

## **Executive Summary**

On May 19, 2025, at approximately 16:03, a private passenger car traveling westbound on Xuecheng Road in Sanxia District, New Taipei City, made a left turn into Guocheng Street and Lane 132 of Fuxing Road. The occurrence vehicle collided with bicycles, motorcycles, and multiple pedestrians along its path, and ultimately came to a stop after striking a lamp post on the central median of Fuxing Road. The occurrence resulted in a total of four deaths and twelve injuries.

In accordance with the Transportation Occurrences Investigation Act, the Taiwan Transportation Safety Board (TTSB) is the independent transportation occurrence investigation agency responsible for conducting the investigation. The investigation team also included members from the Ministry of Transportation and Communications (MOTC), Highway Bureau of the MOTC, New Taipei City Government, New Taipei City Police Department, Fire Department of the New Taipei City Government and Hotai Motor Co., Ltd.

The draft for this investigation report was completed in April 2026, and then, according to procedures, sent to relevant agencies (institutions) for their opinions. The investigation report was published after review and approval by the 86<sup>th</sup> Board Meeting on May 8, 2026.

After comprehensive investigation and analysis of the factual data, a total of 10 findings and 1 safety recommendation were obtained.

### **I. Investigation Findings**

#### **Findings Related to Probable Causes**

1. While executing a left turn and reversing operations at the intersection of Xuecheng Road and Guocheng Street, the occurrence driver failed to maintain proper control of the vehicle, successively colliding with the central

median and a vehicle to the rear. The vehicle subsequently accelerated and entered Guocheng Street, possibly due to improper pedal operation and gear shifting.

2. After entering Guocheng Street, the occurrence driver continued accelerating the occurrence vehicle. Although the occurrence driver attempted to evade other road users, no deceleration was observed. The occurrence driver may have exhibited inadequate coordination in steering control, acceleration, and braking, resulting in an inability to effectively reduce speed or maintain the driving path, thereby leading to the occurrence.

### **Findings Related to Risks**

1. Based on the occurrence driver's actions in the footage of this occurrence and previous occurrences, the TTSB identified the following issues with the occurrence driver's operation of the vehicle: (1) Inaccurate control of the steering angle, with instances of oversteering. (2) Inability to appropriately regulate the force applied to the accelerator and brake pedals. (3) Incorrect timing of applying the accelerator and brake pedals. Although there is no evidence indicating that the occurrence driver's performance in this occurrence was caused by hyperglycemia, the condition may increase the likelihood of fatigue, dizziness, and other discomforts while driving, thereby potentially impairing occurrence driver's operation performance. In addition, prolonged hyperglycemia or poor glycemic control may elevate the risk of cognitive decline.
2. With respect to the physical examinations for driver's license renewals for elderly non-professional drivers administered by the Highway Bureau of the MOTC, the current practice in Taiwan, compared with that of some other countries, does not provide physicians with clear medical assessment

guidelines for determining driving fitness. The relevant regulations and medical examination forms also do not explicitly specify evaluation criteria for physical and mental conditions or diseases related to driving. In addition, the lack of sufficient prompts or warnings in medical examination forms to remind examined drivers of required cooperation or precautions. As a result, the consistency of standards and the substantive effectiveness of such medical examinations appear to remain insufficient.

3. Current cognitive testing for driver's license renewals for elderly non-professional drivers in Taiwan, compared with empirical research and those adopted in some other countries, may lack assessment indicators such as attention, information processing speed, motion reaction time, and executive function. In addition, there is no mechanism for evaluating actual driving performance or on-road driving ability. Furthermore, the current practice of providing examined drivers with a large number of practice questions may undermine the reliability of the test.

### **Other Findings**

1. Since the occurrence driver is deceased, it is impossible to confirm his consciousness and physical condition at the time of the occurrence. Therefore, the analysis of the occurrence driver's driving skills and habits is based solely on the collected factual evidence. However, it is not possible to determine the reason the occurrence driver was unable to bring the vehicle to a stop at the time of the occurrence, nor to infer whether pedal misapplication occurred.
2. The occurrence driver sustained severe injuries as a result of the vehicle collision, including multiple rib fractures with sternal fracture, bilateral hemothorax, and rupture of the large intestine. Despite medical treatment, the driver subsequently died due to complications involving multiple organ

necrosis and sepsis. The injury pattern is consistent with frontal impact with the steering wheel, primarily affecting the chest and abdomen.

3. The vehicle struck 15 people, resulting in 3 deaths, 9 serious injuries, and 3 minor injuries. The fatalities and serious injuries were caused by the high-speed collision, resulting in varying degrees of head, face, chest, abdomen, and limb injuries. The injuries are consistent with individuals being struck and thrown due to vehicle collision, followed by secondary impacts with the vehicle body and the ground.
4. If a vehicle is equipped with an accelerator pedal misapplication mitigation system, it may be able to suppress unintended acceleration in certain situations, thereby reducing the likelihood of an accident or mitigating its severity.
5. There were no abnormalities in the tires, steering system, or braking system of the occurrence vehicle. There was no evidence that the after-market floor mats might have affected the occurrence driver's operation of the vehicle. The occurrence driver held a valid driving license issued by the Highway Bureau, visibility was good at the time of the occurrence, and there were no abnormalities in the roadway or traffic facilities. In addition, there was no evidence to suggest that alcohol was involved in this occurrence.

## **II. Safety Recommendations**

### **To the Highway Bureau, MOTC**

1. Strengthen the regulations and assessment mechanisms related to medical examinations and cognitive tests for elderly drivers' license renewals for non-professional drivers, in order to effectively identify elderly drivers that lack the ability to drive safely.

- (1) Refer to overseas medical guidelines on fitness to drive to undertake the following: (i) assess and establish evaluation items for driving-related physical and mental conditions and diseases; and (ii) assess the provision of medical guidance documents on fitness to drive for examining physicians, or other measures that may enhance consistency in physicians' assessment of driving-related physical and mental conditions and diseases.
- (2) Refine the content and implementation of driving-related cognitive tests.