

Light Truck ADAS Safety Comparison

Final Report for NHVR

REPORT DATE: 1 August 2025
GRANT PROGRAM: Heavy Vehicle Safety Initiative (Round 8)

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ATTACHMENTS:

- A. ANCAP Media Release – 13 May 2025
- B. *Light Truck ADAS Safety Comparison Report* – May 2025
- C. ANCAP TESTING & ASSESSMENT PROTOCOL Light Truck Safety Assist V1.0

1 OVERVIEW

1.1 Project Overview

The Light Truck ADAS Safety Comparison project is an initiative of ANCAP Safety, designed to promote the safety of light and medium goods vehicles (NB category).

The objective of this project is to provide objective and independent information to fleet buyers and small business customers on the safety performance of selected light truck models. The focus of this initial stage of the project is on four NB category two-axle light duty goods vehicles between 4.5 and 7.5 tonnes Gross Vehicle Mass (GVM).

The project involves the independent technical testing, assessment, and review of the performance of active safety features (also known as ADAS or Advanced Driver Assistance Systems) fitted to light trucks in the Australian market.

Light trucks are an important market segment, making up a significant and growing proportion of vehicles on Australian roads. While consistent national fatality and serious injury data specific to light trucks is limited, broader data indicates that goods vehicles such as commercial vans and trucks across all size categories are over-represented in fatal and serious injury crashes in Australia. These vehicles make up less than three per cent of all registered vehicles on Australia's roads, yet they are involved in approximately 15 per cent of fatal collisions¹.

This project builds on ANCAP's thirty years of experience in the independent assessment of the safety performance of vehicles. In particular, it draws on ANCAP's ongoing work with commercial vans through the Commercial Van Safety Comparison Program.

The project has been partially funded by the Australian Government through the Heavy Vehicle Safety Initiative administered by the National Heavy Vehicle Regulator (NHVR).

1.2 Background

ANCAP Safety is Australia and New Zealand's independent voice on vehicle safety. For over thirty years, ANCAP has published independent safety assessments for thousands of new vehicle makes, models, and variants. Each assessment involves the independent technical testing and assessment of a vehicle's safety features and safety performance, including through crash tests, active collision avoidance tests, and through analysis of safety specifications available on local vehicle models. ANCAP has historically examined and rated passenger cars (MA, MB and MC category) and light commercial vehicles (NA category) such as utes and vans, and has recently expanded into assessment of a wider range of vehicle types.

ANCAP's provision of independent and objective information about the safety of mainstream vehicle models, has led to a dramatic improvement in safety specifications in the market segments covered by ANCAP. This in turn has contributed to measurable improvements in vehicle crash performance and resulting road trauma reduction.

1.3 Purpose of this Report

This report provides an account of the activities undertaken by ANCAP, the money expended, and the outcomes achieved through this initial stage of the Light Vehicle ADAS Safety Comparison program. The information contained within this report is as agreed under Schedule 4 of the HVSI Grant Agreement, which requires the following information:

¹ Road Trauma involving Heavy Vehicles - Annual Summary 2021, BITRE

- (a) *financial statements in respect of payment of the Funding (less any Repaid Amount, if any), which must include a definitive statement as to whether the financial information in relation to the Grantee's obligations under this Agreement represents the financial transaction fairly and is based on proper accounts and records;*
- (b) *the activities undertaken by the Grantee in accordance with Schedule 2 – Work Program;*
- (c) *how the Grantee has achieved the Deliverables under Schedule 2 – Work Program (including details of relevant mechanisms and processes adopted by the Grantee);*
- (d) *any limitations or setbacks encountered by the Grantee in the delivery of the Project and how those limitations or setbacks were addressed by the Grantee;*
- (e) *how, in the Grantee's view, the objective outlined in Schedule 1 – Contract Details has been achieved by delivery of the Project, or reasons why, in the Grantee's view, the objective has not been achieved; and*
- (f) *any other information related to the Project as requested by the NHVR acting reasonably.*

2 PROJECT SCOPE

The project scope was detailed in the Grant Agreement between ANCAP and the National Heavy Vehicle Regulator.

