

05 March 2019

By Electronic Transmission

Committee Secretary
Senate Standing Committees on Rural and Regional Affairs and Transport
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Dear Sir/Madam,

Senate Inquiry into Rescue, Firefighting and Emergency Response at Airports

The Australian Airline Pilots' Association (AusALPA) thanks the Rural and Regional Affairs and Transport References Committee for the opportunity to provide a submission for its inquiry into "The provision of rescue, firefighting and emergency response at Australian airports". AusALPA consists of the Australian and International Pilots' Association (AIPA) and the Australian Federation of Air Pilots (AFAP) and represents more than 7,100 professional pilots within Australia on safety and technical matters.

AusALPA is committed to protecting and advancing Australia's aviation safety standards and operations. Positioning itself as a key component of the aviation quality control process through the development of relationships with Government, regulatory bodies and industry, AusALPA strives to ensure the views of Australia's professional airline pilots are considered in important safety and technical matters.

AusALPA is also an active member of the global pilot body, the International Federation of Airline Pilots' Association (IFALPA), which represents over 100,000 airline pilots internationally.

Introduction

AusALPA supports the vital work that is being performed daily by highly trained professionals providing aviation rescue and firefighting services (ARFFS) to ensure the safety of the flying public and the crews, of which many are our members.

ARFF is a distinct branch of firefighting, requiring specialised training and equipment to deal with aircraft accidents or airport emergencies. The primary role of the ARFFS is to optimise the chances of survival of passengers and crew in the event of an aircraft accident occurring at or near an airport. ARFFS also provides “other services” which may be considered equally essential.

AusALPA believes that the changes originally proposed in the Department’s Public Consultation Paper on ARFFS, published in December 2015, would have diminished the safety standards in Australia as well as making it even less compliant with the International Civil Aviation Organisation (ICAO) standards on ARFFS. Australia would risk not only failing to meet its international obligations, but also could cause serious harm to its international reputation should a fatal aircraft accident, involving multiple loss of life, occur at an airport where insufficient or no ARFFS provision was shown to be a major contributory factor in the non-survivability of that event.

AusALPA welcomes the Minister’s decision to reject these proposals but is concerned that they could be tabled again. AusALPA strongly believes that any changes should only take place after proper consultation with the key stakeholders, including this Association and the United Firefighting Union (Aviation Branch). The aim should be to make Australia more compliant with the ARFFS ICAO SARPS and, thereby, increase the level of safety.

Current Regulatory Framework

The current regulatory settings that determine when an ARFFS must be established at an airport in Australia are set out in the Civil Aviation Safety Regulations 1998 (CASR) Regulation 139.H and the associated Manual of Standards (MOS) which operates so that ARFFS must be provided at:

1. An aerodrome from, or to which an international passenger air service operates; and
2. Any other aerodrome through which more than 350,000 passengers passed on air transport flights during the previous financial year.

Currently, ARFFS can be considered for disestablishment when the passenger numbers in the previous 12-months period falls to 300,000 or below.

Under this current framework, ARFFS is provided at 28 airports in Australia, with Airservices being the provider at 26 airports; the Norfolk Island Administration being the provider at Norfolk Island International Airport, and the Department of Defence (Defence) being the provider at RAAF Base Williamtown (also operating as Newcastle Airport).

The proposal in the Consultation Paper was to change the regulation such that these “hard triggers” would be replaced by “soft triggers” requiring a risk assessment and not an automatic establishment; and, additionally, increasing the passenger numbers at which these triggers would be activated and negating the automatic requirement for ARFF if scheduled international air services are operated:

“Unlike the current arrangements, where the receipt of scheduled international air services acts as a hard trigger for the provision of ARFFS, undertaking a risk review would provide flexibility to potentially determine that at certain locations (for example those with low passenger numbers and very few international movements) an ARFFS is not required.

In relation to passenger numbers, it is proposed that the trigger be set at a threshold of reaching 500,000 passenger movements over a rolling 12 month period. This proposed increase in the threshold from the current 350,000 passenger level reflects the fact that overall

activity and passenger numbers have increased significantly since the existing passenger threshold was adopted.

It is proposed that disestablishment of an ARFFS at a location be considered when passenger numbers fall below 400,000 and remain below this level for a 12 month period, through the preparation and consideration of a risk review by CASA”.¹

Australia is presently not compliant with ICAO Annex 14 9.2.1, which states that “Rescue and firefighting equipment and services shall be provided at an aerodrome” i.e. these ICAO Standards and Recommended Practices (SARPS) require that all airports (aerodromes) must have an ARFFS provision. The proposals put forward in the Department’s Public Consultation Paper on ARFFS would make Australia less compliant, because, under these proposed standards, even aerodromes with international services would not necessarily require an ARFFS service.

