Aerial Agricultural Association of Australia

NATIONAL AERIAL FIRE FIGHTING STRATEGY

Introduction

Agricultural aircraft are ideally suited to the fire fighting role.

Similarly, agricultural pilots already hold the most senior low-level rating issued by CASA, and have thousands of hours experience of operating at very low levels delivering loads to exacting specifications.

The combination of appropriate aircraft and highly skilled pilots already available in the country in sufficient numbers is a significant resource for fire managers.

A strategic approach to the best utilisation of agricultural aircraft is essential to ensure that the States and Territories have the capacity to manage their own fire risks, have the capacity to react quickly and decisively to fires in remote and rugged terrain, and have the capacity to protect and assist ground crews in containing fires.

Importantly, the concept of aggressive initial attack and utilising fire fighting aircraft in this role is central to a strategic approach to fire fighting.

Strategic use of the available aerial agricultural fleet is far more cost-effective than purchase of a single specific role aircraft that may excel in one role but be useless in another, and which would cost taxpayers tens of millions of dollars.

There is also the benefit of not sinking all available budget into a single resource which could be lost as a result of a single accident, and which, obviously, can only be in one place at a time.

Suitable fire fighting aircraft are already available across Australia, are operated by experienced pilots, and are the most cost-effective aerial method of delivering thousands of litres of suppressant or retardant to a fire.

Background to the AAAA

The Aerial Agricultural Association of Australia (AAAA) was formed in July 1958.

The Association's Mission is to promote, foster, encourage and support a sustainable aerial agricultural industry based on the professionalism of operators, pilots and staff, and the pursuit of industry best practice.

The objectives of the Association are to :

- represent the industry to parliamentarians and appropriate government and administrative bodies
- initiate and manage programs that support and enhance the professionalism of industry members
- promote better understanding and cooperation between the industry and related industries
- promote the industry to the community to gain greater recognition of its valuable role
- initiate research that advances the industry and furthers the capability of operators
- promote a 'safety culture' within the industry.

Membership of the AAAA consists primarily of operators of agricultural aircraft. There are currently 130 active operators in Australia of which over 75% are current financial members of the Association. Our members control approximately 90% of agricultural aircraft in use and therefore AAAA feels representative of and qualified to speak on behalf of the aerial agricultural industry within Australia.

Capital investment within the industry exceeds $200 million. Agricultural aviation directly employs 2,000 personnel comprising pilots, field staff, maintenance staff and administrators. Part time positions currently number approximately 2,000.

The industry utilises nearly 300 special purpose aircraft, as well as a wide range of supporting vehicles and equipment, along with established aircraft maintenance facilities throughout the agricultural areas of Australia. The Association has its National Office based in Canberra and is governed by a Board of Directors with representation from each state and territory of Australia. The Board is in constant consultation with the Executive Officer and local agricultural operators and meets formally on a quarterly basis.

The industry has seen a period of rapid progression in all aspects of knowledge, skill and professionalism since the daredevil image of the "crop duster" existed in the 1940s. Today's agricultural pilots are highly trained and are required to be licensed under both Federal and State/ Territory legislation.

Aerial fire fighting has long been a part of the industry's activities and culture, with operators considering any contribution they could make to protecting the communities they live in an important part of their ethos.

The fire fighting side of aerial agriculture has undergone considerable development over recent years with a number of operators gearing up with role-specific aircraft, adapting existing aircraft and developing a range of procedures to make fire fighting as safe and as professional as possible.

Following a discussion at the Association's Annual General Meeting in 2001, the Board of the Association agreed to member's requests for the Association to represent the interests of members involved in, or potentially involved in, fire fighting activities.

Practice in the States and Territories

A number of States maintain a strong ongoing commitment to the use of agricultural aircraft in fighting fires.

It is important to note that this commitment is based on full availability contracts for fire fighting aircraft.

Strategic Approach

A guiding principle to the issue of the use of aircraft in fire fighting must be a commitment to a strategic approach, which will result in appropriate tools being directed to appropriate tasks for the maximum effect.

This is particularly true of fires that start in rugged or remote locations, although ag aircraft's usefulness in assisting in fires in more open country has been demonstrated on many occasions.

An in-principal decision

Aircraft do not realise their potential as a fire control tool until they are integrated into the fire fighting toolbox in sufficient numbers to provide meaningful protection and support.

An in-principal decision must be made by authorities to recognise the value of aircraft in fire fighting, to offer appropriate contracts to ensure access to this resource in the fire season and to use the aircraft in an aggressive initial attack role.

Utilising an existing resource

The aerial agricultural industry invented fire bombing. The expertise of Australian aerial fire fighters has been recognised internationally, with Australian operators fulfilling overseas contracts in Italy and Indonesia.

Agricultural aircraft are specifically designed for the type of flying and product delivery involved in fire fighting.

However, investments in modern aircraft and delivery systems can cost several million dollars and operators will not invest this sort of capital on the off-chance that they will pick up a contract, or be offered an ad hoc arrangement once every few years or so.