2.1 Overall Scope

The project is to test and grade active, collision avoidance safety systems fitted to four models of NB category light or medium goods vehicles, and to provide the resulting independent safety comparison information to Australian light truck purchasers.

This project will build on ANCAP's existing experience in testing and rating passenger cars, SUVs and light commercial vehicles (through its established star rating system) and the testing and grading of active safety systems on commercial vans.

The testing and grading project will be internally managed by an ANCAP engineer. Communications activities will be undertaken by ANCAP's communications team. Oversight of the project will be provided by the Chief Technical Officer, the Director – Policy, and the Director – Communications & Advocacy, in addition to ANCAP's CEO.

ANCAP will identify three high-selling NB category vehicles, as well as testing a fourth NB category vehicle with an electric drivetrain.

The safety features to be tested, and reported on include:

- AEB (vehicle to car)
- AEB (vehicle to pedestrian)
- AEB (cyclist)
- Lane support systems
- Blind spot monitoring
- Driver monitoring system
- Seat belt reminder – driver and passenger
- Speed limiter

2.2 Deliverables

The major project deliverable will be a Light Truck ADAS Safety Comparison report, which will provide an analysis of the performance of the safety systems fitted to the four light trucks selected by ANCAP for testing.

Additional project deliverables will include:

- Technical reports on each of the vehicles tested
- Publication of results and the report on the ANCAP website
- ANCAP attendance as exhibitors or presenters at industry conferences

2.3 Activities and stages

2.3.1 Stage 1 – Preparation and purchase of vehicles

ANCAP will:

- Select four NB category goods vehicles for testing
- Purchase the selected vehicles and transport to the testing site
- Develop a light truck testing and grading protocol (NB category light or medium goods vehicles)
- Establish a testing schedule for the selected vehicles
- Develop a marketing and communications plan for the reporting of test results

2.3.2 Stage 2 – Testing of vehicles

ANCAP will:

- Undertake testing and grading of the performance of the safety features of the four selected vehicles in line with the protocol developed in Stage 1, including through:
 - Testing autonomous emergency braking features using appropriate test targets and road scenarios
 - Testing lane support systems using appropriate test road scenarios
 - Comparing performance of vehicles across different load types in specified test road scenarios
 - Any other test requirements set out in the protocol

2.3.3 Stage 3 – Publication and reporting of test results

ANCAP will:

- Deliver a Light Truck ADAS Comparison report, which will provide an analysis of the performance of the safety systems fitted to the four light trucks selected by ANCAP for testing according to the protocol developed in stage 1 (to be reviewed by NHVR)
- Deliver additional deliverables including:
 - Technical reports on each of the vehicles tested (to be reviewed by NHVR)
 - Publication of results and the report on the ANCAP website
- Work with the NHVR communications team to launch the report, including through:
 - Issuing an ANCAP media release announcing the testing report release
 - Conducting a launch event with media, with the opportunity for NHVR involvement
 - Production of a number of hardcopy reports for distribution by ANCAP and NHVR

2.3.4 Stage 4 – Promotion of test results

ANCAP will:

- Establish a dedicated webpage hosting an overview of the test program and a link to test results on the ANCAP website, with acknowledgement of the NHVR's support for the program
- Promote the report and results of the testing, including through:
 - Pitching features articles to key truck industry publications
 - Informational posts on ANCAP social media channels
 - Sharing testing results and videos on ANCAP's YouTube channel
 - Engaging with the NHVR communications team to identify joint opportunities to promote the program and its results
- Attend two or more industry conferences to present testing findings

2.3.5 Stage 5 – Evaluation

Following the conclusion of the above stages, ANCAP will:

- Provide an evaluation report to the NHVR which will include details of what was successful and what was unsuccessful in the delivery of the Project, as well as whether the Project met its objectives.

