAAA.

A critical first step is to consolidate the classification of operations risk-based approach by an overarching split between passenger-carrying versus all other ops - the 'non-complex' aerial work ops like aerial application could then be given perpetual AOCs. simplified compliance requirements, reduced audit frequency etc commensurate with risk and performance, especially in conjunction with active industry associations that promote safety and have established professional development and safety programs, such as AAAA. This would then enable CASA to



focus resources where the most significant aviation risk is - to the fare-paying passenger.

Greater transparency

CASA should commit itself to greater transparency in policy setting, management and enforcement as part of its management ethos and in response to Government directions.

One of the real problems with CASA is that policy is often dictated by the least qualified in the organisation and often without the knowledge of CASA senior management.

In many instances, AAAA has witnessed CASA policy, including interpretations of regulations and orders, being made up on-the-run by Flying Operations Inspectors (FOIs) and others who have never consulted with industry or their own managers.

This ranges from operational issues (the use of checklists) to maintenance issues (appointment of the Head of Airworthiness and Aircraft Maintenance Control), to certification (oilspill aircraft), to broader policy (firefighting) and most recently to the new requirement for an annual proficiency check under Part 137.

In many cases to consult or not, to work positively with industry or not, or to abide by normal standards of good policy development or not, are **not** decisions made at high level after consideration of the strategic environment. They are frequently made at a local level, often with an agenda of frustrating central office and increasing the power of local staff.

This is simply an unacceptable position for an organisation that has overheads and management costs as its major outgoing.

A start would be for CASA to centralise all interpretations of the regulations, orders, CAAPs etc and to formalise those policies and place them on the CASA website so that industry can help CASA manage its field officers by demanding interactions that are based on formalised policy.

Cost recovery

If any industry person running their own enterprise was faced with the same budgetary and performance indicators as CASA, action would be swift and decisive, otherwise the business would cease to exist.

Unfortunately, CASA is clearly under no such pressure.

Instead, CASA has interpreted the previous Government's \$20 million requirement for increased revenue as a simple gouge from industry with little need to change how CASA operates.

Anyone from business would argue that a starting point for CASA should be to identify what is core business, establish what resources they need to do that, and then reduce their demand on Government and industry funding through efficiencies.



The Minister needs to reiterate to the CEO of CASA to cut costs - not just raise revenue - and if the CEO is unable to operate at that strategic level to identify what is important and what does not contribute to safety, then an external review - drawing heavily on industry input - should identify that for the CEO.

There has been no research presented by CASA or government in the pursuit of cost recovery that would indicate proper account has been given to how much of an increase in costs the industry and industry clients can bear and the possible impact of increased costs.

Consideration should be given in cost recovery policy to price elasticity of demand – meaning simply that at a given point, if CASA costs continue to go up, the number of CASA 'customers' will reduce, and thereby establish a vicious cycle of ongoing cost increases and reduction in market size, leading to the further decline of Australia's aviation industry.

For example, the current migration of GA pilots out of CASA controlled aviation to aviation managed by Recreational Aviation Australia should be seen as pilots voting with their feet.

The long-term impact of this migration on pilot-shortages and cost-recovery may be substantial. In turn, the impact on the national need for a vibrant and safe aviation industry must not be overlooked.

Improving Efficiency and reducing costs

CASA remains one of the most inefficient, time wasting, bureaucratic, arrogant, process-driven organisations in the Australian Public Service. When you do find a helpful individual among CASA staff, they are either new or extremely frustrated.

Strategic Cost control

CASA should be focussed on cost control and reduction at the strategic level as well as at the micro level. For example, consideration must be given to:

- the costs of running a top heavy structure that features a CEO, two Deputies and a number of senior managers
- a CEO that commutes from Melbourne, and other senior staff members who commute from Brisbane, Adelaide etc.
- according to CASA, 60% of its expenditure is on support functions. Why has the operational area been cut-back, but not the costly support areas such as IT, human resources, finance and legal?
- why is CASA's computer system still unable to deliver the needs of the organisation despite the investment of tens of millions of dollars?
- the move to Brisbane for operational staff was perceived by many in industry as a silly move away from the obvious need to have core operational policy development people in Canberra, close to other agencies such as ATSB, Attorney General's, DoTARS etc. The overall cost of payouts to noncontinuing staff and the recruitment of new staff must have represented a significant outlay for no noticeable change in performance and a significant undermining of any savings.
- Regional offices fiefdoms that are very slowly being brought under control
- The ignored potential of the web for policy consistency and transparency



CASA must work smarter

CASA does not currently have any clear incentive to be more efficient – they can simply be as inefficient as they are now and pass those costs onto the end user.