Detection/Control of fires early - "keep fires small"

Aggressive initial attack is the key strategic principal that most fire authorities pursue.

The successful utilisation of the strengths of aircraft in fire fighting is a commitment to early intervention and to keeping fires as small as possible.

The proven ability of agricultural aircraft and pilots to accurately and quickly deliver suppressant or retardant loads onto smaller fires greatly increases their usefulness to fire authorities.

Waiting to throw aircraft into the fray when all else is lost ignores the greatest strength of the fire fighting aircraft - the ability to deliver a useful load quickly, almost regardless of terrain.

Even then, if the aircraft is used effectively when conditions make it difficult and dangerous for ground crew, it remains a very useful tool throughout the life of a fire.

Zoning of States/Territories

One method for improving the utilisation of agricultural aircraft, in addition to providing for more aircraft, would be to analyse the States and Territories in terms of fire risk, and where the need for aircraft would be greatest.

It is likely that such an approach would lead to States and Territories being categorised into areas where the terrain and fuel type could be matched to aircraft type, positioning and availability.

Once this was achieved, it would then be possible to better apply aerial resources to those parts of the State or Territory where they would be likely to do the most good during fire season.

Importantly, such an approach would enable the identification of areas of logistical shortfalls, such as key areas that may not have a suitable airstrip or readily available water. Once these issues are identified, they can be incorporated into planning and managed. For example, if a region of rugged terrain with high fuel loads was identified that did not have suitable facilities available to support aircraft, it would not be a significant cost to have an airfield suitable for ag. aircraft put in, with suitable water and access available.

Aircraft set-up

Agricultural aircraft are already designed for operations that require a robust airframe, a powerful engine, good pilot protection and the ability to lift significant loads and perform dropping operations safely.

If a greater number of aircraft were included in an integrated and strategic approach to aerial fire fighting, there is little doubt that other operators would be encouraged to invest in modern equipment to be available for fire control operations.

Pilot qualifications

Agricultural pilots already hold the highest low-level qualification issued by CASA - the Agricultural Rating Grade I.

All agricultural pilots hold a commercial pilots licence. Many have accumulated thousands of hours in the air and are some of Australia's most experienced pilots.

In addition, pilots flying fire fighting aircraft have experience in 'hill' flying and the sorts of terrain and visibility issues associated with fire fighting.

All are professionals and take great pride in what they do. They have a clear commitment to identifying and pursuing best practice and to continuing their professional development throughout their career.

For example, almost all agricultural pilots are accredited under the AAAA 'Spraysafe' program, which in turn is recognised by every State (except WA) for the issuing of a chemical distribution licence. AAAA recently launched its *'Professional Pilots Program'* to encourage pilots to maintain their commitment to professionalism and ongoing development.

Consultative committee

A key issue in any consideration of an increased use of aircraft in fire fighting is the need for expertise in the use and capabilities of aircraft generally, and ag aircraft in particular. Without first hand knowledge of the capabilities of ag aircraft and their pilots, it is very difficult to effectively manage the resource, or to arrive at an objective view of how best to utilise this resource.

AAAA would welcome the opportunity to work cooperatively with fire authorities on reviewing the protocols and procedures for the use of aircraft in fire fighting through the establishment of a National and individual State and Territory consultative committees for aerial fire fighting.

An important element in this would be to address the aircraft / fire authority interface both on the strategic level and also in terms of ensuring that there is appropriate knowledge and advice available to local fire control officers (FCOs) on the effective use of aircraft.

This would have to include training.

Equipment availability and training must also be reviewed to ensure aircraft have access to suitable support and that safety training for ground staff, who may not have ever been near an aircraft before, has been adequate.

This should include better availability of equipment to ensure aircraft can be loaded utilising equipment which most brigades would have on hand.

Recommendations

In addition to many of the comments made above, AAAA makes the following general recommendations to Government:

Governments should take an *in-principal* decision that more agricultural aircraft should be integrated into fire control activities, including their use as a tool of first defence against bush fires.

- Governments should commission a comprehensive and independent fire risk assessment project that would match aircraft to particular regions. AAAA and experienced aerial fire fighting operators should be consulted throughout the project.

- Contracted aircraft should be appropriately supported by suitable ground equipment positioned at key strategic locations across the States and Territories and the identification and, where necessary, construction of suitable landing areas for aerial fire fighting operations.

- Governments should initiate the development of suitable training for ground personnel, both management and operational personnel, in the effective use of aircraft in fire fighting. This must include significant input from AAAA and experienced aerial fire fighting operators.

- Governments should identify key positions / committees / decision-making bodies and operational structures that would benefit from input from people with experience with agricultural / fire fighting aircraft and their capabilities.

- Governments should establish a consultative committee for aerial fire fighting, where AAAA and aerial operators could work cooperatively with the relevant State/Territory fire authorities on improving the protocols and procedures for the use of aircraft in fire fighting and all related matters.

Further Information

If you require any further information, please do not hesitate to contact AAAA:

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