3 PROJECT ACTIVITIES

Activity	Details	Completed by
Stage 1		
Selection of vehicles	<p>In Q2 2024, ANCAP selected the three top-selling ICE light trucks (Fuso Canter, Hino 300, Isuzu N Series) and the top-selling electric light truck (Foton T5) on the basis of recent sales data.</p> <p>ANCAP’s project team then identified specific variants of each light truck model that were appropriate for testing.</p>	Q2 2024
Purchase of vehicles	<p>Following the model and variant selection process, ANCAP purchased the selected vehicles and transported them to the Cudal test site in Q2 2024</p> <p>Setbacks or limitations:</p> <p>Due to delays in the commencement of the project, some activities for Stage 1 were slightly delayed from the original planned completion date of 30 May 2024.</p>	Q2 2024
Development of testing protocol	<p>ANCAP’s technical team prepared a detailed protocol document, which outlined the testing procedures which would be applied to the light trucks, and how the results from those tests would be considered, assessed, and graded.</p> <p>The Light Truck ADAS Assessment protocol document built on and referred to other testing and assessment protocols developed by ANCAP for other vehicle types such as light passenger vehicles and commercial vans, with appropriate adjustments to account for the different features of light trucks. The protocol was also influenced by Euro NCAP’s heavy goods vehicles test protocol.</p> <p>The first draft of the protocol was prepared for use in the testing in February 2024. The protocol was adjusted throughout the testing until the final grading method was established. The Light Truck ADAS Assessment protocol was then published as final in April 2025</p> <p>Setbacks or limitations:</p> <p>The initial draft of the protocols were completed as scheduled. Finalisation of the protocols was subject to extensive technical engagement with industry representatives and the completion of the testing program.</p>	<p>Q2 2024 (draft)</p> <p>Q2 2025 (final)</p>
Establishment of testing schedule	<p>ANCAP worked with the Future Mobility Testing and Research Centre (FMTRC) at Cudal to establish a testing schedule, identifying appropriate time windows where the facility was available to test the</p>	Q2 2024

Activity	Details	Completed by
	<p>performance of the purchased vehicles.</p> <p>Setbacks or limitations:</p> <p>Due to delays in the commencement of the project, some activities for Stage 1 were slightly delayed from the original planned completion date of 30 May 2024.</p> <p>The testing schedule would later have to be adjusted again to account for technical issues with the purchased vehicles.</p>	
<p>Vehicle purchase and delivery</p>	<p>ANCAP purchased the selected vehicles and arranged for transport to the testing site at Cudal.</p> <p>Setbacks or limitations:</p> <p>Due to delays in the commencement of the project, some activities for Stage 1 were slightly delayed from the original planned completion date of 30 May 2024.</p>	<p>Q2 2024</p>
<p>Marketing and communications plan</p>	<p>ANCAP worked to the approved Communications & Marketing Plan, preparing, executing and delivering key deliverables including:</p> <ul style="list-style-type: none"> • Mainstream and industry media opportunities - media releases, fact sheet, interviews, quotes • Development, printing and circulation of the program report • Production and distribution of supporting visuals – still images & video footage • Exhibition presence at 2025 Brisbane Truck Show • Stakeholder notification and engagement • Social media posts 	<p>Q2 2025</p>
<p>Stage 2</p>		
<p>Testing and assessment – initial work</p>	<p>ANCAP’s technical team worked closely with the team at FMTRC Cudal to undertake testing on the safety features of the four purchased vehicles in line with the protocol developed in Stage 1. This was completed by 30 September 2024.</p> <p>Once the testing was complete, ANCAP’s technical team analysed the results alongside information provided by manufacturers. This analysis was conducted according to the assessment protocols developed in Stage 1 of the project.</p> <p>Setbacks or limitations:</p> <p>ANCAP experienced a number of delays during the testing process as technical issues were identified with some of the purchased vehicles. After</p>	<p>Q3 2024</p>

