



Australian  
Industry and  
Skills Committee



# AVIATION

# AIR TRAFFIC CONTROL

Case for Change

**Name of allocated IRC:** Aviation

**Name of the SSO:** Australian Industry Standards

## 1. Administrative information

For a list of the products proposed to be reviewed as part of this project, please see **Attachment A**.

Name of IRC(s):

Aviation

Name of SSO:

Australian Industry Standards

### 1.1 Name and code of Training Package(s) examined to determine change is required

AVI Aviation Training Package.

## 2. The Case for Change

For information on the job roles to be supported through the proposed qualifications updates, enrolments data, completion rates, and the number of RTOs delivering these qualifications please see **Attachment B**.

### 2.1 Rationale for change

This Case for Change is based on an emerging technology program called One Sky which aims to harmonise civil-military air traffic management systems (CMATS), providing new levels of operational efficiency and safety. These changes will impact on Air Traffic Control job roles and potential new job functions.

Airspace is being transformed at a rapid rate by technology that will allow the transportation of people, products, and services in a faster and more efficient way.

The industry is seeing astonishing growth in drone use in industries such as mining, farming and emergency services, with new applications for the technology appearing every day. This transformation requires skills development to ensure our skies remain safe for traditional aircraft, new airspace users and the community.

In response, this project proposes to review the Diploma of Aviation (Air Traffic Control) and associated Units of Competency to ensure the skills and knowledge requirements contained in the qualification address changes in technology, and national standards including safety regulations associated with the role of an air traffic controller.

- If this review is not completed, the qualification will not be aligned with current skills requirements and limit the development of air traffic controllers.

### 2.2 Evidence for change

The Aviation IRC conducted industry research, held discussions with Airservices Australia and CASA and conducted an industry consultation webinar. The IRC identified that the impending technological upgrade changes would leave knowledge and procedural skill gaps for the existing 1700 air traffic controllers. The Australian Government's job outlook statistics estimates moderate growth in the number of workers over the next 5 years (<https://joboutlook.gov.au/occupations/air-traffic-controllers?occupationCode=231112>)

The OneSky program will replace the current system and is expected to be rolled out by 2023 to harmonise civil and military air operations. Existing and new air traffic controllers all need to be trained in the operation of this new technology.

Airservices is also looking into a Flight Information Management System (FIMS) and a prototype is to be built with industry partners over coming months. It will look specifically into unmanned traffic management (UTM) systems and identify options for integration of unmanned systems with conventional airspace users while maintaining safety and security.

The industry is also working towards introducing Digital Aerodrome Services, known as Digital Control Towers, to help air traffic controllers, enhance service delivery and improve safety outcomes. This technology involves capturing imagery of an airport and surrounding airspace via a network of video cameras with the imagery displayed on screens at a centrally based control room.

Digital towers can also be integrated into the air traffic management data networks to improve flow management and collaborative decision-making.

### 2.3 Consideration of existing products

Existing units of competency do not address the current skills required to operate the latest technologies in air traffic control operations.

The existing Training Package products for this qualification are contained in the Aviation Training Package and the existing Units of Competency are proposed to be updated to incorporate technology and industry changes. There are no other suitable units available in any other training package to meet this specific need.

### 2.4 Approach to streamlining and rationalisation of the training products being reviewed

Given the specialised nature of air traffic controllers, the aviation industry requires the qualification to be specific to their occupational needs. Therefore, this project will not streamline multiple qualifications but will rationalise AVI superfluous units of competency, which will be deleted where possible.

## 3. Stakeholder consultation

### 3.1 Stakeholder consultation undertaken in the development of Case for Change

*For a full list of industry-specific stakeholders that actively participated in the stakeholder consultation process undertaken to develop the Case for Change, please see **Attachment C**.*

The initial request for this revision was from CASA and Air Services Australia who are represented on the Aviation IRC.

**Note:** Australia has two main users of Air Traffic Control services—Airservices Australia and the Department of Defence.

Defence is responsible for controlling all aircraft operating within military-administered airspace, which includes services to all civilian aircraft in that airspace. Defence is also represented on the Aviation IRC and support the request.

Development of the Case for Change involved consultation with stakeholders via the following communication mechanisms:

- Stakeholder webinars
- Face to Face meetings (Virtual)
- AIS Website
- Stakeholder networks
- Teleconferences
- Emails

Airservices Australia operates from 29 air traffic control towers which include all nine major city airports in addition to 20 regional and remote airports. Operators from these sites will be included in the consultation as directed by Air Services Australia.

### 3.2 Evidence of Industry Support

*For a list of the issues raised by stakeholders during consultation and the IRC's response to these, please see Attachment D.*

The proposed revision is supported by the regulators - CASA and Air Services Australia. Industry support has been provided by Australian Airports Association, the Australian Airline Pilots' Association (AusALPA), Regional Aviation Association of Australia, the Department of Defence and airline operators Qantas and Virgin Australia.

