

<b>Title</b>	<b>Conduct friction testing of airport runways</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	People credited with this unit standard are able to: demonstrate knowledge of concepts and principles of friction and friction testing of airport runways; conduct testing using an enterprise-approved contractor or site operator to establish baseline friction values; identify variation factors that affect friction values; and demonstrate knowledge of post-skid resistance test procedures.
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<b>Classification</b>	Aviation > Airport Operations
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Definition  
The term *airport* refers to aerodrome as per Civil Aviation Rules.
- 2 Reference to *enterprise procedures* means that all activities must comply with the requirements contained in the current airport exposition, current airport company manuals and procedures, and any relevant legislative and/or regulatory requirements, which may include but are not limited to: Civil Aviation Act 1990, relevant Civil Aviation Rules, New Zealand Defence Force (NZDF) Policy.

### Outcomes and performance criteria

#### Outcome 1

Demonstrate knowledge of concepts and principles of friction and friction testing of airport runways.

#### Performance criteria

- 1.1 Concept of friction is described in terms of testing airport runways.
- 1.2 Principles by which a skid resistance testing device tests friction levels are described in terms of testing airport runways.

#### Outcome 2

Conduct testing using an enterprise-approved contractor or site operator to establish baseline friction values.

**Performance criteria**

- 2.1 Access is gained to runway in accordance with enterprise procedures.
- 2.2 Calibration strip is established in accordance with enterprise procedures.
- Range may include but is not limited to – close to edge, minimal contaminants.
- 2.3 Baseline friction values are obtained in accordance with enterprise procedures.
- Range includes but is not limited to – two runs at 65 kph and 95 kph.
- 2.4 Results of tests are processed in accordance with enterprise procedures.

**Outcome 3**

Identify variation factors that affect friction values.

**Performance criteria**

- 3.1 Friction measurement variables are identified in accordance with enterprise procedures.
- Range may include but is not limited to – operator, equipment calibration and maintenance, test procedure, runway conditions, braking methods, compliance with existing standards; evidence of five is required.
- 3.2 Variation factors that influence friction values are identified in accordance with enterprise procedures.
- Range includes but is not limited to – wear on friction-testing measuring tyre; air and pavement temperature.
- 3.3 Surface and drainage systems are assessed with regard to effect on braking action.
- Range may include but is not limited to – drainage, runway camber, surface, rubber deposits, texture, low and/or high points, lichen and/or moss, contaminants; evidence of five factors is required.
- 3.4 Friction values are analysed for remedial action in accordance with enterprise procedures.

**Outcome 4**

Demonstrate knowledge of post skid resistance test procedures.

**Performance criteria**

- 4.1 The procedure for dealing with the effects of deficiencies in drainage systems is described in accordance with enterprise procedures.
- 4.2 The procedures used to handle reduced friction due to spillage are described in accordance with enterprise procedures.
- 4.3 The procedures for the removal of rubber deposits are described in accordance with enterprise procedures.
- 4.4 The process for re-checking friction values against prescribed standards is described in accordance with enterprise procedures.

<b>Replacement information</b>	This unit standard was replaced by skill standard 41094.
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**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	20 August 1997	31 December 2016
Revision	2	8 May 2001	31 December 2016
Review	3	24 May 2002	31 December 2016
Review	4	21 November 2008	31 December 2016
Review	5	24 October 2014	31 December 2023
Review	6	29 July 2021	31 December 2027
Review	7	18 December 2025	31 December 2027

<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>.