Activity	Details	Completed by
	<p>consultation with manufacturers, these issues were rectified, and testing was able to proceed.</p> <p>Some technical concerns were raised by stakeholders during the assessment process. To address these concerns, ANCAP proposed that additional testing and assessment work would be undertaken in Q1 2025, delaying final completion of the project until Q2 2025. A project variation was agreed with the NHVR to adjust the milestone dates under the Grant Agreement.</p>	
<p>Additional testing and assessment work</p>	<p>In December 2024, ANCAP agreed to a project variation with the NHVR to undertake additional testing and assessment work in Q1 2025 (and to delay final completion of the project until Q2 2025). This additional testing allowed ANCAP to address the technical concerns raised by stakeholders.</p> <p>This work was undertaken at FMTRC Cudal in Q1 2025 and completed on schedule.</p> <p>Setbacks or limitations:</p> <p>No setbacks. This activity was completed on the schedule agreed through the project variation.</p>	<p>Q1 2025</p>
Stage 3		
<p>Delivery of Light Truck ADAS Comparison report for review by NHVR</p>	<p>An initial draft of the Light Truck ADAS Comparison Report was prepared and provided to the NHVR in Q4 2024. Following the agreement of the project variation, a revised version of the report was provided to the NHVR in Q2 2025, incorporating the results of the additional testing conducted in Q1 2025.</p> <p>Setbacks or limitations:</p> <p>Final completion of this activity occurred on the schedule agreed through the project variation.</p>	<p>Q2 2025</p>
<p>Delivery of individual technical reports</p>	<p>Drafts of the individual technical reports for each of the four light trucks were prepared and provided to the NHVR in Q4 2024. Following the agreement of the project variation, revised versions were provided to the NHVR in Q2 2025, incorporating the results of the additional testing conducted in Q1 2025.</p> <p>Setbacks or limitations:</p> <p>Final completion of this activity occurred on the schedule agreed through the project variation.</p>	<p>Q2 2025</p>
<p>Working with NHVR on communications activities</p>	<p>ANCAP’s communications team consulted with the NHVR throughout the program and sought review and approval of all promotional and communications materials/activities.</p>	<p>Q2 2025</p>

Activity	Details	Completed by
	<p>Setbacks or limitations:</p> <p>Final completion of this activity occurred on the schedule agreed through the project variation.</p>	
Stage 4		
Delivery of dedicated Light Truck webpage within ANCAP website	<p>ANCAP launched the dedicated light truck webpage on its website on the date of official launch - 13 May 2025.</p> <p>Setbacks or limitations:</p> <p>Final completion of this activity occurred on the schedule agreed through the project variation.</p>	Q2 2025
Promotion of results	<p>ANCAP undertook a number of promotional activities in relation to the launch of the Light Truck report and webpage, including issuing a media release, engaging with mainstream and truck industry media, and exhibiting at the 2025 Brisbane Truck Show. Positive media coverage and fleet interest was achieved.</p> <p>Setbacks or limitations:</p> <p>Final completion of this activity occurred on the schedule agreed through the project variation.</p>	Q2 2025
Stage 5		
Delivery of final evaluation report	This report serves as the final evaluation report.	Q3 2025

4 PROJECT OUTCOMES

4.1 Objectives

The objectives of this project, as listed in Schedule 1 of the Grant Agreement between ANCAP and the National Heavy Vehicle Regulator, were as follows:

1. Increase awareness of active safety technologies among fleet and small business vehicle purchasers.
2. Provide a framework for objective comparison of vehicle safety specification and performance.
3. Encourage vehicle manufacturers to continually improve vehicle specification and capability.

4.2 Evaluation of Project Outcomes

The project was successful in achieving its objectives as set out by ANCAP and the Grant Agreement.

Objective 1: Increase awareness of active safety technologies among fleet and small business vehicle purchasers.