As a monopoly provider of various licences, certificates and approvals, industry simply has no option but to comply with whatever costs CASA levies.

There are many instances of CASA not having a standardised process for handling industry interaction. Instead, these are treated as individual problems left to individual officers to develop an individual answer for each occasion, thereby increasing costs and time delays without adding anything to CASA systems, corporate knowledge or efficiency.

AAAA's concern is that in our experience CASA staff can either be very helpful (and still mindful of the law and safety) or they can prevaricate, delay and obfuscate as they like and thereby push up the charge to an individual operator.

In other words, CASA staff have the personal discretion to be cost-effective or very costly, depending on their personal attitude to a particular problem, operator or individual, not to mention varying levels of competence. Regardless of which option is used, this is a key issue that must be addressed if charges are to reflect consistency and cost-control from CASA.

How CASA administers the 'delegation' function is critical to this, as it is generally individually held delegations without commensurate oversight that allow the breakdown of a responsible, transparent and accountable chain of command.

There is also the problem, endemic in CASA, that some staff independently pursue 'make-work' schemes and dress them up as 'aviation safety', without any reference to strategic objectives, the classification of operations and risk/consequences or sound practice.

The real issue is of course the lack of strict management and guarding of a central policy making function.

A good example was the debacle over the requirement to appoint a Head of Aircraft Airworthiness and Maintenance Control. This requirement suddenly emerged from CASA, not as a result of a strategic review or a considered policy, but because a single airworthiness officer (with no legal background) decided that was what was meant by their personal interpretation of the Act. CASA officers in another region then developed a 22 point checklist and raised the need for an interview with an FOI to determine whether the HAAMC candidate was a fit and proper person.

CASA now admits, with revised legal advice, that this was never a legal requirement for non-complex aerial work type operations, but not before having insisted on its inclusion in Part 137 which is now binding on industry.

In the meantime, this single instance has cost industry tens of thousands of dollars in compliance for absolutely no safety benefit.



This is also an excellent example of the costly duplication of requirements CASA constantly places on industry. In many smaller aerial work operations, the same person is the Chief Pilot and HAAMC. Not only is the HAAMC responsible for ensuring the appropriate maintenance of the aircraft under the operator's control, but so is the Chief Pilot, the registered operator, the AOC holder, the maintenance provider and the LAMEs returning the aircraft to service - all of whom have regulations requiring them to do the same thing.

CASA could significantly reduce the costs to recover from industry if it pursued initiatives such as the following:

- developing systems that simplify and standardise frequent industry interactions.
- removing or simplifying paper shuffling exercises eg new aircraft on an AOC require an AOC reissue rather than an amendment.
- having a better computer system for tracking pilots, licences, certificates, aircraft. For example, all recent AOC transitions to Part 137 had to be issued manually as the 'new' computer system could not cope with the transition.
- better management by enforcing policy decisions to the point of sacking of non-complying staff if necessary
- more transparent policy decisions and regulation interpretations put them on the web in a prominent location - eg Safety Compliance Notice 006 on aerial firebombing - it was a secret until promoted by AAAA - including to most CASA staff
- providing better guidance to industry on what CASA wants eg published audit guides
- standardised approaches produced by CASA for fuel logs, pilots records, ops manuals etc
- self-administration or significantly reduced regulation for all sport, warbirds, and private aviation if there is no fare paying passengers there need be little CASA involvement, especially if there is a responsible and active association supporting the sector.
- Aircraft registration this could be simplified administratively to be more like a car registration process, especially for change of owner etc.
- Aircraft on AOCs why should CASA require particular aircraft to be linked to an AOC, especially for aerial work operation if the pilot is trained and licensed to fly it, the operations manual covers the operational environment and the aircraft operating manual or pilot's handbook provides the essential aircraft specific information, what is the safety benefit of CASA tracking individual aircraft? This is even more problematical and costly for industry as leasing and cross hire arrangements become more common to gain greater utilisation of the asset and CASA charges for the required changes to the AOC on each occasion. CASA's normal risk related audits could be better utilised to track safety issues. If the CASA staff in the field really know their local areas, they should have an idea of which operator is growing etc.
- Medicals have them issued (or refused to issue) by the licensed medical practitioner on the spot, with CASA sent a copy for database purposes or further action. The current system sees CASA rubber stamping the doctor's assessment and then charging industry for doing so.
- Various approvals for pilots eg approval for supervision of a junior agricultural pilot replace with a recognised course for aerial application Chief Pilots that incorporates this approval, as AAAA has proposed for years.