Furthermore, the comparison of ARFFS provision in Australia versus Canada, New Zealand, UK and US (contained in Attachment A – Overseas Practice to the Department’s Consultation Paper), showed that Australia was already the least compliant amongst these ICAO Contracting States in 2015. The proposals, if implemented, would increase this disparity.

The Association understands that the proposal would include a “grandfathering” provision such that where an ARFFS had been established under the existing regulations, it would be maintained, and the new thresholds would only apply to future cases.

Whilst this would be good for those airports and communities that are covered by this provision, it would lead to a two-tiered system. Should this be tabled again in the future, airports with passenger movements between 350,000 and 500,000 per year would not be provided with firefighting facilities.

Objections to The Proposed Changes

AusALPA continues to have grave reservations regarding these proposed changes for the following reasons:

It is important to consider why these changes were proposed. ARFFS is perceived as an expensive commodity that only proves its worth when an aircraft accident happens on or close to the airport, and passenger and crew lives are saved. Aircraft accidents are fortunately a rare occurrence and therefore on a cost benefit basis, the provision of ARFFS may seem unnecessary until a major accident occurs. This is somewhat simplistic as the ARFFS responds to standbys, medical emergencies and domestic fires, as well as supporting the community fire services. In 2014, the aviation rescue and firefighting services responded to some 6,700 calls relating to airport emergency assistance.²

Australia is not meeting its international obligations, as was highlighted by the ICAO Universal Safety Oversight Audit Programme (USOAP) in 2010 and is the least compliant when compared to four other major “western” nations. [Note that Australia committed to review and make any necessary amendments to the regulatory requirements relating to ARFF provision at certified airports as detailed in CASR Part 139H (reference ICAO USOAP 2010) – merely filing a difference is not an adequate action.] Canada is perhaps the best comparison, being a large land mass with a

¹ Aviation Rescue and Fire Fighting Services Regulatory Policy Review, Public Consultation Paper (December 2015)

² Hansard (February 2018)

relatively small population, which is also reliant on air transport. Canada has reduced the passenger numbers for the hard trigger to 180,000 rather than increase it.

The preamble to ICAO Annex 14 Chapter 9.2 states:

“The most important factors bearing on effective rescue in a survivable aircraft accident are: the training received, the effectiveness of the equipment and the speed with which personnel and equipment designated for rescue and firefighting purposes can be put into use.”

The ARFFS established at the 28 airports have properly trained crews; have “state of the art equipment”; are able to respond within 3 minutes (ICAO Standard); and have firefighters and equipment ready “to save lives in the event of an aircraft accident or incident occurring at, or in the immediate vicinity of, an aerodrome”.

As, Jack Kreckie, a 32 year veteran of Fire and EMS, who spent the last 28 years of his uniformed career in ARFF, his last 15 years as a Chief Officer, and is the author of the ARFF Chapter of the 20th Edition of the National Fire Protection Association (NFPA) Handbook, and is a contributing author to Safety Management Systems in Aviation, and Safety Management in Aviation, Implementation, wrote:

*“The passenger demographics of today’s typical flight are comprised of much more diverse profiles of age, health and physical condition. There are a percentage of passengers on every flight who would be unable to evacuate an aircraft in an emergency. ARFF crews understand that, regardless of the minimum requirements suggested by regulation or consensus standards, they may be called upon to make entry for rescue and interior firefighting. The survival of the occupants of the aircraft depends upon ARFF to do just that. There is a level of expectation around the world that if an accident occurs or a fire breaks out, the ARFF crew will respond and be prepared, equipped and trained to do whatever it takes to ensure that passengers are safe. **Safety and survival should not be based on a ‘minimum standard.’** (our emphasis). It should be based on a realistic task analysis of the specific needs, conditions and capabilities of any airport conducting flight operations, regardless of whether the aircraft is an air carrier or freighter.”*

It is important to emphasise that the ICAO Annex 14 and MOS 139H contain the “minimum standards” and that “best practice” as developed by *the NFPA* and detailed in its *NFPA 403 – Standard for Aircraft Rescue and Fire-Fighting Services at Airports*, “requires greater quantities of firefighting agent, ARFF vehicles and addresses manpower levels” (the latter is not addressed in ICAO Annex 14/MOS139H).³

The change from “hard triggers” to “soft triggers” (if implemented) is fraught with danger, especially since these would only trigger a risk assessment. As the International Institute of Risk and Safety Management explains regarding the “Limitations of Risk Assessment”:

