

<b>Title</b>	<b>Demonstrate area control surveillance for air traffic services under simulated conditions</b>		
<b>Level</b>	<b>6</b>	<b>Credits</b>	<b>30</b>

<b>Purpose</b>	People credited with this unit standard are able to: demonstrate knowledge of the technical principles of surveillance systems for air traffic services; demonstrate knowledge of area control surveillance procedures for the provision of air traffic services; and analyse and manage traffic situations and apply area control surveillance procedures under simulated conditions.
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<b>Classification</b>	Aviation > Air Traffic Services
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<b>Available grade</b>	Achieved
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<b>Prerequisites</b>	Unit 28043, <i>Demonstrate knowledge of the use of ATS and simulation equipment in a tower environment under simulated conditions</i> ; Unit 28044, <i>Demonstrate knowledge of the principles of flight and aircraft performance for air traffic services</i> ; Unit 28046, <i>Demonstrate knowledge of air law and operational procedures relevant to air traffic services</i> ; Unit 28049, <i>Demonstrate knowledge of, and apply, principles of human performance in air traffic services</i> ; Unit 33165, <i>Demonstrate knowledge of aeronautical meteorology for air traffic services</i> ; and Unit 33167, <i>Demonstrate knowledge of air navigation for air traffic services</i> ; or demonstrate equivalent knowledge and skills.
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## Guidance Information

- 1 The Civil Aviation Act 1990 and Civil Aviation Rule Part 65 detail the legislative requirements in relation to this unit standard. This unit standard is aligned to the Civil Aviation Act 1990, Civil Aviation Rule Part 65, which reflects International Civil Aviation Organisation (ICAO) Standards and Recommended Practices as adopted by New Zealand. This unit standard is also aligned to the associated Civil Aviation Advisory Circular (AC) 65 series containing the syllabus for Air Traffic Services Personnel Licences and Ratings, and Parts 65.103(a)(5)(v) and 65.303(a)(2). Information relating to Civil Aviation Authority of New Zealand (CAA of NZ) Rules can be obtained from the CAA of NZ website on <http://www.caa.govt.nz/>.
- 2 Evidence presented for assessment against this unit standard must be in accordance with standard industry texts.

- 3 The simulated air traffic management requirements covered by this unit standard must be demonstrated in accordance with the Civil Aviation Rules Part 172 and/or Part 175 and other relevant rules, published by the Civil Aviation Authority of New Zealand, PO Box 3555, Wellington 6140, and their subsequent amendments.
- 4 The management of air traffic services for this unit standard will be simulated. The simulation must be of a high standard and closely reflect the true-to-life visual environment of the sector and emulate or simulate the controller work position components along with environment of the relevant air traffic service unit or sector.
- 5 *Standard industry texts* include but are not limited to:  
State approved documentation,  
air traffic services (ATS) provider exposition,  
aerodrome emergency plans,  
published aviation training manuals or textbooks (including electronic resources).
- 6 Definitions  
*Abnormal* refers to situations requiring the application of non-routine air traffic services procedures.  
*Complex* refers to advanced air traffic skills requiring more than two or three tasks to be performed at any one time and with variable environment factors impacting upon the traffic situation.  
*Non-complex* refers to basic air traffic skills not requiring more than two or three tasks to be performed at any one time and without variable environment factors impacting upon the traffic situation.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of the technical principles of surveillance systems for air traffic services.

#### Performance criteria

- 1.1 The technical principles of radar and its limitations are described in accordance with standard industry texts.
- Range primary surveillance radar, secondary surveillance radar, ADS-B, Multilateration.

### Outcome 2

Demonstrate knowledge of area control surveillance procedures for the provision of air traffic services.

**Performance criteria**

2.1 Area control surveillance procedures are described.

Range may include but is not limited to – separations, coordinations, flight progress system, air traffic management.

2.2 The methods and requirements for identifying aircraft are demonstrated.

Range may include but is not limited to – primary radar identification, secondary radar identification, passing of aircraft position information.

**Outcome 3**

Analyse and manage traffic situations and apply area control surveillance procedures under simulated conditions.

Range non-complex, complex, abnormal and/or emergency situations.

**Performance criteria**

3.1 Area control surveillance procedures are applied.

3.2 The operation of flight progress system is managed.

3.3 The interpretation of available flight and meteorological information is disseminated.

3.4 The operation of ATS equipment is managed.

Range may include but is not limited to – flight data processing system (FDPS), voice communication systems, Manual of Air Traffic Services (MATS).

3.5 Situational awareness as a basis for informed decision-making is demonstrated.

Range may include but is not limited to – airspace, weather, terrain, pilotage, flight processing system, aircraft performance, interpersonal factors.

3.6 Traffic situations are managed and prioritised.

3.7 Traffic positions are projected and visualised based on tactics, and the onward movement of air traffic is planned.

3.8 The anticipation of aircraft responses is demonstrated.

3.9 Traffic situations are critically analysed for potential conflict, and timely instructions and/or information are given to ensure a safe, orderly, and expeditious traffic flow.

Range may include but is not limited to – traffic priorities, speed, vectoring.

3.10 Timely coordination and transfer of responsibility is demonstrated.

3.11 Timely communication of flight instructions and information, using unambiguous and concise language and standard phraseology where documented, is demonstrated.

Range tone, clarity, rate; readbacks.

3.12 Situations with potential to become unsafe are recognised and resolutions are applied in accordance with standard industry texts.

Range may include but is not limited to – traffic information, aircraft performance, weather, pilot ability, available procedures, and environmental factors.

3.13 Area control surveillance administrative documentation procedures are demonstrated.

<b>Replacement information</b>	This unit standard replaced unit standard 23456.
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<b>Planned review date</b>	31 December 2027
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	21 November 2013	31 December 2026
Review	2	30 March 2023	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0028
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Comments on this unit standard**

Please contact Ringa Hora Services Workforce Development Council [qualifications@ringahora.nz](mailto:qualifications@ringahora.nz) if you wish to suggest changes to the content of this unit standard.