• Removal of duplication of requirements that seek to manage the same risk. For example, requiring additional specific approvals for already suitably licenced pilots to conduct community activities such as lolly drops at rural shows or ANZAC day flypasts. A simple generic SOP for those types of operations (available on the CASA website) and a requirement for the pilot to hold the appropriate qualifications should be sufficient, with no need for CASA involvement.

By delving into the micro management of CASA and developing systems to streamline interactions with industry considerable savings to both industry and CASA could be made.

Equally significant improvements could be made by a complete rethink of what CASA is trying to achieve through its various demands on industry.

Another critical saving is through focusing attention and dollars on core safety business - in the end reducing staff in non-core areas and reducing overheads. It may mean a much leaner CASA, but that would be more sustainable both from an industry and DoF perspective.

The starting point could be to go through the list of charges to be levied under cost recovery arrangements and simply ask 'what safety outcome does this process produce'. If the answer is 'none' or 'marginal' then ditching the requirement and managing the risk in some other manner might to more efficient. If it actually does add to safety, then the question is 'how can we reduce our cost of delivery'?

CASA's approach to many fees being hourly rather than based on a set fee for a set outcome is indicative of the lack of commitment to driving efficiencies throughout the organisation - it seems there is no burning desire for improvement - just maintenance of the status quo because industry is forced to pick up the bill.

Reg reform program

Over 9 years to produce only a few regulations is pathetic by any public service standard. Much of this time was wasted because of individual CASA officers' refusal to work with industry or to comply with directions from their supervisors and the inability of CASA managers to enforce previous decisions and directions.

Part 137 relates to aerial application - in the US, NZ and Canada it is about 12-15 pages of simply expressed risk management. In Australia the relatively new Part 137 is over 40 pages - and at one stage was 186 pages. And this is perhaps the only operational part to be squeezed out of CASA over the last 9 years of 'reform'.

The thousands of hours of industry time put into the regulatory reform program for little or no outcome is an outrageous indictment of CASA's management's inability to transform process into outcome.

In AAAA's case, for example, the CEO of AAAA is a member of the Standards Consultative Committee and attends full day meetings several times each year. In addition, the CEO is a member of several subcommittees of the SCC, covering operational, licencing, maintenance, certification, airspace and other regulatory



reviews. In addition, the CEO is a member of a number of working groups that report to the sub-committees. The working groups are the true workhorses of regulatory reform and frequently demand several days of meetings several times a year.

This is a massive commitment from a small industry association that operates in a specialised area. Without real outcomes it is simply not sustainable.

AAAA's contribution and expertise has been essential to the drafting and smooth introduction of the new Part 137, but watching the ridiculous tug-of-war over words between Attorney Generals and CASA, and between CASA staff, was not edifying.

The biggest problem has been getting experienced, cooperative and productive CASA staff working as project officers. Once this was secured, the draft was mostly completed in three days - AGs then delayed implementation for several months and added little value - in fact they caused a major problem with rewording that has since required the issuing of an industry wide exemption against the new Part.

This problem has been even worse with other parts such as Part 61 on licencing.

The more recent maintenance suite approach - of having a small team including industry people develop the regulation and then consult more broadly - is far better, but even that has been complicated by the departure of key staff who were committed to working with industry and the apparent winding back of previously iron-clad assurances.

The current lack of a regulatory/standard development area within CASA is likely to cripple CASA efforts for regulatory reform because there is simply not the collective expertise available to develop regulations in a coherent, cooperative and cost effective manner.

Terms of Reference 2 - to examine the effectiveness of CASA's governance structure

The Governance of CASA

The apparent breakdown of accountability between the CEO of CASA and the Minister may have prompted the previous Government to abolish the CASA Board in an attempt to introduce more direct accountability, but in reality little seems to have changed.

Even with the changes to governance arrangements for CASA as a result of the Uhrig Review, there still appears to be a delinking between the manner in which CASA is managed, government directions and industry needs.

