



Australian Government

POLINV018 Analyse crashes involving motorcycles

Release: 1

POLINV018 Analyse crashes involving motorcycles

Modification History

Release 1. This is the first release of this unit of competency in the POL Police Training Package.

Application

This unit describes the skills and knowledge required to apply crash analysis methodologies specific to motorcycle crash incidents. It includes analysing evidence already collected by police crash investigators as part of the crash investigation.

This unit applies to those working as police officers involved in vehicle crash analysis.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are undertaken. Organisational policies and procedures must be consulted and adhered to, particularly those related to work health and safety (WHS).

Those undertaking this unit would work autonomously while remaining responsible for reporting to senior staff. They would demonstrate the ability to perform highly complex analysis in changing and often unfamiliar contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

Investigation.

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|---|---|
| 1 Analyse features of motorcycle involved in crash incident | 1.1 Assess motorcycle features and configuration to determine its operating capability |
| | 1.2 Assess motorcycle operational features and mechanical systems to validate functionality and condition |
| | 1.3 Analyse motorcycle rider and pillion distribution to determine effect on motorcycle operation |
| | 1.4 Identify electronic data recording systems to assess evidentiary value |
| 2 Assess human and environmental factors in a motorcycle crash | 2.1 Examine type and features of rider safety clothing and equipment to assess safety standard |
| | 2.2 Review driver information to assess experience and driving ability as factors in crash incident |
| | 2.3 Assess medical and injury records to corroborate evidentiary analysis of rider movements and interactions during crash |
| | 2.4 Evaluate interviews and statements to corroborate evidentiary analysis and inform causal factors |
| | 2.5 Assess human actions factors to determine effect on crash |
| | 2.6 Assess environmental factors to determine effect on crash |
| 3 Apply specialist physics and mathematics to a motorcycle crash | 3.1 Identify and apply specialist analysis methodologies to determine causal factors in motorcycle crash |
| | 3.2 Analyse damage to correlate interaction of objects and motorcycle |
| | 3.3 Analyse motorcycle braking systems and road evidence to determine braking efficiency |
| | 3.4 Analyse motorcycle balance and control features for crash analysis |
| | 3.5 Apply specialist calculations to determine lean angles in the calculation of speed |

3.6 Examine road evidence to determine crash dynamics and speed

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the POL Police Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This is a new unit. No equivalent unit.

Links

Companion Volume Implementation Guides can be found on VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=98c3984e-2cf1-48a8-8ed1-85e4b92e7351>

Assessment Requirements for POLINV018 Analyse crashes involving motorcycles

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- analysing motorcycle behaviour and damage
- analysing operational features of a motorcycle
- applying human evidence to a crash investigation
- applying specialist physics and mathematics calculations and principles to motorcycle crashes
- collating and reviewing medical information of persons in crash incident
- determining causal factors of a motorcycle crash
- examining if human and environmental factors affect a motorcycle crash incident
- inspecting a motorcycle and its electronic and mechanical systems
- interpreting statements and interviews to corroborate analysis.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- electronic data recorder systems
- environmental factors that may contribute to a motorcycle crash incident including:
 - geographic location
 - hazards and obstructions
 - lighting
 - road design and maintenance
 - roadside furniture
 - weather conditions
- evidence of motorcycle maintenance
- factors impacting human ability to operate a motorcycle including:
 - distraction
 - experience
 - fatigue

- impairment
- medical conditions
- faults and defects impacting motorcycle operations
- features of motorcycles including:
 - braking systems
 - fork configuration
 - hard and soft frame
 - steering
 - suspension
 - transmission
 - tyres
- interview evaluation techniques
- medical information and records
- methodologies for motorcycle crash analysis
- motorcycle rider safety clothing and equipment
- motorcycle standards, legal motorcycle configurations and modifications
- operational capabilities of motorcycles including:
 - balance
 - braking
 - control
 - lean angles
 - motion
 - pillion
 - safety equipment
- organisational policies and procedures related to work health and safety (WHS)
- physics and mathematical formulas specific to motorcycles
- regulations of motorcycle road use by the rider, pillion or sidecar
- road evidence
- road laws
- types of motorcycles.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Assessment must occur in workplace operational situations. Where this is not appropriate, such

as in situations that can affect safety or occur only rarely, assessment can occur in simulated workplace operational situations that reflect workplace conditions.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals.

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