“Risk is the combination of loss or harm and the likelihood of its realisation. But in order to make meaningful and valuable assessments we need relevant knowledge and experience to identify potential hazards or threats and to assess the risk likelihood and severity components. The easiest to assess are things like slips, trips and falls that happen relatively frequently because data is plentiful. Contrast this with major nuclear power plant disasters that are very high in consequence but relatively rare. For these situations we need to undertake complex analysis and scenario modelling to achieve the best-informed estimate of the likelihood of events occurring. This happens in an environment where the overall methodology may never be fully validated because such disasters are so rare.”⁴

It, therefore, raises the question, “Is CASA confident that it has the expertise to carry out a risk assessment of the need for ARFFS provision?” Even external risk experts

³ International Airport Review (8 December 2011); [4] the International Institute of Risk and Safety Management website

⁴ International Institute of Risk and Safety Management

would find it difficult because “the overall methodology may never be fully validated because such disasters are so rare.” The prescriptive (hard) triggers are, therefore, a better safeguard.

It is recognised that at present, ARFFS provides a range of “other services” beyond the primary role. The Australian Airport Association (AAA) wrote in its submission to the Department’s DP:

“While the AAA understands that the expansion of non-aeronautical development at airports in recent years has presented challenges around the definition of what constitutes an aerodrome and therefore what ARFFS is responsible for, it is important to recognise the value provided by ARFFS carrying out these ‘other’ services. In providing these services to airports, ARFFS enhance the overall safety and security of the airport community. Carrying out the duties also assist ARFFS maintain continual familiarisation and integration with the broader airport environment, as per the internationally recognised ‘All Hazards’ approach to emergency management. While the AAA sees value in more clearly defining ARFFS responsibilities, it is important that these other services continue to be provided at airports wherever there is clear value in doing so. Further Departmental consultation with individual airport operators will be required before determining a position on what services should or should not continue to be provided.”

AusALPA agrees that the value of these “essential services” must be considered in the assessment of ARFFS provision.

It has been further proposed that the ARFFS regulatory framework be updated to specify that state and territory fire authorities are not required to hold separate CASA approvals to assist Airservices in the provision of ARFFS. The AAA provided this answer in its same submission.

“In considering this amendment to the regulatory framework, the AAA believes it would be prudent to consider the existing emergency management arrangements in place across the jurisdictions. The AAA understands that in the event of an aviation accident, national and state emergency management arrangements (as a general principle) require all relevant state emergency authorities (police, fire and ambulance) to respond to the accident. These state agencies are not responding to a call from assistance from Airservices, they are responding in accordance with established emergency management arrangements in that jurisdiction that are articulated through legislative provisions and Aerodrome Emergency Plans.”

AusALPA supports this general position and recognises the need for close cooperation and, where required, specific training for the local fire fighters in assisting the ARFFS established at the airport.

AusALPA does not support the additional proposal from the AAA, as written, that:

“For those airports that may not warrant ARFFS under the new risk-based framework, it would be useful for those airports to still be able to demonstrate that ARFFS functions could be carried out by the local fire authority. This may be particularly useful for those airports that wish to attract certain airline services that may expect a level of ARFFS to be provided. The AAA would support regulatory changes that would allow for state/territory fire authorities to be able to more readily provide ARFFS to airport operators.”

ARFFS is a specialised form of firefighting and those involved need to be properly trained and practiced and have the proper equipment, if it is to be effective. Even driving on the airport movement area requires special knowledge. Furthermore, it is unlikely that the ICAO Annex 14 /MOS 139H response times will be met, unless an emergency is declared in advance. This proposal would only be acceptable if CASA (with specialised expert assistance) was to approve such ARFFS provision in accordance with the current MOS139H standards.

Conclusion

ARFFS provides an essential safety and potentially lifesaving service for the flying public and the aircrew, which include our members and those of other IFALPA Member Associations, who operate to/from Australia. AusALPA believes that ARFFS provision should be established in accordance with the ICAO standards.

The current regulatory framework already means that Australia is not compliant with the ICAO standard for the establishment of ARFFS and is the least compliant when compared with Canada, New Zealand, UK and the US. Australia gave an undertaking to review the MOS 139H after its noncompliance was highlighted by the ICAO USOAP 2010 audit. The inference was that Australia would move to a closer compliance (such as Canada) not adopt proposals that would make it less so.

Furthermore, adopting a risk assessment methodology to a catastrophic, though fortunately a rare event (at least so far in Australia), is, according to the experts, flawed. The proposal to replace these services, in some locations, with local (domestic) firefighting services should only be approved if these services meet the same standards as specified in Annex 14 Chapter 9/MOS139H, including the designated response times. Finally, though somewhat outside the Association's direct expertise, it understands that ARFFS, where located, provide substantial "other services". On these grounds, any future proposal to adversely change the triggers for the establishment/disestablishment of ARFFS in Australia should be rejected.

Yours sincerely,

Captain Louise Pole
President