While the pathological CASA culture may be a complex and intricate problem to disentangle, it should not take years of tinkering to effect even the glacial improvements seen over recent years.

A dramatic and urgent improvement in the management of CASA is essential to putting the organisation onto a professional footing that can cope with the demands of modern aviation regulation.

The existing consultative interface between industry and CASA works only spasmodically and is often overruled by edicts from the CEO that are not supported by published safety cases, but rather what appears to be personal preferences and experience that may be far removed from current industry practice or needs - for example the move to EASA-like regulations for maintenance, the split in seat numbers for small airliners, or the move of staff to Brisbane.

While AAAA always respects the right of the CEO of CASA to make decisions that he or she sees as being in the best interests of CASA and in line with the performance of their responsibilities, it is difficult to make sense of decisions such as these on the sparse information that is provided.

If a Board were to be reintroduced to CASA and it was populated at least by some genuine industry peak body representation, then CASA might be more responsive to both Government and industry needs.

Lack of Overall Aviation Policy

The ongoing lack of an overall national aviation policy continues to hamper CASA's approach to issues.

AAAA welcomes the Government's move to develop a national aviation policy and will be making a submission to that process. However, the policy must capture general aviation and regional aviation issues as well as the broader policy framework for airlines, which the discussion paper does not.

As Government has not yet identified what role it sees for the aviation industry as a part of either industry, tax, employment, tourism, defence, emergency services and rescue, agriculture or regional development policy, it must be difficult for CASA to judge whether its policies are aimed at achieving any overarching national goals other than 'safe aviation'.

A key question is what is the threshold size and capabilities of the aviation industry in Australia for it to continue to meet national development goals? Consideration of this question would provide a useful guide to CASA on a range of issues, including cost recovery.

For example, an investment allowance to encourage updating of the fleet would be a significant contribution to aviation safety. Aerial application companies in the US who support American farmers who compete with Australian farmers have access to a 60% depreciation of their new aircraft asset in the first year. In Australia, the Australian Tax Office only relatively recently made significant increases in the allowable working life of aircraft, providing a significant disincentive for fleet updating.

The removal of fuel excise paid by agricultural aviation and firebombing would make a similar contribution to a reduction in input costs for agriculture and protection of the community. In the US, aerial application companies now have access to a 100% rebate on all fuel taxes and excise for fuel used in aerial application. In Australia, despite relatively little service from CASA and the very limited use of navigation facilities, air traffic control and main airports by aerial applicators, the sector remains subjected to the full excise costs of fuel.

The principal of support of agriculture through a fuel rebate scheme has been long established through the Off Road Diesel Fuel Rebate Scheme. This concept should be extended to Avgas and Jet A1 used in aerial agriculture and fire-bombing.

Greater flexibility within the regulations for aerial agriculture to develop engine/airframe combinations simply and cost-effectively would also make a significant contribution to agriculture at no cost to safety or threat to fare-paying passengers.

The Government should ensure that representative industry bodies such as AAAA have an opportunity for significant input into the national aviation policy in addition to the ability to make submissions. The establishment of a peak body representative working group on the policy would be a very positive step forward.

CASA culture

There are so many sub-cultures operating within CASA that one has to ask are we really dealing with only one organization?

Many destructive sub-cultures have been introduced with previous recruitment - the ex-military sub-culture being one obvious example where the concept of cost having an impact on safety and vice-versa is foreign. Add to this the anti-central office sub-culture, the 'delegate as God' sub-culture, and the rotary wing sub-culture and it becomes obvious that there has been little effort put into induction and integration of staff to a single purpose over decades.

This is overlaid on a recruitment policy that does not seem to have a strategic overview of the needs of the organization - just the meeting of individual position selection criteria drafted without any strategic consideration of the skill mix of CASA staff, especially in the operational and policy development areas.

An example is the lack of CASA staff who have been actual successful practitioners drawn from the general aviation area. It appears that the selection process may be skewed towards FOIs from an ex-military background, because that is where the experience levels required in selection criteria are most likely to be matched with candidates interested in working for CASA.

It is widely perceived within industry that some currently working for CASA have either failed in the civil aviation business themselves and have sought refuge in CASA, or that the 'policeman' function of CASA is highly attractive to some people who cannot command respect within industry without the status they perceive CASA gives them.

Despite obvious gaps in real world experience, this does not seem to deter some CASA employees from representing themselves as experts in any area they see fit - hence the generally overwhelming lack of industry respect for much of CASA's operational and auditing activities and personnel.

