Inside

Who has jurisdiction over activity in a plane?

100th anniversary of the famous England to Australia flight

Diary of a travelling lawyer

Over the Seas
Navigating the laws of long distance travel

Boylen +
Military aviation safety in the Department of Defence: moving to a globally recognised model

FLIGHT LIEUTENANT BARRIE BARDOE, PUBLIC AFFAIRS OFFICER, DEFENCE AVIATION SAFETY AUTHORITY

The thirtieth of September 2016 was a significant date for Australian Defence aviation in more than one way. It marked the transition to a new European based global airworthiness convention – the Defence Aviation Safety Regulation or DASR. It also saw the inception of the Defence Aviation Safety Authority (DASA), which incorporated the three existing Defence aviation safety agencies into a new body that more closely conformed to internationally recognised organisational structures. To understand the need for DASA and a globally recognised approach to airworthiness and safety it is important to look at the safety record of military aviation in the late 1980s and early 1990s.

In the late 1980s and early part of the 1990s, the ADF suffered a series of aviation accidents including 6 aircraft in 1991 alone. These events prompted the creation of an airworthiness regulatory set that would prove to deliver a high level of safety. At the time it was arguably world leading, but a weakness was the fact that it was specific to Australia. In more recent times a growing number of operations with coalition partners, and globalised procurement and sustainment, made the system expensive and unwieldy to operate.

A significant issue with a bespoke airworthiness system is the need to “translate” regulations each time a new aircraft is acquired, or even for aspects of sustainment and maintenance. With more maintenance and engineering being outsourced to industry, and the use of civilian based platforms, this problem was worsening, creating mounting expense, and significant logistical issues. The ADF’s system also used terminology and constructs that were unfamiliar to other nations and industry partners. As problems and deficiencies emerged it became clear that taking contemporary ideas and trying to affix them to the existing regulations was a “band aid” approach that could not continue indefinitely.

It was around 2011 that the Directorate General Technical Airworthiness – ADF (which handled “technical” aspects of airworthiness in the time) acknowledged the need for a new regulatory system and began exploring options. Given the ADF’s use of American aircraft types, consideration was given to aligning with the US, however each American service has its own regulatory system. Discussions with the International Civil Aviation Organisation (ICAO) led to an investigation of the merits of aligning with an emerging European based convention, being used by around 30 other nations. The European Defence Agency had taken the European civilian airworthiness regulations and applied them to the military, resulting in the European Military Airworthiness Requirements, or EMARs which are around 95 percent identical with their civilian counterparts.

The benefits of aligning with the EMARs were many and varied. Industry partners already had experience of them in many instances. They allowed for greater interoperability with coalition partners, which was an important consideration with the ADF’s operational tempo. It also increased domestic supply and sustainment options as EMARs were also similar to Australian Civil Aviation Safety Regulations. They allowed for international “traceability” of qualifications and “blended workforce” options; reduced the need to “translate” regulations; and provided a benchmark for world best practice in military aviation safety.

The result is the Defence Aviation Safety Regulation, or DASR, which is as closely aligned with the European system as possible with additions of existing ADF Flight Operations regulations. In a sense the ADF’s alignment with the European based system has been world leading in terms of the extent to which they have been adopted. Military airworthiness regulations do have some differences to civilian counterparts, and need to have inbuilt flexibilities to allow for operational requirements. The Director General of DASA Air Commodore Jason Agius states “The DASRs have inbuilt flexibility provisions. Considering the operational context, these provisions enable Commanders to exploit Air Power whilst satisfying their statutory safety obligations.”
DASR was recommended to the Defence Aviation Authority (also the Chief of Air Force) in 2013. A period of due diligence and mapping of requirements followed resulting in a first draft, which was published at the end of January 2016. This allowed feedback and comment from stakeholders as well as assisting with planning for implementation by Defence and industry partners. A review of all Defence aviation platforms was completed in July 2016, and the first phase of implementation began on 30th September. A two phase approach was developed to ensure safety levels were maintained during the transition. The first phase saw Defence organisations and selected industry partners adopting the DASR, whilst the second phase was different for each aircraft type, and allowed organisations to explore the benefits at a rate they were comfortable with.

There are many benefits to the new system. Air Commodore Agius said: “By aligning airworthiness regulations with the European system we can harness the efficiencies of the domestic and global supply chain; increase interoperability; allow civilian partners to more easily exploit ‘blended workforce’ options; improve mutual recognition of the approvals and certifications provided by other military and civilian airworthiness authorities for common aircraft types; exploit contemporary improvements in aviation safety arrangements globally; and drive aircraft sustainment and aircraft costs down. By aligning with global best practice we derive many benefits, and further enhance capability and military aviation safety into the future.”

DASR promotes mutual recognition and interoperability with civilian and military design and maintenance organisations and the many benefits have attracted strong regional interest. It is anticipated that many of Australia’s regional partners will now also align with DASR, underlining Australia’s commitment to constant improvement, and world leading excellence in Defence aviation safety.

The DASA is an integrated military aviation safety organisation consisting of seven directorates, with three Executive Directors responsible for Initial and Continuing Airworthiness, Flight Operations and Flight Safety. The creation of DASA provided scope for removing ‘stovepipes’ between the three agencies that previously handled military aviation safety, improved efficiency by utilising common business systems, and provided greater consistency. An integrated authority makes it easier to identify and resolve gaps in functions and helps focus on tasks that cross agency boundaries. Much of the effectiveness of any approach to aviation safety is dependent on analysis of data from common systems which is easier with the one authority. DASA provides a more cohesive approach consistent with an exemplar aviation authority. It provides greater transparency to commercial and international arrangements, and increased engagement with civil authorities such as CASA. It also enhances engagement with military authorities, and increases mutual recognition of other aviation authorities and frameworks. The simplification of international global recognition activities inherent in the new structure is also a strong advantage.

Air Commodore Agius believes the Authority strongly supports the success of the new regulatory system. “Greater alignment and less duplication will improve efficiency”, he said. “Improved consistency and clarity will result across the seven directorates, and we will have a framework in place that will support mutual recognition of other organisations, products, and services internationally. DASA provides a more integrated approach to regulation and common administrative systems”.

The DASA was established to support the Defence Aviation Authority (the Chief of Air Force) by a Joint Directive issued by the Chief of the Defence Force and the Secretary of the Department of Defence under section 10 of the Defence Act 1903. While styled as a ‘regulation’, the DASR is internal Defence policy issued pursuant to the Joint Directive, rather than true subordinate legislation.