Please see attachment D

### 3.3 Proposed stakeholder consultation strategy for project

*Note: For a full list of industry-specific stakeholders who are planned to be contacted to participate in the stakeholder consultation process undertaken for this project, please see Attachment E.*

- Key Industry stakeholders have been identified in consultation with industry regulators, associations, and the Aviation IRC.
- AIS, on behalf of the Aviation IRC, will promote the opportunity to contribute through stakeholder webinars, the AIS website, EDM's, AIS newsletter and public notifications. Stakeholders will also be notified of key milestones throughout the life of the project, including requests for feedback on draft materials.

Stakeholder engagement and consultation will occur over the life of the project via a combination of the following methods:

- Direct engagement: Face to face consultations, Site visits, Phone, emails, video/teleconferencing meetings
- Industry forums and conferences
- Webinars
- Online feedback mechanisms
- STA direct engagement

Given the size of Australia and all stakeholders are not centrally located in major cities, a range of consultation strategies will be used so stakeholders in rural, regional, and remote areas, and in smaller jurisdictions have multiple avenues to provide feedback. The project will leverage the Australian Airports Association and the Regional Aviation Association of Australia stakeholder network.

This includes but is not limited to, online/video consultation, email correspondence and promotional activity via targeted communications including social media. A recently developed Engagement hub on the AIS website provides a one stop portal for information about how all stakeholders can participate and inform Training Package development work.

## 4. Licencing or regulatory linkages

There are no licencing requirements contained in this qualification. However, the qualification addresses the skills and knowledge requirements to meet regulatory standards for air traffic controllers. This includes:

CASA standards ([Manual of Standards Part 172—Air Traffic Services](#))

[Part 172 of CASR 1998](#) specifies the regulatory framework for the approval of air traffic services providers. It includes standards for air traffic facilities, safety management and the provision of air traffic services.

Part 172 affects:

- Airservices Australia
- aerodrome operators
- the aviation community
- Department of Defence, if it chooses to certify its air traffic control operations under Part 172. (However, Defence does not require approval for the provision of services to civil aircraft as it operates under its own Act).

## 5. Project implementation

### 5.1 Prioritisation category

It is proposed that this review be progressed as a routine project.

In line with the AISC Prioritisation Report and to coordinate the release of updated products prior to the scheduled implementation of OneSky in Australia, the IRC recommends a routine update and implementation of this project.

### 5.2 Project milestones

- AISC project approval – June 2021
- Draft 1 consultation – November 2021
- Stakeholder validation – March 2022
- Quality Assurance – April/May 2022
- Final consultation with states and territories – June 2022
- CfE submitted for approval – 30 June 2022.

### 5.3 Delivery or implementation issues

Implementation issues raised by stakeholders and how these issues will be considered as part of the update/review include training and assessment in the COVID environment. The key concern currently is the restricted access and use of simulators because of COVID protocols. This limits the exposure to training scenarios that are essential to maintain controller skills in high intensity decision making and problem-solving situations.

Whilst Air Traffic Control jobs are largely unaffected, other issues centre around limited air traffic because of COVID and include:

- Cognitive underload

- Monotony
- Deviating from foundation practises
- Managing spikes in traffic

Once the OneSky program rollout comes online, controllers will need access to training to operate the new systems and complete assessments and Air Services requirements before returning to duty.

**6. Implementing the Skills Minister’s Priority reforms for Training Packages  
(2015 and October 2020)**

The project submission will support industry’s expectations for training delivery and provide a revised Companion Volume Implementation Guide (CVIG) to support delivery of the new products.

The qualification will be developed to ensure it is applicable to roles related to Air Traffic duties in Australia. The qualification and units of competency are highly technical and relate to this specific role. This development will also enable air traffic controllers to move between States and Territories.

The qualification and associated Units of Competency are only used in aviation Air Traffic Control contexts. Australian Defence also use this qualification to comply with all civilian air traffic regulations and procedures. The qualification enables workforce mobility between civil and Defence aviation.

There will be no Skill Sets developed as part of this revision.