The culture still in place today is not based on a cooperative and mature approach to safety management, but more on a 'gotcha' exercise designed to catch technical breaches of the regulations - even though safety may not be under threat.

It seems that CASA tries to catch all the small mistakes without nailing the gross errors – 'penny wise and pound foolish' perhaps. This seems to be a recurrent theme from various inquiries following major disasters such as Monarch, Seaview and Transair.

On the one hand CASA appears to be saying 'we didn't know' or 'we couldn't do anything' and yet in other cases they have taken exactly the action they claimed they could not. To add insult to injury, it appears that CASA then runs the risk of losing the action through the AAT because CASA has acted unreasonably or even outside the law.

CASA has management problems. It has problems because it insists on employing pilots not trained in management and then making them managers without training relevant to the task. It has problems because it employs people for one skill set and then deploys them in an area where that skill set is irrelevant.

AAAA strongly supports CASA's independence and policing role in rooting out operators and pilots who flaunt the rules or who are clearly headed for a safety disaster – either their own or worse, contributing to someone else's.

But CASA can't be everywhere all of the time, and until CASA accepts that they need to help industry and the vast majority of pilots who are compliant and do their best to be safe, then CASA culture will continue to be an impediment to safety.

Structure and Consultation

The tide seems to be slowly turning within CASA where better people are able to work with industry to get an outcome that helps both CASA and industry. The question for AAAA is whether we should have to wait that long to get what other government agencies can deliver much more efficiently.

The current mechanisms of the Standard Consultative Committee (with its 15 point plan for regulation development), the Regulatory Advisory Panels and the Aviation Safety Forum were born out of a time when industry could simply make no headway at all against a few senior managers running keys parts of the regulatory reform process.

AAAA questions the ongoing relevance of these mechanisms.

Aviation Safety Forum

The Aviation Safety Forum is not representative and not transparent in its discussions, decisions or recommendations to the CEO.

If the Safety Forum is being used as a de facto Board, then why not have a proper one that includes industry representation in its own right, and can give direction to the CEO regarding cost cutting? If it is *not* a de facto Board, then what value is it adding?

As Government only abolished the CASA Board a few years ago and changed the status of CASA in response to the Uhrig Report, AAAA has trouble identifying the value of the Safety Forum, other than to second guess recommendations from genuinely representative peak bodies through the SCC.

Regulatory Advisory Panels

The Regulatory Advisory Panels are simply another level of unrepresentative bureaucracy that attempts to second guess the detailed and often technical discussions undertaken by the working groups, sub-committees or SCC and should be abolished.

The SCC is too big and unwieldy (the sub-committees and working groups are better for detailed drafting, but are also quite large and disparate).

Standards Consultative Committee

While the SCC may perform a useful function in getting many of the aviation organisations together a few times of the year, it is not really a forum that advances speedy regulatory reform, especially where it has become more of a show-and-tell event for CASA rather than an opportunity for discussion of real safety issues. It was essential to have it to keep CASA accountable a few years ago, but AAAA would hope that we are on a better footing with CASA if we follow the maintenance regulation development model.

Unfortunately, while a very useful gathering of industry representatives and CASA personnel, AAAA feels that the SCC is essentially hamstrung by the decision of CASA to limit its scope to standard development, rather than a broader remit to discuss all issues between CASA and industry.

This remains an unfulfilled need, despite the CEO's irregular industry forums which provide little opportunity for interaction and are little more than a show-and-tell exercise for the CEO.



None of this would be an issue and could probably be dismantled (at some cost saving) if the CEO was actually genuinely consulting with peak industry representatives on a regular basis.

AAAA can only speak for the aerial application sector, but there has been no direct consultation initiated by the CEO directly with AAAA or its Board.

CASA should urgently establish a small group of peak industry bodies that consult and work with CASA senior management on an unrestricted agenda of improving aviation safety, including fixing shortcomings within CASA's own systems. Such a group should include AAAA.

Managing CASA from the bottom - 'the tail wagging the dog...'

CASA often appears to industry as totally dysfunctional - where important decisions on policy, compliance, interpretation of regulations etc - are made at the lowest levels of CASA without those further up the management chain even being aware there is a developing issue until AAAA raises it as a matter of concern. Then there is a flurry of activity with people attempting to protect their decisions and make them look sensible without any real safety case.