A detailed report, *Light Truck ADAS Safety Comparison*, was published and widely circulated to truck industry stakeholders, fleet purchasers, the media, and general consumers outlining performance insights and presence of active safety technologies on the selected vehicles. ANCAP also exhibited at Australia's largest heavy vehicle event, the 2025 Brisbane Truck Show, to promote the program's inaugural insights, and more broadly generate awareness of the safety features and technologies available in light trucks.

In the period 1 May – 18 July 2025, ANCAP recorded the following engagement metrics:

- 57 media items mentioning ANCAP's Light Trucks analysis were published, with a potential audience reach of 273,800
- There were 1,885 views total of the Light Trucks page and media release on the ANCAP website (1,649 and 236 respectively)
- ANCAP's electronic direct mail (EDM) announcing the Light Truck comparison was sent to over 2,190 recipients, with an open rate of 42.8% and a click-through rate of 6.6%
- ANCAP exhibited at the Brisbane Truck Show over 15-18 May 2025, with 54,790 attendees

This is ANCAP's first public project engaging directly with the light truck market. These engagement metrics indicate that ANCAP's light truck assessment program has successfully reached a large number of stakeholders and consumers through our communications and engagement strategy.

Objective 2: Provide a framework for objective comparison of vehicle safety specification and performance

ANCAP was successful in developing and implementing a methodology for establishing fitment and performance of ADAS (or active safety) features on light trucks in the Australian market through use of established best practice testing and evaluation methods.

This methodology built on ANCAP's extensive experience with best practice testing and evaluation methods in the vehicle safety space. The methodology developed by ANCAP addressed a number of specific issues in relation to light trucks, including load management.

The methodology and protocols were refined through close technical engagement with the vehicle manufacturers, NHVR, Euro NCAP, the Heavy Vehicle Industry Association and the Truck Industry Council. This engagement allowed ANCAP to ensure that the protocols, test methods, test vehicle set-up, and assessment methodology were suitable for use with light trucks. This refinement included further testing to ensure the robustness of the testing protocols used and its applicability to light trucks. This additional testing addressed the concerns of industry and showed that the protocols used were suitable and appropriate for evaluating the performance of ADAS systems on light trucks.

The results of this project provide a baseline against which the specifications and safety performance of other light truck models can be tested and assessed. The testing and assessment protocols can be found as Attachment C to this report.

Objective 3: Encourage vehicle manufacturers to continually improve vehicle specification and capability.

The vehicles tested by ANCAP through this project represent a large proportion of the light trucks sold in Australia each year. The project has shown that the level of installed ADAS capability on the tested vehicles lags behind the levels seen in other market segments, such as utes and commercial vans.

All vehicles tested displayed some level of AEB (autonomous emergency braking) functionality in scenarios involving a car target. However, performance in these scenarios varied between the vehicles.

Three out of four vehicles tested did not meet a prerequisite level of performance when testing their AEB Truck-to-Pedestrian systems. This means they were ineligible to score any points for this system. One vehicle did however demonstrate some level of performance in this suite of tests. While there is currently no ADR requirement for NB2 vehicles to have an AEB capability to prevent or minimise injury to vulnerable road users (VRUs), the fact that one vehicle was able to demonstrate performance in this category means that there is no fundamental technical obstacle to fitting these systems to light trucks. This finding should serve to encourage more manufacturers in this category to fit AEB systems that protect VRUs from impact and injury.

The development of the assessment methodology provides a clear framework for encouraging vehicle manufacturers to improve the specification and capability of light trucks. In confidential discussions with ANCAP, a number of light truck manufacturers have indicated their intent to improve the specification of future models following the establishment of this assessment and testing framework.

Additionally, a number of manufacturers whose vehicles were not selected as part of the initial cohort of light trucks for the program have indicated a strong interest in bringing their vehicles forward for testing. It is clear that manufacturers have identified there is value in being assessed as having a high level of safety performance, by an independent assessor under an objective framework.