This Case for Change was agreed to by the Aviation IRC

Name of Chair	Stephen Leahy
Signature of Chair	
Date	

## Attachment A: Training Package components to change

**SSO:** Australian Industry Standards

**Contact details:** David Dixon - Chief Operating Officer

**Date submitted:** TBA

Project number	Project Name	Qualification/ Unit / Skillset	Code	Title	Details of last review (endorsement date, nature of this update transition, review, establishment)	Change Required
1	Air Traffic Controller: Review of Diploma of Aviation (Air Traffic Control)	Qualification	AVI50115Y	Diploma of Aviation (Air Traffic Control)	01/Mar/2016 - Review	Update
1	Air Traffic Controller: Review of Diploma of Aviation (Air Traffic Control)	Unit	AVIE5002Y	Apply air traffic control communication procedures and services	01/Mar/2016 - Review	Update
1	Air Traffic Controller: Review of Diploma of Aviation (Air Traffic Control)	Unit	AVIF5003Y	Manage human performance and team resources during air traffic control operations	01/Mar/2016 - Review	Update
1	Air Traffic Controller: Review of Diploma of Aviation (Air Traffic Control)	Unit	AVIF5013Y	Provide search and rescue alerting and emergency response	01/Mar/2016 - Review	Update

Project number	Project Name	Qualification/ Unit / Skillset	Code	Title	Details of last review (endorsement date, nature of this update transition, review, establishment)	Change Required
1	Air Traffic Controller: Review of Diploma of Aviation (Air Traffic Control)	Unit	AVIW5013Y	Operate air traffic control equipment and workstations	01/Mar/2016 - Review	Update
1	Air Traffic Controller: Review of Diploma of Aviation (Air Traffic Control)	Unit	AVIY5022Y	Manage traffic flow	01/Mar/2016 - Review	Update
1	Air Traffic Controller: Review of Diploma of Aviation (Air Traffic Control)	Unit	AVIY5048Y	Provide approach control services – endorsed for deletion	01/Mar/2016 - Review	Update
1	Air Traffic Controller: Review of Diploma of Aviation (Air Traffic Control)	Unit	AVIY5049Y	Provide area control services	01/Mar/2016 - Review	Update
1	Air Traffic Controller: Review of Diploma of Aviation (Air Traffic Control)	Unit	AVIY5050Y	Provide aerodrome control services	01/Mar/2016 - Review	Update

Project number	Project Name	Qualification/ Unit / Skillset	Code	Title	Details of last review <i>(endorsement date, nature of this update transition, review, establishment)</i>	Change Required
1	Air Traffic Controller: Review of Diploma of Aviation (Air Traffic Control)	Unit	AVIZ5049Y	Manage situational awareness in the air traffic control environment	01/Mar/2016 - Review	Update

## Attachment B: Job role, enrolment information, the number of RTOs currently delivering these qualifications

Please set out the job roles to be supported through the updated qualifications, enrolment data over the past three years in which data is available for each qualification, completion rates for each qualification, and the number of RTOs delivering these qualifications.

Job role	Qualification to be updated to support the job role	Enrolment data (for the past three years)	Completion rates (for the past three years)	Number of RTOs delivering (for the past three years)
2311, Air Transport Professionals	AVI50115Y Diploma of Aviation (Air Traffic Control)	287	69	2
	AVIE5002Y Apply air traffic control communication procedures and services	285	74	2
	AVIF5003Y Manage human performance and team resources during air traffic control operations	290	75	2
	AVIF5013Y Provide search and rescue alerting and emergency response	288	78	2
	AVIW5013Y Operate air traffic control equipment and workstations	285	72	2
	AVIY5022Y Manage traffic flow	288	74	2

	AVIY5048Y Provide approach control services – endorsed for deletion	0	0	2
	AVIY5049Y Provide area control services	233	47	2
	AVIY5050Y Provide aerodrome control services	58	26	2
	AVIZ5049Y Manage situational awareness in the air traffic control environment	289	67	2

## **Attachment C: List of stakeholders that actively participated in the consultation process of the Case for Change**

Active participation has included 41 stakeholders from the following organisations across all states and territories within Australia:

- Industry Reference Committee (IRC) Representatives
- Employers (Non-IRC)
- Peak Industry Bodies
- Unions
- Regulators
- RTOs
- Other/Consultants

## Attachment D: Issues Raised by Stakeholders during consultation on the development of the Case for Change

Stakeholder Type	Issues Raised	IRC's Response to Issues Raised
<b>Industry Reference Committee (IRC) Representatives</b>	There were no issues raised at this time	N/A
<b>Peak Industry Bodies</b>	There were no issues raised at this time	N/A
<b>Employers (Non-IRC)</b>	There were no issues raised at this time	N/A
<b>Regulators</b>	There were no issues raised at this time	N/A
<b>Registered Training Organisations (RTOs)</b>	There were no issues raised at this time	N/A
<b>Training Boards/Other</b>	There were no issues raised at this time	N/A
<b>State and Territory Training Authorities (STAs)</b>	There were no issues raised at this time	N/A
<b>Unions</b>	There were no issues raised at this time	N/A

## **Attachment E: List of stakeholders to be contacted as part of the development of the Case for Endorsement**

The Case for Endorsement development will involve contacting relevant stakeholders from the following organisations across all states and territories within Australia:

- Industry Reference Committee (IRC) Representatives
- Australian Defence College
- Employers (Non-IRC)
- Unions
- Regulators
- State Training Authorities
- RTOs
- Other/Consultants