The CEO and senior managers need to spell out very clearly who is in charge, at what level policy will be made, and that all CASA staff are to toe the 'company' line regardless of their personal opinion.

CASA should develop and communicate a system for policy development so that decisions are not made on the run by relatively junior or operational staff.

With the shortcomings of the current regulations, the lack of central policy making and central policy enforcement, the lack of a sensible internal CASA management/executive type board and decision making process/hierarchy, the dearth of decent IT systems to support effective management, and the free-minded nature of some staff, and it is little wonder CASA has problems.

AAAA will strongly support the leader who can take CASA from its predominantly dysfunctional state to one of coherence and rationality.

CASA Staff Discipline - FOIs and Interpretation of the Rules

A great concern to both CASA and AAAA over recent years has been the role of Flying Operations Inspectors (FOIs, AWIs and others) simply making up rules and interpretations as they see fit, regardless of central office policy, or for that matter, the law.

CASA's initiative of aviation rulings was a very welcome step forward, but it is only be as good as its enforcement against the FOIs' preference for their own way of looking at regulations. It has not been taken up very broadly as a useful policy process. Far too much time of AAAA's and senior CASA staff is wasted in fixing 'problems' created by CASA staff embarking on flights of fancy that have no basis in aviation safety. It AAAA's belief that much of this activity and focus on air ag is driven by either a 'get even' attitude among some staff because of AAAA's occasional outspoken criticism of CASA, or simply because ag flying is a bit different and interesting and some CASA staff enjoy playing with it.

Despite the best efforts of some managers to direct staff to focus on operations involving fare-paying passengers, there remains a constant undercurrent of CASA regional staff wanting to involve themselves in matters affecting aerial application, despite no safety issue, accident trend or complaint or any expertise on the part of the CASA personnel involved.

If CASA management is to put meat on the bones of the classification of operations policy and to focus on fare-paying passenger safety, then this issue must be addressed, both culturally, systematically and structurally.

Joint AAAA and CASA initiatives such as the Standard Operations Manual are a useful step in the direction of removing the arbitrary nature of FOI interpretations, but they cannot completely replace better self-management by CASA.

Another initiative that should be taken up by CASA to assist in better control of FOIs should be for Chief Pilots to have to undergo a training program and for the competencies to be developed so that independent providers can provide the appropriate training and testing. AAAA has already run two successful Chief Pilots Courses with very positive feedback in an attempt to lift the knowledge and skills of our Chief Pilots.

Such a program would further remove the ability of some FOIs to bastardise the process of examining a Chief Pilot to the point where the examination has absolutely no reference to the operation to be managed. This is particularly true where some FOI's have insisted on cross country check rides in non-ag aircraft (to friend's houses), flight plans into airspace that application pilots will rarely if ever venture into and similarly convoluted exercises aimed at 'catching out' a chief pilot candidate, rather than assessing and supporting their ability to manage an aerial application operation safely.

These remarks are aimed at those FOIs who enjoy making life a misery for operators.

There are FOIs (and airworthiness inspectors) within CASA who are helpful, respectful, diligent, even tempered, rational and safety outcome focused.

In recent weeks, AAAA awarded its top recognition - the Ray Mackay Award - for a long-term contribution to the professionalism of the industry to a CASA employee, Mr. Aussie Pratt, who has provided a model of what other CASA staff should aspire to. Decidedly independent, knowledgeable and practical in his work in auditing aerial application companies, Mr. Pratt was instrumental in improving the working relationship between AAAA and CASA at the operational level.

CASA proved they could engineer better outcomes by improved structure and management with the establishment of the Agricultural Unit that was to manage all interactions between the industry and CASA. Mr Pratt was one of two people who



made up the unit and it was the centralization of policy-making that came with the unit that led to a significant improvement in relations between the aerial agricultural sector and CASA and a significant improvement in consistency, efficiency and relevance of CASA.

After considerable success in the face of staunch rear-guard actions from field-based FOIs and others, the unit was eventually disbanded after less than two years, much to the disgust of industry. Thankfully, Mr Pratt continued to be allowed to work on aerial application issues.

Mr Pratt's role in helping draft Part 137 and then managing aerial application companies to transition to the new Part 137 highlighted the positive role CASA can play in working constructively with industry while maintaining high standards, unquestionable independence and promoting improved safety.

It is CASA's challenge to ensure all staff have these qualities and goals, or at least that appropriate management structures and policies are put in place to ensure accountability, consistency and transparency.

CASA's ability to ensure a consistent interpretation of the regulations by their own staff will be critical to any new culture developing within CASA.

Terms of reference 3 - to consider ways to strengthen CASA's relation with industry and ensure CASA meets community expectations of a firm safety regulator

The Big Picture - Cooperative Regulation

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.

AAAA has pursued with both recent CASA CEOs that industry should be engaged in cooperative regulation that establishes a framework where issues can be worked through to create a win for both 'sides'.

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.

This approach has been fundamental to the good work that has been going on between CASA and the air ag industry and a deepening of this commitment from CASA would be an appropriate response given the very positive results.

Simpler regulation for lower risk

Simple operations that do not involve the carriage of fare paying passengers should have simple outcome-based regulations.

AAAA has for some time suggested to CASA that aerial application should be considered, from a regulatory point of view, a 'low-risk' sector and regulated in a corresponding manner.

This was important in CASA's consideration of the previous Minister's various directives aimed at getting CASA to focus on protecting the fare paying passenger.

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

The aerial application industry is a unique environment where mostly single seat aircraft are operated in mostly rural areas and require unique regulations. This has officially been recognised by the development and recent implementation of Part 137 being specific to this sector.

In any consideration of the aerial application industry, it is important to take into account the nature of the work that the aircraft undertake. Essentially, application aircraft are simply another farming or firefighting tool, albeit a sophisticated one that relies on lift rather than grip.

Aerial application operations:

- do not carry fare paying passengers,
- do not generally operate over densely populated areas,
- use well maintained aircraft, with about half the fleet being turbines
- are flown by well trained and well qualified pilots
- are highly regulated by National and State chemical control-of-use regulators
- are actively regulated by insurance companies
- have a very active industry association providing a range of education, training and accreditation programs including Spraysafe, Growsafe and the Professional Pilot Program and
- feature industry participants who are risk-aware volunteers

Aerial application poses negligible risk to either fare paying passengers, other airspace users or to the general community.

Where there are risks, aerial application operators manage these risks quite adequately themselves under the multiple stimuli of self-preservation, active professional development through AAAA program and insurance premiums/excesses. The long term accident trend for aerial application in Australia continues on its downward course.

While CASA was still grappling with punitive and prescriptive regulation, our industry had already moved, under the stimuli described above, to outcome-focused processes, systems to assure quality, and documenting proof of due diligence.

CASA frequently uses the aerial application industry as an example of a sector that is well advanced on the safety maturity curve. The bottom line for our industry is that we want regulation that is relevant, simple, flexible and cost-effective.

We have been helping CASA achieve that with some success over recent years with welcome improvements in flight and duty times, turbine engine maintenance, Standard Operations Manuals, and improved administrative procedures.

It is often industry setting the standards, and in some cases even drafting the regulations, for CASA to implement on the basis of the safety case industry presents.

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

CASA should approach with greater commitment those sectors of industry already effectively managing or regulating themselves and which would benefit from encouragement and financial assistance in this regard - aerial application certainly merits consideration in these terms.

CASA as a Safety Distraction

It is possible that CASA may be acting as a distraction from safety where operators are distracted from ongoing safety management by their concern with CASA compliance issues, surveys, particular staff and the threat of non-compliance notices issued on the basis of a 'gotcha' exercise rather than any real threat to safety.

This possibility becomes even more likely where CASA staff do not have industry exposure or the ability to access industry expertise. CASA's focus must include helping industry to be safer as well as its policeman role.

A good example of another burden and distraction being placed on operators is CASA's recent decision to demand a six-monthly industry survey from all AOC holders. Most if not all of the information is already held by CASA or other Government agencies and there is no evidence that CASA will use the information for any safety related outcome. This has now been compounded by a separate CASA survey for all registered owners of aircraft.

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 already 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 and even require 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, may be an emerging threat to safety.

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 1999. 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 recent success with Part 137 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.

This is highlighted in the area of training materials and exams, where in the case of agricultural aviation, the training manual for ag pilots was untouched for over 20 years until AAAA initiated a project to rewrite the manual and gained CASA support.

Similarly, only recently have efforts been made to update the ag syllabus and the ag exam after decades of neglect. And again, CASA has very little experience in these areas.

The situation still exists that the CASA aerial agricultural rating examination is based on a manual that has been out of print for seven years and is unavailable to candidates. The new manual developed by AAAA with CASA support is not compatible with the current examination, despite AAAA lobbying for a new exam based on the 'new' manual for six years.

The recent promulgation of a new agricultural syllabus highlights some of the difficulties CASA still has in working with industry. AAAA offered on many occasions to convene our standing committee on safety and training that is made up of very experienced pilots, trainers and operators, and to make that expertise available to CASA free-of-charge. The offer was not taken up, and the 'new' syllabus has been roundly criticized by industry for its lack of relevance, its retesting of Commercial Pilot Licence competencies, and its significant over-emphasis of human factors that are also requirements of the CPL syllabus.

The agricultural rating exam continues as an embarrassment in desperate need of rewrite, especially since CASA has introduced new regulations through Part 137 that makes much of the exam completely obsolete.



Again, CASA simply has no real expertise in the aerial application sector. Despite offers from industry to provide this expertise for the betterment of safety and improvements in assessment of pilots, CASA refuses to engage in a meaningful way.

This is clearly a project that could be outsourced to AAAA.

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 AAAA sits on a range of government committees.

Dressing Up Self-interest as Safety

There are many instances where CASA dresses-up self-interest as safety related, when in fact a system could be developed to provide a better result, more consistently, at a fraction of the cost.

For example, CASA staff travelling overseas to complete manufacturers' courses to bring a new type of aircraft into Australia that has already been certified by other ICAO contracting States has no safety basis but adds significant cost to the industry.

CASA should be seeking to increase cross-recognition of other contracting States and their processes where they clearly meet a similar standard as Australia's.

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 Handbook 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 an industry specific powerline risk management course 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 n a sector, then a number of important safety initiatives that will make a real difference will be lost.



Task Outsourcing

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.

- 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. 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.

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. However, in an excellent example of poor management, this is yet to be enforced on all CASA staff who even recently were insisting on whole slabs of aircraft operating manuals being reproduced in AOC holders' operations manuals for a new aircraft on AOC.

Similar activities could be grouped together an a certificate 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 new 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.

It is only AAAA that is working actively on aerial application safety and if anything, some requirements of CASA currently detract from a focus on genuine safety.

For example, AAAA has developed and delivered a wire risk management training course to over 200 participants in the industry. The course includes specialist psychological research into the sector commissioned by AAAA with no support from government. The course also covers human factors, risk management, threat and error management and a range of practical systems to improve safety in this most hostile of civil aviation environments.

The only area of CASA that is really having a safety impact on aerial application is the safety promotion area that has worked with the industry over recent years to produce materials that will have a real effect on safety, such as the CASA sponsored, AAAA produced 'Aerial Application Pilots Manual' – the first major rewrite of that manual for decades.

Process Streamlining

As can be seen from the examples above, 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.

An important issue for CASA should be to identify those operations or transactions that demand a technical officer's input (and cost) and those that could be handled by a lower-paid clerk using a standardised process developed with industry input. It appears that CASA's recruitment policy (if there is one) does not take this into account, with many FOIs resources tied-up with clerk-type duties.

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

Self- administration

AAAA originally suggested to CASA 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.

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.

As far as AAAA is concerned, many in CASA are not yet mature enough to see that similar functions should attract similar funding support, whether through a reduction in fuel excise (accompanied by AAAA industry levies etc to support self-administration) or through a direct redistribution of fuel excise from CASA to AAAA.

While the cost-recovery discussion may lead to a renewed interest in selfadministration, the bottom line remains that certain functions require a certain level of funding whether they are carried out by CASA or by AAAA.



While Treasury may continue to argue that there is no hypothecation of funding from fuel excise into CASA, the focus should be on reducing overall costs on industry by making CASA more efficient and focused on aviation safety. This should eventually permit government to reduce the fuel excise charged to industry which, at least in part, supports the cost of running CASA.

A part of that equation may be shifting functions (and funding) to industry where appropriate. It is highly likely that industry will be more cost effective than CASA in delivery and this could represent significant savings.

However, 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.

Further Information

If you require any further information, elaboration of any point or the provision of real-world examples, please do not hesitate to contact AAAA CEO Phil Hurst on 02 6241 2100 or mobile 0427 622 430 or email <u>phil@aerialag.com.au</u>. The Association's comprehensive website is <u>www.aerialag.com.au</u>

